



Indian Wells Valley Water District

Water Rate Study

Final Report

November 29, 2018





October 22, 2018

Mr. Ty Staheli
Finance Director
Indian Wells Valley Water District
500 W. Ridgecrest Blvd.
Ridgecrest, CA 93555

Re: Final 2018 Water Rate Study Report for review

Dear Mr. Staheli,

Stantec Consulting and Hildebrand Consulting are pleased to present this report of the 2018 Water Rate Study (Study) that we performed for the Indian Wells Valley Water District (District). We appreciate the fine assistance provided by you and all of the members of the District staff who participated in the Study.

If you or others at the District have any questions, please do not hesitate to call me at (510) 316-0621 or email me at mhildebrand@hildco.com. We appreciate the opportunity to be of service to the District and look forward to the possibility of doing so again in the near future.

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Hildebrand", is written over a light blue circular stamp.

Mark Hildebrand
Project Manager

Enclosure

ES. EXECUTIVE SUMMARY

This Executive Summary presents an overview of the results of the Water Rate Study (Study) that was conducted for Indian Wells Valley Water District (hereafter referred to as the “District”) by Stantec Consulting, in collaboration with Hildebrand Consulting.

ES.1 STUDY OBJECTIVES

The principal objectives or components of the Study are as follows:

- i. Develop a multi-year financial management plan that integrates the District’s capital funding needs;
- ii. Identify future rate adjustments to water rates that will ensure adequate revenues to meet the District’s ongoing financial requirements;
- iii. Determine the cost of providing water service using industry accepted methodologies; and
- iv. Recommend specific rate structures that equitably recover the cost of service while comporting with industry practices and legal requirements.

ES.2 GENERAL METHODOLOGY

The Study used methodologies that are aligned with industry standard practices for rate setting as promulgated by the American Water Works Association (AWWA) and all applicable law, including California Constitution Article XIII D, Section 6(b), commonly known as Proposition 218.

The Study consisted of the following phases:

Perform a Revenue Sufficiency Analysis (RSA) – Develop and populate a multi-year forecasting model for the District that will determine the level of annual rate revenue required to satisfy projected annual operating costs, debt service expenses, and capital cost requirements as well as maintain adequate reserves.

Cost-of-Service Analysis (COSA) – Using the revenue requirements from the revenue sufficiency analysis for Fiscal Year (FY) ending 2019, we performed a detailed cost of service allocation based upon principles outlined by the American Water Works Association (AWWA) and other generally accepted industry practices in order to determine the proper distribution of costs and corresponding revenue requirements.

Rate Structure Analysis – The rate structure analysis phase developed specific rates that would recover the identified level of required rate revenue. The recommended rate schedules were designed to ensure that the water rates conform to accepted industry practices and reflect the appropriate distribution of system costs, while achieving the District’s policy objectives, such as fiscal stability and affordability to the greatest extent possible.

ES.3 REVENUE SUFFICIENCY ANALYSIS

In the RSA, Stantec evaluated the sufficiency of the District's rate revenues to meet all of its current and projected financial requirements over a 10-year projection period and determined the level of any rate revenue increases necessary in the next 5 years to provide sufficient revenues to fund cost requirements. With District staff, we thoroughly discussed the base data and assumptions of the analysis and reviewed several alternative capital spending scenarios. Through this process, we identified the recommended financial plan and associated plan of annual rate increases. The financial plan calls for approximately \$9.7 million in capital projects to be funded with debt in the next 2 years.

The proposed financial plan and associated rate revenue adjustments are based upon the revenue and expense information, beginning balances, the assumptions as described in the full report. The 5-year rate revenue adjustment plan is presented in **Table ES-1**. It is important to note that, while rate revenues will increase by 3% as a whole, some customers' bills may go up or go down based on the recommended rate structure adjustments identified in the cost of service and rate design phases of the Study.

Table ES-1 Proposed Plan of Water Rate Revenue Increases

Implementation Date	Rate Adjustment
January 1, 2019	3.0%
July 1, 2019	3.0%
July 1, 2020	3.0%
July 1, 2021	3.0%
July 1, 2022	3.0%

ES.4 COST-OF-SERVICE ANALYSIS

The purpose of a COSA is to determine the cost of providing water services so that the revenue requirements of the utility may be fairly distributed through a rate structure. The Study employed the "base-extra capacity" cost-of-service method promulgated in AWWA's Manual M1: Principles of Water Rates, Fees, and Charges (M1) for the water system, whereby costs are first allocated to individual functions or activities then the cost of each function is distributed to appropriate system parameters to calculate unit costs. The unit costs are then used to distribute system costs to each Customer Class based on their usage characteristics.

The COSA included the following steps:

- ▶ Step 1: Allocate costs to the appropriate activities/functions
- ▶ Step 2: Allocate the costs of each function to specific system parameters
- ▶ Step 3: Calculate unit costs
- ▶ Step 4: Credit non-rate revenue

ES.5 RATE STRUCTURE RECOMMENDATION

Upon completion of the COSA, multiple rate structures were analyzed and presented to the District Board of Directors at the September 9, 2018 board meeting for consideration. The Board approved the four tiers rate structure which this Study addresses. A rate structure analysis was performed to identify potential rate structure modifications and specific rate schedules that would:

- i. Fairly and equitably recover the cost of providing service and revenue requirements for each Customer Class;
- ii. Conform to accepted industry practice and legal requirements; and
- iii. Provide fiscal stability and recovery of fixed costs of the system.

Current water rates are made up of Fixed Service Charges for Ready-to-Serve and Arsenic Treatment, as well as a Commodity (consumption-based) rate. The Commodity rates have four tiers with the water allocation within each tier increasing with meter size. The monthly tier allocations for the smallest meter size ($\frac{3}{4}$ " meters) are 0 to 7 HCF, 7.01 to 24 HCF, 24.01 to 45 HCF, and greater than 45 HCF, respectively.

This Study recommends the inclusion of an Account Service Charge imbedded within the Fixed Service Charges. This additional charge type will not increase the overall bill amount but allows for a stronger cost of service basis for the rates.

This study also recommends that the Tier 1 water allocation be increased from 7 HCF to 9 HCF for the $\frac{3}{4}$ " meters (and proportionately increased for larger meter sizes). This higher allocation aligns with the indoor water needs of most single-family homes while also providing the benefit of giving all accounts access to more affordable water.

It is worth noting that the District will be incurring additional costs associated with compliance with the Sustainable Groundwater Management Act (SGMA). These additional costs will be assessed to the District by the Indian Wells Valley Groundwater Authority on a volumetric basis (currently expected to be \$30 per acre foot) and therefore have been imbedded within the calculation of the proposed Commodity charges.

ES.6 RATE SCHEDULES

Tables ES-2 through **Table ES-7** show the proposed rates for FY 2019. The complete list of rate schedule through FY 2023 are provided in the complete report.

Table ES-2 Proposed Commodity Rate, Effective January 1, 2019

Commodity Rate	
Tier 1	\$0.74
Tier 2	\$1.24
Tier 3	\$2.39
Tier 4	\$4.92

Table ES-3 Proposed Monthly Service Charge, Effective January 1, 2019

Meter Size	Account Charge	Ready-to-Serve	Arsenic Charge
3/4"	\$4.47	\$23.22	\$10.39
1"	\$4.47	\$38.78	\$17.35
1 1/2"	\$4.47	\$77.32	\$34.60
2"	\$4.47	\$123.76	\$55.38
3"	\$4.47	\$247.76	\$110.86
4"	\$4.47	\$387.08	\$173.20
6"	\$4.47	\$773.92	\$346.30
8"	\$4.47	\$1,238.32	\$554.10
10"	\$4.47	\$1,780.15	\$796.54

Table ES-4 Proposed Zone Charges, Effective January 1, 2019

Proposed Charge (per HCF)	
Zone B	\$0.21
Zone C	\$0.42
Zone D	\$0.63
Zone E	\$0.84

Table ES-5 Proposed Bulk Water Rates, Effective January 1, 2019

Proposed Charge	
<u>UNMETERED RATES</u>	
Proposed Monthly Fixed Charge:	\$47.11
<u>METERED RATES</u>	
Proposed Monthly Fixed Charge:	\$28.68
Volumetric Charge (Per HCF):	\$2.63

Table ES-6 Proposed Construction Water Rates, Effective January 1, 2019

	Proposed Charge
Monthly Meter Charge:*	\$183.61
Volumetric Unit Rate (per HCF)**:	\$4.19

* May be pro-rated for partial months.
 Check-out fees may apply.
 ** Zone Charges will be added to this rate.

Table ES-7 Proposed Private Fire Water Rates, Effective January 1, 2019

Meter Size	Proposed Monthly Charge
1"	\$1.55
2"	\$9.62
3"	\$27.96
4"	\$59.57
6"	\$173.05
8"	\$368.78
10"	\$663.20

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1. INTRODUCTION

Stantec Consulting, in collaboration with Hildebrand Consulting, has been retained by the Indian Wells Valley Water District (District) to conduct a Water Rate Study (Study). This report describes in detail the assumptions, procedures, and results of the Study, including our conclusions and recommendations.

1.1 UTILITY BACKGROUND

The District was organized in 1953 for the purpose of providing domestic water supplies within its service area. The District is situated in the Indian Wells Valley, which lies in the northern portion of the Mojave Desert, southeasterly of the Sierra Nevada, and southerly of the Owens Valley. The District is the primary purveyor of public water supplies in the Ridgecrest area of Kern and San Bernardino Counties.

The District manages water resources and constructs, operates, maintains, repairs, and replaces water system facilities as needed to provide water service in compliance with applicable standards and regulations.

The District's water comes from groundwater wells, four of which are treated for arsenic removal. The service area varies in elevation by more than 500 ft, therefore the District has created five different elevation zones, separated by 100 ft. each.

1.2 OBJECTIVES

The primary objectives of this Study are to:

- i. Develop a multi-year financial management plan that integrates the District's capital funding needs;
- ii. Identify future rate adjustments to water rates that will ensure adequate revenues to meet the District's ongoing financial requirements;
- iii. Determine the cost of providing water service to customers using industry accepted methodologies; and
- iv. Recommend specific rate structures that equitably recover the cost of service while promoting affordability and comporting with industry practices and legal requirements.

1.3 GENERAL METHODOLOGY

This study used methodologies that are aligned with industry standard practices for rate setting as promulgated by the American Water Works Association (AWWA), specifically, the "base-extra capacity" cost-of-service method promulgated in AWWA's Manual M1: Principles of Water Rates, Fees, and Charges (M1). The methodology complies with and all applicable laws, including California Constitution Article XIII D, Section 6(b), commonly known as Proposition 218.

To begin the Study, we first developed a multi-year financial management plan that determined the level of annual rate revenue required to satisfy projected annual operating, debt service (including coverage), and capital cost requirements as well as maintain adequate reserves. This portion of the Study was conducted using the revenue sufficiency and financial planning module of Stantec’s proprietary FAMS-XL modeling system. We customized our model to reflect the financial dynamics and most current data available for the District’s operations in order to develop a long-term financial management plan, inclusive of projected annual revenue requirements and corresponding annual rate adjustments.

Using the revenue requirements from the revenue sufficiency analysis for Fiscal Year¹ (FY) ending June 2019 (FY 2019), we then performed a detailed cost-of-service allocation (COSA) analysis based upon principles as outlined by the American Water Works Association (AWWA) and other generally accepted industry practices in order to develop rates that reflect the cost of providing service.

The recommended rate schedules presented herein are designed to ensure that the District’s water rates conform to accepted industry practice, legal requirements, and reflect the equitable distribution of system costs, while achieving the District’s policy objectives, such as fiscal stability and affordability.

1.4 ACRONYMS

AF	acre-feet
AWWA	American Water Works Association
CIP	capital improvement program
COSA	cost of service analysis
DCR	debt service coverage ratio
EM	equivalent meter
FAMS-XL	Financial Analysis and Management System model
FY	fiscal year (which ends on June 30 for the District)
GPM	gallons per minute
HCF	hundred cubic feet
RSA	revenue sufficiency analysis
SGMA	Sustainable Groundwater Management Act
GSA	Groundwater Sustainability Agency

¹ Fiscal years are indicated by their ending years. For example, FY 2017 starts on July 1, 2016 and ends on June 30, 2017.

2. REVENUE SUFFICIENCY ANALYSIS

This section presents the financial management plan and corresponding plan of water rate adjustments developed in the revenue sufficiency analysis (RSA) that was conducted as part of the Study. This section presents a description of the source data, assumptions, and policies reflected in the RSA, as well as the results of the RSA. Appendix A includes detailed schedules supporting the financial plan identified herein.

During the RSA we reviewed alternative multi-year financial management plans and corresponding water rate revenue adjustment plans through several interactive work sessions with District staff. As an outcome to this process (which included the District's directive to minimize rate increases), the Study has produced a proposed financial plan and corresponding plan of debt issuance which will help ensure the financial stability of the District throughout the Study period with minimal rate increases.

2.1 DATA & ASSUMPTIONS

The District provided historical and budgeted financial information regarding the operation of the utility, including a multi-year capital improvement program (CIP) and current debt service obligations and covenants. District staff also assisted in providing other assumptions and policies, such as water demands and customer growth, debt coverage requirements, operating reserve targets, earnings on invested funds, and escalation rates for operating costs (all of which are described in the following subsections). The following presents the key source data relied upon in conducting the RSA.

2.1.1 BEGINNING FUND BALANCES

The ending cash balances for FY 2017 were used to establish the beginning FY 2018 balances and are provided in **Table 2-1**.

Table 2-1 FY 2018 Beginning Cash Balance²

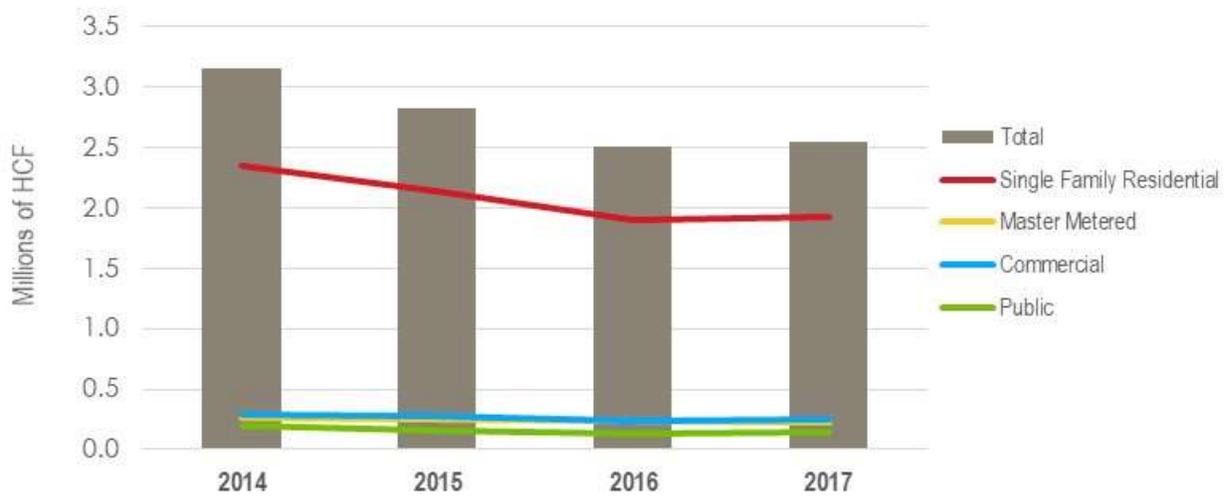
	Revenue Fund	Debt Reserve Funds	Source of Supply
CURRENT UNRESTRICTED ASSETS			
Petty Cash	1,000	-	-
Mission Bank	543,000	-	-
Kern County	7,162,000	-	-
Kern Cnty#60136 Prop 55 Reserve	-	297,000	-
BNY 2009 COP Reserve Fund	-	1,330,000	-
2012 Municipal Finance Reserve	-	288,000	-
2016 Solar Loan Project Funds and Reserve	-	1,508,000	-
LAIF	714,000	-	-
Receivables	2,462,000	-	-
OPEB Asset	757,000	-	-
Deferred Outflows	537,000	-	-
Production & Source of Supply	-	-	935,000
Prepaid Expenses	210,000	-	-
TOTAL CURRENT UNRESTRICTED ASSETS	\$12,386,000	3,423,000.00	935,000.00
CURRENT LIABILITIES			
Less: Accounts Payable	\$ (527,000)	-	-
Less: Accrued SDI, Taxes, Benefits, Wages, and Leave	(326,000)	-	-
Less: Customer Deposits	(259,000)	-	-
Less: Deferred Inflows	(483,000)	-	-
Less: Pension Liability	(2,347,000)	-	-
Less: Brackish Water and Salt Nutrient Joint Projects	(222,000)	-	-
TOTAL CURRENT LIABILITIES	(\$4,164,000)	-	-
UNRESTRICTED WORKING CAPITAL	\$8,222,000	3,423,000.00	935,000.00

2.1.2 CUSTOMER GROWTH & VOLUME FORECAST

Based upon a review of recent capacity charge revenues, the RSA assumes that the customer base will grow at a pace of 0.08% per year.

Forecasting the future usage of water is a perennial challenge for water utilities. **Figure 2-1** shows how total water usage can vary by as much as 20% over the course of a couple years. While there are signs that the recent drought may be ending, this study assumes that total water usage for the District will remain flat over the course of the five-year study period (equal to FY 2017 usage). This assumption was partially based on the expectation that there will be little “rebound” of water use based on existing circumstances facing the District and the Indian Wells Valley as a whole. Lower water use may be the “new normal” as the State continues to pass laws such as SB 606 and AB 1668, which establish state-wide mandates to limit per capita indoor water use.

² The values in this table and other tables in this report have been rounded to the nearest thousand.

Figure 2-1 Historical Total Water Consumption

2.1.3 RATE REVENUES

The focus of this Study is the “rate revenue,” which is the revenue that is received from customers for water service. The District receives rate revenue in the form of fixed charges (Ready-to-Serve Charge and Arsenic Compliance Charge) and consumption-based variable charges. Rate revenue is based upon FY 2017 actual revenues, adjusted annually to reflect assumed customer growth, changes in water demand³, and the rate revenue adjustments that are proposed by this Study. Budgeted and projected revenues are listed in detail in **Schedule 1** of Appendix A⁴.

2.1.4 NON-RATE REVENUES

In addition to rate revenue, the District receives a limited amount of non-rate revenue related to miscellaneous service fees, interest revenue on investments, and miscellaneous revenue such as farm land rent. Projections of all non-rate revenues were based on FY 2017 actual values with the exception of interest income which was calculated annually based upon projected average fund balances and assumed interest rates. Budgeted and projected non-rate revenues are listed in detail in **Schedule 1** of Appendix A⁴.

³ As discussed in Section 2.1.2, this Study assumes no change in the average water demand from customers during the Study period.

⁴ The rate revenue in Schedule 1 does not include the proposed rate adjustment proposed by this Report.

