

Final Report



City of Woodland
2021 Water Rate Study
October 2021





October 22, 2021

Mr. Evis Morales
Finance Officer
City of Woodland
300 First Street
Woodland, CA 95695

Subject: Water Rate Study Final Report

Dear Mr. Morales:

HDR Engineering, Inc. (HDR) is pleased to present to the City of Woodland (City) the final report for the water rate study. The City's water rate study was developed using water industry standard methodologies and approaches which were specifically tailored for the City's study to meet the requirements of Proposition 218. The analyses conducted for the City includes a revenue requirement, cost of service, and rate design analysis. The findings and conclusions from these analyses were used to develop proposed cost-based water rates that are equitable and proportional to the City's customers and sufficient to fund the operating and capital needs of the water utility. This report outlines the overall approach used to achieve these objectives, along with our findings, conclusions, and recommendations.

The City owns and operates a water supply, treatment, transmission, and distribution system. The City utilizes ground water (backup) and surface water (primary) as their water supply resources. The costs associated with developing and utilizing water supplies, plus the costs of distributing water to customers has been developed based on City provided information and included within the development of the City's proposed water rates. HDR's study provides the basis for developing and implementing water rates which are cost-based, proportional, and defensible for the City's customers.

We appreciate the assistance provided by the City's management team in the development of this study. More importantly, HDR appreciates the opportunity to provide these technical and professional services to the City.

Sincerely yours,
HDR Engineering, Inc.

A handwritten signature in black ink, appearing to read 'Shawn Koorn'.

Shawn Koorn
Associate Vice President

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Water Technical Appendix

Water Proposition 218 Appendix

Executive Summary

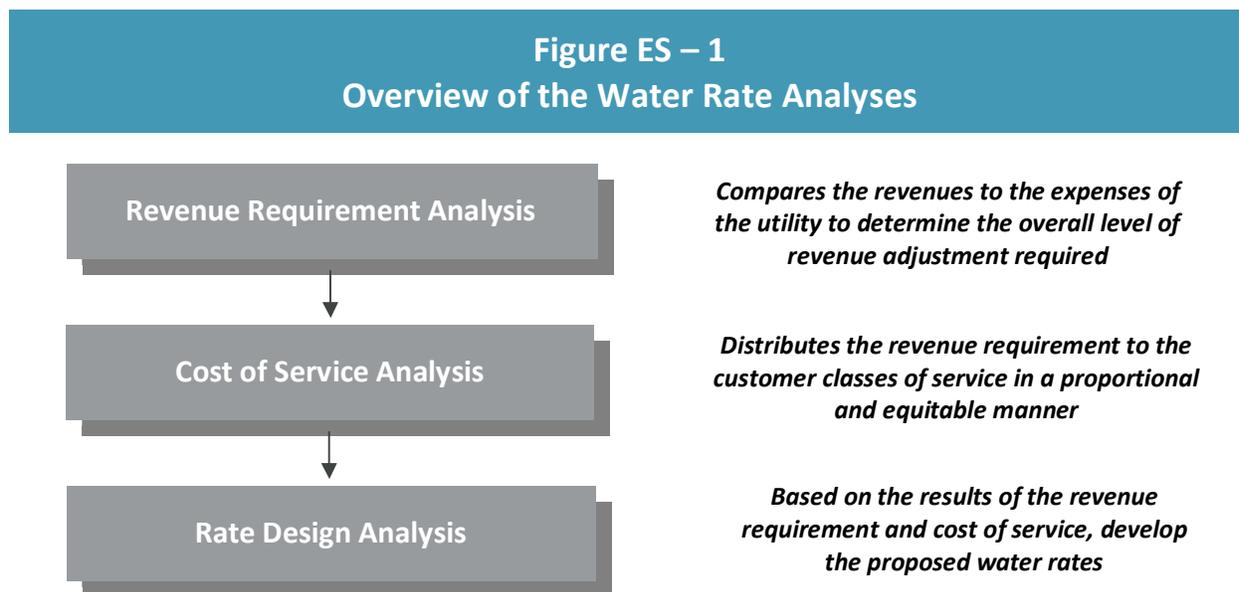
Introduction

HDR Engineering Inc. (HDR) was retained by the City of Woodland (City) to conduct a comprehensive water rate study (Study). The primary objective of the Study was to review the City's water utility operating and capital costs in order to develop proposed cost-based water rates which are equitable, proportional, and cost-based to the City's customers. The Study reviews and determines the adequacy of the existing water rates and provides the framework, as well as the cost-basis, for the proposed water rates. The City has historically utilized a water rate study to establish their water rates and this Study is a continuation of that practice.

The City owns and operates a water system that includes transmission and distribution facilities as well as production and treatment facilities. The City's primary water source is obtained from surface water and groundwater is a supplemental water resource. The costs associated with providing water service to the City's customers has been developed based on data and information provided by the City. This data and information was incorporated and used with the Study analyses and provides the cost-basis for the development of the proposed water rates.

Overview of the Rate Study Process

A typical comprehensive rate study is composed of three interrelated analyses to address the adequacy and proportionality of the utility's water rates. These three analyses are revenue requirement, cost of service, and rate design. These three analyses are illustrated below in Figure ES - 1.



The above framework for reviewing and evaluating the City's water rates was utilized in the development of this study.

Key Water Rate Study Results

The City's water rate study technical analyses were developed based on the operating and capital costs necessary to provide water service to the City's customers. The Study resulted in the following key findings, conclusions, and recommendations:

- A revenue requirement analysis was developed for the period of FY 2021 through FY 2030
- The City's FY 2022 budget was used as the starting point of the analysis
- Operation and maintenance expenses are projected to increase at inflationary levels
 - ✓ Additional staff and expenses are included for operational needs starting in FY 2022
- Customer consumption levels have been based on a multi-year period in order to mitigate recent impacts due to a number of factors including drought and the COVID-19 pandemic
- Based upon the finding of the revenue requirement analysis, the proposed annual water rate (revenue) adjustments are 3.0% annually in FY 2022 through FY 2026
 - ✓ Rate adjustments are assumed to be effective January 1st of each year, or mid fiscal year
- A cost of service analysis was developed to review the existing rates by equitably allocating and proportionally distributing the revenue requirement between the City's customer classes (i.e., rate schedules)
- The results of the cost of service analysis provided average unit costs (i.e., cost-based rates) which were used to establish the proposed rates for FY 2022
- The study has developed proposed rates for the FY 2022 – FY 2026 period, by customer class of service

Summary of the Water Revenue Requirement Analysis

The revenue requirement analysis is the first analytical step in the sequential development of a water rate study. This analysis determines the adequacy of the current water rate revenues. From this analysis, a determination can be made as to the overall level of water rate revenue adjustments needed to provide adequate and prudent funding for both operating and capital needs.

For the City's Study, the revenue requirement was developed for a review period of FY 2022 – FY 2030. The rate setting period, with regards to the Proposition 218 process, was identified as FY 2022 through FY 2026. Reviewing a multi-year time frame is recommended in order to better anticipate any future financial requirements. This allows the City to begin planning for these expenses sooner, thereby minimizing short-term rate impacts and overall long-term rate levels. For the revenue requirement analysis, a "cash basis" approach was utilized. The "cash basis" approach is the most commonly used methodology by municipal utilities to set their revenue requirement and it includes annual operations and maintenance (O&M) expenses, taxes or transfers (e.g., reserve funding), debt service payments, and rate funded capital. The primary financial data and inputs in the development of the City's revenue requirement analysis were the FY 2022 budget, adjusted billed customer and consumption data from June 2020 through May 2021, and the City's current water system capital improvement plan.

Once the operating and maintenance (O&M) expenses have been accumulated and projected over the time period, the next step is to develop the capital improvement plan (CIP) with an accompanying funding plan. The proper and adequate funding of capital projects is important to help minimize rates over time and maintain the City’s existing water infrastructure. A general financial guideline within the development of rate studies states that, at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense through rates. While this level of funding is not sufficient to fund all capital projects, it is intended to provide a consistent, annual, funding source for maintaining and replacing the City’s existing infrastructure. Using annual depreciation expense as a financial guideline, in FY 2019, the City’s annual depreciation expense was approximately \$5.7 million. This Study has been developed to annually fund between \$2.8 million in FY 2022 to \$5.9 million in FY 2026. This is an average of \$4.4 million per year from FY 2022 to FY 2026. It is assumed that in addition to the rate funded capital improvements the City will also need to utilize other funding sources (i.e., reserve funds), in order to fully fund the CIP. No additional or new long-term debt has been assumed within this capital improvement funding plan. Provided below in Table ES - 1 is a summary of the capital improvement funding plan, including the assumed funding sources, over the five-year rate setting period.

Table ES – 1
Summary of the Annual Rate Funded Capital (\$000)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Total Capital Projects	\$5,295	\$4,872	\$4,450	\$5,100	\$5,850
<i>Less: Reserve Funding</i>	<u>2,495</u>	<u>1,012</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Rate Funded Capital	\$2,800	\$3,860	\$4,450	\$5,100	\$5,850

As shown, the difference between annual capital improvement needs and the amount of rate funded capital is being funded through available (existing) reserves. During this time period, no new long-term borrowing has been assumed within the City’s capital improvement funding plan. The City’s capital plan reflects the capital projects needed to maintain the existing system and repair or replace deteriorating infrastructure, as well as projects related to growth or redundancy. A more detailed discussion of the development of the capital improvement funding plan is provided in Section 3. The detailed capital improvement funding plan can be found on Exhibit 4 of the Technical Appendix.

The revenue requirement analysis for the City’s customers was developed to determine the rate projections based on the specific costs of the City’s water utility. Provided below, in Table ES – 2, is a summary of the revenue requirement analysis (financial plan) developed for the water utility as part of the Study. A more detailed analysis of the revenue requirements can be found in Section 3 of this report as well as in the Technical Appendix in Exhibit 3.

Table ES - 2
Summary of the Revenue Requirement Analysis (\$000)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Revenues					
Rate Revenues	\$26,542	\$26,808	\$26,942	\$27,077	\$27,212
Misc Revenues	366	556	556	556	556
Total Revenues	\$26,908	\$27,364	\$27,498	\$27,632	\$27,768
Expenses					
O&M Expenses	\$13,981	\$14,395	\$14,890	\$15,406	\$15,941
Rate Funded Capital	2,800	3,860	4,450	5,100	5,850
Debt Service	10,525	10,327	10,225	10,080	9,851
Reserve Funding	0	1	1	2	0
Total Expenses	\$27,306	\$28,582	\$29,567	\$30,587	\$31,642
Bal./(Def.) of Funds	(\$398)	(\$1,218)	(\$2,069)	(\$2,955)	(\$3,875)
Proposed Rate Adjustment	3.0%	3.0%	3.0%	3.0%	3.0%
Add'l Rev from Rate Adj.	\$398	\$1,218	\$2,069	\$2,955	\$3,875
Bal./(Def.) of Funds	\$0	\$0	\$0	\$0	\$0

As can be seen, the revenue requirement analysis has summed the annual O&M, rate funded capital, net debt service, and reserve funding. The total revenue requirement (i.e., expenses) are then compared to the total revenues of the City’s water utility. Total revenues are comprised of rate revenues, at present rate levels, and other miscellaneous revenues. From this comparison, a balance (+) or deficiency (-) of funds in each year can be determined. This balance or deficiency of funds is then compared to the rate revenues to determine the percentage level of rate revenue adjustment necessary to meet the revenue requirement as developed in each year of the review period. It is important to note, the “Bal. / (Def.) of Funds” row is cumulative. Any adjustments in the initial years will reduce the deficiency in the later years. Over this project period, the total deficiency of rates in FY 2026 is approximately \$3.9 million. To meet the overall revenue needs of the five-year rate period, annual proposed rate adjustments are recommended. The proposed annual rate adjustments are 3.0% in FY 2022 through FY 2026 to adequately fund the operating and capital needs over this time period. A detailed discussion of the development of the revenue requirement analysis can be found in Section 3 of this report. Technical exhibits of the revenue requirement analysis have been included within the Technical Appendix in Exhibits 1 - 6.

Summary of the Water Cost of Service Analysis

A cost of service analysis determines the equitable allocation and proportional distribution of the revenue requirement to the various customer classes of service (Residential, Non-Residential, and Landscape). The objective of the cost of service analysis is different from determining the revenue requirement analysis. Whereas a revenue requirement analysis determines the utility’s overall financial needs, the cost of service analysis determines the equitable, proportional, and cost-based manner to collect the revenue requirement from each customer class of service. The cost of service analysis developed as a part of this study utilized generally accepted cost of service principles and methodologies as defined by the American Water Works Association (AWWA)

which were then tailored around the City’s specific water utility facilities, costs, and customer characteristics in order to meet the intent of Proposition 218.

In summary, the cost of service analysis began by functionalizing the City’s revenue requirement. The functionalized revenue requirement was then equitably allocated into the various cost components (commodity-related, capacity-related, customer-related, fire protection-related, etc.). The individual allocation totals were then proportionally distributed to the water customer classes of service (i.e., rate schedules) based on the distribution factors. The distributed expenses for each customer class were then aggregated to determine each customer class’s overall revenue responsibility. Table ES - 3 provides the summary of the water cost of service analysis for the FY 2022 test year.

Table ES - 3 Summary of the Water Cost of Service Analysis (\$000)				
Class of Service	Present Revenues (FY 2022)	Distributed Costs	\$ Difference	% Difference
Residential	\$17,992	\$18,573	(\$581)	3.2%
Non-Residential	5,332	5,362	(30)	0.6%
Landscape	<u>3,218</u>	<u>3,005</u>	<u>212</u>	-6.6%
Total	\$26,542	\$26,940	(\$398)	1.5%

The cost of service study proportionally distributes the revenue requirement to each customer class based on their respective demands on the system and the facilities required to provide service. The results of the analysis indicate that slight cost differences exist between the various customer classes of service. It is also important to understand that a cost of service analysis is based upon a review of a specific point in time. As such, as those costs and customer usage characteristics change over time, so do the results of the cost of service analysis.

The City’s cost of service analysis and proposed water rates have been developed to meet the legal requirements of California constitution article XIII D, section 6 (Article XIII D). An important component of Article XIII D is the development of rates which reflect the cost of providing service and proportional distribution of costs among the customer classes of service. A key outcome of the cost of service analysis are the development of average unit costs (e.g., \$/equivalent meter/month and \$/CCF), or cost-based rates. The development of average unit costs provides the cost-basis for the development of the City’s proposed water rates. Provided below in Table ES - 4 is a summary of the unit costs derived in the cost of service analysis that were used to develop the City’s proposed water rate designs by customer class (e.g., rate schedule).

Table ES – 4
Summary of the FY 2022 Average Unit Costs

	Residential	Non-Residential	Landscape
Fixed - \$/equiv. meter/month	\$54.55	\$54.55	\$54.55
Variable –\$/CCF			
Tier 1 (0 - 12 CCF)	\$4.04	N/A	N/A
Tier 2 (12 - 36 CCF)	4.72	N/A	N/A
Tier 3 (36 + CCF)	6.10	N/A	N/A
All use	N/A	\$5.14	\$5.29

1 CCF = 100 cubic feet

Section 4 of this report provides a detailed discussion of the cost of service analysis conducted for the City’s water utility and the development of the average unit costs provided in Table ES – 4, above. The Technical Appendix contains additional details associated with the cost of service analysis calculation and can be found in Exhibits 8 - 18.

Summary of the Water Rate Design

The final step of the rate study process is the design of the City’s proposed water rates to collect the required level of revenue, based on the results of the revenue requirement and cost of service analyses. The revenue requirement analysis provided a set of recommendations related to the annual rate revenue adjustments, or the level of total rate revenues necessary to provide sufficient funding. The cost of service analysis provided the basis for how those costs are proportionally collected from each of the customer classes of service (e.g., rate schedules).

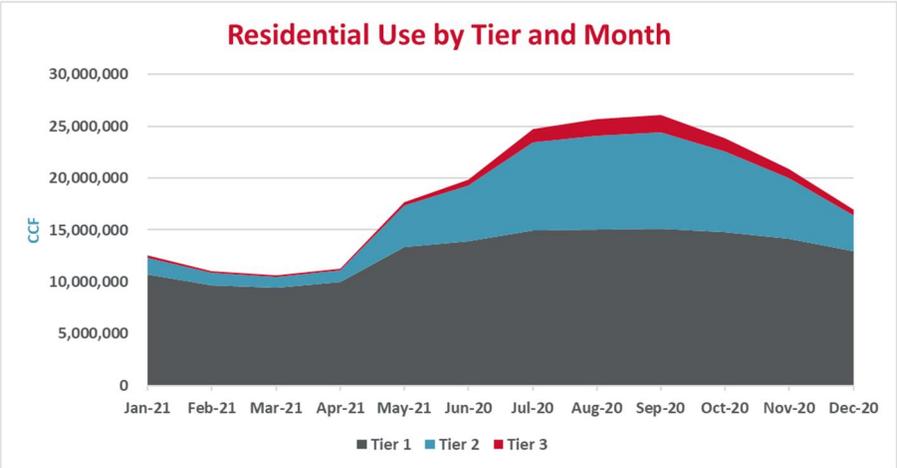
As discussed above, the City’s proposed water rates have been developed to reflect the legal requirements of California constitution article XIII D, section 6 (Article XIII D), also known as Proposition 218. While Article XIII D requires the development of cost-based rates, it does not prescribe a specific approach or methodology to assure meeting this legal requirement. At the same time, HDR would point out that there is no single methodology for proportionally distributing costs to the various customer groups. Consequently, HDR has developed this report, along with the City’s proposed water rates, based on the principles and methodologies contained in the AWWA M1 manual, while tailoring the methodology to be reflective of the City’s specific and unique system and customer characteristics to meet the proportionality requirements of Proposition 218. HDR is of the opinion this approach meets the requirements of Article XIII D and provides an administrative record of the steps taken to establish the City’s water rates. HDR reaches this conclusion based upon the following:

- **The revenue derived from water rates does not exceed the funds required to provide the property related service (i.e., water service).** The proposed rates are designed to collect the overall revenue requirement of the City’s water utility.

- **The revenues derived from water rates shall not be used for any purpose other than that for which the fee or charge is imposed.** The revenues derived from the City’s water rates are used exclusively to operate and maintain the City’s water system.
- **The amount of a fee or charge imposed upon a parcel or person as an incident of property ownership shall not exceed the proportional costs of the service attributable to the parcel.** Section 4 of this study, the cost of service analysis, focuses exclusively on the issue of proportional distribution of costs to customer classes of service. The proposed rates have appropriately grouped customers into customer classes of service (Residential, Non-Residential, Landscape) that reflect the varying consumption patterns and system requirements of each customer class of service. The grouping of customers and rates into these classes of service creates the equity and proportionality required under Article XIII D by having differing rates by customer classes of service which reflect both the level of revenue to be collected by the utility, and also the manner in which these costs are incurred and equitably assigned to customer classes of service based upon their proportional impacts and burdens on City’s the water system and water resources.

Given the requirements to develop rates based on cost of service principles, the average unit costs in Table ES - 4 are the proposed water rates for each of the City’s customer classes of service for the first year (FY 2022).

The City currently has established customer classes of service that were previously developed in prior rate studies and reviewed as part of this rate study. The present residential rate structure includes a fixed monthly meter charge which varies by meter size and a three-tier increasing block consumption charge. The block sizes are based on the typical residential customer consumption characteristics based upon a review of the City’s residential consumption data. As part of this study, the block sizes (e.g., amount of consumption in each block) and residential consumption characteristics were reviewed. Based on current residential customer characteristics, the block sizes reflect current consumption patterns and have been maintained. Shown below is a graph showing the residential consumption for June 2020 through May 2021.



The above graph shows the approach to establishing the residential consumption tiers reflects the typical consumption patterns for average annual use, average peak summer use, and consumption greater than average peak summer use.

Non-Residential and Landscape customer groups utilize a similar rate structure; however, the consumption charges vary by customer class. These customer classes have the same fixed monthly meter charge which varies by meter size. Unlike the residential rate schedule which uses pricing tiers, the consumption charge for Non-Residential and Landscape customers is based on a uniform structure. This is done as Non-Residential and Landscape customers are not as homogeneous as Residential customers and an equitable tiered structure is difficult, if not impossible, to develop. The purpose of the cost of service and rate design analyses are to develop a rate that reflects the proportional share of these costs, so that those customers that benefit, or drive the peak, will have rates that reflects the costs associated with providing that level of service. The consumption charges for each class of service varies and is based upon the results of the average unit costs shown in Table ES - 4. Provided below in Table ES - 5 is a summary of the present and proposed water rates for the five-year rate setting period. The proposed rates are effective January 1st of each year, or midway through the fiscal year.

Table ES - 5						
Summary of the Proposed Water Rates						
	Present Rate	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Fixed Charge	\$/Acct/Mo					
3/4"	\$55.65	\$54.55	\$56.20	\$57.90	\$59.65	\$61.45
1"	55.65	54.55	56.20	57.90	59.65	61.45
1 1/2"	55.65	54.55	56.20	57.90	59.65	61.45
2"	55.65	54.55	56.20	57.90	59.65	61.45
3"	99.00	102.50	105.60	108.80	112.10	115.40
4"	165.00	170.80	176.00	181.30	186.80	192.40
6"	329.40	340.95	351.30	361.90	372.80	384.10
8"	--	545.50	562.00	579.00	596.50	614.50
10"	--	784.45	808.20	832.60	857.80	883.70
Consumption Charge	\$/CCF					
Single Family						
0 - 12 CCF	\$3.98	\$4.04	\$4.16	\$4.28	\$4.41	\$4.54
12 – 36	4.79	4.72	4.86	5.00	5.15	5.30
36 + CCF	5.89	6.10	6.28	6.46	6.66	6.86
Non-Residential	\$5.18	\$5.14	\$5.29	\$5.45	\$5.61	\$5.78
Landscape	\$5.86	\$5.29	\$5.45	\$5.61	\$5.78	\$5.95

As can be seen, the proposed rates maintain the current rate structure and only the level of the rates, both the fixed monthly meter charges and consumption charges, have been adjusted based

on the results of the revenue requirement analysis (overall system revenue needs) and cost of service analysis (proportional distribution and average unit costs).

Section 5 of this report provides a detailed discussion of the current and proposed water rates along with a component by component summary of the proposed water rates for FY 2022 – FY 2026.

Water Rate Study Recommendations

Based on the results of the water rate study, HDR recommends the following:

- Rate revenue adjustments are necessary to prudently fund operating expenses and necessary capital investment in renewal and replacement of the existing system
- Water rate revenues should be adjusted 3.0% annually in FY 2022 through FY 2026
- The proposed rates are based on the results of the cost of service analysis and the proportional distribution of costs and subsequent average unit costs for each customer class of service
- Prior to the implementation of the fifth, and final, proposed rate adjustment the City should complete a water rate study update.

Water Rate Adoption

Proposition 218 outlines a specific process to legally adopt and implement the proposed water rates. The first requirement is that the rates must be cost-based and proportional, which is the purpose of completing the water rate study. Once the proposed water rates have been developed, a public process must be undertaken to adopt the proposed rates. This began with the presentation of the proposed rates to the Woodland City Council in October 2021. At this meeting, the City Council directed staff to mail the Proposition 218 notices – shown in the Proposition 218 Appendix - to the City’s customers which outlines the proposed changes in rates. The notice also contains the time, date, and location of the public hearing, which is shown in the Approved Notice Appendix. The City Council then held a public hearing on December 7, 2021 to discuss the publicly noticed and proposed rates. Absent sufficient written protest by customers, the City Council moved to adopt the proposed water rates as outlined in the customer notification over the next five-year period.

Summary of the Water Rate Study

This completes the summary discussion of the development of the City’s water rate study. The focus of this Study has been the prudent and adequate funding of the annual water utility operation and maintenance expenses and capital funding needs. Furthermore, to meet the requirements of Proposition 218, the proposed rates were developed based on an equitable allocation and proportional distribution of costs through the cost of service analysis. A full and complete discussion of the development of the City’s water rate study can be found in following sections of this report.

1 Introduction and Overview

1.1 Introduction

HDR Engineering, Inc. (HDR) was retained by the City of Woodland (City) to conduct a water rate study. The objective of a water rate study is to develop equitable and cost-based water rates which are compliant with the legal requirements of Proposition 218. This is accomplished through a series of technical analyses of the utility. First, the revenue requirement analysis reviews and analyzes the City's water operating and capital costs and develops a projection of the overall revenue requirement of the water utility. Next, the City's revenue requirement is equitably allocated and proportionally distributed to the City's customer classes of service (Residential, Non-Residential, and Landscape) through a cost of service analysis. The findings and conclusions from the cost of service analysis are then used to develop the City's proposed water rates. The proposed rates are reflective of how the City's water utility incurs costs in order to provide its customers with water service. The results of the water rate study process is equitable and proportional water rates reflective of the City's water utility specific costs, facilities, and customer consumption characteristics. The City has historically developed water rate studies to establish their water rates and this study is a continuation of that practice and furthering the commitment to establishing cost-based water rates.

The City owns and operates a water supply, treatment, transmission, and distribution system. Surface water resources are utilized as the primary source of supply and local ground water is used as a backup or emergency source of supply. The determination of the total costs associated with providing water supply, treatment, transmission, and distribution of water to the City's customers has been developed based on the City's accounting, operating, and customer billing records and other relevant information provided by the City.

1.2 Goals and Objectives

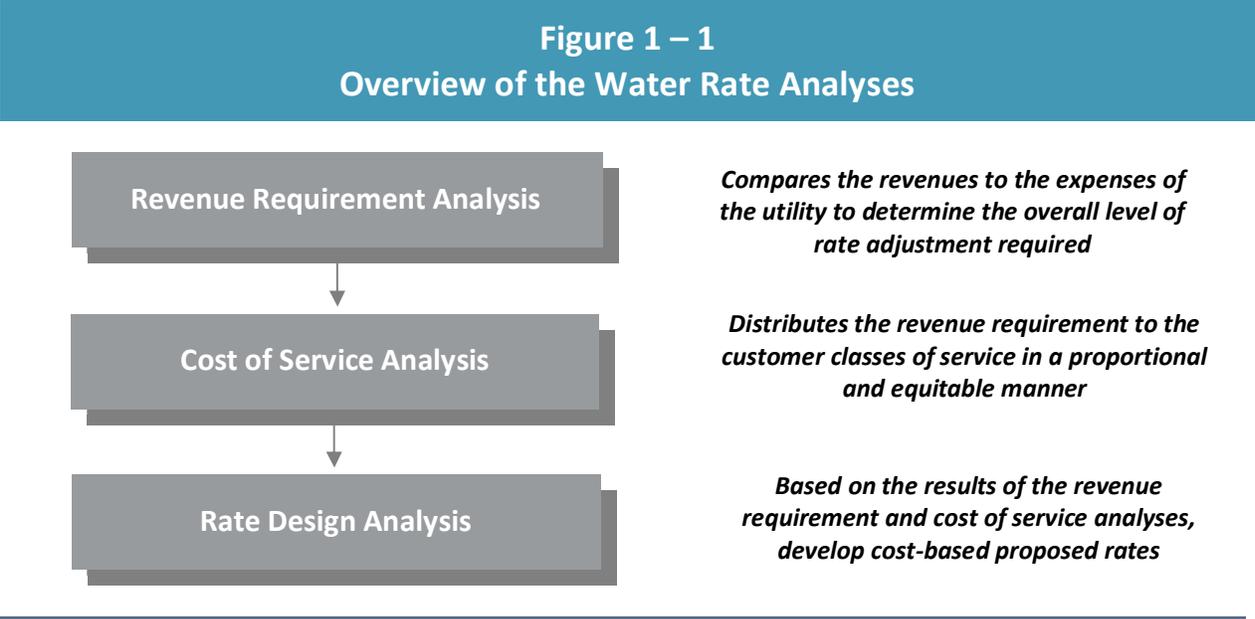
The City had several key objectives in developing the water rate study. These key goals and objectives provide a framework for the technical analysis and policy decisions that are a part of this study. The City's key goals and objectives for this study were as follows:

- Develop the Study in a manner consistent with the principles and methodologies established by the American Water Works Association (AWWA), M1 Manual, Principles of Water Rates, Fees, and Charges.
- In financial planning and establishing the City's proposed rates, review and utilize best industry practices, while recognizing and acknowledging the specific and unique characteristics of the City's system and customers
- Meet the City's financial planning criteria as it relates to legally required debt service coverage (DSC) ratios, adequate funding of capital infrastructure, and maintenance of adequate and prudent reserve levels
- Develop a final proposed rate transition plan which adequately supports the water utility's funding requirements, while attempting to minimize long-term impacts to rates

- Utilizing generally accepted rate making methodologies, review the City’s costs to determine the adequacy and proportionality of the water rates to meet the requirements of California Constitution article XIII D, section 6 (commonly referred to as Proposition 218)

1.3 Overview of the Rate Study Process

A water utility’s rates must be set at a sufficient level such that the operating and capital expenses of the utility are completely and adequately funded by the revenues received from its customers. This is an important point, as failure to achieve this objective may lead to insufficient funds to maintain system integrity. In addition, a prolonged lack of adequate funding will result in poor financial performance and lead to higher rates over the long-term. To evaluate the adequacy of a utility’s existing rates, a water rate study is often performed. A water rate study consists of three interrelated analyses completed in successive order. Figure 1 - 1 below provides an overview of these analyses.



The above framework was utilized for reviewing and evaluating the City’s water utility.

1.4 Organization of the Study

This report is organized in a sequential manner that first provides an overview of utility rate setting principles, followed by sections that detail the specific technical and analytical steps used to review the City’s water rates. The following sections comprise the City’s water rate study report:

- **Section 2** – Overview of Water Rate Setting Principles
- **Section 3** – Development of the Revenue Requirement Analysis
- **Section 4** – Development of the Cost of Service Analysis
- **Section 5** – Development of the Proposed Rate Designs

A Technical Appendix is attached at the end of this report, which details the technical analyses that were undertaken in the preparation of the City's water study.

2 Overview of Water Rate Setting Principles

2.1 Introduction

This section of the report provides background information about the water rate setting process, including descriptions of generally accepted principles, types of utilities, and the methodologies used to develop the revenue requirement, cost of service, and rate design analyses. This information is useful for gaining a better understanding of the details presented in Sections 3 through 5 of this report.

As a point of reference, the City has historically used the rate setting principles and methodologies discussed in this section of the report to establish their water rates. The use of these principles and methodologies lead to cost-based and equitable water rates. This Study is a continuation of the City's use of cost of service principles and analyses to establish their water rates.

2.2 Generally Accepted Rate Setting Principles

As a practical matter, all utilities should consider setting their rates around some generally accepted or global principles and guidelines. That is, utility rates should be:

- Cost-based, proportional, and set at a level that meets the utility's full revenue requirement
- Easy to understand and administer
- Designed to conform to "generally accepted" rate setting techniques
- Stable in their ability to provide adequate revenues for meeting the utility's financial, operating, and regulatory requirements
- Established at a level that is stable from year-to-year from a customer's perspective

2.3 Determining the Revenue Requirement

Most public utilities use the "cash basis"¹ approach for establishing their revenue requirement and setting rates. This approach conforms to most public utility budgetary requirements and the calculation is easy to understand. A public utility totals its cash expenditures for a period to determine required revenues. The revenue requirement for a public utility is usually comprised of the following costs or expenses:

- **Total Operating Expenses:** This includes a utility's operation and maintenance (O&M) expenses, plus any applicable taxes or transfer payments. Operation and maintenance expenses include the materials, electricity, labor, supplies, etc., needed to keep the utility functioning.
- **Total Capital Expenses:** Capital expenses are calculated by adding annual debt service payments (principal and interest) to capital improvements financed with rate revenues.

