RAFTELIS

Monterey Peninsula Water Management District

Preliminary Valuation and Cost of Service Analysis Report

October 29, 2019

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October 29, 2019

David Laredo
Delay & Laredo
606 Forest Avenue
Pacific Grove, CA 93950

Subject: Preliminary Valuation and Cost of Service Analysis

Dear Mr. Laredo,

Raftelis Financial Consultants, Inc. ("Raftelis") is pleased to provide this Preliminary Valuation and Cost of Service Analysis Report ("Report") for the Monterey Peninsula Water Management District ("District") to support the District's evaluation of the feasibility of securing and maintaining public ownership of the water production, storage, and delivery system assets and infrastructure used in providing potable water services within the District's territory.

This report presents the results of our preliminary valuation assessment and cost of service analysis. This phase of the work included completing a preliminary desktop valuation assessment, along with a cost of service analysis to support the District in its feasibility evaluation. This valuation assessment is limited and qualified as noted in the report.

We look forward to discussing the results of the evaluation with you soon. In the meantime, should you have any questions regarding this report, or if we can be of any further assistance, please contact John Mastracchio at 518.391.8944 or by email at jmastracchio@raftelis.com or William Stannard at 816.285.9022 or by email at wstannard@raftelis.com.

Sincerely,

John M. Mastracchio, CFA
Vice President

William Stannard, P.E.
Chairman of the Board

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List of Acronyms

AFY	Acre-Feet Per Year
ASR	Aquifer Storage and Recovery
BIRP	Begonia Iron Removal Plant
CalPERS	California Public Employee's Retirement System
CAPM	Capital Asset Pricing Model
CAW	California American Water
CDFW	California Department of Fish and Wildlife
CPUC	California Public Utilities Commission
DCF	Discounted Cash Flow
ERC	Equivalent Residential Connection
FICA	Federal Insurance Contribution Act
FUTA	Federal Unemployment Tax Act
FY	Fiscal Year
GAC	Granular Activated Carbon
GPM	Gallons Per Minute
LCV	Lower Carmel Valley
M	Meters
MG	Million Gallons
MGD	Million Gallons per Day
MPWMD	Monterey Peninsula Water Management District
MPWSP	Monterey Peninsula Water Supply Project
O&M	Operations and Maintenance
OCLD	Original Cost Less Depreciation
PUC	Public Utility Commission
PWM	Pure Water Monterey
RCNLD	Reproduction Cost New Less Depreciation
RO	Reverse Osmosis
SUI	State Unemployment Insurance
SWRCB	State Water Resources Control Board
UCV	Upper Carmel Valley
UPAA	Utility Plant Acquisition Adjustment
WACC	Weighted Average Cost of Capital

Executive Summary

The purpose of this report is to document the findings of a preliminary valuation assessment and cost of service evaluation completed to support the Monterey Peninsula Water Management District ("MPWMD" or "District") in evaluating the feasibility of securing and maintaining public ownership of the Monterey Water System. The preliminary valuation assessment consisted of completion of a preliminary desktop valuation assessment of the Monterey Water System to estimate the cost required to be incurred to acquire the Monterey Water System. The cost of service analysis was completed to compare the cost of public ownership, operation, and maintenance of the Monterey Water System (i.e. the public ownership scenario) with a status quo scenario, which is the anticipated cost of continued ownership, operation, and maintenance of the system by California American Water ("CAW"). The cost of service analysis was compared in terms of the annual Monterey Water System revenue requirements and typical residential customer bill impacts associated with the various scenarios that were developed.

CAW currently provides water service to approximately 41,000 customer connections and a population of approximately 99,794 in its Monterey County District. The "Main" system within the Monterey County District serves approximately 38,325 customers and includes customers within the incorporated cities of Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City, Seaside, and the unincorporated areas of Carmel Highlands, Carmel Valley and Pebble Beach. The Main system is generally located within the MPWMD boundaries. The Monterey County District also includes the areas of Bishop, serving approximately 385 customers, Hidden Hills, serving approximately 454 customers, and Ryan Ranch, serving approximately 212 customers, which are areas that are also within the MPWMD boundaries.[1] The Central Satellite areas include the areas of Ambler, Ralph Lane, Chualar, Toro, and Garrapata, which are located outside of MPWMD boundaries and serve a total of approximately 1,086 customers. The subject of the preliminary valuation and cost of service analysis is the portion of the water system located within the boundaries of the District.

Preliminary Valuation Assessment

The valuation of the Monterey Water System was prepared for acquisition feasibility purposes considering three methods of valuation: the Income Approach, the Sales Comparison Approach, and the Cost Approach. The definition of value used in the valuation assessment was fair market value as the term is defined in California's Eminent Domain Law (Code of Civil procedure Section 1263.320), and the date of the valuation estimate was January 1, 2020.

[1]Approximately 33 residential connections within CAW's Main System are currently located just outside the District's boundaries in the Yankee Point area. In addition, approximately 10 residential connections in CAW's Hidden Hills System extend beyond the District's boundary. These portions of the Main and Hidden Hills Systems are physically and functionally connected to the much larger portion of the systems located within the District's boundary and cannot practicably be served and operated independently. For the purposes of this report, we have assumed that if the District determines to acquire the portions of CAW's Monterey Water System currently located within its boundary, it will take whatever steps necessary to either annex these 43 "extra-territorial" connections into its boundary or otherwise comply with such legal requirements that may need to be satisfied in order to enable the District to serve those properties (see, e.g., California Government Code Section 56133). Through the balance of this report, it was assumed that these connections are within the District and not part of the Central Satellite areas.

The income approach is based on the premise that the value of a property is the present value of the future economic benefits of owning the property. The underlying principle in this approach is that buyers invest in assets with the expectation of receiving the anticipated future net benefits. This approach is relevant when the property being valued generates or is anticipated to generate net income, profits, or free cash flows. The value estimate of the Monterey Water System calculated using the income approach ranged $222 million to $255 million. An 80% weighting was placed on the results of this valuation method.

The Market Approach is a general way of determining an indication of value of an enterprise by comparing the subject to similar businesses that have been sold. The valuation estimate under the market approach was prepared using the Guideline Transactions Method, which is a method whereby pricing multiples are derived from transactions involving companies engaged in the same or similar lines of business. Certain factors, such as the location, date of sale, physical characteristics, and technical and economic factors relating to sales transactions were analyzed for their comparability to CAW's Monterey Water System. Based on this analysis, the average value of the Monterey Water System under the market approach was estimated to be approximately $272 million. A 20% weighting was placed on the results of this valuation method.

Under the Cost Approach, the value of the assets is typically derived by subtracting the amount of depreciation from the replacement or reproduction cost of the assets. The value under this approach is estimated by the sum of the parts of the system, i.e. physical asset components, land, water rights, etc. Depreciation in this context represents the loss in value caused by physical deterioration, functional obsolescence, and economic obsolescence. The reproduction cost new less depreciation ("RCNLD") amount was calculated and estimated to be approximately $464 million. No weighting was placed on the results of this valuation approach because it tends to place an absolute ceiling on the market price, which most frequently is not approached in actual market negotiations associated with regulated public utilities.

Combining these three valuation methods with their weightings, the base estimated value of the Monterey Water System (portion located within MPWMD jurisdictional boundaries) as of the valuation date (January 1, 2020) was estimated to be approximately $245 million. This estimate is a preliminary estimate of value that was prepared based on a desktop analysis described above for feasibility purposes and information available as of the date of this report. This value estimate may be higher or lower than the conclusion of value that may result from the completion of a formal appraisal.

This base estimate excludes the value of asset additions, such as construction-work-in-progress, 30% of the Monterey Pipeline and Pump Station value deemed by the California Public Utilities Commission ("CPUC") not to be "used and useful" in conjunction with CAW's Monterey Water System, the value of the desalination plant currently under development, and the value of non "used and useful" land parcels. The value of the Monterey Water System, including the base value and the identified asset additions, was estimated to be approximately $359 million.

CAW has incurred other expenses that CPUC has approved for recovery through Monterey District water rates over time. It is possible that MPWMD may be required to compensate CAW for these unrecouped expenses as part of a potential taking of the Monterey Water System. These expense items and their potential amounts include unrecouped portions of tank painting expenses, San Clemente Dam removal costs, the portion of the "acquisition premium" allocable to the Monterey Water System that was approved by the CPUC in 2001 in connection with CAW's acquisition of the California assets of Citizens Water Company, the portion of the "acquisition premiums" allocable to the Monterey Water

System associated with the acquisition of the Bellflower Municipal Water System, the Rio Plaza Water Company, Fruitridge Vista Water Company, and Hillview Water Company that are proposed under CAW's Special Request No. 11 in its 2019 General Rate Case Application to the CPUC, plus the unrecovered portions of various balancing accounts. These net expenses were estimated to total approximately $155 million as of the valuation date, and adding these net expenses to the value estimate of the "base" water system results in a total value estimate, plus adjustments, of approximately $513 million. A summary of the valuation and adjustments is provided in Table ES-1.

Table ES-1: Estimated Value of the Monterey Water System with MPWMD Boundaries

Valuation Estimate Approach	Estimated Value	x	Weighting	=	Weighted Value
Base Water System (Including 70% of Monterey Pipeline and PS)					
Income Approach					
Discounted Net Cash Flow Method	$ 222,346		40%		$ 88,938
Direct Capitalization Method	254,499		40%		101,800
Sales Comparison Approach					
Market Transaction Method (Price/Eq Connection)[1]	185,214		5%		9,261
Market Transaction Method (Price/Earnings)	279,480		5%		13,974
Adjusted Net Asset Value Method (Price/NBV)	250,066		5%		12,503
Adjusted Net Asset Value Method (Price/Rate Base)	371,981		5%		18,599
Cost Approach					
RCNLD Method	463,686		0%		-
OCLD x 1.3x	288,119		0%		
Estimated Value of the Base System					**$ 245,075**
Asset Additions:					
Construction Work in Progress (Reported 2019 value)					$ 2,199
Portion of Monterey Pipeline and PS Not Included Above (30%)					16,865
Desal Plant (Excl SRF, Surcharge, and Public Agency Funded Portions)					92,749
Land - Not "Used and Useful"					1,977
Other Non-Regulated Assets (e.g., contributions-in-aid-of-construction, plant, equipment)					TBD
Estimated Value with Asset Additions					**$ 358,866**
Potential Additional Items:					
Tank Painting (PV Amount)					$ 4,459
Citizens Acquisition (PV Amount)					9,458
San Clemente Dam (PV Amount)					63,509
New UPAA (PV Amount)					6,508
Other Balancing Account Items (Net under-collection as of 5/31/19)					70,585
Severance					TBD
Estimated Total Including Potential Additional Items					**$ 513,384**

[1] Includes sales comparison value for base system, plus value of Monterey Pipeline and PS.

Values shown in $1,000s

Base System	$ 145,862
Monterey Pipeline & PS (70% portion)	39,352
Total	$ 185,214

This value estimate, with adjustments, does not include the potential value of other assets that are not currently included in CAW's rate base, except for the value of land which has been considered. These assets either have not been deemed to be "used and useful" for the provision of water service or were developer contributed and are not allowed by CPUC to be included in rate base. It is possible that some of the non "used and useful" assets may become "used and useful," and recoverable in water rates in the future. However, the value of these assets is not likely to be substantial. CAW reports a value of $20.2 million of "contributions-in-aid-of-construction" and "advances-in-aid-of-construction", which are contributions of money or property contributed by developers pertaining to the expansion, improvement, or replacement of water system assets. However, since CAW is not allowed to include the value of these assets in rate base, they have been excluded from consideration in the value of the Monterey Water System.

MPWMD may also be required to pay severance damages to CAW for acquiring the Monterey Water System. These damages may relate to not taking the satellite water systems owned and operated by CAW within their Monterey District, but outside of MPWMD's jurisdictional boundaries. Severance damages in this instance would consist of increased inefficiencies in CAW's provision of service to these smaller pockets of customers and potentially higher costs per customer to do so. It is somewhat difficult to evaluate and quantify such severance damages, which would involve better understanding CAW's current service model, how CAW could most effectively modify its service model in the post-District acquisition scenario, and how much of the work formerly performed by local CAW staff could effectively be transferred to other nearby CAW field offices or centralized locations. In addition, given that CAW would likely be entitled to include reasonable increased marginal operating costs in its next rate filing(s) to the CPUC with respect to the "remainder" of its Monterey District, it is questionable whether CAW would suffer any net profitability losses at all. Given these uncertainties, and the likelihood that CAW could mitigate some or all of its severance damages through the CPUC ratemaking process, our tentative conclusion is that CAW is likely to suffer minimal, if any, severance damages, and any severance damages it does suffer would not be so significant as to materially affect the conclusions of the District's feasibility analysis. If the District does proceed to prepare a formal appraisal of just compensation for the acquisition of the Monterey Water system, however, it is recommended that the severance damages issue be further reviewed at that time.

Cost of Service Evaluation

The cost of service evaluation consisted of preparing a 20-year financial projection of CAW continuing to own and operate the Monterey Water System (status quo), analyzing and identifying the incremental cost differences associated with MPWMD owning and operating the Monterey Water System in comparison to the status quo, preparing an annual cash flow projection of two district ownership scenarios, and estimating customer bills under both the CAW status quo and District ownership scenarios. The following cost of service scenarios were prepared:

A. Status Quo – CAW ownership
B. MPWMD Ownership with District staff operations
C. MPWMD Ownership with contract operations

The cost of service modeling results indicate that significant annual reductions in revenue requirements and projected monthly water bills can be realized by MPWMD acquiring and operating the Monterey

Water System. The estimated revenue requirement in 2022 under the MPWMD ownership scenario with District operations (Scenario B) was projected to be approximately $13.6 million or 11.9% lower than the status quo CAW ownership scenario (Scenario A). Scenario B is estimated to have a net present value savings from 2021 to 2040 of approximately $267 million. The estimated revenue requirement in 2022 under MPWMD ownership and contract operations (Scenario C) was projected to be approximately $10.2 million or 8.9% lower than the status quo CAW ownership scenario (Scenario A). Scenario C is estimated to have a net present value of savings from 2021 to 2040 of approximately $213 million. These net present value savings estimates include the debt service costs associated with the District paying fair market value for CAW's Monterey Water System. These cost of service modeling results are summarized in Table ES-2.

The projected reductions in revenue requirements are a result of the following differences between CAW and MPWMD ownership and operation:

1. Lower corporate and administrative overhead costs. An estimated $7.2 million in CAW corporate administrative overhead would be avoided under MPWMD and replaced with approximately $1.8 million in District operations and administrative costs.
2. Operating cost differences. The District's ability to utilize existing administrative staff and eliminate redundant positions, net of higher pension and benefit costs under public ownership.
3. Cost of public financing (4.0% interest rate) vs. rate of return and CAW profit (7.61%). The tax-exempt annual debt interest rate for MPMWD is lower than taxable corporate debt and CAW's allowable rate of return. The public financing interest rate was reviewed by Barclays and was deemed to be reasonable.
4. Reduction in revenue requirements of an estimated $10.1 million per year (2021 estimate) under public ownership due to avoidance of property and income taxes.
5. Elimination of rate regulatory expenses estimated at $330,000 per year (2021 estimate).

Based on the information and estimates summarized in this report, which are reasonable considering the currently available information, the acquisition of the Monterey Water System by MPWMD appears to be economically feasible. Economic feasibility was assessed by comparing the estimated revenue requirements of the water system under MPWMD ownership versus CAW ownership and indicated that significant revenue requirement savings could be achieved under the MPWMD ownership scenarios that were evaluated.

Table ES-2: Summary Cost of Service Evaluation Results (Annual Revenue Requirement Projection for Each Scenario)

Year	A Status Quo CAW Ownership w/ Desal Plant	B MPWMD Ownership w/District Ops	C MPWMD Ownership w/ Contract Ops	B-A	C-A
2020	$63,284	$63,284	$63,284	$0	$0
2021	$105,583	$93,018	$96,309	($12,565)	($9,275)
2022	$113,862	$100,286	$103,682	($13,575)	($10,180)
2023	$114,880	$98,486	$101,959	($16,394)	($12,921)
2024	$116,793	$100,242	$103,793	($16,551)	($13,000)
2025	$118,756	$101,622	$105,253	($17,133)	($13,503)
2026	$120,767	$103,037	$106,748	($17,730)	($14,018)
2027	$122,826	$104,489	$108,283	($18,338)	($14,543)
2028	$124,936	$105,978	$109,857	($18,958)	($15,079)
2029	$127,098	$107,507	$111,473	($19,592)	($15,625)
2030	$129,313	$109,075	$113,130	($20,238)	($16,183)
2031	$131,582	$110,685	$114,831	($20,897)	($16,751)
2032	$133,963	$112,419	$116,659	($21,544)	($17,305)
2033	$136,403	$114,172	$118,506	($22,232)	($17,897)
2034	$138,903	$115,969	$120,401	($22,934)	($18,502)
2035	$141,465	$117,814	$122,346	($23,651)	($19,119)
2036	$144,090	$119,706	$124,340	($24,383)	($19,750)
2037	$146,779	$121,648	$126,386	($25,131)	($20,393)
2038	$149,535	$123,640	$128,485	($25,894)	($21,050)
2039	$152,359	$125,684	$130,638	($26,675)	($21,721)
2040	$155,268	$127,780	$132,846	($27,488)	($22,423)
Total	$2,688,446	$2,276,543	$2,359,208	($411,903)	($329,238)
PV (@4.0%)	**$1,805,484**	**$1,538,143**	**$1,592,710**	**($267,341)**	**($212,773)**
PV (@6.0%)	$1,517,276	$1,296,636	$1,342,061	($220,640)	($175,215)

Values shown in $1,000s.

1. Introduction

1.1. Background

The Monterey Peninsula Water Management District ("MPWMD" or "District") was founded on June 6, 1978 under the enabling legislation of the California Water Code. Functions of MPWMD include managing and augmenting ground and surface water for sustainable use, promoting water conservation, and fostering positive environmental values in the Monterey Peninsula and Carmel River Basin. The MPWMD serves 112,000 people; membership of the District is comprised of the municipal jurisdictions of Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Seaside, Sand City, Monterey Peninsula Airport District, and portions of unincorporated Monterey County including Pebble Beach, Carmel Highlands and Carmel Valley. The boundaries of the District are shown in Figure 1. Revenue is raised through property taxes, user fees, water supply charges, water connection charges, investments, grants, permit fees, and project reimbursements.[2]

On November 6, 2018, the voters within the District passed Measure J, which directed that Rule 19.8 be added to the District's Rules and Regulations. Rule 19.8 establishes the District's policy of pursuing public ownership of the Monterey Peninsula Water System (the "Monterey Water System"), as follows:

A. It shall be the policy of the District, if and when feasible, to secure and maintain public ownership of all water production, storage and delivery system assets and infrastructure providing services within its territory.

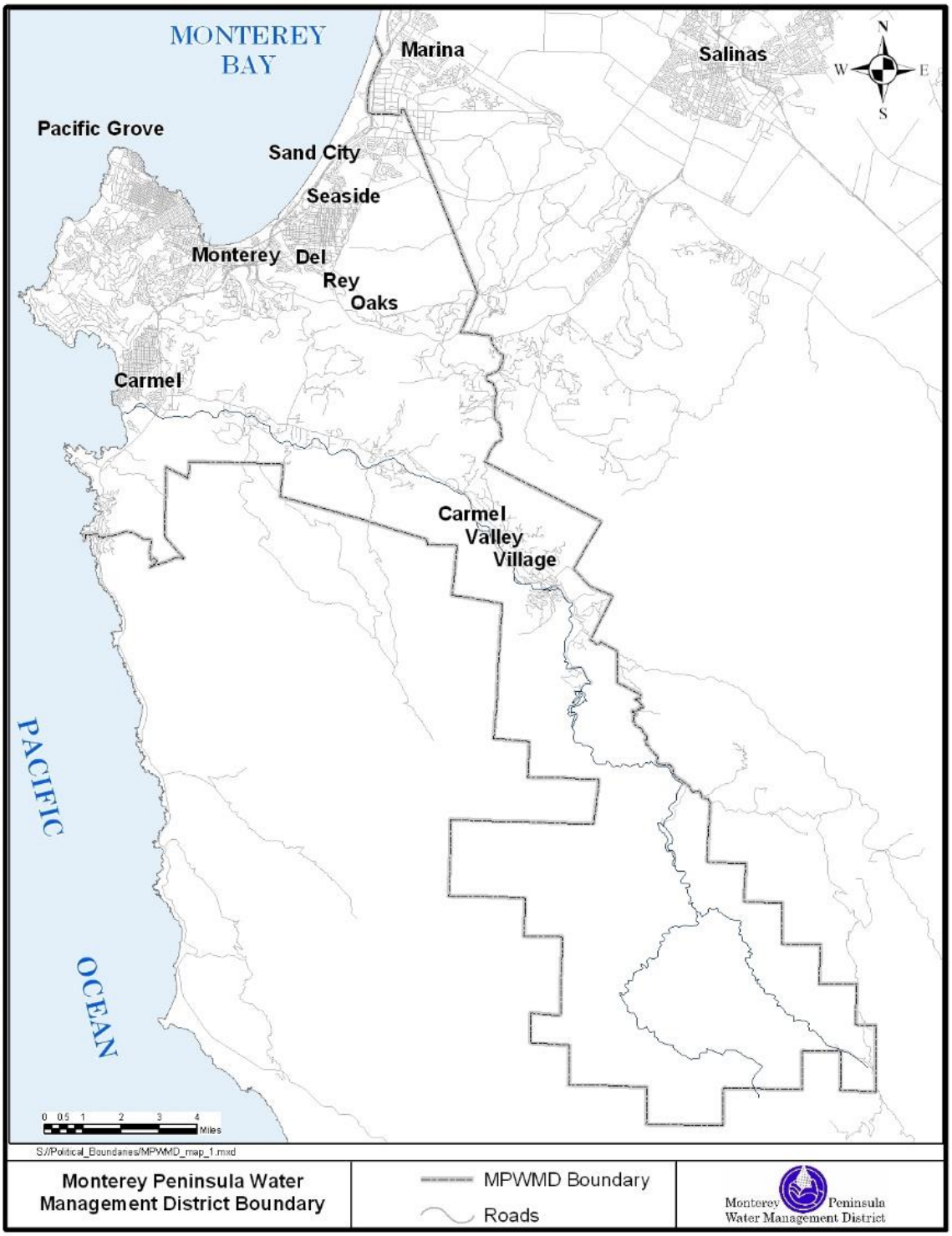
B. The District shall acquire through negotiation, or through eminent domain if necessary, all assets of California American Water, or any successor in interest to California American Water, for the benefit of the District as a whole.

C. The General Manager shall, within nine (9) months of the effective date of this Rule 19.8, complete and submit to the Board of Directors a written plan as to the means to adopt and implement the policy set forth in paragraph A, above. The plan shall address acquisition, ownership, and management of all water facilities and services within and outside the District, including water purchase agreements, as appropriate. The plan may differentiate treatment of non-potable water services.

The District has engaged Raftelis Financial Consultants, Inc. ("Raftelis") to assist in the completion of a feasibility analysis of securing and maintaining public ownership of the Monterey Water System.

[2] MPWMD Website: https://www.mpwmd.net/who-we-are/about-mpwmd/

Figure 1: MPWMD Boundaries



1.2. Purpose and Scope of the Assignment

The purpose of this report is to document the findings of a preliminary valuation assessment and cost of service analysis to support the District's feasibility analysis as described above. The preliminary valuation assessment consisted of completion of a preliminary desktop valuation assessment of the Monterey Water System to estimate the cost required to be incurred to acquire the Monterey Water System. The cost of service analysis was completed to compare the cost of public ownership, operation, and maintenance of the Monterey Water System (i.e. the public ownership scenario) with a status quo scenario, which is the anticipated cost of continued ownership, operation, and maintenance of the system by California American Water ("CAW"). The cost of service analysis was compared in terms of the annual Monterey Water System revenue requirements and typical residential customer bill impacts associated with the various scenarios that were developed.

1.3. Assumptions and Limiting Conditions

The preliminary valuation assessment results presented in this report are subject to the following assumptions and limiting conditions.

1. Data and information associated with the Monterey Water System and its property and assets were obtained from the District, the California Public Utilities Commission ("CPUC"), and the District's other consultants and advisors, and were assumed to be reliable. We have not independently verified the accuracy of such information and accept no responsibility for the completeness or accuracy of any documents or information upon which this report is based.

2. Raftelis does not provide legal, accounting, auditing or engineering services, and assumes no responsibility for matters of this nature. It was assumed that any legal, accounting, and engineering information as provided are correct and reliable.

3. The preliminary valuation assessment can be characterized as a preliminary desktop assessment and should not be considered a formal appraisal. We did not inspect the subject assets for their existence or condition. Rather, we relied on a review of system condition, financial information, and other information provided by the District and made publicly available by the CPUC to complete the assessment. Raftelis assumes that there are no conditions at the subject properties or facilities that would render the assets more or less valuable, except where noted in this report.

4. This preliminary valuation and cost of service assessment was based on data and information provided as of the date of this report. It does not incorporate any facts or information which may have come into existence after the date of the report. Any additional information that is provided or received subsequent to the date of this report could have a material effect on the findings and conclusions contained in this report. Any estimates or statements contained in this report are not predictions of the future and were created for the specific purpose of the preliminary valuation assessment and cost of service analysis and are subject to change.

5. In preparation of this report and the conclusions contained herein, we have relied on certain assumptions and information provided by others with respect to conditions which may exist or events which may occur in the future. We believe such sources are reliable and the information obtained to be accurate and appropriate for the analysis undertaken and the conclusions reached

herein. However, as is often the case, there will likely be differences between actual and projected results, some estimates used in this report may not be realized, and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between the results presented in this report and actual results achieved, and those differences may be material.

6. The opinions and conclusions contained in this report are as of a specific date, for a specific use and purpose, and made under specific assumptions and limiting conditions. Raftelis makes no warranty, expressed or implied, with respect to the opinions and conclusions contained in this report. Any statement in this report involving estimates or matters of opinion, whether or not so specifically designated, are intended as such, and not as representation of fact.

1.4. Sources of Information

The sources of information used to complete the preliminary valuation assessment and cost of service analysis included the following:

- Annual Reports of CAW Monterey District Operations submitted to the CPUC for fiscal years ("FY") 2011 through FY 2018 prepared by CAW.
- Application of CAW to Increase Revenues in Each of its Districts Statewide submitted to the CPUC on July 1, 2019, including supporting exhibits, testimony, and workpapers.
- Application of CAW to Increase Revenues in Each of its Districts Statewide submitted to the CPUC on July 1, 2016, including supporting exhibits, testimony, and workpapers (Application 16-07-002).
- Decision Adopting the 2018, 2019, and 2020 Revenue Requirement for CAW dated December 13, 2018 (Decision 18-12-021)
- Decision Fixing Cost of Capital for Calendar Years 2018, 2019, 2020, for California Water Service Company, CAW, Golden State Water Company, and San Jose Water Company (Decision 18-03-035)
- Decision Approving a Modified Monterey Peninsula Water Supply Project, Adopting Settlement Agreements, Issuing Certificate of Public Convenience and Necessity and Certifying Combined Environmental Report, dated September 13, 2018 (Decision 18-09-017).
- Financial Model for the Monterey Peninsula Water Supply Project labeled MPWSP Model -V 2.1 – 6.4 MGD referenced in Decision 18-09-017.
- Advice Letter No. 1220 prepared by Kamilah Jones of CAW ad submitted to the CPUC, dated December 31, 2018.
- 2008 Comprehensive Planning Study for the Monterey System, dated January 18, 2008.
- Los Padres Dam Sediment Removal Feasibility Study, dated April 2013.
- Proposed Resolution W-5200, dated August 15, 2019.
- Advice Letter 1238 submitted by CAW to CPUC dated April 3, 2019.
- Work Paper 100.