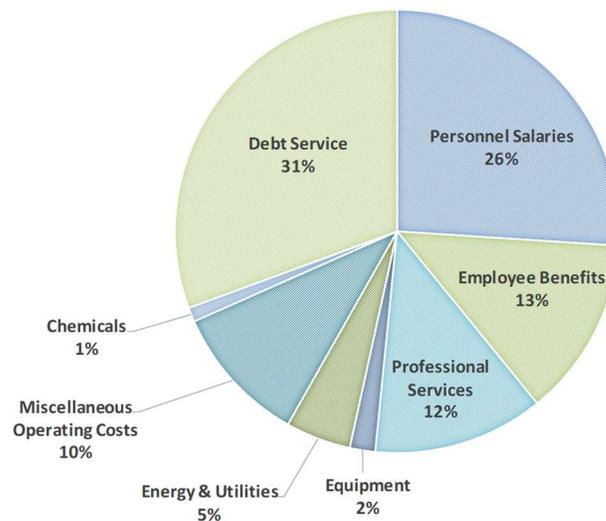
2.1.5 OPERATING EXPENSES & EXISTING DEBT

The District's operating expenses include all operating and maintenance expenses, debt service requirements, and minor capital outlay. Future operating expenses were projected based upon the actual expenditures from FY 2017, adjusted for inflation (see Section 2.1.6).

Due to the implementation of the Sustainable Groundwater Management Act (SGMA), the District elected to participate in the formation of the Indian Wells Valley Groundwater Authority (Authority), the Groundwater Sustainability Agency (GSA) for the Indian Wells Valley. The GSA spans the counties of Kern, Inyo and San Bernardino. The Authority has five General Members consisting of the District, the City of Ridgecrest and Kern, Inyo and San Bernardino counties. The Navy and Bureau of Land Management are Associate, non-voting members. The additional GSA expense has been added starting in FY 2019 and is assumed to be a \$30 per acre-foot groundwater extraction fee imposed by the Authority. This Study proposes to add the new GSA charge to the commodity rates (see Section 4.2.3.2).

Budgeted operating costs categories for FY 2018 are depicted in **Figure 2-2**. Budgeted and projected operating costs are listed in detail in **Schedule 2** of Appendix A.

Figure 2-2 FY 2018 Budgeted Expense Categories



The District's existing loans include a 2009 Water Revenue Certificates of Participation Bond (\$20.0 million), 2012 Refinancing Bond that will be fully repaid in FY 2018 (\$3.0 million), a 2016 Solar Loan (\$8.0 million), and a Prop 55 Loan from the State of California (\$5.25 million). The remaining annual debt service expenses for these loans are identified in **Schedule 2**.

2.1.6 COST ESCALATION

Annual cost escalation factors for the various types of operating and maintenance expenses were developed based upon a review of historical trends, our industry experience, and detailed discussions

with District staff. This study assumes that salaries escalate at 5.5%, PERS benefits escalate at 5.0%, other employee benefits escalate at 4.0%, and all other operating expenses, including the cost of capital projects, will escalate at a rate of 3.0% per year.

2.1.7 CAPITAL IMPROVEMENT PROGRAM

District staff provided the forecasted spending on the CIP from FY 2018 through FY 2027. In total, the CIP (excluding escalation) from FY 2018 – FY 2027 is approximately \$28.1 million, averaging about \$2.8 million a year. A detailed list of projects and costs by year are provided in Schedule 3 of Appendix A⁵.

As reflected in Section 2.1.6, the RSA includes an annual cost escalation factor for capital costs of 3.0% based upon historical increases observed in the Engineering News Record 20-City Construction Cost Index. The CIP spending in FY 2028 was assumed to continue at the average level of spending planned for the previous 5 years.

2.1.8 INTEREST EARNINGS ON INVESTED FUNDS

The RSA reflects interest earnings on invested funds at a rate of 0.79%, based on the recent historical performance of the District's investment earnings as well as input from District staff.

2.1.9 MINIMUM OPERATING RESERVE BALANCE

Reserve balances for utility systems are funds set aside for a specific cash flow requirement, financial need, or debt covenant. These balances are maintained in order to meet short-term cash flow requirements, and at the same time, minimize the risk associated with meeting the financial obligations and continued operational and capital needs under adverse conditions. The level of reserves maintained by a utility is an important component and consideration of developing a multi-year financial plan.

Many utilities, rating agencies, and the investment community as a whole place a significant emphasis on having sufficient reserves available for potentially adverse conditions. The rationale related to the maintenance of adequate reserves is twofold. First, it helps to ensure that a utility will have adequate funds available to meet its financial obligations during unusual periods (i.e. when revenues are unusually low and/or expenditures are unusually high). Second, it provides funds that can be used for emergency repairs or replacements to the system that can occur as a result of natural disasters or unanticipated system failures.

Financial policies should articulate how these balances are established, their use, and how to determine the adequacy of the reserve fund balances. Once reserve targets are established, they should be

⁵ While this list is a comprehensive list of both capital projects, this study assumed that Capital Facility revenue to pay for non-growth-related projects.

reviewed annually during the budgeting process to monitor current levels and assure conformance with stated policies and practices. Decisions can be made to maintain, increase, or spend down the reserve balances, as appropriate, depending upon the impact of such decisions to the upcoming budget period.

For purposes of this Study, we have reflected all of the District's current and existing reserve policies. The levels of the District reserve policies are consistent with 1) our industry experience for similar systems, 2) the findings of reserve studies conducted by the AWWA, and 3) a healthy level of reserves for a municipal utility system per the evaluation criteria published by the municipal utility rating agencies (Fitch, Moody's, and Standard & Poor's).

The District has a 6-month Operating Reserve policy, which means that 180 days of operating costs are kept available in cash reserves. This reserve ensures continuity of service regardless of short-term changes in cash flow or sudden increases in operating costs. Since this reserve target is set relative to the District's operating budget, the target will change as the budget changes. As detailed in Schedule 4 the Operating Reserve target will increase from approximately \$3.1 million in FY 2018 to \$4.8 million in FY 2028.

The District also maintains Capital Improvement/Replacement, Vehicle, and Computer Replacement Reserves totaling \$2.0 million, \$350 thousand, and \$100 thousand respectively. The vehicle and computer reserves are maintained at their maximum balance allowed by Resolution 13-08. The Capital reserve does not have a maximum. For the purposes of this study, we are not anticipating using or growing this reserve beyond the amount that was in the reserve at the end of FY 2017.

The District also maintains a Debt Service reserve which is required by the covenants of existing outstanding debt (and is assumed to be required by any future debt issued by the District). For existing debt, this reserve requirement is equal to approximately \$3.4 million.

2.1.10 FUTURE BORROWING ASSUMPTIONS

Section 2.2 of this Report describes proposed issues of new debt. That new debt is assumed⁶ to carry the following financial terms:

- 20-year term, level debt service
- 2.0% cost of issuance
- Fixed interest rate of 5.0% for debt issued in each fiscal year of the projection period.
- A one-year debt service reserve

⁶ The interest rates used in this report are for general planning purposes and are conservative relative to interest rates obtained by the District in the past. The assumptions used in this report should not be construed as financial advice but rather an assumption aimed at positioning the District to qualify for advantageous debt terms.

2.1.11 DEBT COVERAGE

The debt service coverage (DCR), is the ratio of cash available for debt servicing to interest, principal and lease payments. It is a financial benchmark used in the measurement of the District's ability to produce enough cash to cover its debt payments⁷. The existing 2016 Water Revenue Bond has a DCR requirement of 1.2 (including Connection Fee revenue). For purposes of this Study, Stantec has targeted a DCR level that will enable it to access low interest rates from the debt market should the need arise. Per recently published guidance from Fitch Ratings⁸, utility systems with *midrange* financial profiles should maintain debt service coverage greater than 1.50 times net revenue. As such, the financial plan recommended by this Report is designed to maintain a DCR that is greater than 1.5 during most of the 5-year planning period. It should be noted that additional rate increases will be needed in FY2022 in order to maintain the DCR over 1.5.

2.2 PROPOSED RATE ADJUSTMENTS

All of the above information was entered into Stantec's Financial Analysis and Management System (FAMS-XL) interactive modeling system. This module of FAMS-XL produced a ten-year projection of the sufficiency of revenues to meet current and projected financial requirements and determined the level of rate revenue increases necessary in each year of the projected period.

Based upon the above financial data, assumptions, and policies, Stantec proposes a financial strategy that combines rate adjustments over the next 5 years (see **Table 2-2**) along with the issuance of near-term debt (see **Figure 2-3** below and Row 26 of Schedule 4 in Appendix A).

Table 2-2 Recommended Water Rate Adjustments

Implementation Date	Rate Adjustment
January 1, 2019	3.0%
July 1, 2019	3.0%
July 1, 2020	3.0%
July 1, 2021	3.0%
July 1, 2022	3.0%

In order to make these minimal rate increases possible, the District will be required to issue debt (which this Report assumes will be in the form of Revenue Bonds, see Section 2.1.10) to pay for a portion of the capital program. The timing and amount of the necessary debt issues are summarized in Schedule 4 of

⁷ The footnotes to Appendix 1 explain how the DCR formula is calculated.

⁸ As published on July 31, 2013.

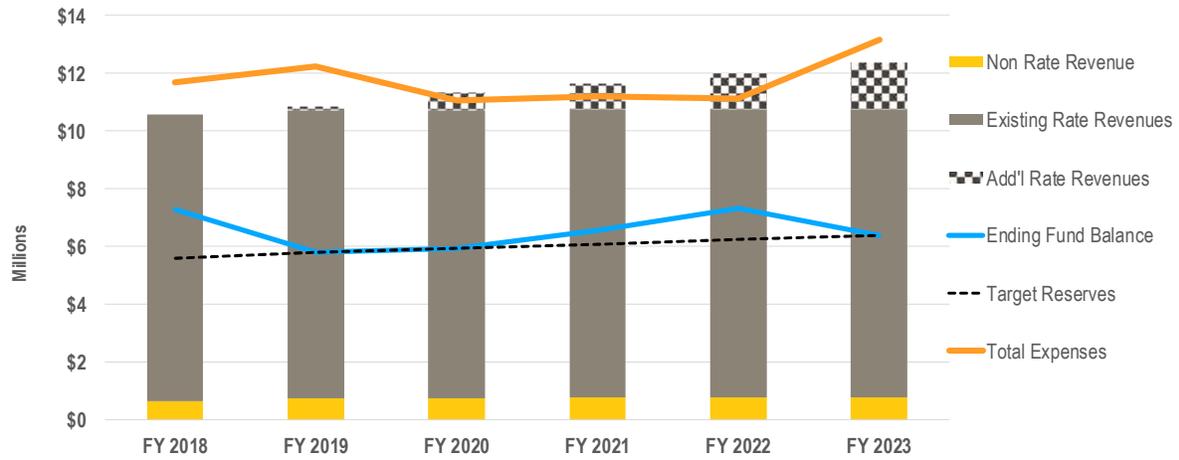
this report (Row 26). While Schedule 4 shows annual debt issues, this Report recognizes that it may be preferable to “bundle” the debt over spans of two years. The borrowed amount should be issued in the first fiscal year of the bundling period.

The projects that are expected to be eligible to be debt financed include:

FY2019	
Well No. 35 (WSIP Phase I)	\$1,700,000
SCADA Upgrade	\$500,000
Greenlawn Mainline Replacement	\$108,580
Rancho Mainline Replacement	\$109,815
Forest Knoll Mainline Replacement	\$109,869
Springside Mainline Replacement	\$109,867
Primrose Mainline Replacement	\$109,867
Orchard Mainline Replacement	\$109,810
Street Infrastructure Replacement Project	\$400,000
AMI Pilot	\$3,000,000
FY2020	
East Bowman A-Zone Reservoir #1	\$1,273,162
Transmission Line Extension Bowman Rd to A-Zone Reservoir	\$3,250,000
Springer to Gateway Tank	\$900,000
Street Infrastructure Replacement Project	\$400,000
AMI Pilot	\$1,030,000
FY2021	
New Infrastructure, Back Parking Lot & North Wall	\$450,000

The numbers provided in Schedule 4 are summarized graphically in **Figure 2-3**, which shows that cash reserves and DCR targets are maintained over the course of the planning period, with a slight dip below the reserve target in FY 2020.

Figure 2-3 – Financial Projection with Recommended (and forecasted) Rate Adjustments



Rate Increases:	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%
DCR:	1.62	1.68	1.44	1.52	1.62	1.64
Debt Proceeds:	\$0M	\$4.1M	\$6.2M	\$0M	\$0M	\$0M

3. COST-OF-SERVICE ALLOCATION

The purpose of a Cost-of-Service Allocation (COSA) is to determine the cost of providing water service so that the proposed rate structure is aligned with those costs. This Study employed well-established industry practices for these types of studies as recognized by the American Water Works Association (AWWA) and other accepted industry practices. The following section presents a detailed description of the COSA methodology and corresponding results.

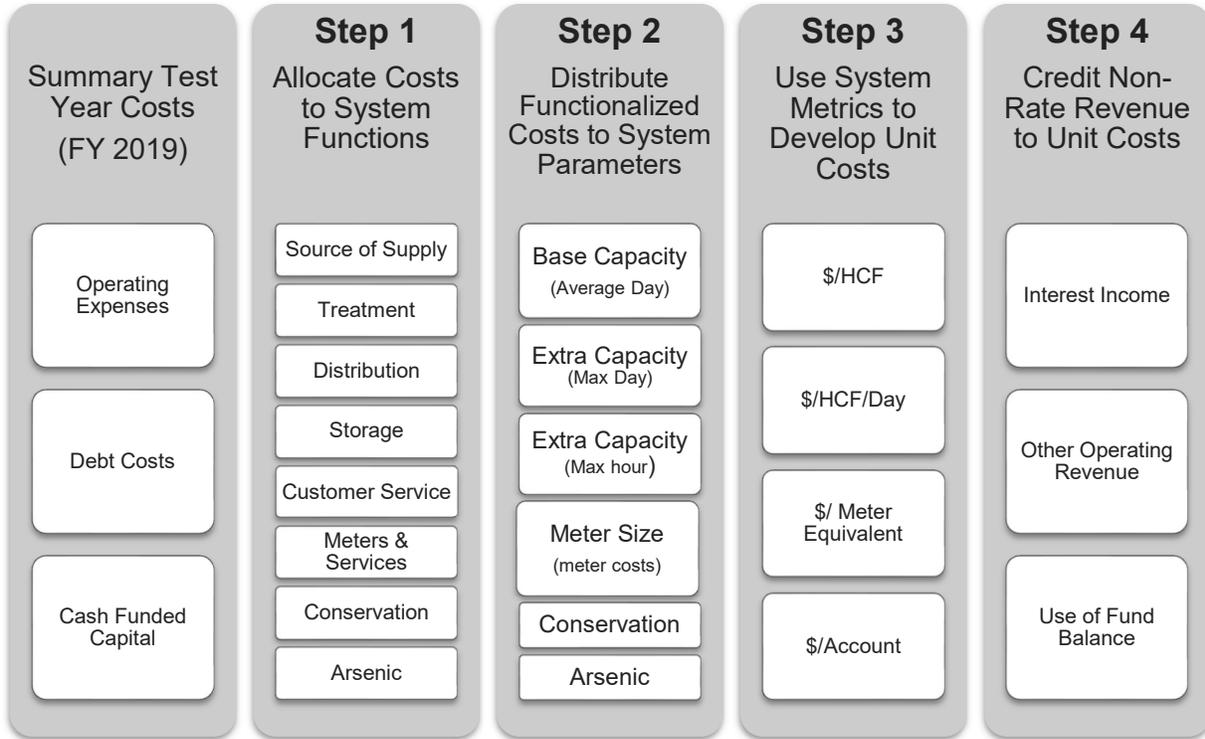
This Study employed the “base-extra capacity” cost-of-service method promulgated in AWWA’s Manual M1: Principles of Water Rates, Fees, and Charges (M1) for the water system, whereby costs are first allocated to individual functions or activities (Source of Supply, Treatment, Transmission & Distribution, Storage, Customer Service, Meters & Services, Conservation, and Arsenic Removal) then the cost of each function is distributed to appropriate system parameters (Base Capacity (average day demands), Extra Capacity (maximum day demands & peak hour demands⁹), Customer costs, Meter costs, Conservation, and Arsenic) to calculate unit costs. The unit costs are then used to distribute system costs to the various components of the rate structure (see 4).

In addition to water rates, this Study includes bulk water accounts, private fire protection charges, and construction meter charges.

3.1 PROCESS

The COSA was based upon the District’s FY 2019 annualized expenditure and revenue requirements per the RSA, and included the following steps:

⁹ For this Study, billing data was used to directly measure average day and maximum month demands. Chapter 2 of 1997 General Plan, page II-7 identifies a Max-Day Coincident Peaking of 2.0 times the Average Day, while the Max Hour peaking assumption of 1.5 was based on typical design factors.



The following sub-sections give a detailed description of the COSA methodology and high-level results, while **Appendix B** includes detailed schedules of those results.

3.1.1 STEP 1: ALLOCATE COSTS TO SYSTEM FUNCTIONS

The operating expenses, debt service, and cash-funded capital requirements within the water system were distributed to specific activities or functional components of service.

Industry best practices provide a framework for assigning operating and capital expenses to system functions, but because the reality of each utility’s cost causation and design can vary, the specific knowledge and insight of District staff was relied upon to functionalize all the line item costs to the respective functional components identified above. A summary of cost functionalization is presented in **Table 3-1**. The Capital Asset percentages were assigned based on the net value of existing assets.

The detailed summary of all cost allocations to functional components is presented in **Schedule 5** of Appendix B.

Table 3-1: Allocation of Cost Categories to Functional Components

	General & Admin	Source of Supply	Treatment	Trans & Dist	Storage	Customer Service	Meters & Services	Conservation	Arsenic
General & Admin	100.0%								
Source of Supply		100.0%							
Treatment			100.0%						
Trans & Dist				100.0%					
Storage					100.0%				
Customer Service						100.0%			
Meters & Services							100.0%		
Conservation								100.0%	
Arsenic									100.0%
Field Services				25.0%			75.0%		
Capital Assets	3.7%	16.8%	39.4%	7.4%	0.2%	4.9%			27.5%

3.1.2 STEP 2: DISTRIBUTE FUNCTIONALIZED COSTS TO SYSTEM PARAMETERS

Next the costs of each functional component are distributed to system parameters based on water system demand and operational metrics. Assigning costs to each functional component not only allows us to allocate costs to specific customer classes but is also foundational to developing a rate structure that is aligned with the cost to provide service (as required by Proposition 218).

For the most part, the system parameters are direct counterparts to the functional components already discussed. For example (and as shown in **Table 3-2**), **Customer Service** costs are allocated to the customer parameter, **Conservation** costs are allocated to conservation parameter, **Meters & Services** are allocated to the meters and service parameter, and the **Arsenic** costs are allocated to the Arsenic parameter. Similarly, **Source of Supply** costs are allocated to the system’s Base Capacity parameter, which is a measure of the system’s average daily usage.

Treatment costs are split between the Base Capacity and Extra Capacity-Max Day parameter. Base capacity represents the costs that would be incurred in delivering water service if the volumes were required at a uniform rate. The Extra Capacity-Max Day reflects the costs of treating water volumes at rates above the average (i.e. Base Capacity)¹⁰. This Base Capacity portion is calculated as the ratio of the Max Day System Water Demands and the Average Day System Water Demands (see **Figure 3-1** and **Table 3-3**).

¹⁰ Average Day use was calculated using customer billing data. Chapter 2 of 1997 General Plan, page II-7 identifies a Max-Day Coincident Peaking of 2.0 times the Average Day.