¹ "Cash basis" as used in the context of rate setting is not the same as the terminology used for accounting purposes and recognition of revenues and expenses. As used for rate setting, "cash basis" simply refers to the specific cost components to be included within the revenue requirement analysis.

In lieu of including capital improvements financed with rate revenues, a utility sometimes includes depreciation expense to stabilize the annual revenue requirement.

Under the cash basis approach, the sum of the total expenses plus the total capital expenses equals the utility’s revenue requirement during any selected period (historical or projected).

Note that the two portions of the capital expense component (debt service and capital improvements financed from rate revenues) are necessary under the cash basis approach because utilities generally cannot finance all their capital facilities with long-term debt. At the same time, it is often difficult to pay for all capital expenditures on a “pay-as-you-go” basis given that some major capital projects may have significant rate impacts upon the utility, even when financed with long-term debt. Many utilities have found that some combination of “pay-as-you-go” funding and long-term financing will often lead to minimization of rate increases over time.

As noted, public utilities typically use the cash basis methodology to establish their revenue requirements. An exception may occur if a public utility provides service to a wholesale or large contract customer. In this situation, a public utility could use the “utility/accrual basis” approach (see Table 2 - 1) to earn a “fair” rate of return on the investment needed to serve the wholesale or large contract customer.

Table 2 – 1 Cash versus Utility Basis Comparison			
Cash Basis		Utility Basis (Accrual)	
+	O&M Expenses	+	O&M Expenses
+	Taxes/Transfer Payments	+	Taxes/Transfer Payments
+	Capital Improv. Funded from Rates (≥ Depreciation Expense)	+	Depreciation Expense
+	<u>Debt Service (Principal + Interest)</u>	+	<u>Return on Investment</u>
=	Total Revenue Requirement	=	Total Revenue Requirement

2.4 Analyzing Cost of Service

After the total revenue requirement is determined, it is equitably allocated and proportionally distributed to the users of the service. The allocation and distribution process - as analyzed through a cost of service analysis - reflects the cost relationships for producing and delivering water services. A cost of service analysis requires three analytical steps:

- 1 Costs are *functionalized*, or grouped, into the various cost categories related to providing service (e.g., supply, treatment, distribution, pumping). This step is largely accomplished by the utility’s accounting system.
- 2 The functionalized costs are then *allocated* to specific cost components. Allocation refers to the arrangement of the functionalized data into cost components. For example, a

water utility's costs are typically allocated as commodity (average day), capacity (peak day), and customer-related costs among other specific cost components.

- 3 Once the total costs are allocated into the cost components, they are proportionally ***distributed*** to each of the customer classes of service, which in the case of the City are Residential, Non-Residential, and Landscape classes of service or rate schedules. The distribution is based on each customer class' proportional contribution to the cost component (i.e., benefits received from and burdens placed on the system and its resources). For example, customer-related costs are proportionally distributed to each class of service based on the total number of customers in that class of service, relative to all other customer classes of service. Once the total costs (i.e., revenue requirement) are proportionally distributed, the level or amount of revenues required from each customer class of service to achieve cost-based rates can be determined.

The City's cost of service analysis was developed based on water utility industry generally accepted approaches, while taking into consideration the City's unique customer and system characteristics to provide the proportionality and level of cost-detail currently required under Proposition 218. The cost of service analysis developed for the City is discussed in more detail in Section 4 of this report.

2.5 Designing Water Rates

Water rates that meet the utility's cost-based and equitable objectives are designed based upon the findings and conclusions from the revenue requirement and cost of service analyses. Using the cost information from these two analyses results in rates that are cost-based, equitable, and proportional. The average unit costs (i.e., cost-based rates) from the cost of service analysis does not consider, or take into account, other non-cost based goals and objectives (e.g., conservation, economic development, ability to pay, revenue stability). In designing water rates, many utilities consider or incorporate other rate design objectives such as ability to pay, continuity of past rate philosophy, economic development, ease of administration, and customer understanding into their final water rate designs. However, under the requirements of Proposition 218, the City's proposed water rates, can only take into consideration each customer class's proportional share of costs distributed through the cost of service analysis. The development of the City's proposed water rate designs is discussed in more detail in Section 5 of this report.

2.6 Economic Theory and Rate Setting

One of the major justifications for a rate study is founded in economic theory. Economic theory suggests that the price of a commodity must roughly equal its cost if equity among customers is to be maintained. This statement's implications on utility rate designs are significant. For example, a water utility usually incurs capacity-related costs to meet summer peak outdoor or non-domestic watering needs. It is presumed, then, that the customers who create these peak demands on the system - and create the need for upsizing of the water system infrastructure - should pay their proportional share of the costs related to the over-sizing of facilities to meet peak use requirements. When costing and pricing techniques are refined, consumers have a more accurate understanding of what the commodity costs to produce and deliver. This price-equals-

cost concept provides the basis for the subsequent analysis and comments. This basic pricing technique has been incorporated and used within this study.

2.7 Summary

This section of the report has provided a brief introduction to the general principles, techniques, and economic theory used to set water rates. These principles and techniques provide the theoretical and technical basis for the analysis used to develop the City's water rate study.

3 Development of the Revenue Requirement

3.1 Introduction

The development of a revenue requirement analysis is the first analytical step in the three-step rate study process. This section describes the development of the revenue requirement analysis for the City's water utility. The City provided HDR with detailed revenue and expenses data for the water utility. This data and information provided the foundation for the development of the revenue requirement analysis.

The revenue requirement analysis, as developed for the City's water utility, determines the adequacy of water rate revenues at current rate levels. From this analysis, a determination can be made as to the adequacy of the existing rates and the overall level of rate revenue adjustment needed to provide adequate and prudent funding for both operating and capital expenses. HDR has developed an independent analysis based on the data and information provided by the City.

3.2 Determining the Revenue Requirement

In developing the City's water revenue requirement, the water utility, as an enterprise fund, must financially "stand on its own" and be adequately funded. That is, no transfers from other City of Woodland funds occur to support the City's water utility. As a result, the revenue requirement analysis - as developed herein - assumes the full and proper funding needed to operate and maintain the City's water utility on a financially sound and prudent basis. This includes the establishment and funding of adequate operating and capital reserves.

3.3 Establishing a Time Frame and Approach

The first step in developing the revenue requirement for the City's water utility was to establish a time frame for the revenue requirement analysis. For this study, the revenue requirement was developed for a 9-year period (FY 2022 – FY 2030). This time frame was composed of the FY 2022 budget, which was then projected through FY 2030 based on escalation, or inflationary, factors. While the revenue requirement was developed for a nine-year period, the focus for rate setting purposes was the immediate five-year period of FY 2022 – FY 2026. For rate setting purposes, reviewing a multi-year period is always recommended and preferable in order to identify any major financial impacts that may be on the horizon. By anticipating future financial requirements sooner, the City can begin planning for these changes, thereby minimizing short-term rate impacts and likely overall long-term rate levels.

The second step in determining the revenue requirement is to determine the basis for accumulating costs. In this case, a "cash basis" revenue requirement was utilized. As noted in Section 2, the "cash basis" approach is the most common methodology used by municipal utilities to establish their revenue requirement. This is also the methodology that the City has used in prior rate studies to determine its water revenue requirement.

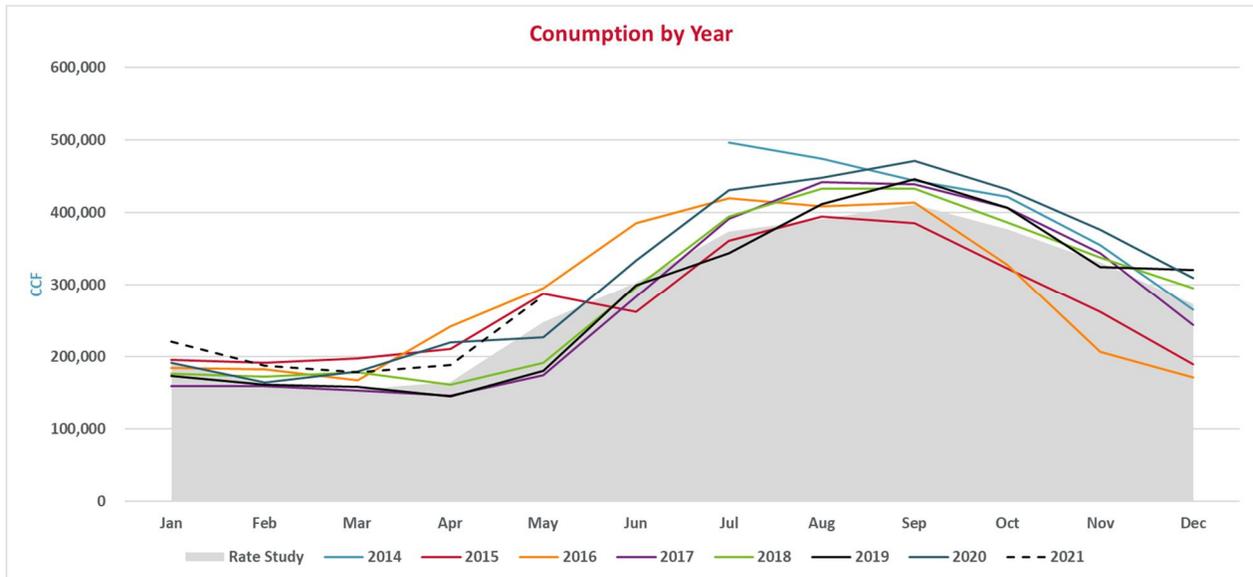
Given a period around which to develop the revenue requirement and a method to accumulate the costs, the focus shifts to the development and projection of the revenues and expenses of the City.

As noted, the primary financial inputs in the development of the revenue requirement were the City's FY 2022 budget document, along with historical (June 2020 through May 2021 which was adjusted based on a multi-year average) customer and consumption data to develop a projection of customer billing data that reflects typical consumption patterns, and the current water capital improvement plan. Presented below is a detailed discussion of the steps and key assumptions contained in the development of the City's water revenue requirement analysis.

3.4 Projecting Rate and Other Miscellaneous Revenues

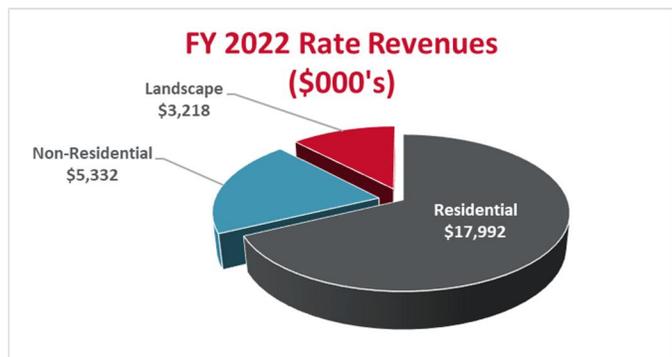
Once the method and period for developing the revenue requirement was established, the next step is to develop a projection of the water rate revenues, at present rate levels. In general, this process involved developing projected billing units (i.e., meters by size, metered consumption) for each customer class of service, or rate schedule, based on historical billing records as provided by the City. The billing units for each customer class were then multiplied by the current water rates for each customer class. This method of independently calculating rate revenues links the projected rate revenues used within the study to the projected billing units. It also helps to confirm that the billing units used within the study are reasonable for purposes of projecting future revenues, equitably allocating costs, proportionally distributing those costs and, establishing proposed rates.

A key aspect of the projection of water rate revenues was to develop a projection of consumption levels. The consumption data from June 2020 through May 2021 was reviewed to develop a projection of customer consumption characteristics. In an effort to reflect anticipated future consumption levels, and in discussion with City staff, it was determined that the average consumption levels from calendar year (CY) 2015 to 2019 would be used. This period appears to reasonably reflect the anticipated average customer consumption characteristics for the next five-year rate setting period. This key assumption was made in large part due to the current pandemic caused by the Coronavirus spread as well as current, and future, weather patterns which made the CY 2020 data unrepresentative of the historical water use patterns. It should also be noted that at the time of this report, the State was under a drought advisory and this can impact future revenue assumptions. Provided below is a graphic with the historical, and projected, consumption by month.



The City currently has separate rate schedules for three different customer classes of service (Residential, Non-Residential, and Landscape). All customers are assessed a fixed monthly charge by service meter size and a variable consumption charge. The consumption charge for Residential customers is an increasing three-tiered rate structure. The consumption charge for Non-Residential and Landscape customers is a uniform rate structure.

The majority of the City’s water rate revenues are derived from the Residential customer class which is approximately 68% of the total rate revenues. Including the other customer classes, and at current rate levels, the City is projected to receive approximately \$26.5 million in rate revenue in FY 2022. The rate study has assumed a conservative level of annual customer growth of 0.5% / year over the review period. In FY 2026, the rate revenues, given assumed growth and no change in the current rates, are projected to be approximately \$27.2 million.



In addition to the above rate revenues, the City’s water utility also receives miscellaneous revenues. There are various miscellaneous revenue sources which are related to installation charges, recycled water sales, and other miscellaneous revenues. In total, the City is projected to receive approximately \$366,000 in miscellaneous revenues in FY 2022. This annual amount of miscellaneous revenues is projected to be relatively flat over the projected ten-year period.

On a combined basis, summing the water rate revenues and the miscellaneous revenues, the City’s water utility has total projected revenues of approximately \$26.9 million in FY 2022 which is projected to increase to approximately \$27.8 million by FY 2026.

3.5 Projecting Operation and Maintenance Expenses

Operation and maintenance (O&M) expenses are incurred by the City to provide water service (supply, treatment, transmission, and distribution of water). This includes the daily operation and maintenance of the existing infrastructure. For the development of the revenue requirement, the City provided detailed historical and budgeted O&M expenses and capital improvement needs (discussed in Section 3.6) for the water utility. The budgeted FY 2022 O&M expenses were projected over the review period based on assumed or estimated annual escalation (inflationary) factors. These escalation factors were developed based upon the recent experience of the City and the general economy, as well as known changes in O&M. Table 3 - 2 provides a summary of the O&M escalation factors used to project the City’s water O&M expenses within the revenue requirement analysis.

**Table 3 – 2
Summary of the Escalation Factors**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Salaries	Budget	3.5%	3.5%	3.5%	3.5%
Benefits - Medical	Budget	6.0%	6.0%	6.0%	6.0%
Benefits - Other	Budget	4.0%	4.0%	4.0%	4.0%
Benefits - Retirement	Budget	6.0%	6.0%	6.0%	6.0%
Professional Services	Budget	3.5%	3.5%	3.5%	3.5%
Materials & Supplies	Budget	3.0%	3.0%	3.0%	3.0%
Equipment	Budget	4.0%	4.0%	4.0%	4.0%
Education / Meetings	Budget	3.0%	3.0%	3.0%	3.0%
Utilities	Budget	4.0%	4.0%	4.0%	4.0%
Miscellaneous	Budget	2.0%	2.0%	2.0%	2.0%
Transfers	Budget	3.0%	3.0%	3.0%	3.0%
Depreciation	Budget	4.0%	4.0%	4.0%	4.0%
Regulatory	Budget	5.0%	5.0%	5.0%	5.0%
Chemicals	Budget	5.0%	5.0%	5.0%	5.0%
Flat	Budget	0.0%	0.0%	0.0%	0.0%

The total FY 2022 O&M expenses for the City are budgeted at approximately \$14.0 million in total. Over the planning horizon, the total O&M expenses for the City’s water utility is projected to increase to approximately \$15.9 million by FY 2026, based on the impacts of the escalation factors assumed in Table 3 - 2.

3.6 Projecting Capital Funding Needs and Transfer Payments

A key component in the development of the water revenue requirement is properly and adequately funding capital improvement (infrastructure) needs for the City’s water system. One of the major issues facing utilities across the U.S. is the amount of deferred capital projects and the funding pressure from growth / expansion and regulatory-related improvements. The proper

and adequate funding of capital projects is an important issue for all water utilities and is not just a local issue or concern of the City.

In general, there are three general types of capital projects that a utility may need to fund. These include the following types:

- **Renewal & Replacement** - A renewal and replacement project is essentially a project required to maintain the existing system that is in place today. As the existing plant or pipelines become worn out, obsolete, etc., the utility should be making continuous (annual) investments to maintain the integrity of the facilities.
- **Growth / Capacity Expansion** - A utility may make capital investments to expand the capacity of facilities to accommodate future capacity needs (customers).
- **Regulatory-Related** - Another type of project may be a function of a regulatory (legal) requirement in which the Federal and/or State government mandates the need for an improvement to the system to meet a regulatory standard (e.g., water quality).

Understanding these different types of capital projects is important because it may aid in explaining any needed rate adjustments. As the need for capital investment increases, it often directly impacts needed rate revenue adjustments. In addition, and more importantly, the way in which projects are funded may vary by the type of capital project. For example, annual and on-going renewal and replacement projects may be paid for through rates and funded on a “pay-as-you-go” basis. In contrast to this, growth or capacity expansion projects may be funded through the collection of development or water connection fees (i.e., growth-related charges) in which new development pays a proportional and equitable share of the cost of facilities necessary to serve their respective development (impact). Finally, regulatory projects may be funded by a variety of different means, which may include annual rate revenues, long-term debt, grants, etc.

While the above discussion appears to precisely divide capital projects into three clearly defined categories, the reality of working with specific capital projects may be more complex. For example, a water pipeline may be replaced, but while being replaced, it is up sized to accommodate greater capacity to serve increasing demands or new development. There are many projects that share these “joint” characteristics. At the same time, projects may not be “replacement” related, but rather “improvement” related.

For purposes of developing the capital funding plan for the revenue requirement analysis, the City provided its long-term capital improvement plan (CIP) for the development of a capital improvement funding plan within the water rate study. Provided below in Table 3 - 3 is a summary of the capital improvement funding plan based on the capital improvement plan as developed and provided by the City. This plan is based on the current annual needs and the future improvements identified. As noted, the focus of the City’s water rate study was on the next five-year period for rate setting purposes. The capital plan detail has been simplified to the main categories for ease of review. Exhibit 4 in the Technical Appendix provides details of the individual capital projects and identified funding sources.

Table 3 – 3
Summary of the Capital Improvement Funding Plan (\$000)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Capital Projects					
Total Public Works	\$838	\$442	\$466	\$488	\$453
Total CIP - 210	4,457	4,430	3,984	4,612	5,397
Total Capital Transfers	0	0	0	0	0
Total Capital Projects	\$5,295	\$4,872	\$4,450	\$5,100	\$5,850
Less: Outside Funding Sources					
Operating Reserves	\$2,495	\$1,012	\$0	\$0	\$0
New Long-Term Borrowing	0	0	0	0	0
Total Outside Funding Sources	\$2,495	\$1,012	\$0	\$0	\$0
Rate Funded Capital	\$2,800	\$3,860	\$4,450	\$5,100	\$5,850

As can be seen in Table 3 - 3, the annual level of funding needs (i.e., capital projects) varies from year-to-year. The capital improvements are primarily related to renewal and replacement needs. While the total amount required to fund projects may vary from year-to-year, the rate study capital improvement funding plan has attempted to provide a consistent funding source from rates for capital improvements. In this case, rates will annually fund on average approximately \$4.4 million per year (as highlighted in Table 3 - 3).

A desirable and recommended minimum funding target for “Rate Funded Capital” is an amount equal to or greater than annual depreciation expense. As a point of reference, the City’s annual water depreciation expense was approximately \$5.7 million for FY 2019. The capital funding analysis has established a level of annual rate funding that is less than current annual depreciation expense. However, the City continues to monitor annual renewal and replacement needs and increase levels of rate funded capital over time to reflect the cost escalation of capital projects. It is important to note and understand that depreciation expense is not the same as replacement cost, which can be 1.5 to 2.0 times the original cost of the project. Thus, funding an amount which exceeds depreciation expense (i.e., \$5.7 million) is both prudent and appropriate. In developing this financial plan, HDR and the City have attempted to minimize rate impacts while funding the planned capital improvement projects of the water utility.

3.7 Projection of Debt Service

The City currently has several outstanding debt issues for the water utility. In total, these issuances have an annual debt service payment of approximately \$11.0 million per year in FY 2022. A portion of this annual debt service is funded through connection fees and the remaining balance is funded through annual rate revenues. This includes an anticipated refinancing of the 2011 revenue bond.

The City has assumed the need to issue additional (new) long-term debt issues over the period to provide funding for recycled water system capital improvements. This assumed annual debt service starts in FY 2023 and is approximately \$85,000/year.

In developing the capital plan and reviewing the current and anticipated debt service, HDR is not acting as a municipal advisor or providing municipal advice to the City as it relates to bonds, terms, or structures of debt issuances. Rather, this rate study is a financial planning document which has identified projections of future funding needs and utilized the City's current assumptions for long-term debt terms for modeling and projection purposes. To meet these financing needs, the City contracts with external municipal advisors to assist the City in the selection of debt instruments and the projections of annual debt service payments.

3.8 Reserve Funding

The final component of the revenue requirement analysis is the reserve funding. This relates to changes in working capital and the reserve funds. It includes transfers to, or from, reserve funds to maintain prudent ending fund balances or for funding future capital projects. The City has a target minimum fund balance for the Operating (reserve) Fund of 6 months of O&M expenses, or approximately \$9.0 million in FY 2022. Funding from reserves may also be used to meet operating and capital needs in a deficient year.

3.9 Summary of the Revenue Requirement

Given the above projections of revenue and expense components, a summary of the City's water revenue requirement analysis can be developed. In developing the revenue requirement analysis, consideration was given to the financial planning considerations of the City. More specifically, emphasis was placed on minimizing rates while adequately funding the operational and capital improvement needs throughout the review period. Presented below in Table 3 - 4 is a summary of the City's water revenue requirement analysis based on projected expenses and current rates. Detailed exhibits of this analysis can be found in the Technical Appendices in Exhibits 1 - 7.

Table 3 - 4
Summary of the Revenue Requirement Analysis (\$000)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Revenues					
Rate Revenues	\$26,542	\$26,808	\$26,942	\$27,077	\$27,212
Misc Revenues	366	556	556	556	556
Total Revenues	\$26,908	\$27,364	\$27,498	\$27,632	\$27,768
Expenses					
O&M Expenses	\$13,981	\$14,395	\$14,890	\$15,406	\$15,941
Rate Funded Capital	2,800	3,860	4,450	5,100	5,850
Debt Service	10,525	10,327	10,225	10,080	9,851
Reserve Funding	0	1	1	2	0
Total Expenses	\$27,306	\$28,582	\$29,567	\$30,587	\$31,642
Bal./(Def.) of Funds	(\$398)	(\$1,218)	(\$2,069)	(\$2,955)	(\$3,875)
Proposed Rate Adjustment	3.0%	3.0%	3.0%	3.0%	3.0%
Add'l Rev from Rate Adj.	\$398	\$1,218	\$2,069	\$2,955	\$3,875
Bal./(Def.) of Funds	\$0	\$0	\$0	\$0	\$0

As can be seen on Table 3 – 4, the revenue requirement has summed the total O&M, rate funded capital, net debt service, and reserve funding. The City’s total revenue requirement is then compared to the total revenues which include the rate revenues - at present rate levels - and other miscellaneous revenues. From this comparison, a balance or deficiency of funds in each year can be determined. This balance or deficiency of funds is then compared to the present rate revenues to determine the level of rate adjustment needed to meet the revenue requirement. It is important to note the “Bal. / (Def.) of Funds” row is cumulative. That is, any adjustments in the initial years will reduce the deficiency in the later years. In FY 2022, a 3.0% rate adjustment is proposed, which would be implemented January of 2022.

Based on the revenue requirement analysis developed for the City’s water utility, HDR has concluded that the rate revenues will need to be adjusted over the next five years (FY 2022 – FY 2026) to maintain prudent funding of expenses and establish cost-based rates. Based on the rate transition plan, as provided in Table 3 – 4, the proposed annual rate adjustments (blue shaded line) have been developed to meet the operating and capital needs of the City’s water utility as well as maintain strong financial metrics.

3.10 Reserve Levels

Another key element of determining the financial health and sustainability of the City’s water utility is a review of the level of available reserves after the proposed rate adjustments. Utilities often establish and maintain several different reserves. Each reserve has a specific and different purpose. The types of reserves that utilities typically establish and maintain are generally related to operating reserves and capital reserves. Reserves also may be established for growth-related fee reserves, bond reserves, and an emergency or rate stabilization reserve. Certain funds may establish a minimum ending balance that, if reached or falls below, is a signal that the City should

review the revenue sources associated with that fund and take appropriate action. The minimum ending balances will vary depending on the purpose of the fund and the expected revenue sources.

For the City, there are three primary reserve funds for the water utility. These are the operating reserve fund, water development fund, and surface water supply fee reserve. Each of these is discussed further below.

- **Operating Reserve Fund** – The operating reserve is in place to meet the City’s cash flow needs. The typical minimum ending balance for an operating reserve ranges from 90 – 365 days of annual O&M expenses. For the City, the minimum target is set at 180 days of O&M expenses. This target results in a minimum ending balance of approximately \$9.1 million in FY 2022. Over the five -year rate setting period, the operating reserve maintains an ending balance greater than the target minimum.
- **Water Development Fee Fund** – This fund is essentially a connection fee fund and is used to track the collection of connection fee revenues from new customers connecting to the water system. Given that this fund is related to customer growth and development fees, there is no minimum reserve target. When funds are available, this fund is used to pay a proportional share of annual debt service payments related to providing new capacity growth on the system and/or fund new growth-related capital improvements. For rate setting purposes, it is assumed that \$40,000 – or roughly half of the annual development fee revenue – is used to offset annual debt service payments related to past growth and expansion related projects.
- **Surface Water Supply (SWS) Fee Reserve**– The surface water supply fee fund is similar to the water development fee fund. This fund has no target minimum balance as it is slated to store revenues from new customers paying the surface water supply fee and to pay annual debt service related to the construction of the facility. The analysis has assumed that all of the annual SWS fee revenues will be used to pay surface water related debt service.

Each of these funds was reviewed during the development of the rate study process. The primary focus was on the operating reserve as that is the main reserve dealing the water utility cash flow as well as primary source for capital improvement projects outside of the rate funding.

3.11 Debt Service Coverage Ratios

When long-term debt is issued it may have certain rate covenants associated with the debt issue. Specifically, the revenue bonds the City issued for the surface water supply project require a specific level of revenue be generated each year more than O&M expenses and annual debt service payments. Compliance with this rate covenant is assessed via a debt service coverage (DSC) ratio. The City is typically required to maintain a DSC which is 1.25 or greater.

As noted previously, the City currently has several outstanding debt issuances and works with external municipal advisors to calculate the debt service coverage ratio. Provided in Table 3 - 5 is a summary of the projected debt service coverage (DSC) ratio calculations for the City’s water utility after the proposed rate adjustments.

Table 3 - 5
Summary of the Projected Debt Service Coverage (DSC) Ratios

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
DSC	1.33	1.44	1.51	1.58	1.67
DSC – w/o Connection Fees	1.28	1.39	1.46	1.53	1.61

As can be seen in Table 3 - 5, with the proposed rate adjustments, the City is maintaining adequate debt service coverage ratios for the existing long-term debt. It is prudent financial practice to target at least 1.30 for the DSC ratio. That means that the utility has 30% of the outstanding debt amount to contribute to capital infrastructure or reserve funding after the O&M expenses and debt service have been paid. With this minimum financial planning target set, Table 3 – 5 demonstrates that the City is well above this minimum threshold after the proposed rate adjustments. The City is advised to continue to monitor revenues and expenses to maintain sufficient debt service coverage ratios.

3.12 Consultant’s Conclusions

The revenue requirement developed above for the City’s water utility has indicated the need for annual revenue (rate) increases to adequately fund the City’s operating and capital needs for the water utility. The proposed annual rate revenue adjustments are 3.0% in FY 2022 through FY 2026. HDR has reached this conclusion for the following reasons:

- Annual water rate adjustments are necessary to fully fund the City’s projected operating costs and annual inflationary impacts.
- Annual water rate adjustments are necessary to continue to fund annual water system renewal and replacement capital project needs.
- The rate adjustments are needed to maintain, and exceed, the minimum debt service coverage requirements
- The proposed rate revenue adjustments maintain the City’s financial health and integrity by providing consistent, long-term, and sustainable funding levels.
- Prior to the implementation of the fifth (FY 2026), and final proposed rate adjustment, the City should complete a rate study for the projection of future water rates.

In reaching the above conclusions, HDR would recommend that the City adopt the proposed annual rate revenue adjustments through FY 2026 to provide sufficient funding for the City’s projected operating expenses and capital improvement program. Given the development of the water revenue requirement, the next step is to equitably allocate and proportionally distribute it to the customer classes of service. This is accomplished through the cost of service analysis and is provided and discussed in Section 4 of this report.

4 Development of the Cost of Service Analysis

4.1 Introduction

In the previous section, the revenue requirement analysis focused on the total revenues and expenses required to adequately fund the City's water utility. This section will provide an overview of the second step in the sequential rate study process; the water cost of service analysis developed for the City.

A water cost of service analysis determines the equitable allocation and proportional distribution of the revenue requirement between the customer classes of service (e.g., Residential, Non-Residential, Landscape). The previously developed revenue requirement for FY 2022 was allocated and distributed within this study's cost of service analysis.

4.2 Objectives of a Cost of Service Study

There are two primary objectives in conducting a cost of service analysis:

- Equitably allocate and proportionally distribute the City's water revenue requirement among the customer classes of service, and
- Derive average unit costs (i.e., cost-based rates) for subsequent rate designs

The objectives of the cost of service analysis are different from determining a revenue requirement analysis. As noted in the previous section, a revenue requirement analysis determines the utility's overall financial needs, while the cost of service analysis determines the equitable and proportional manner to collect the calculated total revenue requirement from each customer class.

The development of the cost of service analysis provides average unit costs (i.e., cost-based unit costs) which are used in the final step of the rate study process, the development of the proposed rate designs. The cost of service analysis provides a per unit cost of water consumption based on each customer class's equitable and proportional share of costs. For example, a water utility incurs costs related to average day and peak day demands, fire protection, and customer-related cost components. A water utility must build sufficient capacity² to meet summer peak capacity needs. Therefore, those customers contributing to those peak demands on the system should pay their proportionate (i.e., fair) share of the costs to provide the capacity in the system. The average unit costs derived from the cost of service analysis provides the relationship between these components which are then used to set cost-based and proportional rates. Each of the cost components identified are proportionally distributed between the identified customer classes of service.

² System capacity is the system's ability to supply water to all delivery points at the time when demanded. Coincident peaking factors are calculated for each customer class at the time of greatest system demand. The time of greatest demand is known as a peak demand. Both the operating costs and capital asset (infrastructure) related costs incurred to accommodate the peak demands are distributed to each customer class based upon the class's proportional contribution to the specific peak event.

4.3 Determining the Customer Classes of Service

The first step in a cost of service analysis is to determine the customer classes of service. Based on discussion with City staff, the classes of service used within the cost of service analysis were:

- Residential
- Non-Residential
- Landscape

To note, the “Non-Residential” class includes commercial, multi-family, institutional, and industrial customers. In determining classes of service for cost of service purposes, the objective is to group customers together into similar or homogeneous groups based upon similar facility requirements and/or demand characteristics. HDR reviewed the current customer characteristics and facility requirements of the current customer classes of service. In reviewing the customer classes of service, the City has appropriately grouped customers into customer classes of service. The grouping of customers and rates into these classes of service creates the impartiality and fairness expected under Proposition 218 by having differing rates by customer classes of service that reflect both the level of revenue to be collected by the utility, but also the manner in which these costs are incurred and equitably and proportionally assigned to customer classes of service based upon their proportional impacts. Furthermore, when reviewing customer classes in the AWWA M1 Manual³, it identifies the general customer classes and approach to establishing customer classes for cost of service purposes. The customer classes identified in this study are reflective of industry standard approaches for meeting Proposition 218 and general rate setting methodologies.