- State Water Resources Control Board Order 95-10.
- State Water Resources Control Board, License for Diversion and Use of Water, CAW License 11866.
- State Water Resources Control Board, Right to Divert and Use Water, CAW Permit 21330.
- Los Padres Dam Sediment Removal Feasibility Study, dated April 2013.
- Resolution No. W-4923 prepared by the Public Utilities Commission of the State of California, dated June 21, 2012.
- CPUC Amended application A12-04-019, dated March 14, 2016.
- Water Supply Project https://www.watersupplyproject.org/about
- MPWSP Model v.2.1 – 6.4 mgd.xlsx /Capex tab. Model prepared by CAW and provided to CPUC as part of Application A1204019.
- California-American Water, Depreciation Rate Study prepared by Alliance Consulting Group, dated December 31, 2014.
- California Public Utilities Code, Section 852.
- Article 4 of Chapter 9 of Title 7 of Part 3 of the California Code of Civil Procedure (Sections 1263.310-1263.330).
- Section 1392 of the California Water Code.
- American Society of Appraisers, Business Valuation Standards.
- Duff & Phelps, Valuation Handbook – U.S. Guide to Cost of Capital, 2019.
- Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers, Second Edition.
- Principles of Public Utility Rates. Public Utilities Reports, Inc., Second Edition. 1988.
- Handy-Whitman Index of Public Utility Construction Costs, published by Whitman, Requardt & Associates.
- Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices M1, Seventh Edition, American Water Works Association.

2. Background and Description

2.1. Company Background

CAW is a subsidiary of the publicly traded company, American Water Works Company, Inc. ("American Water"). The company was founded in 1886 and is headquartered in Camden, New Jersey. American Water, through its subsidiaries, provides water and wastewater services in the United States and Canada. It serves approximately 14 million people with drinking water, wastewater, and other water-related services in 46 states in the United States and Ontario, Canada. It operates approximately 81 surface water treatment plants; 530 groundwater treatment plants; 10 combined treatment plants; 130 wastewater treatment plants; 51,000 miles of transmission, distribution, and collection mains and pipes; 1,000 groundwater wells; 1,400 water and wastewater pumping stations; 1,300 treated water storage facilities; and 80 dams.[3]

2.2. Description of the Utility System

2.2.1. General

CAW provides water and wastewater service to the Central Division. The Central Division is comprised of the Monterey County District, the Central Satellites, and the Monterey Wastewater District. The water system, which is comprised of the Monterey County District and the Central Satellites, serves approximately 41,000 customer connections and a population of approximately 99,794.[4]

The "Main" system within the Monterey County District serves approximately 38,325 customers and includes customers within the incorporated cities of Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City, and Seaside, and the unincorporated areas of Carmel Highlands, Carmel Valley and Pebble Beach.[5] The Main system is generally located within the MPWMD boundaries. The Monterey County District also includes the areas of Bishop, serving approximately 385 customers, Hidden Hills, serving approximately 454 customers, and Ryan Ranch, serving approximately 212 customers, which are areas that are also within the MPWMD boundaries.[6] The Central Satellite areas include the areas of Ambler, Ralph Lane, Chualar, Toro, and Garrapata, which are located outside of MPWMD boundaries and serve a total of approximately 1,086 customers. The Ambler, Toro, Ralph Lane, and Garrapata

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[3] https://research.valueline.com.

[4] 2018 Annual Report of District Water System Operations for the Monterey County District, prepared by CAW for the CPUC, p.16 and 17.

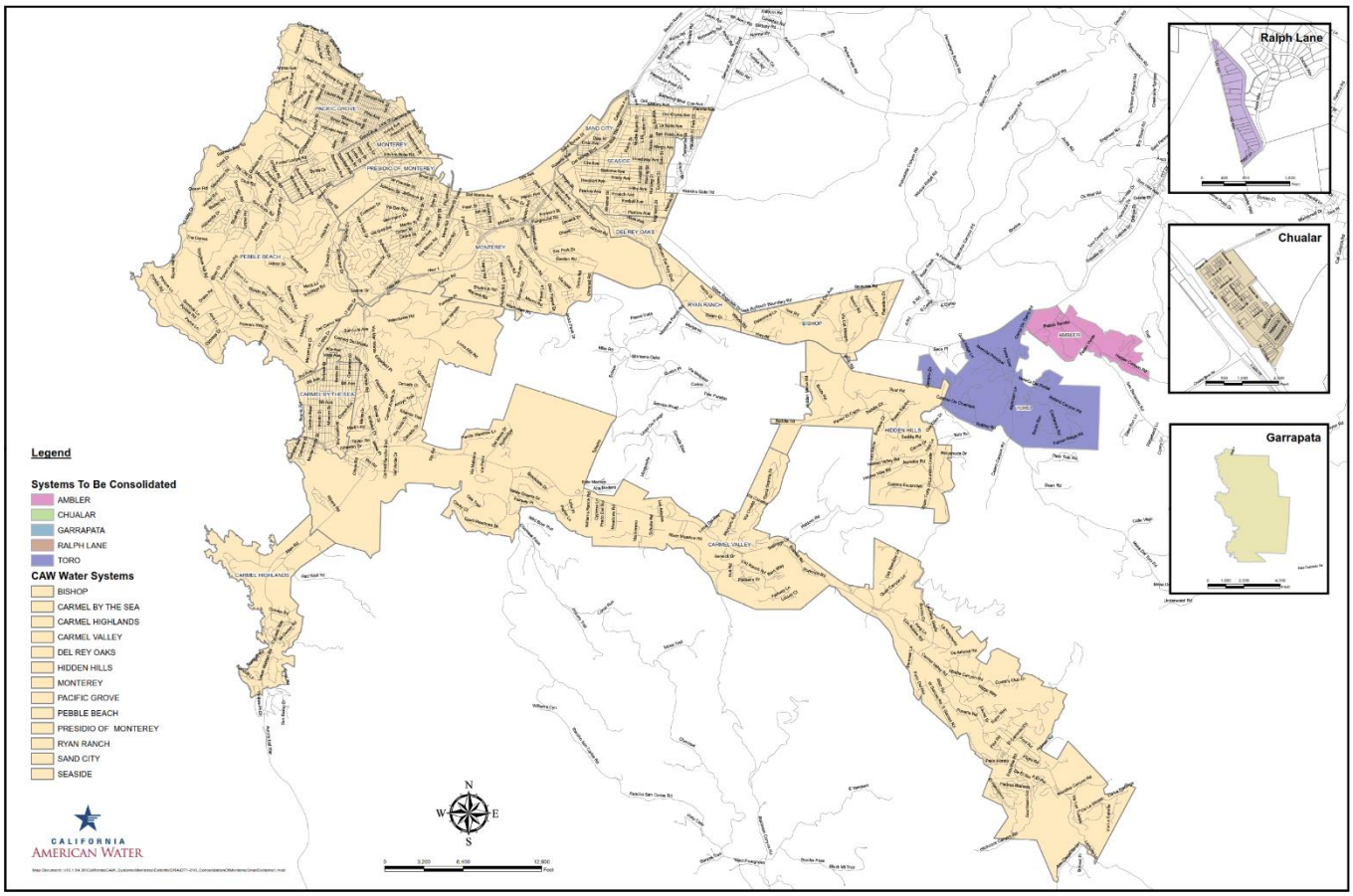
[5] 2008 Comprehensive Planning Study for the Monterey System, dated January 18, 2008, p.E-i.

[6] Approximately 33 residential connections within CAW's Main System are currently located just outside the District's boundaries in the Yankee Point area and, in addition, approximately 10 residential connections in CAW's Hidden Hills System extend beyond the District's boundary. These portions of the Main and Hidden Hills Systems are physically and functionally connected to the much larger portion of the systems located within the District's boundary and cannot practicably be served and operated independently. For the purposes of this report, we have assumed that if the District determines to acquire the portions of CAW's Monterey Water System currently located within its boundary, it will take whatever steps necessary to either annex these 43 "extra-territorial" connections into its boundary or otherwise comply with such legal requirements that may need to be satisfied in order to enable the District to serve those properties (see, e.g., California Government Code Section 56133). Through the balance of this report, it was assumed that these connections are within the District and not part of the Central Satellite areas.

systems have been consolidated into the Monterey County District for ratemaking and tariff purposes.[7] A map depicting CAW's water system areas within the Central Division is provided in Figure 2.

The subject of the preliminary valuation and cost of service analysis is the portion of the water system located within the boundaries of the District, herein referred to as the Monterey Water System.

Figure 2: CAW Central Division Water Systems[8]



2.2.2. Customers Served

As of December 31, 2018, CAW served 39,660 metered, 47 flat rate, and 1,037 private fireline customers within its Central Division. A summary of CAW customers by type within the Monterey system is provided in Table 1. Historical customer connections and water delivery statistics are provided in Exhibits 1 and 2 in Appendix A.

[7] General Rate Case Decision D.18.12-021, p.28.

[8] CAW Service Area Map as of 2013, provided by the MPWMD.

Table 1: Number of Active Service Connections as of December 2018[9]

Classification	Metered	Flat Rate
Residential	34,046	45
Commercial (including domestic)	5,040	2
Industrial	4	
Public Authorities	507	
Irrigation		
Other (Golf Courses, Co. Acct.)	63	
Agriculture		
Subtotal	39,660	47
Private Fire Connections		1,037
Public Fire Hydrants		3,496
Total	39,660	4,580

The following is a brief description of the water system, including details on the system's water sourcing, treatment plant, and transmission mains.

2.2.3. Sources of Supply

Currently, water supply for most customers comes from: (a) underflow in the Carmel River Alluvial Aquifer withdrawn from shallow wells in Carmel Valley, (b) mid-depth and deep wells in the Seaside Basin, and (c) deep wells along Highway 68 corridor. Since 2003, CAW has not pumped any of its supply directly from the Carmel River. Most of the Carmel River withdrawal comes from shallow wells located near the river in its lower reaches.[10]

Carmel River and its Dams

The Carmel River is a 38-mile river that flows through Monterey County and into the Pacific Ocean. Historically, damming of the river and diverting its flow for municipal use spurred developments on the Monterey Peninsula, including the Del Monte Hotel (now part of the Naval Support Activity, Monterey), the Pebble Beach area, and Cannery Row in Monterey. The river was dammed at three locations upstream of the present-day Carmel Valley Village between 1883 and 1948; until the late 1950s, surface flow in the river supplied most of the municipal demand of the Monterey Peninsula.

Severe declines in returning steelhead numbers and significant degradation of the river's resources occurred over several decades beginning in the late 1970s. Municipal demand and sediment accumulation in the reservoirs accelerated in the 1970s along with the impacts of direct diversion of surface flow, which became unacceptable. The portion of municipal demand met by direct diversion of

[9] 2018 Annual Report of District Water System Operations for the Monterey County District, prepared by CAW for the CPUC, p.16.
[10] CAW 2019 General Rate Case Proposed Application, Exhibits A-D, Chapter 1, pg 1.

surface flow at San Clemente Dam was initially ratcheted down in the early 1980s by agreement between CAW, California Department of Fish and Wildlife ("CDFW"), and MPWMD.

As a result of four complaints filed against CAW in the 1980s about impacts to Carmel River resources from diversions, the State Water Resources Control Board ("SWRCB") determined in 1995 that CAW was diverting about 10,730 acre-feet per year (AFY or AFA) from the Carmel River and its underflow without a valid basis of right. The SWRCB ordered the company to replace the unlawful diversions with lawful sources. SWRCB WR Order 95-10 described that CAW's withdrawals from the Carmel River constituted the largest single impact to instream beneficial uses of the river.

The SWRCB action reduced CAW's rights to diversion to storage at Los Padres Reservoir to 2,179 AFY[11] and recognized other riparian and pre-1914 water rights associated with CAW property along the river and San Clemente Dam. Surface diversions to the Carmel Valley Filter Plant at San Clemente Dam ceased in 2002. Since that time, surface flow impounded along the river has been used to augment dry season flows in the Carmel River to benefit threatened Carmel River steelhead and other species dependent on river flows.

In 2013, the National Marine Fisheries Service determined that all the dams on the river blocked passage for steelhead listed as threatened under the Endangered Species Act and needed to be removed or modified.[12] Two dams were removed after they were determined to be obsolete and/or unsafe.[13]

CAW is the current owner of the remaining Los Padres Dam and Reservoir at approximately 25 miles upstream of the ocean. The reservoir, built in 1948 by California Water & Telephone, had an original storage capacity estimated at 2,709 acre-feet. [14] By 2017, storage capacity was reduced to 1,679 acre-feet due to sediment accumulation over its nearly 70 years of operation.[15] CAW currently relies on a portion of the water rights associated with the dam to provide about 20% of the Monterey Peninsula's existing demand.

The watershed contributing to Los Padres Reservoir is highly erosive and subject to periodic wildfires followed by intense rainfall that have resulted in about a 40% reduction in surface storage capacity over the 70-year life of the reservoir. In 2013, it was estimated that the reservoir has a useful life between 20

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[11] SWRCB Order 95-10 limited CAW's diversion right due to siltation in the reservoir (see footnote 15, p. 25). San Clemente Dam is the only described point of re-diversion in License 11866 and this point of re-diversions has been removed; however, Order 95-10 requires CAW to divert at the lower-most wells along the river.

[12] P. 7-12, National Marine Fisheries Service. 2013. South-Central California Coast Steelhead Recovery Plan. West Coast Region, California Coastal Area Office, Long Beach, California.

[13] San Clemente Dam and Reservoir, which was built in 1921 at RM 18.6 and originally stored up to 1,810 acre-feet with flashboards installed, stored 70 acre-feet of water as of 2008 after years of severe sediment accumulation. It was removed in 2015 in response to public safety concerns about the dam's resiliency to earthquakes and major floods. It was the largest dam removal in California history at the time. The Old Carmel River Dam, built in 1883 with Chinese laborers at RM 18.3, was removed in 2016.

[14] Prior to 2017, estimates of the original storage capacity of the reservoir cited in the record varied from 3,030 acre-feet to 3,200 acre-feet. The SWRCB licensed a storage right of 3,030 AFY in 1986. In 2017, it was determined that the original capacity was incorrectly estimated. See Los Padres Dam and Reservoir Alternatives and Sediment Management Study Final Sediment Characterization Technical Memorandum, Prepared by: AECOM, prepared for MPWMD in cooperation with California American Water, December 2017.

[15]Smith, D.P., Kvitek, R., Iampietro, P., and Consulo, P., 2018, Fall 2017 Stage-Volume Relationship for Los Padres Reservoir, Carmel River, California: Prepared for the Monterey Peninsula Water Management District. The Watershed Institute, California State University Monterey Bay, Publication no. WI-2018-05, 21 pp.

and 134 years. More recent analysis based on periodic bathymetric surveys indicates that at the present long-term sedimentation rate, reservoir capacity in the year 2100 may approach 1,000 acre-feet, or less than one-third of original capacity.[16]

Sediment removal alternatives were investigated to increase the reservoir's capacity to as high as 95% of its original storage capacity. These alternatives are costly, however, with plans ranging between $47-$90 million and would cost $53,000-$112,000 per acre-foot removed.[17] These costs exclude the costs for steelhead passage improvements that could range from under $10 million to over $100 million.[18] With a height differential of just over 120 feet from the dam spillway to its plunge pool, Los Padres Dam and Reservoir remains a challenge to provide adequate facilities to freely pass steelhead. MPWMD and CAW continue to investigate alternatives to improve passage and manage sediment at the site.

Seaside Basin

The Seaside Basin underlies the cities of Seaside, Sand City, Del Rey Oaks, Monterey, and portions of unincorporated county areas, including the southern portions of Fort Ord, and the Laguna Seca Area. Generally, the Seaside Basin is bounded by the Pacific Ocean on the west, although it is recognized that the aquifer extends offshore under the seafloor, the Toro Park area on the east, Highways 68 and 218 on the south, and the northern boundary of the basin follows a groundwater flow divide separating groundwater flowing toward the Salinas Valley from groundwater flowing toward the coastal subareas of the Seaside Basin. Flow divides are hydraulic features that develop between two centers of concentrated pumping. The divide acts like a ridge in the regional water-level surface much like the way a topographic ridge separates two surface watersheds. The Seaside Basin consists of subareas, including the Coastal subarea and the Laguna Seca subarea in which geologic features form partial hydrogeologic barriers between the subareas. The Seaside groundwater basin has been pumped by CAW to a degree that exceeds the basin's sustainable yield.[19]

CAW filed the action which initiated adjudication on August 14, 2003. The defendants were the City of Seaside, the City of Monterey, the City of Sand City, the City of Del Rey Oaks, Security National Guaranty, Inc., Granite Rock Company, D.B.O. Development Company No. 27, Muriel E. Calabrese 1987 Trust, Alderwoods Group (California), Inc., Pasadera Country Club, LLC, Laguna Seca Resort, Inc., Bishop, McIntosh & McIntosh, and The York School, Inc. A decision was entered March 2006 and was amended in February 2007 to allow CAW to combine its production from the Coastal Subareas and Laguna Seca Subarea in determining its compliance with its assigned production allocation.

Based on estimates of then-recent basin extractions of approximately 5,600 AFY, the court concluded that the basin was in overdraft. That conclusion was confirmed in the adjudication decision which established a "Natural Safe Yield" for the Seaside Basin of 3,000 AFY. Accordingly, the current restrictions are needed to balance outflows and inflows within the basin, prevent further declines in water

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[16] MPWMD analysis of historical bathymetric survey data.

[17] Los Padres Dam Sediment Removal Feasibility Study, dated April 2013, pg. 1 (2013) https://www.mpwmd.net/wp-content/uploads/MWH-CAW-LPD-Study-Report-Final-20130425.pdf

[18] Los Padres Dam Fish Passage Study Technical Review Committee Meeting No. 3, Evaluate Alternatives, January 17, 2018.

[19] Todd Groundwater http://www.toddgroundwater.com/seaside-injection.html

levels, and reduce the risk of seawater intrusion. To achieve the Natural Safe Yield, pumpers were expected to reduce pumping in steps every three years through 2021. CAW will be restricted to no more than 1,474 AFY of production from the basin beginning 2021.

MPWMD developed an Aquifer Storage and Recovery ("ASR") program utilizing available storage in the Seaside Basin. The ASR program entails diversion of excess winter flows from the Carmel River for storage in injection/recovery wells in the Seaside Aquifer for withdrawal in the summer months to reduce pumping from the river. Winter flows are considered excess only when they surpass what is necessary to shelter the river's threatened steelhead trout population. Phase 1 of the ASR project was completed in 2008 and allows for a maximum annual diversion of about 2,400 AFY from the Carmel River, and an average yield of approximately 920 AFY. Phase 2 of the project, completed in 2013, involved constructing two ASR wells designed to store up to 2,900 AFY and provide an average yield of 1,050 acre-feet of additional water supply.[20] For water supply planning purposes, ASR is estimated to produce an average of 1,300 acre-feet annually.

Based on the water wells located in the Upper Carmel Valley, Lower Carmel Valley, and Seaside Basin, CAW has the well infrastructure to be able to pump 3.27, 11.68, and 14.23 million gallons per day ("MGD") of groundwater within MPWMD district boundaries, respectively, as summarized in Table 2. There are also several satellite wells owned by CAW, some of which are served by the Seaside Basin, Carmel River, and the Laguna-Seca Sub-Basin, as shown in Tables 3 to 5.

[20] https://www.mpwmd.net/water-supply/aquifer-storage-recovery/

Table 2: Seaside and Carmel Valley Well Summaries[21]

Region	Well Name / Number	Well Capacity (gpm)	Well Capacity (MGD)
Upper Carmel Valley	Los Laureles No. 5	250	0.36
	Los Laureles No. 6	450	0.65
	Garzas No. 3	220	0.32
	Garzas No. 4	220	0.32
	Panetta No. 1	250	0.36
	Panetta No. 2	300	0.43
	Robles Del Rio No. 3	580[22]	0.84
	Russell Well No. 2	Inactive	-
	Russell Well No. 4	Inactive	-
	Total Capacity	**2,270**	**3.27**
Lower Carmel Valley	Rancho Canada No. 1	1,150	1.66
	Cypress No. 1	1,500	2.16
	Pearce No. 1	1,500	2.16
	Schulte No. 2	1,250	1.80
	Manor No. 2[20]	125	0.18
	Begonia	1,600	2.30
	Berwick No. 8	985	1.42
	Scarlett No. 8	Inactive	-
	Total Capacity	**8,110**	**11.68**
Seaside	Plumas No. 4	192	0.28
	LaSalle No. 2	Monitoring	-
	Darwin No. 1	Monitoring	-
	Luzern No. 2	640	0.92
	Ord Grove No. 2	1,000	1.44
	Paralta No. 1	1,350	1.94
	Military No. 1	Inactive	-
	Playa No. 3	350	0.50
	Santa Margarita No. 1	1,700	2.45
	Santa Margarita No. 2[23]	1,700	2.45
	Seaside Middle School No. 3	1,250	1.80
	Seaside Middle School No. 4	1,700	2.45
	Total Capacity	**9,882**	**14.23**

[21] 2008 Comprehensive Planning Study pg. 197, updated by MPWMD

[22] Was inactive in 2018

[23] ASR well couplets; Only one well operated in production at a time; Santa Margarita site owned by MPWMD

On September 16, 2019 CAW filed an application with the Monterey County health department to abandon and destroy the Manor No. 2, Scarlett No. 8, Begonia, and Russell No. 2 and No. 4 wells shown above.

Table 3: Ryan Ranch Service Area Well Summary[24]

Well Name / Number	Well Capacity (gpm)	Well Capacity (MGD)
Ryan Ranch No. 7	70	0.10
Total Capacity	**70**	**0.10**
Firm Capacity[25]	**0**	**0**

Table 4: Bishop Service Area Well Summary[26]

Well Name / Number	Well Capacity (gpm)	Well Capacity (MGD)
Bishop Well No. 1	410	0.59
Total Capacity	**410**	**0.59**
Firm Capacity	**0**	**0**

Table 5: Hidden Hills Service Area Well Summary[27]

Well Name / Number	Well Capacity (gpm)	Well Capacity (MGD)
Bay Ridge Well	361	0.52
Standex Well	Inactive	-
Total Capacity	**361**	**0.52**
Firm Capacity	**0**	**0**

Additional wells are in the water system areas outside of the MPWMD boundaries serving the Ambler, Ralph Lane, Toro, Garrapata, and Chualar water system areas.

[24] 2008 Comprehensive Planning Study pg. 199, updated by MPWMD

[25] For single well satellite systems, redundancy is achieved through emergency interties.

[26] 2008 Comprehensive Planning Study pg. 200, updated by MPWMD

[27] Ibid pg. 200

2.2.4. Sand City Desalination Plant

Sand City Coastal Desalination Plant is a brackish seawater desalination facility. It is capable of producing 300 acre-ft of water (98 million gallons approximately) per year and uses reverse osmosis (RO) process to desalinate brackish seawater. The plant became operational in April 2010. The facility includes four brackish water feed wells, a concentrate disposal well and associated pipelines and components. Of the four wells that are used to pump sea water to the plant, two are in use at any given time. These are over 18 meters (m) deep and located 61m from the surf line and over 760m from the plant. CAW operates the plant under a lease with the City of Sand City, the developer of the project.

2.2.5. Water Treatment Facilities

As of 2019, the Monterey Water System was comprised of seven water treatment facilities of various types and sizes, as summarized in Table 6.

Table 6: Summary of Water Treatment Facilities[28]

Facility Name	Type	Age	Capacity (MGD)
Begonia Iron Removal Plant	Iron & Manganese Filtration	Originally built in 1975, upgraded in 2001.	16.9
Ord Grove Treatment Plant	Chemical Disinfection	N/A	N/A
Luzern GAC Filtration System	Granular Activated Carbon Filtration, Hydrogen Sulfide Removal	N/A	N/A
Ryan Ranch Water Treatment Plant	Greensand Pressure Filtration Plant for Iron, Manganese, and Arsenic Removal	Originally built in 1981 with upgrades made in 2007.	0.22
Bishop Water Treatment Plant	Chemical Disinfection	N/A	N/A
Hidden Hills Water Treatment Plan	Chemical Disinfection	Built in 2001.	N/A
Ambler Water Treatment Plant	Granular Catalytic Filter for Iron, Manganese, and Arsenic Removal	Originally built in 1974 and upgraded in 2006.	0.86

[28] 2008 Comprehensive Planning Study (pg 5-7 to 5-15), updated by MPWMD

2.2.6. Water Distribution

The existing CAW water system is divided into four district areas. Each area has different operational conditions and requirements.[29] The four areas are:

- Upper Carmel Valley;
- Lower Carmel Valley and Monterey Peninsula;
- Seaside;
- Upper Lift Zones.

Upper Carmel Valley

Water from the Upper Carmel Valley ("UCV") aquifer is pumped direct to the system with wellhead treatment. Additionally, the Del Monte Booster Station is able to lift water from the Lower Carmel Valley district into the UCV. Many upper lift zones are in the UCV district.[30]

Lower Carmel Valley and Monterey Peninsula

Wells in the Lower Carmel Valley ("LCV") pump raw water to the Begonia Iron Removal Plant ("BIRP"). BIRP is a pressure filter plant. LCV has a 36-inch diameter transmission main that transports water from the BIRP to the west. At the intersection of Valley Greens Road and Carmel Valley Road, the 36-inch transmission main divides into a 30-inch pipe that goes to the Segunda Tank and pumping facility and another 30-inch main that continues to the Forest Lake Tanks in Pebble Beach. Water pumped to the Segunda Tank is then pumped to the Crest Reservoir, which has a capacity of 0.25 MG. The Crest Reservoir is a break tank that sends flow to Del Ray Oaks and Seaside through the Del Rey Regulator. From Seaside, the water moves to meet the demands in Monterey and Pacific Grove. Water pumped towards the Forest Lake Tanks is pumped via the Monterey Pipeline completed in 2018. The transmission mains at Valley Greens include 12-inch and 24-inch manually operated valves that can each partially control the flow split from BIRP.[31]

Seaside

Water is drawn from the Carmel Valley via the Segunda Booster Station and Crest Reservoir to serve the Seaside area. In the summer, water is extracted from the Seaside Basin to meet water demands. Water from Luzern well is filtered with Granular Activated Carbon ("GAC") filters. Water from Playa and Plumas wells is chlorinated on-site and is then distributed to the system. Water from the Ord Grove and Paralta wells is pumped to the Ord Grove Treatment Plant and then to the Ord Grove Tank via the Ord Grove Treatment Plant Booster Station. The Santa Margarita and Seaside Middle School Wells are treated at the Santa Margarita site then distributed to the system. The Hilby Tanks are also in Seaside; these tanks are only available when the Hilby Booster pumps are active to pump water into the distribution system as a result of their lower elevation. Pressures within the Seaside system are regulated

[29] 2008 Comprehensive Planning Study (pg. 250), updated by MPWMD

[30] Ibid, pg. 263.

[31] Ibid, pg. 263-264.

by the Del Rey Regulating Station. Limited supplemental flow is provided by the Fairway Tanks for periods of high demand and fire flows, but a recirculation line has been added in the upper Seaside area to ameliorate that issue. Flows from these tanks are regulated by the Highway 68 Regulating Station.[32]

Upper Lift Zones

There are 43 upper lift zones in the Monterey system. Booster stations within the lift zones are utilized to pump the water to higher gradients. Flow can travel through up to four lifts to service customers at the outer boundaries of the system. Thirty-five of the upper lift zones have gravity storage while the remaining eight have hydropneumatic (closed loop) systems. Upper lift zones account for around 34% of the average day demand in the Monterey system.[33] The main upper valley lift zones are served from the Segunda Tanks.

2.2.7. Water Distribution Piping

The water distribution system of the Central Division includes a distribution piping network consisting of approximately 614 miles of pipe, primarily cast iron, steel, cement asbestos, PVC, and ductile iron pipe with diameters of 1-inch to 36-inch.[34] A summary of the size and type of pipe that comprise the distribution pipe network is summarized in Table 7.