Figure 3-1 – Relative Base Capacity vs. Extra Capacity (Max Day) for Treatment Costs

$$\text{Base Capacity} = \frac{\text{Average Day}}{\text{Max Day}} = \frac{7,002 \text{ HCF/day}}{14,004 \text{ HCF/day}} = 50\%$$

$$\text{Extra Capacity} = 100\% - \text{Base Capacity} = 50\%$$

Transmission & Distribution and Storage costs are split three ways between the system’s Base Capacity (average demand), Extra Capacity – Max Day, and Extra Capacity – Max-Hour (**Figure 3-2**). The calculation of the Base Capacity, Extra Capacity (Max Day), and Extra Capacity (Max Hour) follows the same logic used to calculate the system parameter ratios for Treatment; however, a Max-Hour factor is used to reflect the different system requirements when designing transmission and distribution systems¹¹. See **Table 3-3** for the volumetric relationship between average day, maximum month, maximum day, and maximum hour.

Figure 3-2 Relative Base Capacity vs. Extra Capacity (Max Day and Max Hour) for Transmission & Distribution and Storage

$$\text{Base Capacity Costs} = \frac{\text{Average Day}}{\text{Max Hour}} = \frac{7,002 \text{ HCF/Day}}{21,006 \text{ HCF/Day}} = 33.3\%$$

$$\text{Extra Capacity (Max Day)} = \frac{\text{Max Day} - \text{Average Day}}{\text{Max Hour}} = \frac{14,004 \text{ HCF/Day} - 7,002 \text{ HCF/Day}}{21,006 \text{ HCF/Day}} = 33.3\%$$

$$\text{Max Capacity (Max Hour)} = \frac{\text{Max Hour} - \text{Max Day}}{\text{Max Hour}} = \frac{21,006 \text{ HCF/Day} - 14,004 \text{ HCF/Day}}{21,006 \text{ HCF/Day}} = 33.3\%$$

Table 3-2: Mapping Functional Components to System Parameters

Functional Component	System Parameters						
	Base Capacity (HCF, Average Day)	Extra Capacity (HCF, Max Day)	Extra Capacity (HCF, Max Hour)	Meter Size (Equivalent Meter)	Conservation (HCF, Average Day)	Customer (No. of Accounts)	Arsenic (Equivalent Meter)
Source of Supply	100.0%						
Treatment	50.0%	50.0%					
Trans & Dist	33.3%	33.3%	33.3%				
Storage	33.3%	33.3%	33.3%				
Customer Service						100.0%	
Meters & Services				100.0%			
Conservation					100.0%		
Arsenic							100.0%

¹¹ Chapter 2 of 1997 General Plan, page II-7 identifies a Max-Hour Coincident Peaking of 1.5 times the Max-Day.

Missing from the Functional Components listed above is General and Administration, which has been distributed among the other Functional Components using the indirect cost allocation method.

Table 3-3: Water System Peaking Profile

	Average Day (HCF/day)	Max Month Average Day (HCF/day)	Max Day (Coincident) (HCF/day)	Max Hour (Full Day) (HCF/day)
Water System Demands	7,002	11,047	14,004	21,005

3.1.3 STEP 3: USE SYSTEM METRICS TO DEVELOP UNIT COSTS

Next the functionalized costs for operating, debt service and capital spending from **Step 1** are allocated to system parameters based on the values shown in **Table 3-2**. The System Parameter costs are then converted to a Unit Cost of Service based on the appropriate system metrics. The results are summarized in **Schedule 6** in Appendix B.

For example, at the top of **Schedule 6** the \$1,508,551 in Supply operating expenses (row 3) are allocated 100% to the Base Capacity parameter. The total operating expenses allocated to the Base Capacity parameter (\$2,409,642 in row 11) are then converted to unit costs by dividing by the relevant system metric as listed in Row 1 (for Based Capacity it is 7,002 hundred cubic feet (HCF), see row 1). In the case of the Base Capacity parameter for operating costs the unit cost is \$344.15/HCF (see Row 13 and 60). When adding the capital expenses and debt expenses, the total unit rate for Base Capacity costs is \$613.47 / HCF (see Row 63).

3.1.4 STEP 4: CREDIT NON-RATE REVENUE

Non-rate revenue is used to offset the annual cost of service that would otherwise need to be recovered in rates or service charges. Non-rate revenue includes interest income and other operating revenue (such as miscellaneous fees). Non-rate revenues are allocated equitably among customers using the same proportions calculated in previous cost allocations.

The non-rate revenue is credited as shown in below in **Table 3-4** and yields the total rate revenue requirement. Notice that the Total Costs in **Table 3-4** matches the total costs from **Schedule 6** (row 64).

Table 3-4: Total Rate Revenue Requirement

	Total
Total Costs	\$12,342,427
Change in Fund Balance	-\$1,483,614
Non-Rate Revenue	-\$1,025,643
Rate Revenue Requirement	\$ 9,833,170

Finally, the rate revenue requirement is expressed in terms of System Parameters and by customer class as shown in **Table 3-5**. In this case, the District only has one primary customer class (Retail) and a secondary customer class for temporary meters (Construction Water)¹². The costs are allocated to those two customer classes based on their respective use of the system (total water usage, peak water usage, and number of accounts).

The manner in which the allocated system parameter costs are used in the rate design will be described in Section 4.

Table 3-5: Total Rate Revenue Requirement by System Parameter

	Total	Retail	Construction Water
Base Capacity (Average Day)	\$3,422,123	\$3,400,285	\$21,838
Extra Capacity (Max Day)	\$1,440,389	\$1,421,995	\$18,393
Extra Capacity (Max Hour)	\$1,428,135	\$1,402,127	\$26,008
Meter Size	\$645,181	\$638,003	\$7,177
Conservation	\$569,527	\$565,893	\$3,634
Customers	\$639,913	\$639,426	\$487
Arsenic	\$1,687,903	\$1,677,132	\$10,771
Total Revenue Requirement:	\$ 9,833,170	\$ 9,744,861	\$ 88,309

¹² While some water utilities separate their customers into separate customer class groupings, the District currently has data limitation that prevent them from separating all multifamily, commercial, and irrigation accounts.

4. PROPOSED RATE STRUCTURE AND RATE SCHEDULE

Upon completion of the COSA, a rate structure analysis was performed to identify potential rate structure modifications and specific rate schedules for implementation in FY 2019 that would:

- ▶ Fairly and equitably recover costs through rates;
- ▶ Conform to accepted industry practice and legal requirements; and
- ▶ Provide fiscal stability and recovery of fixed costs of the system.

The following sub-sections present a description of the basis of the recommended rate structure and specific rate schedules for a 5-year period starting on January 1, 2019. The recommended rate schedules are designed such that each customer class pays its own proportionate share of the cost of services provided by the District.

4.1 CURRENT RATES

The District follows a common industry practice with a two-part rate structure that is comprised of a fixed service charge and a commodity (consumption-based) rate. Generally accepted practice recovers a portion of the costs of the system in a fixed service charge, recognizing that utilities have substantial investments in capacity-related costs and other fixed costs that are incurred year-round to maintain a state of readiness to meet peak demands when they occur. The amount of cost recovery in fixed versus volumetric charges is unique to each utility's need for fiscal stability, philosophy regarding cost recovery, and level of fixed costs.

The District's current fixed service charge is made up of a Ready-to-Serve Charge and an Arsenic Treatment Charge. These charges are assessed based on meter size (see Section 4.2.4). These fixed charges currently recover 66.5% of rate revenue, which is a portion of the fixed costs of providing water service.

Commodity Rates are designed to recover the remainder of the water system's fixed costs as well as its variable costs. The Commodity rates have four tiers with the water allocation within each tier increasing with meter size. The monthly tier allocations for the smallest meter size ($\frac{3}{4}$ " meters) are 0 to 7 HCF, 7.01 to 24 HCF, 24.01 to 45 HCF, and greater than 45 HCF, respectively. There is also a Zone Charge which is added to the Commodity Rates to account for the additional cost of pumping water to higher elevations.

4.2 PROPOSED RATE STRUCTURE

This Study recommends that Retail accounts continue to be charged a (modified) **tiered rate structure** in order to properly reflect the cost of providing service. The proposed tiered rate structure will maintain the four-tier approach, but with slight adjustments in the tier width for the first tier. The Study also recommends adding an Account Charge as part of the fixed service charge. The cost basis being that

the Account Charge captures the cost of managing customers, the Ready-to-Serve charge captures the cost of fixed infrastructure, and the Arsenic Charge captures the cost of complying with Arsenic removal regulations.

4.2.1 METER EQUIVALENCY

The meter equivalency metric is an industry-standard factor used to represent the proportional demand that different sized meters place on the system based on the design capacity necessary to serve it. A meter equivalency schedule allows us to express all meter sizes in terms of multiples of the lowest common denominator (in this case a ¾" meter). The meter equivalency table adopted by this Study (which is the same as the District’s current equivalency schedule) is shown in **Table 4-1**.

Table 4-1: Meter Equivalencies

Meter Size	Meter Type	GPM	Meter Equivalence (a)
¾"	Displacement	30	1.00
1"	Displacement	50	1.67
1 1/2"	Displacement	100	3.33
2"	Displacement	160	5.33
3"	Compound	320	10.67
4"	Compound	500	16.67
6"	Compound	1,000	33.33
8"	Compound	1,600	53.33
10"	Compound	2,300	76.66

(a) Source: Table B-1, Appendix B, AWWA M1 Manual, 6th Ed.

4.2.2 PROPOSED SERVICE CHARGE FOR RETAIL CUSTOMERS

The fixed service charges have been calculated based on the results of the cost of service study.

The Account Charge will be assessed on a *per account* basis and has been calculated based on the sum of retail Customer revenue requirements (\$639,426, see **Table 3-5**) divided by the number of retail customers (11,922), yielding a per month account charge of \$4.47¹³.

The Arsenic Charge is calculated by dividing the Arsenic revenue requirements for retail customers (\$1,677,132) by the meter equivalency for retail customers (13,457), yielding a per month Arsenic Charge for ¾" meters of \$10.39. The Arsenic Charge for larger meters is increased in accordance with the meter equivalency schedule shown on **Table 4-1** (see Schedule 7 through Schedule 11).

The Ready-to-Serve portion of the Service Charge is calculated adding all of the Meter revenue requirements, 50% of the Base Capacity revenue requirements, and 50% of the Extra Capacity revenue requirements (both Peak Day and Peak Hour) for a total of \$3,750,207. This value is divided by the meter equivalency for all retail customers, yielding a per month Ready-to-Serve charge for ¾" meters of \$23.22.

¹³ Rounding may result in minor discrepancies.

The Ready-to-Serve Charge for larger meters is increased in accordance with the meter equivalency schedule shown on **Table 4-1** (see Schedule 7 through Schedule 9).

Together the three components of the fixed service charge add up to \$38.08 per month for ¾" meter accounts.

These proposed rates will modestly reduce the relative amount of revenue collected from the fixed Service Charge to approximately 60.3 % (below the current rate of approximately 66.2%), which will maintain the District's high level of financial stability while bolstering the defensibility of the rates and improving affordability for the District's customers.

4.2.3 TIERED COMMODITY RATES

The following describes the basis for the proposed tier allocations (i.e. the volume of water available at each respective tier price) and the tier prices (based on the cost to provide that water).

4.2.3.1 Tier Water Allocations

This Study has used the following logic as a basis for the tier water allocations for ¾" meters. Note that the water allocation increases for larger meters in proportion to the meter equivalency schedule.

- ▶ The 9 HCF of water in Tier 1 is based on indoor water needs for a single-family home (equal to 70 gallons per persons per day¹⁴, assuming 3.0 denizens per account¹⁵);
- ▶ The 15 HCF of water in Tier 2 is equal to the outdoor water needs of a single-family home using desert-adapted landscape with a crop co-efficient of 0.3¹⁶. The average lot was assumed to 17,000 sq. ft¹⁷. with 54% of the outdoor space being planted. The annual evapotranspiration in the Ridgecrest area is 66.5 inches¹⁸ and the average annual rainfall is 4.15 inches¹⁹ the assumed irrigation efficiency is 80% (amount of irrigation water that makes it to the root zone and is taken up by the plant).
- ▶ The 21 HCF of water in Tier 3 is equal to the *additional* water needs of a single-family home that has a turf lawn with a crop co-efficient of 0.7²⁰. All other landscaping assumptions are the same with exception of the irrigation efficiency was assumed to be 68%.
- ▶ The fourth tier begins after the third tier and has no upper limit. The Tier 3 threshold results in about 9% of the District's water to be sold at Tier 4 rates which is appropriate in terms of financial stability (too many water sales in Tier 4 can result in volatile rate revenue patterns).

¹⁴ The District's 2015 Urban Water Management Plan

¹⁵ The US Census Bureau identifies the average household in County Kern to be 2.57, which has been rounded to 3.0.

¹⁶ http://ucanr.edu/sites/UrbanHort/Water_Use_of_Turfgrass_andLandscape_Plant_Material_Turfgrass_Crop_Coefficients_Kc/

¹⁷ Based on The Ridgecrest Tract Housing Unit Status Report, updated January 5, 2010

¹⁸ Based on California Irrigation Management Information System (CIMIS), Zone 14.

¹⁹ The District's 2015 Urban Water Management Plan

²⁰ http://ucanr.edu/sites/UrbanHort/Water_Use_of_Turfgrass_andLandscape_Plant_Material_Turfgrass_Crop_Coefficients_Kc/

- ▶ **Table 4-2** summarizes the proposed tier thresholds for a 3/4" Retail customer. The tier widths increase in proportion the account's meter size, in accordance with the meter equivalency schedule described in **Table 4-1**.

Table 4-2. Proposed Retail Tier Thresholds for a 3/4" Meter

Tier	Threshold
Tier 1	9
Tier 2	24
Tier 3	45
Tier 4	> 45

Table 4-3. Proposed Tier Thresholds for all meter sizes

Meter Size	Threshold			
	Tier 1	Tier 2	Tier 3	Tier 4
3/4"	9	24	45	> 45
1"	15	40	75	> 75
1 1/2"	30	80	150	> 150
2"	48	128	240	> 240
3"	96	256	480	> 480
4"	150	400	750	> 750
6"	300	800	1,500	> 1500
8"	480	1,280	2,400	> 2400
10"	690	1,840	3,450	> 3450

4.2.3.2 Tiered Rates

The tiered rates are calculated based on the cost of service results. As discussed in Section 2.1.5, this Report estimates that GSA costs will be \$30.00 per acre-foot of water pumped, which converts to \$0.07 per HCF of water used. This amount will be added to all commodity rates. The four tiers are made up of the following costs:

Tier 1 – Remaining Base Capacity + GSA Fee

Tier 2 – Tier 1 costs + Extra capacity (Peak Day) costs

Tier 3 – Tier 2 cost + Extra Capacity (Peak Hour) costs

Tier 4 – Tier 3 costs + Conservation costs

More specifically, and expressed as formulas, the four tiers are calculated as follows:

$$\text{Tier 1 Rate} = \frac{50\% \text{ of Base Capacity} * \frac{\text{Tier 1 Water Usage}}{\text{Total Water Usage}}}{\text{Tier 1 Water Usage}} + \text{GSA Fee}$$

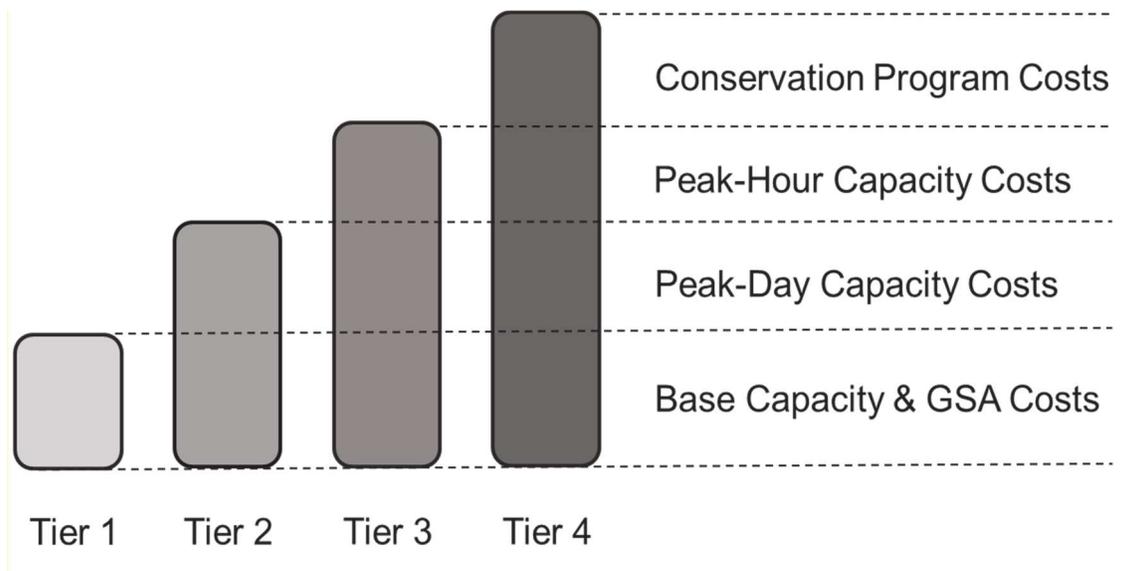
$$\text{Tier 2 Rate} = \text{Tier 1} + \frac{50\% \text{ of Extra Capacity (Max Day)} * \frac{\text{Tier 2 Water Usage}}{\text{Tier 2, 3 \& 4 Water Usage}}}{\text{Tier 2 Water Usage}}$$

$$\text{Tier 3 Rate} = \text{Tier 2} + \frac{50\% \text{ of Extra Capacity (Max Hour)} * \frac{\text{Tier 3 Water Usage}}{\text{Tier 3 \& 4 Water Usage}}}{\text{Tier 3 Water Usage}}$$

$$\text{Tier 4 Rate} = \text{Tier 3} + \frac{\text{Conservation Costs}}{\text{Tier 4 Water Usage}}$$

The above methodology for designing the tiered rates is depicted in **Figure 4-1**.

Figure 4-1. Schematic of Rate Design Cost Recovery



4.2.4 ZONE CHARGE

The District currently charges a Zone Charge (also known as an elevation charge or pumping charge) to account for the increase in cost to delivery water to properties that are located in higher elevations. The District has identified five zones (Zone A through Zone E), which differ by approximately 100 ft. in elevation.

The Zone Charge was updated by this study by calculating the annual electricity cost for pumping to higher elevations (\$89 thousand), the additional labor costs for maintaining the pump stations (\$46

thousand dollars based on 756 labor hours in FY 2017), and the additional capital expense associated with the pump stations (\$112 thousand based on straight line depreciation over twenty years).

The result was \$0.21 per hundred feet, as summarized in **Table 4-4**.

Table 4-4 – Proposed Zone Charges by Zone

	Proposed Charge (per HCF)
Zone B	\$0.21
Zone C	\$0.42
Zone D	\$0.63
Zone E	\$0.84

4.2.5 BULK WATER RATES

The District currently provides Bulk Water services for a flat rate to customers who received the water at the District’s bulk water facility. For a flat rate of \$38.80 per month, customers have access to the full amount of water necessary to meet their needs. The facility currently is not equipped with metering technology, therefore charging a metered rate is not possible.

4.2.5.1 Current Rate Update

The current non-metered rates have been updated as part of this study base on the following assumptions regarding the facility and its customers (34 at this time):

1. The customers split the cost of a 2” meter charge;
2. The customers split the bill for a commodity charge that is calculated using the first three tiered rates and the proposed tier thresholds (with exception of the Tier 3 threshold, which was not used);
3. The commodity charge includes the Zone C Charge;
4. The customers split a surcharge based on the annual depreciation expense of the facility (\$5,500) and the additional labor needed to operate the facility (\$4,000).

The sum of the above is \$19,219 which is split among the 34 current customers to calculate the proposed rate of \$47.11 per customer per month.