4.4 General Cost of Service Procedures

To determine the cost to serve each customer class of service on the City’s water system, a cost of service analysis is conducted. A cost of service analysis utilizes a three-step approach to review costs. These steps take the form of *functionalization*, *allocation*, and *distribution*. Provided below is a detailed discussion of the water cost of service study conducted for the City, and the specific steps taken within the analysis. The approach used for the City’s study conforms to generally accepted, and industry standard, cost of service methodologies which are outlined in the AWWA M1 Manual to achieve the proportionality required for Proposition 218.

4.4.1 Functionalization of Costs

The first analytical step in the cost of service process is called “functionalization”. Functionalization is the arrangement of expenses and asset (i.e., plant) data by major operating functions (e.g., supply, treatment, transmission, distribution, etc.). Within this study, there was a limited amount of functionalization of the cost data required as it was already largely accomplished within the City’s system of accounts.

³ American Water Works Association, M1 Manual, *Principles of Water Rates, Fees, and Charges*, pg. 74 7th edition.

4.4.2 Allocation of Costs

The second analytical task performed in a water cost of service study is the allocation of the costs. The allocation of costs examines why each expense identified in the revenue requirement was incurred or what type of need is being met. The following cost allocators were used to develop the City's water cost of service analysis:

- **Commodity-Related Costs:** Commodity costs are those costs which tend to vary with the total quantity of water consumed by a customer. Commodity costs are those incurred under average load (demand) conditions and are generally specified for a period such as a month or year. Chemicals or utilities (electricity) are examples of commodity-related cost as these costs tend to vary based upon the total volumes of water consumed.
- **Capacity-Related Costs:** Capacity costs are those which vary with peak demand, or the maximum rates of flow to customers. System capacity is required when there are large demands for water placed upon the system (e.g., summer lawn watering). For water utilities, capacity-related costs are primarily related to the sizing of facilities needed to meet a customer's maximum water demand at any point in time. For example, portions of distribution storage reservoirs and mains (pipes) must be adequately sized to meet this type of requirement.
- **Customer-Related Costs:** Customer costs are those costs which vary with the number of customers on the water system. They do not vary with system output or consumption levels. These costs are also sometimes referred to as readiness to serve or availability costs. Customer costs may also sometimes be further allocated as either *actual* or *weighted*. Actual customer costs vary proportionally on a per customer basis, from customer to customer, with the addition or deletion of a customer regardless of the size of the customer. An example of an actual customer cost is postage for mailing bills. This cost does not vary from customer to customer, regardless of the size or consumption characteristics of the customer. In contrast, a weighted customer cost reflects a disproportionate cost, from customer to customer, with the addition or deletion of a customer. Examples of weighted customer costs are those related to service meters.
- **Fire Protection-Related Costs:** Fire protection costs are those costs related to the public fire protection functions. These are costs related to public fire hydrants and the over-sizing of mains and distribution storage reservoirs for fire protection purposes. Even with the largest peak demands on the system, the water utility must provide sufficient system capacity to meet fire protection-related needs. These costs are properly included in water rates because public fire hydrants are primarily designed, installed, and used to deliver water for the purposes of extinguishing fires that threaten structures on properties served by the water utility and because public fire hydrants are also used for water system operations and maintenance.

- **Revenue-Related Costs:** Some costs associated with the utility may vary with the amount of revenue received by the utility. An example of a revenue related cost would be a utility tax which is based on the gross utility revenue.

4.4.3 Development of Distribution Factors

Once the allocation process is complete, and the customer groups have been defined, the various allocated costs are proportionally distributed to each customer group. The City’s allocated costs for the water utility were distributed to the previously identified customer groups using the following distribution factors.

- **Commodity Distribution Factor:** As noted previously, commodity-related costs vary with total water consumption. Therefore, the commodity distribution factor was based on the projected total metered water consumption plus water losses for each class of service for the projected test period. As noted, the consumption reflects the projected consumption levels for FY 2022. As part of the development of the projection, 5 years of historical data (CY 2015 – 2019) were used in establishing average usage.
- **Capacity Distribution Factor:** Capacity is related to peak usage. The capacity distribution factor was developed based on the estimated contribution to the water system peak day use of each customer class. Peak day use by customer class of service was estimated using peaking factors for each customer class. In this case, the peaking factor was defined as the relationship between peak day contribution and average day use and determined for each customer class based on a review of average month to peak month usage. For residential customers, the individual customer data was reviewed and analyzed. The peak factor calculation, based on average month to peak month, was used to establish the peaking factor for each tier based on the consumptive use in each tier. Given the peaking factors, the peak day contribution for each class of service was developed.
- **Customer Distribution Factor:** Customer costs vary with the number of customers on the system. Two basic types of customer distribution factors were identified – actual and weighted. The distribution

Water Cost of Service Analysis Terminology

Functionalization – The arrangement of the cost data by functional category (e.g., source of supply, treatment, etc.).

Allocation – The assignment of functionalized costs to cost components (e.g., commodity, capacity, customer and fire protection related).

Distribution – Equitably distributing the allocated costs to each class of service based upon each class’s proportional contribution to that specific cost component.

Commodity Costs – Costs that are allocated as commodity-related vary with the total volume of water consumed (e.g., chemical use at a treatment plant).

Capacity Costs – Costs allocated as capacity-related are related to meeting peak day or peak hour usage. Facilities are often designed and sized around meeting peak demands.

Fire Protection Costs – Costs that are related to fire protection services (e.g., hydrants, oversizing of storage and distribution mains).

Customer Costs – Costs allocated as customer-related vary with the number of customers on the system (e.g., metering costs).

Revenue Related Costs – Costs which vary with the amount of revenue received by the utility (e.g., utility tax).

factor for actual customer was based on the projection of the number of customers (accounts) developed within the revenue requirement. The weighted customer distribution factors are also broken down further into two factors to reflect the costs associated with serving different types of customers. The first weighted customer factor is for customer service and accounting. The second weighted customer distribution factor is for meters and services. This factor is based on meter equivalencies for each customer class of service. This reflects the different capacity and fixed costs associated with providing services to larger sized meters.

- **Fire Protection Distribution Factor:** The development of the distribution factor for fire protection expenses involved an analysis of each class of service and their corresponding fire flow requirements. The analysis considered the gallon per minute fire flow requirements in the event of a fire, along with the duration of the required flow. The fire flow rates used within the distribution factor were based on industry standards and similar experiences with other water cost of service studies. The minimum fire flow requirements are then multiplied by the number of customers in each class of service, and the assumed duration of the fire, to determine each class' prorated fire flow requirements.
- **Revenue-Related Distribution Factor:** The revenue-related distribution factor was developed from the projected rate revenues for FY 2022 for each customer class of service. These same revenues were used within the revenue requirement analysis discussed previously.

The distribution factors are developed for each customer class of service. At the same time, the distribution factors for commodity and capacity-related costs must be developed to also calculate the cost of each tier where applicable. For example, the residential commodity and capacity distribution factor has distribution factors for each of the three tiers. Non-Residential and Landscape have a distribution factor for all usage (uniform structure). This level of detail on the distribution factors was provided within the analysis in order to demonstrate (i.e., calculate) the cost basis for the City's tiered and uniform rates (i.e., Proposition 218). Further discussion related to the distribution of costs to this detailed cost level is discussed in more detail in the rate design analysis provided in Section 5 of this report.

4.5 Functionalization and Allocation of Plant in Service

As noted above, the first steps of the cost of service analysis are the *functionalization* and *allocation* of plant in service. In performing the functionalization of plant in service, HDR utilized the City's historical plant (asset) records. Once the plant assets were functionalized, the analysis shifted to the allocation of the asset. The allocation process included reviewing each group of assets and determining which cost allocators the assets were related to. For example, the City's assets were allocated as: commodity-related, capacity-related, customer-related, revenue-related, fire protection-related, or a direct assignment. Provided below is a summary overview of the allocation process used for the City's plant assets. The following approach is based, in part, on the general methodologies as described in the AWWA M1 Manual, which have been tailored to reflect the City's water system characteristics, while meeting the specific requirements of Proposition 218.

Source of Supply

Source of supply provides service levels to customers to meet both average day and peak day needs. The City's water system statistics from 2015 and 2019 were analyzed, averaged, and then utilized to develop the estimated average day and peak day calculation. Given that source of supply must be sufficient to meet both average day and peak day demands, the City's source of supply assets were allocated on the basis of the relationship of system average day to peak day demands. This resulted in 61.4% of the source of supply plant assets allocated to commodity-related costs (average day) and 38.6 % to capacity-related costs (peak day). These allocation percentages reflect the City's specific system peak demand (capacity needs) in relation to the system average day use (base needs).

Treatment

Treatment plant assets were allocated in the same manner as the source of supply assets; 61.4% to commodity-related and 38.6% to capacity-related. Treatment plant is often considered to be an extension of the source of supply and this allocation also reflects the operation of the treatment facilities either as meeting customer average day or peak day needs on the system.

Pumping

Pumping was allocated as 100% capacity. Pumping facilities must be sized to meet peak use requirements and this allocation assumes pumping plant is sized to meet peak use needs.

Storage

Distribution storage reservoirs, or water tanks, are typically designed to meet two types of needs –peak use demands and fire protection. The total storage capacity of the City's reservoirs was examined, while consideration is also given to the additional capacity required for fire protection under a fire event scenario. This additional amount of capacity, in relation to the total storage capacity, is considered fire protection related. The balance of storage capacity is in place to meet peak use demands. This resulted in 78.1% of the storage plant assets being assigned to the capacity-related (peak day needs) cost component and the remaining 21.9% assigned to the fire protection component.

Transmission & Distribution

Transmission and distribution lines (mains) are typically assumed to provide three types of costs. First, a distribution system must be in place to meet a customer's minimum use requirements for water. This portion of the distribution main plant investment is a function of the number of customers on the system and, thus, a customer-related cost. Next, a portion of the distribution system mains is considered a function of meeting peak flow (use) requirements on the system. Distribution mains must be sized to adequately meet the maximum peak flows demanded by customers. This portion of the distribution main plant investment is considered capacity-related. Finally, even with sufficient capacity for meeting peak use demands, distribution mains must also be over-sized for fire flow requirements (demands). This final portion of over-sizing for distribution main plant investment is classified as fire protection-related. Based upon an analysis of the City's distribution mains, the assignment of the distribution mains was allocated as 58.0% customer-related, 37.0% capacity (i.e., peak use)-related, and 5.0% fire protection-related.

Transmission mains were defined by the City which provided a listing of mains by size and split between distribution and transmission. For the City's analysis, transmission main plant assets are assumed to be an extension of the supply and treatment system. Given that, they were assigned

on an average day and peak day capacity basis. The allocation of 61.4% commodity-related and 38.6% capacity-related. This is consistent with the allocation of source of supply and treatment plant assets.

Table 4 - 1 provides a summary of the basic functionalization and allocation of the major water plant items. A more detailed exhibit of the City’s functionalization and allocation of plant investment can be found in the Technical Appendix Exhibit 12.

Table 4 - 1 Summary of the Allocation of Water Plant in Service					
Category	Commodity Related	Capacity Related	Customer Related	Equivalent Meters	Fire Protection
Source of Supply / Treatment	54.7%	45.3%	0.0%	0.0%	0.0%
Storage	0.0%	78.1%	0.0%	0.0%	21.9%
Trans. & Distribution	2.1%	1.3%	28.8%	65.1%	2.7%
General Plant	42.0%	38.6%	5.4%	12.3%	1.6%
Total Net Plant in Service	42.0%	38.6%	5.4%	12.3%	1.6%

4.6 Functionalization and Allocation of Operating Expenses

As noted in the AWWA M1 Manual, operating expenses are functionalized and allocated in a manner consistent with the corresponding plant account. For example, maintenance of distribution mains is allocated in the same manner (allocation percentages) as the plant account for distribution mains. This approach to allocation of the City’s water utility operating expenses was used for this analysis.

For the City’s water rate study, the revenue requirement for FY 2022 was functionalized, allocated, and distributed. As noted in Section 3, the City utilized a cash basis revenue requirement, which was comprised of operation and maintenance expenses, rate funded capital, net debt service, and reserve funding. A more detailed review of the functionalization and allocation of the revenue requirement can be found in the Technical Appendix in Exhibit 14.

Based on the functionalization and allocation of operating expenses, Provided in Table 4 – 2 is a summary of the allocation of the FY 2022 revenue requirement from the cost of service analysis.

Table 4 - 2 Summary of the Allocation of the FY 2022 Revenue Requirement (\$000)							
Class of Service	Total	Commodity Related	Capacity Related	Customer Related	Fire Prot.	Revenue Related	Direct Assign.
Net Revenue Requirement	\$26,940	\$7,774	\$7,699	\$11,178	\$289	\$0	\$0

The total allocation of the FY 2022 revenue requirement, approximately \$26.9 million, has been allocated to the various cost components (commodity, capacity, etc.). These costs are then distributed to each customer class based on each customer classes proportional share of each cost component. The costs in Table 4 – 2 are taken from Exhibit 14 in the Water Technical Appendix.

4.7 Major Assumptions of the Cost of Service Study

Several key assumptions were used within the City’s water cost of service analysis. Below is a brief discussion of the major assumptions used.

- The test period used for the water cost of service analysis was FY 2022. The revenue and expense data were previously developed within the revenue requirement analysis.
- A cash basis methodology was utilized which conforms to generally accepted water cost of service approaches and methodologies and is consistent with the City’s previous cost of service analyses
- The allocation of plant in service was developed based upon generally accepted cost allocation techniques and the City’s water utility specific data.
- Consumption by cost or class of service used within this study were developed for each class of service from historical usage information provided by the City
- Peak day capacity distribution factors were calculated based upon each customer group’s average month to peak month relationship. For residential customer, the individual customer data was utilized and peaking factors developed based on the average factor of the customers within each tier.

4.8 Development of Cost-Based Water Rates

Equitable and proportional rates is of paramount importance in developing proposed water rates. While always a key consideration in developing water rates, meeting the legal requirements - and documenting the steps taken to meet the requirements - has been in the forefront with the recent legal challenges in the State of California on water rates. Given this, the City’s proposed water rates have been developed to meet the legal requirements of Article XIII D. A key component of Article XIII D is the development of rates which reflect the cost of providing service and which proportionally distributed such costs among the various customer classes of service. There is no single prescribed methodology for proportionally assigning costs to the various customer groups. The AWWA M1 Manual clearly delineates various methodologies which may be used to establish cost-based rates. Article XIII D does not prescribe a particular methodology for establishing cost-based rates, consequently, HDR developed the City’s proposed water rates based on the methodologies provided in the AWWA M1 Manual to meet the requirements of Article XIII D to provide an administrative record of the steps taken to establish the City’s water rates.

HDR is of the opinion that the proposed rates comply with legal requirements of Article XIII D. HDR reaches this conclusion based upon the following:

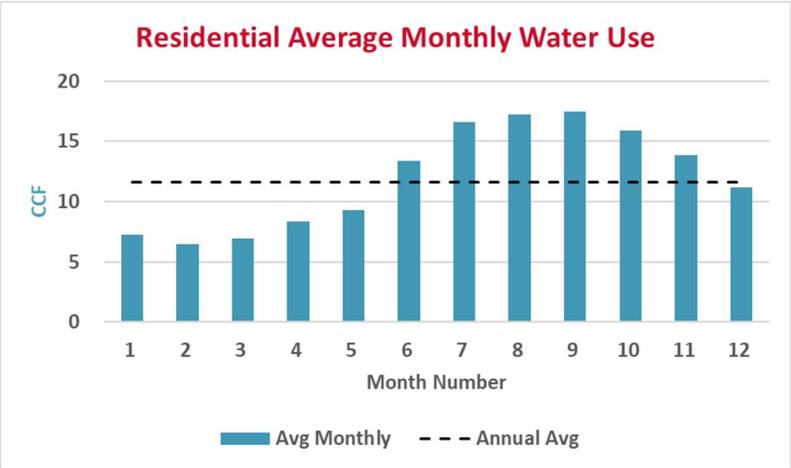
- **The revenue derived from water rates does not exceed the funds required to provide the property related service (i.e., water service).** The proposed rates are designed to collect the overall revenue requirements of the City’s water utility.
- **The revenues derived from water rates shall not be used for any purpose other than that for which the fee or charge is imposed.** The revenues derived from the City’s water rates are used exclusively to operate and maintain the City’s water system.
- **The amount of a fee or charge imposed upon a parcel or person as an incident of property ownership shall not exceed the proportional costs of the service attributable to the parcel.** Section 4 of the report has focused exclusively on the issue of proportional assignment of costs to customer classes of service. The proposed rates have appropriately grouped customers into customer classes of service (Residential, Non-Residential, and Landscape) that reflect the varying consumption patterns and system requirements of each customer class of service. The grouping of customers and rates into these classes of service creates the impartiality and fairness expected under Article XIII D by having differing rates by customer classes of service which reflect both the level of revenue to be collected by the utility, but also the manner in which these costs are incurred and equitably assigned to customer classes of service based upon their proportional impacts and burdens placed on the City’s the water system.

The above discussion provides an overview of the California legal requirements of setting rates. The cost of service developed herein has developed a set of average unit costs which provide the cost-basis for the development of the proposed water rates for the City.

As a part of this study, HDR developed a water rate design discussion to clearly demonstrate and support the proposed water rates. The following discussion provides a more detailed analysis of the costing techniques and methodologies used to support the City’s proposed rate design.

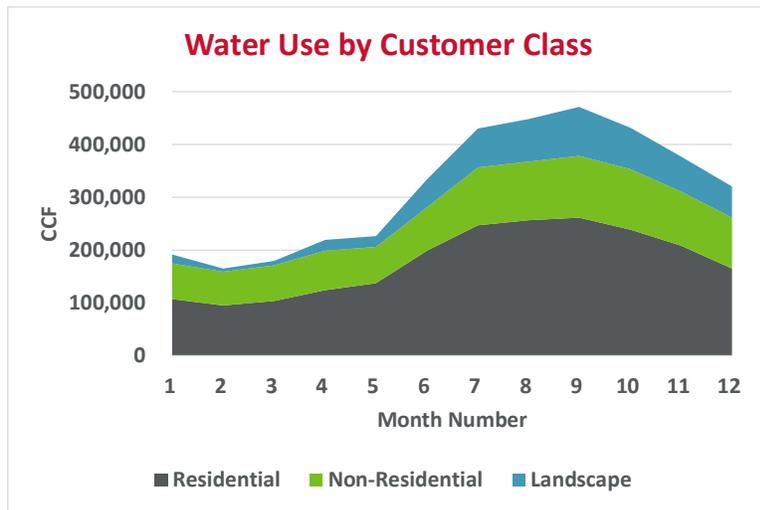
4.8.1 Determination of Sizing and Number of Tiers

Currently, residential customers are charged a consumption rate based on a three-tiered increasing block structure. Currently, the City’s residential customers are charged on a three-tiered structure: 0 – 12 ccf, 13 – 36 ccf, and greater than 36 ccf. For the City’s Study, the size and number of tiers were reviewed and evaluated with consideration given to recent consumption data to evaluate if adjustments to tier sizes are appropriate or recommended. After reviewing the residential consumption profile, it was determined that the current number of tiers and their sizes appeared to still be appropriate. The goal of the tiers was to target typical monthly customer



average annual consumption levels (11.1 CCF) in the first tier. The second tier was targeted to reflect peak summer consumption, or outdoor use. The third and last tier contains all remaining usage and reflects outdoor, discretionary water usage. This average annual monthly consumption level was calculated based on the total consumption of the residential customers, divided by twelve months, and divided by the number of customers. In reviewing individual customer consumption data, it was determined that the tiers reflected those targeted consumption levels, that is, that the average customers use up to 12 CCF in the nonpeak periods. Shown in the above graph is the average consumption by month for the residential customer class of service.

In contrast to the residential rate structure, the current rate structure for non-residential customers (multi-family, commercial, institutional, and industrial) and landscape customers is a



uniform consumption rate structure. Tiered rate structures are not typically applied to non-residential customers because their usage levels are not as homogeneous as the residential class of service. As a result, it is difficult, if not impossible, to develop an equitable tier size for a non-residential customer class of service that reflects the various types of customer total consumption. Based on this data from the last several years and the variability of the City's non-

residential and landscape customer total consumption, a uniform consumption rate structure is still appropriate.

4.8.2 Establishing the Cost-Basis for Pricing Tiers

Under Proposition 218, a utility must have a cost-basis for the pricing of their tiered rate structures. HDR has concluded that utilities have at least three technical approaches available to be able to justify the individual pricing of the tiers. These technical approaches encompass the following areas:

1. Cost differences in water supply (i.e., stacking of water supply resources to tiers/seasons).
2. Cost differences from high peak use consumers (relationship of average use to peak use).
3. Direct assignment of costs to specific tiers/seasons (e.g., conservation program costs, etc.)

In certain cases, the cost differences may be related to the cost of water supply when a utility has more than one source of water supply. Additionally, this water supply approach may also include the cost of alternative water supplies (i.e., recycled or reuse water). For example, reuse water may be assigned to higher tiers to reflect outdoor use or the need for additional/alternative water supply to meet the demands of the high use customers.

The second possible source of cost differences for the pricing of tiers is related to high-peak use (peak demand) customers. Customers that use more water in peak periods create greater demands and greater costs on the system. The greater costs associated with peak use periods is reflective of the need to over-size facilities to meet the peak use demand requirements from a limited number of customers during that peak use time period. A water supply and distribution system must be sized to meet these peak use requirements. In other words, on the hottest day of the year the supply and distribution system must be sized to meet the peak use demands. To maintain proportionality, those that create the peak demand event, should have rates that reflect the costs of meeting the peak demand event. In this case, this has implications upon the equitable allocation and proportional distribution of capacity-related costs to the different usage tiers (low use vs. high peak use).

Finally, certain costs may be directly assigned to specific tiers. For example, a conservation program which focuses on outdoor water use may be directly assigned to the upper water tier, or summer season, which are most directly related to outdoor use. The direct assignment to a specific price tier will create a price differential for that tier.

For the City's water study, the focus of the analysis was on the second method of determining the cost impacts and cost differences associated with peaking requirements of each customer class, and tier. The pricing of the tiers was developed to provide the cost-basis and meet the proportionality requirements of Proposition 218. For example, for the City's study, the groundwater wells are only used during peak period events. Given this, the groundwater costs are allocated and distributed as capacity related costs.

4.9 Development of the Unit Costs for Rate Designs

The cost of service analysis was specifically developed to provide the cost basis for the rate structure components (i.e., fixed charge, consumption charges) for each customer class of service. In Table 4 – 2, the cost of service analysis allocated the revenue requirement between the various cost components. The total allocation of the FY 2022 revenue requirement, approximately \$26.9 million, is then proportionally distributed to the various customer classes of service (Residential, Non-Residential, and Landscape). Given the legal requirement to provide the cost-basis for tiered and uniform pricing, the allocated costs are further distributed between the various rate structure components based on the appropriate distribution factors.

Provided below is a discussion of the approach used to distribute the revenue requirement between the various customer classes of service to the various rate components for each customer class of service.

4.9.1 Commodity Distribution Factor

The commodity distribution factor is based on the average annual use for each of the customer classes of service, and more importantly by tier or seasons. For the development of the pricing of the proposed rates the following customer class distribution factors were used:

- Residential
 - Tier 1 – (0 – 12 CCF)
 - Tier 2 – (13 – 36 CCF)
 - Tier 3 – (36+ CCF)
- Non-Residential
- Landscape

It is important to remember, the “Non-Residential” class includes commercial, multi-family, institutional, and industrial customers.

To develop the commodity distribution factor for each customer class, the annual consumptive use for each class was determined. The usage for each class and tier was then divided by the total usage of the system. This produces the percentage or proportion of the commodity-related costs each class and pricing tier is responsible for. After the responsibility of commodity related costs has been identified, the total commodity related costs can be distributed to each customer class tier or in total based on the distribution factor. The final step in developing the unit costs is to divide the costs for each customer class and tier by the total amount of consumption used in determining their fair share of commodity related costs and this produces an average unit cost stated as \$/hundred cubic feet (CCF).

Provided in Table 4 – 3 is a summary of the commodity distribution factor and unit cost development. Table 4-3 is summarized from Exhibit 8 in the Water Technical Analysis.

Table 4 - 3 Summary of the Commodity Distribution Factor				
Reference Calculation	A	B	C	D D = C / A
	FY 2022 Consumption (CCF)	% of Total	Distributed Commodity Costs	Unit Cost (\$ / CCF)
Residential				
Tier 1	1,403,030	41.5%	\$3,226,377	\$2.30
Tier 2	528,039	15.6%	1,214,267	2.30
Tier 3	<u>81,101</u>	<u>2.4%</u>	<u>186,497</u>	2.30
Residential Total	2,012,170	59.5%	\$4,627,142	
Non-Residential	845,584	25.0%	\$1,944,487	\$2.30
Landscape	<u>522,730</u>	<u>15.5%</u>	<u>1,202,059</u>	2.30
Total	3,380,484	100.0%	\$7,773,688	

As can be seen, the development of the commodity distribution factor is relatively straightforward. As an example, Tier 1 consumption of the residential class of service represents

41.5% of the total consumption on the City's water system. Hence, 41.5% of the commodity related costs (\$7.77 million in total) is proportionally distributed to residential tier 1, or approximately \$3.2 million. The total costs in Column C are taken from Table 4 – 2. This approach then is used for each of the customer classes of service for each rate component. Finally, to develop the average unit cost for each class and tier, the distributed costs in column C are divided by the consumption volumes shown in column A. The average unit costs are stated in \$/CCF.

4.9.2 Capacity Distribution Factor

The capacity distribution factor utilizes the same customer classes of service as the commodity distribution factors. Whereas commodity costs are related to the total volume of water consumed by each class of service and tier, capacity is related to peak use or peak rates of flow. Customers classes of service use water in different ways and at different times, thus creating different usage patterns and resulting in different relationships between average use and peak use (i.e., peaking factors). Peak usage demands, when and how much, drives how the City must oversize the water system to meet the demands of customers regardless of when they occur.

To determine the capacity distribution percentage for each class of service and pricing tier, peaking factors needed to be developed for each customer class of service and tier. A peaking factor reflects the relationship between average use and peak use. The higher the peaking factor, the greater the difference between average use and peak use. Water utilities have limited metering capabilities to determine exact peaking factors. Given that, the water utility industry has developed analytical methods to review individual and customer class data and reasonably develop peaking factors by class of service and pricing tier. The method used to estimate a class's peaking factor is to review the average monthly volume of water consumed and compare it to the maximum monthly usage of water of each customer class of service. Furthermore, for residential customers, the individual customer data was reviewed and analyzed to develop the peak month relationship for each tier. All customers data was then averaged to calculate the peak factor for each tier. By dividing the maximum month by the average month, a surrogate for a peak day peaking factor is calculated. This approach also provides a surrogate for the difference between the average use and peak day use in each pricing tier. For example, if a customer used 10.0 CCF per month on average and in the peak month 15.0 CCF was used, the peaking factor would be 1.50 (peak 15.0 CCF / average 10.0 CCF = 1.50 peaking factor). In this example, the peaking factor is stating that the maximum usage in a month is 1.50 times higher than the average usage per month. Using this same approach for each customer class or pricing tier, and each customer, the distribution factor for capacity-related costs was developed. The average of the peaking factor for each customer class and tier then is used to proportionally distribute the capacity related costs. Table 4 – 4 provides a summary of the capacity distribution factor for each customer class and pricing tier and is summarized from Exhibit 9 in the Water Technical Analysis.

Table 4 - 4
Summary of the Capacity Distribution Factor

Reference Calculation	A	B	C	D	E	F	G
			C = A * B				G = E / F
	Average Use (MGD)	Peaking Factors	Peak Day Use (MGD)	% of Total	Distributed Capacity Costs	FY 2022 Consumption (CCF)	Unit Cost (\$ / CCF)
Residential							
Tier 1	3.63	1.18	4.28	30.0%	\$2,308,643	1,403,030	\$1.65
Tier 2	1.37	1.66	2.27	15.9%	1,226,626	528,039	2.32
Tier 3	0.21	2.65	0.56	3.9%	300,451	81,101	3.70
Residential Total	5.21		7.11	49.8%	\$3,835,720	2,012,170	
Non-Residential	2.19	1.95	4.27	29.9%	\$2,302,659	845,584	\$2.72
Landscape	1.35	2.14	2.89	20.3%	1,560,949	522,730	\$2.99
Total	8.75		14.27	100.0%	\$7,699,328	3,380,484	

Table 4 – 4 provides the development of the capacity distribution factor. Like that of the commodity cost distribution to each class and pricing tier, the capacity-related costs are proportionally distributed in the same manner. For example, 30.0% of the total capacity-related costs are distributed to Tier 1 of the residential customers, based on column D in Table 4 - 4. Stated another way, it is estimated that Residential Tier 1 had a peak use demand of 4.28 million gallons per day (MGD) of the system’s total peak day demand of 14.27 MGD. This translates to a proportional distribution to Residential Tier 1 of approximately \$2.3 million of the total \$7.7 million in capacity-related costs. This proportionally distributed cost, when divided by Residential Tier 1 consumption, results an average unit cost of \$1.65/CCF. As can be seen in Table 4 - 4, the average unit costs vary by customer class of service and pricing tier based upon the respective and different demands placed on the system by each class and pricing tier. Table 4 – 4 shows how the higher unit cost of a customer class of tier reflects the proportional cost to provide water service during these peak periods due to the infrastructure needs for over-sizing and planning.

Combining the unit costs from the commodity and capacity distribution factors result in the cost-basis for each customer class and pricing tier. It is important to note that there is an additional average unit cost for Residential and Non-Residential from the costs distributed as revenue, fire protection, and direct assignment-related costs as identified in Table 4 – 2. Similar to the above, these other costs were calculated by the distributed amount for each customer or pricing tier and then divided by the total consumption amount. In total, this value equals \$289,000 and the total consumption is 2,857,754 (as Landscape is excluded). Landscape was excluded from the distribution of these costs as this component only included fire protection related costs which are not a service provided to Landscape customers. The actual calculation for each customer class

and pricing tier was based on the actual consumption and varies slightly for Residential at \$0.09/CCF and \$0.12/CCF for Non-Residential.

Table 4 – 5 summarizes the average unit costs for each customer class of service and pricing tier. This table sums the costs from Table 4 – 3 column D and Table 4 – 4 column G, along with the other additional costs.

Table 4 - 5 Summary of the Average Unit Costs - \$/CCF				
Reference	A	B	C	D
	Commodity Costs (\$ / CCF)	Capacity Costs (\$ / CCF)	Other Costs (\$ / CCF) ^[1]	Total Unit Cost (\$ / CCF)
Residential				
Tier 1	\$2.30	\$1.65	\$0.09	\$4.04
Tier 2	2.30	2.32	0.09	4.72
Tier 3	2.30	3.70	0.09	6.10
Non-Residential	\$2.30	\$2.72	\$0.12	\$5.14
Landscape	\$2.30	\$2.99	\$0.00	\$5.29

[1] – Includes revenue related, public fire protection, and any directly assigned costs

The results shown above in Table 4 – 5 provides the cost-basis for the City’s pricing of consumptive usage for the proposed rates. The analysis and average unit costs shown above have been developed to comply with the proportionality requirements of Proposition 218 when developing cost-based water rates and tiered pricing.