The average age of the distribution pipe network within the Monterey District is 48.5 years.[35]

2.2.8. Booster Pump Stations

As of 2008, the Monterey Water System was comprised of 58 booster pump stations (excluding production wells) in the main Monterey system, and 15 pumping stations in the satellite systems.[36] The Hilby Pump Station was added in support of the Monterey Pipeline in 2018 and a future Carmel Valley Pump Station will begin construction in 2019 or early 2020.

[32]Ibid, pg. 264-265

[33] Ibid, pg. 265.

[34] Ibid, pg. 15.

[35] CAW 2019 General Rate Case, MDR II.E.10.

[36] 2008 Comprehensive Planning Study, p.6-11.

Table 7: Distribution Pipe Network – Length (Ft) by Diameter

Material	1”	1 ½”	2”	2 ½”	3”	4”	5”	6”	8”
Cast Iron	187		14,739	176	6,534	132,511		98,293	56,538
Cast Iron (Cement Lined)	178		25,829		103	153,776		242,584	86,867
Concrete									
Copper	284		216						
Riveted Steel	267	102	1,217		143	9,911		19,808	39,191
Standard Screw									
Screw or Welded Casing									
Cement-Asbestos	173		1,988		1,086	125,820	2,137	382,710	126,411
Welded Steel									
Wood									
Other-Galvanized	517	970	27,057	1,666					3
Other-PVC	2,692	3,229	25,042	5,195	3,366	30,633		210,091	549,951
Other-Ductile Iron	124		1,841			1,598		9,960	7,913
Other-Brass	1		203	9				15	
Other-PE			1,144						
Other-Unknown	2,266	3,414	21,017		1,370	41,914		61,718	36,945
Total	6,689	7,715	120,293	7,046	12,602	496,163	2,137	1,025,180	903,819

Material	10”	12”	14”	16”	17-18”	20-22”	24”	30-36”	Total All Sizes
Cast Iron		42,359		9,657		993			361,987
Cast Iron (Cement Lined)		38,282		2,068	139		1,205		551,032
Concrete									-
Copper									500
Riveted Steel	20,421	17,468	1,356	2,627	7,815	16,310	3,702	53,975	194,314
Standard Screw									-
Screw or Welded Casing									-
Cement-Asbestos	4,109	70,202	5,483	5,686			505		726,311
Welded Steel									-
Wood									-
Other-Galvanized									30,213
Other-PVC	8,002	93,757	8	12,489		3,427	3,853		951,735
Other-Ductile Iron	160	9,551	281	46,588	2,932	33,430	44,717	82,825	241,919
Other-Brass									228
Other-PE									1,144
Other-Unknown	338	6,333	57	3,528	119	359	2,708	29	182,114
Total	33,030	277,953	7,184	82,644	11,004	54,519	56,690	136,829	3,241,498

Source: 2018 Annual Report.

2.2.9. Water Storage Facilities

There are 108 finished water storage facilities within the Monterey District with a total combined capacity of 613.9 million gallons, which includes an earthen collecting reservoir.[37] A summary of the distribution storage tanks by system and type is provided in Table 8.

Table 8: Water Storage Facility Summary[38]

System	Type	Quantity	Combined Capacity (MG)
Monterey Water System	Steel	72	30.953
	Concrete	8	2.165
Hidden Hills	Steel	6	0.440
Bishop	Steel	7	0.953
Ryan Ranch	Steel	1	0.500
Garrapata	Steel	2	0.064
	Plastic	2	0.026
Chualar	Steel	2	0.115
Ralph Lane	Steel	2	0.055
Toro	Steel	2	0.009
	Concrete	5	0.240
Ambler Park	Steel	9	0.235
Hidden Hills	Steel	6	0.440
Bishop	Steel	7	0.953
Ryan Ranch	Steel	1	0.500

2.2.10. Other Distribution Appurtenances

The water distribution system also contains 3,496 fire hydrants and an estimated 12,000 distribution valves. A summary of the water meters and active service connections by size is provided in Table 9 but excludes four 18-inch meters at the ASR sites.

[37] 2018 Annual Report of District Water System Operations for the Monterey County District, prepared by CAW for the CPUC, p.14.

[38] Report titled CAW Tank Capacities by Water System – 2011.xlsx, provided by MPWMD.

Table 9: Water Meters and Services[39]

Meter Size (inches)	No. of Meters	Service Line Diameter (inches)	Active Service Connections
5/8 x 3/4	32,922	Less than 3/4	0
3/4	223	3/4	1,254
1	6,182	1	35,335
1 1/2	1,064	1 1/2	380
2	747	2	3,414
3	89	3	56
4	36	4	452
6	21	6	100
8	18	8	47
12	-	12	3
Other (unknown)	-	Other (unknown)	8
Total	**41,302**		**41,049**

2.2.11. Monterey Pipeline and Pump Station

The Monterey Pipeline was completed in 2018 and provides conveyance infrastructure for CAW to move water north-to-south to Pacific Grove, Carmel, and Carmel Valley. It is comprised of approximately 6.5 miles of 36-inch pipe that conveys water from an existing pipeline at the intersection of Yosemite Street and Hilby Avenue (its eastern terminus) in Seaside, through Seaside and Monterey to the Eardley pump station within the City of Pacific Grove (the western terminus). The pipeline route improves the hydraulics of the existing system, will allow for delivery of desalination water from the new Monterey Peninsula Water Supply Project desalination plant, will allow for deliveries of Pure Water Monterey advance purified water, and will allow for maximum use of ASR and Carmel River excess diversion rights. The Monterey Pipeline connects two pressure zones in the CAW system (one in the area of the City of Pacific Grove and one in the area of the City of Seaside), by-passing the distribution system in Old and New Monterey. With implementation of this pipeline, water stored in Forest Lake Tanks in Pebble Beach could flow via gravity to the LCV or be pumped to the UCV, with construction of a new pump station.

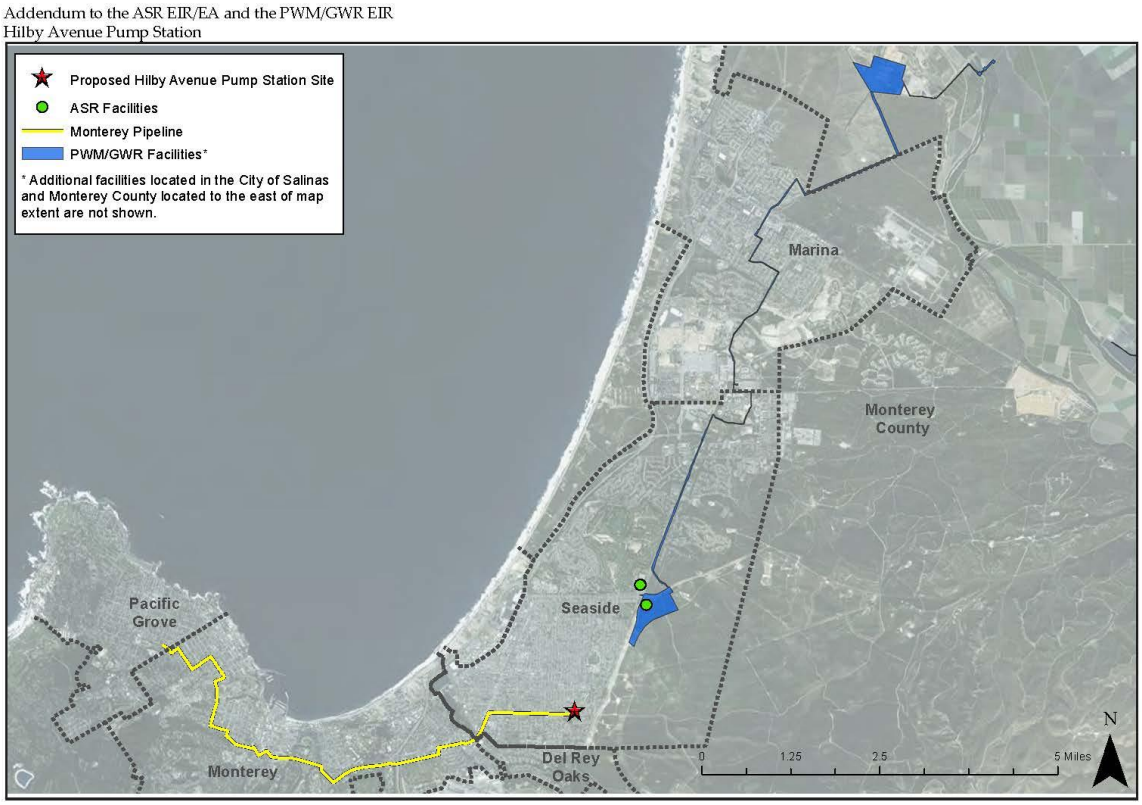
The existing CAW distribution system currently conveys Carmel River water through the Segunda-Crest pipeline network to the existing ASR facilities; however, the capacity of this pipeline can constrain the volume of water that can be delivered to the injection wells. The capacity of the Carmel Valley wells can also constrain amounts available for ASR injection. The Monterey Pipeline, completed in 2018, is expected to improve the capacity of CAW's existing system to convey additional excess Carmel River winter flows to specially-constructed injection/recovery wells in the Seaside Groundwater Basin. The

[39] 2018 Annual Report of District Water System Operations for the Monterey County District, prepared by CAW for the CPUC, p.16.

pipeline is expected to better achieve the full yield authorized by previously approved water rights for later extraction and use by CAW during dry periods. This "conjunctive use" more efficiently utilizes local water resources to improve the reliability of the community's water supply while reducing the environmental impacts to the Carmel River and Seaside Groundwater Basins.

The Monterey Pipeline will also enable CAW to deliver Pure Water Monterey water to its customers and could be used for both the ASR Project and the Pure Water Monterey Project.

Figure 3: Monterey Pipeline[40]



2.2.12. Monterey Peninsula Water Supply Project

The Monterey Peninsula Water Supply Project ("MPWSP") is an initiative to create a desalination plant with sub-surface intake wells, as well as related desalination facilities such as source pipelines, water product pipelines, and brine disposal systems. This project resulted from court-ordered reductions in water sourcing from the Carmel River and as a safeguard against drought and basin overuse that could result in seawater intrusion. This desalination plant will use reverse-osmosis technology and use slant wells to avoid the impacts to marine life that are posed by open ocean intakes. The 7-mile pipeline to deliver water from the desalination plant and Pure Water Monterey projects has already been

[40] Map of Monterey Pipeline provided by MPWMD.

constructed. The desalination plant is expected to be able to deliver 6.4 MGD or 6,252 acre-feet of water annually and is expected to cost $322 million to complete.[41] The brine resulting from the desalination process will be discharged to the ocean through Monterey One Water's existing outfall. Monterey One Water is a regional agency providing wastewater treatment services in the region. The desalination facilities are anticipated to be commissioned in 2021. In June 2019, it was announced that The California Department of Water Resources will provide a $10 million grant to the utility to help fund this desalination project.[42]

2.2.13. Pure Water Monterey Project

The Pure Water Monterey ("PWM") project is a water supply project, jointly developed by MPWMD and Monterey One Water, that will provide purified recycled water for recharge of the Seaside Basin that serves as a drinking water supply, and recycled water to augment the existing Castroville Seawater Intrusion Project's crop irrigation supply. By sourcing reclaimed wastewater, stormwater, food processing water, and impaired surface water, this initiative seeks to replenish groundwater, as well as provide water for domestic and irrigating uses.[43] This program is expected to be operational in 2019 and yield 3,500 acre-feet of potable water annually.[44]

[41] Water Supply Project https://www.watersupplyproject.org/about

[42] Water Supply Project Update (2019) https://www.watersupplyproject.org/single-post/2019/06/20/CALIFORNIA-AMERICAN-WATER-DESALINATION-PROJECT-AWARDED-10-MILLION-STATE-GRANT

[43] MPWMD Website https://www.mpwmd.net/water-supply/pure-water-monterey/

[44] Water Supply Project https://www.watersupplyproject.org/about

3. Valuation Methodology

3.1. Definition and Premise of Value

The definition of value used in this valuation assessment is fair market value. According to California Code of Civil Procedure Section 1263.320, fair market value is defined as follows:

> *(a) The fair market value of the property taken is the highest price on the date of valuation that would be agreed to by a seller, being willing to sell but under no particular or urgent necessity for so doing, nor obliged to sell, and a buyer, being ready, willing, and able to buy but under no particular necessity for so doing, each dealing with the other with full knowledge of all of the uses and purposes for which the property is reasonably adaptable and available.*
>
> *(b) The fair market value of property taken for which there is no relevant, comparable market is its value on the date of valuation as determined by any method of valuation that is just and equitable.*

The valuation of the Monterey Water System was analyzed based on the fair market value definition above and the premise that the highest and best use of the Monterey Water System is its continued use as a water system providing safe and reliable water service to its customers.

California Code of Civil Procedures Section 1263.420 may also be relevant to this valuation assessment. This section of the code states that where the public entity is taking less than an entire piece of property, the possibility of severance damages to the remainder should be considered. Section 1263.410 provides:

> *(a) Where the property acquired is part of a larger parcel, in addition to the compensation awarded pursuant to Article 4 (commencing with Section 1263.310) for the part taken, compensation shall be awarded for the injury, if any, to the remainder.*
>
> *(b) Compensation for injury to the remainder is the amount of the damage to the remainder reduced by the amount of the benefit to the remainder. If the amount of the benefit to the remainder equals or exceeds the amount of the damage to the remainder, no compensation shall be awarded under this article. If the amount of the benefit to the remainder exceeds the amount of damage to the remainder, such excess shall be deducted from the compensation provided in Section 1263.510, if any, but shall not be deducted from the compensation required to be awarded for the property taken or from the other compensation required by this chapter.*

Section 1263.420 states that:

> *"Damage to the remainder is the damage, if any, caused to the remainder by either or both of the following: (a) The severance of the remainder from the part taken, and (b) The construction and use of the project for which the property is taken in the manner proposed by the plaintiff whether or not the damage is caused by a portion of the project located on the part taken.*

3.2. Typical Willing Buyers

In order to estimate the fair market value of the system, the likely population of hypothetical willing buyers was considered. Based on the characteristics of the Monterey Water System and the utility providers that are likely to invest in the Monterey Water System, the most likely typical willing buyers of the Monterey Water System were identified as investor-owned water utility companies either operating within the State of California or in other states looking to expand into the California water market. Investor-owned utilities would be interested in acquiring the system if they have an opportunity to earn a reasonable return on their investment and the acquisition was aligned with their strategic goals.

The following are investor-owned utilities that may be considered as hypothetical buyers of the Monterey Water System:

- California Water Service Company
- American States Water Company / dba. Golden State Water Company
- SJW Group / San Jose Water Company
- SouthWest Water Company / Suburban Water Systems
- Liberty Utilities
- Suez

The list of willing buyers may also include municipalities. However, typically, it is only the municipalities operating with jurisdiction within close proximity of the service area of the subject property that would be considered as part of the population of hypothetical willing buyers. There have been few, if any, cases where multiple non-profit or government buyers bid for ownership of an investor-owned utility. Generally, municipalities do not have an interest in acquiring water systems outside their political jurisdiction and as such are not regularly in the business of doing so. In some cases, a municipality may need special enabling legislation or other legal authority to acquire and operate systems outside of their jurisdictional boundaries. Due to these considerations, a typical market for a water utility may only include one or a small number of potential municipal buyers.

In the acquisition of a water system, the buyers that have the greatest combination of strategic advantages, operational efficiencies, and other financial advantages will likely be able to provide the most competitive offers. Differences in the motivations of potential buyers may also help to identify the most likely hypothetical buyers. For example, a not-for-profit public entity typically does not pay income taxes, does not set utility rates to earn a profit, has access to low cost municipal financing, and may not be subject to the same regulatory environment as an investor-owned utility buyer. These factors influence a not-for-profit public entity's ability to pay, rather than what a typical municipal buyer would be motivated to actually pay. A municipal buyer is typically regulated by its own board and does not have motivations of a typical investor-owned company buyer (e.g. no profit motive), and likely may have different strategic objectives (e.g., controlling or mitigating customer rates, improving service, more direct connection and communication with customers, and responsiveness, etc.). Based on these motivations, a municipal buyer will not likely offer significantly more than what a typical investor-owned utility may offer. This was confirmed by our research of sales transactions involving willing buyers and sellers, where we found no evidence to indicate that municipal buyers pay significantly more than other purchasers.

These considerations suggest that the typical likely hypothetical buyers that would set the price of the Monterey Water System would be other investor-owned water companies. Therefore, in estimating the fair market value of the Monterey Water System, we considered these investor-owned utilities as the typical most likely population of hypothetical buyers.

3.3. Valuation Methodologies

There are three generally recognized approaches to the determination of value of an enterprise: the Income Approach, the Market Approach, and the Cost Approach. These approaches are widely accepted by financial institutions, courts, government agencies, businesses, and society in general, and they are comprised of theoretical concepts and systematic methods. These approaches were considered in estimating the fair market value of the Monterey Water System. The remainder of this section provides a general description of the valuation approaches that were considered.

3.3.1. Income Approach

The income approach is based on the premise that the value of a property is the present value of the future economic benefits of owning the property. The underlying principle in this approach is that buyers invest in assets with the expectation of receiving the anticipated future net benefits. This approach is relevant when the property being valued generates or is anticipated to generate net income, profits, or free cash flows. There are generally two methods of estimating value under the income approach. These are (1) the direct capitalization method, or single-period model, and (2) the discounted cash flow ("DCF") method. The direct capitalization method measures value by capitalizing a projected net income or cash flow stream in perpetuity by a capitalization rate. It assumes there will be no variation in the capitalization rate and no termination of the income stream. The DCF method measures value by projecting future expected (debt-free) net cash flows and discounting these cash flows to present value using a discount rate.[45] When either of these methods are used, it presumes that the cash flow stream is generated by employing all of the assets associated with the water system that are used and useful. As such, there are no additions to the value estimate under this method for various asset components (e.g. land, water rights) that comprise the system because those assets are part of the whole system and are used to generate the income stream. This theory was supported by the appeals court decision in the South Bay Irrigation District vs. California-American Water Company case, which stated that "*When the capitalization-of-income approach is used as a basis for an opinion of or considered in determining the market value of an operating enterprise, the result is a determination of the total value of all of the items of property which are part of that enterprise.*"[46]

Under the DCF method, the debt-free net cash flows, or "free cash flows" represent the total after-tax cash flow generated by the enterprise and available to the providers of the subject's invested capital: stockholders (equity) and creditors (debt). Debt-free net cash flow is defined as follows:

> Debt free net cash flows = Net income + depreciation and amortization + interest expense - working capital additions - capital expenditures

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[45] American Society of Appraisers, Business Valuation Standards, 2009, p.27.

[46] South Bay Irrigation District. v. California-American Water Co., 61 Cal.App.3d 944,988 (1976).

These cash flows are discounted to present value at a discount rate that reflects the risks inherent in the investment and the returns reflective of current market conditions. If the cash flow stream is expected to continue beyond the projection period, a terminal or residual value is estimated. The sum of the discounted cash flows and the discounted terminal value provides an indication of the value of the enterprise.

The discount rate may be derived using the Weighted Average Cost of Capital ("WACC"). The WACC represents the after-tax return on each element of invested capital, weighted by their relative percentage of the capital structure[47], and can be expressed with the following equation:

$$WACC = (k_e \times W_e) + (k_d [1\text{-}t] \times W_d)$$

Where:

k_e = cost of equity

W_e = weight equity capital in the capital structure

k_d = cost of debt capital (pre-tax)

t = income tax rate

W_d = weight of debt capital in the capital structure

The WACC used in the income approach is intended to represent the cost of capital of the population of the typical willing buyers of the enterprise.

The cost of equity (k_e) may be derived using the Modified Capital Asset Pricing Model ("CAPM"). In simple terms, the CAPM suggest that a rate of return on an asset is a function of a risk-free rate of return, plus a risk premium, which is a function of the amount of risk associated with the asset or investment. The formula for the CAPM is as follows:

$$k_e = R_f + \beta \times (RP_m) + RP_s + RP_c$$

Where:

R_f = Risk-free rate

β = Beta (measurement of systematic risk)

RP_m = Equity risk premium

RP_s = Size premium

RP_c = Company Specific Risk Premium

Beta (β) is a measure of the systematic risk of a stock, and the tendency of a stock's price to correlate with changes in the market. The equity risk premium (RP_m) is the extra return that investors demand to compensate them for investing in a diversified portfolio of large common stocks, rather than investing in

[47] Duff & Phelps, Valuation Handbook – U.S. Guide to Cost of Capital, 2019.

risk-free securities. The size premium (RP_s) represents the difference between actual historical excess returns and the excess return predicted by beta. The "size effect" is based on the empirical observation that companies of smaller size are associated with greater risk, and therefore, have a greater cost of capital. The company specific risk premium (RP_c) is additional risk premium that may be necessary to reflect lack of diversification, depth of management, lack of a public market, aggressiveness of forecast, or a variety of factors that may make the company more or less risky than the comparable companies.

3.3.2. Market Approach

The market approach is a general way of determining an indication of value of an enterprise by using one or more methods that compare the subject to similar businesses that have been sold. There are two methods of estimating value of a business under the market approach. These are (1) the Guideline Public Company Method, and (2) the Guideline Transactions Method. The Guideline Public Company Method is a method whereby market multiples are derived from market prices of stocks of companies that are engaged in the same or similar lines of business and that are actively traded on a free and open market.[48] The Guideline Transactions Method is a method whereby pricing multiples are derived from transactions involving companies engaged in the same or similar lines of business.[49] If the sales comparisons are not exactly like the properties being valued, then the selling prices are adjusted to equate them to the characteristics of the properties being valued. Certain factors, such as the location, date of sale, physical characteristics, and technical and economic factors relating to the transaction are analyzed for their comparability to CAW's Monterey Water System. This approach is most reliable and applicable when there is an active market providing a sufficient number of sales of comparable properties that can be independently verified through reliable sources.

3.3.3. Cost Approach

The cost approach is based on the principle of substitution. This principle states that a prudent buyer will not pay more for a property than the cost of acquiring a substitute property of equivalent value. The cost approach is typically considered in situations where a system has a large quantity of tangible assets associated with it, when a grouping of assets is not frequently traded in the market, when the asset is considered unique, such as a "special purpose" or "specialty" asset, and when other circumstances make this approach applicable to the situation at hand.

Under the cost approach, the value of the assets is typically derived by subtracting the amount of depreciation from the replacement or reproduction cost of the assets. The value estimate under this approach is estimated by the sum of the parts of the system, i.e. physical asset components, land, water rights, etc. Depreciation in this context represents the loss in value caused by physical deterioration, functional obsolescence, and economic obsolescence. Replacement cost is the current cost of a similar new property having the nearest equivalent utility as the property being valued. Reproduction cost is the

[48] Ibid, p.28.

[49] Ibid, p.30.

current cost of reproducing a new replica of the property being valued using the same or closely similar materials.[50]

There are several methods that are used to estimate the current cost of a property. The Detail Method, also known as the Summation Method, involves assigning a current new cost to each individual component of an asset or property, itemizing and aggregating the cost of each of the assets so that the sum of the components reflects the cost of the whole. The Trending Method is a method of estimating reproduction cost by indexing or trending historical cost to an estimate of current cost.

The cost approach utilized in a regulated public utility setting should consider the general practice by regulated public utilities (which is also the general practice of the CPUC) of using original cost less depreciation ("OCLD") value (with various adjustments) as the rate base in which the investor-owned utility may recover its investment and can earn a rate of return on the unrecouped asset value or rate base. Under most regulated ratemaking settings, including in California, rate base typically reflects the original cost of assets, which means the cost of an asset when first devoted to public service, rather than a purchase cost or acquisition cost in a sale or asset transfer.[51] In general, in an acquisition, excess in acquisition cost over OCLD may be excluded from rate base, eliminating the opportunity for the buying entity to directly recoup its investment of this excess, or a portion may be added as an acquisition premium depending upon the regulator's decision.

In California, no public utility may purchase or acquire another public utility without having first been authorized to do so by the CPUC.[52] In addition, sales transactions in California involving investor-owned utilities that are regulated by the CPUC are subject to a "ratepayer indifference test." Under the ratepayer indifference test, the sale of a public utility should not have net consequences that cause the ratepayer to prefer the seller to the buyer. Generally, this requires the buyer to demonstrate to the CPUC that the buyer's acquisition of the public utility yields a tangible benefit to the ratepayer. Measures of service quality, continuity of service, and the impact of the purchase price on rate base are typically used to assess ratepayer indifference.[53]

This rate regulation by public utility commissions ("PUCs") generally, and the CPUC specifically, prevents utilities from artificially inflating plant and equipment prices to increase returns, earn monopolistic profits and making customers, in essence, pay again for the same assets.[54] It also impacts the amount that a buyer would be willing to offer for the water system assets knowing that the ability to recoup and earn a rate of return on the acquisition premium may be limited. Therefore, due to the rate regulation in a PUC regulatory environment, fair value is the product of the rate-making process,

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[50] Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers, Second Edition.

[51] Principles of Public Utility Rates. Public Utilities Reports, Inc., Second Edition. 1988, p.237.

[52] California Public Utilities Code, Section 852.

[53] Resolution No. W-4923 prepared by the Public Utilities Commission of the State of California, dated June 21, 2012.

[54] Principles of Public Utility Rates. Public Utilities Reports, Inc., Second Edition. 1988, p.239-240.

whereby the rules associated with rate regulation impact the value of the property which is being regulated.[55]

Furthermore, the courts in California have ruled consistently with this conclusion. A knowledgeable, willing buyer and seller would consider the rate regulatory environment in the price of a public utility system, and due to the regulatory environment, Reproduction Cost New Less Depreciation ("RCNLD") value estimates typically substantially exceed valuation figures for which earnings will support. For example, in a California Court of Appeals decision involving the South Bay Irrigation District and California-American Water, the court stated in its decision that "*The mere fact that a structure of improvement may have cost a certain amount, or that it would cost that amount to reproduce it, is not conclusive proof of its value in the market, or that a purchaser would be willing to pay that sum... Generally speaking, reproduction cost is not considered the best evidence of fair market value if other evidence is available… and reproduction cost evidence almost invariably tends to inflate valuation because it sets an absolute ceiling on market price, which may not be, and most frequently is not, even approached in actual market negotiations.*[56]

Therefore, based on the above discussion, value estimates based on RCNLD are considered to be less relevant than other approaches.

[55] Ibid. p.216-217.

[56] South Bay Irrigation. District. v. California-American Water Co., 61 Cal.App.3d 944, 976 (1976).

4. Valuation of the Monterey Water System

The valuation of the Monterey Water System was prepared for acquisition feasibility purposes considering the methods described in the previous section. The consideration and use of these methods for valuing the Monterey Water System is described below. For those methods deemed to be applicable, a summary of the estimation of system value under the method is also presented. The valuation of the Monterey Water System includes only the portions of the system that are within the jurisdictional boundaries of the MPWMD.[57] The date of the valuation estimate is January 1, 2020.

4.1. Income Approach

The valuation estimates under the income approach were prepared using both the direct capitalization method and the DCF method. The direct capitalization method relied upon historical information CAW reported to the CPUC regarding its historical earnings associated with the Monterey Water System. Completing the income approach using the DCF method required preparing a projection of future earnings and free cash flows for CAW's Monterey Water System. The projection of free cash flows was prepared by reviewing the historical revenues, expenses, and earnings for the regulatory assets. The projections relied upon information reported in CAW's Annual Reports to the CPUC, historical, estimated, and projected earnings as prepared by CAW for its Monterey District as part of its 2016 and 2019 General Rate Cases and employing other escalation assumptions and estimates. Exhibits 5 and 6 of Appendix A provide a summary of historical financial results of CAW's Monterey Water District.