4.2.5.2 Future Metered Bulk Rates

The District intends to install metering technology and a card reader at the Bulk facility, which will enable the District to charge a metered rate for the Bulk Water service. Once that system is operational, this Study recommends a uniform rate with a fixed monthly charge that is calculated in the same manner as the above but applied to individual customers. The proposed rates are as follows:

- Bulk Service Fixed Monthly Charge = \$28.68
- Bulk Service Commodity Charge = \$2.63 per HCF

In addition, the District may wish to charge a fee for opening an account based on the administrative costs associated with creating accounts and issuing cards.

4.2.6 CONSTRUCTION WATER RATES

The District provides the service of issuing temporary meters (“Construction Meters”). In updating the rates charges for this service, this Study assumed that these customers have a peak hour that is higher than the average customer (based on the method in which the construction meters are used to fill trucks). We also assigned a monthly meter charge based on a 2” meter Ready-to-Serve Charge and Arsenic Charge and an Account Charge. The proposed Commodity Charge has been calculated by subtracting the anticipated fixed service charge revenue (based on the number of accounts from 2017) from the total cost of providing service to the Construction Water meters in 2017 and dividing that remaining value by the amount of water used by Construction Water meters in 2017 (16,309 HCF). The proposed rates are shown below.

Proposed Fixed Charge = \$183.61 (\$4.47 + \$123.76 + \$55.38)

Proposed Commodity Charge = \$4.19 per HCF

Zone charges will also be added to all construction meters outside of Zone A.

4.2.7 PRIVATE FIRE RATES

When calculating the rates for private fire services (accounts that have a dedicated service line for fire protection), this Study first calculated the total cost of fire protection within the District’s entire water system. This was accomplished by calculating the Base Capacity required by the fire system²¹ and the peak capacity requirements of the water system²². The total cost allocated to fire protection (both public and private) was \$1.19 million.

The next step is to split the total fire protection costs between the public fire system and the private fire systems. This was done by allocating the costs based on the relative number of equivalent connections for each system. The public fire system is made up of 1,450 hydrants while there are 61 private connections of different sizes. The size equivalency was calculated using a Demand Factor²³ for different connection sizes (much like the meter equivalency factor described in Section 4.2.1). The equivalent

²¹ The Base Capacity is also known as the average usage of water. Since fire systems don’t meter water usage, this Study adopted a guideline published by AWWA that used for fire systems typically use 1% of water flows.

²² Based on the assumption that the system was designed to be able to fight two simultaneous fires in the same pressure zone at a total flow rate of 3,000 gallons per minutes and for a total duration of 3 hours.

²³ The Demand Factors are based on AWWA’s practice of estimating the relative flow through pressure conduits as the diameter raised to power of 2.63.

connections for the public system are 55,563 (86.8%) and for the private connections are 8,459 (13.2%), which allocates \$157,810 to the private connections. **Table 4-5** show the proposed monthly Private Fire Charge schedule.

Table 4-5 – Private Fire Charges

Meter Size	Proposed Monthly Charge
1"	\$1.55
2"	\$9.62
3"	\$27.96
4"	\$59.57
6"	\$173.05
8"	\$368.78
10"	\$663.20

5. SUMMARY OF PROPOSED RATES

This Report used methodologies that are aligned with industry standard practices for rate setting as promulgated by AWWA and all applicable law, including Proposition 218. The proposed adjustments to the rates will provide revenue stability and continue to equitably and proportionately recover costs from the appropriate customers.

Based on the methodologies described above, the following tables summarize the proposed rate schedules to be adopted on January 1, 2019. A complete schedule of rates over the 5-year planning period are summarized in Appendix C.

Table 5-1 Proposed Commodity Rates, Effective January 1, 2019

	Commodity Rate
Tier 1	\$0.74
Tier 2	\$1.24
Tier 3	\$2.39
Tier 4	\$4.92

Table 5-2 Proposed Fixed Charges, Effective January 1, 2019

Meter Size	Account Charge	Ready-to-Serve	Arsenic Charge
3/4"	\$4.47	\$23.22	\$10.39
1"	\$4.47	\$38.78	\$17.35
1 1/2"	\$4.47	\$77.32	\$34.60
2"	\$4.47	\$123.76	\$55.38
3"	\$4.47	\$247.76	\$110.86
4"	\$4.47	\$387.08	\$173.20
6"	\$4.47	\$773.92	\$346.30
8"	\$4.47	\$1,238.32	\$554.10
10"	\$4.47	\$1,780.15	\$796.54

DISCLAIMER

This document was produced by Stantec Consulting Services, Inc. (“Stantec”) for the Indian Wells Valley Water District (“District”) and is based on a specific scope agreed upon by both parties. In preparing this report, Stantec utilized information and data obtained from the District or public and/or industry sources. Stantec has relied on the information and data without independent verification, except only to the extent such verification is expressly described in this document. Any projections of future conditions presented in the document are not intended as predictions, as there may be differences between forecasted and actual results, and those differences may be material.

Additionally, the purpose of this document is to summarize Stantec’s analysis and findings related to this project, and it is not intended to address all aspects that may surround the subject area. Therefore, this document may have limitations, assumptions, or reliances on data that are not readily apparent on the face of it. Moreover, the reader should understand that Stantec was called on to provide judgments on a variety of critical factors which are incapable of precise measurement. As such, the use of this document and its findings by the District should only occur after consultation with Stantec, and any use of this document and findings by any other person is done so entirely at their own risk.

APPENDIX A: RSA SCHEDULES

- Schedule 1: Budgeted and Projected Cash Inflows**
- Schedule 2: Budgeted and Projected Cash Outflows**
- Schedule 3: Capital Improvement Program**
- Schedule 4: Cash Flow Proforma**

Schedule 1: Budgeted and Projected Cash Inflows (with no rate increases)

	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>
Rate Revenue:											
1 Water Rate Revenue											
2 Base Facility Charges	\$ 6,481,045	6,486,140	6,491,234	6,496,329	6,501,423	6,506,518	6,511,612	6,516,707	6,521,801	6,526,896	6,531,990
3 Usage Charges	3,463,629	3,466,351	3,469,074	3,471,796	3,474,519	3,477,242	3,479,964	3,482,687	3,485,410	3,488,132	3,490,855
4 Total Rate Revenue	\$ 9,944,674	9,952,491	9,960,308	9,968,125	9,975,942	9,983,759	9,991,576	9,999,393	10,007,211	10,015,028	10,022,845
Other Operating Revenue:											
5 Fire Prevention	\$ 110,924	110,924	110,924	110,924	110,924	110,924	110,924	110,924	110,924	110,924	110,924
6 Customer Service Charges	47,688	47,688	47,688	47,688	47,688	47,688	47,688	47,688	47,688	47,688	47,688
7 Delinquent Billing Charge	178,435	178,435	178,435	178,435	178,435	178,435	178,435	178,435	178,435	178,435	178,435
8 48-Hour Notice Charge	31,460	31,460	31,460	31,460	31,460	31,460	31,460	31,460	31,460	31,460	31,460
9 Turn-Off Charge	15,548	15,548	15,548	15,548	15,548	15,548	15,548	15,548	15,548	15,548	15,548
10 New Service Installation Chrgs	18,465	18,465	18,465	18,465	18,465	18,465	18,465	18,465	18,465	18,465	18,465
11 Assessment Revenue AD 87-1	56,578	-	-	-	-	-	-	-	-	-	-
12 Plan Check & Processing Fee	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890	2,890
13 Inspection Fees	1,730	1,730	1,730	1,730	1,730	1,730	1,730	1,730	1,730	1,730	1,730
14 Total Other Operating Revenue	\$ 463,717	407,139									
Non-Operating Revenue:											
15 Miscellaneous Revenues	\$ 87,633	87,633	87,633	87,633	87,633	87,633	87,633	87,633	87,633	87,633	87,633
16 Olancha Farm Rent	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
17 Total Non-Operating Revenue	\$ 97,633	97,633									
Interest Income:											
18 Interest Income	\$ 86,795	76,176	70,879	72,691	76,962	73,721	68,024	69,308	69,766	64,423	47,935
19 Interest Income - Restricted	-	1,440	5,062	7,244	7,244	7,244	7,858	9,307	10,323	10,656	10,809
20 Total Interest Income	\$ 86,795	77,616	75,941	79,935	84,206	80,965	75,882	78,615	80,089	75,079	58,744
Restricted Revenue											
22 Capacity Charges	\$ 104,088	\$ 104,088	\$ 104,088	\$ 104,088	\$ 104,088	\$ 104,088	\$ 104,088	\$ 104,088	\$ 104,088	\$ 104,088	\$ 104,088
23 Total Restricted Revenue	\$ 104,088	104,088									
24 TOTAL CASH INFLOWS	\$ 10,696,907	10,638,968	10,645,110	10,656,921	10,669,009	10,673,586	10,676,320	10,686,869	10,696,160	10,698,968	10,690,449

Schedule 2: Budgeted and Projected Cash Outflows

		<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	
		Budget	Forecast										
Miscellaneous													
Misc													
1	Cobra Benefits Billed	1-0-5641-105	(1,271)	77	(1,374)	(1,429)	(1,486)	(1,546)	(1,608)	(1,672)	(1,739)	(1,808)	(1,881)
Water Supply													
2	PERS ER Contribution	1-1-4500-000											
3	Water Supply - Supervision	1-1-5211-000	82,245	86,768	91,541	96,575	101,887	107,491	113,403	119,640	126,220	133,162	140,486
4	Water Supply - Labor	1-1-5212-000	225,717	238,131	251,229	265,046	279,624	295,003	311,228	328,346	346,405	365,457	385,557
5	Water Supply - Overtime	1-1-5213-000	294	310	328	346	365	385	406	428	452	476	503
6	Water Supply - Standby OT	1-1-5213-100	2,648	2,793	2,947	3,109	3,280	3,460	3,651	3,852	4,063	4,287	4,523
7	Water Supply - Emp Benefits	1-1-5214-000	109,422	113,799	118,351	123,085	128,009	133,129	138,454	143,992	149,752	155,742	161,972
Arsenic Plant													
8	Arsenic Plant - Supervision	1-2-5211-000	4,258	4,493	4,740	5,000	5,275	5,565	5,872	6,195	6,535	6,895	7,274
9	Arsenic Plant - Labor	1-2-5212-000	47,356	49,961	52,708	55,607	58,666	61,892	65,296	68,888	72,677	76,674	80,891
10	Arsenic Plant - OT	1-2-5213-200	28	29	31	33	35	37	39	41	43	45	48
11	Arsenic Plant - Standby OT	1-2-5213-201	6,636	7,001	7,386	7,793	8,221	8,673	9,150	9,654	10,185	10,745	11,336
12	Arsenic Plant - Emp Benefits	1-2-5214-000	45,026	46,827	48,700	50,648	52,674	54,781	56,972	59,251	61,621	64,086	66,649
Transmission and Distribution													
13	T&D - Supervision	1-3-5411-000	85,794	90,513	95,491	100,743	106,284	112,130	118,297	124,803	131,667	138,909	146,549
14	T&D - Labor	1-3-5412-000	365,229	385,317	406,509	428,867	452,455	477,340	503,593	531,291	560,512	591,340	623,864
15	T&D - NO-DES	1-3-5412-001	20,965	22,118	23,335	24,618	25,972	27,400	28,907	30,497	32,175	33,944	35,811
16	T&D - Temp Labor	1-3-5412-050	71,095	75,005	79,131	83,483	88,074	92,918	98,029	103,421	109,109	115,110	121,441
17	T&D Capital Projects	1-3-5412-500	(605)	(639)	(674)	(711)	(750)	(791)	(835)	(880)	(929)	(980)	(1,034)
18	T&D - Overtime	1-3-5413-000	8,444	8,909	9,399	9,915	10,461	11,036	11,643	12,284	12,959	13,672	14,424
19	T&D Standby Time	1-3-5413-001	30,986	32,690	34,488	36,385	38,386	40,497	42,724	45,074	47,553	50,169	52,928
20	T&D - Benefits	1-3-5414-000	232,783	242,094	251,778	261,849	272,323	283,216	294,544	306,326	318,579	331,322	344,575
Engineering													
21	Engineering - Labor	1-4-5412-100	128,248	135,302	142,743	150,594	158,877	167,615	176,834	186,560	196,821	207,646	219,066
22	Engineering - Overtime	1-4-5413-100	3,793	4,002	4,222	4,454	4,699	4,957	5,230	5,517	5,821	6,141	6,479
23	Engineering - Benefits	1-4-5414-100	54,982	57,181	59,468	61,847	64,321	66,893	69,569	72,352	75,246	78,256	81,386
Customer Service													
24	Customer Accts - Supervision	1-5-5511-000	79,535	83,910	88,525	93,394	98,530	103,949	109,667	115,698	122,062	128,775	135,858
25	Customer Accts - Labor	1-5-5512-000	83,762	88,369	93,229	98,357	103,767	109,474	115,495	121,847	128,549	135,619	143,078
26	Customer Accts - Temp Labor	1-5-5512-100	15,583	16,440	17,344	18,298	19,305	20,367	21,487	22,669	23,915	25,231	26,618
27	Customer Accts - Overtime	1-5-5513-000	1,827	1,928	2,034	2,146	2,264	2,388	2,520	2,658	2,804	2,959	3,121
28	Customer Accts - Benefits	1-5-5514-000	80,905	84,141	87,507	91,007	94,647	98,433	102,370	106,465	110,724	115,153	119,759

Schedule 2: Budgeted and Projected Cash Outflows

		<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	
		Budget	Forecast										
Field Services													
29	Field Service - Supervision	1-6-5561-000	79,948	84,345	88,984	93,878	99,042	104,489	110,236	116,299	122,695	129,444	136,563
30	Field Service - Labor	1-6-5562-000	97,585	102,953	108,615	114,589	120,891	127,540	134,555	141,955	149,763	158,000	166,690
31	Field Service - Temp Labor	1-6-5562-100	89,531	94,456	99,651	105,131	110,914	117,014	123,450	130,239	137,402	144,960	152,932
32	Field Service - Overtime	1-6-5563-000	2,948	3,110	3,281	3,462	3,652	3,853	4,065	4,289	4,525	4,774	5,036
33	Field Services Capital Project	1-6-5564-000	(52,055)	(54,918)	(57,938)	(61,125)	(64,487)	(68,033)	(71,775)	(75,723)	(79,888)	(84,281)	(88,917)
34	Field Service - Benefits	1-6-5565-000	111,634	116,100	120,744	125,573	130,596	135,820	141,253	146,903	152,779	158,890	165,246
Administration													
35	Administration - Supervision	1-7-5611-000	545,295	575,286	606,927	640,308	675,525	712,678	751,876	793,229	836,856	882,884	931,442
36	Administration - Labor	1-7-5612-000	120,817	127,462	134,472	141,868	149,671	157,903	166,588	175,750	185,416	195,614	206,373
37	Accounting - Labor	1-7-5612-100	121,554	128,240	135,293	142,734	150,585	158,867	167,604	176,823	186,548	196,808	207,632
38	Administration - Overtime	1-7-5613-000	1,285	1,356	1,431	1,509	1,592	1,680	1,772	1,870	1,973	2,081	2,196
39	Accounting - Overtime	1-7-5613-100	559	590	622	657	693	731	771	813	858	905	955
40	Administration - Benefits	1-7-5614-000	212,646	221,152	229,998	239,198	248,766	258,716	269,065	279,828	291,021	302,661	314,768
41	Accounting - Benefits	1-7-5614-100	61,009	63,450	65,988	68,627	71,372	74,227	77,196	80,284	83,495	86,835	90,309
42	Public Employees Retirement	1-7-5641-000	73,088	76,012	79,052	82,214	85,503	88,923	92,480	96,179	100,026	104,027	108,188
43	Workers Comp Previous FY	1-7-5642-501	4,966	5,165	5,371	5,586	5,810	6,042	6,284	6,535	6,797	7,068	7,351
44	Accrued Sick/Vacation Leave	1-7-5645-001	32,623	33,928	35,285	36,696	38,164	39,691	41,278	42,929	44,647	46,432	48,290
Legislative													
46	Director's Fees	1-8-5691-000	\$ 23,000	24,265	25,600	27,008	28,493	30,060	31,713	33,458	35,298	37,239	39,287
47	Health Insurance Director's	1-8-5691-500	97,000	100,880	104,915	109,112	113,476	118,015	122,736	127,645	132,751	138,061	143,584
48	Director's Workers Comp	1-8-5691-600	2,000	2,080	2,163	2,250	2,340	2,433	2,531	2,632	2,737	2,847	2,961
49	Director's Payroll Taxes	1-8-5691-700	1,457	1,515	1,576	1,639	1,705	1,773	1,844	1,917	1,994	2,074	2,157
50	Recording Secretary	1-8-5692-000	1,544	1,629	1,719	1,813	1,913	2,018	2,129	2,246	2,370	2,500	2,638
Non-Operational													
51	OP&B Expense	1-9-5928-000	40,115	41,720	43,389	45,124	46,929	48,806	50,759	52,789	54,901	57,097	59,380
52	GSA Salaries	1-9-5961-203	72,000	75,960	80,138	84,545	89,195	94,101	99,277	104,737	110,497	116,575	122,986
53	Conser/Public Education Salary	1-9-5949-300	4,311	4,548	4,799	5,063	5,341	5,635	5,945	6,272	6,617	6,980	7,364
54	Sub-Total Personal Services	\$	3,530,550	3,708,753	3,893,188	4,088,520	4,293,843	4,509,677	4,736,569	4,975,094	5,225,859	5,489,501	5,766,693