The final unit cost development is the customer-related costs which are used to establish the monthly fixed meter charge which varies by meter size. A similar exercise as conducted above for the consumption components was completed for the customer-related costs. The total customer-related costs were divided by the number of equivalent meters on the system. An equivalent meter uses the capacity ratio of a 3/4-inch meter to the larger meter sizes to determine the pricing for each meter size. In this way the meter charge reflects the equitable proportion of fixed costs on the system based on the capacity demands the customer can place on the system based on the size of the meter. Shown below in Table 4 – 6 is a summary of the fixed meter charge unit cost development which is taken from Exhibit 18 from the Water Technical Analysis.

Table 4 - 6
Summary of the Fixed Meter Charge Cost Basis

Cost Component	Rate Calculation
Total Customer-Related Costs	\$11,178,173
# of Equivalent Meters	17,075
Unit Cost (\$ / equivalent meter / month)	\$54.55 (3/4" Meter)

4.10 Summary Results of the Cost of Service Analysis

In summary form, the cost of service analysis began by functionalizing the City’s revenue requirement. The functionalized revenue requirement was then equitably allocated to the appropriate cost components (e.g., commodity, capacity) based on industry standard cost of service methodologies. The individual allocated totals were then distributed to the various customer classes of service based on the appropriate distribution factors. The distributed expenses for each customer class were then aggregated to determine each customer class’s overall revenue responsibility (i.e., cost to provide service). Shown below in Table 4 - 7 is the summary of the City’s water cost of service analysis. This summary is derived from Exhibit 17 in the Water Technical Appendix.

Table 4 - 7
Summary of the Water Cost of Service Analysis (\$000)

Class of Service	Present Rate Revenues	Allocated Costs	\$ Difference	% Difference
Residential	\$17,992	\$18,573	(\$581)	3.2%
Non-Residential	5,332	5,362	(30)	0.6%
Landscape	<u>3,218</u>	<u>3,005</u>	<u>212</u>	-6.6%
Total	\$26,542	\$26,940	(\$398)	1.5%

The City’s water cost of service analysis proportionally aligns the operating and capital costs to each customer class with their respective benefit received from and burdens placed on the water system based on the service requirements. The results of the analysis show that some cost differences exist between the various customer classes of service. It is important to understand that a cost of service analysis is based on a single year of O&M expense data and projected customer usage information. The analysis can be impacted by several variables such as budget structure changes or a change in consumption characteristics. Given this, the results of the cost of service analysis are dynamic and may change from year to year. As the City continues to monitor water rates and cost of service results through future studies, future cost of service adjustments may be necessary to reflect changing costs and consumption patterns at that time.

4.11 Consultant’s Conclusions and Recommendations

While some cost differences exist, the overall allocation of costs between customers appears to be reasonable and reflect the impacts each customer class of service places on the system. Given the requirements of Article XIII D, section 6, the results of the cost of service will be used to establish the proposed rate designs for each of the City’s water customer classes of service. More specifically, it is recommended that the unit costs calculated in the cost of service results be utilized as the basis for the rate design for each water customer class in Section 5.

4.12 Summary of the Cost of Service Analysis

This section of the report has provided the recommendations resulting from the cost of service analysis developed for the City’s water utility. This analysis was prepared using generally accepted cost of service techniques as provided in the AWWA M1 Manual to meet the proportionality requirements of Proposition 218. The following section of the report will provide a summary of the present and proposed rates for the City’s water utility. Attached to this report is the Technical Appendix which documents the detail of the cost of service analysis in Exhibits 8 – 19.

5 Development of the Rate Designs

5.1 Introduction

The final step of the City's water rate study is the design of rates to collect the appropriate levels of revenues, based on the results of both the revenue requirement and the cost of service analyses. In developing the City's proposed water rates, consideration is given to the level of the rates as well as the structure of the rates. The level of rates reflects the amount of revenues that should be collected while the structure of the rates is how it is collected (i.e., component charges) from the customers.

The overall revenue level for the City has been established in the revenue requirement analysis (Section 3) while the equitable allocation and proportional distribution of costs between the various customer classes has been developed in the cost of service analysis (Section 4) which provides the revenue levels to be collected from each class of service based on cost causation and the average unit costs for each rate component.

5.2 Rate Design Criteria and Considerations

Prudent rate administration dictates that several criteria must be considered when setting utility rates. Some of these rate design criteria are listed below:

- Rates which are easy to understand from the customer's perspective
- Rates which are easy for the City to administer
- Consideration of the customer's ability to pay
- Cost-based and equitable
- Continuity, over time, of the rate making philosophy
- Policy considerations (encourage efficient use, economic development, etc.)
- Provide revenue stability from month to month and year to year
- Equitable and non-discriminatory (cost-based)
- Legally Defensible (Proposition 218 compliant)

It is important that the City provide its water customers with a proper and accurate price signal as to what their consumption and peaking (demand) requirements are costing. This goal may be approached through both rate level and structure. When developing the proposed rate designs, all the above listed criteria were taken into consideration. However, it should be noted that it is difficult - if not impossible - to design a rate that meets all the goals and objectives listed above. A good example of this is that it may be difficult to design a rate that takes into consideration the customer's ability to pay while also being cost-based. In designing rates, there are always trade-offs between these various goals and objectives.

5.3 Summary of the Present and Proposed Water Rates

The proposed rates for the City's water utility were designed to meet the total system revenue needs discussed in Section 3 and reflect the cost of service results – including the average unit

cost development - shown in Section 4. The proposed water rates have been developed for each customer class of service based on the development of the pricing through the cost of service analysis.

5.3.1 Review of the Present and Proposed Residential Water Rates

The City’s proposed Residential rate structure maintains the current structure. The current rate structure consists of a monthly fixed charge, which varies by meter size, and a three-tiered consumption charge. The proposed rates reflect the unit costs as developed in the cost of service for FY 2022. FY 2023 through FY 2026 rates are adjusted equally based on the overall revenue adjustments as outlined in the revenue requirement analysis. Provided below in Table 5 - 1 is a summary of the present and proposed rates for the City’s Residential water customers.

Table 5 - 1 Summary of the Monthly Residential Water Rates						
	Present Rate	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Fixed Charge	\$ / Acct/ Mth					
3/4"	\$55.65	\$54.55	\$56.20	\$57.90	\$59.65	\$61.45
1"	55.65	54.55	56.20	57.90	59.65	61.45
1 1/2"	55.65	54.55	56.20	57.90	59.65	61.45
2"	55.65	54.55	56.20	57.90	59.65	61.45
3"	99.00	102.50	105.60	108.80	112.10	115.40
4"	165.00	170.80	176.00	181.30	186.80	192.40
6"	329.40	340.95	351.30	361.90	372.80	384.10
8"	--	545.50	562.00	579.00	596.50	614.50
10"	--	784.45	808.20	832.60	857.80	883.70
Consumption Charge	\$ / CCF					
0 – 12 CCF	\$3.98	\$4.04	\$4.16	\$4.28	\$4.41	\$4.54
13 – 36 CCF	4.79	4.72	4.86	5.00	5.15	5.30
36 + CCF	5.89	6.10	6.28	6.46	6.66	6.86

The proposed rates in Table 5 – 1 for FY 2022 show the fixed meter charge for 3/4” meter based on the results of the unit costs developed in the cost of service and summarized in Table 4 - 6. The subsequent meter sizes are adjusted by the AWWA 3/4” meter equivalency. The AWWA meter equivalencies reflect the capacity of the larger meter sizes, and the fixed costs associated with providing that level of capacity. Also shown in the table are the proposed tiered rates for FY 2022 which is taken directly from column D in Table 4 – 5, or the calculated average unit costs from the cost of service analysis.

5.3.2 Review of the Present and Proposed Non-Residential Water Rates

The proposed Non-Residential water rate design was adjusted to reflect the overall revenue needs from the revenue requirement analysis and the calculated average unit costs from the cost

of service analysis. The Non-Residential customer class is made up of the customers identified as commercial, multi-family, institutional, and industrial. For purposes of the rate design and cost distribution, these classes were combined as their customer consumption characteristics are relatively similar in nature. The current rate structure is a fixed meter charge based on the size of meter and a uniform consumption charge on a per hundred cubic feet or CCF (1 CCF = 748 gallons) basis. The rates for the Non-Residential customers are based on the specific costs distributed in the cost of service analysis for the Non-Residential customer class of service. Provided in Table 5 - 3 is a summary of the present and proposed Non-Residential water rates.

Table 5 - 3
Summary of the Monthly Non-Residential Water Rates

	Present Rate	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Fixed Charge	<i>\$/Acct / Mth</i>					
3/4"	\$55.65	\$54.55	\$56.20	\$57.90	\$59.65	\$61.45
1"	55.65	54.55	56.20	57.90	59.65	61.45
1 1/2"	55.65	54.55	56.20	57.90	59.65	61.45
2"	55.65	54.55	56.20	57.90	59.65	61.45
3"	99.00	102.50	105.60	108.80	112.10	115.40
4"	165.00	170.80	176.00	181.30	186.80	192.40
6"	329.40	340.95	351.30	361.90	372.80	384.10
	--	545.50	562.00	579.00	596.50	614.50
	--	784.45	808.20	832.60	857.80	883.70
Consumption Charge	<i>\$/ CCF</i>					
All Consumption	\$5.18	\$5.14	\$5.29	\$5.45	\$5.61	\$5.78

As can be seen in Table 5 - 3, the proposed Non-Residential consumption charge is a uniform rate. It should also be noted that the proposed fixed charge by meter size is identical to Table 4 – 6 and the residential class of service. The proposed consumption charge for FY 2022 is based on the average unit cost as developed in the cost of service analysis and previously shown in Table 4 - 5.

5.3.3 Review of the Present and Proposed Landscape Water Rates

An approach similar to the development of the Residential and Non-Residential rates was utilized for the development of the proposed Landscape (i.e., irrigation) rates. The current Landscape rate structure was maintained with a monthly meter charge for the 3/4-inch equivalency and the consumption charge is a uniform rate structure. It is important to note that the cost differences between the Landscape and all the other customers with a uniform rate are due to the differing peak demands that are specific and unique to Landscape customers. Given that Landscape has a higher peak with more intermittent water requirements, however, the system must be sized to provide that level of water availability at all times. Again, these rates are the direct output of the calculated average unit costs within the cost of service analysis as shown in Table 4 – 5 in column

D. Provided in Table 5 - 4 is a summary of the present and proposed rates for the Landscape customers.

Table 5 - 4						
Summary of the Monthly Landscape Water Rates						
	Present Rate	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Fixed Charge	\$ / Acct/Mth					
3/4"	\$55.65	\$54.55	\$56.20	\$57.90	\$59.65	\$61.45
1"	55.65	54.55	56.20	57.90	59.65	61.45
1 1/2"	55.65	54.55	56.20	57.90	59.65	61.45
2"	55.65	54.55	56.20	57.90	59.65	61.45
3"	99.00	102.50	105.60	108.80	112.10	115.40
4"	165.00	170.80	176.00	181.30	186.80	192.40
6"	329.40	340.95	351.30	361.90	372.80	384.10
8"	--	545.50	562.00	579.00	596.50	614.50
10"	--	784.45	808.20	832.60	857.80	883.70
Consumption Charge	\$ / CCF					
All Consumption	\$5.86	\$5.29	\$5.45	\$5.61	\$5.78	\$5.95

This concludes the discussion of the proposed water rates. Detailed exhibits for the various rate designs are included within the Technical Appendices.

5.4 Water Rate Study Recommendations

Based on the results of the City's water rate study, HDR recommends the following:

- Rate revenues for the City's water utility should be adjusted by 3.0% annually in FY 2022 through FY 2026
- The proposed rates should be implemented to reflect each customer class' proportional distribution of costs
- The rates are proposed to be implemented and effective each year on January 1
- When funds are available, increase the level of annual replacement funding to transition towards funding an amount greater than the City's annual depreciation expense levels
- Prior to the implementation of the fifth, and final, proposed rate adjustment the City should complete another rate study to develop the projection of future water rates

5.5 Water Rate Adoption

Proposition 218 outlines a specific process to legally adopt and implement the proposed water rates. The first requirement is that the rates must be cost-based and proportional, which is the purpose of completing the water rate study. Once the proposed water rates have been developed, a public process must be undertaken to adopt the proposed rates. This began with

the presentation of the proposed rates to the Woodland City Council in October 2021. At this meeting, the City Council directed staff to mail the Proposition 218 notices – shown in the Proposition 218 Appendix - to the City’s customers which outlines the proposed changes in rates. The notice also contains the time, date, and location of the public hearing, which is shown in the Approved Notice Appendix. The City Council then held a public hearing on December 7, 2021 to discuss the publicly noticed and proposed rates. Absent sufficient written protest by customers, the City Council moved to adopt the proposed water rates as outlined in the customer notification over the next five-year period.

5.6 Summary of the Water Rate Study

This completes the rate study for the City of Woodland’s water utility. This study has provided a comprehensive review and development of proposed water rates for the City. Adoption of the proposed water rates will allow the City to meet their current and projected water system financial obligations for the time period reviewed based on the assumed customer growth, capital plan, and projected increases in operating costs. Should these assumptions change, the proposed rate adjustments may also need to be revised to reflect the changed conditions.



Water Technical Appendix

	<i>Budget</i>	<i>Projected</i>								<i>Notes</i>
	<i>FY 2022</i>	<i>FY 2023</i>	<i>FY 2024</i>	<i>FY 2025</i>	<i>FY 2026</i>	<i>FY 2027</i>	<i>FY 2028</i>	<i>FY 2029</i>	<i>FY 2030</i>	
System Revenues										
Existing Rate Revenues	\$26,542,342	\$26,807,766	\$26,941,805	\$27,076,514	\$27,211,896	\$27,347,956	\$27,484,695	\$27,622,119	\$27,760,229	
Add'l Revenue from Proposed Rate Adj.	398,135	1,218,413	2,069,494	2,954,532	3,874,741	4,831,377	5,825,741	6,859,179	7,933,086	
Connection Fees	83,310	84,143	84,564	84,986	85,411	85,838	86,268	86,699	87,132	
SWP Connection Fees	433,729	438,067	440,257	442,458	444,671	446,894	449,128	451,374	453,631	
Other Miscellaneous Income	175,225	175,225	175,225	175,225	175,225	175,225	175,225	175,225	175,225	
Interest Income	178,142	186,530	203,493	203,640	202,009	189,014	178,901	182,513	190,072	Included in Fund Balances
Recycled Water Loss of Revenues	0	0	0	0	0	0	0	0	0	
Recycled Water Sales	190,317	380,634	380,634	380,634	380,634	380,634	380,634	380,634	380,634	
Surface Water Fee Reserves	0	0	0	0	0	0	0	0	0	
Rate Stabilization Fund Deposit	0	0	0	0	0	0	0	0	0	
Total System Revenue	\$28,001,200	\$29,290,777	\$30,295,471	\$31,317,990	\$32,374,587	\$33,456,938	\$34,580,592	\$35,757,743	\$36,980,010	
Operation and Maintenance Costs										
Bill and Collect	\$910,882	\$941,727	\$973,807	\$1,007,179	\$1,041,903	\$1,078,042	\$1,115,662	\$1,154,832	\$1,195,626	
Water Conservation	332,311	346,227	360,770	375,972	391,864	408,481	425,857	444,030	463,039	
Water Wells O&M	1,928,334	2,010,320	2,096,001	2,185,552	2,279,160	2,377,019	2,479,334	2,586,320	2,698,205	
Water Distribution System (86)	3,722,390	3,865,849	4,015,375	4,171,244	4,333,747	4,503,189	4,679,889	4,864,182	5,056,422	
Operations Admin	1,222,183	1,273,501	1,327,132	1,383,189	1,441,790	1,503,058	1,567,124	1,634,125	1,704,205	
Recycled Water Operations	120,000	122,920	125,916	128,992	132,147	135,386	138,711	142,123	145,626	
Utility Engineering	20,902	21,805	22,750	23,739	24,775	25,859	26,994	28,182	29,428	
Communications Manager	7,686	8,025	8,380	8,751	9,140	9,548	9,976	10,423	10,893	
Additions and Deletions	639,816	594,930	614,683	635,094	656,187	677,984	700,509	723,786	747,840	
O&M SWP	5,076,932	5,209,299	5,345,637	5,486,066	5,630,707	5,114,993	5,268,443	5,426,496	5,589,291	
Total O&M	\$13,981,436	\$14,394,604	\$14,890,452	\$15,405,779	\$15,941,421	\$15,833,559	\$16,412,497	\$17,014,501	\$17,640,574	
Net System Revenues	\$14,019,764	\$14,896,173	\$15,405,020	\$15,912,211	\$16,433,166	\$17,623,379	\$18,168,095	\$18,743,242	\$19,339,436	
Parity Debt Service										
ARRA Loan	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	
Recycled Water	69,244	69,244	69,244	69,244	69,244	69,244	69,244	69,244	69,244	
2011 Rev Bond	661,233	0	0	0	0	0	0	0	0	
2014 DWSRF	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	
SRF (Joint)	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	
2017 Series A	1,426,070	1,454,820	1,484,820	1,513,070	1,548,320	1,575,070	1,608,570	1,643,320	1,679,070	
2017 Series B	147,133	149,948	152,143	156,733	154,978	162,395	163,744	169,540	170,047	
2021 Refund Bond	495,884	938,500	940,000	941,400	937,000	937,000	936,200	934,600	937,200	
Recycled Water System Expansion	0	85,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000	
Additional Revenue Bonds	0	0	0	0	0	0	0	0	0	
Connection Fees Offset	(484,119)	(580,000)	(715,000)	(895,000)	(1,152,605)	(940,000)	(690,000)	(640,000)	(640,000)	
Total Parity Debt Service	\$10,524,583	\$10,326,650	\$10,225,346	\$10,079,585	\$9,851,075	\$10,097,847	\$10,381,896	\$10,470,842	\$10,509,699	
Debt Service Coverage	1.33	1.44	1.51	1.58	1.67	1.75	1.75	1.79	1.84	
Debt Service Coverage (Excluding Connection Fees)	1.28	1.39	1.46	1.53	1.61	1.69	1.70	1.74	1.79	
Net System Revs Available After O&M & Debt Service	\$3,495,181	\$4,569,523	\$5,179,674	\$5,832,627	\$6,582,091	\$7,525,532	\$7,786,199	\$8,272,400	\$8,829,737	

	<i>Budget</i>	<i>Projected</i>								<i>Notes</i>	
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030		
Capital Expenditures											
Rate Funded Capital	\$2,800,000	\$3,860,000	\$4,450,000	\$5,100,000	\$5,850,000	\$6,750,000	\$6,900,000	\$7,050,000	\$7,250,000		
Development Fee Funded Capital	0	0	0	0	0	0	0	0	0		
Total Capital Expenditures	\$2,800,000	\$3,860,000	\$4,450,000	\$5,100,000	\$5,850,000	\$6,750,000	\$6,900,000	\$7,050,000	\$7,250,000		
Net System Revenues Available for Reserves	\$695,181	\$709,523	\$729,674	\$732,627	\$732,091	\$775,532	\$886,199	\$1,222,400	\$1,579,737		
Operating Reserve Fund											
Beginning Reserve Balance	\$15,980,444	\$14,180,494	\$13,877,907	\$14,607,581	\$15,340,208	\$16,072,299	\$15,036,071	\$15,922,270	\$17,144,670		
Plus: Interest	0	0	0	0	0	0	0	0	0		Included above in Revenue
Plus: To Reserves	0	0	0	0	0	0	0	0	0		
Less: Uses of Funds	(2,495,131)	(1,012,110)	0	0	0	(1,811,760)	0	0	0		
Less: Rate Stabilization Deposit	0	0	0	0	0	0	0	0	0		
Year Ending Bal./ (Def.) after proposed rate adj.	695,181	709,523	729,674	732,627	732,091	775,532	886,199	1,222,400	1,579,737		
Ending Reserve Balance	\$14,180,494	\$13,877,907	\$14,607,581	\$15,340,208	\$16,072,299	\$15,036,071	\$15,922,270	\$17,144,670	\$18,724,406		
<i>Ending Balance as Percent of Operating Expenditures</i>	<i>101.4%</i>	<i>96.4%</i>	<i>98.1%</i>	<i>99.6%</i>	<i>100.8%</i>	<i>95.0%</i>	<i>97.0%</i>	<i>100.8%</i>	<i>106.1%</i>		
Proposed Rate Adj. - July	0.0%										
<i># of Effective Months</i>	<i>6</i>										
Proposed Rate Adj. - January	3.0%										
<i># of Effective Months</i>	<i>6</i>										
Average Residential Bill - \$/ Month											
Current Average Residential Bill											
After Proposed Rate Adjustment	\$100.92	\$103.95	\$107.07	\$110.28	\$113.59	\$117.00	\$120.51	\$124.12	\$127.84		

**City of Woodland
Water Rate Study
Exhibit 1
Summary of the Revenue Requirement**

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Revenues										
Rate Revenues	\$26,279,547	\$26,542,342	\$26,807,766	\$26,941,805	\$27,076,514	\$27,211,896	\$27,347,956	\$27,484,695	\$27,622,119	\$27,760,229
Miscellaneous Revenues	555,859	365,542	555,859	555,859	555,859	555,859	555,859	555,859	555,859	555,859
Total Revenues	\$26,835,406	\$26,907,884	\$27,363,625	\$27,497,664	\$27,632,373	\$27,767,755	\$27,903,815	\$28,040,554	\$28,177,978	\$28,316,088
Expenses										
Total O & M Expense	\$12,881,142	\$13,981,436	\$14,394,604	\$14,890,452	\$15,405,779	\$15,941,421	\$15,833,559	\$16,412,497	\$17,014,501	\$17,640,574
Rate Funded Capital	3,275,000	2,800,000	3,860,000	4,450,000	5,100,000	5,850,000	6,750,000	6,900,000	7,050,000	7,250,000
Net Debt Service	11,142,403	11,008,702	10,906,650	10,940,346	10,974,585	11,003,680	11,037,847	11,071,896	11,110,842	11,149,699
Total Expenses	\$27,298,545	\$27,790,138	\$29,161,254	\$30,280,797	\$31,480,363	\$32,795,101	\$33,621,406	\$34,384,393	\$35,175,343	\$36,040,273
<i>Less: Connection Fees</i>	<i>\$463,140</i>	<i>\$484,119</i>	<i>\$580,000</i>	<i>\$715,000</i>	<i>\$895,000</i>	<i>\$1,152,605</i>	<i>\$940,000</i>	<i>\$690,000</i>	<i>\$640,000</i>	<i>\$640,000</i>
Transfers to Reserves	\$0	\$0	\$784	\$1,361	\$1,542	\$0	\$53,786	\$171,902	\$501,814	\$848,901
Total Revenue Requirement	\$26,835,406	\$27,306,019	\$28,582,038	\$29,567,158	\$30,586,905	\$31,642,496	\$32,735,192	\$33,866,295	\$35,037,157	\$36,249,175
Bal./(Def.) of Funds	\$0	(\$398,135)	(\$1,218,413)	(\$2,069,494)	(\$2,954,532)	(\$3,874,741)	(\$4,831,377)	(\$5,825,741)	(\$6,859,179)	(\$7,933,086)
Incr. as a % of Pres. Rates	0.0%	1.5%	4.5%	7.7%	10.9%	14.2%	17.7%	21.2%	24.8%	28.6%
Proposed Rate Adj. - July	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Proposed Rate Adj. - January	0.0%	3.0%								
Cumulative Annualized Rate Adj.	0.0%	1.5%	4.5%	7.7%	10.9%	14.2%	17.7%	21.2%	24.8%	28.6%
Add'l Revenue from Rate Increase	\$0	\$398,135	\$1,218,413	\$2,069,494	\$2,954,532	\$3,874,741	\$4,831,377	\$5,825,741	\$6,859,179	\$7,933,086
Total Balance/(Deficiency) of Funds	\$0	\$0	\$0	(\$0)	(\$0)	\$0	\$0	\$0	\$0	(\$0)
Additional Rate Adjustment Required	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Average Residential Rate - \$/ Month	<i>(1" Meter + 11 CCF)</i>									
Current Average Residential Bill	\$99.43									
After Proposed Rate Adjustment	\$99.43	\$100.92	\$103.95	\$107.07	\$110.28	\$113.59	\$117.00	\$120.51	\$124.12	\$127.84

**City of Woodland
Water Rate Study
Exhibit 2
Escalation Factors**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Notes
Revenues										
Rate Revenues	1.0%	1.0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	
Miscellaneous Revenues	Budget	1.0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	
Expenses										
Salaries	Budget	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	
Benefits - Medical	Budget	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	
Benefits - Other	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
Benefits - Retirement	Budget	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	
Professional Services	Budget	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	
Materials & Supplies	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Equipment	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
Education / Meetings	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Utilities	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
Miscellaneous	Budget	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
Transfers	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Depreciation	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
Regulatory	Budget	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Chemicals	Budget	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Flat	Budget	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Interest	0.8%	0.9%	1.0%							
Revenue Bond										
Rate	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	
Term (Yrs)	20	20	20	20	20	20	20	20	20	

City of Woodland
Water Rate Study
Exhibit 3
Revenue Requirement

	<i>Budget</i>		<i>Projected</i>							<i>Notes</i>
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Rate Revenues										
Residential	\$17,992,482	\$18,172,406	\$18,263,269	\$18,354,585	\$18,446,358	\$18,538,590	\$18,631,283	\$18,724,439	\$18,818,061	As Rate Revenues
Non-Residential	5,332,324	5,385,648	5,412,576	5,439,639	5,466,837	5,494,171	5,521,642	5,549,250	5,576,996	As Rate Revenues
Large Uniform Users	0	0	0	0	0	0	0	0	0	As Rate Revenues
Landscape	3,217,536	3,249,712	3,265,960	3,282,290	3,298,701	3,315,195	3,331,771	3,348,430	3,365,172	As Rate Revenues
Recycled Water Loss of Revenues	0	0	0	0	0	0	0	0	0	As Rate Revenues
Total Rate Revenues	\$26,542,342	\$26,807,766	\$26,941,805	\$27,076,514	\$27,211,896	\$27,347,956	\$27,484,695	\$27,622,119	\$27,760,229	
Miscellaneous Revenues										
Installation Charge	\$10,450	\$10,450	\$10,450	\$10,450	\$10,450	\$10,450	\$10,450	\$10,450	\$10,450	As Flat
AMR Installation Fee	33,750	33,750	33,750	33,750	33,750	33,750	33,750	33,750	33,750	As Flat
Recycled Water Sales	190,317	380,634	380,634	380,634	380,634	380,634	380,634	380,634	380,634	As Flat
Other Miscellaneous Revenue	131,025	131,025	131,025	131,025	131,025	131,025	131,025	131,025	131,025	As Flat
Total Miscellaneous Revenues	\$365,542	\$555,859								
Total Revenues	\$26,907,884	\$27,363,625	\$27,497,664	\$27,632,373	\$27,767,755	\$27,903,815	\$28,040,554	\$28,177,978	\$28,316,088	
Bill & Collect - Water										
Personnel										
Salaries-Perm Full Time	\$203,417	\$210,537	\$217,905	\$225,532	\$233,426	\$241,596	\$250,051	\$258,803	\$267,861	As Salaries
Hourly Wages - Temporary	2,000	2,070	2,142	2,217	2,295	2,375	2,459	2,545	2,634	As Salaries
Vacation Buyout	1,200	1,248	1,298	1,350	1,404	1,460	1,518	1,579	1,642	As Benefits - Other
Admin Buyout	250	260	270	281	292	304	316	329	342	As Benefits - Other
Comp Time Buyout	300	312	324	337	351	365	380	395	411	As Benefits - Other
Overtime-Perm Full Time	2,500	2,588	2,678	2,772	2,869	2,969	3,073	3,181	3,292	As Salaries
Def Comp City Match	2,790	2,888	2,989	3,093	3,202	3,314	3,430	3,550	3,674	As Salaries
Acting Pay	258	267	276	286	296	306	317	328	340	As Salaries
Wrkrs Comp/Liab Ins	18,357	19,091	19,855	20,649	21,475	22,334	23,227	24,157	25,123	As Benefits - Other
Retirement	72,452	76,799	81,407	86,291	91,469	96,957	102,775	108,941	115,477	As Benefits - Retirement
Health Pay-In Lieu	389	412	437	463	491	521	552	585	620	As Benefits - Medical
Retirement Hlth Svgs Pln	2,748	2,913	3,088	3,273	3,469	3,677	3,898	4,132	4,380	As Benefits - Medical
Life Vision Dental	6,048	6,411	6,796	7,203	7,635	8,094	8,579	9,094	9,640	As Benefits - Medical
Retiree Medical	22,291	23,628	25,046	26,549	28,142	29,830	31,620	33,517	35,528	As Benefits - Medical
Health/Life/Vision Ins	68,589	72,704	77,067	81,691	86,592	91,788	97,295	103,132	109,320	As Benefits - Medical
Unemployment Insurance	1,020	1,061	1,103	1,147	1,193	1,241	1,291	1,342	1,396	As Benefits - Other
Medicare Insurance	2,963	3,141	3,329	3,529	3,741	3,965	4,203	4,455	4,723	As Benefits - Medical
Personnel Offset	1,965	2,034	2,105	2,179	2,255	2,334	2,415	2,500	2,588	As Salaries
Total Personnel	\$409,537	\$428,363	\$448,116	\$468,844	\$490,597	\$513,430	\$537,399	\$562,565	\$588,990	
Supplies/Services										
Office Supplies	\$700	\$721	\$743	\$765	\$788	\$811	\$836	\$861	\$887	As Materials & Supplies
Department Specific Supplies	513	528	544	561	577	595	613	631	650	As Materials & Supplies
Telephone	4,398	4,530	4,666	4,806	4,950	5,098	5,251	5,409	5,571	As Materials & Supplies
Contract Services	115,640	119,687	123,876	128,212	132,700	137,344	142,151	147,126	152,276	As Professional Services
Total Supplies/Services	\$121,251	\$125,467	\$129,829	\$134,343	\$139,015	\$143,849	\$148,851	\$154,027	\$159,384	