4.1.1. Direct Capitalization Method

The valuation estimate using the direct capitalization method was calculated by normalizing the last full year of annual financial results reported for CAW's Monterey Water District (2018). Gross capital additions were normalized assuming a five-year average of the reported annual capital additions from FY 2014 to FY 2018. Annual net cash flows were calculated by subtracting O&M expenses, general and income taxes, and capital expenditures from reported annual revenues. The valuation estimate was then calculated by escalating the net cash flows by a long-term growth rate, and by applying a capitalization rate to the escalated and normalized net cash flows. The capitalization rate that was used was CAW's CPUC-approved discount rate of 7.61% less a long-term growth rate of 2.3%. The long-term growth rate was estimated by calculating a compound annual growth rate of net cash flows prepared using the DCF method.

A summary of the valuation estimate using the direct capitalization method is show in Table 10. Since this method was based on capitalizing normalized and escalated historical financial results through FY 2018, this value estimate does not consider the value associated with the new Monterey Pump Station and pipeline, or the desalination plant currently under construction. Therefore, to estimate the value under this method as of the valuation date (January 1, 2020) and for consistency with the other methods

[57] See citation 6, supra.

employed, we have included 70% of the reported cost of the Monterey Pipeline and Pump Station to this value estimate. This is consistent with CPUC Proposed Resolution W-5200, which considers 70% of the Monterey Pipeline and Pump Station to be for purposes outside of the desalination plant and 30% to be directly related to the desalination plant.[58] Further, the value estimate prepared for the Monterey Water System was pro-rated for the portion of the water system within the MPWMD jurisdictional boundaries. The proration was based on a five-year average of the percentage of water delivered to customers located within MPWMD jurisdictional boundaries compared to the total water delivered by CAW to the Monterey District. These calculations are also presented in Table 10.

Table 10: Valuation Estimate of the Monterey Water System - Direct Capitalization Method

Description	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Normalized[4]
Revenues[1]	$ 56,751.3	$ 53,586.6	$ 59,669.2	$ 56,630.3	$ 59,689.4	$ 59,689.4
Less: Operating Expenses (Excl Depreciation)	(28,085.6)	(28,043.8)	(28,781.8)	(28,134.4)	(29,514.5)	(29,514.5)
Less: General Taxes[1]	(2,344.6)	(2,224.1)	(2,333.4)	(2,369.7)	(2,363.7)	(2,363.7)
Less: Income Taxes	(4,673.8)	(4,917.2)	(5,192.9)	(4,988.6)	(3,085.9)	(3,085.9)
Less: Capital Expenditures[1]	(17,145.3)	(12,136.1)	(8,314.2)	(8,314.2)	(13,317.3)	(13,031.6)
Net Cash Flow	$ 4,501.9	$ 6,265.4	$ 15,046.9	$ 12,823.5	$ 11,408.0	$ 11,693.7
Discount Rate[2]						7.61%
Growth Rate[3]						2.30%
Capitalization Rate (Discount -Growth Rate)						5.31%
Capitalized Value[5]						$ 225,285.2
Adjusted for System Inside MPWMD[6]						95.50%
Adjusted Capitalization Value						$ 215,147.3
Add: 70% of the Cost of the Monterey Pipeline						39,351.9
Adjusted Value						$ 254,499.2

Amounts shown in $1,000s.

[1]Source: Annual Reports of the Monterey District of California-American Water Company, 2014-2018, Sch B-1.

[2]Source: Decision Fixing Cost of Capital for Calendar Years 2018, 2019, and 2020 for California Water Service Company, California-American Water Company, Golden State Water Company, and San Jose Water Company (CAPUC Decision 18-03-035), dated March 22, 2018.

[3]Normalized CAGR of net cash flow from FY2014-FY2018 using 5-year average of capital expenditures.

[4]Normalized FY 2018 report financial results using 5-year average of capital expenditures.

[5]Normalized net cash flow / (Discount Rate - Growth Rate)

[6]Based on five-year average of the portion of water delivered to areas within MPWMD boundaries compared to the total.

4.1.2. Discounted Cash Flow Method

In general, the development of the value estimate using the DCF method involved the following steps:

1. Relevant past and present financial and operating data available for the CAW's Monterey District were reviewed, including sources of revenues, operating and capital expenses, depreciation, rate base, customer growth and usage patterns, and known or anticipated changes to future operations, customer base, or similar factors.

[58] Based on CPUC Proposed Resolution W-5200, Order Modifying the Water Division's Approval of California-American Water Company's Request to Collect in Rates Annually from $7,508,800, or 12.3% of Authorized Revenues, for Monterey Pipeline and Pump Station Projects to $5,256,160, or 8.6%, dated August 15, 2019.

2. A forecast of revenues and expenses over a 20-year projection period was prepared based on the historical, current, and projected future financial results that were reported to the CPUC by CAW. Based on the forecast, an estimate of the future net cash flows for the Monterey District was prepared. Numerous assumptions and estimates were applied to develop the forecast of future financial performance. Appendix B provides a summary of the escalation assumptions and estimates that were used to project future cash flows for CAW's Monterey District.

3. A terminal or residual value was estimated since the cash flow stream is expected to continue beyond the 20-year projection period.

4. A discount factor was selected for use in discounting net cash flows and the terminal value to the valuation date. For the purposes of this valuation feasibility study, a discount rate of 7.61% was used, which is the CAW's CPUC-approved cost of capital and return on rate base percentage.[59] This rate of return is similar to the returns on rate base approved by the CPUC for the California Water Service Company (7.48%), Golden State Water Company (7.91%), and San Jose Water Company (7.64%), and thus considered reasonable as a discount rate for the typical hypothetical willing buyer.

The projection of future revenues was prepared by projecting operations and maintenance ("O&M") expenses, depreciation expense, and a return on rate base for the system. Future revenues were estimated as the sum of these expenses, plus a gross up factor for taxes. Annual depreciation expenses associated with existing rate base were projected from CAW reported and projected rate base at the beginning of FY 2020, and assuming an average annual depreciation rate of 2.5% (corresponding to an average depreciable life of 40 years). The revenue projections were adjusted to exclude revenue recovery for the San Clemente Dam amortization, tank painting amortizations, and acquisition premiums, and a corresponding reduction in expenses for these items was also made to the projections. The projections of revenues and expenses were normalized by excluding these items so as to prevent these items from impacting the value of the system. Further, it was anticipated that these items would be settled outside of any compensation for the value of the system.

In preparing projections of depreciation and return on rate base, annual capital investment in the system of $14 million per year, escalated for cost inflation each year was assumed. This annual expenditure amount was added to rate base, which increased depreciation expense recovery and the return on rate base amounts over the forecast period. The projection of revenues and expenses for the CAW Monterey District over the 20-year forecast period is provided in Exhibit 7 of Appendix A. Expense escalation assumptions are detailed in memorandum provided in Appendix B.

A summary of the valuation estimate using the DCF method is show in Table 11. Additional details are provided in Exhibit 8 of Appendix A.

[59] Decision 18-03-035. Decision Fixing Cost of Capital for Calendar Years 2018, 2019, and 2020 for California Water Service Company, California-American Water Company, Golden State Water Company, and San Jose Water Company, dated March 22, 2018.

Table 11: Valuation Estimate of the Monterey Water System Using the DCF Method

Line	Description	FY 2020	1 FY 2021	2 FY 2022	3 FY 2023	4 FY 2024	5 FY 2025	10 FY 2030	15 FY 2035	20 FY 2040	Terminal Value
	Interim Cash Flow Calculations										
1	Net Income:	$15,174.6	$16,983.2	$17,511.2	$18,034.9	$18,578.0	$19,127.5	$21,975.8	$25,011.7	$28,263.5	$28,913.6
2	Plus: Depreciation and Amortization Expense	8,877.7	9,227.7	9,588.2	9,959.5	10,342.0	10,735.9	12,890.1	15,387.3	18,300.2	18,922.4
3	Plus: San Clemente Dam Amortization Expense	7,900.0	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,246.4	6,246.4
4	Less: Revenue Recovery of San Clemente Dam Expense	(7,900.0)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,246.4)	(6,246.4)
5	Plus: Citizens Acquisition Premium Expense	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4
6	Less: Revenue Recovery for Citizens Amortization	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)
7	Plus: Return on and of UPAA	-	863.2	845.4	827.5	809.7	791.8	702.5	613.2	523.9	523.9
8	Less: Revenue Recovery for UPAA	-	(863.2)	(845.4)	(827.5)	(809.7)	(791.8)	(702.5)	(613.2)	(523.9)	(523.9)
9	Less: Working Capital Additions	(8,131.9)	45.7	(98.0)	31.8	(145.6)	(149.8)	(168.1)	(188.6)	(211.7)	(216.6)
10	Less: Annual Capital Expenditures	(14,000.0)	(14,420.0)	(14,852.6)	(15,298.2)	(15,757.1)	(16,229.8)	(18,814.8)	(21,811.5)	(25,285.6)	(26,044.1)
11	Net Cash Flow	$ 1,920.4	$11,836.6	$12,148.7	$12,728.1	$13,017.3	$13,483.8	$15,882.9	$18,398.9	$21,066.5	$21,575.3
12	Period for PV Calculation	0.5	1.5	2.5	3.5	4.5	5.5	10.5	15.5	20.5	21.5
13	PV Factor	0.9640	0.8958	0.8325	0.7736	0.7189	0.6681	0.4630	0.3208	0.2223	
14	PV of Net Cash Flows	$ 1,851.3	$10,603.5	$10,113.5	$ 9,846.4	$ 9,358.0	$ 9,007.9	$ 7,353.2	$ 5,903.0	$ 4,684.0	
15	PV of Interim Cash Flows										$ 148,871
16	**Terminal Value Calculations**										
17	Terminal Year Net Cash Flow										$21,575.3
18	Long-Term Growth Rate										2.30%
19	Discount Rate										7.61%
20	Terminal Value										406,314.6
21	PV of Terminal Value										83,952.0
22	Estimated Value Under Income Approach										$ 232,823
23	Adjustment for MPWMD Systems Only										95.5%
24	Adjusted Value										$ 222,346

Amounts shown in $1,000s.

4.2. Sales Comparison Approach

The analysis under the sales comparison approach focused on sales of water utility systems involving a willing buyer and willing seller that closed within approximately eight years from the valuation date of this report. Other criteria used in filtering the sales transaction information for comparability with the Monterey Water System included the following:

- System. Transactions involving water systems providing retail water service were considered. Transactions involving systems that solely provide wholesale water service (i.e. systems that did not include a water distribution system) or sales that involved multiple types of utility systems (water, wastewater, electric) were not considered unless the value of the water portion of the system could be separated from the remainder. In addition, transactions involving water systems that included their own raw water supplies and had their own treatment systems were considered potentially relevant. Water systems that purchased all or most of their potable water supply for resale were considered to be less relevant under some of the value measures employed.
- Location. Transactions that occurred in California were considered particularly relevant given their similar rate regulation to the Monterey Water System. Sales transactions in States outside of California were considered potentially relevant if they had similar rate base regulation and ratepayer indifference considerations.
- Size. Transactions that involved water systems with similar order-of-magnitude of size as compared to the Monterey Water System were considered potentially relevant. Sales transactions involving small systems with less than 1,000 customer connections were generally excluded from consideration or included for only limited purposes.

- Willing Seller. Transactions involving a municipal taking of assets through eminent domain were generally excluded because they did not involve a willing buyer/willing seller transaction. A few transactions that were identified appeared to have involved a willing buyer and seller where the parties negotiated a transaction price just prior to entering into an eminent domain settlement agreement. These transactions were considered to be negotiated, willing buyer/willing seller transactions and were identified as potentially relevant.
- Availability of Information. Transactions where very limited information was available regarding the system, customer base, and details regarding the transaction were excluded from consideration.
- Pending transactions. Transactions that were pending before the CPUC or another regulatory agency in another state were excluded from consideration.

Based on our research, we identified approximately 40 potentially relevant transactions that were reported over this period. These transactions were filtered based on the considerations described above, resulting in 10 transactions that were considered potentially relevant, at least for a limited purpose. Information on the transaction details were obtained from PUC filings, PUC decisions, annual financial reports, bond official statements, and other similar reports.

In valuing the Monterey Water System under the sales comparison approach, the transaction prices were compared based on the following metrics:

- Adjusted Price per Equivalent Residential Connection ("ERC")
- Price per Net Book Value
- Price per Rate Base Value
- Price per Earnings

For some transactions involving the transfer of liabilities or debt to the buyer, the transaction prices were adjusted to reflect the enterprise value of the system, i.e. the principal amount of debt outstanding was added to the purchase price.

Transaction prices were adjusted from the transaction date to the valuation date of this report to reflect time value of money and to normalize the sales transaction data for the purposes of computing the adjusted price per ERC figures. In addition, under this comparison approach, the number of customer connections associated with the system subject of the acquisition were adjusted to reflect the number of equivalent residential connections by applying meter equivalency ratios published by the American Water Works Association[60] to the customer connections for each water meter size.

In some cases, insufficient information was available to calculate a transaction price multiple using each of the price multiples identified above. In these cases, only the price multiples for which information was available was reported for such transactions. The price multiples for each transaction were weighted

[60] Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices M1, Seventh Edition, American Water Works Association, p.338.

based on relevance, and for each price multiple, the high and low transactions were excluded from the weighted average result.

The results of the sales comparison approach utilizing the four comparison methods identified above indicate a value of the Monterey Water System of approximately $272 million, as summarized in Table 12. Details of the transaction price comparisons using the utility sales data are provided in Exhibits 9 through 12 in Appendix A.

Table 12: Valuation Results Using the Sales Comparison Approach

Sales Comparison Method	Value Estimate
Market Transaction Method (Price/Eq Connection)[1]	$ 185,214
Market Transaction Method (Price/Earnings)[2]	279,480
Adjusted Net Asset Value Method (Price/NBV)[2]	250,066
Adjusted Net Asset Value Method (Price/Rate Base)[2]	371,981
Average	$ 271,685

Values shown in $1,000s.

[1]Includes sales comparison value for base system, plus value of Monterey Pipeline and Pump Station.

Base System	$ 145,862
Monterey Pipeline & PS (70% portion)	39,352
Total	185,214

[2]Price multiple includes 70% of the Monterey Pipeline and Pump Station.

4.3. Cost Approach

The Monterey Water System has a large quantity of tangible assets associated with it and the specific characteristics of raw water supply, water treatment, water transmission and distribution make the assets relatively unique in their combination. The assets are dedicated for a specific purpose of the delivery of retail water to the residences and businesses within the Monterey District service area. Therefore, the cost approach was deemed to be potentially applicable for consideration of the value of the Monterey Water System.

The steps that were completed to estimate the value of the Monterey Water System under the cost approach were as follows:

1. Relevant information regarding the physical assets of the system and their use were gathered.
2. Original asset cost and depreciation information were obtained and compiled from CAW's 2019 General Rate Case application to the CPUC.
3. OCLD amounts were calculated for each asset category.
4. The average ages of the assets for each asset category were estimated based on the accumulated depreciation and depreciation rates obtained from the 2019 General Rate Case application.
5. The original costs of assets for each asset category were trended to reproduction costs using the average age estimates and relevant historical construction cost indices.[61] Reproduction cost is the current cost of reproducing a new replica of the property using the same, or closely similar, materials.[62]
6. An estimate of the RCNLD amounts for each asset category were calculated by adjusting the reproduction costs for each asset category by the estimated remaining useful life of the assets.
7. The RCNLD amounts for each asset category were totaled.
8. Estimates of land value and water rights were added to the RCNLD asset amounts.

The results of OCLD and RCNLD computations are summarized in Table 13. The results indicate that the value of the Monterey Water System under the cost approach ranges from $288 million to $464 million, with the lower end of the range corresponding to the OCLD amount times 1.3x and the higher end of the range corresponding to the RCNLD amount. Given the limited detailed asset cost information that was available, the RCNLD amount computed represents an approximation of the RCNLD value of the Monterey Water System. This estimate is subject to change if additional detailed asset information becomes available (i.e., complete fixed asset rate base register containing individual

[61] The assets were trended utilizing the Handy-Whitman Index of Public Utility Construction Costs, published by Whitman, Requardt & Associates ("Handy-Whitman Index").

[62] Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets," 2nd edition.

asset listings, asset description, original cost, date placed in service, annual depreciation, and accumulated depreciation, etc.).

Table 13: Valuation Results Using the Cost Approach

Asset Categories		Original Cost	OCLD	RCNLD
Existing Assets as of 2018 (Except Land)				
Supply		$ 27,272,445	$ 15,080,137	$ 20,810,281
Pumping		22,582,934	16,288,435	27,112,633
Treatment		32,367,666	14,596,322	34,581,524
Transmission / Distribution		136,470,335	86,512,034	183,935,713
Storage		7,717,450	7,229,524	7,549,132
Meters & Services		38,938,305	23,116,220	38,211,682
Hydrants		8,830,160	5,916,118	10,102,607
Admin & General		3,142,234	2,227,490	3,162,942
Other Misc		10,306,207	4,037,629	7,009,040
Subtotal		$ 287,627,736	$ 175,003,909	$ 332,475,553
Pro-Rated (Inside MPWSP District)	0.955	$ 274,684,488	$ 167,128,733	$ 317,514,153
Other				
Projected New Assets - 2019		$ 14,122,082	$ 14,122,082	$ 14,122,082
Monterey Pipeline and PS (70%)[1]		39,351,900	38,368,103	39,550,028
Intangible Plant		185,300	185,300	185,300
Land[2]		1,825,717	1,825,717	84,643,113
Water Rights		n/a	n/a	7,671,112
Total		$ 330,169,487	$ 221,629,935	**$ 463,685,789**
1.3x OCLD			**$ 288,118,915**	

[1]30% of the Monterey Pipeline and pump station were excluded to be consistent with other methods. This portion is shown separately in the valuation summary table.

[2]The original cost value refers to CAW's reported original land cost. RCNLD refers to the estimated market value of land considered to be "used and useful".

Rate regulatory considerations applicable to the typical hypothetical willing buyers (i.e. investor-owned utility companies) impact the applicability of utilizing the calculation of RCNLD as part of the value estimate, as was described in Section 3.3.3. Furthermore, several recent water utility transactions involving a willing buyer and seller were reviewed to test the relationship between purchase price, RCNLD, and OCLD value. As shown in Table 14, the purchase prices of these transactions were substantially lower than the reported RCNLD estimates of the acquired systems, and approximately 30% higher than the OCLD values. Therefore, no weighting was placed on the RCNLD estimate that was prepared. Since rate base typically is largely comprised of the OCLD value of the assets, it typically has a closer relationship to the purchase price in most situations, and OCLD times a multiplier (e.g., 1.3x OCLD) was considered a better indication of value under the Cost Approach.

Table 14: Purchase Price vs. OCLD and RCNLD Comparisons

Sales Date	Seller	Buyer	State	Sales Price ($1,000s)	OCLD Value	RCNLD Value	Price to OCLD	Price to RCNLD
12/1/2016	Meadowbrook Water Company	California American Water Company	CA	$4,000	$2,782	$22,091	1.4	0.2
11/10/2016	Geyserville Water Works	California American Water Company	CA	$1,415	$979	$7,171	1.4	0.2
12/12/2012	Valencia Water Company	Castaic Lake Water Agency	CA	$82,794	$129,666	$290,514	0.6	0.3
6/25/2015	Rural Water Company - Santa Maria Area	Golden State Water Company	CA	$1,700	$2,656	$25,100	0.6	0.1
11/5/2015	Dunnigan Water Works, W&S	California American Water Company	CA	$2,000	$3,932	$6,525	0.5	0.3
4/25/2019	Rio Plaza Water Company - Ventura County Service Area	California American Water	CA	$1,750	$439	$2,562	4.0	0.7
8/5/2019	Hillview Water Company	California American Water	CA	$10,380	$20,517	$39,617	0.5	0.3
Average Price Per RCNLD Value							1.3	0.3

Values shown in $1,000s.

4.3.1. Water Rights

An estimate of the value of water rights was included in the value estimate under the cost approach summarized in Table 13. CAW possesses water rights associated with the Monterey Water System that totals 6,338 AFY, including adjudicated water rights associated with the Seaside Groundwater source.[63] A portion (700 AFY) of CAW's current water rights will be restricted by its replenishment obligations, resulting in a net usable water right of 5,638 AFY.

In estimating the value of water rights, Section 1392 of the California Water Code was considered. This section of the Code states the following:

> *"Every permittee, if he accepts a permit, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any permit granted or issued under the provisions of this division, or for any rights granted or acquired under the provisions of this division, in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or by the holder of any rights granted or acquired under the provisions of this division or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any permittee, or the possessor of any rights granted, issued, or acquired under the provisions of this division."*

This Section of the code prohibits water appropriators from obtaining a profit on the sale of water rights acquired through permits from the State. Presuming that the cost incurred by CAW, and paid to the State of California, to acquire the right to divert and use water under its License 11866 and Permit 21330 have been recovered by CAW in rates charged to customers, no additional value was included in the valuation estimate under the cost approach for this portion of CAW's water rights, as shown in Table 15.

[63] CPUC Amended application A12-04-019, dated March 14, 2016, Attachment H. Adjudicated right = 1,474 AFY, Existing is adjudicated right less replenishment obligations.

The remaining portions of CAW's water rights were valued based on the Seaside Basin Watermaster replenishment assessment cost, and the projected marginal operating cost of the production associated with the MPWSP. Using these estimates, the value of water rights was estimated to range from $5.7 million to $7.7 million.

Table 15: Estimated Value of Water Rights

Description	Acre-Feet	Low Value[5] $580	High Value[6] $2,872	Acre-Feet	Low Value[5] $580	High Value[6] $2,872
Pre-1914[1]	1,137	$659,460	$3,265,464	1,137	$659,460	$3,265,464
Riparian[1]	60	$34,800	$172,320	60	$34,800	$172,320
License 11866[2]	2,179	n/a	n/a	2,179	n/a	n/a
Permit 21330[3]	1,488	n/a	n/a	1,488	n/a	n/a
Seaside Groundwater[4]	774	$448,920	$2,222,928	1,474	$854,920	$4,233,328
Total	5,638	$1,143,180	$5,660,712	6,338	$1,549,180	$7,671,112

[1]State Water Resources Control Board, CA EPA, Order No. WR 95-10, dated July 6, 1995, p.25.

[2]State Water Resources Control Board, License for Diversion and Use of Water, CAW License 11866, dated April 12, 1985, p.1

[3]State Water Resources Control Board, Right to Divert and Use Water, CAW Permit 21330, dated January 26, 1993, p.3.

[4]CPUC Amended application A12-04-019, dated March 14, 2016, Attachment H. Adjudicated right = 1,474 AFY, Existing is adjudicated right less replenishment obligations.

[5]Low value = CCSD Marginal Rate based on Settlement Agreement on MPWSP Desalination Plant Return Water in reference to Application No. 12-04-019, dated June 14, 2016. Agreement states that CCSD shall pay CAW a rate of $580/af for replenishment water. This cost represents the marginal O&M costs for the desal project.

[6]High value = Seaside Replenishment Assessment. Reference 2018 Annual Report from the Seaside Basin Watermaster where the Watermaster determined that the Natural Safe Yield Replenishment Assessment unit cost was $2,872/AF.

4.4. Summary and Conclusions of Value

4.4.1. Base System Value

The base estimated value of the Monterey Water System (portion located within MPWMD jurisdictional boundaries) as of the valuation date (January 1, 2020) is estimated to be approximately $245 million, as summarized in Table 16. This estimate is a preliminary estimate of value that was prepared based on a desktop analysis described above for feasibility purposes and information available as of the date of this report. This value estimate may be higher or lower than the conclusion of value that may result from the completion of a formal appraisal.

This base estimate excludes the value of asset additions, such as construction-work-in-progress, 30% of the Monterey Pipeline and Pump Station value deemed by CPUC not to be used and useful, the value of the desalination plant, and the value of other non-regulated assets associated with the Monterey Water System. The base estimate also excludes possible compensation amounts that may be awarded to CAW

for amortization and balancing account items and severance damages. The potential value of these additional items was estimated separately, summarized in Table 16, and are discussed below.

Table 16: Estimated Value of the Monterey Water System with MPWMD Boundaries

Valuation Estimate Approach	Estimated Value	x	Weighting	=	Weighted Value
Base Water System (Including 70% of Monterey Pipeline and PS)					
Income Approach					
Discounted Net Cash Flow Method	$ 222,346		40%		$ 88,938
Direct Capitalization Method	254,499		40%		101,800
Sales Comparison Approach					
Market Transaction Method (Price/Eq Connection)[1]	185,214		5%		9,261
Market Transaction Method (Price/Earnings)	279,480		5%		13,974
Adjusted Net Asset Value Method (Price/NBV)	250,066		5%		12,503
Adjusted Net Asset Value Method (Price/Rate Base)	371,981		5%		18,599
Cost Approach					
RCNLD Method	463,686		0%		-
OCLD x 1.3x	288,119		0%		
Estimated Value of the Base System					**$ 245,075**
Asset Additions:					
Construction Work in Progress (Reported 2019 value)					$ 2,199
Portion of Monterey Pipeline and PS Not Included Above (30%)					16,865
Desal Plant (Excl SRF, Surcharge, and Public Agency Funded Portions)					92,749
Land - Not "Used and Useful"					1,977
Other Non-Regulated Assets (e.g., contributions-in-aid-of-construction, plant, equipment)					TBD
Estimated Value with Asset Additions					**$ 358,866**
Potential Additional Items:					
Tank Painting (PV Amount)					$ 4,459
Citizens Acquisition (PV Amount)					9,458
San Clemente Dam (PV Amount)					63,509
New UPAA (PV Amount)					6,508
Other Balancing Account Items (Net under-collection as of 5/31/19)					70,585
Severance					TBD
Estimated Total Including Potential Additional Items					**$ 513,384**

[1] Includes sales comparison value for base system, plus value of Monterey Pipeline and PS.

Values shown in $1,000s

Base System	$ 145,862
Monterey Pipeline & PS (70% portion)	39,352
Total	$ 185,214

4.4.2. Asset Additions

The value of the Monterey Water System, including the base value and the identified asset additions, was estimated to be approximately $359 million. These asset additions include:

- Construction Work in Progress. Based on the 2019 General Rate Case application submitted by CAW to the CPUC, CAW reports that it will have incurred approximately $2.2 million in construction costs (not including construction costs incurred for the MPWSP) as of end of calendar year 2019.[64] It was assumed that this amount has not been reflected in rate base by CAW nor has CAW been otherwise compensated for this expenditure as of the valuation date. By including in the value estimate, it is assumed that the MPWMD would acquire the assets associated with this construction work in progress.
- Remaining Portion of the Monterey Pipeline and Pump Station. The base valuation estimate includes 70% of the cost of the Monterey Pipeline and Pump Station because the CPUC concluded that 30% was related to the MPWSP and would not be used and useful until the desalination plant was in service.[65] The Monterey Pipeline and Pump Station cost amount was reported to be $56.217 million, of which 30% is $16.865 million.[66]
- Desalination Plant. The total cost of the MPWSP, including the desalination plant and associated raw and finished water pipelines, is estimated to be $313 million. It is anticipated that CAW will recover $39.8 million of this cost through a customer surcharge. It is also anticipated that approximately $180.5 million of the cost will be financed either with a state revolving loan or through MPWMD financing. The cost recovered through the surcharge and financed with SRF and public agency funds will be excluded from CAW rate base. The amount anticipated to be included in rate base is estimated to be $92.749 million.[67] For the purposes of the value estimate, it was assumed that the MPWMD will assume the SRF loan and become responsible for paying for the debt service associated with public agency financing. Therefore, the compensable value associated with MPWSP to CAW was estimated to be $92.749 million. The surcharge funded amount was not included in the compensable value estimate because Monterey Water System customers will have had already paid for this portion of the MPWSP, and under the ratepayer indifference test, should not be required to pay for this portion of the project twice.
- Land. CAW owns approximately 109 parcels of land that total approximately 3,433 acres within the District jurisdictional boundaries. Eight parcels, with a total of area of approximately 1,320 acres, are associated with the land owned by CAW in connection with the San Clemente Dam. In addition, CAW owns five parcels of buildable vacant land located in Seaside with a total area of approximately 0.5 acres. These parcels of land were assumed to be unrelated to the Monterey Water System, not "used and useful", and were estimated by the District to have a market value of approximately $2.0 million. The remaining parcels and acreage of land owned by CAW were deemed by the District to be related to, or in connection with, CAW's utility infrastructure, and

[64] CAW 2019 General Rate Case Application, Exhibits A-D, Chapter 7, Table 7.1. pg 61 of 73.