Schedule 2: Budgeted and Projected Cash Outflows

		<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	
		Budget	Forecast										
Operations & Maintenance Expenses:													
Water Supply													
56	Vehicle Maintenance WS	1-1-5215-000	\$ 763	786	810	834	859	885	912	939	967	996	1,026
57	Vehicle Maintenance - #101	1-1-5215-101	776	799	823	848	873	899	926	954	983	1,012	1,043
58	Vehicle Maintenance - #102	1-1-5215-102	1,166	1,201	1,237	1,274	1,312	1,351	1,392	1,434	1,477	1,521	1,567
59	Vehicle Maintenance - #125	1-1-5215-125	2,177	2,242	2,309	2,379	2,450	2,523	2,599	2,677	2,757	2,840	2,925
60	Vehicle Maintenance - #133	1-1-5215-133	4,992	5,141	5,296	5,454	5,618	5,787	5,960	6,139	6,323	6,513	6,708
61	Vehicle Maintenance - #143	1-1-5215-143	2,518	2,594	2,672	2,752	2,834	2,919	3,007	3,097	3,190	3,286	3,384
62	Vehicle Maintenance - #144	1-1-5215-144	156	160	165	170	175	180	186	191	197	203	209
63	Vehicle Fuel WS	1-1-5215-500	8,693	8,954	9,222	9,499	9,784	10,078	10,380	10,691	11,012	11,342	11,683
64	Maint of Pumping Structures	1-1-5221-000	4,042	4,164	4,289	4,417	4,550	4,686	4,827	4,972	5,121	5,274	5,433
65	Maint of Pumping Equipment	1-1-5222-000	22,918	23,605	24,314	25,043	25,794	26,568	27,365	28,186	29,032	29,903	30,800
66	Maint of Standby Generators	1-1-5222-200	9,018	9,289	9,567	9,855	10,150	10,455	10,768	11,091	11,424	11,767	12,120
67	Equipment Maintenance - #655	1-1-5222-655	3,711	3,822	3,937	4,055	4,177	4,302	4,431	4,564	4,701	4,842	4,987
68	Maint and Care of Grounds	1-1-5223-000	1,611	1,659	1,709	1,760	1,813	1,867	1,923	1,981	2,040	2,101	2,164
69	Maintenance Automated Contr	1-1-5224-000	1,905	1,962	2,021	2,081	2,144	2,208	2,274	2,343	2,413	2,485	2,560
70	Telemetry Mnt Agreement	1-1-5224-500	4,277	4,405	4,538	4,674	4,814	4,958	5,107	5,260	5,418	5,581	5,748
71	Operating Permits	1-1-5225-000	1,904	1,961	2,020	2,080	2,143	2,207	2,273	2,341	2,412	2,484	2,558
72	Purchased Power Wells, Etc.	1-1-5231-000	259,000	266,770	274,773	283,016	291,507	300,252	309,260	318,537	328,093	337,936	348,074
73	Water Bill Well Sites	1-1-5231-001	8,012	8,252	8,500	8,755	9,018	9,288	9,567	9,854	10,150	10,454	10,768
74	Natural Gas	1-1-5233-000	421	434	447	460	474	488	503	518	534	550	566
75	Training, Conf, Cert Renewal	1-1-5246-000	420	433	446	459	473	487	502	517	532	548	564
76	Bulk Water Station Expenses	1-1-5250-000	10,246	10,553	10,870	11,196	11,532	11,878	12,234	12,601	12,979	13,369	13,770
77	Water Treatment Chemicals	1-1-5334-000	20,622	21,241	21,878	22,534	23,210	23,907	24,624	25,363	26,123	26,907	27,714
78	Maint Reservoirs & Tanks	1-1-5422-000	0	0	0	0	0	0	0	0	0	0	0
79	Misc Parts & Materials WS	1-1-5429-000	5,678	5,849	6,024	6,205	6,391	6,583	6,780	6,983	7,193	7,409	7,631
80	Stationery & Supplies WS	1-1-5621-000	485	499	514	530	545	562	579	596	614	632	651
81	Cell Phones WS	1-1-5627-050	2,801	2,885	2,972	3,061	3,153	3,248	3,345	3,445	3,549	3,655	3,765
Arsenic Plant													
82	Maint Arsenic Plant Structures	1-2-5221-000	\$ 255	263	271	279	287	296	305	314	323	333	343
83	Maint of Arsenic Equipment	1-2-5222-000	12,111	12,475	12,849	13,234	13,631	14,040	14,462	14,895	15,342	15,802	16,277
84	Maint Arsenic Plant Grounds	1-2-5223-000	9	9	9	10	10	10	10	11	11	11	12
85	Telemetry Mnt Agreement	1-2-5224-500	2,695	2,776	2,859	2,945	3,033	3,124	3,218	3,315	3,414	3,517	3,622
86	Arsenic Plant - Purchased Powe	1-2-5231-000	63,000	64,890	66,837	68,842	70,907	73,034	75,225	77,482	79,807	82,201	84,667
87	Arsenic Lab Analysis & Eqmt	1-2-5332-000	2,069	2,131	2,195	2,260	2,328	2,398	2,470	2,544	2,620	2,699	2,780
88	Arsenic Treatment Chemicals	1-2-5335-100	71,563	73,710	75,922	78,199	80,545	82,962	85,450	88,014	90,654	93,374	96,175
89	Arsenic Solids Disposal	1-2-5335-200	12,725	13,107	13,500	13,905	14,322	14,752	15,194	15,650	16,120	16,603	17,101
90	Misc Parts & Materials Arsenic	1-2-5429-000	459	473	487	501	517	532	548	564	581	599	617

Schedule 2: Budgeted and Projected Cash Outflows

		<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>
		Budget	Forecast									
Transmission and Distribution												
91	Vehicle Maint T&D	1-3-5415-000	\$ 1,476	1,520	1,565	1,612	1,661	1,711	1,762	1,815	1,869	1,925
92	Vehicle Maintenance - #300	1-3-5415-300	1,566	1,613	1,661	1,711	1,763	1,815	1,870	1,926	1,984	2,043
93	Vehicle Maintenance - #302	1-3-5415-302	130	134	138	142	146	150	155	160	164	169
94	Vehicle Maintenance - #310	1-3-5415-310	239	246	254	261	269	277	285	294	303	312
95	Vehicle Maintenance - #311	1-3-5415-311	119	123	126	130	134	138	142	146	151	155
96	Vehicle Maintenance - #312	1-3-5415-312	3,563	3,669	3,780	3,893	4,010	4,130	4,254	4,382	4,513	4,648
97	Vehicle Maintenance - #317	1-3-5415-317	996	1,026	1,057	1,089	1,121	1,155	1,190	1,225	1,262	1,300
98	Vehicle Maintenance - #323	1-3-5415-323	3,677	3,788	3,901	4,018	4,139	4,263	4,391	4,523	4,658	4,798
99	Vehicle Maintenance - #335	1-3-5415-335	811	835	860	886	913	940	968	997	1,027	1,058
100	Vehicle Maintenance - #339	1-3-5415-339	645	664	684	704	726	747	770	793	817	841
101	Vehicle Maintenance - #340	1-3-5415-340	19	19	20	20	21	21	22	23	23	24
102	Vehicle Maintenance - #341	1-3-5415-341	5,478	5,642	5,812	5,986	6,166	6,351	6,541	6,737	6,940	7,148
103	Vehicle Maintenance - #345	1-3-5415-345	1,043	1,074	1,106	1,140	1,174	1,209	1,245	1,283	1,321	1,361
104	Vehicle Maintenance - #349	1-3-5415-349	60	62	64	66	68	70	72	74	76	78
105	Vehicle Maintenance - #350	1-3-5415-350	2,197	2,263	2,331	2,401	2,473	2,547	2,623	2,702	2,783	2,866
106	Vehicle Maintenance - #355	1-3-5415-355	3,775	3,888	4,005	4,125	4,249	4,376	4,508	4,643	4,782	4,926
107	Vehicle Fuel T&D	1-3-5415-500	26,953	27,762	28,595	29,453	30,336	31,246	32,184	33,149	34,144	35,168
108	Maint Heavy & Light Equipment	1-3-5415-000	15,861	16,337	16,827	17,332	17,852	18,397	18,939	19,507	20,092	20,695
109	Tractor Maint. #U80	1-3-5416-080	635	654	674	694	715	736	758	781	805	829
110	Tractor Maint. #LB90	1-3-5416-090	3,014	3,105	3,198	3,294	3,393	3,495	3,599	3,707	3,819	3,933
111	Tractor Maint. #B95C	1-3-5416-095	574	591	609	627	646	665	685	706	727	749
112	Tractor Maint. #555E	1-3-5416-555	2,881	2,967	3,057	3,148	3,243	3,340	3,440	3,543	3,650	3,759
113	Maintenance of T&D	1-3-5421-000	25,812	26,586	27,384	28,205	29,051	29,923	30,821	31,745	32,698	33,678
114	Maintenance of Fire Hydrants	1-3-5424-000	2,165	2,230	2,296	2,365	2,436	2,509	2,585	2,662	2,742	2,824
115	Maintenance Laterals & Meters	1-3-5425-000	163,134	168,028	173,049	178,261	183,609	189,117	194,791	200,635	206,654	212,853
116	Maintenance Valves & Boxes	1-3-5426-000	24,588	25,325	26,085	26,868	27,674	28,504	29,359	30,240	31,147	32,081
117	Maintenance of Streets	1-3-5427-000	468,138	482,182	496,648	511,547	526,893	542,700	558,981	575,751	593,023	610,814
118	Maintenance of Streets - Permi	1-3-5427-500	2,170	2,235	2,302	2,371	2,442	2,516	2,591	2,669	2,749	2,831
119	Misc Parts & Materials T&D	1-3-5429-000	4,894	5,041	5,192	5,348	5,509	5,674	5,844	6,019	6,200	6,386
120	Inventory Adjustment	1-3-5429-100	(30,690)	(31,611)	(32,559)	(33,536)	(34,542)	(35,578)	(36,645)	(37,745)	(38,877)	(40,043)
121	Equipment Rental	1-3-5433-000	4,549	4,685	4,826	4,971	5,120	5,274	5,432	5,595	5,763	5,935
122	Capital Equipment Credit	1-3-5434-000	(4,029)	(4,150)	(4,274)	(4,403)	(4,535)	(4,671)	(4,811)	(4,955)	(5,104)	(5,257)
123	Training & Conference T&D	1-3-5446-000	1,071	1,103	1,137	1,171	1,206	1,242	1,279	1,318	1,357	1,398
124	Meal Tickets T&D	1-3-5447-000	63	65	67	69	71	74	76	78	80	83
125	Stationery & Misc Supplies T&D	1-3-5621-000	809	833	858	884	910	937	966	995	1,024	1,055
126	Cell Phones T&D	1-3-5627-050	1,567	1,614	1,662	1,712	1,763	1,816	1,871	1,927	1,985	2,044
Engineering												
127	Vehicle Maint ENG	1-4-5415-100	\$ 121	125	129	133	137	141	145	149	154	158
128	Vehicle Fuel ENG	1-4-5415-300	4,683	4,823	4,968	5,117	5,270	5,428	5,591	5,759	5,932	6,110
129	Water Treatment Lab Analysis	1-4-5415-400	18,669	19,229	19,806	20,400	21,012	21,642	22,291	22,960	23,649	24,358
130	Vehicle Maintenance - #428	1-4-5415-428	2,192	2,257	2,325	2,395	2,467	2,541	2,617	2,695	2,776	2,860
131	Vehicle Maintenance - #437	1-4-5415-437	725	746	769	792	816	840	865	891	918	946
132	Consumer Confidence Reports	1-4-5415-500	6,613	6,812	7,016	7,226	7,443	7,667	7,897	8,133	8,377	8,629
133	Training & Conferences ENG	1-4-5446-000	1,009	1,040	1,071	1,103	1,136	1,170	1,205	1,242	1,279	1,317
134	Training & Conferences IT	1-4-5464-200	3,309	3,408	3,511	3,616	3,724	3,836	3,951	4,070	4,192	4,318
135	Misc Supplies & Equipment	1-4-5621-000	2,966	3,055	3,147	3,241	3,338	3,438	3,542	3,648	3,757	3,870
136	Cell Phones ENG	1-4-5627-050	2,156	2,221	2,287	2,356	2,427	2,499	2,574	2,652	2,731	2,813
137	Consulting Engineering Service	1-4-5653-000	39,939	41,137	42,372	43,643	44,952	46,301	47,690	49,120	50,594	52,112
138	Water Trax Subscription	1-4-5656-000	10,238	10,545	10,862	11,187	11,523	11,869	12,225	12,592	12,969	13,358
139	Computer Supplies/Maint Agree	1-4-5675-200	25,946	26,724	27,526	28,352	29,202	30,078	30,981	31,910	32,867	33,853

Schedule 2: Budgeted and Projected Cash Outflows

		<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>
		Budget	Forecast									
Customer Service												
140	Uncollectible Accounts	1-5-5520-000	\$ 20,440	21,053	21,685	22,336	23,006	23,696	24,407	25,139	25,893	26,670
141	Postage & Supplies	CUSTOMER 1-5-5541-000	68,115	70,158	72,263	74,431	76,664	78,964	81,333	83,773	86,286	88,875
142	Print & Reproduction	CUSTOMER 1-5-5542-000	12,423	12,795	13,179	13,575	13,982	14,401	14,833	15,278	15,737	16,209
143	Training & Conference	CUSTOMER 1-5-5544-000	694	715	736	759	781	805	829	854	879	906
144	Cash Short/Over	1-5-5550-000	353	364	375	386	398	410	422	435	448	461
145	Stationery & Supplies	CUSTOMER 1-5-5521-000	7,424	7,647	7,876	8,113	8,356	8,607	8,865	9,131	9,405	9,687
Field Services												
146	Misc Parts & Materials	FS 1-6-5429-000	\$ 3,335	3,435	3,538	3,644	3,753	3,866	3,982	4,101	4,224	4,351
147	Vehicle Maintenance	FS 1-6-5566-000	(2,078)	(2,140)	(2,204)	(2,270)	(2,338)	(2,409)	(2,481)	(2,555)	(2,632)	(2,711)
148	Vehicle Fuel	FS 1-6-5566-500	10,420	10,733	11,055	11,387	11,728	12,080	12,443	12,816	13,200	13,596
149	Vehicle Maintenance - #601	1-6-5566-601	532	548	564	581	599	617	635	654	674	694
150	Vehicle Maintenance - #605	1-6-5566-605	2,293	2,362	2,433	2,506	2,581	2,658	2,738	2,820	2,905	2,992
151	Vehicle Maintenance - #609	1-6-5566-609	4,772	4,915	5,062	5,214	5,371	5,532	5,698	5,869	6,045	6,226
152	Vehicle Maintenance - #610	1-6-5566-610	3,665	3,775	3,888	4,005	4,125	4,249	4,376	4,507	4,642	4,782
153	Vehicle Maintenance - #615	1-6-5566-615	262	269	277	286	294	303	312	322	331	341
154	Vehicle Maintenance - #624	1-6-5566-624	1,656	1,706	1,757	1,809	1,864	1,920	1,977	2,036	2,098	2,160
155	Vehicle Maintenance - #636	1-6-5566-636	503	518	534	550	567	584	601	619	638	657
156	Maintenance Meters	FS 1-6-5567-000	87,266	89,884	92,581	95,358	98,219	101,165	104,200	107,326	110,546	113,862
157	ITron Software Maint	1-6-5567-001	2,751	2,833	2,918	3,006	3,096	3,189	3,284	3,383	3,485	3,589
158	Training & Conferences	FS 1-6-5568-000	4,701	4,842	4,987	5,136	5,291	5,449	5,613	5,781	5,955	6,133
159	Stationery & Supplies	FS 1-6-5621-000	887	914	941	969	998	1,028	1,059	1,091	1,123	1,157
160	Cell Phones	FS 1-6-5627-050	1,817	1,871	1,927	1,985	2,045	2,106	2,169	2,234	2,301	2,370
Administration												
161	Vehicle Maintenance	ADMIN 1-7-5615-100	\$ 143	147	152	156	161	166	171	176	181	186
162	Vehicle Fuel	ADMIN 1-7-5615-200	3,350	3,451	3,554	3,661	3,771	3,884	4,000	4,120	4,244	4,371
163	Vehicle Maintenance - #711	1-7-5615-711	539	555	572	589	607	625	644	663	683	704
164	Vehicle Maintenance - #738	1-7-5615-738	345	355	366	377	388	400	412	424	437	450
165	Vehicle Maintenance - #748	1-7-5615-748	2,840	2,926	3,013	3,104	3,197	3,293	3,392	3,493	3,598	3,706
166	Stationery & Supplies	ADMIN 1-7-5621-000	14,265	14,693	15,134	15,588	16,055	16,537	17,033	17,544	18,070	18,613
167	Printing & Reproduction	ADMIN 1-7-5622-000	(5)	(5)	(5)	(5)	(6)	(6)	(6)	(6)	(7)	(7)
168	Postage	ADMIN 1-7-5623-000	4,579	4,716	4,858	5,004	5,154	5,308	5,468	5,632	5,801	5,975
169	Memberships & Subscriptions	1-7-5624-000	33,296	34,295	35,324	36,383	37,475	38,599	39,757	40,950	42,178	43,444
170	Travel & Conference	MGMT 1-7-5625-000	3,101	3,194	3,289	3,388	3,490	3,594	3,702	3,813	3,928	4,046
171	Travel & Conference	ADMIN/AC 1-7-5625-001	1,613	1,662	1,712	1,763	1,816	1,870	1,926	1,984	2,044	2,105
172	Maintenance of Structures	1-7-5625-100	6,827	7,032	7,243	7,460	7,684	7,915	8,152	8,397	8,649	8,908
173	Office & Shop Utilities	1-7-5626-000	35,559	36,626	37,724	38,856	40,022	41,222	42,459	43,733	45,045	46,396
174	Hazardous Waste Disposal	1-7-5626-001	4,725	4,867	5,013	5,163	5,318	5,477	5,642	5,811	5,985	6,165
175	Telephones	1-7-5627-000	17,842	18,378	18,929	19,497	20,082	20,684	21,305	21,944	22,602	23,280
176	Cell Phones	ADMIN 1-7-5627-050	1,812	1,866	1,922	1,980	2,039	2,101	2,164	2,229	2,295	2,364
177	Internet Service Provider	1-7-5627-100	8,094	8,336	8,586	8,844	9,109	9,383	9,664	9,954	10,253	10,560
178	Security Services	1-7-5627-500	13,401	13,803	14,217	14,643	15,082	15,535	16,001	16,481	16,975	17,485
179	Custodian/Caretaker	1-7-5628-000	17,296	17,815	18,349	18,899	19,466	20,050	20,652	21,271	21,910	22,567
180	Ins Property & Liability	1-7-5631-000	82,136	84,600	87,138	89,752	92,445	95,218	98,075	101,017	104,048	107,169
181	Deductible Adjustments	1-7-5631-100	1,188	1,224	1,261	1,299	1,338	1,378	1,419	1,462	1,505	1,551