	<i>Budget</i>	<i>Projected</i>								<i>Notes</i>
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Education & Meetings										
Memberships & Dues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Education / Meetings
Conferences, Meetings & Other Training	200	206	212	219	225	232	239	246	253	As Education / Meetings
Education Incentive Reimbursement	1,875	1,931	1,989	2,049	2,110	2,174	2,239	2,306	2,375	As Education / Meetings
Total Education & Meetings	\$2,075	\$2,137	\$2,201	\$2,267	\$2,335	\$2,405	\$2,478	\$2,552	\$2,629	
Other Expenses										
Indirect Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Transfers
Technology Services Chargebacks	18,019	18,560	19,116	19,690	20,281	20,889	21,516	22,161	22,826	As Transfers
Credit Card Fees	360,000	367,200	374,544	382,035	389,676	397,469	405,418	413,527	421,797	As Miscellaneous
Total Other Expenses	\$378,019	\$385,760	\$393,660	\$401,725	\$409,956	\$418,358	\$426,934	\$435,688	\$444,623	
Total Bill & Collect - Water	\$910,882	\$941,727	\$973,807	\$1,007,179	\$1,041,903	\$1,078,042	\$1,115,662	\$1,154,832	\$1,195,626	
Water Conservation										
Personnel (023)										
Salaries-Perm Full Time	\$17,187	\$17,789	\$18,411	\$19,056	\$19,722	\$20,413	\$21,127	\$21,867	\$22,632	As Salaries
Def Comp City Match	0	0	0	0	0	0	0	0	0	As Benefits - Other
Wrkrs Comp/Liab Ins	1,550	1,612	1,676	1,744	1,813	1,886	1,961	2,040	2,121	As Benefits - Other
Retirement	6,204	6,576	6,971	7,389	7,832	8,302	8,800	9,329	9,888	As Benefits - Retirement
Retirement Hlth Svgs Pln	192	204	216	229	242	257	272	289	306	As Benefits - Medical
Life Vision Dental	504	534	566	600	636	674	715	758	803	As Benefits - Medical
Retiree Medical	1,858	1,969	2,088	2,213	2,346	2,486	2,636	2,794	2,961	As Benefits - Medical
Health/Life/Vision Ins	5,087	5,392	5,716	6,059	6,422	6,808	7,216	7,649	8,108	As Benefits - Medical
Unemployment Insurance	86	89	93	97	101	105	109	113	118	As Benefits - Other
Medicare Insurance	250	265	281	298	316	335	355	376	398	As Benefits - Medical
Technology Services Chargebacks	1,855	1,929	2,006	2,087	2,170	2,257	2,347	2,441	2,539	As Equipment
Total Personnel (023)	\$34,773	\$36,360	\$38,024	\$39,770	\$41,601	\$43,522	\$45,538	\$47,654	\$49,875	
Personnel (024)										
Salaries-Perm Full Time	\$119,182	\$123,353	\$127,671	\$132,139	\$136,764	\$141,551	\$146,505	\$151,633	\$156,940	As Salaries
Hourly Wages - Temporary	1,949	2,017	2,088	2,161	2,237	2,315	2,396	2,480	2,566	As Salaries
Vacation Buyout	185	192	200	208	216	225	234	243	253	As Benefits - Other
Overtime-Perm Full Time	300	311	321	333	344	356	369	382	395	As Salaries
Def Comp City Match	1,472	1,531	1,592	1,656	1,722	1,791	1,863	1,937	2,015	As Benefits - Other
Acting Pay	150	156	162	169	175	182	190	197	205	As Benefits - Other
Wrkrs Comp/Liab Ins	10,802	11,234	11,683	12,151	12,637	13,142	13,668	14,215	14,783	As Benefits - Other
Retirement	43,838	46,468	49,256	52,212	55,344	58,665	62,185	65,916	69,871	As Benefits - Retirement
Retirement Hlth Svgs Pln	1,542	1,635	1,733	1,837	1,947	2,064	2,187	2,319	2,458	As Benefits - Medical
Life Vision Dental	3,297	3,495	3,705	3,927	4,162	4,412	4,677	4,957	5,255	As Benefits - Medical
Retiree Medical	12,152	12,881	13,654	14,473	15,342	16,262	17,238	18,272	19,368	As Benefits - Medical
Health/Life/Vision Ins	17,618	18,675	19,796	20,983	22,242	23,577	24,991	26,491	28,080	As Benefits - Medical
Unemployment Insurance	600	624	649	675	702	730	759	790	821	As Benefits - Other
Medicare Insurance	1,740	1,844	1,955	2,072	2,197	2,329	2,468	2,616	2,773	As Benefits - Medical
Total Personnel (024)	\$214,827	\$224,417	\$234,465	\$244,995	\$256,032	\$267,601	\$279,730	\$292,448	\$305,785	

	Budget	Projected								Notes
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Supplies & Services										
Office Supplies	\$349	\$359	\$370	\$381	\$393	\$405	\$417	\$429	\$442	As Materials & Supplies
Postage	175	180	186	191	197	203	209	215	222	As Materials & Supplies
Pubs & Periodicals	300	309	318	328	338	348	358	369	380	As Materials & Supplies
Printing	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	As Materials & Supplies
Department Specific Supplies	13,741	14,153	14,578	15,015	15,466	15,930	16,407	16,900	17,407	As Materials & Supplies
Advertising	7,350	7,571	7,798	8,032	8,272	8,521	8,776	9,040	9,311	As Materials & Supplies
Telephone	840	865	891	918	945	974	1,003	1,033	1,064	As Materials & Supplies
Cell Phones	720	742	764	787	810	835	860	886	912	As Materials & Supplies
Maint Office Equip	300	312	324	337	351	365	380	395	411	As Equipment
Contract Services	19,001	19,666	20,354	21,067	21,804	22,567	23,357	24,175	25,021	As Professional Services
Total Supplies & Services	\$43,776	\$45,187	\$46,644	\$48,149	\$49,702	\$51,305	\$52,961	\$54,671	\$56,435	
Education & Meetings										
Memberships Dues	\$3,974	\$4,093	\$4,216	\$4,342	\$4,473	\$4,607	\$4,745	\$4,888	\$5,034	As Education / Meetings
Conf & Mtgs	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	As Education / Meetings
Education Incent Reimb	1,250	1,288	1,326	1,366	1,407	1,449	1,493	1,537	1,583	As Education / Meetings
Indirect Expense	0	0	0	0	0	0	0	0	0	As Education / Meetings
Total Education & Meetings	\$7,224	\$7,441	\$7,664	\$7,894	\$8,131	\$8,375	\$8,626	\$8,885	\$9,151	
Other Expenses										
Technology Services Chargebacks	\$12,135	\$12,499	\$12,874	\$13,260	\$13,658	\$14,068	\$14,490	\$14,925	\$15,372	As Transfers
Fixed Fleet Cost	6,628	6,893	7,169	7,456	7,754	8,064	8,387	8,722	9,071	As Equipment
Variable Fleet Cost	5,780	6,011	6,252	6,502	6,762	7,032	7,314	7,606	7,910	As Equipment
Contract Services	7,168	7,419	7,679	7,947	8,225	8,513	8,811	9,120	9,439	As Salaries
Total Other Expenses	\$31,711	\$32,822	\$33,973	\$35,165	\$36,399	\$37,677	\$39,001	\$40,372	\$41,792	
Total Water Conservation	\$332,311	\$346,227	\$360,770	\$375,972	\$391,864	\$408,481	\$425,857	\$444,030	\$463,039	
Water Wells O&M										
Personnel										
Salaries-Perm Full Time	\$626,420	\$648,345	\$671,037	\$694,523	\$718,831	\$743,990	\$770,030	\$796,981	\$824,876	As Salaries
Hourly Wages - Temporary	11,306	11,702	12,111	12,535	12,974	13,428	13,898	14,384	14,888	As Salaries
Vacation Buyout	6,157	6,403	6,659	6,926	7,203	7,491	7,791	8,102	8,426	As Benefits - Other
Admin Buyout	800	832	865	900	936	973	1,012	1,053	1,095	As Benefits - Other
Comp Time Buyout	350	362	375	388	402	416	430	445	461	As Salaries
Overtime-Perm Full Time	30,000	31,050	32,137	33,262	34,426	35,631	36,878	38,168	39,504	As Salaries
Def Comp City Match	10,435	10,852	11,286	11,738	12,207	12,696	13,204	13,732	14,281	As Benefits - Other
Acting Pay	6,053	6,295	6,547	6,809	7,081	7,364	7,659	7,965	8,284	As Benefits - Other
Standby Pay	20,500	21,320	22,173	23,060	23,982	24,941	25,939	26,977	28,056	As Benefits - Other
Wrks Comp/Liab Ins (b)	56,629	58,894	61,250	63,700	66,248	68,898	71,654	74,520	77,501	As Benefits - Other
Retirement	225,360	238,882	253,214	268,407	284,512	301,583	319,677	338,858	359,190	As Benefits - Retirement
Health Pay-In Lieu	10,692	11,334	12,014	12,734	13,498	14,308	15,167	16,077	17,041	As Benefits - Medical
Retirement Hlth Svgs Pln	10,902	11,556	12,249	12,984	13,764	14,589	15,465	16,393	17,376	As Benefits - Medical
Life Vision Dental	16,044	17,007	18,027	19,109	20,255	21,470	22,759	24,124	25,572	As Benefits - Medical
Retiree Medical	59,134	62,682	66,443	70,430	74,655	79,135	83,883	88,916	94,251	As Benefits - Medical
Health/Life/Vision Ins	107,034	113,456	120,263	127,479	135,128	143,236	151,830	160,940	170,596	As Benefits - Medical
Unemployment Insurance	3,146	3,335	3,535	3,747	3,972	4,210	4,463	4,730	5,014	As Benefits - Medical
Medicare Insurance	9,278	9,835	10,425	11,050	11,713	12,416	13,161	13,951	14,788	As Benefits - Medical
Total Personnel	\$1,210,240	\$1,264,141	\$1,320,611	\$1,379,781	\$1,441,787	\$1,506,775	\$1,574,898	\$1,646,316	\$1,721,198	

	<i>Budget</i>	<i>Projected</i>								<i>Notes</i>	
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030		
Supplies & Services											
Telephone	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Materials & Supplies
Office Supplies	960	989	1,018	1,049	1,080	1,113	1,146	1,181	1,216	1,216	As Materials & Supplies
Postage	100	103	106	109	113	116	119	123	127	127	As Materials & Supplies
Pubs & Periodicals	100	103	106	109	113	116	119	123	127	127	As Materials & Supplies
Printing	2,511	2,586	2,664	2,744	2,826	2,911	2,998	3,088	3,181	3,181	As Materials & Supplies
Copy Machine Costs	350	361	371	382	394	406	418	430	443	443	As Materials & Supplies
Department Specific Supplies	130,052	136,555	143,382	150,551	158,079	165,983	174,282	182,996	192,146	192,146	As Chemicals
Personal Protective Equipment	2,750	2,833	2,917	3,005	3,095	3,188	3,284	3,382	3,484	3,484	As Materials & Supplies
Laundry	900	927	955	983	1,013	1,043	1,075	1,107	1,140	1,140	As Materials & Supplies
Tools	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,800	As Materials & Supplies
Advertising	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,267	As Materials & Supplies
Telephone (b)	1,260	1,298	1,337	1,377	1,418	1,461	1,505	1,550	1,596	1,596	As Materials & Supplies
Cell Phones	3,288	3,387	3,488	3,593	3,701	3,812	3,926	4,044	4,165	4,165	As Materials & Supplies
Maintenance - Equipment	5,340	5,554	5,776	6,007	6,247	6,497	6,757	7,027	7,308	7,308	As Equipment
Contract Services	207,276	214,531	222,039	229,811	237,854	246,179	254,795	263,713	272,943	272,943	As Professional Services
Total Supplies & Services	\$358,887	\$373,344	\$388,404	\$404,092	\$420,435	\$437,461	\$455,200	\$473,684	\$492,943		
Education & Meetings											
Memberships & Dues	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,230	\$1,267	\$1,267	As Education / Meetings
Conferences, Meetings & Other Training	16,150	16,635	17,134	17,648	18,177	18,722	19,284	19,862	20,458	20,458	As Education / Meetings
Mandatory Training	5,125	5,279	5,437	5,600	5,768	5,941	6,120	6,303	6,492	6,492	As Education / Meetings
Education Incentive Reimbursement	3,125	3,219	3,315	3,415	3,517	3,623	3,731	3,843	3,959	3,959	As Education / Meetings
Total Education & Meetings	\$25,400	\$26,162	\$26,947	\$27,755	\$28,588	\$29,446	\$30,329	\$31,239	\$32,176		
Other Expenses											
Distributions To Other Agencies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Transfers
Indirect Expense	0	0	0	0	0	0	0	0	0	0	As Transfers
Other Utilities	225,000	234,000	243,360	253,094	263,218	273,747	284,697	296,085	307,928	307,928	As Utilities
Technology Services Chargebacks	48,631	50,090	51,593	53,140	54,735	56,377	58,068	59,810	61,604	61,604	As Transfers
Fixed Fleet Cost	31,642	32,908	34,224	35,593	37,017	38,497	40,037	41,639	43,304	43,304	As Equipment
Variable Fleet Cost	28,534	29,675	30,862	32,097	33,381	34,716	36,105	37,549	39,051	39,051	As Equipment
Total Other Expenses	\$333,807	\$346,673	\$360,039	\$373,925	\$388,350	\$403,337	\$418,907	\$435,082	\$451,887		
Total Water Wells O&M	\$1,928,334	\$2,010,320	\$2,096,001	\$2,185,552	\$2,279,160	\$2,377,019	\$2,479,334	\$2,586,320	\$2,698,205		

	Budget	Projected								Notes
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Water Distribution System										
Personnel (086)										
Salaries-Perm Full Time	\$968,316	\$1,002,207	\$1,037,284	\$1,073,589	\$1,111,165	\$1,150,056	\$1,190,308	\$1,231,968	\$1,275,087	As Salaries
Hourly Wages - Temporary	53,826	55,710	57,660	59,678	61,767	63,928	66,166	68,482	70,879	As Salaries
Vacation Buyout	12,100	12,584	13,087	13,611	14,155	14,722	15,310	15,923	16,560	As Benefits - Other
Comp Time Buyout	500	520	541	562	585	608	633	658	684	As Benefits - Other
Overtime-Perm Full Time	45,000	46,575	48,205	49,892	51,639	53,446	55,316	57,253	59,256	As Salaries
Def Comp City Match	12,016	12,497	12,997	13,516	14,057	14,619	15,204	15,812	16,445	As Benefits - Other
Acting Pay	3,862	3,997	4,137	4,282	4,432	4,587	4,747	4,914	5,086	As Salaries
Standby Pay	18,000	18,720	19,469	20,248	21,057	21,900	22,776	23,687	24,634	As Benefits - Other
Wrkrs Comp/Liab Ins	87,363	92,605	98,161	104,051	110,294	116,911	123,926	131,362	139,243	As Benefits - Retirement
Retirement	351,371	365,426	380,043	395,245	411,054	427,497	444,596	462,380	480,875	As Benefits - Other
Health Pay-In Lieu	22,162	23,492	24,901	26,395	27,979	29,658	31,437	33,323	35,323	As Benefits - Medical
Retirement Hlth Svgs Pln	14,030	14,872	15,764	16,710	17,713	18,775	19,902	21,096	22,362	As Benefits - Medical
Life Vision Dental	32,550	34,503	36,573	38,768	41,094	43,559	46,173	48,943	51,880	As Benefits - Medical
Retiree Medical	119,970	127,168	134,798	142,886	151,459	160,547	170,180	180,391	191,214	As Benefits - Medical
Health/Life/Vision Ins	251,641	266,739	282,744	299,708	317,691	336,752	356,958	378,375	401,078	As Benefits - Medical
Unemployment Insurance	4,854	5,024	5,200	5,382	5,570	5,765	5,967	6,176	6,392	As Salaries
Medical Insurance	14,397	15,261	16,176	17,147	18,176	19,266	20,422	21,648	22,947	As Benefits - Medical
Total Personnel (086)	\$2,011,958	\$2,097,899	\$2,187,740	\$2,281,670	\$2,379,886	\$2,482,597	\$2,590,021	\$2,702,389	\$2,819,944	
Personnel (023)										
Salaries-Perm Full Time	\$5,744	\$5,945	\$6,153	\$6,368	\$6,591	\$6,822	\$7,061	\$7,308	\$7,564	As Salaries
Def Comp City Match	0	0	0	0	0	0	0	0	0	As Benefits - Other
Wrkrs Comp/Liab Ins	518	539	560	583	606	630	655	682	709	As Benefits - Other
Retirement	2,070	2,194	2,326	2,465	2,613	2,770	2,936	3,113	3,299	As Benefits - Retirement
Retirement Hlth Svgs Pln	72	76	81	86	91	96	102	108	115	As Benefits - Medical
Life Vision Dental	168	178	189	200	212	225	238	253	268	As Benefits - Medical
Retiree Medical	619	656	696	737	781	828	878	931	987	As Benefits - Medical
Health/Life/Vision Ins	1,744	1,849	1,960	2,077	2,202	2,334	2,474	2,622	2,780	As Benefits - Medical
Unemployment Insurance	29	31	33	35	37	39	41	44	46	As Benefits - Medical
Medicare Insurance	83	88	93	99	105	111	118	125	132	As Benefits - Medical
Technology Services Chargebacks	618	643	668	695	723	752	782	813	846	As Equipment
Total Personnel (023)	\$11,665	\$12,199	\$12,758	\$13,345	\$13,961	\$14,608	\$15,286	\$15,998	\$16,745	
Supplies & Services										
Office Supplies	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688	\$1,739	\$1,791	\$1,845	\$1,900	As Materials & Supplies
Postage	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	As Materials & Supplies
Printing	400	412	424	437	450	464	478	492	507	As Materials & Supplies
Copy Machine Costs	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	As Materials & Supplies
Department Specific Supplies	368,059	386,462	405,785	426,074	447,378	469,747	493,234	517,896	543,791	As Chemicals
Personal Protective Equipment	7,500	7,725	7,957	8,195	8,441	8,695	8,955	9,224	9,501	As Materials & Supplies
Laundry	3,825	3,940	4,058	4,180	4,305	4,434	4,567	4,704	4,845	As Materials & Supplies
Tools	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	As Materials & Supplies
Advertising	500	515	530	546	563	580	597	615	633	As Materials & Supplies
Telephone	1,260	1,298	1,337	1,377	1,418	1,461	1,505	1,550	1,596	As Materials & Supplies
Cell Phones	8,064	8,306	8,555	8,812	9,076	9,348	9,629	9,918	10,215	As Materials & Supplies
Maintenance - Equipment	10,664	11,091	11,534	11,996	12,475	12,974	13,493	14,033	14,594	As Equipment
Contract Services	305,251	315,935	326,993	338,437	350,283	362,542	375,231	388,365	401,957	As Professional Services
Total Supplies & Services	\$716,023	\$746,498	\$778,313	\$811,528	\$846,207	\$882,417	\$920,227	\$959,710	\$1,000,941	

	<i>Budget</i>	<i>Projected</i>								<i>Notes</i>
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Education & Meetings										
Memberships & Dues	\$8,517	\$8,773	\$9,036	\$9,307	\$9,586	\$9,874	\$10,170	\$10,475	\$10,789	As Education / Meetings
Mandatory Training	20,700	21,321	21,961	22,619	23,298	23,997	24,717	25,458	26,222	As Education / Meetings
Education Incentive Reimbursement	12,500	12,875	13,261	13,659	14,069	14,491	14,926	15,373	15,835	As Education / Meetings
Total Education & Meetings	\$41,717	\$42,969	\$44,258	\$45,585	\$46,953	\$48,361	\$49,812	\$51,307	\$52,846	
Other Expenses										
Machinery & Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Equipment
Gas & Oil	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	As Utilities
Indirect Expense	356,476	363,606	370,878	378,295	385,861	393,578	401,450	409,479	417,668	As Miscellaneous
Technology Services Chargebacks	98,663	100,636	102,649	104,702	106,796	108,932	111,111	113,333	115,599	As Miscellaneous
Fixed Fleet Cost	110,780	115,211	119,820	124,612	129,597	134,781	140,172	145,779	151,610	As Equipment
Variable Fleet Cost	210,109	218,513	227,254	236,344	245,798	255,630	265,855	276,489	287,549	As Equipment
Lease Payment Chargeback	149,657	152,650	155,703	158,817	161,994	165,233	168,538	171,909	175,347	As Miscellaneous
Transfers-General	14,342	14,629	14,921	15,220	15,524	15,835	16,151	16,474	16,804	As Miscellaneous
Total Other Expenses	\$941,027	\$966,285	\$992,306	\$1,019,116	\$1,046,739	\$1,075,206	\$1,104,542	\$1,134,779	\$1,165,946	
Total Water Distribution System	\$3,722,390	\$3,865,849	\$4,015,375	\$4,171,244	\$4,333,747	\$4,503,189	\$4,679,889	\$4,864,182	\$5,056,422	
Operations Admin										
Personnel (027)										
Salaries-Perm Full Time	\$382,346	\$395,728	\$409,579	\$423,914	\$438,751	\$454,107	\$470,001	\$486,451	\$503,477	As Salaries
Hourly Wages - Temporary	7,524	7,787	8,060	8,342	8,634	8,936	9,249	9,573	9,908	As Salaries
Vacation Buyout	28,000	28,980	29,994	31,044	32,131	33,255	34,419	35,624	36,871	As Salaries
Admin Buyout	7,500	7,763	8,034	8,315	8,606	8,908	9,219	9,542	9,876	As Salaries
Def Comp City Match	5,871	6,106	6,350	6,604	6,868	7,143	7,429	7,726	8,035	As Benefits - Other
Acting Pay	2,136	2,211	2,288	2,368	2,451	2,537	2,626	2,718	2,813	As Salaries
Wrkrs Comp/Liab Ins	34,689	36,077	37,520	39,020	40,581	42,204	43,893	45,648	47,474	As Benefits - Other
Retirement	137,614	145,871	154,623	163,900	173,735	184,159	195,208	206,921	219,336	As Benefits - Retirement
Health Pay-In Lieu	2,053	2,176	2,307	2,445	2,592	2,747	2,912	3,087	3,272	As Benefits - Medical
Retirement Hlth Svgs Pln	4,826	5,116	5,422	5,748	6,093	6,458	6,846	7,257	7,692	As Benefits - Medical
Life Vision Dental	8,300	8,798	9,326	9,885	10,479	11,107	11,774	12,480	13,229	As Benefits - Medical
Retiree Medical	30,592	32,428	34,373	36,436	38,622	40,939	43,395	45,999	48,759	As Benefits - Medical
Health/Life/Vision Ins	61,928	65,644	69,582	73,757	78,183	82,874	87,846	93,117	98,704	As Benefits - Medical
Unemployment Insurance	1,927	2,043	2,165	2,295	2,433	2,579	2,733	2,897	3,071	As Benefits - Medical
Medicare Insurance	5,619	5,956	6,314	6,692	7,094	7,519	7,971	8,449	8,956	As Benefits - Medical
Total Personnel (027)	\$720,925	\$752,682	\$785,937	\$820,767	\$857,251	\$895,473	\$935,521	\$977,488	\$1,021,472	

	Budget	Projected								Notes
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Personnel (087)										
Salaries-Perm Full Time	\$191,252	\$197,946	\$204,874	\$212,045	\$219,466	\$227,147	\$235,098	\$243,326	\$251,842	As Salaries
Vacation Buyout	5,500	5,693	5,892	6,098	6,311	6,532	6,761	6,998	7,242	As Salaries
Admin Buyout	1,500	1,553	1,607	1,663	1,721	1,782	1,844	1,908	1,975	As Salaries
Overtime-Perm Full Time	100	104	107	111	115	119	123	127	132	As Salaries
Def Comp City Match	4,158	4,324	4,497	4,677	4,864	5,059	5,261	5,472	5,691	As Benefits - Other
Acting Pay	150	155	161	166	172	178	184	191	198	As Salaries
Wrkrs Comp/Liab Ins	17,255	18,290	19,388	20,551	21,784	23,091	24,477	25,945	27,502	As Benefits - Retirement
Retirement	68,972	71,731	74,600	77,584	80,687	83,915	87,272	90,762	94,393	As Benefits - Other
Health Pay-In Lieu	2,673	2,833	3,003	3,184	3,375	3,577	3,792	4,019	4,260	As Benefits - Medical
Retirement Hlth Svgs Pln	1,740	1,844	1,955	2,072	2,197	2,329	2,468	2,616	2,773	As Benefits - Medical
Life Vision Dental	4,935	5,231	5,545	5,878	6,230	6,604	7,000	7,420	7,866	As Benefits - Medical
Retiree Medical	18,189	19,280	20,437	21,663	22,963	24,341	25,801	27,350	28,991	As Benefits - Medical
Health/Life/Vision Ins	39,017	41,358	43,840	46,470	49,258	52,214	55,346	58,667	62,187	As Benefits - Medical
Unemployment Insurance	959	1,017	1,078	1,142	1,211	1,283	1,360	1,442	1,529	As Benefits - Medical
Medicare Insurance	2,819	2,988	3,167	3,357	3,559	3,772	3,999	4,239	4,493	As Benefits - Medical
Total Personnel (087)	\$359,219	\$374,347	\$390,150	\$406,662	\$423,914	\$441,943	\$460,786	\$480,483	\$501,073	
Supplies & Services (027)										
Office Supplies	\$700	\$721	\$743	\$765	\$788	\$811	\$836	\$861	\$887	As Materials & Supplies
Postage	100	103	106	109	113	116	119	123	127	As Materials & Supplies
Pubs & Periodicals	300	309	318	328	338	348	358	369	380	As Materials & Supplies
Printing	1,700	1,751	1,804	1,858	1,913	1,971	2,030	2,091	2,154	As Materials & Supplies
Copy Machine Costs	1,550	1,597	1,644	1,694	1,745	1,797	1,851	1,906	1,963	As Materials & Supplies
Spec Dept Supplies	2,300	2,369	2,440	2,513	2,589	2,666	2,746	2,829	2,914	As Materials & Supplies
Personnel Supp & Equip	500	515	530	546	563	580	597	615	633	As Materials & Supplies
Advertising	500	515	530	546	563	580	597	615	633	As Materials & Supplies
Telephone	900	927	955	983	1,013	1,043	1,075	1,107	1,140	As Materials & Supplies
Cell Phones	2,820	2,905	2,992	3,081	3,174	3,269	3,367	3,468	3,572	As Materials & Supplies
Contract Services	10,789	11,167	11,557	11,962	12,381	12,814	13,262	13,727	14,207	As Professional Services
Total Supplies & Services (027)	\$22,159	\$22,878	\$23,620	\$24,386	\$25,178	\$25,995	\$26,839	\$27,710	\$28,610	
Supplies & Services (087)										
Office Supplies	\$1,353	\$1,394	\$1,435	\$1,478	\$1,523	\$1,568	\$1,616	\$1,664	\$1,714	As Materials & Supplies
Postage	25	26	27	27	28	29	30	31	32	As Materials & Supplies
Pubs & Periodicals	150	155	159	164	169	174	179	184	190	As Materials & Supplies
Printing	25	26	27	27	28	29	30	31	32	As Materials & Supplies
Copy Machine Costs	300	309	318	328	338	348	358	369	380	As Materials & Supplies
Department Specific Supplies	834	859	885	911	939	967	996	1,026	1,056	As Materials & Supplies
Telephone	2,100	2,163	2,228	2,295	2,364	2,434	2,508	2,583	2,660	As Materials & Supplies
Cell Phones	720	742	764	787	810	835	860	886	912	As Materials & Supplies
Contract Services	11,372	11,770	12,182	12,608	13,050	13,506	13,979	14,468	14,975	As Professional Services
Total Supplies & Services (087)	\$16,879	\$17,442	\$18,024	\$18,626	\$19,248	\$19,890	\$20,555	\$21,241	\$21,951	
Education & Meetings (027)										
Memberships Dues	\$1,750	\$1,803	\$1,857	\$1,912	\$1,970	\$2,029	\$2,090	\$2,152	\$2,217	As Education / Meetings
Education Trng	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	As Education / Meetings
Education Incent Reimb	1,875	1,931	1,989	2,049	2,110	2,174	2,239	2,306	2,375	As Education / Meetings
Total Education & Meetings (027)	\$7,625	\$7,854	\$8,089	\$8,332	\$8,582	\$8,839	\$9,105	\$9,378	\$9,659	

	<i>Budget</i>	<i>Projected</i>								<i>Notes</i>	
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030		
Education & Meetings (087)											
Memberships Dues	\$150	\$155	\$159	\$164	\$169	\$174	\$179	\$184	\$190	As Education / Meetings	
Conf & Mtgs	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	As Education / Meetings	
Education Incent Reimb	1,250	1,288	1,326	1,366	1,407	1,449	1,493	1,537	1,583	As Education / Meetings	
Total Education & Meetings (087)	\$3,400	\$3,502	\$3,607	\$3,715	\$3,827	\$3,942	\$4,060	\$4,182	\$4,307		
Other Expenses (027)											
Distributions To Other Agencies	\$40,000	\$41,200	\$42,436	\$43,709	\$45,020	\$46,371	\$47,762	\$49,195	\$50,671	As Transfers	
Technology Services Chargebacks	30,917	31,845	32,800	33,784	34,797	35,841	36,917	38,024	39,165	As Transfers	
Fixed Fleet Cost	4,333	4,506	4,687	4,874	5,069	5,272	5,483	5,702	5,930	As Equipment	
Variable Fleet Cost	1,767	1,838	1,911	1,988	2,067	2,150	2,236	2,325	2,418	As Equipment	
Total Other Expenses (027)	\$77,017	\$79,389	\$81,834	\$84,355	\$86,954	\$89,634	\$92,397	\$95,246	\$98,184		
Other Expenses (087)											
Distributions To Other Agencies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Transfers	
Technology Services Chargebacks	14,959	15,408	15,870	16,346	16,836	17,342	17,862	18,398	18,950	As Transfers	
Total Other Expenses (087)	\$14,959	\$15,408	\$15,870	\$16,346	\$16,836	\$17,342	\$17,862	\$18,398	\$18,950		
Total Operations Admin	\$1,222,183	\$1,273,501	\$1,327,132	\$1,383,189	\$1,441,790	\$1,503,058	\$1,567,124	\$1,634,125	\$1,704,205		
Recycled Water Operations											
Personnel											
Salaries-Perm Full Time	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Salaries	
Overtime-Perm Full Time	15,000	15,525	16,068	16,631	17,213	17,815	18,439	19,084	19,752	As Salaries	
Total Personnel	\$15,000	\$15,525	\$16,068	\$16,631	\$17,213	\$17,815	\$18,439	\$19,084	\$19,752		
Supplies & Services											
Office Supplies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Materials & Supplies	
Spec Dept Supplies	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	As Materials & Supplies	
Personnel Supp & Equip	500	515	530	546	563	580	597	615	633	As Materials & Supplies	
Tools	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	As Equipment	
Contract Services	15,000	15,525	16,068	16,631	17,213	17,815	18,439	19,084	19,752	As Professional Services	
Total Supplies & Services	\$20,500	\$21,200	\$21,924	\$22,673	\$23,447	\$24,249	\$25,077	\$25,935	\$26,821		
Education & Meetings											
Education Trng	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$615	\$633	As Education / Meetings	
Total Education & Meetings	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$615	\$633		
Other Expenses											
Other Utilities	\$2,000	\$2,040	\$2,081	\$2,122	\$2,165	\$2,208	\$2,252	\$2,297	\$2,343	As Miscellaneous	
Transfers-General	84,000	85,680	87,394	89,141	90,924	92,743	94,598	96,490	98,419	As Miscellaneous	
Total Other Expenses	\$84,000	\$85,680	\$87,394	\$89,141	\$90,924	\$92,743	\$94,598	\$96,490	\$98,419		
Total Recycled Water Operations	\$120,000	\$122,920	\$125,916	\$128,992	\$132,147	\$135,386	\$138,711	\$142,123	\$145,626		