[65] CPUC Proposed Resolution W-5200, dated July 16, 2019.

[66] Advice Letter 1238 submitted by CAW to CPUC dated April 3, 2019.

[67] MPWSP Model v.2.1 – 6.4 mgd.xlsx /Capex tab. Model prepared by CAW and provided to CPUC as part of Application A1204019.

are included in the consideration of the "base" water system value shown in Table 16. The land value was estimated by the District based on recent real property sales transactions and County Assessor information. If the District does proceed to prepare a formal appraisal of just compensation for the acquisition of the Monterey Water system, it is recommended that a formal land appraisal be completed at that time.

- Other Non-Regulated Assets. CAW's Monterey Water System may include other assets that are not currently included in its rate base, except for the value of land which has been considered. These assets either have not been deemed to be "used and useful" for the provision of water service or were contributed by developers and are not allowed by CPUC to be included in rate base. It is possible that some of the non "used and useful" assets may become "used and useful" and recoverable in rate base in the future. However, the value of these assets is not likely to be substantial. CAW reports a value of $20.2 million of "contributions-in-aid-of-construction" and "advances-in-aid-of-construction", which are contributions of money or property contributed by developers pertaining to the expansion, improvement, or replacement of water system assets.[68] However, since CAW is not allowed to include the value of these assets in rate base, they have been excluded from consideration in the value of the Monterey Water System.

4.4.3. Other Considerations

CAW has incurred other expenses that CPUC has approved for recovery through Monterey District over time. It is possible that MPWMD may be required to compensate CAW for the unrecouped portions of these expenses as part of a potential taking of the Monterey Water System. However, MPWMD does not at this time accede that all such expenses will merit compensation. These expense items and their potential amounts are described below.

- Tank Painting. CAW defers the recovery of tank improvement project expenses over five years for study costs, and over 10 years for all other tank painting cost.[69] As of the valuation date, it is estimated that CAW will have approximately $4.5 million of unrecovered, deferred tank painting expenses.[70]
- San Clemente Dam. The balance in the account reflecting the expenditures for the cost of the San Clemente Removal Project. The ending balance of the San Clemente Dam deferred expense amortization as of the valuation date is $63.509 million.[71]
- Citizens Acquisition Premium. In 2001, the CPUC approved CAW's acquisition of Citizen Utilities Company of California at a purchase price that was above the net book value and authorized the acquisition premium to be amortized mortgage-style over 40 years beginning in

[68] 2018 Annual Report of District Water System Operations for the Monterey County District, prepared by CAW for the CPUC, p.6.
[69] General Rate Case Decision D.18.12-021, p.67.
[70] Ibid, Appendix D, and Direct Testimony of Ian C. Crooks, dated July 1, 2019, Application 19-07-xxx, Attachment 1.
[71] Direct Testimony of Jeffrey M. Dana dated July 1, 2019, Application 19-07-xx, Attachment 2.

2002.[72] The present value of the Monterey District's share of the unrecovered amount as of the valuation date was estimated to be $9.46 million.[73]

- New UPAA. In CAW's 2019 General Rate Case Application, it requests a utility plant acquisition adjustment ("UPAA") for the Fruitridge, Bellflower, Rio Plaza, and Hillview acquisitions. CAW seeks amortization of the Fruitridge UPAA over 27 years, Bellflower over 24 years, Rio Plaza over 40 years, and Hillview over 47 years.[74] A portion of these UPAAs are proposed to be allocated to the Monterey District. Based on the allocation of CAW's return on and of UPAA to the Monterey District, as reported in the 2019 General Rate Case Application[75], the total amount included as potential payment for UPAA is $6.51 million.
- Other Balancing Account Items. CAW identifies a number of other balancing account items associated with the Monterey District in its 2019 General Rate Case Application.[76] The application also identifies the over- or under- collection balance of these items as of the date of the application. It is possible that MPWMD may be required to compensate CAW for a portion of these balances as part of a potential taking of the Monterey Water System. As of the date of the 2019 General Rate Case Application, the net balance of these balancing account items, excluding the specific items described in the bullets above, total approximately $70.58 million.
- Severance Damages. As described in California Code of Civil Procedures Section 1263.420, where the public entity is taking less than an entire piece of property, compensation shall be awarded for the injury, if any, to the remainder. In this instance, MPWMD is considering the possibility of taking the portion of CAW's Monterey District water assets located within the District, but not the remainder of the Monterey District assets (i.e., the satellite systems). MPWMD may also be required to pay severance damages to CAW for acquiring the Monterey Water System. These damages may relate to not taking the satellite water systems owned and operated by CAW within their Monterey District, but outside of MPWMD's jurisdictional boundaries. Severance damages in this instance, which relate to the operation of an ongoing business of significantly smaller size, would consist of increased inefficiencies in CAW's provision of service to smaller pockets of customers and potentially higher costs per customer to do so. It is somewhat difficult to evaluate and quantify such severance damages, which would involve better understanding CAW's current service model, how CAW could most effectively modify its service model in the post-District acquisition scenario, and how much of the work formerly performed by local CAW staff could effectively be transferred to other nearby CAW field offices or centralized locations. In addition, given that CAW would likely be entitled to include reasonable increased marginal operating costs in its next rate filing(s) to the CPUC with respect to the "remainder" of its Monterey District, it is questionable whether CAW would suffer any net profitability losses at all. Given these uncertainties, and the likelihood that CAW could mitigate some or all of its severance damages through the CPUC ratemaking process, our

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[72] General Rate Case Decision D.18.12-021, p.70.

[73] Present value of the remaining amortization, assuming $898,800 per year per for 22 years. From 2019 GRC Final Application, Exhibit A, Ch4, Table 4.1, Last Authorized Test Year 2018.

[74] Direct Testimony of Stephen Owens dated July 1, 2019, Application 19-07-xxx, pg 53-67.

[75] 2019 GRC Application - Workpapers - Acquisitions, p.23.

[76] Direct Testimony of Jeffrey M. Dana dated July 1, 2019, Application 19-07-xx, Attachment 1.

tentative conclusion is that CAW is likely to suffer minimal, if any, severance damages, and any severance damages it does suffer would not be so significant as to materially affect the conclusions of the District's feasibility analysis. If the District does proceed to prepare a formal appraisal of just compensation for the acquisition of the Monterey Water system, however, it is recommended that the severance damages issue be further reviewed at that time.

5. Cost of Service Analysis

5.1. Introduction

A cost of service analysis was prepared to assist the MPWMD in assessing the economic feasibility of acquiring the Monterey Water System. The analysis consisted of preparing a 20-year financial projection of CAW continuing to own and operate the Monterey Water System (status quo), analyzing and identifying the incremental cost differences associated with MPWMD owning and operating the Monterey Water System in comparison to the status quo, preparing an annual cash flow projection of two district ownership scenarios, and estimating customer bills under both the CAW status quo and District ownership scenarios. We recognize that the rate structure may change in the future and estimated customer bills presented in this report are merely for scenario comparison purposes.

The following cost of service scenarios were prepared:

A. Status Quo – CAW ownership
B. MPWMD Ownership with District staff operations
C. MPWMD Ownership with contract operations

A description of these scenarios, key assumptions and estimates, and a summary of results are provided below.

5.2. Scenario A. Status Quo – CAW Ownership

Scenario A consists of CAW owning and operating the Monterey Water System including the construction and operation of the desalination plant as part of the MPWSP and modifying the source of supply and operations of the system to accommodate the MPWSP.

Estimates of annual O&M expenses, depreciation expense, annual capital expenditures, return on rate base, and income taxes were prepared based on various expense escalation estimates and assumptions summarized in Appendix B. The revenue requirements projection also includes the anticipated expenses associated with MPSWP, including the desalination plant, Monterey Pipeline and Pump Station capital and O&M expenses, and PWM purchased water costs. Desalination plant and PWM purchased water costs projections are provided in Exhibit 13, the annual revenue requirement projections for this scenario are provided in Exhibits 14 and 15, and the projected typical monthly residential water bill is provided in Exhibit 16 of Appendix A.

5.3. Scenario B. MPWMD Ownership with District Operations

Scenario B consists of MPWMD acquiring, owning, and operating the Monterey Water System, acquiring the desalination plant currently under construction, and modifying the current source of supply and operation of the system to accommodate the MPWSP. District staff assumes integration of current CAW staff with District operations. Under this scenario, several expense adjustments were made to the CAW Status Quo scenario (Scenario A) to reflect the anticipated revenue requirements under MPWMD ownership and operation. These adjustments are summarized below and detailed in Exhibit 17 of Appendix A.

Operating Expense Adjustments:

- *Tank Painting Expense Amortization (line 3 of Exhibit 17).* As discussed in Section 4, CAW defers the recovery of tank improvement project expenses over five years for study costs, and over 10 years for all other tank painting costs. Tank painting expense amortization has been excluded in the District ownership scenario in lieu of a revenue requirement projection that includes tank painting and other tank improvements as an annual pay-as-you-go capital expense. It is possible that MPWMD may be required to pay CAW for the present value of unrecouped tank painting expenses. Therefore, an estimate of the current value of CAW unrecovered tank painting expense has been included in the estimate of District amortization of system acquisition costs.
- *Regulatory Expenses (line 4).* CAW expenses for rate regulatory proceedings are not applicable to the District ownership scenario, and thus have been excluded. Under District ownership, the Monterey Water System would be self-regulated by the District Board, and no significant incremental rate regulatory expenses are anticipated.
- *Acquisition Premiums (line 5 and 7).* CAW Monterey District amortization expenses associated with CPUC approved acquisition premiums would not be directly included in the revenue requirement under MPWMD ownership scenarios. However, it is possible that MPWMD may be required to pay CAW for the present value of unrecouped acquisition premiums that CAW has been approved by CPUC to recover. Therefore, an estimate of the current value of unrecouped acquisition premiums relevant to the Monterey District has been included in the estimate of District amortization of system acquisition costs.
- *General Office Expenses (lines 6, 12 and 13).* CAW General Office expenses are comprised of two categories of expenses, General Office (Cal Corp) and Service Company Costs. General Office costs are associated with the state corporate office and reflect costs specific to California. Examples of these costs include the rates, finance, external affairs, and water quality teams that serve multiple districts across California, as well as lease costs for the state corporate office in San Diego County.[77] The services provided by the Service Company include customer service, water quality testing, environmental compliance, human resources, communications, technology and innovation, finance, accounting, legal, engineering, supply chain, and risk management services.[78] These CAW expenses have been removed and replaced with MPWMD Operating and Administrative Expenses.
- *San Clemente Dam Removal Expense Amortization (line 8).* CAW amortization expenses associated with the San Clemente Dam Removal have been excluded as a separate revenue requirement expense line under MPWMD ownership scenarios. However, it is possible that MPWMD may be required to pay CAW for the present value of unrecouped San Clemente Dam amortization expenses that CAW has been approved by CPUC to recover. Therefore, an estimate of the current value of unrecouped dam amortization expenses has been included in the estimate of District amortization of system acquisition costs.

[77] CAW 2019 General Rate Case Application, Direct Testimony of Stephen Owens, dated July 1, 2019, p.13.

[78] CAW 2019 General Rate Case Application, Direct Testimony of Nikole Bowen, dated July 1, 2019, p.2.

- *Payroll Taxes (line 10).* Under MPWMD ownership, Federal Insurance Contribution Act ("FICA") contributions for Social Security and Medicare programs, Federal Unemployment Tax Act ("FUTA"), and State Unemployment Insurance ("SUI") contributions paid by CAW would be replaced with California Public Employee's Retirement System ("CalPERS") contributions by MPWMD. The differences in contribution amounts was estimated by MPWMD and results in a net cost under public ownership of approximately $2,200 per employee. This net cost was included the District Ownership scenarios.
- *Other Operating Expenses Adjustments (line 11).* Under MPWMD ownership, the District has estimated that it could reduce the number of employees associated with the Monterey Water System by four positions, from 81 staff positions to 77 staff positions, saving $448,900 in annual direct labor expenses. These are administrative positions that MPWMD estimates are redundant to existing District positions related to the operations of the system. Other reductions include elimination of CAW pension & benefits ($2,097,500), which was replaced by MPWMD's estimate of pension & benefits and included in the District Administrative Costs line, customer accounting ($419,000), and insurance expenses ($57,820).
- *Income Taxes (line 19).* Under CAW ownership, CAW pays State taxes (8.84%) and Federal Taxes (21.0%) on its taxable earnings.[79] Under MPWMD ownership, these taxes would not be included in the annual revenue requirements of the water system.
- *MPWMD Administrative Expenses (line 24).* The District ownership scenarios include MPWMD estimates of labor, benefits, and other direct costs for the following administrative positions:
    - *Director of Operations*
    - *Public Outreach Officer*
    - *Accounting Supervisor*
    - *Billing Supervisor*
    - *Accounting Technician*
    - *Customer Service Representatives (3)*
    - *Geographic Information System Analysis*
    - *Information Technology Manager*

  The labor costs for these positions were estimated by MPWMD to be $930,000. MPWMD expenses also include pension and benefit costs ($2,493,000), estimated customer billing costs ($312,000), and other contract services ($200,000).

Capital Expense Adjustments:

- *Return on Rate Base (line 17).* Under CAW ownership, rate of return on rate base is included in the annual revenue requirement as a means for CAW to earn a return on its unrecouped capital

[79] CAW 2019 General Rate Case Application, Exhibit A, Chapter 6, Table 6.1.

investment in the Monterey Water System. Consistent with CAW's most recent cost of capital decision by CPUC,[80] a rate of return of 7.61% was included in the revenue requirement projections under the status quo scenario. Under MPWMD ownership scenarios, the return on rate base would be eliminated from the revenue requirement and would be replaced with District debt service associated with acquisition and transition costs.

- *Depreciation Expense Recovery (line 18).* Under CAW ownership, depreciation expense is included in the annual revenue requirement as a means for CAW to recover its capital investment of used and useful infrastructure associated with the Monterey Water System over time. Based on a review of depreciation information contained in CAW's 2019 General Rate Case, the average annual depreciable life of rate base is approximately 40 years. Under MPWMD ownership scenarios, the estimated value of the Monterey Water System has been included in the District debt service line for acquisition and transition costs.

- *Amortization of System Acquisition and Transition Costs (line 27 in Exhibit 17 and lines 25 through 30 in Exhibit 18).* In this District ownership scenario, debt service expenses were added to the revenue requirement for financing of the system value estimate described in Section 4 along with estimates of transition costs, and anticipated cash reserves requirements. Transition costs were estimated by MPWMD to be $9.5 million, a debt service reserve of one year of annual debt service (approximately $35.8 million) was assumed, along with capitalizing an unrestricted cash reserve equal to 180 days of operating expenses (approximately $18.0 million). The debt amortization estimate was prepared assuming level debt service, a 4.0% annual interest rate, and a repayment term of 30 years. These financing assumptions were reviewed by Barclays and were deemed to be reasonable.

- *Annual Capital Expenditures (line 25 Exhibit 17).* Annual capital expenditures were projected at the same level as the Status Quo CAW Ownership scenario ($14 million, escalated by inflation annually), except that under District Ownership, the annual capital expenditure amount was reduced by approximately 6.0% to eliminate capitalized labor estimated to be included in CAW's reported capital expenditure amounts. The capitalized labor estimate was provided by MPWMD.

The O&M and capital expense adjustments described above are detailed in Exhibit 17 of Appendix A. The resulting projection of annual revenue requirements for this scenario is provided in Exhibit 18, and the projected typical monthly residential water bill is provided in Exhibit 19. The projected typical monthly residential water bill projections are provided for illustrative comparison purposes only and assume that the water rate structure will be unchanged following the acquisition. In addition, the rate adjustments have not been smoothed to minimize annual rate impacts.

5.4. Scenario C. MPWMD Ownership with Contract Operations

Scenario C consists of MPWMD acquiring, owning, and operating the Monterey Water System, acquiring the desalination plant currently under construction, modifying the current source of supply and

[80] Decision Fixing Cost of Capital for Calendar Years 2018, 2019, 2020, for California Water Service Company, CAW, Golden State Water Company, and San Jose Water Company (Decision 18-03-035)

system operation to accommodate the MPWSP, and operating and maintaining the system using an outside contract operator in the event CAW does not make its existing employees available to be integrated into the District.

Under this scenario, the cost adjustment items described in Scenario B (MPWMD Ownership with District Staff Operations) would remain the same, with the exception of the following items that substitute District staff operations with contract operations:

- *Payroll Taxes (line 10 in Exhibit 20).* Under MPWMD ownership including contract operations, FICA contributions for Social Security and Medicare programs, FUTA, and SUI contributions would be paid by the contract operator similar to the expenses incurred by CAW. However, MPWMD predicts a 4.9% reduction in payroll tax under contract operations as compared to CAW operations due to the reduction of four positions estimated to be redundant with existing District positions. This adjustment was made, along with an assumed contract operations markup of 15% on personnel related expenses. A net cost of $88,300 was included the District Ownership scenarios.
- *MPWMD Administrative Expenses (line 24).* The District ownership scenarios include MPWMD estimates of labor, benefits, and other direct costs for the 10 administrative positions described in Scenario B. The labor costs for these positions were estimated by MPWMD to be $930,000, and the public pension and benefit costs were estimated to be $358,000. MPWMD expenses also include estimated customer billing costs ($312,000), and other contract services ($200,000). Pension and benefit costs were assumed to be same under CAW ownership as compared to District contract operations.
- *Other Operating Expenses Adjustments (line 11).* Under MPWMD ownership, the District estimated that it could reduce the number of employees associated with the Monterey Water System by four positions, from 81 staff positions to 77 staff positions, saving $448,900 in annual direct labor expenses. Other adjustments include a contract operations markup of 15% on personnel related expenses ($2.067 million) and on non-labor expenses ($1.49 million), except pass through expenses. Pass through expenses were assumed to include purchased water and electricity expenses. Reductions in expenses in this line include customer accounting ($419,000), and insurance expenses ($57,800).

The O&M and capital expense adjustments described above are detailed in Exhibit 20 of Appendix A. The resulting projection of annual revenue requirements for this scenario is provided in Exhibit 21, and the projected typical monthly residential water bill is provided in Exhibit 22 of Appendix A. The projected typical monthly residential water bill projections are provided for illustrative comparison purposes only and assume that the water rate structure will be unchanged following the acquisition. In addition, the rate adjustments have not been smoothed to minimize annual rate impacts.

5.5. Cost of Service Results

The cost of service modeling results are summarized in Tables 17 and 18 and indicate that significant annual reductions in revenue requirements and projected monthly water bills can be realized by MPWMD acquiring and operating the Monterey Water System. As shown in Table 17, the estimated revenue requirement in 2022 under the MPWMD ownership scenario with District operations (Scenario

B) was projected to be approximately $13.6 million or 11.9% lower than the status quo CAW ownership scenario (Scenario A). Scenario B is estimated to have a net present value savings from 2021 to 2040 of approximately $267 million. Further, the estimated revenue requirement in 2022 under MPWMD ownership and contract operations (Scenario C) was projected to be approximately $10.2 million or 8.9% lower than the status quo CAW ownership scenario (Scenario A). Scenario C is estimated to have a net present value of savings from 2021 to 2040 of approximately $213 million. These net present value savings estimates include the debt service costs associated with the District paying fair market value for CAW's Monterey Water System.

Table 17: Annual Revenue Requirement Projection for Each Scenario

Year	A Status Quo CAW Ownership w/ Desal Plant	B MPWMD Ownership w/District Ops	C MPWMD Ownership w/ Contract Ops	B-A	C-A
2020	$63,284	$63,284	$63,284	$0	$0
2021	$105,583	$93,018	$96,309	($12,565)	($9,275)
2022	$113,862	$100,286	$103,682	($13,575)	($10,180)
2023	$114,880	$98,486	$101,959	($16,394)	($12,921)
2024	$116,793	$100,242	$103,793	($16,551)	($13,000)
2025	$118,756	$101,622	$105,253	($17,133)	($13,503)
2026	$120,767	$103,037	$106,748	($17,730)	($14,018)
2027	$122,826	$104,489	$108,283	($18,338)	($14,543)
2028	$124,936	$105,978	$109,857	($18,958)	($15,079)
2029	$127,098	$107,507	$111,473	($19,592)	($15,625)
2030	$129,313	$109,075	$113,130	($20,238)	($16,183)
2031	$131,582	$110,685	$114,831	($20,897)	($16,751)
2032	$133,963	$112,419	$116,659	($21,544)	($17,305)
2033	$136,403	$114,172	$118,506	($22,232)	($17,897)
2034	$138,903	$115,969	$120,401	($22,934)	($18,502)
2035	$141,465	$117,814	$122,346	($23,651)	($19,119)
2036	$144,090	$119,706	$124,340	($24,383)	($19,750)
2037	$146,779	$121,648	$126,386	($25,131)	($20,393)
2038	$149,535	$123,640	$128,485	($25,894)	($21,050)
2039	$152,359	$125,684	$130,638	($26,675)	($21,721)
2040	$155,268	$127,780	$132,846	($27,488)	($22,423)
Total	$2,688,446	$2,276,543	$2,359,208	($411,903)	($329,238)
PV (@4.0%)	**$1,805,484**	**$1,538,143**	**$1,592,710**	**($267,341)**	**($212,773)**
PV (@6.0%)	$1,517,276	$1,296,636	$1,342,061	($220,640)	($175,215)

Values shown in $1,000s.

Table 18: Typical Monthly Water Bill Projection for Each Scenario

Year	A Status Quo CAW Ownership w/ Desal Plant	B MPWMD Ownership w/District Ops	C MPWMD Ownership w/ Contract Ops	Lower Water Bill B-A	Lower Water Bill C-A
2020	$95.13	$95.13	$95.13	**$0.00**	**($0.01)**
2021	$140.88	$127.29	$130.84	**($13.59)**	**($10.04)**
2022	$130.72	$116.03	$119.70	**($14.68)**	**($11.02)**
2023	$131.82	$114.09	$117.84	**($17.73)**	**($13.98)**
2024	$133.89	$115.99	$119.82	**($17.90)**	**($14.07)**
2025	$136.01	$117.48	$121.40	**($18.53)**	**($14.61)**
2026	$138.19	$119.01	$123.01	**($19.18)**	**($15.17)**
2027	$140.41	$120.58	$124.67	**($19.83)**	**($15.74)**
2028	$142.70	$122.19	$126.38	**($20.51)**	**($16.32)**
2029	$145.03	$123.84	$128.12	**($21.19)**	**($16.91)**
2030	$147.43	$125.54	$129.92	**($21.89)**	**($17.51)**
2031	$149.88	$127.28	$131.76	**($22.60)**	**($18.13)**
2032	$152.46	$129.16	$133.73	**($23.30)**	**($18.73)**
2033	$155.10	$131.05	$135.73	**($24.05)**	**($19.37)**
2034	$157.80	$133.00	$137.78	**($24.81)**	**($20.02)**
2035	$160.57	$134.99	$139.88	**($25.58)**	**($20.69)**
2036	$163.41	$137.04	$142.04	**($26.37)**	**($21.37)**
2037	$166.32	$139.14	$144.25	**($27.18)**	**($22.07)**
2038	$169.30	$141.29	$146.52	**($28.01)**	**($22.78)**
2039	$172.36	$143.50	$148.85	**($28.85)**	**($23.50)**
2040	$175.50	$145.77	$151.24	**($29.73)**	**($24.26)**

For illustrative scenario comparison purposes. Rate structure may change in the future.

These projected reductions in revenue requirements and monthly water bills are a result of the following differences between CAW and MPWMD ownership and operation in 2022:

1. Lower corporate and administrative overhead costs under public ownership than CAW ownership. An estimated $7.2 million in CAW corporate administrative overhead (General Office (Cal Corp) and Service Corporation expenses) would be avoided under MPWMD and replaced with approximately $1.8 million in District operations and administrative costs.
2. Operating cost differences. The District's ability to utilize existing administrative staff and eliminate redundant positions, net of higher pension and benefit costs under public ownership.
3. Cost of public financing vs. rate of return and CAW profit. The tax-exempt annual debt interest rate for MPMWD was estimated at a rate 4.0%, which is lower than taxable corporate debt, and CAW's allowable rate of return of 7.61%. The public financing interest rate was reviewed by Barclays and were deemed to be reasonable. Further, it is anticipated that MPWMD will recover annually recurring capital expenditures at cost with no rate of return added to this capital

investment. Annual recurring capital investments by CAW were anticipated to be included in rate base and recovered through depreciation and the allowable rate of return.

4. Reduction in revenue requirements under public ownership due to property and income taxes. An estimated $10.1 million of annual property and income taxes would be avoided under MPWMD (2021 estimate) as no tax payments by the District in the form of payment in lieu of taxes are anticipated by the District. Franchise fees and utility user taxes would continue to be paid under District ownership, but taxes paid for CPUC operations would not. This reduction in taxes under public ownership would likely lower the revenues to the taxing authorities. However, more directly, it would lower the revenue requirements for the Monterey Water System and the associated water rates and water bills paid by customers of the system.
5. Elimination of rate regulatory expenses. An estimated $330,000 per year in CPUC-related regulatory expenses (2021 estimate) would be eliminated under MPWMD ownership.

6. Findings and Conclusions

Set forth below is a summary of the findings and conclusions which Raftelis has reached regarding its preliminary valuation and cost of service feasibility study. For a complete understanding of the estimates and assumptions upon which these opinions are based, this report should be read in its entirety.

1. The base estimated value of the Monterey Water System (portion located within MPWMD jurisdictional boundaries) as of the valuation date (January 1, 2020) is estimated to be approximately $245 million. This estimate is a preliminary estimate of value that was prepared based on a desktop analysis described above for feasibility purposes and information available as of the date of this report. This value estimate may be higher or lower than the conclusion of value that may result from the completion of a formal appraisal.

2. This base estimate excludes the value of asset additions, such as construction-work-in-progress, 30% of the Monterey Pipeline and Pump Station value deemed by CPUC not to be used and useful, the value of the desalination plant, and land estimated to be non "used and useful." The potential value of these additional items was estimated separately and total approximately $114 million. In addition, it was assumed that MPWMD would assume the anticipated SRF loan and any public agency financing associated with the desalination plant (estimated at approximately $181 million), therefore, these amounts were excluded from the valuation estimate but were considered as part of the cost of service evaluation. The value of the Monterey Water System, including the base value estimate and the identified asset additions, was estimated to be approximately $359 million.

3. CAW has incurred other expenses that CPUC has approved for recovery through Monterey District over time. It is possible that MPWMD may be required to compensate CAW for these unrecouped expenses as part of a potential taking of the Monterey Water System. These expense items and their potential amounts include unrecouped portions of tank painting expenses, San Clemente Dam removal costs, the portion of the "acquisition premium" allocable to the Monterey Water System that was approved by the CPUC in 2001 in connection with CAW's acquisition of the California assets of Citizens Water Company, the portion of the "acquisition premiums" allocable to the Monterey Water System associated with the acquisition of the Bellflower Municipal Water System, the Rio Plaza Water Company, Fruitridge Vista Water Company, and Hillview Water Company that are proposed under CAW's Special Request No. 11 in its 2019 General Rate Case Application to the CPUC, plus the unrecovered portions of various balancing accounts. These net expenses were estimated to total approximately $155 million as of the valuation date, and adding these net expenses to the "base" water system value estimate, results in a total value estimate plus adjustments of approximately $513 million.