Schedule 2: Budgeted and Projected Cash Outflows

		FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
		Budget	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	
182	New Employee Verification	1-7-5632-000	269	277	285	294	302	312	321	331	340	351	361
183	Safety/Training & Equipment	1-7-5646-200	24,027	24,748	25,491	26,255	27,043	27,854	28,690	29,551	30,437	31,350	32,291
184	Misc. Sundries & Supplies	1-7-5648-000	12,099	12,462	12,835	13,221	13,617	14,026	14,446	14,880	15,326	15,786	16,260
185	Warehouse Supplies	1-7-5649-000	11,963	12,322	12,692	13,073	13,465	13,869	14,285	14,713	15,155	15,609	16,078
186	Legal Services	1-7-5651-000	112,032	115,393	118,855	122,420	126,093	129,876	133,772	137,785	141,919	146,176	150,562
187	Auditing Services	1-7-5652-000	21,050	21,682	22,332	23,002	23,692	24,403	25,135	25,889	26,666	27,465	28,289
188	Financial Services	1-7-5654-000	2,550	2,627	2,705	2,786	2,870	2,956	3,045	3,136	3,230	3,327	3,427
189	Salary Survey	1-7-5656-000	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	2,688
190	Hydrogeologist Consultant	1-7-5658-100	25,694	26,465	27,259	28,077	28,919	29,786	30,680	31,600	32,548	33,525	34,531
191	Underground Service Alert	1-7-5659-000	934	962	990	1,020	1,051	1,082	1,115	1,148	1,183	1,218	1,255
192	Rents/Lease Equipment	1-7-5661-000	4,589	4,726	4,868	5,014	5,165	5,320	5,479	5,643	5,813	5,987	6,167
193	Leases Real Estate BLM	1-7-5662-000	314	323	333	343	353	364	374	386	397	409	421
194	Equipment Maintenance	1-7-5672-000	9,205	9,482	9,766	10,059	10,361	10,672	10,992	11,322	11,661	12,011	12,371
195	Server Maintenance Agreements	1-7-5675-001	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720
196	Springbrook Software Maint	1-7-5676-000	26,230	27,017	27,827	28,662	29,522	30,408	31,320	32,259	33,227	34,224	35,251
197	VoteLynx Equipment Maintenance	1-7-5677-000	36	37	38	39	40	41	42	44	45	46	48
198	Answering Service	1-7-5690-000	3,382	3,483	3,588	3,695	3,806	3,920	4,038	4,159	4,284	4,412	4,545
Legislative													
199	Travel & Convention Directors	1-8-5694-000	5,674	5,844	6,020	6,200	6,386	6,578	6,775	6,979	7,188	7,404	7,626
200	Elections	1-8-5695-000	10,747	11,070	11,402	11,744	12,096	12,459	12,833	13,218	13,614	14,023	14,443
Non-Operational													
201	Misc Service Charges/Penalties	1-9-5929-000	\$ 7,127	7,341	7,561	7,788	8,022	8,262	8,510	8,765	9,028	9,299	9,578
202	Credit Card Service Charges	1-9-5929-001	91,000	93,730	96,542	99,438	102,421	105,494	108,659	111,919	115,276	118,734	122,296
203	Web Payment Service Charges	1-9-5929-102	43,000	44,290	45,619	46,987	48,397	49,849	51,344	52,885	54,471	56,105	57,788
204	Misc State & County Fees	1-9-5929-200	11,657	12,007	12,367	12,738	13,121	13,514	13,920	14,337	14,767	15,210	15,667
205	SWRCB Annual Fee (was CDPH)	1-9-5933-000	38,728	39,890	41,087	42,319	43,589	44,897	46,244	47,631	49,060	50,532	52,048
206	Public Information	1-9-5944-000	3,233	3,330	3,430	3,533	3,639	3,748	3,861	3,976	4,096	4,218	4,345
207	IWVCGWMG Expenses	1-9-5961-200	6,149	6,334	6,524	6,719	6,921	7,129	7,343	7,563	7,790	8,023	8,264
208	GSA	1-9-5961-201	115,193	118,648	122,208	125,874	129,650	133,540	137,546	141,672	145,922	150,300	154,809
209	LAFCO Expense	1-9-5962-000	3,112	3,205	3,302	3,401	3,503	3,608	3,716	3,827	3,942	4,060	4,182
210	Admin Fees AD87-1	1-9-5927-104	16,442	-	-	-	-	-	-	-	-	-	-
211	Well Monitoring Program	1-9-5952-000	1,008	1,038	1,069	1,101	1,135	1,169	1,204	1,240	1,277	1,315	1,355
212	Kern County Property Tax	1-9-5953-000	9,445	9,729	10,021	10,321	10,631	10,950	11,278	11,617	11,965	12,324	12,694
213	Inyo Kern County Property Tax	1-9-5954-000	4,007	4,127	4,251	4,378	4,510	4,645	4,784	4,928	5,076	5,228	5,385
214	AWS Butterworth Ranch Olancho	1-9-5960-001	12,964	13,353	13,754	14,166	14,591	15,029	15,480	15,944	16,423	16,915	17,423
215	AWS Stine Property	1-9-5960-003	4,235	4,362	4,493	4,627	4,766	4,909	5,056	5,208	5,364	5,525	5,691
216	Salt Nutrient Program	1-9-5961-202	16,135	16,619	17,117	17,631	18,160	18,704	19,265	19,843	20,439	21,052	21,683
217	Conservation Web Payment S/C	1-9-5000-004	3,798	3,912	4,030	4,150	4,275	4,403	4,535	4,671	4,811	4,956	5,105
218	Water Conservation Programs	1-9-5949-000	27,308	28,128	28,971	29,841	30,736	31,658	32,608	33,586	34,593	35,631	36,700
219	Water Conservation Advertising	1-9-5949-001	30,708	31,630	32,579	33,556	34,563	35,599	36,667	37,767	38,900	40,067	41,270
220	Cash for Grass Grant Program	1-9-5949-002	58,787	60,550	62,367	64,238	66,165	68,150	70,194	72,300	74,469	76,703	79,004
221	Conser/Public Education OT	1-9-5949-500	4,351	4,481	4,616	4,754	4,897	5,044	5,195	5,351	5,512	5,677	5,847
222	Sub-Total Operations & Maintenance Expenses	\$ 2,673,075	2,736,332	2,818,422	2,902,975	2,990,064	3,079,766	3,172,159	3,267,324	3,365,343	3,466,304	3,570,293	
Long-Term Debt Service Payments:													
224	Existing Debt Service	\$ 2,706,283	2,159,909	2,157,159	2,031,775	1,869,140	1,863,390	1,861,515	1,858,390	1,858,890	1,857,890	1,855,390	
225	Cumulative New Debt Service	-	366,252	921,024	921,024	921,024	921,024	1,077,144	1,289,484	1,335,521	1,374,238	1,374,238	
226	Total Long-Term Debt Service Payments	\$ 2,706,283	2,526,161	3,078,183	2,952,799	2,790,164	2,784,414	2,938,659	3,147,874	3,194,410	3,232,127	3,229,627	
Other Below the Line Expenses:													
227	Transfers Out	\$ 408,006	\$ 120,000	\$ 120,000	\$ 416,651	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000
228	Total Other Below the Line Expenses	\$ 408,006	120,000	120,000	416,651	120,000	120,000						
229	TOTAL CASH OUTFLOWS	\$ 9,317,913	\$ 9,091,245	\$ 9,909,793	\$ 10,360,944	\$ 10,194,071	\$ 10,493,857	\$ 10,967,386	\$ 11,510,292	\$ 11,905,613	\$ 12,307,932	\$ 12,686,613	

Schedule 3: Capital Improvement Program

	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>
1-0-1115-817 Telemetry Replacements & Upgrades	\$ -	\$ -	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -
1-0-1115-820 Well No. 35 (WSIP Phase I)	116,000	1,700,000	-	-	-	-	-	-	-	-	-
1-0-1115-821 Replacement Well/Well 36 (Phase II)	-	-	-	-	-	33,000	1,871,000	1,871,000	-	-	-
1-0-1115-827 Well Improvements (WSIP Phase I) - Well 34 Re-equip	356,478	-	-	-	-	-	-	-	-	-	-
1-0-1115-828 Well Improvements - Well 33 Rehab	-	20,000	-	-	-	-	-	-	-	-	-
1-0-1115-831 Well 17 Upgrades	30,000	-	-	-	-	-	-	-	-	-	-
1-0-1115-832 Booster Pumps	9,947	-	-	-	-	-	-	-	-	-	-
1-0-1115-833 Arsenic Pump Repairs	40,000	-	-	-	-	-	-	-	-	-	-
1-0-1115-834 Arsenic Plant Chemical Pumps	35,000	-	-	-	-	-	-	-	-	-	-
1-0-1115-835 Arsenic Plant Acid Piping	35,000	-	-	-	-	-	-	-	-	-	-
1-0-1115-836 Arsenic Plant Chlorine Tank Replacement	-	-	-	-	-	-	-	-	-	-	-
1-0-1115-837 SCADA Upgrade	-	500,000	-	-	-	-	-	-	-	-	-
1-0-1115-838 Pressure Reduction Valve	150,000	-	-	-	-	-	-	-	-	-	-
1-0-1115-839 Well 18	-	-	-	-	-	-	-	-	-	-	-
1-0-1117-300 New Service Installations	30,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	-
1-0-1117-306 Burns Mainline Replacement	-	-	-	-	-	-	-	-	200,000	-	-
1-0-1117-320 Sunland to Forest Knoll Mainline Relocations	560,000	-	-	-	-	-	-	-	-	-	-
1-0-1117-321 Greenlawn Mainline Replacement	56,000	108,580	-	-	-	-	-	-	-	-	-
1-0-1117-322 Rancho Mainline Replacement	-	109,815	-	-	-	-	-	-	-	-	-
1-0-1117-323 Forest Knoll Mainline Replacement	-	109,869	-	-	-	-	-	-	-	-	-
1-0-1117-324 Springside Mainline Replacement	-	109,867	-	-	-	-	-	-	-	-	-
1-0-1117-325 Primrose Mainline Replacement	-	109,867	-	-	-	-	-	-	-	-	-
1-0-1117-326 Orchard Mainline Replacement	-	109,810	-	-	-	-	-	-	-	-	-
1-0-1117-327 Gateway Mainline Replacement	-	-	-	-	-	-	-	-	-	-	-
1-0-1117-328 French St Mainline Replacement	-	-	-	-	-	400,000	-	-	-	-	-
1-0-1117-332 Mesquite Mainline Replacement	-	-	-	-	-	-	-	-	-	-	-
1-0-1117-333 Church Svc Lateral Replacement	20,682	-	-	-	-	-	-	-	-	-	-
1-0-1117-340 Old Navy Housing Area Mainline Replacement	-	-	-	-	-	1,343,000	-	-	-	-	-
1-0-1117-360 Fire Hydrants	8,000	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	-
1-0-1117-361 East Bowman A-Zone Reservoir #1	-	-	1,273,162	-	-	-	-	-	-	-	-
1-0-1117-362 Transmission Line Extension Bowman Rd to A-Zone Reservoir	-	-	3,250,000	-	-	-	-	-	-	-	-
1-0-1117-365 Springer to Gateway Tank	-	-	900,000	-	-	-	-	-	-	-	-
1-0-1117-370 Street Infrastructure Replacement Project	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	-
1-0-1117-375 Sunland (Dolphin/Bowman) Svcs	47,592	-	-	-	300,000	-	-	-	-	-	-
1-0-1117-414 AMI Pilot	200,000	3,000,000	1,030,000	-	-	-	-	-	-	-	-
Bulk Station	-	110,000	-	-	-	-	-	-	-	-	-
1-0-1117-415 5/8" Meter Exchange Project	-	-	-	-	-	-	-	-	-	-	-
1-0-1118-007 New Equipment, Vote Lynx	-	-	-	-	-	-	-	-	-	-	-
1-0-1118-100 Misc Computer Purchases	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	50,000	-
1-0-1118-105 Replacement Equipment, Customer Accounts	20,000	-	-	-	-	-	-	-	-	-	-
1-0-1118-106 Board Room Remodel	35,000	-	-	-	-	-	-	-	-	-	-
1-0-1118-151 GIS Needs Assessment & Implementation	-	6,000	-	-	-	-	-	-	-	-	-
1-0-1118-621 Replacement Equipment, Server	-	10,000	-	-	10,000	-	10,000	-	10,000	-	-
1-0-1118-400 Vehicles, Replacement	100,000	180,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	-
1-0-1118-409 New Equipment, Diesel Generator	-	165,000	-	-	-	-	-	-	-	-	-
1-0-1118-410 New Equipment, Water filtering truck (NO-DES)	-	-	-	-	-	-	-	-	-	-	-
1-0-1118-412 New Equipment, Cla-Vals	14,000	7,000	-	-	-	-	-	-	-	-	-
1-0-1118-413 New Equipment, Level Transducers	8,000	8,000	-	-	-	-	-	-	-	-	-
1-0-1118-415 New Equipment, Crane	-	60,000	-	-	-	-	-	-	-	-	-
1-0-1118-416 New Equipment, Walk-behind Saw	-	30,000	-	-	-	-	-	-	-	-	-
1-0-1118-420 New Equipment, Security Cameras	-	-	-	-	-	-	-	-	-	-	-
1-0-1118-421 New Equipment, Telephone System	-	-	-	-	-	-	-	-	-	-	-
1-0-1118-422 New Equipment, Total Station (1)	-	-	-	35,000	-	-	-	-	-	-	-
1-0-1118-423 New Equipment, Fire Suppression System (1)	-	-	-	50,000	-	-	-	-	-	-	-
1-0-1118-451 New Infrastructure, Guam & Bowman Lighting (1)	-	-	-	-	-	-	-	-	-	-	-
1-0-1118-452 New Infrastructure, Back Parking Lot & North Wall (1)	-	-	-	450,000	-	-	-	-	-	-	-
1-0-1118-453 New Infrastructure, Fencing (1)	-	100,000	-	-	-	-	-	-	-	-	-
Warehouse Update (1)	-	75,000	-	-	-	-	-	-	-	-	-
1-0-1118-953 Miscellaneous Capital Purchases (1)	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	-	-
1-0-1118-990 Solar Project (1)	411,900	-	-	-	-	-	-	-	-	-	-
1-0-1114-001 Stine Property, Well (1)	-	-	-	-	-	-	-	-	-	750,000	-
1-0-1114-003 Brackish Water Resource Study (1)	150,000	-	-	-	-	-	-	-	-	-	-
Unscheduled 2028 projects (1)	-	-	-	-	-	-	-	-	-	-	1,854,100
Total CIP Budget (Current \$)	\$ 2,883,599	\$ 7,075,308	\$ 6,999,662	\$ 1,091,500	\$ 856,500	\$ 2,332,500	\$ 2,427,500	\$ 2,427,500	\$ 756,500	\$ 1,326,500	\$ 1,854,100

Schedule 4: Cash Flow Proforma

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
1 Rate Revenue Increase	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Revenues											
2 Fixed Rate Revenue Before Adjustments	\$ 3,464,000	\$ 3,464,000	\$ 3,518,000	\$ 3,680,000	\$ 3,794,000	\$ 3,911,000	\$ 4,031,000	\$ 4,034,000	\$ 4,037,000	\$ 4,041,000	\$ 4,044,000
3 Variable Rate Revenue Before Adjustments	\$ 6,481,000	\$ 6,481,000	\$ 6,583,000	\$ 6,887,000	\$ 7,099,000	\$ 7,317,000	\$ 7,543,000	\$ 7,549,000	\$ 7,555,000	\$ 7,561,000	\$ 7,566,000
4 Additional Rate Revenue From Growth	-	8,000	8,000	8,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
5 Additional Rate Revenue From Rate Adjustment	-	148,000	459,000	317,000	327,000	337,000	-	-	-	-	-
6 Other Operating Revenues	464,000	407,000	407,000	407,000	407,000	407,000	407,000	407,000	407,000	407,000	407,000
7 Interest Income	87,000	78,000	76,000	80,000	84,000	84,000	81,000	84,000	85,000	80,000	64,000
8 Other Non-Operating Revenue	98,000	274,000	279,000	284,000	290,000	296,000	302,000	308,000	314,000	320,000	327,000
9 Total Revenues	\$ 10,594,000	\$ 10,860,000	\$ 11,330,000	\$ 11,663,000	\$ 12,010,000	\$ 12,361,000	\$ 12,373,000	\$ 12,391,000	\$ 12,407,000	\$ 12,418,000	\$ 12,417,000
Operating Expenses											
10 Personnel Salaries	\$ 2,372,000	\$ 2,503,000	\$ 2,640,000	\$ 2,785,000	\$ 2,939,000	\$ 3,100,000	\$ 3,271,000	\$ 3,451,000	\$ 3,641,000	\$ 3,841,000	\$ 4,052,000
11 Employee Benefits	1,158,000	1,205,000	1,253,000	1,303,000	1,355,000	1,409,000	1,466,000	1,524,000	1,585,000	1,649,000	1,715,000
12 Professional Services	1,099,000	1,115,000	1,149,000	1,183,000	1,219,000	1,255,000	1,293,000	1,332,000	1,371,000	1,413,000	1,455,000
13 Equipment	164,000	169,000	174,000	179,000	185,000	190,000	196,000	202,000	208,000	214,000	220,000
14 Energy & Utilities	420,000	433,000	446,000	459,000	473,000	487,000	502,000	517,000	532,000	548,000	565,000
16 Miscellaneous Operating Costs	898,000	1,101,000	1,134,000	1,168,000	1,203,000	1,239,000	1,276,000	1,314,000	1,354,000	1,394,000	1,436,000
17 Chemicals	92,000	95,000	98,000	101,000	104,000	107,000	110,000	113,000	117,000	120,000	124,000
19 Total Operating Expenses	\$ 6,203,000	\$ 6,621,000	\$ 6,894,000	\$ 7,178,000	\$ 7,478,000	\$ 7,787,000	\$ 8,114,000	\$ 8,453,000	\$ 8,808,000	\$ 9,179,000	\$ 9,567,000
20 Net Revenues	\$ 4,391,000	\$ 4,239,000	\$ 4,436,000	\$ 4,485,000	\$ 4,532,000	\$ 4,574,000	\$ 4,259,000	\$ 3,938,000	\$ 3,599,000	\$ 3,239,000	\$ 2,850,000
21 Existing Debt Service	\$ 2,706,000	\$ 2,160,000	\$ 2,157,000	\$ 2,032,000	\$ 1,869,000	\$ 1,863,000	\$ 1,862,000	\$ 1,858,000	\$ 1,859,000	\$ 1,858,000	\$ 1,855,000
22 New Debt Service	-	366,000	921,000	921,000	921,000	921,000	1,078,000	1,290,000	1,336,000	1,375,000	1,375,000
23 Total Capital Spending	2,884,000	7,288,000	7,426,000	1,193,000	964,000	2,704,000	2,899,000	2,986,000	958,000	1,731,000	2,492,000
24 Cash-funded Capital (Rate Revenue)	2,780,000	3,076,000	1,101,000	1,089,000	860,000	2,600,000	1,039,000	505,000	338,000	1,193,000	2,492,000
25 Cash-funded Capital (Capacity Charges)	104,000	104,000	104,000	104,000	104,000	104,000	104,000	104,000	104,000	104,000	-
26 Capital Projects Paid with Debt Proceeds	-	4,107,000	6,221,000	-	-	-	1,756,000	2,377,000	516,000	434,000	-
27 Balance of Transfer (In)/Out	(168,000)	120,000	120,000	(177,000)	120,000	120,000	120,000	120,000	120,000	120,000	120,000
28 Revenues Over (Under) Expenses¹	\$ (927,000)	\$ (1,483,000)	\$ 137,000	\$ 620,000	\$ 762,000	\$ (930,000)	\$ 160,000	\$ 165,000	\$ (54,000)	\$ (1,307,000)	\$ (2,992,000)
29 Operating Fund - Beginning Balance	\$ 8,221,000	\$ 7,292,000	\$ 5,808,000	\$ 5,945,000	\$ 6,566,000	\$ 7,329,000	\$ 6,392,000	\$ 6,560,000	\$ 6,722,000	\$ 6,677,000	\$ 5,376,000
30 Operating Fund - Ending Balance	7,294,000	5,809,000	5,945,000	6,565,000	7,328,000	6,399,000	6,552,000	6,725,000	6,668,000	5,370,000	2,384,000
31 Total Target Reserves	\$ 5,601,000	\$ 5,808,000	\$ 5,945,000	\$ 6,088,000	\$ 6,237,000	\$ 6,392,000	\$ 6,555,000	\$ 6,725,000	\$ 6,902,000	\$ 7,088,000	\$ 7,282,000
32 Operating Reserve	3,102,000	3,309,000	3,446,000	3,589,000	3,738,000	3,893,000	4,056,000	4,226,000	4,403,000	4,589,000	4,783,000
33 Capital Improvement/Replacement Reserve	2,049,000	2,049,000	2,049,000	2,049,000	2,049,000	2,049,000	2,049,000	2,049,000	2,049,000	2,049,000	2,049,000
34 Vehicle Reserve	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
35 Computer Replacement Reserve	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
36 Debt Service Coverage ²	(1.5 Req.)	1.62	1.68	1.44	1.52	1.62	1.64	1.45	1.25	1.13	1.00

¹ Row 28 is equal to Row 9 less Rows 19, 21, 22, 24, and 27

² The Debt Coverage Ratio is calculated by dividing the net revenue (Row 20) by the total debt service (the sum of Rows 21 and 22).