	<i>Budget</i>	<i>Projected</i>								<i>Notes</i>
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Utility Engineering										
Salaries-Perm Full Time	\$11,628	\$12,035	\$12,456	\$12,892	\$13,343	\$13,810	\$14,294	\$14,794	\$15,312	As Salaries
Wrkrs Comp/Liab Ins	1,047	1,089	1,132	1,178	1,225	1,274	1,325	1,378	1,433	As Benefits - Other
Retirement	4,175	4,426	4,691	4,972	5,271	5,587	5,922	6,278	6,654	As Benefits - Retirement
Health Pay-In Lieu	826	876	928	984	1,043	1,105	1,172	1,242	1,317	As Benefits - Medical
Life Vision Dental	357	378	401	425	451	478	506	537	569	As Benefits - Medical
Retiree Medical	1,316	1,395	1,479	1,567	1,661	1,761	1,867	1,979	2,098	As Benefits - Medical
Unemployment Insurance	58	61	65	69	73	78	82	87	92	As Benefits - Medical
Medicare Insurance	181	192	203	216	229	242	257	272	288	As Benefits - Medical
Technology Services Chargebacks	1,314	1,353	1,394	1,436	1,479	1,523	1,569	1,616	1,665	As Transfers
Total Utility Engineering	\$20,902	\$21,805	\$22,750	\$23,739	\$24,775	\$25,859	\$26,994	\$28,182	\$29,428	
Communications Manager										
Salaries-Perm Full Time	\$4,498	\$4,655	\$4,818	\$4,987	\$5,162	\$5,342	\$5,529	\$5,723	\$5,923	As Salaries
Def Comp City Match	90	94	97	101	105	109	114	118	123	As Benefits - Other
Wrkrs Comp/Liab Ins	405	421	438	456	474	493	512	533	554	As Benefits - Other
Retirement	1,660	1,760	1,865	1,977	2,096	2,221	2,355	2,496	2,646	As Benefits - Retirement
Life Vision Dental	105	111	118	125	133	141	149	158	167	As Benefits - Medical
Retiree Medical	387	410	435	461	489	518	549	582	617	As Benefits - Medical
Health/Life/Vision Ins	454	481	510	541	573	608	644	683	724	As Benefits - Medical
Unemployment Insurance	22	23	25	26	28	29	31	33	35	As Benefits - Medical
Medicare Insurance	65	69	73	77	82	87	92	98	104	As Benefits - Medical
Total Communications Manager	\$7,686	\$8,025	\$8,380	\$8,751	\$9,140	\$9,548	\$9,976	\$10,423	\$10,893	
Other O&M										
Senior WSO From 50 to 54	\$11,000	\$11,385	\$11,783	\$12,196	\$12,623	\$13,065	\$13,522	\$13,995	\$14,485	As Salaries
WSO II From 45 to 46	2,000	2,070	2,142	2,217	2,295	2,375	2,459	2,545	2,634	As Salaries
WSO I From 40 to 42	3,000	3,105	3,214	3,326	3,443	3,563	3,688	3,817	3,950	As Salaries
Meter Technician [Rplcmnt Program (GS 46)]	121,346	125,593	129,989	134,538	139,247	144,121	149,165	154,386	159,790	As Salaries
Backflow Technician (GS 46)	121,346	125,593	129,989	134,538	139,247	144,121	149,165	154,386	159,790	As Salaries
Backflow Technician Truck	9,300	9,626	9,962	10,311	10,672	11,045	11,432	11,832	12,246	As Salaries
Replacement Program Truck - One Time	32,000	0	0	0	0	0	0	0	0	
Backflow Technician Truck - One Time	32,000	0	0	0	0	0	0	0	0	
Reporting Technician	100,000	103,500	107,123	110,872	114,752	118,769	122,926	127,228	131,681	As Salaries
Backflow Program Costs	207,824	214,059	220,480	227,095	233,908	240,925	248,153	255,597	263,265	As Materials & Supplies
Total Other O&M	\$639,816	\$594,930	\$614,683	\$635,094	\$656,187	\$677,984	\$700,509	\$723,786	\$747,840	
Surface Water Project Expenses										
O&M Funded through Rates	\$4,412,238	\$4,544,605	\$4,680,943	\$4,821,372	\$4,966,013	\$5,114,993	\$5,268,443	\$5,426,496	\$5,589,291	WDCWA Operating Budget
Reserve Funding for JPA	664,694	664,694	664,694	664,694	664,694	0	0	0	0	
Total Surface Water Project Expenses	\$5,076,932	\$5,209,299	\$5,345,637	\$5,486,066	\$5,630,707	\$5,114,993	\$5,268,443	\$5,426,496	\$5,589,291	
Total O&M Expenses	\$13,981,436	\$14,394,604	\$14,890,452	\$15,405,779	\$15,941,421	\$15,833,559	\$16,412,497	\$17,014,501	\$17,640,574	
Rate Funded Capital	\$2,800,000	\$3,860,000	\$4,450,000	\$5,100,000	\$5,850,000	\$6,750,000	\$6,900,000	\$7,050,000	\$7,250,000	FY 19 Dep. Exp. \$5,742,657

	<i>Budget</i>	<i>Projected</i>								<i>Notes</i>	
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030		
Debt Service											
ARRA Loan	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	\$476,252	<i>Debt Schedule</i>
2014 DWSRF	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	1,567,704	<i>Debt Schedule</i>
Recycled Water	69,244	69,244	69,244	69,244	69,244	69,244	69,244	69,244	69,244	69,244	<i>Debt Schedule</i>
2011 Rev Bond	661,233	0	0	0	0	0	0	0	0	0	<i>Debt Schedule</i>
SRF (Joint)	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	6,165,183	<i>Debt Schedule</i>
2017 Series A	1,426,070	1,454,820	1,484,820	1,513,070	1,548,320	1,575,070	1,608,570	1,643,320	1,679,070	1,679,070	<i>Debt Schedule</i>
2017 Series B	147,133	149,948	152,143	156,733	154,978	162,395	163,744	169,540	170,047	170,047	<i>Debt Schedule</i>
2021 Refund Bond	495,884	938,500	940,000	941,400	937,000	937,000	936,200	934,600	937,200	937,200	<i>Debt Schedule</i>
Recycled Water System Expansion	0	85,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000	<i>Projected</i>
Additional Revenue Bonds	0	0	0	0	0	0	0	0	0	0	<i>Calculated @ 4.5% for 20 Yrs</i>
<i>Total Debt Service</i>	\$11,008,702	\$10,906,650	\$10,940,346	\$10,974,585	\$11,003,680	\$11,037,847	\$11,071,896	\$11,110,842	\$11,149,699		
<i>Less: Existing Connection Fees</i>	\$55,000	\$75,000	\$75,000	\$85,000	\$85,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	
<i>Less: SWP Connection Fees</i>	\$429,119	\$505,000	\$640,000	\$810,000	\$1,067,605	\$900,000	\$650,000	\$600,000	\$600,000	\$600,000	
Net Debt Service	\$10,524,583	\$10,326,650	\$10,225,346	\$10,079,585	\$9,851,075	\$10,097,847	\$10,381,896	\$10,470,842	\$10,509,699		
Transfers to Reserves											
Transfers To - Operating Reserve	\$0	\$784	\$1,361	\$1,542	\$0	\$53,786	\$171,902	\$501,814	\$848,901		
Transfers To - Capital Reserve	0	0	0	0	0	0	0	0	0		
Total Transfers to Reserves	\$0	\$784	\$1,361	\$1,542	\$0	\$53,786	\$171,902	\$501,814	\$848,901		
Total Revenue Requirement	\$27,306,019	\$28,582,038	\$29,567,158	\$30,586,905	\$31,642,496	\$32,735,192	\$33,866,295	\$35,037,157	\$36,249,175		
Bal./(Def.) of Funds	(\$398,135)	(\$1,218,413)	(\$2,069,494)	(\$2,954,532)	(\$3,874,741)	(\$4,831,377)	(\$5,825,741)	(\$6,859,179)	(\$7,933,086)		
Incr. as a % of Pres. Rates	1.5%	4.5%	7.7%	10.9%	14.2%	17.7%	21.2%	24.8%	28.6%		
Proposed Rate Adj. - July	0.0%	0.0%									
<i># of Effective Months</i>	6	6	6	6	6	6	6	6	6	6	
Proposed Rate Adj. - January	3.0%	3.0%									
<i># of Effective Months</i>	6	6	6	6	6	6	6	6	6	6	
Cumulative Annualized Rate Adj.	1.5%	4.5%	7.7%	10.9%	14.2%	17.7%	21.2%	24.8%	28.6%		
Add'l Revenue from Rate Increase	\$398,135	\$1,218,413	\$2,069,494	\$2,954,532	\$3,874,741	\$4,831,377	\$5,825,741	\$6,859,179	\$7,933,086		
Bal./(Def.) of Funds	\$0	\$0	(\$0)	(\$0)	\$0	\$0	\$0	\$0	\$0	\$0	
As a % of Rate Revenues	0.0%	0.0%									

	<i>Budget</i>	<i>Projected</i>								<i>Notes</i>
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Average Monthly Bill (Jan 2019 Rates)	<i>(1" Meter + 11 CCF)</i>									
After Proposed Rate Adjustment	\$100.92	\$103.95	\$107.07	\$110.28	\$113.59	\$117.00	\$120.51	\$124.12	\$127.84	
Difference	\$1.49	\$3.03	\$3.12	\$3.21	\$3.31	\$3.41	\$3.51	\$3.62	\$3.72	
Cumulative	\$1.49	\$4.52	\$7.64	\$10.85	\$14.16	\$17.57	\$21.08	\$24.69	\$28.41	
Debt Service Coverage Ratio (DSC)										
DSC	1.33	1.44	1.51	1.58	1.67	1.75	1.75	1.79	1.84	
DSC - Excluding Connection Fees	1.28	1.39	1.46	1.53	1.61	1.69	1.70	1.74	1.79	
Reserve Funds										
Total Beginning Reserve Funds	\$23,515,255	\$21,231,186	\$20,348,599	\$20,363,273	\$20,200,900	\$19,780,386	\$17,804,158	\$18,000,357	\$18,582,757	
Operating Reserve Fund										
Beginning Reserve Balance	\$15,980,444	\$13,603,176	\$12,709,728	\$12,838,192	\$12,968,124	\$13,097,805	\$11,462,019	\$11,749,401	\$12,371,217	
Plus: Interest	117,863	117,878	127,104	128,390	129,681	122,188	115,480	120,003	127,957	
Plus: To Reserves	0	784	1,361	1,542	0	53,786	171,902	501,814	848,901	
Less: Uses of Funds - Capital	(2,495,131)	(1,012,110)	0	0	0	(1,811,760)	0	0	0	
Less: Rate Stabilization Deposit	0	0	0	0	0	0	0	0	0	
Bal/(Def) of funds after proposed rate adj.	0	0	(0)	(0)	0	0	0	0	0	
Ending Reserve Balance	\$13,603,176	\$12,709,728	\$12,838,192	\$12,968,124	\$13,097,805	\$11,462,019	\$11,749,401	\$12,371,217	\$13,348,075	
<i>Target: 6 Mo O&M</i>	<i>\$9,070,853</i>	<i>\$9,339,884</i>	<i>\$9,651,647</i>	<i>\$9,975,033</i>	<i>\$10,310,515</i>	<i>\$10,330,793</i>	<i>\$10,691,970</i>	<i>\$11,066,793</i>	<i>\$11,455,824</i>	
Water Development Fund										
Beginning Fund Balance	\$3,434,156	\$3,489,939	\$3,530,491	\$3,575,360	\$3,611,100	\$3,647,623	\$3,729,937	\$3,813,504	\$3,898,338	
Plus: Interest	27,473	31,409	35,305	35,754	36,111	36,476	37,299	38,135	38,983	
Plus: To Development Fund	83,310	84,143	84,564	84,986	85,411	85,838	86,268	86,699	87,132	
Less: Uses of Funds	(55,000)	(75,000)	(75,000)	(85,000)	(85,000)	(40,000)	(40,000)	(40,000)	(40,000)	
Ending Reserve Balance	\$3,489,939	\$3,530,491	\$3,575,360	\$3,611,100	\$3,647,623	\$3,729,937	\$3,813,504	\$3,898,338	\$3,984,454	
SWS Fee Reserve										
Beginning Fund Balance	\$4,100,655	\$4,138,071	\$4,108,380	\$3,949,721	\$3,621,676	\$3,034,958	\$2,612,202	\$2,437,452	\$2,313,201	
Plus: Interest	32,805	37,243	41,084	39,497	36,217	30,350	26,122	24,375	23,132	
Plus: To Fee Reserve	433,729	438,067	440,257	442,458	444,671	446,894	449,128	451,374	453,631	
Less: Uses of Funds	(429,119)	(505,000)	(640,000)	(810,000)	(1,067,605)	(900,000)	(650,000)	(600,000)	(600,000)	
Ending Reserve Balance	\$4,138,071	\$4,108,380	\$3,949,721	\$3,621,676	\$3,034,958	\$2,612,202	\$2,437,452	\$2,313,201	\$2,189,964	
Total Ending Reserve Funds	\$21,231,186	\$20,348,599	\$20,363,273	\$20,200,900	\$19,780,386	\$17,804,158	\$18,000,357	\$18,582,757	\$19,522,493	

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total	Notes
Public Works											
Replacement Program Truck	\$9,551	\$9,809	\$10,074	\$10,346	\$10,625	\$10,912	\$11,207	\$11,509	\$11,820	\$105,153	
Meters Purchase	205,400	210,946	216,641	222,491	228,498	234,667	241,003	247,510	254,193	2,261,350	
Hydrant Replacement	100,000	105,473	108,321	111,245	114,249	117,334	120,502	123,755	127,097	927,975	
Replace Backhoe (688)	100,000	0	0	0	0	0	0	0	0	0	
Replace Meter Truck (687)	200,000	0	0	0	0	0	0	0	0	200,000	
Replace Dump Truck (776)	165,000	0	0	0	0	0	0	0	0	165,000	
AMI contract renewal	38,000	42,189	44,411	46,578	0	0	0	0	0	171,179	
AMI Hardware Upgrades	20,000	73,831	86,657	97,489	100,121	102,824	105,600	108,452	111,380	806,353	
Future Unidentified CIP	0	0	0	0	0	0	0	0	0	0	
Total Public Works	\$837,951	\$442,248	\$466,104	\$488,148	\$453,493	\$465,737	\$478,312	\$491,226	\$504,490	\$4,637,009	
CIP - 210											
Treatment Plant Exp-Biosolids	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2020 Rd Rehabilitation - Matmor Rd & Gum Ave	0	105,473	0	0	0	0	0	0	0	105,473	
2019 Water Main Replacement Project	0	0	0	0	0	3,872,011	0	0	0	3,872,011	
2022 Water & Sewer Repair & Replac (Pendegast & College)	3,224,780	0	0	0	0	0	0	0	0	3,224,780	
Groundwater Monitoring Wells	821,600	0	0	0	0	0	0	0	0	821,600	
America's Water Infrastructure Act: Risk & Resiliency	0	0	0	83,434	0	0	0	0	95,322	178,756	
Urban Water Management Plan (every 5 years)	0	0	0	166,868	0	0	0	0	228,774	395,642	
2023 water/sewer project	205,400	2,953,241	0	0	0	0	0	0	0	3,158,641	
2024 water/sewer project	0	210,946	3,249,620	0	0	0	0	0	0	3,460,566	
2025 water/sewer project	0	0	216,641	3,671,096	0	0	0	0	0	3,887,737	
2026 water/sewer project	0	0	0	222,491	3,655,966	0	0	0	0	3,878,457	
2027 water/sewer project	0	0	0	0	228,498	3,754,677	0	0	0	3,983,175	
Water meter replacement	205,400	210,946	216,641	222,491	228,498	234,667	241,003	247,510	254,193	2,061,350	
2028 water/sewer project	0	0	0	0	0	234,667	3,976,555	0	0	4,211,223	
2029 water/sewer project	0	0	0	0	0	0	241,003	4,083,922	0	4,324,926	
Well rehabilitation (well 16, 26, etc.)	0	0	0	0	1,142,490	0	0	0	0	1,142,490	
2030 water/sewer project	0	0	0	0	0	0	0	247,510	4,194,188	4,441,699	
Recycled Water Phase II (Spring Lake)	0	949,256	0	0	0	0	0	0	0	949,256	
Future Unidentified CIP	0	0	300,993	245,473	141,055	0	1,963,126	1,979,830	1,973,032	9,669,209	
Total CIP - 210	\$4,457,180	\$4,429,862	\$3,983,896	\$4,611,852	\$5,396,507	\$8,096,023	\$6,421,688	\$6,558,773	\$6,745,510	\$53,766,991	

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	Total	Notes
Capital Transfers											
Transfer to Capital Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfer to Operating Reserve	0	0	0	0	0	0	0	0	0	0	0
Total Capital Transfers	\$0										
Total Capital Improvements	\$5,295,131	\$4,872,110	\$4,450,000	\$5,100,000	\$5,850,000	\$8,561,760	\$6,900,000	\$7,050,000	\$7,250,000	\$4,637,009	
Less: Funding Sources Other Than Rates											
Development Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Operating Reserves	2,495,131	1,012,110	0	0	0	1,811,760	0	0	0	5,319,001	
Capital Reserve Funds	0	0	0	0	0	0	0	0	0	0	
Grants	0	0	0	0	0	0	0	0	0	0	
Stimulus Grant	0	0	0	0	0	0	0	0	0	0	
SRF Loan Withdrawals	0	0	0	0	0	0	0	0	0	0	
New Revenue Bonds	0	0	0	0	0	0	0	0	0	0	
Total Funding Sources Other Than Rates	\$2,495,131	\$1,012,110	\$0	\$0	\$0	\$1,811,760	\$0	\$0	\$0	\$5,319,001	
Rate Funded Capital	\$2,800,000	\$3,860,000	\$4,450,000	\$5,100,000	\$5,850,000	\$6,750,000	\$6,900,000	\$7,050,000	\$7,250,000	\$53,285,000	
MPFP Connection Fees Calculated											
New Connections	136	138	138	139	140	140	141	142	143		
Fee per connection	\$611	\$611	\$611	\$611	\$611	\$611	\$611	\$611	\$611		
Total Connection Fee Revenue	\$83,310	\$84,143	\$84,564	\$84,986	\$85,411	\$85,838	\$86,268	\$86,699	\$87,132		

City of Woodland
Water Rate Study
Debt Service
Exhibit 5

Year	ARRA Loan	<i>Local Improvements</i>				<i>Surface WTP</i>				
		Recycled Water	2011 Rev Bond	2014 DWSRF	2021 Refund Bond	Total	2017 Series A	2017 Series B	SRF (Joint)	Total
FY 2018	\$476,252	\$69,244	\$1,324,578	\$912,046	\$0	\$2,782,119	\$1,318,194	\$134,821	\$3,082,591	\$4,535,607
FY 2019	476,252	69,244	1,320,333	1,543,291	0	3,409,119	1,119,670	362,507	6,165,183	7,647,359
FY 2020	476,252	69,244	1,324,563	1,567,704	0	3,437,762	1,372,670	139,250	6,165,183	7,677,102
FY 2021	476,252	69,244	1,321,763	1,567,704	0	3,434,962	1,400,270	141,989	6,165,183	7,707,441
FY 2022	476,252	69,244	1,322,465	1,567,704	495,884	3,931,549	1,426,070	147,133	6,165,183	7,738,386
FY 2023	476,252	69,244	1,321,368	1,567,704	938,500	4,373,067	1,454,820	149,948	6,165,183	7,769,950
FY 2024	476,252	69,244	1,323,390	1,567,704	940,000	4,376,589	1,484,820	152,143	6,165,183	7,802,146
FY 2025	476,252	69,244	1,323,430	1,567,704	941,400	4,378,029	1,513,070	156,733	6,165,183	7,834,985
FY 2026	476,252	69,244	1,321,413	1,567,704	937,000	4,371,612	1,548,320	154,978	6,165,183	7,868,481
FY 2027	476,252	69,244	1,322,925	1,567,704	937,000	4,373,124	1,575,070	162,395	6,165,183	7,902,647
FY 2028	476,252	69,244	1,322,125	1,567,704	936,200	4,371,524	1,608,570	163,744	6,165,183	7,937,497
FY 2029	476,252	69,244	1,319,675	1,567,704	934,600	4,367,474	1,643,320	169,540	6,165,183	7,978,043
FY 2030	476,252	69,244	1,319,800	1,567,704	937,200	4,370,199	1,679,070	170,047	6,165,183	8,014,300
FY 2031	476,252	69,244	1,320,500	1,567,704	938,800	4,372,499	1,710,570	175,530	6,165,183	8,051,283
FY 2032	476,252	69,244	1,323,800	1,567,704	939,400	4,376,399	1,747,820	176,001	6,165,183	8,089,004
FY 2033	476,252	69,244	1,324,400	1,567,704	939,000	4,376,599	1,780,320	181,978	6,165,183	8,127,481
FY 2034	0	69,244	1,322,300	1,567,704	937,600	3,896,848	1,817,470	184,074	6,165,183	8,166,726
FY 2035	0	69,244	1,322,500	1,567,704	940,200	3,899,648	1,854,720	186,854	6,165,183	8,206,757
FY 2036	0	69,244	1,319,700	1,567,704	936,600	3,893,248	1,891,570	190,837	6,165,183	8,247,589
FY 2037	0	69,244	1,323,900	1,567,704	942,000	3,902,848	1,926,570	197,485	6,165,183	8,289,237
FY 2038	0	69,244	1,319,500	783,852	936,000	3,108,596	1,952,320	214,215	3,082,591	5,249,126
FY 2039	0	69,244	1,321,800	0	939,000	2,330,044	2,007,570	202,296	0	2,209,866
FY 2040	0	69,244	1,320,200	0	935,600	2,325,044	0	0	0	0
FY 2041	0	69,244	1,319,700	0	936,000	2,324,944	0	0	0	0
FY 2042	0	69,244	0	0	0	69,244	0	0	0	0
FY 2043	0	69,244	0	0	0	69,244	0	0	0	0
FY 2044	0	69,244	0	0	0	69,244	0	0	0	0
FY 2045	0	69,244	0	0	0	69,244	0	0	0	0
FY 2046	0	69,244	0	0	0	69,244	0	0	0	0
FY 2047	0	69,244	0	0	0	69,244	0	0	0	0
Total	\$7,620,028	\$2,077,313	\$31,726,125	\$31,457,860	\$18,317,984	\$91,199,310	\$35,832,864	\$3,914,496	\$123,303,655	\$163,051,016

Notes

		Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-20	Total
Residential														
Base Rate	<i>1-Jan-20</i>	<i>1-Jan-21</i>												
Meter Size	\$/Acct./Mo.													
3/4"	\$52.70	\$55.65	1	1	1	1	1	1	1	1	1	1	1	1
1"	52.70	55.65	9,797	9,797	9,797	9,797	9,797	9,797	9,797	9,797	9,797	9,797	9,797	9,797
1 1/2"	52.70	55.65	5,031	5,031	5,031	5,031	5,031	5,031	5,031	5,031	5,031	5,031	5,031	5,031
2"	52.70	55.65	221	221	221	221	221	221	221	221	221	221	221	221
3"	99.00	99.00	0	0	0	0	0	0	0	0	0	0	0	0
4"	165.00	165.00	0	0	0	0	0	0	0	0	0	0	0	0
6"	329.40	329.40	0	0	0	0	0	0	0	0	0	0	0	0
			15,050	15,050	15,050	15,050	15,050	15,050	15,050	15,050	15,050	15,050	15,050	15,050
Consumption	\$/CCF													
0 - 12 CCF	\$3.57	\$3.98	136,442	137,087	137,635	134,900	128,647	117,535	97,566	87,988	86,012	90,552	121,840	126,828
13 - 36 CCF	4.30	4.79	76,703	82,399	84,197	70,318	53,157	31,610	14,329	10,604	9,373	10,733	35,879	48,736
36 + CCF	5.28	5.89	11,862	14,534	15,748	11,517	7,905	5,132	2,149	1,685	1,697	986	3,152	4,734
Total			225,007	234,020	237,581	216,736	189,708	154,277	114,044	100,277	97,082	102,271	160,871	180,297
Revenues														
Base Rate Revenue			\$793,135	\$793,135	\$793,135	\$793,135	\$793,135	\$793,135	\$837,533	\$837,533	\$837,533	\$837,533	\$837,533	\$837,533
Consumption Revenue			879,552	920,457	936,556	844,773	729,581	582,619	469,605	410,910	397,218	417,616	675,347	766,099
Total Revenue			\$1,672,687	\$1,713,592	\$1,729,691	\$1,637,908	\$1,522,716	\$1,375,754	\$1,307,138	\$1,248,442	\$1,234,750	\$1,255,149	\$1,512,880	\$1,603,631
Multi-Family														
Base Rate	<i>1-Jan-20</i>	<i>1-Jan-21</i>												
Meter Size	\$/Acct./Mo.													
3/4"	\$52.70	\$55.65	1	1	1	1	1	1	1	1	1	1	1	1
1"	52.70	55.65	76	76	76	76	76	76	76	76	76	76	76	76
1 1/2"	52.70	55.65	105	105	105	105	105	105	105	105	105	105	105	105
2"	52.70	55.65	77	77	77	77	77	77	77	77	77	77	77	77
3"	99.00	99.00	27	27	27	27	27	27	27	27	27	27	27	27
4"	165.00	165.00	12	12	12	12	12	12	12	12	12	12	12	12
6"	329.40	329.40	7	7	7	7	7	7	7	7	7	7	7	7
8"	329.40	329.40	2	2	2	2	2	2	2	2	2	2	2	2
10"	329.40	329.40	0	0	0	0	0	0	0	0	0	0	0	0
			307	307	307	307	307	307	307	307	307	307	307	307
Consumption	\$/CCF													
All Consumption	\$4.91	\$5.18	27,968	28,728	31,436	31,260	30,699	28,484	21,649	21,001	21,658	20,108	25,105	38,985
			27,968	28,728	31,436	31,260	30,699	28,484	21,649	21,001	21,658	20,108	25,105	38,985
Revenues														
Base Rate Revenue			\$20,608	\$20,608	\$20,608	\$20,608	\$20,608	\$20,608	\$21,372	\$21,372	\$21,372	\$21,372	\$21,372	\$21,372
Consumption Revenue			137,321	141,054	154,352	153,486	150,730	139,855	112,144	108,786	112,190	104,158	130,045	201,943
Total Revenue			\$157,929	\$161,662	\$174,961	\$174,094	\$171,338	\$160,464	\$133,516	\$130,158	\$133,562	\$125,530	\$151,417	\$223,315

	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-20	Total		
Commercial															
Base Rate	<i>1-Jan-20 1-Jan-21</i>														
Meter Size	\$/Acct./Mo.														
3/4"	\$52.70	\$55.65	20	20	20	20	20	20	20	20	20	20	20	20	
1"	52.70	55.65	342	342	342	342	342	342	342	342	342	342	342	342	
1 1/2"	52.70	55.65	224	224	224	224	224	224	224	224	224	224	224	224	
2"	52.70	55.65	307	307	307	307	307	307	307	307	307	307	307	307	
3"	99.00	99.00	33	33	33	33	33	33	33	33	33	33	33	33	
4"	165.00	165.00	14	14	14	14	14	14	14	14	14	14	14	14	
6"	329.40	329.40	3	3	3	3	3	3	3	3	3	3	3	3	
8"	329.40	329.40	1	1	1	1	1	1	1	1	1	1	1	1	
10"	329.40	329.40	0	0	0	0	0	0	0	0	0	0	0	0	
	944	944	944	944	944	944	944	944	944	944	944	944	944	944	
Consumption	\$/CCF														
All Consumption	\$4.91	\$5.18	27,968	28,728	31,436	31,260	30,699	28,484	21,649	21,001	21,658	20,108	25,105	21,745	309,841
Revenues															
Base Rate Revenue	\$56,261	\$53,626	\$53,626	\$53,626	\$53,626	\$53,626	\$53,626	\$56,261	\$56,261	\$56,261	\$56,261	\$56,261	\$56,261	\$659,322	
Consumption Revenue	144,872	141,054	154,352	153,486	150,730	139,855	106,298	108,786	112,190	104,158	130,045	112,638	1,558,466		
Total Revenue	\$201,133	\$194,681	\$207,979	\$207,113	\$204,357	\$193,482	\$159,925	\$165,047	\$168,451	\$160,418	\$186,305	\$168,899	\$2,217,788		
Institutional															
Base Rate	<i>1-Jan-20 1-Jan-21</i>														
Meter Size	\$/Acct./Mo.														
3/4"	\$52.70	\$55.65	0	0	0	0	0	0	0	0	0	0	0	0	
1"	52.70	55.65	9	9	9	9	9	9	9	9	9	9	9	9	
1 1/2"	52.70	55.65	10	10	10	10	10	10	10	10	10	10	10	10	
2"	52.70	55.65	35	35	35	35	35	35	35	35	35	35	35	35	
3"	99.00	99.00	15	15	15	15	15	15	15	15	15	15	15	15	
4"	165.00	165.00	13	13	13	13	13	13	13	13	13	13	13	13	
6"	329.40	329.40	3	3	3	3	3	3	3	3	3	3	3	3	
8"	329.40	329.40	0	0	0	0	0	0	0	0	0	0	0	0	
10"	329.40	329.40	1	1	1	1	1	1	1	1	1	1	1	1	
	86	86	86	86	86	86	86	86	86	86	86	86	86	86	
Consumption	\$/CCF														
Per ccf	\$4.91	\$5.18	16,492	19,077	20,861	20,770	15,236	10,187	6,650	5,934	5,294	5,131	8,527	8,684	142,844
Revenues															
Base Rate Revenue	\$7,464	\$7,464	\$7,464	\$7,464	\$7,464	\$7,464	\$7,623	\$7,623	\$7,623	\$7,623	\$7,623	\$7,623	\$7,623	\$90,524	
Consumption Revenue	80,977	93,668	102,429	101,979	74,807	50,020	34,447	30,740	27,425	26,577	44,172	44,984	712,225		
Total Revenue	\$88,441	\$101,132	\$109,893	\$109,443	\$82,271	\$57,484	\$42,070	\$38,363	\$35,048	\$34,200	\$51,796	\$52,607	\$802,748		

			Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-20	Total
Industrial															
Base Rate	<i>1-Jan-20</i>	<i>1-Jan-21</i>													
Meter Size	\$/Acct./Mo.														
3/4"	\$52.70	\$55.65	0	0	0	0	0	0	0	0	0	0	0	0	0
1"	52.70	55.65	2	2	2	2	2	2	2	2	2	2	2	2	2
1 1/2"	52.70	55.65	5	5	5	5	5	5	5	5	5	5	5	5	5
2"	52.70	55.65	11	11	11	11	11	11	11	11	11	11	11	11	11
3"	99.00	99.00	1	1	1	1	1	1	1	1	1	1	1	1	1
4"	165.00	165.00	5	5	5	5	5	5	5	5	5	5	5	5	5
6"	329.40	329.40	2	2	2	2	2	2	2	2	2	2	2	2	2
8"	329.40	329.40	0	0	0	0	0	0	0	0	0	0	0	0	0
10"	329.40	329.40	0	0	0	0	0	0	0	0	0	0	0	0	0
			26	26	26	26	26	26	26	26	26	26	26	26	26
Consumption	\$/CCF														
All Consumption	\$4.91	\$5.18	9,479	7,529	5,246	4,413	5,903	6,640	5,055	3,485	2,163	6,082	4,305	5,517	65,818
Revenues															
Base Rate Revenue			\$2,531	\$2,531	\$2,531	\$2,531	\$2,531	\$2,531	\$2,585	\$2,585	\$2,585	\$2,585	\$2,585	\$2,585	\$30,695
Consumption Revenue			46,541	36,970	25,758	21,670	28,985	32,601	26,186	18,053	11,203	31,505	22,298	28,580	330,351
Total Revenue			\$49,072	\$39,501	\$28,289	\$24,201	\$31,516	\$35,132	\$28,771	\$20,638	\$13,788	\$34,090	\$24,882	\$31,164	\$361,046
Large User (BIOMASS)															
Base Rate	<i>1-Jan-20</i>	<i>1-Jan-21</i>													
Meter Size	\$/Acct./Mo.														
3/4"	\$52.70	\$55.65	0	0	0	0	0	0	0	0	0	0	0	0	0
1"	52.70	55.65	0	0	0	0	0	0	0	0	0	0	0	0	0
1 1/2"	52.70	55.65	0	0	0	0	0	0	0	0	0	0	0	0	0
2"	52.70	55.65	0	0	0	0	0	0	0	0	0	0	0	0	0
3"	99.00	99.00	0	0	0	0	0	0	0	0	0	0	0	0	0
4"	165.00	165.00	0	0	0	0	0	0	0	0	0	0	0	0	0
6"	329.40	329.40	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0
Consumption	\$/CCF														
All Consumption			0	0	0	0	0	0	0	0	0	0	0	0	0
Revenues															
Base Rate Revenue			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Consumption Revenue			0	0	0	0	0	0	0	0	0	0	0	0	0
Total Revenue			\$0												