4. Non-Regulated Assets of CAW's Monterey Water System. Other non-regulated assets of CAW's Monterey Water System may include other assets that are not currently included in its rate base, except for the value of land which has been considered. These assets either have not been deemed to be "used and useful" for the provision of water service or were contributed by developers and are not allowed by CPUC to be included in rate base. It is possible that some of these non "used and useful" assets may become "used and useful" and could become recoverable

in rate base in the future. However, the value of these assets is not likely to be substantial. CAW reports a value of $20.2 million of "contributions-in-aid-of-construction" and "advances-in-aid-of-construction." However, since CAW is not allowed to include the value of these assets in rate base, they have been excluded from consideration in the value of the Monterey Water System.

5. Severance Damages. MPWMD may be required to pay severance damages to CAW for acquiring the Monterey Water System. These damages may relate to not taking the satellite water systems owned and operated by CAW within their Monterey District, but outside of MPWMD's jurisdictional boundaries. California Code of Civil Procedures Section 1263.420 states that where the public entity is taking less than an entire piece of property, the possibility of severance damages to the remainder should be considered. These damages may relate to not taking the satellite water systems owned and operated by CAW within their Monterey District, but outside of MPWMD's jurisdictional boundaries. Our tentative conclusion is that CAW is likely to suffer minimal, if any severance damages and any severance damages it does suffer would not be so significant as to materially affect the conclusions of the District's feasibility analysis. If the District does proceed to prepare a formal appraisal of just compensation for the acquisition of the Monterey Water system, however, it is recommended that the severance damages issue be further reviewed at that time.

6. The cost of service modeling results indicate that significant annual reductions in revenue requirements and projected monthly water bills can be realized by MPWMD acquiring and operating the Monterey Water System. The estimated revenue requirement in 2022 under the MPWMD ownership scenario with District operations (Scenario B) was projected to be approximately $13.6 million or 11.9% lower than the status quo CAW ownership scenario (Scenario A). Scenario B is estimated to have a net present value savings from 2021 to 2040 of approximately $267 million. The estimated revenue requirement in 2022 under MPWMD ownership and contract operations (Scenario C) was projected to be approximately $10.2 million or 8.9% lower than the status quo CAW ownership scenario (Scenario A). Scenario C is estimated to have a net present value of savings from 2021 to 2040 of approximately $213 million. These net present value savings estimates include the debt service costs associated with the District paying fair market value for CAW's Monterey Water System.

7. Based on the information and estimates summarized in this report, which are reasonable considering the currently available information, the acquisition of the Monterey Water System by MPWMD appears to be economically feasible. Economic feasibility was assessed by comparing the estimated revenue requirements of the water system under MPWMD ownership versus CAW ownership, which indicate significant revenue requirement savings could be achieved under the MPWMD ownership scenarios that were evaluated.

These findings and conclusions are qualified and subject to change as discussed in Section 1.3 of this report.

APPENDIX A:

Supporting Schedules and Exhibits

Exhibit 1: CAW Monterey District Water Customers by Location

System	2011[1]	2012[1]	2013[1]	2014[1]	2015[1]	2016[1]	2017[1]	2018[2]
Within MPWMD								
Main	38,637	38,265	38,141	38,225	38,325	38,325	38,325	38,740
Bishop	380	376	370	372	373	373	373	385
Hidden Hills	442	441	441	439	440	440	440	454
Ryan Ranch	157	156	164	167	167	167	167	212
Subtotal	39,616	39,238	39,116	39,203	39,305	39,305	39,305	39,791
Outside MPWMD								
Ambler	402	402	403	404	405	405	405	n/a
Ralph Lane	27	26	27	27	27	27	27	n/a
Chualar	184	184	194	192	192	192	192	n/a
Toro	409	412	412	416	415	415	415	n/a
Garrapata	-	-	48	47	47	47	47	n/a
Subtotal	1,022	1,024	1,084	1,086	1,086	1,086	1,086	
Total from GRC WPs[1]	40,638	40,262	40,200	40,289	40,391	40,391	40,391	

[1]WPs SA Results of Ops (standalone).pdf from 2016 GRC.

[2]Consumptions Data - WY 2018.pdf (Oct 2017-Sept 2018)

Exhibit 2: CAW Monterey District Water Delivery to Metered Customers

System	2011	2012	2013	2014	2015	2016	2017	2018
Within MPWMD								
Main	3,342,501	3,416,181	3,197,498	3,259,923	2,887,081	2,876,187	2,878,575	2,906,120
Bishop	50,979	54,394	52,569	43,087	N/A	N/A	N/A	N/A
Hidden Hills	58,670	65,010	59,365	55,499	N/A	N/A	N/A	N/A
Ryan Ranch	-	-	-	-	-	-	-	-
Subtotal	3,452,150	3,535,585	3,309,432	3,358,509	2,887,081	2,876,187	2,878,575	2,906,120
Outside MPWMD								
Ambler	53,283	57,866	57,083	53,760	29,791	38,636	45,710	47,060
Ralph Lane	2,574	2,997	2,848	2,146	2,060	2,155	2,016	2,075
Chualar	37,129	34,101	35,850	36,016	29,057	31,653	30,042	29,524
Toro	62,630	66,582	65,659	61,430	36,311	47,633	49,557	53,375
Garrapata	-	-	-	-	-	-	-	-
Subtotal	155,616	161,546	161,440	153,352	97,219	120,077	127,325	132,034
Other Usage	15,278	10,620	9,484	15,134	15,721	9,808	10,367	15,689
Total Monterey District	3,623,044	3,707,751	3,480,356	3,526,995	3,000,021	3,006,072	3,016,267	3,053,843
Within MPWMD as % of Total	95.3%	95.4%	95.1%	95.2%	96.2%	95.7%	95.4%	95.2%

[1]Source: Annual Report of District Water System Operations of Cal-Am Monterey District, 2011 - 2018.

[2]Water delivered in units of 1,000 gallons per year.

Exhibit 3: Utility Plant in Service for CAW Monterey District

	Description	12/31/2015	12/31/2016	12/31/2017	12/31/2018
1	I. Intangible Plant				
2	Organization	$ 102.4	$ 102.4	$ 102.4	$ 102.4
3	Franchises and Consents	27.7	27.7	27.7	27.7
4	Other intangible plant	55.2	55.2	55.2	55.2
5	Total intangible plant	$ 185.3	$ 185.3	$ 185.3	$ 185.3
6	II Landed Capital				
7	Land and land rights	$ 2,174.9	$ 2,172.0	$ 2,285.7	$ 2,262.0
8	III. Source of Supply Plant				
9	Structures and improvements	$ 4,783.3	$ 5,365.9	$ 5,471.7	$ 5,012.6
10	Collecting and impounding reserviors	2,379.8	2,379.8	2,356.8	2,377.8
11	Lake, river and other intakes	66.1	70.3	70.3	(318.6)
12	Springs and tunnels		-	-	
13	Wells	14,718.3	14,805.6	15,234.6	14,764.2
14	Supply mains	4,974.7	4,974.7	4,974.7	4,968.7
15	Other source of supply plant	124.3	124.3	124.3	124.3
16	Total source of supply plant	$ 27,046.6	$ 27,720.6	$ 28,232.5	$ 26,929.0
17	IV. Pumping Plant				
18	Structures and improvements	$ 4,020.8	$ 4,264.0	$ 4,741.6	$ 4,748.4
19	Boiler plant equipment		-	-	-
20	Other power production equipment	1,727.6	1,715.5	1,744.5	1,890.4
21	Pumping equipment	14,874.4	16,140.8	17,653.8	17,804.8
22	Other pumping plant	-	-	-	-
23	Total pumping plant	$ 20,622.8	$ 22,120.3	$ 24,139.8	$ 24,443.6
24	V. Water Treatment Plant				
25	Structures and improvements	$ 10,019.0	$ 10,099.4	$ 10,101.9	$ 10,102.4
26	Water treatment equipment	22,192.0	21,937.0	22,248.8	21,880.8
27	Total water treatment plant	$ 32,211.0	$ 32,036.4	$ 32,350.8	$ 31,983.2
28	VI. Transmission and Distribution Plant				
29	Structures and improvements	$ 525.6	$ 576.2	$ 913.2	$ 998.8
30	Reservoirs and tanks	22,028.7	23,937.8	25,306.0	25,437.4
31	Transmission and distribution mains	107,839.4	109,931.8	115,311.9	115,656.3
32	Fire mains			-	-
33	Services	26,813.8	27,209.3	28,362.2	29,030.8
34	Meters	7,545.9	8,308.4	8,846.4	9,907.5
35	Meter Installations			-	-
36	Hydrants	8,022.8	8,301.7	8,622.2	8,830.2
37	Other transmission and distribution plant	1,964.3	1,964.3	1,964.3	1,964.3
38	Total transmission and distribution plant	$ 174,740.5	$ 180,229.6	$ 189,326.1	$ 191,825.3
39	VII. General Plant				
40	Structures and improvements	$ 2,111.0	$ 1,970.0	$ 2,165.4	$ 2,170.0
41	Office furniture and equipment	824.6	1,166.4	1,143.9	1,235.2
42	Transportation equipment	124.4	124.4	130.0	139.4
43	Stores equipment	-	-	-	
44	Laboratory equipment	270.7	270.7	273.6	273.6
45	Communication equipment	7,396.5	7,423.6	6,538.6	7,136.9
46	Power operated equipment	180.7	244.5	244.8	277.8
47	Tools, shop and garage equipement	398.4	399.5	482.8	497.0
48	Other general plant	111.3	113.7	147.1	196.4
49	Total general plant	$ 11,417.5	$ 11,712.7	$ 11,126.3	$ 11,926.3
50	Total Utility Plant in Service	$ 268,398.6	$ 276,176.9	$ 287,646.6	$ 289,554.7

[1]Schedule A-1a of Annual Report of District Water System Operations of Cal-Am Monterey District, 2015 - 2018.

Exhibit 4: Utility Plant in Service for CAW Monterey District (in $1,000s)

	Description	As of 12/31/2013	As of 12/31/2014	As of 12/31/2015	As of 12/31/2016	As of 12/31/2017	As of 12/31/2018	From Final 2019 GRC 2019	2020	2021	2022
1	Utility Plant										
2	Plant in Service	$ 254,860.1	$ 258,330.8	$ 268,398.6	$ 276,176.9	$ 287,646.6	$ 289,554.7	$ 317,567.8	*$ 352,348*	$ 385,283.9	$ 406,052.3
3	Construction Work in Progress General	20,207.4	6,052.1	1,299.2	66,499.9	113,201.5	149,424.0				
4	Office	4,616.8	-	-	(64,015.1)	(112,245.1)	(93,065.2)	-	-	-	-
5	Total Gross Plant	279,684.3	264,382.9	269,697.9	278,661.7	288,603.0	345,913.5	317,567.8	352,348.4	385,283.9	406,052.3
6	Less Accumulated Depreciation										
7	Plant in Service	94,315.9	86,596.1	91,614.4	96,578.2	101,157.7	105,501.8	108,897.1	116,902.8	125,989.2	135,480.0
8	General Office Prorate	761.0	-	-	-	-	-	-	-	-	-
9	Total Accumulated Depreciation	95,076.9	86,596.1	91,614.4	96,578.2	101,157.7	105,501.8	108,897.1	116,902.8	125,989.2	135,480.0
10	Less Other Reserves										
11	Deferred Income Taxes	17,891.4	20,629.9	22,342.0	34,053.7	23,979.9	14,358.6	22,948.1	24,635.1	25,142.1	25,079.6
12	Deferred Investment Tax Credit	377.3	332.6	287.9	243.2	198.6	153.9	-			
13	Other Reserves	90.8	139.3	141.6	109.3	23,707.3	7,574.3	-	-	-	-
14	Total Other Reserves	18,359.6	21,101.8	22,771.5	34,406.2	47,885.8	22,086.8	22,948.1	24,635.1	25,142.1	25,079.6
15	Less Adjustments										
16	Contributions in Aid of Construction	19,711.7	20,947.0	20,829.0	20,181.5	19,578.6	19,253.9	19,058.1	18,710.0	18,285.9	17,856.5
17	Advances for Construction	1,171.6	1,132.2	1,092.7	1,053.3	1,013.8	974.4	942.9	911.3	879.7	848.2
18	Other	-	-	-	-	-	-	-	-	-	-
19	Total Adjustments	20,883.3	22,079.2	21,921.7	21,234.7	20,592.4	20,228.3	20,001.0	19,621.3	19,165.6	18,704.7
20	Add Materials & Supplies	197.7	220.4	191.9	293.8	264.4	305.7	272.2	276.3	281.4	287.5
21	Add Working Capital	4,750.7	7,181.3	6,972.9	7,168.2	5,563.6	5,872.2	13,890.0	13,680.0	13,504.5	12,584.9
22	Total District Rate Base	$ 150,312.9	$ 142,007.6	$ 140,555.0	$ 133,904.5	$ 124,795.2	$ 204,274.4	$ 179,883.8	$ 205,145.5	$ 228,772.9	$ 239,660.4

[1]Annual Report of District Water System Operations of Cal-Am Monterey District, Schedule A-4, 2013-2018.
2019-2022 from 2019 GRC Appendices, Ch.7 and 8

Exhibit 5: Schedule of Operating Results for CAW Monterey District (in $1,000s)

Line	Description	Recorded 2011	Recorded 2012	Recorded 2013	Recorded 2014	Recorded 2015	Recorded 2016	Recorded 2017	Recorded 2018
1	Water Service Revenues								
2	Metered Revenues	$ 29,417.2	$ 39,765.6	$ 37,208.1	$ 40,090.6	$ 36,199.6	$ 35,923.0	$ 48,801.9	$ 51,887.4
3	Fire Protection	521.2	441.7	746.8	752.3	738.0	745.2	731.9	742.0
4	Other Sales & Services	45.2	103.3	244.9	169.7	131.7	162.1	364.7	56.3
5	Other Water Revenues								
6	Misc Service Revenues	1,131.8	1,076.8	1,129.8	1,797.1	524.6	733.7	733.3	73.7
7	Rent from Water Property	77.5	166.7	83.5	102.4	70.6	82.7	64.1	43.0
8	Other Water Revenues	11,044.5	9,231.5	16,782.7	13,839.2	15,922.1	22,022.3	5,934.3	6,886.9
9	Total Operating Revenues	$ 42,237.5	$ 50,785.7	$ 56,195.8	$ 56,751.3	$ 53,586.6	$ 59,669.2	$ 56,630.3	$ 59,689.4
10	Operation & Maintenance Expenses								
11	Source of Supply	$ 2,367.6	$ 1,942.4	$ 175.8	$ 1,586.5	$ 1,191.5	$ 1,828.2	$ 854.6	$ 1,272.3
12	Pumping	4,094.7	3,291.1	2,705.4	3,067.1	2,943.7	2,735.6	3,321.1	3,381.5
13	Water Treatment	1,717.8	1,732.2	2,017.1	2,121.8	1,833.6	2,171.0	2,384.0	2,458.2
14	Tranmission and Distribution	3,453.7	3,096.6	3,642.5	4,148.5	3,571.6	4,033.2	4,210.8	5,219.8
15	Customer Account Expense								
16	Uncollectible Accounts	-	-	-	-	3,637.1	-	-	-
17	All Other Expenses	501.8	431.2	473.0	456.6	485.8	571.8	576.0	512.2
18	Administrative and General								
19	Admin & General Salaries	1,423.3	1,578.7	1,700.3	1,837.2	1,848.6	1,949.3	1,978.3	2,322.4
20	Office Supplies and Other	18.3	21.2	30.9	33.3	22.3	21.3	27.8	20.5
21	Property Insurance	0.3	-	-	-	0.3	10.1	0.5	
22	Injuries and Damages	-	35.4	69.4	261.1	88.2	1,665.8	(680.4)	(153.1)
23	Employee Pensions and Benefits	1,176.6	1,742.3	2,004.7	1,583.5	1,617.5	1,690.2	1,715.2	1,366.6
24	Regulatory Commission Expenses	583.4	807.8	814.9	-	14.5	260.3	235.2	49.5
25	Outside Services Employed	268.9	468.2	618.2	868.6	(188.0)	1,022.1	275.4	2,052.9
26	Miscellaneous General Expenses	2,916.4	(868.0)	1,850.1	3,120.9	3,061.5	2,669.4	4,900.1	3,309.3
27	Maintenance of General Plant	80.8	22.4	-	9.1	2.3	19.6	66.3	13.7
28	Rents	406.9	427.8	440.2	571.0	505.6	555.6	542.0	568.5
29	Administrative Expenses Transferred	7,163.6	8,091.3	7,657.3	7,872.9	6,749.3	6,939.6	6,988.2	6,681.5
30	Duplicate Charges - Credit Ca_Am ROR	-	-	-	547.6	658.3	638.7	739.2	438.7
31	Total Operations & Maintenance Expenses	$ 26,174.1	$ 22,820.7	$ 24,199.8	$ 28,085.6	$ 28,043.8	$ 28,781.8	$ 28,134.4	$ 29,514.5
32	General Taxes								
33	Taxes on Real and Personal Property	$ 1,243.9	$ 1,345.5	$ 1,465.8	$ 1,591.9	$ 1,595.1	$ 1,547.4	$ 1,543.0	$ 1,521.1
34	State Corporation Franchise Tax	(103.6)	-	-	0.1	11.7	17.9	-	-
35	State Unemployment Insurance Tax	44.6	47.8	63.9	53.0	41.1	35.7	35.8	33.4
36	Other State and Local Taxes	8.1	91.2	102.2	106.0	64.9	74.8	47.5	81.7
37	Other Federal Taxes	577.6	613.5	670.8	593.6	511.3	657.7	743.3	727.5
38	Total General Taxes	$ 1,770.7	$ 2,098.0	$ 2,302.7	$ 2,344.6	$ 2,224.1	$ 2,333.4	$ 2,369.7	$ 2,363.7
39	Change in Depreciation Reserves	$ 4,049.9	$ 4,969.7	$ 5,384.4	$ (7,714.3)	$ 5,022.1	$ 4,967.6	$ 4,583.0	$ 4,348.2
40	Income Taxes and Credits	$ 1,494.9	$ 3,963.9	$ 3,832.2	$ 4,673.8	$ 4,917.2	$ 5,192.9	$ 4,988.6	$ 3,085.9
41	Income - Op Exp - Gen Taxes (EBITDA)	$ 14,292.7	$ 25,867.1	$ 29,693.4	$ 26,321.1	$ 23,318.8	$ 28,554.0	$ 26,126.3	$ 27,811.2

Source: Annual Reports of the Monterey District of California-American Water Company, 2011-2018, Sch B-1.

Exhibit 6: Historical Summary of Earnings for CAW Monterey District (in $1,000s)

Line	Description	Recorded from 2016 GRC					Recorded from 2019 GRC			Est from 2019 GRC	
		Recorded 2011	Recorded 2012	Recorded 2013	Recorded 2014	Recorded 2015	Recorded 2016	Recorded 2017	Recorded 2018	Estimated 2019	Estimated 2020
1	Operating Revenues										
2	Metered Revenues	$ 34,656.9	$ 41,745.7	$ 39,027.1	$ 43,576.6	$ 38,864.2	$ 50,045.7	$ 49,870.1	$ 51,446.0	$ 67,616.2	$ 67,616.2
3	Private/Public Fire	521.2	442.8	442.8	442.8	442.8	734.3	714.3	720.0	956.7	956.7
4	Surcharge Revenues	12,405.3	8,557.9	11,808.6	8,972.1	11,996.1	-	-	-	-	-
5	Other Revenues										
6	Method 5 Revenues	3.4	2.3	-	-	-	-	0.0	0.0	9.5	14.2
7	Contract Revenues	-	-	-	-	-	-	-	-	-	-
8	Antenna Leases	68.8	71.3	83.5	85.8	53.8	102.2	67.0	43.0	70.4	70.4
9	Additional NTPS Rev	22.4	20.6	-	-	-	-	-	-	-	
10	Misc Service Revenues	10.7	17.2	43.9	36.8	153.2	327.2	349.0	354.0	244.0	244.0
11	Late Payment Penalty	-	-	-	-	-	-	-	-	-	-
12	Reconnect Fees After Hours	8.6	12.0	-	-	-	-	-	-	-	-
13	Metered Construction	-	-	56.8	1,334.3	3,108.0	-	-	-	-	-
14	Subtotal Other Revenues	$ 114.0	$ 123.3	$ 184.2	$ 1,456.8	$ 3,314.9	$ 429.4	$ 416.0	$ 397.0	$ 323.9	$ 328.6
15	Total Operating Revenues	$ 47,697.4	$ 50,869.6	$ 51,462.6	$ 54,448.2	$ 54,618.0	$ 51,209.3	$ 51,000.4	$ 52,563.0	$ 68,896.8	$ 68,901.4
16	Operation & Maintenance Expenses										
17	Labor	$ 7,148.7	$ 6,869.5	$ 6,878.2	$ 7,168.9	$ 7,255.5	$ 8,171.4	$ 8,148.0	$ 7,885.1	$ 8,723.2	$ 8,946.8
18	Purchased Water	1,393.3	975.0	939.8	864.3	1,113.9	1,177.1	1,272.7	1,260.0	1,124.0	1,140.1
19	Purchased Power	2,413.4	2,273.6	2,255.2	2,268.1	2,012.8	2,196.9	2,408.5	2,070.3	2,441.9	2,475.1
20	Chemicals	314.5	357.3	416.9	370.4	310.0	324.2	387.9	371.9	367.2	372.2
21	Operation Expense	711.2	675.4	1,293.5	1,390.4	1,148.8	1,294.6	1,818.8	2,087.6	1,186.4	1,252.6
22	Maintenance (Excl Amort Tank Painting)	2,343.3	1,441.5	1,265.0	1,362.0	1,471.5	2,198.5	1,316.2	2,058.4	1,757.1	1,781.0
23	Amortization of Tank Painting	361.6	367.6	369.2	454.2	386.4	500.0	732.4	611.6	650.5	756.7
24	Customer Accounting	355.4	389.2	461.5	397.6	404.6	372.3	385.3	398.2	405.9	411.5
25	Uncollectible Expense	174.1	232.5	225.1	255.2	3,794.7	243.3	259.4	246.8	307.2	307.2
26	Insurance	489.5	539.1	620.7	698.0	961.0	600.5	449.1	568.4	551.6	571.9
27	Pensions and Benefits	2,024.7	2,984.6	2,720.4	1,967.4	1,631.2	2,314.7	2,321.9	1,824.9	1,949.1	2,048.3
28	Regulatory Expenses	(153.1)	312.0	488.0	442.6	146.5	461.2	593.3	118.4	343.7	343.7
29	Rents	527.2	553.4	565.9	649.4	675.4	718.2	720.8	731.8	715.6	727.4
30	Other Administrative & General	2,530.0	2,184.2	3,290.1	3,045.6	2,816.2	3,594.8	3,370.2	3,276.7	3,428.1	3,439.4
31	Service Company Costs	2,807.6	2,743.0	2,892.5	2,846.2	2,878.4	3,055.7	2,707.0	2,687.2	2,697.2	2,730.9
32	Citizens Acquisition Premium	902.0	873.1	844.0	815.6	787.6	748.2	736.7	885.5	884.9	888.4
33	General Office Return on Rate Base	175.6	288.6	350.1	428.8	560.8	486.9	417.1	473.0	490.0	645.8
34	Return on and of Utility Plant Acq Adjustment	-	-	-	-	-	-	-	-	-	-
35	San Clemente Dam	-	-	-	-	-	-	-	7,900.0	7,900.0	7,900.0
36	Total Operations & Maintenance Expenses	$ 24,519.0	$ 24,059.6	$ 25,876.1	$ 25,424.7	$ 28,355.3	$ 28,458.5	$ 28,045.3	$ 35,455.8	$ 35,923.6	$ 36,739.0
37	General Taxes	$ 1,822.5	$ 1,922.9	$ 1,982.1	$ 2,139.0	$ 2,152.2	$ 2,337.1	$ 2,281.9	$ 2,143.5	$ 2,476.4	$ 2,863.5
38	EBITDA	$ 21,355.9	$ 24,887.1	$ 23,604.4	$ 26,884.5	$ 24,110.5	$ 20,413.7	$ 20,673.2	$ 14,963.7	$ 30,496.8	$ 29,298.9
39	Depreciation Expense	5,985.4	4,951.1	6,339.4	6,295.4	6,215.8	6,723.6	7,020.8	7,295.2	8,075.1	8,877.7
40	EBIT	$ 15,370.5	$ 19,936.0	$ 17,265.0	$ 20,589.1	$ 17,894.7	$ 13,690.1	$ 13,652.4	$ 7,668.5	$ 22,421.7	$ 20,421.2
41	Taxes	5,770.8	9,382.2	6,545.1	7,895.7	6,812.8	3,482.2	3,407.1	3,157.9	6,311.0	5,246.6
42	Net Income	$ 9,599.7	$ 10,553.8	$ 10,719.9	$ 12,693.4	$ 11,081.9	$ 10,207.9	$ 10,245.3	$ 4,510.6	$ 16,110.7	$ 15,174.6

[1]Recoreded Results of Operations for 2011-2015 from GRC Results of Operations Tables, pg 4 of 91.

[2]Results of Operations and Estimated Results from 2019 GRC Application, Table CH2, Tbl 2.3, and Ch3 Tables 3.17-3.18.

Exhibit 7: Projection of Revenues and Expenses for CAW Monterey District (in $1,000s)

Line	Description	1 FY 2021	2 FY 2022	3 FY 2023	4 FY 2024	5 FY 2025	6 FY 2026	7 FY 2027	8 FY 2028	9 FY 2029	10 FY 2030
1	**Historical an Projected Earnings of Target Company**										
2	Operating Revenues										
3	Metered Revenues	$70,102.9	$71,619.3	$72,508.8	$74,298.1	$76,127.5	$77,994.0	$79,898.8	$81,842.6	$83,826.7	$85,852.1
4	Other Revenues	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6
5	Total Operating Revenues	$70,431.5	$71,947.9	$72,837.4	$74,626.7	$76,456.0	$78,322.6	$80,227.3	$82,171.2	$84,155.3	$86,180.7
6	Operation & Maintenance Expenses										
7	Labor	$ 9,161.5	$ 9,363.1	$ 9,578.4	$ 9,798.7	$10,024.1	$10,254.7	$10,490.5	$10,731.8	$10,978.6	$11,231.1
8	Purchased Water	1,153.2	1,174.1	338.1	352.9	368.0	383.5	399.3	415.5	432.0	449.0
9	Purchased Power	2,502.3	2,527.3	2,585.5	2,644.9	2,705.8	2,768.0	2,831.7	2,896.8	2,963.4	3,031.6
10	Chemicals	376.3	380.1	388.8	397.7	406.9	416.2	425.8	435.6	445.6	455.9
11	Operation Expense	1,266.4	1,279.0	1,308.5	1,338.6	1,369.3	1,400.8	1,433.1	1,466.0	1,499.7	1,534.2
12	Maintenance (Excl Amort Tank Painting)	1,800.6	1,818.6	1,860.4	1,903.2	1,947.0	1,991.8	2,037.6	2,084.4	2,132.4	2,181.4
13	Amortization of Tank Painting	765.0	772.7	790.4	808.6	827.2	846.3	865.7	885.6	906.0	926.8
14	Customer Accounting	416.0	420.2	429.9	439.7	449.9	460.2	470.8	481.6	492.7	504.0
15	Uncollectible Expense	295.3	314.1	320.8	324.8	332.8	340.9	349.2	357.7	366.4	375.2
16	Insurance	578.2	584.0	597.4	611.1	625.2	639.6	654.3	669.3	684.7	700.5
17	Pensions and Benefits	2,097.5	2,143.6	2,192.9	2,243.3	2,294.9	2,347.7	2,401.7	2,457.0	2,513.5	2,571.3
18	Regulatory Expenses	347.5	351.0	359.0	367.3	375.7	384.4	393.2	402.3	411.5	421.0
19	Rents	735.4	742.8	759.8	777.3	795.2	813.5	832.2	851.3	870.9	890.9
20	Other Administrative & General	3,477.2	3,512.0	3,592.8	3,675.4	3,760.0	3,846.4	3,934.9	4,025.4	4,118.0	4,212.7
21	Service Company Costs	2,796.4	2,858.0	2,923.7	2,990.9	3,059.7	3,130.1	3,202.1	3,275.7	3,351.1	3,428.2
22	Citizens Acquisition Premium	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4
23	General Office Return on Rate Base	667.1	682.5	698.2	714.2	730.6	747.4	764.6	782.2	800.2	818.6
24	Return on and of Utility Plant Acq Adjustment	863.2	845.4	827.5	809.7	791.8	773.9	756.1	738.2	720.4	702.5
25	San Clemente Dam	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4
26	Total Operations & Maintenance Expenses	$36,433.0	$36,902.0	$36,685.9	$37,332.3	$37,997.9	$38,679.2	$39,376.6	$40,090.4	$40,821.0	$41,568.8
27	General Taxes	2,946.8	2,955.3	3,016.5	3,079.0	3,142.8	3,207.9	3,274.4	3,342.3	3,411.5	3,482.3
28	EBITDA	$31,051.7	$32,090.6	$33,135.0	$34,215.3	$35,315.3	$36,435.5	$37,576.3	$38,738.5	$39,922.7	$41,129.6
29	Depreciation Expense	9,227.7	9,588.2	9,959.5	10,342.0	10,735.9	11,141.6	11,559.6	11,990.0	12,433.4	12,890.1
30	EBIT	$21,824.0	$22,502.4	$23,175.5	$23,873.4	$24,579.4	$25,293.8	$26,016.8	$26,748.5	$27,489.4	$28,239.6
31	Taxes	4,840.8	4,991.3	5,140.5	5,295.3	5,452.0	5,610.4	5,770.8	5,933.1	6,097.4	6,263.8
32	Net Income	$16,983.2	$17,511.2	$18,034.9	$18,578.0	$19,127.5	$19,683.4	$20,246.0	$20,815.4	$21,392.0	$21,975.8

Source: Based on 2016 and 2019 GRC Results of Operations Tables for 2011-2018 and forecast assumptions detailed in Appendix B.