APPENDIX B: COST-OF-SERVICE SCHEDULES

Schedule 5: Allocation of Costs to Functional Components

Schedule 6: Allocation of Costs to System Parameters

Schedule 5: Allocation of Costs to Functional Components

1 of 5

	General & Admin	Source of Supply	Treatment	Trans & Dist	Storage	Customer Service	Meters & Services	Conservation	Arsenic
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\$ Allocation

Misc										
1	Cobra Benefits Billed	(\$1,321)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Total Misc	(\$1,321)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Supply										
3	Water Supply - Supervision	\$0	\$86,768	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Water Supply - Labor	\$0	\$238,131	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Water Supply - Overtime	\$0	\$310	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Water Supply - Standby OT	\$0	\$2,793	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Water Supply - Emp Benefits	\$0	\$113,799	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Vehicle Maintenance WS	\$0	\$786	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	Vehicle Maintenance - #101	\$0	\$799	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	Vehicle Maintenance - #102	\$0	\$1,201	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Vehicle Maintenance - #125	\$0	\$2,242	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	Vehicle Maintenance - #133	\$0	\$5,141	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13	Vehicle Maintenance - #143	\$0	\$2,594	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14	Vehicle Maintenance - #144	\$0	\$160	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15	Vehicle Fuel WS	\$0	\$8,954	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16	Maint of Pumping Structures	\$0	\$4,164	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17	Maint of Pumping Equipment	\$0	\$23,605	\$0	\$0	\$0	\$0	\$0	\$0	\$0
18	Maint of Standby Generators	\$0	\$9,289	\$0	\$0	\$0	\$0	\$0	\$0	\$0
19	Equipment Maintenance - #655C	\$0	\$3,822	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20	Maint and Care of Grounds	\$0	\$1,659	\$0	\$0	\$0	\$0	\$0	\$0	\$0
21	Maintenance Automated Controls	\$0	\$1,962	\$0	\$0	\$0	\$0	\$0	\$0	\$0
22	Telemetry Mnt Agreement	\$0	\$4,405	\$0	\$0	\$0	\$0	\$0	\$0	\$0
23	Operating Permits	\$0	\$1,961	\$0	\$0	\$0	\$0	\$0	\$0	\$0
24	Purchased Power Wells, Etc.	\$0	\$266,770	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25	Water Bill Well Sites	\$0	\$8,252	\$0	\$0	\$0	\$0	\$0	\$0	\$0
26	Natural Gas	\$0	\$434	\$0	\$0	\$0	\$0	\$0	\$0	\$0
27	Training, Conf, Cert Renewal	\$0	\$433	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	Bulk Water Station Expenses	\$0	\$10,553	\$0	\$0	\$0	\$0	\$0	\$0	\$0
29	Water Treatment Chemicals	\$0	\$21,241	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30	Misc Parts & Materials WS	\$0	\$5,849	\$0	\$0	\$0	\$0	\$0	\$0	\$0
31	Stationery & Supplies WS	\$0	\$499	\$0	\$0	\$0	\$0	\$0	\$0	\$0
32	Cell Phones WS	\$0	\$2,885	\$0	\$0	\$0	\$0	\$0	\$0	\$0
33	Total Water Supply	\$0	\$831,464	\$0	\$0	\$0	\$0	\$0	0 \$	-
Arsenic Plant										
34	Arsenic Plant - Supervision	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,493
35	Arsenic Plant - Labor	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49,961
36	Arsenic Plant - OT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$29
37	Arsenic Plant - Standby OT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,001
38	Arsenic Plant - Emp Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$46,827
39	Maint Arsenic Plant Structures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$263
40	Maint of Arsenic Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,475
41	Maint Arsenic Plant Grounds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9
42	Telemetry Mnt Agreement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,776
43	Arsenic Plant - Purchased Powe	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$64,890
44	Arsenic Lab Analysis & Eqmt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,131
45	Arsenic Treatment Chemicals	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$73,710
46	Arsenic Solids Disposal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,107
47	Misc Parts & Materials Arsenic	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$473
48	Total Arsenic Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$278,144

Schedule 5: Allocation of Costs to Functional Components

	General & Admin	Source of Supply	Treatment	Trans & Dist	Storage	Customer Service	Meters & Services	Conservation	Arsenic
	\$ Allocation								
Transmission and Distribution									
49	T&D - Supervision	\$0	\$0	\$0	\$90,513	\$0	\$0	\$0	\$0
50	T&D - Labor	\$0	\$0	\$0	\$385,317	\$0	\$0	\$0	\$0
51	T&D - NO-DES	\$0	\$0	\$0	\$22,118	\$0	\$0	\$0	\$0
52	T&D - Temp Labor	\$0	\$0	\$0	\$75,005	\$0	\$0	\$0	\$0
53	T&D Capital Projects	\$0	\$0	\$0	(\$639)	\$0	\$0	\$0	\$0
54	T&D - Overtime	\$0	\$0	\$0	\$8,909	\$0	\$0	\$0	\$0
55	T&D Standby Time	\$0	\$0	\$0	\$32,690	\$0	\$0	\$0	\$0
56	T&D - Benefits	\$0	\$0	\$0	\$242,094	\$0	\$0	\$0	\$0
57	Vehicle Maint T&D	\$0	\$0	\$0	\$1,520	\$0	\$0	\$0	\$0
58	Vehicle Maintenance - #300	\$0	\$0	\$0	\$1,613	\$0	\$0	\$0	\$0
59	Vehicle Maintenance - #302	\$0	\$0	\$0	\$134	\$0	\$0	\$0	\$0
60	Vehicle Maintenance - #310	\$0	\$0	\$0	\$246	\$0	\$0	\$0	\$0
61	Vehicle Maintenance - #311	\$0	\$0	\$0	\$123	\$0	\$0	\$0	\$0
62	Vehicle Maintenance - #312	\$0	\$0	\$0	\$3,669	\$0	\$0	\$0	\$0
63	Vehicle Maintenance - #317	\$0	\$0	\$0	\$1,026	\$0	\$0	\$0	\$0
64	Vehicle Maintenance - #323	\$0	\$0	\$0	\$3,788	\$0	\$0	\$0	\$0
65	Vehicle Maintenance - #335	\$0	\$0	\$0	\$835	\$0	\$0	\$0	\$0
66	Vehicle Maintenance - #339	\$0	\$0	\$0	\$664	\$0	\$0	\$0	\$0
67	Vehicle Maintenance - #340	\$0	\$0	\$0	\$19	\$0	\$0	\$0	\$0
68	Vehicle Maintenance - #341	\$0	\$0	\$0	\$5,642	\$0	\$0	\$0	\$0
69	Vehicle Maintenance - #345	\$0	\$0	\$0	\$1,074	\$0	\$0	\$0	\$0
70	Vehicle Maintenance - #349	\$0	\$0	\$0	\$62	\$0	\$0	\$0	\$0
71	Vehicle Maintenance - #350	\$0	\$0	\$0	\$2,263	\$0	\$0	\$0	\$0
72	Vehicle Maintenance - #355	\$0	\$0	\$0	\$3,888	\$0	\$0	\$0	\$0
73	Vehicle Fuel T&D	\$0	\$0	\$0	\$27,762	\$0	\$0	\$0	\$0
74	Maint Heavy & Light Equipment	\$0	\$0	\$0	\$16,337	\$0	\$0	\$0	\$0
75	Tractor Maint. #U80	\$0	\$0	\$0	\$654	\$0	\$0	\$0	\$0
76	Tractor Maint. #LB90	\$0	\$0	\$0	\$3,105	\$0	\$0	\$0	\$0
77	Tractor Maint. #B95C	\$0	\$0	\$0	\$591	\$0	\$0	\$0	\$0
78	Tractor Maint. #555E	\$0	\$0	\$0	\$2,967	\$0	\$0	\$0	\$0
79	Maintenance of T&D	\$0	\$0	\$0	\$26,586	\$0	\$0	\$0	\$0
80	Maintenance of Fire Hydrants	\$0	\$0	\$0	\$2,230	\$0	\$0	\$0	\$0
81	Maintenance Laterals & Meters	\$0	\$0	\$0	\$168,028	\$0	\$0	\$0	\$0
82	Maintenance Valves & Boxes	\$0	\$0	\$0	\$25,325	\$0	\$0	\$0	\$0
83	Maintenance of Streets	\$0	\$0	\$0	\$482,182	\$0	\$0	\$0	\$0
84	Maintenance of Streets - Permi	\$0	\$0	\$0	\$2,235	\$0	\$0	\$0	\$0
85	Misc Parts & Materials T&D	\$0	\$0	\$0	\$5,041	\$0	\$0	\$0	\$0
86	Inventory Adjustment	\$0	\$0	\$0	(\$31,611)	\$0	\$0	\$0	\$0
87	Equipment Rental	\$0	\$0	\$0	\$4,685	\$0	\$0	\$0	\$0
88	Capital Equipment Credit	\$0	\$0	\$0	(\$4,150)	\$0	\$0	\$0	\$0
89	Training & Conference T&D	\$0	\$0	\$0	\$1,103	\$0	\$0	\$0	\$0
90	Meal Tickets T&D	\$0	\$0	\$0	\$65	\$0	\$0	\$0	\$0
91	Stationery & Misc Supplies T&D	\$0	\$0	\$0	\$833	\$0	\$0	\$0	\$0
92	Cell Phones T&D	\$0	\$0	\$0	\$1,614	\$0	\$0	\$0	\$0
93	Total Transmission and Distribution	\$0	\$0	\$0	1,618,158	\$0	\$0	\$0	\$0
Engineering									
94	Engineering - Labor	\$5,027	\$22,761	\$10	\$53,271	\$9,971	\$299	\$6,696	\$0
95	Engineering - Overtime	\$149	\$673	\$0	\$1,575	\$295	\$9	\$198	\$0
96	Engineering - Benefits	\$2,125	\$9,619	\$4	\$22,513	\$4,214	\$126	\$2,830	\$0
97	Vehicle Maint ENG	\$5	\$21	\$0	\$49	\$9	\$0	\$6	\$0
98	Vehicle Fuel ENG	\$179	\$811	\$0	\$1,899	\$355	\$11	\$239	\$0
99	Water Treatment Lab Analysis	\$714	\$3,235	\$1	\$7,571	\$1,417	\$43	\$952	\$0
100	Vehicle Maintenance - #428	\$84	\$380	\$0	\$889	\$166	\$5	\$112	\$0
101	Vehicle Maintenance - #437	\$28	\$126	\$0	\$294	\$55	\$2	\$37	\$0
102	Consumer Confidence Reports	\$253	\$1,146	\$1	\$2,682	\$502	\$15	\$337	\$0
103	Training & Conferences ENG	\$39	\$175	\$0	\$409	\$77	\$2	\$51	\$0
104	Training & Conferences IT	\$127	\$573	\$0	\$1,342	\$251	\$8	\$169	\$0
105	Misc Supplies & Equipment	\$114	\$514	\$0	\$1,203	\$225	\$7	\$151	\$0
106	Cell Phones ENG	\$83	\$374	\$0	\$874	\$164	\$5	\$110	\$0
107	Consulting Engineering Service	\$1,528	\$6,920	\$3	\$16,197	\$3,032	\$91	\$2,036	\$0
108	Water Trax Subscription	\$392	\$1,774	\$1	\$4,152	\$777	\$23	\$522	\$0
109	Computer Supplies/Maint Agreem	\$993	\$4,496	\$2	\$10,522	\$1,969	\$59	\$1,323	\$0
110	Total Engineering	\$11,838	\$53,596	\$24	125,442	\$23,480	\$704	\$15,767	\$0

Schedule 5: Allocation of Costs to Functional Components

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	General & Admin	Source of Supply	Treatment	Trans & Dist	Storage	Customer Service	Meters & Services	Conservation	Aesthetic
	\$ Allocation								
Customer Service									
111 Customer Accts - Supervision	\$0	\$0	\$0	\$0	\$0	\$83,910	\$0	\$0	\$0
112 Customer Accts - Labor	\$0	\$0	\$0	\$0	\$0	\$88,369	\$0	\$0	\$0
113 Customer Accts - Temp Labor	\$0	\$0	\$0	\$0	\$0	\$16,440	\$0	\$0	\$0
114 Customer Accts - Overtime	\$0	\$0	\$0	\$0	\$0	\$1,928	\$0	\$0	\$0
115 Customer Accts - Benefits	\$0	\$0	\$0	\$0	\$0	\$84,141	\$0	\$0	\$0
116 Uncollectible Accounts	\$0	\$0	\$0	\$0	\$0	\$21,053	\$0	\$0	\$0
117 Postage & Supplies CUSTOMER	\$0	\$0	\$0	\$0	\$0	\$70,158	\$0	\$0	\$0
118 Print & Reproduction CUSTOMER	\$0	\$0	\$0	\$0	\$0	\$12,795	\$0	\$0	\$0
119 Training & Conference CUSTOMER	\$0	\$0	\$0	\$0	\$0	\$715	\$0	\$0	\$0
120 Cash Short/Over	\$0	\$0	\$0	\$0	\$0	\$364	\$0	\$0	\$0
121 Stationery & Supplies CUSTOMER	\$0	\$0	\$0	\$0	\$0	\$7,647	\$0	\$0	\$0
122 Total Customer Service	\$0	\$0	\$0	0	\$0	\$387,521	\$0	\$0	\$0
Field Services									
123 Misc Parts & Materials FS	\$0	\$0	\$0	\$859	\$0	\$0	\$2,576	\$0	\$0
124 Field Service - Supervision	\$0	\$0	\$0	\$21,086	\$0	\$0	\$63,259	\$0	\$0
125 Field Service - Labor	\$0	\$0	\$0	\$25,738	\$0	\$0	\$77,214	\$0	\$0
126 Field Service - Temp Labor	\$0	\$0	\$0	\$23,614	\$0	\$0	\$70,842	\$0	\$0
127 Field Service - Overtime	\$0	\$0	\$0	\$778	\$0	\$0	\$2,333	\$0	\$0
128 Field Service Capital Proj Cr	\$0	\$0	\$0	(\$13,729)	\$0	\$0	(\$41,188)	\$0	\$0
129 Field Service - Benefits	\$0	\$0	\$0	\$29,025	\$0	\$0	\$87,075	\$0	\$0
130 Vehicle Maintenance FS	\$0	\$0	\$0	(\$535)	\$0	\$0	(\$1,605)	\$0	\$0
131 Vehicle Fuel FS	\$0	\$0	\$0	\$2,683	\$0	\$0	\$8,050	\$0	\$0
132 Vehicle Maintenance - #601	\$0	\$0	\$0	\$137	\$0	\$0	\$411	\$0	\$0
133 Vehicle Maintenance - #605	\$0	\$0	\$0	\$590	\$0	\$0	\$1,771	\$0	\$0
134 Vehicle Maintenance - #609	\$0	\$0	\$0	\$1,229	\$0	\$0	\$3,686	\$0	\$0
135 Vehicle Maintenance - #610	\$0	\$0	\$0	\$944	\$0	\$0	\$2,831	\$0	\$0
136 Vehicle Maintenance - #615	\$0	\$0	\$0	\$67	\$0	\$0	\$202	\$0	\$0
137 Vehicle Maintenance - #624	\$0	\$0	\$0	\$426	\$0	\$0	\$1,279	\$0	\$0
138 Vehicle Maintenance - #636	\$0	\$0	\$0	\$130	\$0	\$0	\$389	\$0	\$0
139 Maintenance Meters FS	\$0	\$0	\$0	\$22,471	\$0	\$0	\$67,413	\$0	\$0
140 Itron Software Maint	\$0	\$0	\$0	\$708	\$0	\$0	\$2,125	\$0	\$0
141 Training & Conferences FS	\$0	\$0	\$0	\$1,210	\$0	\$0	\$3,631	\$0	\$0
142 Stationery & Supplies FS	\$0	\$0	\$0	\$228	\$0	\$0	\$685	\$0	\$0
143 Cell Phones FS	\$0	\$0	\$0	\$468	\$0	\$0	\$1,403	\$0	\$0
144 Total Field Services	\$0	\$0	\$0	118,128	\$0	\$0	\$354,383	\$0	\$0

Schedule 5: Allocation of Costs to Functional Components

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	General & Admin	Source of Supply	Treatment	Trans & Dist	Storage	Customer Service	Meters & Services	Conservation	Aesthetic
	\$ Allocation								
Administration									
145 Administration - Supervision	\$575,286	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
146 Administration - Labor	\$127,462	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
147 Accounting - Labor	\$128,240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
148 Administration - Overtime	\$1,356	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
149 Accounting - Overtime	\$590	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
150 Administration - Benefits	\$221,152	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
151 Accounting - Benefits	\$63,450	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
152 Vehicle Maintenance ADMIN	\$147	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
153 Vehicle Fuel ADMIN	\$3,451	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
154 Vehicle Maintenance - #711	\$555	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
155 Vehicle Maintenance - #738	\$355	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
156 Vehicle Maintenance - #748	\$2,926	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
157 Stationery & Supplies ADMIN	\$14,693	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
158 Printing & Reproduction ADMIN	(\$5)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
159 Postage ADMIN	\$4,716	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
160 Memberships & Subscriptions	\$34,295	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
161 Travel & Conference MGMT	\$3,194	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
162 Travel & Conference ADMIN/ACCT	\$1,662	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
163 Maintenance of Structures	\$7,032	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
164 Office & Shop Utilities	\$36,626	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
165 Hazardous Waste Disposal	\$0	\$0	\$4,867	\$0	\$0	\$0	\$0	\$0	\$0
166 Telephones	\$18,378	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
167 Cell Phones ADMIN	\$1,866	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
168 Internet Service Provider	\$8,336	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
169 Security Services	\$13,803	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
170 Custodian/Caretaker	\$17,815	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
171 Ins Property & Liability	\$84,600	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
172 Deductible Adjustments	\$1,224	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
173 New Employee Verification	\$277	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
174 Public Employees Retirement	\$76,012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
175 Workers Comp Previous FY	\$5,165	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
176 Accrued Sick/Vacation Leave	\$33,928	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
177 Safety/Training & Equipment	\$24,748	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
178 Misc, Sundries & Supplies	\$12,462	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
179 Warehouse Supplies	\$12,322	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
180 Legal Services	\$115,393	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
181 Auditing Services	\$21,682	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
182 Financial Services	\$2,627	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
183 Salary Survey	\$2,060	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
184 Hydrogeologist Consultant	\$26,465	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
185 Underground Service Alert	\$962	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
186 Rents/Lease Equipment	\$4,726	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
187 Leases Real Estate BLM	\$323	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
188 Equipment Maintenance	\$9,482	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
189 Server Maintenance Agreement	\$5,150	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
190 Springbrook Software Maint	\$0	\$0	\$0	\$0	\$0	\$27,017	\$0	\$0	\$0
191 VoteLynx Equipment Maintenance	\$37	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
192 Answering Service	\$3,483	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
193 Total Administration	\$1,730,504	\$0	\$4,867	0	\$0	\$27,017	\$0	\$0	\$0
Legislative									
194 Director's Fees	\$24,265	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
195 Health Insurance Director's	\$100,880	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
196 Director's Workers Comp	\$2,080	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
197 Director's Payroll Taxes	\$1,515	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
198 Recording Secretary	\$1,629	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
199 Travel & Convention Directors	\$5,844	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
200 Elections	\$11,070	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
201 Total Legislative	\$147,284	\$0	\$0	0	\$0	\$0	\$0	\$0	\$0