	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-20	Total		
Landscape															
Base Rate	<i>1-Jan-20 1-Jan-21</i>														
Meter Size	\$/Acct./Mo.														
3/4"	\$52.70	\$55.65	0	0	0	0	0	0	0	0	0	0	0		
1"	52.70	55.65	80	80	80	80	80	80	80	80	80	80	80		
1 1/2"	52.70	55.65	104	104	104	104	104	104	104	104	104	104	104		
2"	52.70	55.65	129	129	129	129	129	129	129	129	129	129	129		
3"	99.00	99.00	25	25	25	25	25	25	25	25	25	25	25		
4"	165.00	165.00	3	3	3	3	3	3	3	3	3	3	3		
6"	329.40	329.40	2	2	2	2	2	2	2	2	2	2	2		
8"	329.40	329.40	0	0	0	0	0	0	0	0	0	0	0		
10"	329.40	329.40	0	0	0	0	0	0	0	0	0	0	0		
	343	343	343	343	343	343	343	343	343	343	343	343	343		
Consumption	\$/CCF														
Per ccf	\$5.55	\$5.86	67,278	73,079	85,139	72,266	59,597	44,402	20,858	10,133	7,057	10,502	24,038	48,380	522,730
Revenues															
Base Rate Revenue	\$20,124	\$20,124	\$20,124	\$20,124	\$20,124	\$20,124	\$21,047	\$21,047	\$21,047	\$21,047	\$21,047	\$21,047	\$21,047	\$247,027	
Consumption Revenue	373,395	405,591	472,524	401,076	330,763	246,430	122,230	59,377	41,354	61,542	140,863	283,508	2,938,653		
Total Revenue	\$393,519	\$425,714	\$492,648	\$421,200	\$350,887	\$266,554	\$143,278	\$80,424	\$62,401	\$82,589	\$161,910	\$304,555	\$3,185,679		
City															
Base Rate	<i>1-Jan-20 1-Jan-21</i>														
Meter Size	\$/Acct./Mo.														
3/4"	\$52.70	\$55.65	0	0	0	0	0	0	0	0	0	0	0		
1"	52.70	55.65	0	0	0	0	0	0	0	0	0	0	0		
1 1/2"	52.70	55.65	0	0	0	0	0	0	0	0	0	0	0		
2"	52.70	55.65	0	0	0	0	0	0	0	0	0	0	0		
3"	99.00	99.00	0	0	0	0	0	0	0	0	0	0	0		
4"	165.00	165.00	0	0	0	0	0	0	0	0	0	0	0		
6"	329.40	329.40	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0		
Consumption (per ccf)	\$/CCF														
Per ccf	\$4.91	\$5.18	0	0	0	0	0	0	0	0	0	0	0	0	
Revenues															
Meter Charge	--	--	--	--	--	--	--	--	--	--	--	--	--	\$0	
Consumption Charge	--	--	--	--	--	--	--	--	--	--	--	--	--	0	
Total Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	

City of Woodland
Water Rate Study
Exhibit 7
Commodity Distribution Factor

	Consumption (CCF) ^[1]	Consumption (kgal)	15.0% Unaccounted for Water ^[2]	Net Water Delivered (Flow + Losses)	Average Day (MGD) ^[3]	% of Total
Residential					5.21	59.5%
Res - Tier 1	1,541,791	1,153,260	172,989	1,326,249	3.63	41.5%
Res - Tier 2	580,263	434,036	65,105	499,142	1.37	15.6%
Res - Tier 3	89,121	66,663	9,999	76,662	0.21	2.4%
Non-Residential	929,213	695,052	104,258	799,309	2.19	25.0%
Large Uniform Users	0	0	0	0	0.00	0.0%
Landscape	574,429	429,673	64,451	494,124	1.35	15.5%
Total Consumption	3,714,817	2,778,683	416,803	3,195,486	8.75	100.0%
		Actual Production (gal) ^[4]		3,364,205	9.22	

Notes

- [1] - Consumption from Dec 2019 through Nov 2020
- [2] - Estimated unaccounted for water to tie to total produced water
- [3] - Estimated delivered water plus losses is converted to million gallons per day
- [4] - Total water production provided by the City for CY 2020

Distribution Factor

(COM)

City of Woodland
 Water Rate Study
 Exhibit 8
 Capacity Distribution Factor

	Average Consumption (MGD)	Peaking Factor ^[1]	Peak Day Use (MGD)	% of Total
Residential			7.11	49.8%
Res - Tier 1	3.63	1.18	4.28	30.0%
Res - Tier 2	1.37	1.66	2.27	15.9%
Res - Tier 3	0.21	2.65	0.56	3.9%
Non-Residential	2.19	1.95	4.27	29.9%
Large Uniform Users	0.00	0.00	0.00	0.0%
Landscape	1.35	2.14	2.89	20.3%
Total	8.75	1.63	14.27	100.0%
		<i>Historical Peak Day ^[2] =</i>	15.11	

Notes

[1] - Based on Dec 2019 to Nov 2020 individual customer data

[2] - The peak daily demand provided by the City for CY 2020

Distribution Factor

(CAP)

City of Woodland
 Water Rate Study
 Exhibit 9
 Customer Distribution Factor

	<i>Actual Customer</i>		<i>Customer Service & Accounting</i>			<i>Meters & Services</i>	
	Number of Customers	% of Total	Weighting Factor	Weighted Customer	% of Total	Weighted Customer	% of Total
Residential	15,050	89.8%	1.00	15,050	89.8%	15,050	88.1%
Non-Residential	1,363	8.1%	1.00	1,363	8.1%	1,643	9.6%
Large Uniform Users	0	0.0%	1.00	0	0.0%	0	0.0%
Landscape	343	2.0%	1.00	343	2.0%	382	2.2%
Total	16,756	100.0%		16,756	100.0%	17,075	100.0%

Notes

[1] - Meter weighting factor is based on AWWA Meter Equivalencies for 2" meter

Distribution Factor (AC) (WCA) (WCMS)

City of Woodland
 Water Rate Study
 Exhibit 10
 Public Fire Protection Distribution Factor

	Number of Bills	Fire Prot. Requirements (gals/min) ^[1]	Duration (minutes) ^[2]	Total FP Requirements (1,000 g/min)	% of Total
Residential	15,050	1,000	90	1,354,500	64.8%
Non-Residential	1,363	3,000	180	736,020	35.2%
Large Uniform Users	0	3,500	240	0	0.0%
Landscape	343	0	0	0	0.0%
Total	16,756			2,090,520	100.0%

Notes

[1] - Based on Water System Model Report - 1999 Master Plan Reports.

[2] - Assumed duration of max fire event.

Distribution Factor

(FP)

City of Woodland
Water Rate Study
Exhibit 11
Revenue Related Allocation Factor

	Projected FY 2022	% of Total
Residential	\$17,992,482	67.8%
Non-Residential	5,332,324	20.1%
Large Uniform Users	0	0.0%
Landscape	3,217,536	12.1%
<i>Total Rate Revenues</i>	<i>\$26,542,342</i>	<i>100.0%</i>
<i>Distribution Factor</i>		<i>(RR)</i>

City of Woodland
Water Rate Study
Exhibit 12
Functionalization and Classification of Rate Base

Plant Description	6/30/2020 Plant	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assign. (DA)	Basis of Classification
				Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)				
Source of Supply / Treatment										
Surface Water Plant	\$105,613,006	\$64,846,386	\$40,766,620	\$0	\$0	\$0	\$0	\$0	\$0	61.4% COM 38.6% CAP
Water Rights	21,732,433	13,343,714	8,388,719	0	0	0	0	0	0	61.4% COM 38.6% CAP
Wells	15,227,568	0	15,227,568	0	0	0	0	0	0	100.0% CAP
Wells - Land	285,619	0	285,619	0	0	0	0	0	0	100.0% CAP
Recycled Water	5,061,170	3,107,558	1,953,612	0	0	0	0	0	0	61.4% COM 38.6% CAP
Total Source of Supply / Treatment	\$142,858,626	\$78,190,100	\$64,668,526	\$0	\$0	\$0	\$0	\$0	\$0	
Storage										
Water Storage Tank	\$9,646,155	\$0	\$7,536,059	\$0	\$0	\$0	\$2,110,096	\$0	\$0	78.1% CAP 21.9% FP
Total Storage	\$9,646,155	\$0	\$7,536,059	\$0	\$0	\$0	\$2,110,096	\$0	\$0	
Transmission and Distribution										
Hook Ups	\$904	\$0	\$0	\$0	\$0	\$904	\$0	\$0	\$0	100.0% WCMS
Hydrants	61,637	0	0	0	0	0	61,637	0	0	100.0% FP
Meters	16,642,062	0	0	0	0	16,642,062	0	0	0	100.0% WCMS
Pump House	134	0	134	0	0	0	0	0	0	100.0% CAP
Pumping Equipment	0	0	0	0	0	0	0	0	0	100.0% CAP
Water Mains	18,801,739									
Transmission	1,209,185	\$742,440	\$466,745	\$0	\$0	\$0	\$0	\$0	\$0	61.4% COM 38.6% CAP
Distribution	17,592,554	0	0	10,203,681	0	6,509,245	879,628	0	0	58.0% AC 37.0% WCMS 5.0% FP
Water Valves	76,659	0	0	44,462	0	28,364	3,833	0	0	58.0% AC 37.0% WCMS 5.0% FP
Total Transmission and Distribution	\$35,583,135	\$742,440	\$466,879	\$10,248,143	\$0	\$23,180,575	\$945,098	\$0	\$0	
Plant Before General Plant	\$188,087,916	\$78,932,539	\$72,671,465	\$10,248,143	\$0	\$23,180,575	\$3,055,194	\$0	\$0	
Percent Plant before General Plant	100.0%	42.0%	38.6%	5.4%	0.0%	12.3%	1.6%	0.0%	0.0%	Factor PBG
General Plant										
Building and Structures	\$10,368	\$4,351	\$4,006	\$565	\$0	\$1,278	\$168	\$0	\$0	As Factor PBG
GIS / Scada	1,429,154	599,755	552,182	77,869	0	176,134	23,214	0	0	As Factor PBG
Land	35,506	14,900	13,718	1,935	0	4,376	577	0	0	As Factor PBG
Equipment	181,364	76,111	70,074	9,882	0	22,352	2,946	0	0	As Factor PBG
Services	0	0	0	0	0	0	0	0	0	As Factor PBG
Misc	7,291,501	3,059,934	2,817,215	397,284	0	898,629	118,439	0	0	As Factor PBG
GASB 34	12,548,818	5,266,208	4,848,483	683,734	0	1,546,558	203,836	0	0	As Factor PBG
Total General Plant	\$21,496,711	\$9,021,260	\$8,305,677	\$1,171,268	\$0	\$2,649,326	\$349,180	\$0	\$0	
Net Plant in Service	\$209,584,627	\$87,953,799	\$80,977,142	\$11,419,412	\$0	\$25,829,900	\$3,404,374	\$0	\$0	

City of Woodland
 Water Rate Study
 Exhibit 13
 Minimum System Analysis

Distribution Storage

	hrs	gpm	MG
Fire Flow Requirements	4	3,500	0.84
Storage Capacity			
David Douglas Park Tank			3.00
Christianson Park Tank			0.40
WDCWA Tank			2.00
Total Storage Capacity			3.00
% Public Fire Protection			21.9%
% Capacity			78.1%

Source of Supply

Average Day (mgd)	8.75
Peak Day (mgd)	14.27
% Commodity (COM)	61.4%
% Capacity (1-COM = CAP)	38.6%

Distribution Main Analysis

	Main Size	Length (ft)	Replcmt \$/ft	Total
Distribution	2"	200,048	\$135.72	\$27,150,812
	3"	77,270	159.67	12,337,942
	4"	27,153	187.85	5,100,616
	6"	274,953	221.00	60,764,525
	8"	467,753	260.00	121,615,728
	10"	179,559	275.00	49,378,615
	12"	199,531	290.00	57,863,874
	14"	141	420.00	59,136
	16"	7,821	608.00	4,754,864
	20"	1,382	760.00	1,050,244
	24"	106	950.00	100,320
	30"	255	1,187.50	302,338
	N/A	98	1,484.38	144,727
Total		1,436,066		\$340,623,740

	Main Size	Length (ft)	Replcmt \$/ft	Total
Transmission	20"	5,021	\$760.00	\$3,816,036
	24"	2,604	950.00	2,473,895
	30"	9,225	1,187.50	10,954,213
	36"	4,155	1,484.38	6,167,875
				0
				0
				0
				0
				0
				0
				0
				0
	Total		21,005	

% Customer			58.0%
(1) Total Cost at 2" Equiv.	\$197,756,071		
% of Total Cost			
% Capacity			37.0%
(2) Cost for 2" to 10"	\$276,348,238		
(3) Equivalent 10" for larger (2+3-1)/4	\$57,566,163		
% Fire Protection			5.0%
(1-Cust-Cap)			

Notes

City of Woodland
Water Rate Study
Exhibit 14
Functionalization and Classification of Revenue Requirements

Expenses FY 2022	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification	
			Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)					
Bill & Collect - Water										
Personnel										
Salaries-Perm Full Time	\$203,417	\$0	\$0	\$203,417	0	0	\$0	\$0	\$0	100.0% AC
Hourly Wages - Temporary	2,000	0	0	2,000	0	0	0	0	0	100.0% AC
Vacation Buyout	1,200	0	0	1,200	0	0	0	0	0	100.0% AC
Admin Buyout	250	0	0	250	0	0	0	0	0	100.0% AC
Comp Time Buyout	300	0	0	300	0	0	0	0	0	100.0% AC
Overtime-Perm Full Time	2,500	0	0	2,500	0	0	0	0	0	100.0% AC
Def Comp City Match	2,790	0	0	2,790	0	0	0	0	0	100.0% AC
Wrkrs Comp/Liab Ins	18,357	0	0	18,357	0	0	0	0	0	100.0% AC
Retirement	72,452	0	0	72,452	0	0	0	0	0	100.0% AC
Health Pay-In Lieu	389	0	0	389	0	0	0	0	0	100.0% AC
Retirement Hlth Svgs Pln	2,748	0	0	2,748	0	0	0	0	0	100.0% AC
Life Vision Dental	6,048	0	0	6,048	0	0	0	0	0	100.0% AC
Retiree Medical	22,291	0	0	22,291	0	0	0	0	0	100.0% AC
Health/Life/Vision Ins	68,589	0	0	68,589	0	0	0	0	0	100.0% AC
Unemployment Insurance	1,020	0	0	1,020	0	0	0	0	0	100.0% AC
Medicare Insurance	2,963	0	0	2,963	0	0	0	0	0	100.0% AC
Personnel Offset	1,965	0	0	1,965	0	0	0	0	0	100.0% AC
Total Personnel	\$409,537	\$0	\$0	\$409,537	\$0	\$0	\$0	\$0	\$0	
Supplies/Services										
Office Supplies	\$700	\$0	\$0	\$700	\$0	\$0	\$0	\$0	\$0	100.0% AC
Department Specific Supplies	513	0	0	513	0	0	0	0	0	100.0% AC
Telephone	4,398	0	0	4,398	0	0	0	0	0	100.0% AC
Contract Services	115,640	0	0	115,640	0	0	0	0	0	100.0% AC
Total Supplies/Services	\$121,251	\$0	\$0	\$121,251	\$0	\$0	\$0	\$0	\$0	
Education & Meetings										
Memberships & Dues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0% AC
Conferences, Meetings & Other Training	200	0	0	200	0	0	0	0	0	100.0% AC
Education Incentive Reimbursement	1,875	0	0	1,875	0	0	0	0	0	100.0% AC
Total Education & Meetings	\$2,075	\$0	\$0	\$2,075	\$0	\$0	\$0	\$0	\$0	
Other Expenses										
Indirect Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0% AC
Technology Services Chargebacks	18,019	0	0	18,019	0	0	0	0	0	100.0% AC
Credit Card Fees	360,000	0	0	360,000	0	0	0	0	0	100.0% AC
Total Other Expenses	\$378,019	\$0	\$0	\$378,019	\$0	\$0	\$0	\$0	\$0	
Total Bill & Collect - Water	\$910,882	\$0	\$0	\$910,882	\$0	\$0	\$0	\$0	\$0	

Expenses FY 2022	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification	
			Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)					
Water Conservation										
Personnel (023)										
Salaries-Perm Full Time	\$17,187	\$0	\$17,187	\$0	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Def Comp City Match	0	0	0	0	0	0	0	0	0	100.0% CAP
Wrkrs Comp/Liab Ins	1,550	0	1,550	0	0	0	0	0	0	100.0% CAP
Retirement	6,204	0	6,204	0	0	0	0	0	0	100.0% CAP
Retirement Hlth Svgs Pln	192	0	192	0	0	0	0	0	0	100.0% CAP
Life Vision Dental	504	0	504	0	0	0	0	0	0	100.0% CAP
Retiree Medical	1,858	0	1,858	0	0	0	0	0	0	100.0% CAP
Health/Life/Vision Ins	5,087	0	5,087	0	0	0	0	0	0	100.0% CAP
Unemployment Insurance	86	0	86	0	0	0	0	0	0	100.0% CAP
Medicare Insurance	250	0	250	0	0	0	0	0	0	100.0% CAP
Technology Services Chargebacks	1,855	0	1,855	0	0	0	0	0	0	100.0% CAP
Total Personnel (023)	\$34,773	\$0	\$34,773	\$0.0	\$0	\$0	\$0	\$0	\$0	
Personnel (024)										
Salaries-Perm Full Time	\$119,182	\$0	\$119,182	\$0	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Hourly Wages - Temporary	1,949	0	1,949	0	0	0	0	0	0	100.0% CAP
Vacation Buyout	185	0	185	0	0	0	0	0	0	100.0% CAP
Overtime-Perm Full Time	300	0	300	0	0	0	0	0	0	100.0% CAP
Def Comp City Match	1,472	0	1,472	0	0	0	0	0	0	100.0% CAP
Acting Pay	150	0	150	0	0	0	0	0	0	100.0% CAP
Wrkrs Comp/Liab Ins	10,802	0	10,802	0	0	0	0	0	0	100.0% CAP
Retirement	43,838	0	43,838	0	0	0	0	0	0	100.0% CAP
Retirement Hlth Svgs Pln	1,542	0	1,542	0	0	0	0	0	0	100.0% CAP
Life Vision Dental	3,297	0	3,297	0	0	0	0	0	0	100.0% CAP
Retiree Medical	12,152	0	12,152	0	0	0	0	0	0	100.0% CAP
Health/Life/Vision Ins	17,618	0	17,618	0	0	0	0	0	0	100.0% CAP
Unemployment Insurance	600	0	600	0	0	0	0	0	0	100.0% CAP
Medicare Insurance	1,740	0	1,740	0	0	0	0	0	0	100.0% CAP
Personnel Offset	0	0	0	0	0	0	0	0	0	100.0% CAP
Total Personnel (024)	\$214,827	\$0	\$214,827	\$0	\$0	\$0	\$0	\$0	\$0	
Supplies & Services										
Office Supplies	\$349	\$0	\$349	\$0	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Postage	175	0	175	0	0	0	0	0	0	100.0% CAP
Pubs & Periodicals	300	0	300	0	0	0	0	0	0	100.0% CAP
Printing	1,000	0	1,000	0	0	0	0	0	0	100.0% CAP
Department Specific Supplies	13,741	0	13,741	0	0	0	0	0	0	100.0% CAP
Advertising	7,350	0	7,350	0	0	0	0	0	0	100.0% CAP
Telephone	840	0	840	0	0	0	0	0	0	100.0% CAP
Maint Office Equip	300	0	300	0	0	0	0	0	0	100.0% CAP
Contract Services	19,001	0	19,001	0	0	0	0	0	0	100.0% CAP
Total Supplies & Services	\$43,776	\$0	\$43,776	\$0	\$0	\$0	\$0	\$0	\$0	

City of Woodland
Water Rate Study
Exhibit 14
Functionalization and Classification of Revenue Requirements

Expenses FY 2022	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
			Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)				
Education & Meetings									
Memberships Dues	\$3,974	\$0	\$3,974	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Conf & Mtgs	2,000	0	2,000	0	0	0	0	0	100.0% CAP
Education Incent Reimb	1,250	0	1,250	0	0	0	0	0	100.0% CAP
Indirect Expense	0	0	0	0	0	0	0	0	100.0% CAP
Total Education & Meetings	\$7,224	\$0	\$7,224	\$0	\$0	\$0	\$0	\$0	
Other Expenses									
Technology Services Chargebacks	\$12,135	\$0	\$12,135	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Fixed Fleet Cost	6,628	0	6,628	0	0	0	0	0	100.0% CAP
Variable Fleet Cost	5,780	0	5,780	0	0	0	0	0	100.0% CAP
Contract Services	7,168	0	7,168	0	0	0	0	0	100.0% CAP
Total Other Expenses	\$31,711	\$0	\$31,711	\$0	\$0	\$0	\$0	\$0	
Total Water Conservation	\$332,311	\$0	\$332,311	\$0	\$0	\$0	\$0	\$0	
Water Wells O&M									
Personnel									
Salaries-Perm Full Time	\$626,420	\$0	\$626,420	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Hourly Wages - Temporary	11,306	0	11,306	0	0	0	0	0	100.0% CAP
Vacation Buyout	6,157	0	6,157	0	0	0	0	0	100.0% CAP
Admin Buyout	800	0	800	0	0	0	0	0	100.0% CAP
Comp Time Buyout	350	0	350	0	0	0	0	0	100.0% CAP
Overtime-Perm Full Time	30,000	0	30,000	0	0	0	0	0	100.0% CAP
Def Comp City Match	10,435	0	10,435	0	0	0	0	0	100.0% CAP
Acting Pay	6,053	0	6,053	0	0	0	0	0	100.0% CAP
Standby Pay	20,500	0	20,500	0	0	0	0	0	100.0% CAP
Wrkrs Comp/Liab Ins (b)	56,629	0	56,629	0	0	0	0	0	100.0% CAP
Retirement	225,360	0	225,360	0	0	0	0	0	100.0% CAP
Health Pay-In Lieu	10,692	0	10,692	0	0	0	0	0	100.0% CAP
Retirement Hlth Svgs Pln	10,902	0	10,902	0	0	0	0	0	100.0% CAP
Life Vision Dental	16,044	0	16,044	0	0	0	0	0	100.0% CAP
Retiree Medical	59,134	0	59,134	0	0	0	0	0	100.0% CAP
Health/Life/Vision Ins	107,034	0	107,034	0	0	0	0	0	100.0% CAP
Unemployment Insurance	3,146	0	3,146	0	0	0	0	0	100.0% CAP
Medicare Insurance	9,278	0	9,278	0	0	0	0	0	100.0% CAP
Total Personnel	\$1,210,240	\$0	\$1,210,240	\$0	\$0	\$0	\$0	\$0	

City of Woodland
Water Rate Study
Exhibit 14
Functionalization and Classification of Revenue Requirements

Expenses FY 2022	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
			Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)				
Supplies & Services									
Telephone	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Office Supplies	960	0	960	0	0	0	0	0	100.0% CAP
Postage	100	0	0	100	0	0	0	0	100.0% AC
Pubs & Periodicals	100	0	100	0	0	0	0	0	100.0% CAP
Printing	2,511	0	2,511	0	0	0	0	0	100.0% CAP
Copy Machine Costs	350	0	350	0	0	0	0	0	100.0% CAP
Department Specific Supplies	130,052	0	130,052	0	0	0	0	0	100.0% CAP
Personal Protective Equipment	2,750	0	2,750	0	0	0	0	0	100.0% CAP
Laundry	900	0	900	0	0	0	0	0	100.0% CAP
Tools	3,000	0	3,000	0	0	0	0	0	100.0% CAP
Advertising	1,000	0	1,000	0	0	0	0	0	100.0% CAP
Telephone (b)	1,260	0	1,260	0	0	0	0	0	100.0% CAP
Cell Phones	3,288	0	3,288	0	0	0	0	0	100.0% CAP
Maintenance - Equipment	5,340	0	5,340	0	0	0	0	0	100.0% CAP
Contract Services	207,276	0	207,276	0	0	0	0	0	100.0% CAP
Total Supplies & Services	\$358,887	\$0	\$358,787	\$100	\$0	\$0	\$0	\$0	
Education & Meetings									
Memberships & Dues	\$1,000	\$0	\$1,000	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Conferences, Meetings & Other Training	16,150	0	16,150	0	0	0	0	0	100.0% CAP
Mandatory Training	5,125	0	5,125	0	0	0	0	0	100.0% CAP
Education Incentive Reimbursement	3,125	0	3,125	0	0	0	0	0	100.0% CAP
Total Education & Meetings	\$25,400	\$0	\$25,400	\$0	\$0	\$0	\$0	\$0	
Other Expenses									
Distributions To Other Agencies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Indirect Expense	0	0	0	0	0	0	0	0	100.0% CAP
Other Utilities	225,000	0	225,000	0	0	0	0	0	100.0% CAP
Technology Services Chargebacks	48,631	0	48,631	0	0	0	0	0	100.0% CAP
Fixed Fleet Cost	31,642	0	31,642	0	0	0	0	0	100.0% CAP
Variable Fleet Cost	28,534	0	28,534	0	0	0	0	0	100.0% CAP
Total Other Expenses	\$333,807	\$0	\$333,807	\$0	\$0	\$0	\$0	\$0	
Total Water Wells O&M	\$1,928,334	\$0	\$1,928,234	\$100	\$0	\$0	\$0	\$0	

Functionalization and Classification of Revenue Requirements

Expenses FY 2022	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification	
			Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)					
Water Distribution System										
Personnel (086)										
Salaries-Perm Full Time	\$968,316	\$20,204	\$12,705	\$278,880	\$0	\$630,808	\$25,719	\$0	\$0	As Trans. & Dist.
Hourly Wages - Temporary	53,826	1,123	706	15,502	0	35,065	1,430	0	0	As Trans. & Dist.
Vacation Buyout	12,100	252	159	3,485	0	7,883	321	0	0	As Trans. & Dist.
Comp Time Buyout	500	10	7	144	0	326	13	0	0	As Trans. & Dist.
Overtime-Perm Full Time	45,000	939	590	12,960	0	29,315	1,195	0	0	As Trans. & Dist.
Def Comp City Match	12,016	251	158	3,461	0	7,828	319	0	0	As Trans. & Dist.
Acting Pay	3,862	81	51	1,112	0	2,516	103	0	0	As Trans. & Dist.
Standby Pay	18,000	376	236	5,184	0	11,726	478	0	0	As Trans. & Dist.
Wrkrs Comp/Liab Ins	87,363	1,823	1,146	25,161	0	56,912	2,320	0	0	As Trans. & Dist.
Retirement	351,371	7,331	4,610	101,197	0	228,900	9,333	0	0	As Trans. & Dist.
Health Pay-In Lieu	22,162	462	291	6,383	0	14,437	589	0	0	As Trans. & Dist.
Retirement Hlth Svgs Pln	14,030	293	184	4,041	0	9,140	373	0	0	As Trans. & Dist.
Life Vision Dental	32,550	679	427	9,375	0	21,205	865	0	0	As Trans. & Dist.
Retiree Medical	119,970	2,503	1,574	34,552	0	78,154	3,186	0	0	As Trans. & Dist.
Health/Life/Vision Ins	251,641	5,250	3,302	72,474	0	163,931	6,684	0	0	As Trans. & Dist.
Unemployment Insurance	4,854	101	64	1,398	0	3,162	129	0	0	As Trans. & Dist.
Medical Insurance	14,397	300	189	4,146	0	9,379	382	0	0	As Trans. & Dist.
Total Personnel (086)	\$2,011,958	\$41,979	\$26,399	\$579,455	\$0	\$1,310,687	\$53,438	\$0	\$0	
Personnel (023)										
Salaries-Perm Full Time	\$5,744	\$120	\$75	\$1,654	\$0	\$3,742	\$153	\$0	\$0	As Trans. & Dist.
Def Comp City Match	0	0	0	0	0	0	0	0	0	As Trans. & Dist.
Wrkrs Comp/Liab Ins	518	11	7	149	0	337	14	0	0	As Trans. & Dist.
Retirement	2,070	43	27	596	0	1,348	55	0	0	As Trans. & Dist.
Retirement Hlth Svgs Pln	72	2	1	21	0	47	2	0	0	As Trans. & Dist.
Life Vision Dental	168	4	2	48	0	109	4	0	0	As Trans. & Dist.
Retiree Medical	619	13	8	178	0	403	16	0	0	As Trans. & Dist.
Health/Life/Vision Ins	1,744	36	23	502	0	1,136	46	0	0	As Trans. & Dist.
Unemployment Insurance	29	1	0	8	0	19	1	0	0	As Trans. & Dist.
Medicare Insurance	83	2	1	24	0	54	2	0	0	As Trans. & Dist.
Technology Services Chargebacks	618	13	8	178	0	403	16	0	0	As Trans. & Dist.
Total Personnel (023)	\$11,665	\$243	\$153	\$3,360	\$0	\$7,599	\$310	\$0	\$0	
Supplies & Services										
Office Supplies	\$1,500	\$31	\$20	\$432	\$0	\$977	\$40	\$0	\$0	As Trans. & Dist.
Postage	2,000	0	0	2,000	0	0	0	0	0	100.0% AC
Printing	400	8	5	115	0	261	11	0	0	As Trans. & Dist.
Copy Machine Costs	2,000	42	26	576	0	1,303	53	0	0	As Trans. & Dist.
Department Specific Supplies	368,059	7,680	4,829	106,003	0	239,771	9,776	0	0	As Trans. & Dist.
Personal Protective Equipment	7,500	156	98	2,160	0	4,886	199	0	0	As Trans. & Dist.
Laundry	3,825	80	50	1,102	0	2,492	102	0	0	As Trans. & Dist.
Tools	5,000	104	66	1,440	0	3,257	133	0	0	As Trans. & Dist.
Advertising	500	10	7	144	0	326	13	0	0	As Trans. & Dist.
Telephone	1,260	26	17	363	0	821	33	0	0	As Trans. & Dist.
Cell Phones	8,064	168	106	2,322	0	5,253	214	0	0	As Trans. & Dist.
Maintenance - Equipment	10,664	223	140	3,071	0	6,947	283	0	0	As Trans. & Dist.
Contract Services	305,251	6,369	4,005	87,914	0	198,855	8,108	0	0	As Trans. & Dist.
Total Supplies & Services	\$716,023	\$14,898	\$9,369	\$207,643	\$0	\$465,149	\$18,965	\$0	\$0	