Exhibit 7 (Cont'd): Projection of Revenues and Expenses for CAW Monterey District (in $1,000s)

Line	Description	11 FY 2031	12 FY 2032	13 FY 2033	14 FY 2034	15 FY 2035	16 FY 2036	17 FY 2037	18 FY 2038	19 FY 2039	20 FY 2040
1	**Historical an Projected Earnings of Target Company**										
2	Operating Revenues										
3	Metered Revenues	$87,919.9	$90,031.2	$92,187.2	$94,389.1	$96,638.1	$98,935.4	$101,282.5	$103,680.5	$106,130.9	$108,652.2
4	Other Revenues	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6
5	Total Operating Revenues	$88,248.5	$90,359.8	$92,515.8	$94,717.6	$96,966.6	$99,264.0	$101,611.0	$104,009.1	$106,459.5	$108,980.8
6	Operation & Maintenance Expenses										
7	Labor	$11,489.5	$11,753.7	$12,024.0	$12,300.6	$12,583.5	$12,872.9	$ 13,169.0	$ 13,471.9	$ 13,781.7	$ 14,098.7
8	Purchased Water	466.3	484.0	502.1	520.7	539.7	559.1	578.9	599.2	620.0	641.3
9	Purchased Power	3,101.3	3,172.6	3,245.6	3,320.3	3,396.6	3,474.8	3,554.7	3,636.4	3,720.1	3,805.6
10	Chemicals	466.4	477.1	488.1	499.3	510.8	522.5	534.5	546.8	559.4	572.3
11	Operation Expense	1,569.5	1,605.6	1,642.5	1,680.3	1,719.0	1,758.5	1,799.0	1,840.3	1,882.7	1,926.0
12	Maintenance (Excl Amort Tank Painting)	2,231.6	2,282.9	2,335.4	2,389.2	2,444.1	2,500.3	2,557.8	2,616.7	2,676.8	2,738.4
13	Amortization of Tank Painting	948.1	970.0	992.3	1,015.1	1,038.4	1,062.3	1,086.8	1,111.7	1,137.3	1,163.5
14	Customer Accounting	515.6	527.5	539.6	552.0	564.7	577.7	591.0	604.6	618.5	632.7
15	Uncollectible Expense	384.3	393.5	402.9	412.5	422.3	432.4	442.6	453.1	463.8	474.7
16	Insurance	716.6	733.1	749.9	767.2	784.8	802.9	821.3	840.2	859.6	879.3
17	Pensions and Benefits	2,630.4	2,690.9	2,752.8	2,816.1	2,880.9	2,947.2	3,014.9	3,084.3	3,155.2	3,227.8
18	Regulatory Expenses	430.7	440.6	450.7	461.1	471.7	482.5	493.6	505.0	516.6	528.5
19	Rents	911.4	932.4	953.8	975.8	998.2	1,021.2	1,044.7	1,068.7	1,093.3	1,118.4
20	Other Administrative & General	4,309.6	4,408.7	4,510.1	4,613.8	4,720.0	4,828.5	4,939.6	5,053.2	5,169.4	5,288.3
21	Service Company Costs	3,507.0	3,587.7	3,670.2	3,754.6	3,841.0	3,929.3	4,019.7	4,112.1	4,206.7	4,303.5
22	Citizens Acquisition Premium	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4
23	General Office Return on Rate Base	837.4	856.7	876.4	896.6	917.2	938.3	959.9	981.9	1,004.5	1,027.6
24	Return on and of Utility Plant Acq Adjustment	684.7	666.8	648.9	631.1	613.2	595.4	577.5	559.7	541.8	523.9
25	San Clemente Dam	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,246.4
26	Total Operations & Maintenance Expenses	$42,334.2	$43,117.6	$43,919.4	$44,740.0	$45,579.9	$46,439.5	$ 47,319.3	$ 48,219.7	$ 49,141.2	$ 50,085.3
27	General Taxes	3,554.5	3,628.1	3,703.4	3,780.2	3,858.6	3,938.6	4,020.3	4,103.7	4,188.8	4,275.7
28	EBITDA	$42,359.8	$43,614.0	$44,893.0	$46,197.5	$47,528.2	$48,885.9	$ 50,271.4	$ 51,685.7	$ 53,129.4	$ 54,619.8
29	Depreciation Expense	13,360.4	13,844.9	14,343.9	14,857.9	15,387.3	15,932.6	16,494.3	17,072.8	17,668.6	18,300.2
30	EBIT	$28,999.4	$29,769.1	$30,549.1	$31,339.5	$32,140.8	$32,953.3	$ 33,777.2	$ 34,612.9	$ 35,460.8	$ 36,319.6
31	Taxes	6,432.3	6,603.1	6,776.1	6,951.4	7,129.1	7,309.4	7,492.1	7,677.5	7,865.6	8,056.0
32	Net Income	$22,567.0	$23,166.0	$23,773.0	$24,388.1	$25,011.7	$25,643.9	$ 26,285.1	$ 26,935.4	$ 27,595.3	$ 28,263.5

Source: Based on 2016 and 2019 GRC Results of Operations Tables for 2011-2018 and forecast assumptions detailed in Appendix B.

Exhibit 8: Discounted Cash Flow Estimates for the Monterey Water System

Line	Description	FY 2020	1 FY 2021	2 FY 2022	3 FY 2023	4 FY 2024	5 FY 2025	6 FY 2026	7 FY 2027	8 FY 2028	9 FY 2029	10 FY 2030
	Interim Cash Flow Calculations											
1	Net Income:	$15,174.6	$16,983.2	$17,511.2	$18,034.9	$18,578.0	$19,127.5	$19,683.4	$20,246.0	$20,815.4	$21,392.0	$21,975.8
2	Plus: Depreciation and Amortization Expense	8,877.7	9,227.7	9,588.2	9,959.5	10,342.0	10,735.9	11,141.6	11,559.6	11,990.0	12,433.4	12,890.1
3	Plus: San Clemente Dam Amortization Expense	7,900.0	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4
4	Less: Revenue Recovery of San Clemente Dam Expense	(7,900.0)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)
5	Plus: Citizens Acquisition Premium Expense	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4
6	Less: Revenue Recovery for Citizens Amortization	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)
7	Plus: Return on and of UPAA	-	863.2	845.4	827.5	809.7	791.8	773.9	756.1	738.2	720.4	702.5
8	Less: Revenue Recovery for UPAA	-	(863.2)	(845.4)	(827.5)	(809.7)	(791.8)	(773.9)	(756.1)	(738.2)	(720.4)	(702.5)
9	Less: Working Capital Additions	(8,131.9)	45.7	(98.0)	31.8	(145.6)	(149.8)	(153.3)	(156.8)	(160.5)	(164.2)	(168.1)
10	Less: Annual Capital Expenditures	(14,000.0)	(14,420.0)	(14,852.6)	(15,298.2)	(15,757.1)	(16,229.8)	(16,716.7)	(17,218.2)	(17,734.8)	(18,266.8)	(18,814.8)
11	Net Cash Flow	$ 1,920.4	$11,836.6	$12,148.7	$12,728.1	$13,017.3	$13,483.8	$13,955.0	$14,430.5	$14,910.2	$15,394.3	$15,882.9
12	Period for PV Calculation	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5
13	PV Factor	0.9640	0.8958	0.8325	0.7736	0.7189	0.6681	0.6208	0.5769	0.5361	0.4982	0.4630
14	PV of Net Cash Flows	$ 1,851.3	$10,603.5	$10,113.5	$ 9,846.4	$ 9,358.0	$ 9,007.9	$ 8,663.4	$ 8,325.0	$ 7,993.5	$ 7,669.4	$ 7,353.2
15	PV of Interim Cash Flows											
16	**Terminal Value Calculations**											
17	Terminal Year Net Cash Flow											
18	Long-Term Growth Rate											
19	Discount Rate											
20	Terminal Value											
21	PV of Terminal Value											
22	Estimated Value Under Income Approach											
23	Adjustment for MPWMD Systems Only											
24	Adjusted Value											

Amounts shown in $1,000s.

Exhibit 8 (Cont'd): Discounted Cash Flow Estimates for the Monterey Water System

Line	Description	11 FY 2031	12 FY 2032	13 FY 2033	14 FY 2034	15 FY 2035	16 FY 2036	17 FY 2037	18 FY 2038	19 FY 2039	20 FY 2040	Terminal Value
	Interim Cash Flow Calculations											
1	Net Income:	$ 22,567.0	$ 23,166.0	$ 23,773.0	$ 24,388.1	$ 25,011.7	$ 25,643.9	$ 26,285.1	$ 26,935.4	$ 27,595.3	$ 28,263.5	$ 28,913.6
2	Plus: Depreciation and Amortization Expense	13,360.4	13,844.9	14,343.9	14,857.9	15,387.3	15,932.6	16,494.3	17,072.8	17,668.6	18,300.2	18,922.4
3	Plus: San Clemente Dam Amortization Expense	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,246.4	6,246.4
4	Less: Revenue Recovery of San Clemente Dam Expense	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,246.4)	(6,246.4)
5	Plus: Citizens Acquisition Premium Expense	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4
6	Less: Revenue Recovery for Citizens Amortization	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)
7	Plus: Return on and of UPAA	684.7	666.8	648.9	631.1	613.2	595.4	577.5	559.7	541.8	523.9	523.9
8	Less: Revenue Recovery for UPAA	(684.7)	(666.8)	(648.9)	(631.1)	(613.2)	(595.4)	(577.5)	(559.7)	(541.8)	(523.9)	(523.9)
9	Less: Working Capital Additions	(172.0)	(176.0)	(180.1)	(184.3)	(188.6)	(192.9)	(197.4)	(202.0)	(206.7)	(211.7)	(216.6)
10	Less: Annual Capital Expenditures	(19,379.3)	(19,960.7)	(20,559.5)	(21,176.3)	(21,811.5)	(22,465.9)	(23,139.9)	(23,834.1)	(24,549.1)	(25,285.6)	(26,044.1)
11	Net Cash Flow	$ 16,376.2	$ 16,874.3	$ 17,377.4	$ 17,885.5	$ 18,398.9	$ 18,917.7	$ 19,442.0	$ 19,972.1	$ 20,508.1	$ 21,066.5	$ 21,575.3
12	Period for PV Calculation	11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5	20.5	21.5
13	PV Factor	0.4302	0.3998	0.3715	0.3453	0.3208	0.2981	0.2771	0.2575	0.2393	0.2223	
14	PV of Net Cash Flows	$ 7,045.4	$ 6,746.3	$ 6,456.1	$ 6,175.0	$ 5,903.0	$ 5,640.3	$ 5,386.7	$ 5,142.2	$ 4,906.8	$ 4,684.0	
15	PV of Interim Cash Flows											$ 148,871
16	**Terminal Value Calculations**											
17	Terminal Year Net Cash Flow											$ 21,575.3
18	Long-Term Growth Rate											2.30%
19	Discount Rate											7.61%
20	Terminal Value											406,314.6
21	PV of Terminal Value											83,952.0
22	Estimated Value Under Income Approach											$ 232,823
23	Adjustment for MPWMD Systems Only											95.5%
24	Adjusted Value											$ 222,346

Amounts shown in $1,000s.

Exhibit 9: Transaction Price Per Equivalent Residential Connection

Sales Date	Seller	Buyer	State	Sales Price ($1,000s)	Time Adjustment Factor	Adjusted Sales Price ($1,000s)	Customer Connections	**Adjusted Price Per Connection**	Equivalent Residential Connections	**Adjusted Price Per ERC**	Price/ Connection Weighting	Price/ ERC Weighting
1/31/2012	NM & Arizona-American Water	EPCOR Utilities Inc.	AZ	$470,277	1.24	$582,686	175,000	$3,330			1.00	
12/1/2016	Meadowbrook Water Company	California American Water Company	CA	$4,000	1.09	$4,358	1,698	$2,566	2,196	$1,984	0.50	0.50
12/12/2012	Valencia Water Company	Castaic Lake Water Agency	CA	$82,794	1.21	$100,179	28,776	$3,481	65,587	$1,527	1.00	1.00
12/17/2015	Park Water and Apple Valley Ranchos, Mtn Water	Liberty Utilities Company	CA, MT	$327,000	1.12	$367,001	71,027	$5,167	109,843	$3,341	1.00	1.00
12/21/2017	Mid-Sierra Water Company, Tahoe Cedars Water and Madden Creek Water	Tahoe City Public Utility District	CA	$4,550	1.05	$4,773	1,329	$3,591	2,083	$2,292	0.50	0.50
4/12/2017	The Avon Water Company	Connecticut Water Service Inc	CT	$39,100	1.08	$42,056	4,859	$8,655	5,759	$7,303	0.00	0.00
3/31/2013	Crystal River Utilities, Inc	Florida Governmental Utility Authority	FL	$29,271	1.20	$35,192	14,770	$2,383	16,297	$2,159	1.00	1.00
4/3/2017	Shorelands Water Co. Inc.	NJ American Water Works Co.	NJ	$36,581	1.08	$39,346	11,188	$3,517	16,636	$2,365	1.00	1.00
5/1/2012	Aqua America Inc.	NY American Water Works Co.	NY	$71,040	1.23	$87,259	50,384	$1,732	61,742	$1,413	1.00	0.00
2/14/2012	Ohio American Water Company	Aqua Ohio, Inc.	OH	$120,244	1.24	$148,661	86,000	$1,729			0.00	
8/5/2019	Hillview Water Company	California American Water	CA	$7,470	1.01	$7,538	1,473	$5,118	2,766	$2,725	0.50	0.50
Weighted Price Per Connection or Per ERC - Weighted, Excluding Low and High (Rounded)[1]								$3,366		$2,344		
California-American Monterey District Connections and Eq Connections							41,529		65,151			
Estimated Market Value Based on Average (in $1,000s)								$139,797		$152,735		
Pro-Rated (Inside MPWSP District)							**0.955**	**$133,506**		**$145,862**		
Pro-Rated (Outside MPWSP District)							0.045	$6,291		$6,873		

[1]Transactions weighted by number of connections. For those transactions where the number of connections or ERCs are less than 10% of Monterey District, a 50% weighting is used.

Exhibit 10: Transaction Price Per Net Book Value

Sales Date	Seller	Buyer	State	Sales Price ($1,000s)	Utility Plant Net Value ($1,000s)	Price to Net Plant Book Value	Weighting
1/31/2012	NM & Arizona-American Water	EPCOR Utilities Inc.	AZ	$470,277	$449,356	1.05	1.00
12/1/2016	Meadowbrook Water Company	California American Water Company	CA	$4,000	$2,782	1.44	0.50
12/12/2012	Valencia Water Company	Castaic Lake Water Agency	CA	$82,794	$129,666	0.64	1.00
12/17/2015	Park Water and Apple Valley Ranchos, Mtn Water	Liberty Utilities Company	CA, MT	$327,000	$235,725	1.39	1.00
12/21/2017	Mid-Sierra Water Company, Tahoe Cedars Water and Madden Creek Water	Tahoe City Public Utility District	CA	$4,550	$1,434	3.17	0.00
4/12/2017	The Avon Water Company	Connecticut Water Service Inc	CT	$39,100	$26,339	1.48	1.00
3/31/2013	Crystal River Utilities, Inc	Florida Governmental Utility Authority	FL	$29,271	$22,894	1.28	1.00
4/3/2017	Shorelands Water Co. Inc.	NJ American Water Works Co.	NJ	$36,581	$20,778	1.76	0.50
5/1/2012	Aqua America Inc.	NY American Water Works Co.	NY	$71,040	$60,637	1.17	1.00
2/14/2012	Ohio American Water Company	Aqua Ohio, Inc.	OH	$120,244	$216,761	0.55	1.00
8/5/2019	Hillview Water Company	California American Water	CA	$7,470	$20,517	0.36	0.00
Weighted Price Per Net Plant Value - Weighted, Excluding Low and High (Rounded)[1]						1.15	
California-American Monterey District Utility Plant Net Value					$228,672		
Estimated Market Value Based on Average (in $1,000s)						$261,849	
Pro-Rated (Inside MPWSP District)					**0.955**	**$250,066**	
Pro-Rated (Outside MPWSP District)					0.045	$11,783	

[1]Transactions weighted utility net value. For those transactions where the NBV is less than 10% of Monterey District NBV, a 50% weighting is used.

Exhibit 11: Transaction Price Per Rate Base Value

Sales Date	Seller	Buyer	State	Sales Price ($1,000s)	Rate Base Value ($1,000s)	Price to Rate Base Ratio	Weighting
12/1/2016	Meadowbrook Water Company[1]	California American Water Company	CA	$4,000	$1,964	1.74	0.50
12/12/2012	Valencia Water Company	Castaic Lake Water Agency	CA	$82,794	$44,893	1.84	1.00
12/17/2015	Park Water and Apple Valley Ranchos, Mtn Water	Liberty Utilities Company	CA, MT	$327,000	$161,057	2.03	1.00
12/21/2017	Mid-Sierra Water Company, Tahoe Cedars Water and Madden Creek Water	Tahoe City Public Utility District	CA	$4,550	$977	4.66	0.00
3/31/2013	Crystal River Utilities, Inc	Florida Governmental Utility Authority	FL	$29,271	$20,243	1.45	0.00
Weighted Average Price Per Rate Base - Excluding Low and High (Rounded)[2]						1.90	
CAW Monterey District Utility Rate Base Value (1/1/20)					$205,146		
Estimated Market Value Based on Average (in $1,000s)						$389,509	
Pro-Rated (Inside MPWSP District)					**0.955**	**$371,981**	
Pro-Rated (Outside MPWSP District)					0.045	$17,528	

[1]Purchase price to rate base adjusted to reflect that the price includes $575k for reimbursement of CIAC not included in rate base. Also note last GRC was on 7/24/11, 5-1/2 years prior to the sales date, which may partially explain why the ratio of PP to RB is somewhat higher than average.

[2]Transactions weighted based on rate base amount. For those transactions where the rate base was less than 10% of Monterey District RB, a 50% weighting is used.

Exhibit 12: Transaction Price Per Earnings

Sales Date	Seller	Buyer	State	Sales Price ($1,000s)	TTM EBITDA ($1,000s)	Price Per Earnings	Weighting
12/1/2016	Meadowbrook Water Company	California American Water Company	CA	$4,000	$178	22.4	0.00
12/12/2012	Valencia Water Company	Castaic Lake Water Agency	CA	$82,794	$9,145	9.1	1.00
12/17/2015	Park Water and Apple Valley Ranchos, Mtn Water	Liberty Utilities Company	CA, MT	$327,000	$45,538	7.2	1.00
4/12/2017	The Avon Water Company	Connecticut Water Service Inc	CT	$39,100	$2,156	18.1	0.50
3/31/2013	Crystal River Utilities, Inc	Florida Governmental Utility Authority	FL	$29,271	$3,166	9.2	1.00
4/3/2017	Shorelands Water Co. Inc.	NJ American Water Works Co.	NJ	$36,581	$2,686	13.6	0.50
5/1/2012	Aqua America Inc.	NY American Water Works Co.	NY	$71,040	$10,173	7.0	0.00
2/14/2012	Ohio American Water Company	Aqua Ohio, Inc.	OH	$120,244	$15,381	7.8	1.00
8/5/2019	Hillview Water Company	California American Water	CA	$7,470	$648	11.5	0.50
Weighted Average Price Per Earnings - Excluding Low and High (Rounded)[1]						10.0	
CAW Monterey District EBITDA (2020)					$29,299		
Estimated Market Value Based on Average (in $1,000s)						$292,649	
Pro-Rated (Inside MPWSP District)					**0.955**	**$279,480**	
Pro-Rated (Outside MPWSP District)					0.045	$13,169	

[1]Transactions weighted based on EBITDA. For those transactions where the EBITDA is less than 10% of Monterey District EBITDA, a 50% weighting is used.

EBITDA = Earnings before interest, taxes, depreciation, and amortization.

Exhibit 13: Desalination Plant O&M Expense and PWM Purchased Water Cost Projections (in $1,000s)

Line	Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	**O&M Expenses**										
2	Labor	$ 3,011.5	$ 3,666.3	$ 3,730.2	$ 3,795.3	$ 3,861.5	$ 3,928.9	$ 3,997.4	$ 4,067.1	$ 4,138.1	$ 4,210.2
3	Fuel & Power	6,598.9	8,116.6	8,360.1	8,610.9	8,869.3	9,135.3	9,409.4	9,691.7	9,982.4	10,281.9
4	Chemicals	846.2	1,031.5	1,051.0	1,071.0	1,091.3	1,112.0	1,133.1	1,154.6	1,176.5	1,198.8
5	Membrane/Media Replacement	-	84.3	102.8	104.8	106.8	108.8	110.8	112.9	115.1	117.3
6	Repairs & Maintenance	417.6	2,211.0	2,593.3	2,642.5	2,692.6	2,743.7	2,795.7	2,848.7	2,902.8	2,957.8
7	Avoided Costs	(2,023.5)	(2,466.6)	(2,513.3)	(2,561.0)	(2,609.6)	(2,659.1)	(2,709.5)	(2,760.9)	(2,813.3)	(2,866.6)
8	Property Tax	891.3	873.3	855.3	837.3	822.4	807.5	792.7	777.9	763.1	748.3
9	**Total O&M Expenses**	$ 9,741.9	$ 13,516.4	$ 14,179.4	$ 14,500.7	$ 14,834.2	$ 15,177.1	$ 15,529.6	$ 15,892.0	$ 16,264.7	$ 16,647.7
10	**Purchased Water (Pure Water Monterey) Expense Adjustments**										
11	O&M Expenses	$ 4,071.3	$ 4,193.5	$ 4,319.3	$ 4,448.9	$ 4,582.3	$ 4,719.8	$ 4,861.4	$ 5,007.2	$ 5,157.4	$ 5,312.2
12	Annual Debt Service	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7
13	**Total Purchased Water Costs for PWM**	$ 6,944.0	$ 7,066.1	$ 7,191.9	$ 7,321.5	$ 7,455.0	$ 7,592.5	$ 7,734.1	$ 7,879.9	$ 8,030.1	$ 8,184.8

Source: Lines 73 - 81 of the MPWSP Model -V 2.1 - 6.4 MGD, Pure Water Operating Costs estimated and provided by MPWMD.

Line	Description	2021	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
1	**O&M Expenses**											
2	Labor	$ 3,011.5	$ 4,283.7	$ 4,283.7	$ 4,283.7	$ 4,283.7	$ 4,283.7	$ 4,283.7	$ 4,283.7	$ 4,283.7	$ 4,283.7	$ 4,283.7
3	Fuel & Power	6,598.9	10,590.4	10,590.4	10,590.4	10,590.4	10,590.4	10,590.4	10,590.4	10,590.4	10,590.4	10,590.4
4	Chemicals	846.2	1,221.5	1,221.5	1,221.5	1,221.5	1,221.5	1,221.5	1,221.5	1,221.5	1,221.5	1,221.5
5	Membrane/Media Replacement	-	119.5	119.5	119.5	119.5	119.5	119.5	119.5	119.5	119.5	119.5
6	Repairs & Maintenance	417.6	3,013.9	3,013.9	3,013.9	3,013.9	3,013.9	3,013.9	3,013.9	3,013.9	3,013.9	3,013.9
7	Avoided Costs	(2,023.5)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)
8	Property Tax	891.3	733.6	718.9	704.2	689.6	675.0	660.4	645.9	631.4	616.9	616.9
9	**Total O&M Expenses**	$ 9,741.9	$ 17,041.6	$ 17,026.9	$ 17,012.2	$ 16,997.6	$ 16,983.0	$ 16,968.4	$ 16,953.9	$ 16,939.4	$ 16,924.9	$ 16,924.9
10	**Purchased Water (Pure Water Monterey) Expense Adjustments**											
11	O&M Expenses	$ 4,071.3	$ 5,471.5	$ 5,635.7	$ 5,804.7	$ 5,978.9	$ 6,158.3	$ 6,343.0	$ 6,533.3	$ 6,729.3	$ 6,931.2	$ 7,139.1
12	Annual Debt Service	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7	2,872.7
13	**Total Purchased Water Costs for PWM**	$ 6,944.0	$ 8,344.2	$ 8,508.3	$ 8,677.4	$ 8,851.6	$ 9,030.9	$ 9,215.7	$ 9,406.0	$ 9,602.0	$ 9,803.8	$ 10,011.8

Source: Lines 73 - 81 of the MPWSP Model -V 2.1 - 6.4 MGD, Pure Water Operating Costs estimated and provided by MPWMD.