Schedule 5: Allocation of Costs to Functional Components

5 of 5

	General & Admin	Source of Supply	Treatment	Trans & Dist	Storage	Customer Service	Meters & Services	Conservation	Arsenic
	\$ Allocation								
Non-Operational									
202 Misc Service Charges/Penalties	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,341	\$ -	\$ -	\$ -
203 Credit Card Service Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 93,730	\$ -	\$ -	\$ -
204 Web Payment Service Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 44,290	\$ -	\$ -	\$ -
205 Misc State & County Fees	\$ 12,007	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
206 SWRCB Annual Fee (was CDPH)	\$ -	\$ 39,890	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
207 Public Information	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,330	\$ -
208 IWVCGWMG Expenses	\$ -	\$ 6,334	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
209 GSA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 118,648	\$ -
210 LAFCO Expense	\$ 3,205	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
211 OPEB Expense	\$ 41,720	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
212 Well Monitoring Program	\$ -	\$ 1,038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
213 Kern County Property Tax	\$ 9,729	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
214 Inyo Kern County Property Tax	\$ 4,127	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
215 AWS Butterworth Ranch Olancho	\$ -	\$ 13,353	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
216 AWS Stine Property	\$ -	\$ 4,362	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
217 Salt Nutrient Program	\$ -	\$ -	\$ 16,619	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
218 GSA Salaries	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,960	\$ -
219 Conservation Web Payment Sl/Chg	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,912	\$ -
220 Water Conservation Programs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 28,128	\$ -
221 Water Conservation Advertising	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 31,630	\$ -
222 Cash for Grass Grant Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,550	\$ -
223 Conser/Public Education Salary	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,548	\$ -
224 Conser/Public Education OT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,481	\$ -
226 SGMA Pass Through	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 175,873	\$ -
227 Total Non-Operational	\$70,788	\$64,977	\$16,619	0	\$0	\$145,361	\$0	\$507,061	\$0
Existing Debt Service									
228 Debt Service	\$ 93,859	\$ 424,952	\$ 190	\$ 994,597	\$ 186,169	\$ 5,584	\$ 125,016	\$ -	\$ 695,793
229 Existing Debt Service Total	\$93,859	\$424,952	\$190	\$994,597	\$186,169	\$5,584	\$125,016	\$0	\$695,793
Transfers									
230 Source of Supply Reserve Transfer	\$ -	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
231 Transfers Subtotal	\$0	\$120,000	\$0	0	\$0	\$0	\$0	\$0	\$0
Capital Projects									
232 Projects funded by Revenue Fund	\$ 84,426	\$ 382,244	\$ 171	\$ 894,638	\$ 167,459	\$ 5,023	\$ 112,452	\$ -	\$ 625,865
233 Projects funded by cash	\$ 29,888	\$ 135,322	\$ 60	\$ 316,719	\$ 59,284	\$ 1,778	\$ 39,810	\$ -	\$ 221,568
234 Capital Projects Subtotal	\$114,314	\$517,565	\$231	\$1,211,357	\$226,743	\$6,801	\$152,262	\$0	\$847,433
SUMMARY									
235 Operating & Transfers	\$ 1,959,092	\$ 1,070,037	\$ 21,509	\$ 1,861,727	\$ 23,480	\$ 560,603	\$ 370,150	\$ 507,061	\$ 365,899
236 Debt Service	\$ 93,859	\$ 424,952	\$ 190	\$ 994,597	\$ 186,169	\$ 5,584	\$ 125,016	\$ -	\$ 695,793
237 Capital	\$ 114,314	\$ 517,565	\$ 231	\$ 1,211,357	\$ 226,743	\$ 6,801	\$ 152,262	\$ -	\$ 847,433
238 Total Revenue Requirements	\$2,167,265	\$2,012,554	\$21,930	\$4,067,682	\$436,392	\$572,988	\$647,428	\$507,061	\$1,909,126
239 % Allocation	17.56%	16.31%	0.18%	32.96%	3.54%	4.64%	5.25%	4.11%	15.47%

Schedule 6: Allocation of Costs to System Parameters

1 of 2

		System Parameter							
		Base Capacity	Extra Capacity	Extra Capacity	Meter Size	Conservation	Customers	Arsenic	
1	Total System Metrics:	7,002	12,603	9,880	13,609	7,002	11,931	616,795	
2		HCF per average day	HCF per Max Day	HCF per day at Max Hour Rate	Equivalent Meters	HCF per average day	Accounts	HCF	
Operating Expenses									
3	Source of Supply	\$1,508,551	\$1,508,551	\$0	\$0	\$0	\$0	\$0	
4	Treatment	\$30,324	\$15,162	\$15,162	\$0	\$0	\$0	\$0	
5	Trans & Dist	\$2,624,685	\$874,895	\$874,895	\$874,895	\$0	\$0	\$0	
6	Storage	\$33,103	\$11,034	\$11,034	\$11,034	\$0	\$0	\$0	
7	Customer Service	\$790,344	\$0	\$0	\$0	\$0	\$790,344	\$0	
8	Meters & Services	\$521,842	\$0	\$0	\$0	\$521,842	\$0	\$0	
9	Conservation	\$714,861	\$0	\$0	\$0	\$0	\$714,861	\$0	
10	Arsenic	\$515,849	\$0	\$0	\$0	\$0	\$0	\$515,849	
11	Total Costs	\$6,739,559	\$2,409,642	\$901,091	\$885,929	\$521,842	\$714,861	\$790,344	\$515,849
12	% Allocation	35.8%	13.4%	13.1%	7.7%	10.6%	11.7%	7.7%	
13	Unit Cost of Service	\$344.15	\$71.50	\$89.67	\$38.35	\$102.10	\$66.24	\$0.84	
14	(Unit of measure)	HCF per average day	HCF per Max Day	HCF per day at Max Hour Rate	Equivalent Meters	HCF per average day	Accounts	HCF	
15	Source of Supply	\$215.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
16	Treatment	\$2.17	\$1.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
17	Trans & Dist	\$124.95	\$69.42	\$88.56	\$0.00	\$0.00	\$0.00	\$0.00	
18	Storage	\$1.58	\$0.88	\$1.12	\$0.00	\$0.00	\$0.00	\$0.00	
19	Customer Service	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$66.24	\$0.00	
20	Meters & Services	\$0.00	\$0.00	\$0.00	\$38.35	\$0.00	\$0.00	\$0.00	
21	Conservation	\$0.00	\$0.00	\$0.00	\$0.00	\$102.10	\$0.00	\$0.00	
22	Arsenic	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.84	
Debt Service									
23	Source of Supply	\$441,350	\$441,350	\$0	\$0	\$0	\$0	\$0	
24	Treatment	\$197	\$99	\$99	\$0	\$0	\$0	\$0	
25	Trans & Dist	\$1,032,977	\$344,326	\$344,326	\$344,326	\$0	\$0	\$0	
26	Storage	\$193,353	\$64,451	\$64,451	\$64,451	\$0	\$0	\$0	
27	Customer Service	\$5,800	\$0	\$0	\$0	\$0	\$5,800	\$0	
28	Meters & Services	\$129,840	\$0	\$0	\$0	\$129,840	\$0	\$0	
29	Arsenic	\$722,643	\$0	\$0	\$0	\$0	\$0	\$722,643	
30	Total Costs	\$2,526,161	\$850,226	\$408,875	\$408,777	\$129,840	\$0	\$5,800	\$722,643
31	% Distribution	33.7%	16.2%	16.2%	5.1%	0.0%	0.2%	28.6%	
32	Unit Cost of Service	\$121.43	\$32.44	\$41.38	\$9.54	\$0.00	\$0.49	\$1.17	
33	(Unit of measure)	HCF per average day	HCF per Max Day	HCF per day at Max Hour Rate	Equivalent Meters	HCF per average day	Accounts	HCF	
34	Source of Supply	\$63.03	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
35	Treatment	\$0.01	\$0.01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
36	Trans & Dist	\$49.18	\$27.32	\$34.85	\$0.00	\$0.00	\$0.00	\$0.00	
37	Storage	\$9.20	\$5.11	\$6.52	\$0.00	\$0.00	\$0.00	\$0.00	
38	Customer Service	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.49	\$0.00	
39	Meters & Services	\$0.00	\$0.00	\$0.00	\$9.54	\$0.00	\$0.00	\$0.00	
40	Arsenic	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.17	

Schedule 6: Allocation of Costs to System Parameters

2 of 2

		System Parameter							
		Base Capacity	Extra Capacity	Extra Capacity	Meter Size	Conservation	Customers	Arsenic	
1	Total System Metrics:	7,002	12,603	9,880	13,609	7,002	11,931	616,795	
2		HCF per average day	HCF per Max Day	HCF per day at Max Hour Rate	Equivalent Meters	HCF per average day	Accounts	HCF	
Cash Funded Capital									
41	Source of Supply	\$537,537	\$537,537	\$0	\$0	\$0	\$0	\$0	
42	Treatment	\$240	\$120	\$120	\$0	\$0	\$0	\$0	
43	Trans & Dist	\$1,258,102	\$419,367	\$419,367	\$419,367	\$0	\$0	\$0	
44	Storage	\$235,492	\$78,497	\$78,497	\$78,497	\$0	\$0	\$0	
45	Customer Service	\$7,063	\$0	\$0	\$0	\$0	\$7,063	\$0	
46	Meters & Services	\$158,137	\$0	\$0	\$0	\$158,137	\$0	\$0	
47	Conservation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
48	Arsenic	\$880,134	\$0	\$0	\$0	\$0	\$0	\$880,134	
49	Total Costs	\$3,076,707	\$1,035,522	\$497,985	\$497,865	\$158,137	\$0	\$7,063	\$880,134
50	% Distribution		33.7%	16.2%	16.2%	5.1%	0.0%	0.2%	28.6%
51	Unit Cost of Service	\$147.89	\$39.51	\$50.39	\$11.62	\$0.00	\$0.59	\$1.43	
52	(Unit of measure)	HCF per average day	HCF per Max Day	HCF per day at Max Hour Rate	Equivalent Meters	HCF per average day	Accounts	HCF	
53	Source of Supply	\$76.77	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
54	Treatment	\$0.02	\$0.01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
55	Trans & Dist	\$59.89	\$33.27	\$42.45	\$0.00	\$0.00	\$0.00	\$0.00	
56	Storage	\$11.21	\$6.23	\$7.95	\$0.00	\$0.00	\$0.00	\$0.00	
57	Customer Service	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.59	\$0.00	
58	Meters & Services	\$0.00	\$0.00	\$0.00	\$11.62	\$0.00	\$0.00	\$0.00	
59	Arsenic	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.43	
Summary Totals									
60	Operating	\$6,739,559	\$344.15	\$71.50	\$89.67	\$38.35	\$102.10	\$66.24	\$0.84
61	Debt Service	\$2,526,161	\$121.43	\$32.44	\$41.38	\$9.54	\$0.00	\$0.49	\$1.17
62	Rate Funded Capital	\$3,076,707	\$147.89	\$39.51	\$50.39	\$11.62	\$0.00	\$0.59	\$1.43
63	Total	\$12,342,427	\$613.47	\$143.45	\$181.44	\$59.51	\$102.10	\$67.32	\$3.43

APPENDIX C: PROPOSED RATE SCHEDULES

Schedule 7: Proposed Rates effective January 1, 2019

Schedule 8: Proposed Rates effective July 1, 2019

Schedule 9: Proposed Rates effective July 1, 2020

Schedule 10: Proposed Rates effective July 1, 2021

Schedule 11: Proposed Rates effective July 1, 2022

Schedule 7: Proposed Rates effective January 1, 2019

Commodity Rates

	Commodity Rate
Tier 1	\$0.74
Tier 2	\$1.24
Tier 3	\$2.39
Tier 4	\$4.92

Fixed Monthly Charges

Meter Size	Account Charge	Ready-to-Serve	Arsenic Charge
3/4"	\$4.47	\$23.22	\$10.39
1"	\$4.47	\$38.78	\$17.35
1 1/2"	\$4.47	\$77.32	\$34.60
2"	\$4.47	\$123.76	\$55.38
3"	\$4.47	\$247.76	\$110.86
4"	\$4.47	\$387.08	\$173.20
6"	\$4.47	\$773.92	\$346.30
8"	\$4.47	\$1,238.32	\$554.10
10"	\$4.47	\$1,780.15	\$796.54

Zone Charges

	Proposed Charge (per HCF)
Zone B	\$0.21
Zone C	\$0.42
Zone D	\$0.63
Zone E	\$0.84

Construction Meter Charges

	Proposed Charge
Monthly Meter Charge:*	\$183.61
Volumetric Unit Rate (per HCF)**:	\$4.19

* May be pro-rated for partial months.
Check-out fees may apply.
** Zone Charges will be added to this rate.

Private Fire Service

Meter Size	Proposed Monthly Charge
1"	\$1.55
2"	\$9.62
3"	\$27.96
4"	\$59.57
6"	\$173.05
8"	\$368.78
10"	\$663.20

Bulk Water Rate

	Proposed Charge
<u>UNMETERED RATES</u>	
Proposed Monthly Fixed Charge:	\$47.11
<u>METERED RATES</u>	
Proposed Monthly Fixed Charge:	\$28.68
Volumetric Charge (Per HCF):	\$2.63

Schedule 8: Proposed Rates effective July 1, 2019

Commodity Charges

	Commodity Rate
Tier 1	\$0.76
Tier 2	\$1.28
Tier 3	\$2.46
Tier 4	\$5.07

Fixed Monthly Charges

Meter Size	Account Charge	Ready-to-Serve	Arsenic Charge
3/4"	\$4.60	\$23.92	\$10.70
1"	\$4.60	\$39.94	\$17.87
1 1/2"	\$4.60	\$79.64	\$35.64
2"	\$4.60	\$127.47	\$57.04
3"	\$4.60	\$255.19	\$114.19
4"	\$4.60	\$398.69	\$178.40
6"	\$4.60	\$797.14	\$356.69
8"	\$4.60	\$1,275.47	\$570.72
10"	\$4.60	\$1,833.55	\$820.44

Zone Charges

	Proposed Charge (per HCF)
Zone B	\$0.22
Zone C	\$0.43
Zone D	\$0.65
Zone E	\$0.87

Construction Meter Charges

	Proposed Charge
Monthly Meter Charge:*	\$189.12
Volumetric Unit Rate (per HCF)**:	\$4.31

* May be pro-rated for partial months.
Check-out fees may apply.
** Zone Charges will be added to this rate.

Private Fire Service

Meter Size	Proposed Monthly Charge
1"	\$1.60
2"	\$9.91
3"	\$28.80
4"	\$61.36
6"	\$178.24
8"	\$379.84
10"	\$683.10

Bulk Water Rates

	Proposed Charge
<u>UNMETERED RATES</u>	
Proposed Monthly Fixed Charge:	\$48.52
<u>METERED RATES</u>	
Proposed Monthly Fixed Charge:	\$29.55
Volumetric Charge (Per HCF):	\$2.71

Schedule 9: Proposed Rates effective July 1, 2020

Commodity Charges

	Commodity Rate
Tier 1	\$0.78
Tier 2	\$1.32
Tier 3	\$2.53
Tier 4	\$5.22

Fixed Monthly Charges

Meter Size	Account Charge	Ready-to-Serve	Arsenic Charge
3/4"	\$4.74	\$24.64	\$11.02
1"	\$4.74	\$41.14	\$18.41
1 1/2"	\$4.74	\$82.03	\$36.71
2"	\$4.74	\$131.29	\$58.75
3"	\$4.74	\$262.85	\$117.62
4"	\$4.74	\$410.65	\$183.75
6"	\$4.74	\$821.05	\$367.39
8"	\$4.74	\$1,313.73	\$587.84
10"	\$4.74	\$1,888.56	\$845.05

Zone Charges

	Proposed Charge (per HCF)
Zone B	\$0.23
Zone C	\$0.44
Zone D	\$0.67
Zone E	\$0.90

Construction Meter Charges

	Proposed Charge
Monthly Meter Charge:*	\$194.79
Volumetric Unit Rate (per HCF)**:	\$4.44

* May be pro-rated for partial months.
Check-out fees may apply.
** Zone Charges will be added to this rate.

Private Fire Service

Meter Size	Proposed Monthly Charge
1"	\$1.64
2"	\$10.21
3"	\$29.66
4"	\$63.20
6"	\$183.59
8"	\$391.24
10"	\$703.59

Bulk Water Rates

	Proposed Charge
<u>UNMETERED RATES</u>	
Proposed Monthly Fixed Charge	\$49.98
<u>METERED RATES</u>	
Proposed Monthly Fixed Charge	\$30.44
Volumetric Charge (Per HCF):	\$2.79

Schedule 10: Proposed Rates effective July 1, 2021

Commodity Charges

	Proposed Rates
Tier 1	\$0.80
Tier 2	\$1.36
Tier 3	\$2.61
Tier 4	\$5.38

Fixed Monthly Charges

Meter Size	Account Charge	Ready-to-Serve	Arsenic Charge
3/4"	\$4.88	\$25.38	\$11.35
1"	\$4.88	\$42.37	\$18.96
1 1/2"	\$4.88	\$84.49	\$37.81
2"	\$4.88	\$135.23	\$60.51
3"	\$4.88	\$270.74	\$121.15
4"	\$4.88	\$422.97	\$189.26
6"	\$4.88	\$845.68	\$378.41
8"	\$4.88	\$1,353.14	\$605.48
10"	\$4.88	\$1,945.22	\$870.40

Zone Charges

	Proposed Charge (per HCF)
Zone B	\$0.24
Zone C	\$0.45
Zone D	\$0.69
Zone E	\$0.93

Construction Meter Charges

	Proposed Charge
Monthly Meter Charge:*	\$200.63
Volumetric Unit Rate (per HCF)**	\$4.57

* May be pro-rated for partial months.
Check-out fees may apply.
** Zone Charges will be added to this rate.

Private Fire Service

Meter Size	Proposed Monthly Charge
1"	\$1.70
2"	\$10.52
3"	\$30.55
4"	\$65.10
6"	\$189.10
8"	\$402.98
10"	\$724.70

Bulk Water Rates

	Proposed Charge
<u>UNMETERED RATES</u>	
Proposed Monthly Fixed Charge	\$51.48
<u>METERED RATES</u>	
Proposed Monthly Fixed Charge	\$31.35
Volumetric Charge (Per HCF):	\$2.87

Schedule 11: Proposed Rates effective July 1, 2022

Commodity Charges

	Proposed Rates
Tier 1	\$0.82
Tier 2	\$1.40
Tier 3	\$2.69
Tier 4	\$5.54

Fixed Monthly Charges

Meter Size	Account Charge	Ready-to-Serve	Arsenic Charge
3/4"	\$5.03	\$26.14	\$11.69
1"	\$5.03	\$43.64	\$19.53
1 1/2"	\$5.03	\$87.02	\$38.94
2"	\$5.03	\$139.29	\$62.33
3"	\$5.03	\$278.86	\$124.78
4"	\$5.03	\$435.66	\$194.94
6"	\$5.03	\$871.05	\$389.76
8"	\$5.03	\$1,393.73	\$623.64
10"	\$5.03	\$2,003.58	\$896.51

Zone Charges

	Proposed Charge (per HCF)
Zone B	\$0.25
Zone C	\$0.46
Zone D	\$0.71
Zone E	\$0.96

Construction Meter Charges

	Proposed Charge
Monthly Meter Charge:*	\$206.65
Volumetric Unit Rate (per HCF)**	\$4.71

* May be pro-rated for partial months.
Check-out fees may apply.
** Zone Charges will be added to this rate.

Private Fire Service

Meter Size	Proposed Monthly Charge
1"	\$1.75
2"	\$10.84
3"	\$31.47
4"	\$67.05
6"	\$194.77
8"	\$415.07
10"	\$746.44

Bulk Water Rates

	Proposed Charge
<u>UNMETERED RATES</u>	
Proposed Monthly Fixed Charge:	\$53.02
<u>METERED RATES</u>	
Proposed Monthly Fixed Charge:	\$32.29
Volumetric Charge (Per HCF):	\$2.96