Functionalization and Classification of Revenue Requirements

Expenses FY 2022	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification	
			Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)					
Education & Meetings										
Memberships & Dues	\$178	\$112	\$2,453	\$0	\$5,548	\$226	\$0	\$0	As Trans. & Dist.	
Mandatory Training	432	272	5,962	0	13,485	550	0	0	As Trans. & Dist.	
Education Incentive Reimbursement	261	164	3,600	0	8,143	332	0	0	As Trans. & Dist.	
Total Education & Meetings	\$41,717	\$870	\$547	\$12,015	\$0	\$27,176	\$1,108	\$0	\$0	
Other Expenses										
Machinery & Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Trans. & Dist.	
Gas & Oil	1,000	21	13	288	0	651	27	0	As Trans. & Dist.	
Indirect Expense	356,476	7,438	4,677	102,667	0	232,226	9,468	0	As Trans. & Dist.	
Technology Services Chargebacks	98,663	2,059	1,295	28,416	0	64,274	2,621	0	As Trans. & Dist.	
Fixed Fleet Cost	110,780	2,311	1,454	31,905	0	72,167	2,942	0	As Trans. & Dist.	
Variable Fleet Cost	210,109	4,384	2,757	60,513	0	136,875	5,581	0	As Trans. & Dist.	
Lease Payment Chargeback	149,657	3,123	1,964	43,102	0	97,494	3,975	0	As Trans. & Dist.	
Transfers-General	14,342	299	188	4,131	0	9,343	381	0	As Trans. & Dist.	
Total Other Expenses	\$941,027	\$19,634	\$12,347	\$271,021	\$0	\$613,030	\$24,994	\$0	\$0	
Total Water Distribution System	\$3,722,390	\$77,626	\$48,815	\$1,073,493	\$0	\$2,423,642	\$98,815	\$0	\$0	
Operations Admin										
Personnel (027)										
Salaries-Perm Full Time	\$382,346	\$4,305	\$128,080	\$110,062	\$0	\$134,418	\$5,480	\$0	\$0	As All Other O&M
Hourly Wages - Temporary	7,524	85	2,520	2,166	0	2,645	108	0	0	As All Other O&M
Vacation Buyout	28,000	315	9,380	8,060	0	9,844	401	0	0	As All Other O&M
Admin Buyout	7,500	84	2,512	2,159	0	2,637	108	0	0	As All Other O&M
Def Comp City Match	5,871	66	1,967	1,690	0	2,064	84	0	0	As All Other O&M
Acting Pay	2,136	24	716	615	0	751	31	0	0	As All Other O&M
Wrkrs Comp/Liab Ins	34,689	391	11,620	9,986	0	12,195	497	0	0	As All Other O&M
Retirement	137,614	1,550	46,099	39,613	0	48,380	1,973	0	0	As All Other O&M
Health Pay-In Lieu	2,053	23	688	591	0	722	29	0	0	As All Other O&M
Retirement Hlth Svgs Pln	4,826	54	1,617	1,389	0	1,697	69	0	0	As All Other O&M
Life Vision Dental	8,300	93	2,780	2,389	0	2,918	119	0	0	As All Other O&M
Retiree Medical	30,592	344	10,248	8,806	0	10,755	438	0	0	As All Other O&M
Health/Life/Vision Ins	61,928	697	20,745	17,827	0	21,772	888	0	0	As All Other O&M
Unemployment Insurance	1,927	22	646	555	0	677	28	0	0	As All Other O&M
Medicare Insurance	5,619	63	1,882	1,617	0	1,975	81	0	0	As All Other O&M
Total Personnel (027)	\$720,925	\$8,118	\$241,499	\$207,525	\$0	\$253,450	\$10,333	\$0	\$0	
Personnel (087)										
Salaries-Perm Full Time	\$191,252	\$2,154	\$64,067	\$55,054	\$0	\$67,237	\$2,741	\$0	\$0	As All Other O&M
Vacation Buyout	5,500	62	1,842	1,583	0	1,934	79	0	0	As All Other O&M
Admin Buyout	1,500	17	502	432	0	527	22	0	0	As All Other O&M
Overtime-Perm Full Time	100	1	33	29	0	35	1	0	0	As All Other O&M
Def Comp City Match	4,158	47	1,393	1,197	0	1,462	60	0	0	As All Other O&M
Acting Pay	150	2	50	43	0	53	2	0	0	As All Other O&M
Wrkrs Comp/Liab Ins	17,255	194	5,780	4,967	0	6,066	247	0	0	As All Other O&M
Retirement	68,972	777	23,105	19,854	0	24,248	989	0	0	As All Other O&M
Health Pay-In Lieu	2,673	30	895	769	0	940	38	0	0	As All Other O&M
Retirement Hlth Svgs Pln	1,740	20	583	501	0	612	25	0	0	As All Other O&M
Life Vision Dental	4,935	56	1,653	1,421	0	1,735	71	0	0	As All Other O&M
Retiree Medical	18,189	205	6,093	5,236	0	6,395	261	0	0	As All Other O&M
Health/Life/Vision Ins	39,017	439	13,070	11,231	0	13,717	559	0	0	As All Other O&M
Unemployment Insurance	959	11	321	276	0	337	14	0	0	As All Other O&M
Medicare Insurance	2,819	32	944	811	0	991	40	0	0	As All Other O&M
Total Personnel (087)	\$359,219	\$4,045	\$120,333	\$103,404	\$0	\$126,288	\$5,149	\$0	\$0	

Expenses FY 2022	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification	
			Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)					
Supplies & Services (027)										
Office Supplies	\$700	\$8	\$234	\$202	\$0	\$246	\$10	\$0	\$0	As All Other O&M
Postage	100	0	0	100	0	0	0	0	0	100.0% AC
Pubs & Periodicals	300	3	100	86	0	105	4	0	0	As All Other O&M
Printing	1,700	19	569	489	0	598	24	0	0	As All Other O&M
Copy Machine Costs	1,550	17	519	446	0	545	22	0	0	As All Other O&M
Spec Dept Supplies	2,300	26	770	662	0	809	33	0	0	As All Other O&M
Personnel Supp & Equip	500	6	167	144	0	176	7	0	0	As All Other O&M
Advertising	500	6	167	144	0	176	7	0	0	As All Other O&M
Telephone	900	10	301	259	0	316	13	0	0	As All Other O&M
Cell Phones	2,820	32	945	812	0	991	40	0	0	As All Other O&M
Contract Services	10,789	121	3,614	3,106	0	3,793	155	0	0	As All Other O&M
Total Supplies & Services (027)	\$22,159	\$248	\$7,389	\$6,450	\$0	\$7,755	\$316	\$0	\$0	
Supplies & Services (087)										
Office Supplies	\$1,353	\$15	\$453	\$389	\$0	\$476	\$19	\$0	\$0	As All Other O&M
Postage	25	0	0	25	0	0	0	0	0	100.0% AC
Pubs & Periodicals	150	2	50	43	0	53	2	0	0	As All Other O&M
Printing	25	0	8	7	0	9	0	0	0	As All Other O&M
Copy Machine Costs	300	3	100	86	0	105	4	0	0	As All Other O&M
Department Specific Supplies	834	9	279	240	0	293	12	0	0	As All Other O&M
Personal Protective Equipment	0	0	0	0	0	0	0	0	0	As All Other O&M
Advertising	0	0	0	0	0	0	0	0	0	As All Other O&M
Telephone	2,100	24	703	605	0	738	30	0	0	As All Other O&M
Cell Phones	720	8	241	207	0	253	10	0	0	As All Other O&M
Maintenance - Equipment	0	0	0	0	0	0	0	0	0	As All Other O&M
Contract Services	11,372	128	3,809	3,274	0	3,998	163	0	0	As All Other O&M
Total Supplies & Services (087)	\$16,879	\$190	\$5,646	\$4,877	\$0	\$5,925	\$242	\$0	\$0	
Education & Meetings (027)										
Memberships Dues	\$1,750	\$20	\$586	\$504	\$0	\$615	\$25	\$0	\$0	As All Other O&M
Education Trng	4,000	45	1,340	1,151	0	1,406	57	0	0	As All Other O&M
Education Incent Reimb	1,875	21	628	540	0	659	27	0	0	As All Other O&M
Total Education & Meetings (027)	\$7,625	\$86	\$2,554	\$2,195	\$0	\$2,681	\$109	\$0	\$0	
Education & Meetings (087)										
Memberships Dues	\$150	\$2	\$50	\$43	\$0	\$53	\$2	\$0	\$0	As All Other O&M
Conf & Mtgs	2,000	23	670	576	0	703	29	0	0	As All Other O&M
Education Incent Reimb	1,250	14	419	360	0	439	18	0	0	As All Other O&M
Total Education & Meetings (087)	\$3,400	\$38	\$1,139	\$979	\$0	\$1,195	\$49	\$0	\$0	
Other Expenses (027)										
Distributions To Other Agencies	\$40,000	\$450	\$13,399	\$11,514	\$0	\$14,062	\$573	\$0	\$0	As All Other O&M
Technology Services Chargebacks	30,917	348	10,357	8,900	0	10,869	443	0	0	As All Other O&M
Fixed Fleet Cost	4,333	49	1,451	1,247	0	1,523	62	0	0	As All Other O&M
Variable Fleet Cost	1,767	20	592	509	0	621	25	0	0	As All Other O&M
Total Other Expenses (027)	\$77,017	\$867	\$25,800	\$22,170	\$0	\$27,076	\$1,104	\$0	\$0	

Expenses FY 2022	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
			Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)				
Other Expenses (087)									
Distributions To Other Agencies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As All Other O&M
Technology Services Chargebacks	14,959	168	5,011	4,306	0	5,259	214	0	As All Other O&M
Fixed Fleet Cost	0	0	0	0	0	0	0	0	As All Other O&M
Variable Fleet Cost	0	0	0	0	0	0	0	0	As All Other O&M
Total Other Expenses (087)	\$14,959	\$168	\$5,011	\$4,306	\$0	\$5,259	\$214	\$0	
Total Operations Admin	\$1,222,183	\$13,760	\$409,371	\$351,905	\$0	\$429,630	\$17,516	\$0	
Recycled Water Operations									
Personnel									
Salaries-Perm Full Time	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Overtime-Perm Full Time	15,000	0	15,000	0	0	0	0	0	100.0% CAP
Total Personnel	\$15,000	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0	
Supplies & Services									
Office Supplies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Spec Dept Supplies	4,000	0	4,000	0	0	0	0	0	100.0% CAP
Personnel Supp & Equip	500	0	500	0	0	0	0	0	100.0% CAP
Tools	1,000	0	1,000	0	0	0	0	0	100.0% CAP
Contract Services	15,000	0	15,000	0	0	0	0	0	100.0% CAP
Total Supplies & Services	\$20,500	\$0	\$20,500	\$0	\$0	\$0	\$0	\$0	
Education & Meetings									
Education Trng	\$500	\$0	\$500	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Total Education & Meetings	\$500	\$0	\$500	\$0	\$0	\$0	\$0	\$0	
Other Expenses									
Transfers-General	\$84,000	\$0	\$84,000	\$0	\$0	\$0	\$0	\$0	100.0% CAP
Total Other Expenses	\$84,000	\$0	\$84,000	\$0	\$0	\$0	\$0	\$0	
Total Recycled Water Operations	\$120,000	\$0	\$120,000	\$0	\$0	\$0	\$0	\$0	
Utility Engineering									
Salaries-Perm Full Time	\$11,628	\$4,880	\$4,493	\$634	\$0	\$1,433	\$189	\$0	As Net Plant
Wrks Comp/Liab Ins	1,047	439	405	57	0	129	17	0	As Net Plant
Retirement	4,175	1,752	1,613	227	0	515	68	0	As Net Plant
Health Pay-In Lieu	826	347	319	45	0	102	13	0	As Net Plant
Life Vision Dental	357	150	138	19	0	44	6	0	As Net Plant
Retiree Medical	1,316	552	508	72	0	162	21	0	As Net Plant
Unemployment Insurance	58	24	22	3	0	7	1	0	As Net Plant
Medicare Insurance	181	76	70	10	0	22	3	0	As Net Plant
Technology Services Chargebacks	1,314	551	508	72	0	162	21	0	As Net Plant
Total Utility Engineering	\$20,902	\$8,772	\$8,076	\$1,139	\$0	\$2,576	\$340	\$0	

Expenses FY 2022	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification	
			Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)					
Communications Manager										
Salaries-Perm Full Time	\$4,498	\$0	\$0	\$4,498	\$0	\$0	\$0	\$0	\$0	100.0% AC
Def Comp City Match	90	0	0	90	0	0	0	0	0	100.0% AC
Wrkrs Comp/Liab Ins	405	0	0	405	0	0	0	0	0	100.0% AC
Retirement	1,660	0	0	1,660	0	0	0	0	0	100.0% AC
Life Vision Dental	105	0	0	105	0	0	0	0	0	100.0% AC
Retiree Medical	387	0	0	387	0	0	0	0	0	100.0% AC
Health/Life/Vision Ins	454	0	0	454	0	0	0	0	0	100.0% AC
Unemployment Insurance	22	0	0	22	0	0	0	0	0	100.0% AC
Medicare Insurance	65	0	0	65	0	0	0	0	0	100.0% AC
Total Communications Manager	\$7,686	\$0	\$0	\$7,686	\$0	\$0	\$0	\$0	\$0	
Other O&M										
Senior WSO From 50 to 54	\$11,000	\$4,616	\$4,250	\$599	\$0	\$1,356	\$179	\$0	\$0	As Net Plant
WSO II From 45 to 46	2,000	839	773	109	0	246	32	0	0	As Net Plant
WSO I From 40 to 42	3,000	1,259	1,159	163	0	370	49	0	0	As Net Plant
Meter Technician [Rplcmnt Program (GS 46)]	121,346	2,532	1,592	34,948	0	79,051	3,223	0	0	As Trans. & Dist.
Backflow Technician (GS 46)	121,346	2,532	1,592	34,948	0	79,051	3,223	0	0	As Trans. & Dist.
Backflow Technician Truck	9,300	194	122	2,678	0	6,058	247	0	0	As Trans. & Dist.
Replacement Program Truck - One Time	32,000	668	420	9,216	0	20,846	850	0	0	As Trans. & Dist.
Backflow Technician Truck - One Time	32,000	668	420	9,216	0	20,846	850	0	0	As Trans. & Dist.
Reporting Technician	100,000	41,966	38,637	5,449	0	12,324	1,624	0	0	As Net Plant
Backflow Program Costs	207,824	87,215	80,297	11,323	0	25,613	3,376	0	0	As Net Plant
Total Other O&M	\$639,816	\$142,488	\$129,262	\$108,651	\$0	\$245,762	\$13,653	\$0	\$0	
Surface Water Project Expenses										
O&M Funded through Rates	\$4,412,238	\$2,709,114	\$1,703,124	\$0	\$0	\$0	\$0	\$0	\$0	61.4% COM 38.6% CAP
Reserve Funding for JPA	664,694	408,122	256,572	0	0	0	0	0	0	61.4% COM 38.6% CAP
Total Surface Water Project Expenses	\$5,076,932	\$3,117,236	\$1,959,696	\$0	\$0	\$0	\$0	\$0	\$0	
Total O&M Expenses	\$13,981,436	\$3,359,882	\$4,935,764	\$2,453,857	\$0	\$3,101,609	\$130,323	\$0	\$0	
Rate Funded Capital	\$2,800,000	\$58,422	\$36,738	\$806,416	\$0	\$1,824,055	\$74,369	\$0	\$0	As Trans. & Dist.
Debt Service										
ARRA Loan	\$476,252	\$9,937	\$6,249	\$137,163	\$0	\$310,253	\$12,649	\$0	\$0	As Transmission and Distribut
2014 DWSRF	1,567,704	32,710	20,570	451,508	0	1,021,278	41,639	0	0	As Transmission and Distribut
Recycled Water	69,244	0	69,244	0	0	0	0	0	0	100.0% CAP
2011 Rev Bond	661,233	13,797	8,676	190,439	0	430,759	17,563	0	0	As Transmission and Distribut
SRF (Joint)	6,165,183	3,785,422	2,379,761	0	0	0	0	0	0	61.4% COM 38.6% CAP
2017 Series A	1,426,070	875,607	550,463	0	0	0	0	0	0	61.4% COM 38.6% CAP
2017 Series B	147,133	90,340	56,793	0	0	0	0	0	0	61.4% COM 38.6% CAP
2021 Refund Bond	495,884	10,347	6,506	142,818	0	323,043	13,171	0	0	As Transmission and Distribut
Recycled Water System Expansion	0	0	0	0	0	0	0	0	0	100.0% CAP
Additional Revenue Bonds	0	0	0	0	0	0	0	0	0	61.4% COM 38.6% CAP
Total Debt Service	\$11,008,702	\$4,818,159	\$3,098,261	\$921,927	\$0	\$2,085,333	\$85,021	\$0	\$0	
<i>Less: Existing Connection Fees</i>	\$55,000	\$24,072	\$15,479	\$4,606	\$0	\$10,418	\$425	\$0	\$0	As Debt Service

	Expenses FY 2022	Commodity (COM)	Capacity (CAP)	Customer Related			Public Fire Protection (FP)	Revenue Related (RR)	Direct Assignment (DA)	Basis of Classification
				Actual Customer (AC)	Cust. Acctg. (WCA)	Meters & Services (WCMS)				
<i>Less: SWP Connection Fees</i>	\$429,119	\$263,479	\$165,640	\$0	\$0	\$0	\$0	\$0	\$0	As SWP Debt Service
Net Debt Service	\$10,524,583	\$4,530,608	\$2,917,142	\$917,321	\$0	\$2,074,915	\$84,597	\$0	\$0	
Transfers to Reserves										
Transfers To - Operating Reserve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Total O&M Expenses
Transfers To - Capital Reserve	0	0	0	0	0	0	0	0	0	As Total O&M Expenses
Total Transfers to Reserves	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Revenue Requirement	\$27,306,019	\$7,948,913	\$7,889,645	\$4,177,593	\$0	\$7,000,580	\$289,289	\$0	\$0	
Less: Miscellaneous Revenues										
Installation Charge	\$10,450	\$10,450	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0% COM
AMR Installation Fee	33,750	33,750	0	0	0	0	0	0	0	100.0% COM
Recycled Water Sales	190,317	0	190,317	0	0	0	0	0	0	As Recycled O&M
Other Miscellaneous Revenue	131,025	131,025	0	0	0	0	0	0	0	100.0% COM
Recycled Water Loss of Revenues	0	0	0	0	0	0	0	0	0	As Total Revenue Requiremen
Total Miscellaneous Revenues	\$365,542	\$175,225	\$190,317	\$0	\$0	\$0	\$0	\$0	\$0	
Net Revenue Requirement	\$26,940,477	\$7,773,688	\$7,699,328	\$4,177,593	\$0	\$7,000,580	\$289,289	\$0	\$0	

City of Woodland
Water Rate Study
Exhibit 15
Distribution of the Revenue Requirement

		Res - Tier 1	Res - Tier 2	Res - Tier 3	Non-Residential	Large Uniform Users	Landscape
Commodity	\$7,773,688	\$3,226,377	\$1,214,267	\$186,497	\$1,944,487	\$0	\$1,202,059
Capacity	\$7,699,328	\$2,308,643	\$1,226,626	\$300,451	\$2,302,659	\$0	\$1,560,949
Direct Assignment	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$15,473,016	\$5,535,021	\$2,440,893	\$486,948	\$4,247,146	\$0	\$2,763,008

City of Woodland
Water Rate Study
Exhibit 16
Distribution of the Revenue Requirement

	Net Revenue Requirement	Residential	Non-Residential	Large Uniform Users	Landscape	Allocation Factor
Commodity	\$7,773,688	\$4,627,142	\$1,944,487	\$0	\$1,202,059	(COM)
Capacity	\$7,699,328	\$3,835,720	\$2,302,659	\$0	\$1,560,949	(CAP)
Customer Related						
Actual Customer	\$4,177,593	\$3,752,255	\$339,822	\$0	\$85,517	(AC)
Weighted for Cust. Acctg.	0	0	0	0	0	(WCA)
Weighted for Meters & Services	7,000,580	6,170,521	673,496	0	156,562	(WCMS)
Total Customer Related	\$11,178,173	\$9,922,776	\$1,013,319	\$0	\$242,079	
Public Fire Protection Related	\$289,289	\$187,437	\$101,851	\$0	\$0	(FP)
Revenue Related	\$0	0	\$0	\$0	\$0	(RR)
Direct Assignment	\$0	\$0	\$0	\$0	\$0	(DA)
Net Revenue Requirement	\$26,940,477	\$18,573,075	\$5,362,316	\$0	\$3,005,087	

City of Woodland
 Water Rate Study
 Exhibit 17
 Cost of Service Analysis

	Expenses FY 2022	Residential	Non- Residential	Large Uniform Users	Landscape
Revenues at Present Rates	\$26,542,342	\$17,992,482	\$5,332,324	\$0	\$3,217,536
Allocated Revenue Requirement	\$26,940,477	\$18,573,075	\$5,362,316	\$0	\$3,005,087
<i>Balance/(Deficiency) of Fund</i>	<i>(\$398,135)</i>	<i>(\$580,593)</i>	<i>(\$29,991)</i>	<i>\$0</i>	<i>\$212,450</i>
Required % Change in Rates	1.5%	3.2%	0.6%	0.0%	-6.6%

City of Woodland
Water Rate Study
Exhibit 18
Average Unit Costs

	Total	Res - Tier 1	Res - Tier 2	Res - Tier 3	Non-Residential	Large Uniform Users	Landscape
Commodity \$/CCF	\$2.30	\$2.30	\$2.30	\$2.30	\$2.30	\$0.00	\$2.30
Capacity \$/CCF	2.28	1.65	2.32	3.70	2.72	0.00	2.99
Fire/Revenue/Direct \$/CCF	0.10	0.09	0.09	0.09	0.12	0.00	0.00
Total \$/CCF	\$4.68	\$4.04	\$4.72	\$6.10	\$5.14	\$0.00	\$5.29
<i>Differential</i>			<i>\$0.68</i>	<i>\$1.38</i>			
Current Rates		\$3.98	\$4.79	\$5.89	\$5.18	\$0.00	\$5.86
<i>Differential</i>			<i>\$0.81</i>	<i>\$1.10</i>			
Customer Costs - \$/eq mtr/month	\$54.55						
Average Total Cost \$/CCF	\$7.97	\$13.24			\$6.34	\$0.00	\$5.75
Average Current Cost \$/CCF	\$7.85	\$12.82			\$6.31	\$0.00	\$6.16
Basic Data							
Annual Consumption (CCF)	3,380,484	1,403,030	528,039	81,101	845,584	0	522,730
Number of Bills	16,756	15,050			1,363	0	343
Equivalent Meters	17,075	15,050			1,643	0	382

**City of Woodland
Water Rate Study
Summary of Proposed Rates**

<i>Present Rates</i>	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	
<i>Proposed Rate Adjustment</i>	3.0%	3.0%	3.0%	3.0%	3.0%	
Effective Date:	<i>Jan-1-2022</i>	<i>Jan-1-2023</i>	<i>Jan-1-2024</i>	<i>Jan-1-2025</i>	<i>Jan-1-2026</i>	
Meter Charge (All customer classes)						
3/4"	\$55.65	\$54.55	\$56.20	\$57.90	\$59.65	\$61.45
1"	55.65	54.55	56.20	57.90	59.65	61.45
1 1/2"	55.65	54.55	56.20	57.90	59.65	61.45
2"	55.65	54.55	56.20	57.90	59.65	61.45
3"	99.00	102.50	105.60	108.80	112.10	115.40
4"	165.00	170.80	176.00	181.30	186.80	192.40
6"	329.40	340.95	351.30	361.90	372.80	384.10
8"	329.40	545.50	562.00	579.00	596.50	614.50
10"	329.40	784.45	808.20	832.60	857.80	883.70
Consumption (per ccf)						
Residential						
0 - 12 CCF	\$3.98	\$4.04	\$4.16	\$4.28	\$4.41	\$4.54
13 - 36 CCF	4.79	4.72	4.86	5.00	5.15	5.30
36 + CCF	5.89	6.10	6.28	6.46	6.66	6.86
Non Residential						
Uniform Rate	\$5.18	\$5.14	\$5.29	\$5.45	\$5.61	\$5.78
Landscape						
Uniform Rate	\$5.86	\$5.29	\$5.45	\$5.61	\$5.78	\$5.95



Water Proposition 218 Appendix



Proposition 218 NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the City of Woodland will hold a public hearing on Tuesday, December 7, 2021, at 6:00 p.m., in the City Council Chambers at 300 First Street, Woodland CA 95695, and online via link provided at www.cityofwoodland.org. This public hearing is to consider adoption of proposed increases to rates for Water and Wastewater Utility Services.

You are receiving this notice because you are either a City of Woodland water or sewer customer or you own property that receives water services through the City of Woodland.

Reasons for the proposed rates and instructions for protesting the rate increases are described in more detail below.

The City of Woodland provides water and wastewater (sewer) services to close to 17,000 accounts and is committed to providing the highest water quality at the lowest possible cost for our customers. These utilities are operated to be financially self-sufficient. Monthly rates and charges are the primary source of revenue to fund these utility operations, which include system operations and maintenance, capital infrastructure improvements, debt service and costs related to long-term operational or financial management, such as maintaining adequate fund reserves and contingency planning.

PROPOSED CHANGES TO WATER AND SEWER RATES

The City hired a consultant to perform an independent water rate study and sewer rate study (“Rate Study”) to evaluate the infrastructure needs, programs, and operations and maintenance costs of the City’s utility services and the revenues necessary to recover the costs for those services for the next five years. Costs to provide water and sewer services rise annually. The costs to buy water have increased, and rising costs for energy, fuel, infrastructure construction and maintenance, personnel to operate the systems, and supplies required for treating the water and wastewater impact the overall cost to provide services in a safe and reliable manner. Additionally, the City is required to comply with both Federal and State mandated regulatory requirements that place further costs on the utilities. Increases in the rates are necessary to recover sufficient revenue to meet these increasing costs.

IMPACT ON WATER AND SEWER BILLS

Water and sewer rates vary by size of water meter and type of wastewater effluent (i.e. rates are higher for restaurants and similar “high-strength” users). An example of a residential customer bill and the related proposed adjustments are shown below, and the complete schedule of rate adjustments under consideration is shown in Tables 2 and 3.

The example shown in Table 1 is for a monthly bill for a typical single-family residential customer with a 1” water meter and consumes 12 CCF of water.

TABLE 1 – RATE COMPARISON: TYPICAL SINGLE FAMILY CUSTOMER

	Current	JAN 2022	JAN 2023	JAN 2024	JAN 2025	JAN 2026
Water	\$103.41	\$103.03	\$106.12	\$109.26	\$112.57	\$115.93
Sewer	62.15	62.15	64.65	65.95	67.27	68.61
Total Bill	\$ 165.56	\$ 165.18	\$ 170.77	\$ 175.21	\$ 179.84	\$ 184.54

TABLE 2 – PROPOSED WATER RATES

	Current	JAN 2022	JAN 2023	JAN 2024	JAN 2025	JAN 2026
Meter Charge (All customer classes)						
2" or smaller	\$55.65	\$54.55	\$56.20	\$57.90	\$59.65	\$61.45
3"	99.00	102.50	105.60	108.80	112.10	115.40
4"	165.00	170.80	175.00	181.30	186.80	192.40
6"	329.40	340.95	351.30	361.90	372.80	384.10
8"	329.40	545.50	562.00	579.00	596.50	614.50
10"	329.40	784.45	808.20	832.60	857.80	883.70
Consumption (per ccf)						
Residential						
0-12 CCF	\$3.98	\$4.04	\$4.16	\$4.28	\$4.41	\$4.54
13-36 CCF	4.79	4.72	4.86	5.00	5.15	5.30
36+ CCF	5.89	6.10	6.28	6.46	6.66	6.86
Non Residential						
Uniform Rate	\$5.18	\$5.14	\$5.29	\$5.45	\$5.61	\$5.78
Landscape						
Uniform Rate	\$5.86	\$5.29	\$5.45	\$5.61	\$5.78	\$5.95

*CCF = Centum Cubic Feet (hundred cubic feet). Water meters are read in CCF, and 1 CCF or unit is equal to 748 gallons.

TABLE 3 – PROPOSED SEWER RATES

	Current	JAN 2022	JAN 2023	JAN 2024	JAN 2025	JAN 2026
Single Family Rates						
Fixed Charge						
Per Account	\$ 62.15	\$ 62.15	\$ 64.65	\$ 65.95	\$ 67.27	\$ 68.61
Multi Family Rates						
Fixed Charge						
Condo/Apartmt/3plex	\$ 40.55	\$ 40.55	\$ 46.61	\$ 47.54	\$ 48.50	\$ 49.47
Duplex	50.35	50.35	51.44	52.47	53.51	54.58
Non-Residential Rates						
Fixed Charge						
Low Strength	\$ 37.70	\$ 37.70	\$ 10.36	\$ 10.56	\$ 10.77	\$ 10.99
Med Strength	37.70	37.70	37.65	38.40	39.17	39.95
High Strength	37.70	37.70	40.56	41.37	42.20	43.04
Volume Charge						
Low Strength	\$ 7.75	\$ 7.75	\$ 7.49	\$ 7.64	\$ 7.79	\$ 7.94
Med Strength	8.95	8.95	8.46	8.63	8.80	8.98
High Strength	10.17	10.17	9.90	10.10	10.30	10.51
Schools Rate						
Fixed Charge						
Per Account	\$ 37.70	\$ 37.70	\$ 10.36	\$ 10.56	\$ 10.77	\$ 10.99
ADA Charge						
Per ADA	\$ 1.67	\$ 1.67	\$ 1.83	\$ 1.86	\$ 1.90	\$ 1.94

The full rate study documents for the Water and Wastewater Systems are available on the City's website.

PUBLIC HEARING & PROTEST PROCEDURES

The Public Hearing for proposed rates will be held on **December 7, 2021 at 6:00 p.m.** at the City of Woodland City Council Chambers, **300 First Street, Woodland, CA 95695**. Council meetings are also online via the link provided on each published agenda. The purpose of the hearing is to consider all *written* protests against the increases to the City's proposed water and sewer rate increases. Any owner or tenant of property receiving City of Woodland water and sewer services may submit a written protest against the proposed increases. However, if the identified parcel has more than one record owner and/or customer of record, only one written protest will be counted.

Each protest must be (1) in writing; (2) state opposition to the increase of water service fees; (3) provide the location of the identified parcel (by assessor's parcel number or street address); and (4) include the original signature of the record owner or customer of record submitting the protest. Written protests may be submitted by mail to **Utility Rate Adjustment Protest, c/o City of Woodland City Clerk, 300 First Street, Woodland, CA 95695, hand delivered to the City Clerk, 300 First Street, Woodland, CA 95695**. All protests must be received (not postmarked) by the City before conclusion of the public hearing. Protests submitted via e-mail or other electronic means cannot be accepted. Oral comments at the Public Hearing will not qualify as formal protests unless accompanied by a written protest. As per State law, the proposed adjustments will not take effect if a majority of the customers file a written protest.

For further details regarding the basis and reasons for the proposed rate and fee increases, please visit our website at www.cityofwoodland.org where the complete Rate Study documents and other information regarding the City's water and sewer systems and rates is posted.

Una versión en Español de esta notificación esta disponible vía de la pagina de Internet de la Ciudad de Woodland