Exhibit 14: Revenue Requirements Projection – Monterey District (Scenario A – CAW Status Quo)

Line	Description	Estimated FY 2020	Projected FY 2021	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Projected FY 2027	Projected FY 2028	Projected FY 2029	Projected FY 2030
	Operating Revenues (Excluding Surcharges)											
1	Metered	$ 65,904.7	$ 97,852.2	$ 106,197.6	$ 107,293.7	$ 109,285.8	$ 111,329.9	$ 113,423.5	$ 115,567.7	$ 117,763.9	$ 120,013.6	$ 122,318.1
2	Other	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6
3	Total Operating Revenues	$ 66,233.3	$ 98,180.8	$ 106,526.1	$ 107,622.2	$ 109,614.4	$ 111,658.5	$ 113,752.0	$ 115,896.2	$ 118,092.5	$ 120,342.2	$ 122,646.7
4	Operation & Maintenance Expenses											
5	Labor[1]	$ 8,946.8	$ 12,173.0	$ 13,011.1	$ 13,310.3	$ 13,616.5	$ 13,929.6	$ 14,250.0	$ 14,577.8	$ 14,913.1	$ 15,256.1	$ 15,606.9
6	Purchased Water	1,140.1	1,153.2	1,188.6	338.1	352.9	368.0	383.5	399.3	415.5	432.0	449.0
7	Purchased Power[1]	2,475.1	9,101.2	10,641.5	10,886.2	11,136.6	11,392.8	11,654.8	11,922.8	12,197.1	12,477.6	12,764.6
8	Chemicals[1]	372.2	1,222.5	1,411.1	1,443.6	1,476.8	1,510.8	1,545.5	1,581.1	1,617.4	1,654.6	1,692.7
9	Operation Expense/Membrane[1]	1,252.6	1,266.4	1,362.1	1,393.5	1,425.5	1,458.3	1,491.8	1,526.1	1,561.2	1,597.2	1,633.9
10	Maintenance (excluding Tank Painting)[1]	1,781.0	2,218.2	4,027.8	4,120.4	4,215.2	4,312.1	4,411.3	4,512.8	4,616.6	4,722.7	4,831.4
11	Amort of Tank Painting	756.7	765.0	772.7	790.4	808.6	827.2	846.3	865.7	885.6	906.0	926.8
12	Customer Accounting	411.5	416.0	420.2	429.9	439.7	449.9	460.2	470.8	481.6	492.7	504.0
13	Uncollectible Expense	307.2	295.3	437.8	475.0	479.9	488.8	497.9	507.2	516.8	526.6	536.6
14	Insurance	571.9	578.2	584.0	597.4	611.1	625.2	639.6	654.3	669.3	684.7	700.5
15	Pension & Benefits	2,048.3	2,097.5	2,143.6	2,192.9	2,243.3	2,294.9	2,347.7	2,401.7	2,457.0	2,513.5	2,571.3
16	Regulatory Expenses	343.7	347.5	351.0	359.0	367.3	375.7	384.4	393.2	402.3	411.5	421.0
17	Rents	727.4	735.4	742.8	759.8	777.3	795.2	813.5	832.2	851.3	870.9	890.9
18	Other Administrative & General	3,439.4	3,477.2	3,512.0	3,592.8	3,675.4	3,760.0	3,846.4	3,934.9	4,025.4	4,118.0	4,212.7
19	Service Company Costs (Mgmt Fee)	2,730.9	2,796.4	2,858.0	2,923.7	2,990.9	3,059.7	3,130.1	3,202.1	3,275.7	3,351.1	3,428.2
20	Citizens Acquisition Premium	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4
21	General Office Return on Rate Base	645.8	667.1	682.5	698.2	714.2	730.6	747.4	764.6	782.2	800.2	818.6
22	Return on and of Utility Plant Acq Adjustment	-	863.2	845.4	827.5	809.7	791.8	773.9	756.1	738.2	720.4	702.5
23	San Clemente Dam	7,900.0	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4
24	Purchased Water (Pure Water Monterey)[2]	-	6,944.0	7,066.1	7,191.9	7,321.5	7,455.0	7,592.5	7,734.1	7,879.9	8,030.1	8,184.8
25	Avoided Costs due to Desal Operations[3]	-	(2,023.5)	(2,466.6)	(2,513.3)	(2,561.0)	(2,609.6)	(2,659.1)	(2,709.5)	(2,760.9)	(2,813.3)	(2,866.6)
26	Subtotal O&M Expense	$ 36,739.0	$ 52,227.6	$ 56,725.3	$ 56,951.1	$ 58,035.3	$ 59,149.8	$ 60,291.5	$ 61,461.1	$ 62,659.1	$ 63,886.4	$ 65,143.6
27	General Taxes (Ad Valorem)[2]	2,136.4	3,095.2	3,157.1	3,220.2	3,284.6	3,350.3	3,417.3	3,485.7	3,555.4	3,626.5	3,699.0
28	General Taxes (Payroll, Franchise)	727.1	742.9	931.5	952.9	974.9	997.3	1,020.2	1,043.7	1,067.7	1,092.3	1,117.4
29	EBITDA	$ 26,630.8	$ 42,115.1	$ 45,712.2	$ 46,497.9	$ 47,319.5	$ 48,161.0	$ 49,022.9	$ 49,905.8	$ 50,810.3	$ 51,737.0	$ 52,686.7
30	Depreciation	8,877.7	9,227.7	12,328.6	12,699.9	13,082.3	13,476.3	13,882.0	14,299.9	14,730.4	15,173.7	15,630.4
31	EBIT	$ 17,753.1	$ 32,887.4	$ 33,383.6	$ 33,798.0	$ 34,237.2	$ 34,684.8	$ 35,140.9	$ 35,605.9	$ 36,079.9	$ 36,563.3	$ 37,056.3
32	Income Taxes	5,246.6	7,294.7	7,404.8	7,496.7	7,594.1	7,693.4	7,794.6	7,897.7	8,002.9	8,110.1	8,219.4
33	Net Income	$ 12,506.5	$ 25,592.7	$ 25,978.8	$ 26,301.3	$ 26,643.1	$ 26,991.4	$ 27,346.3	$ 27,708.1	$ 28,077.0	$ 28,453.2	$ 28,836.8
34	Annual Capital Additions	$ 14,000.0	$ 124,034.1	$ 14,852.6	$ 15,298.2	$ 15,757.1	$ 16,229.8	$ 16,716.7	$ 17,218.2	$ 17,734.8	$ 18,266.8	$ 18,814.8
35	Rate Base - Ending Year	219,157.4	336,303.0	341,377.2	345,614.8	350,106.0	354,682.9	359,347.3	364,101.8	368,949.1	373,892.0	378,933.2
36	Revenue Requirement (Base Bill)	$ 66,233.3	$ 98,180.8	$ 106,526.1	$ 107,622.2	$ 109,614.4	$ 111,658.5	$ 113,752.0	$ 115,896.2	$ 118,092.5	$ 120,342.2	$ 122,646.7
37	Debt Service (Desal SRF Financed Portion)		4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0
38	Debt Service (Desal Public Agency Financed Portion)		5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0
39	Total Revenue Requirement	$ 66,233.3	$ 108,680.8	$ 117,026.1	$ 118,122.2	$ 120,114.4	$ 122,158.5	$ 124,252.0	$ 126,396.2	$ 128,592.5	$ 130,842.2	$ 133,146.7

Values shown in $1,000s.

[1]Adjusted from baseline status quo projection to include O&M expenses beginning in 2021 associated with the Desalination Plant. Projection of Desal O&M expenses from MPWSP Model V.2.1 - 6.4 MGD.xlsx.

[2]Adjusted from baseline status quo projection to include O&M expenses beginning in 2021 associated with the Pure Water Monterey project.

[3]Adjusted from baseline status quo projection to reflect avoided operating expenses of wells and pumping beginning in 2021 due to desalination plant operations. Projection from MPWSP Model V.2.1 - 6.4 MGD.xlsx.

Exhibit 14 (Cont'd): Revenue Requirements Projection – Monterey District (Scenario A – CAW Status Quo)

Line	Description	Projected FY 2031	Projected FY 2032	Projected FY 2033	Projected FY 2034	Projected FY 2035	Projected FY 2036	Projected FY 2037	Projected FY 2038	Projected FY 2039	Projected FY 2040
	Operating Revenues (Excluding Surcharges)										
1	Metered	$ 124,678.9	$ 127,153.9	$ 129,689.5	$ 132,287.1	$ 134,948.3	$ 137,674.7	$ 140,468.2	$ 143,330.4	$ 146,263.1	$ 149,285.4
2	Other	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6	328.6
3	Total Operating Revenues	$ 125,007.4	$ 127,482.4	$ 130,018.1	$ 132,615.7	$ 135,276.9	$ 138,003.3	$ 140,796.7	$ 143,658.9	$ 146,591.7	$ 149,614.0
4	Operation & Maintenance Expenses										
5	Labor[1]	$ 15,965.9	$ 16,333.1	$ 16,708.8	$ 17,093.1	$ 17,486.2	$ 17,888.4	$ 18,299.8	$ 18,720.7	$ 19,151.3	$ 19,591.8
6	Purchased Water	466.3	484.0	502.1	520.7	539.7	559.1	578.9	599.2	620.0	641.3
7	Purchased Power[1]	13,058.2	13,358.5	13,665.8	13,980.1	14,301.6	14,630.5	14,967.1	15,311.3	15,663.5	16,023.7
8	Chemicals[1]	1,731.6	1,771.5	1,812.2	1,853.9	1,896.5	1,940.1	1,984.8	2,030.4	2,077.1	2,124.9
9	Operation Expense/Membrane[1]	1,671.5	1,709.9	1,749.2	1,789.5	1,830.6	1,872.7	1,915.8	1,959.9	2,004.9	2,051.1
10	Maintenance (excluding Tank Painting)[1]	4,942.5	5,056.2	5,172.5	5,291.4	5,413.1	5,537.6	5,665.0	5,795.3	5,928.6	6,064.9
11	Amort of Tank Painting	948.1	970.0	992.3	1,015.1	1,038.4	1,062.3	1,086.8	1,111.7	1,137.3	1,163.5
12	Customer Accounting	515.6	527.5	539.6	552.0	564.7	577.7	591.0	604.6	618.5	632.7
13	Uncollectible Expense	546.9	557.4	568.4	579.8	591.3	603.2	615.4	627.8	640.6	653.7
14	Insurance	716.6	733.1	749.9	767.2	784.8	802.9	821.3	840.2	859.6	879.3
15	Pension & Benefits	2,630.4	2,690.9	2,752.8	2,816.1	2,880.9	2,947.2	3,014.9	3,084.3	3,155.2	3,227.8
16	Regulatory Expenses	430.7	440.6	450.7	461.1	471.7	482.5	493.6	505.0	516.6	528.5
17	Rents	911.4	932.4	953.8	975.8	998.2	1,021.2	1,044.7	1,068.7	1,093.3	1,118.4
18	Other Administrative & General	4,309.6	4,408.7	4,510.1	4,613.8	4,720.0	4,828.5	4,939.6	5,053.2	5,169.4	5,288.3
19	Service Company Costs (Mgmt Fee)	3,507.0	3,587.7	3,670.2	3,754.6	3,841.0	3,929.3	4,019.7	4,112.1	4,206.7	4,303.5
20	Citizens Acquisition Premium	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4
21	General Office Return on Rate Base	837.4	856.7	876.4	896.6	917.2	938.3	959.9	981.9	1,004.5	1,027.6
22	Return on and of Utility Plant Acq Adjustment	684.7	666.8	648.9	631.1	613.2	595.4	577.5	559.7	541.8	523.9
23	San Clemente Dam	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,245.4	6,246.4
24	Purchased Water (Pure Water Monterey)[2]	8,344.2	8,508.3	8,677.4	8,851.6	9,030.9	9,215.7	9,406.0	9,602.0	9,803.8	10,011.8
25	Avoided Costs due to Desal Operations[3]	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)
26	Subtotal O&M Expense	$ 66,431.4	$ 67,806.0	$ 69,214.0	$ 70,656.1	$ 72,132.9	$ 73,645.4	$ 75,194.5	$ 76,780.9	$ 78,405.6	$ 80,070.5
27	General Taxes (Ad Valorem)[2]	3,773.0	3,848.5	3,925.4	4,004.0	4,084.0	4,165.7	4,249.0	4,334.0	4,420.7	4,509.1
28	General Taxes (Payroll, Franchise)	1,143.1	1,169.4	1,196.3	1,223.8	1,251.9	1,280.7	1,310.2	1,340.3	1,371.1	1,402.7
29	EBITDA	$ 53,659.9	$ 54,658.6	$ 55,682.3	$ 56,731.9	$ 57,808.0	$ 58,911.4	$ 60,043.1	$ 61,203.7	$ 62,394.3	$ 63,631.8
30	Depreciation	16,100.8	16,585.3	17,084.3	17,598.3	18,127.7	18,673.0	19,234.6	19,813.1	20,409.0	21,040.6
31	EBIT	$ 37,559.1	$ 38,073.3	$ 38,598.0	$ 39,133.6	$ 39,680.3	$ 40,238.5	$ 40,808.5	$ 41,390.6	$ 41,985.3	$ 42,591.2
32	Income Taxes	8,331.0	8,445.0	8,561.4	8,680.2	8,801.5	8,925.3	9,051.7	9,180.8	9,312.8	9,447.1
33	Net Income	$ 29,228.2	$ 29,628.3	$ 30,036.6	$ 30,453.4	$ 30,878.8	$ 31,313.2	$ 31,756.8	$ 32,209.8	$ 32,672.6	$ 33,144.1
34	Annual Capital Additions	$ 19,379.3	$ 19,960.7	$ 20,559.5	$ 21,176.3	$ 21,811.5	$ 22,465.9	$ 23,139.9	$ 23,834.1	$ 24,549.1	$ 25,285.6
35	Rate Base - Ending Year	384,075.6	389,333.7	394,699.4	400,175.9	405,766.3	411,474.2	417,302.9	423,256.1	429,337.4	435,533.0
36	Revenue Requirement (Base Bill)	$ 125,007.4	$ 127,482.4	$ 130,018.1	$ 132,615.7	$ 135,276.9	$ 138,003.3	$ 140,796.7	$ 143,658.9	$ 146,591.7	$ 149,614.0
37	Debt Service (Desal SRF Financed Portion)	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0
38	Debt Service (Desal Public Agency Financed Portion)	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0
39	Total Revenue Requirement	$ 135,507.4	$ 137,982.4	$ 140,518.1	$ 143,115.7	$ 145,776.9	$ 148,503.3	$ 151,296.7	$ 154,158.9	$ 157,091.7	$ 160,114.0

Values shown in $1,000s.

[1]Adjusted from baseline status quo projection to include O&M expenses beginning in 2021 associated with the Desalination Plant. Projection of Desal O&M expenses from MPWSP Model V.2.1 - 6.4 MGD.xlsx.

[2]Adjusted from baseline status quo projection to include O&M expenses beginning in 2021 associated with the Pure Water Monterey project.

[3]Adjusted from baseline status quo projection to reflect avoided operating expenses of wells and pumping beginning in 2021 due to desalination plant operations. Projection from MPWSP Model V.2.1 - 6.4 MGD.xlsx.

Exhibit 15: Revenue Requirements Projection – Monterey District Inside MPWMD Boundaries (Scenario A – CAW Status Quo)

Line	Description	Estimated FY 2020	Projected FY 2021	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Projected FY 2027	Projected FY 2028	Projected FY 2029	Projected FY 2030
	Operating Revenues (Excluding Surcharges)											
1	Metered	$ 62,970.0	$ 94,769.2	$ 103,047.7	$ 104,066.2	$ 105,978.9	$ 107,941.9	$ 109,952.7	$ 112,012.5	$ 114,122.5	$ 116,284.2	$ 118,498.9
2	Other	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9
3	Total Operating Revenues	$ 63,284.0	$ 95,083.1	$ 103,361.6	$ 104,380.2	$ 106,292.8	$ 108,255.8	$ 110,266.6	$ 112,326.4	$ 114,436.5	$ 116,598.2	$ 118,812.9
4	Operation & Maintenance Expenses											
5	Labor[1]	$ 8,548.4	$ 11,765.0	$ 12,595.0	$ 12,884.6	$ 13,181.0	$ 13,484.1	$ 13,794.3	$ 14,111.5	$ 14,436.1	$ 14,768.1	$ 15,107.8
6	Purchased Water	1,089.3	1,139.7	1,173.6	323.0	337.5	352.2	367.3	382.8	398.6	414.8	431.3
7	Purchased Power[1]	2,364.9	8,989.8	10,529.0	10,771.2	11,018.9	11,272.4	11,531.6	11,796.9	12,068.2	12,345.8	12,629.7
8	Chemicals[1]	355.6	1,205.7	1,394.2	1,426.3	1,459.1	1,492.7	1,527.0	1,562.1	1,598.1	1,634.8	1,672.4
9	Operation Expense/Membrane[1]	1,196.8	1,210.0	1,305.2	1,335.2	1,366.0	1,397.4	1,429.5	1,462.4	1,496.0	1,530.4	1,565.6
10	Maintenance (excluding Tank Painting)[1]	1,701.7	2,138.0	3,946.9	4,037.7	4,130.5	4,225.5	4,322.7	4,422.1	4,523.8	4,627.9	4,734.3
11	Amort of Tank Painting	723.0	731.0	738.3	755.2	772.6	790.4	808.6	827.2	846.2	865.7	885.6
12	Customer Accounting	393.2	397.5	401.5	410.7	420.2	429.8	439.7	449.8	460.2	470.7	481.6
13	Uncollectible Expense	293.5	282.2	424.0	460.9	465.4	474.0	482.7	491.7	500.9	510.3	519.9
14	Insurance	546.4	552.4	558.0	570.8	583.9	597.4	611.1	625.2	639.5	654.2	669.3
15	Pension & Benefits	1,957.1	2,004.1	2,048.1	2,095.3	2,143.4	2,192.7	2,243.2	2,294.8	2,347.6	2,401.5	2,456.8
16	Regulatory Expenses	328.4	332.0	335.3	343.0	350.9	359.0	367.3	375.7	384.3	393.2	402.2
17	Rents	695.0	702.7	709.7	726.0	742.7	759.8	777.3	795.1	813.4	832.1	851.3
18	Other Administrative & General	3,286.2	3,322.4	3,355.6	3,432.8	3,511.8	3,592.5	3,675.2	3,759.7	3,846.2	3,934.6	4,025.1
19	Service Company Costs (Mgmt Fee)	2,609.3	2,671.9	2,730.7	2,793.5	2,857.8	2,923.5	2,990.7	3,059.5	3,129.9	3,201.9	3,275.5
20	Citizens Acquisition Premium	848.8	848.8	848.8	848.8	848.8	848.8	848.8	848.8	848.8	848.8	848.8
21	General Office Return on Rate Base	617.0	637.4	652.1	667.1	682.4	698.1	714.2	730.6	747.4	764.6	782.2
22	Return on and of Utility Plant Acq Adjustment	-	824.8	807.7	790.7	773.6	756.5	739.5	722.4	705.4	688.3	671.2
23	San Clemente Dam	7,548.2	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3
24	Purchased Water (Pure Water Monterey)[2]	-	6,944.0	7,066.1	7,191.9	7,321.5	7,455.0	7,592.5	7,734.1	7,879.9	8,030.1	8,184.8
25	Avoided Costs due to Desal Operations[3]	-	(2,023.5)	(2,466.6)	(2,513.3)	(2,561.0)	(2,609.6)	(2,659.1)	(2,709.5)	(2,760.9)	(2,813.3)	(2,866.6)
26	Subtotal O&M Expense	$ 35,103.0	$ 50,643.1	$ 55,120.6	$ 55,318.8	$ 56,374.4	$ 57,459.6	$ 58,571.3	$ 59,710.2	$ 60,876.8	$ 62,071.9	$ 63,296.2
27	General Taxes (Ad Valorem)[2]	2,041.3	2,997.1	3,057.0	3,118.1	3,180.5	3,244.1	3,309.0	3,375.2	3,442.7	3,511.5	3,581.8
28	General Taxes (Payroll, Franchise)	694.7	709.8	900.1	920.8	942.0	963.6	985.8	1,008.5	1,031.7	1,055.4	1,079.7
29	EBITDA	$ 25,444.9	$ 40,733.1	$ 44,284.0	$ 45,022.4	$ 45,796.0	$ 46,588.5	$ 47,400.5	$ 48,232.6	$ 49,085.3	$ 49,959.3	$ 50,855.3
30	Depreciation	8,482.4	8,816.8	11,901.6	12,256.4	12,621.8	12,998.2	13,385.9	13,785.2	14,196.5	14,620.1	15,056.4
31	EBIT	$ 16,962.6	$ 31,916.4	$ 32,382.4	$ 32,766.1	$ 33,174.2	$ 33,590.3	$ 34,014.7	$ 34,447.4	$ 34,888.9	$ 35,339.3	$ 35,798.8
32	Income Taxes	5,013.0	7,079.4	7,182.7	7,267.8	7,358.4	7,450.7	7,544.8	7,640.8	7,738.7	7,838.6	7,940.5
33	Net Income	$ 11,949.6	$ 24,837.0	$ 25,199.6	$ 25,498.2	$ 25,815.8	$ 26,139.7	$ 26,469.9	$ 26,806.6	$ 27,150.2	$ 27,500.7	$ 27,858.3
34	Annual Capital Additions	$ 13,376.6	$ 123,392.0	$ 14,191.2	$ 14,617.0	$ 15,055.5	$ 15,507.1	$ 15,972.3	$ 16,451.5	$ 16,945.1	$ 17,453.4	$ 17,977.0
35	Rate Base - Ending Year	209,398.5	326,373.1	331,138.6	335,062.1	339,235.5	343,490.9	347,830.1	352,255.6	356,769.7	361,375.3	366,075.0
36	Revenue Requirement (Base Bill) - Inside District	$ 63,284.0	$ 95,083.1	$ 103,361.6	$ 104,380.2	$ 106,292.8	$ 108,255.8	$ 110,266.6	$ 112,326.4	$ 114,436.5	$ 116,598.2	$ 118,812.9
37	Debt Service (Desal SRF Financed Portion)		4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0
38	Debt Service (Desal Public Agency Financed Portion)		5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0
39	Total Revenue Requirement - Inside District	$ 63,284.0	$ 105,583.1	$ 113,861.6	$ 114,880.2	$ 116,792.8	$ 118,755.8	$ 120,766.6	$ 122,826.4	$ 124,936.5	$ 127,098.2	$ 129,312.9
40	Annual Increase in Revenue Requirement	0.0%	66.8%	7.8%	0.9%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%

Values shown in $1,000s and adjusted for the system inside MPWMD boundaries.

[1] Adjusted from baseline status quo projection to include O&M expenses beginning in 2021 associated with the Desalination Plant. Projection of Desal O&M expenses from MPWSP Model V.2.1 - 6.4 MGD.xlsx.

[2] Adjusted from baseline status quo projection to include O&M expenses beginning in 2021 associated with the Pure Water Monterey project.

[3] Adjusted from baseline status quo projection to reflect avoided operating expenses of wells and pumping beginning in 2021 due to desalination plant operations. Projection from MPWSP Model V.2.1 - 6.4 MGD.xlsx.

Exhibit 15 (Cont'd): Revenue Requirements Projection – Monterey District Inside MPWMD Boundaries (Scenario A – CAW Status Quo)

Line	Description	Projected FY 2031	Projected FY 2032	Projected FY 2033	Projected FY 2034	Projected FY 2035	Projected FY 2036	Projected FY 2037	Projected FY 2038	Projected FY 2039	Projected FY 2040
	Operating Revenues (Excluding Surcharges)										
1	Metered	$ 120,768.0	$ 123,149.5	$ 125,589.5	$ 128,089.5	$ 130,651.0	$ 133,275.6	$ 135,965.0	$ 138,720.8	$ 141,545.0	$ 144,454.5
2	Other	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9
3	Total Operating Revenues	$ 121,082.0	$ 123,463.4	$ 125,903.4	$ 128,403.4	$ 130,964.9	$ 133,589.5	$ 136,278.9	$ 139,034.8	$ 141,858.9	$ 144,768.5
4	Operation & Maintenance Expenses										
5	Labor[1]	$ 15,455.3	$ 15,810.8	$ 16,174.4	$ 16,546.4	$ 16,927.0	$ 17,316.3	$ 17,714.6	$ 18,122.0	$ 18,538.8	$ 18,965.2
6	Purchased Water	448.2	465.5	483.2	501.4	519.9	538.8	558.2	578.1	598.4	619.1
7	Purchased Power[1]	12,920.2	13,217.4	13,521.4	13,832.4	14,150.5	14,476.0	14,808.9	15,149.5	15,498.0	15,854.4
8	Chemicals[1]	1,710.9	1,750.2	1,790.5	1,831.7	1,873.8	1,916.9	1,961.0	2,006.1	2,052.2	2,099.4
9	Operation Expense/Membrane[1]	1,601.6	1,638.5	1,676.2	1,714.7	1,754.2	1,794.5	1,835.8	1,878.0	1,921.2	1,965.4
10	Maintenance (excluding Tank Painting)[1]	4,843.2	4,954.6	5,068.6	5,185.1	5,304.4	5,426.4	5,551.2	5,678.9	5,809.5	5,943.1
11	Amort of Tank Painting	905.9	926.8	948.1	969.9	992.2	1,015.0	1,038.4	1,062.2	1,086.7	1,111.7
12	Customer Accounting	492.7	504.0	515.6	527.4	539.6	552.0	564.7	577.7	590.9	604.5
13	Uncollectible Expense	529.8	539.9	550.5	561.4	572.6	584.0	595.7	607.7	620.0	632.5
14	Insurance	684.7	700.4	716.5	733.0	749.9	767.1	784.8	802.8	821.3	840.2
15	Pension & Benefits	2,513.3	2,571.1	2,630.2	2,690.7	2,752.6	2,815.9	2,880.7	2,946.9	3,014.7	3,084.1
16	Regulatory Expenses	411.5	420.9	430.6	440.5	450.7	461.0	471.6	482.5	493.6	504.9
17	Rents	870.9	890.9	911.4	932.3	953.8	975.7	998.2	1,021.1	1,044.6	1,068.6
18	Other Administrative & General	4,117.7	4,212.4	4,309.3	4,408.4	4,509.8	4,613.5	4,719.6	4,828.2	4,939.2	5,052.8
19	Service Company Costs (Mgmt Fee)	3,350.8	3,427.9	3,506.8	3,587.4	3,669.9	3,754.3	3,840.7	3,929.0	4,019.4	4,111.8
20	Citizens Acquisition Premium	848.8	848.8	848.8	848.8	848.8	848.8	848.8	848.8	848.8	848.8
21	General Office Return on Rate Base	800.2	818.6	837.4	856.6	876.3	896.5	917.1	938.2	959.8	981.9
22	Return on and of Utility Plant Acq Adjustment	654.2	637.1	620.0	603.0	585.9	568.9	551.8	534.7	517.7	500.6
23	San Clemente Dam	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3	5,967.3
24	Purchased Water (Pure Water Monterey)[2]	8,344.2	8,508.3	8,677.4	8,851.6	9,030.9	9,215.7	9,406.0	9,602.0	9,803.8	10,011.8
25	Avoided Costs due to Desal Operations[3]	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)	(2,921.0)
26	Subtotal O&M Expense	$ 64,550.3	$ 65,890.5	$ 67,263.2	$ 68,669.1	$ 70,109.0	$ 71,583.7	$ 73,094.0	$ 74,640.8	$ 76,224.9	$ 77,847.3
27	General Taxes (Ad Valorem)[2]	3,653.4	3,726.5	3,801.0	3,877.0	3,954.5	4,033.6	4,114.3	4,196.6	4,280.5	4,366.1
28	General Taxes (Payroll, Franchise)	1,104.5	1,129.9	1,155.9	1,182.5	1,209.7	1,237.5	1,265.9	1,295.1	1,324.8	1,355.3
29	EBITDA	$ 51,773.7	$ 52,716.6	$ 53,683.4	$ 54,674.8	$ 55,691.7	$ 56,734.7	$ 57,804.7	$ 58,902.4	$ 60,028.6	$ 61,199.7
30	Depreciation	15,505.8	15,968.8	16,445.6	16,936.7	17,442.5	17,963.5	18,500.1	19,052.9	19,622.2	20,225.7
31	EBIT	$ 36,267.9	$ 36,747.8	$ 37,237.8	$ 37,738.2	$ 38,249.2	$ 38,771.2	$ 39,304.5	$ 39,849.5	$ 40,406.4	$ 40,974.1
32	Income Taxes	8,044.6	8,151.0	8,259.7	8,370.7	8,484.0	8,599.8	8,718.1	8,839.0	8,962.5	9,088.4
33	Net Income	$ 28,223.3	$ 28,596.8	$ 28,978.1	$ 29,367.5	$ 29,765.2	$ 30,171.4	$ 30,586.4	$ 31,010.5	$ 31,443.9	$ 31,885.6
34	Annual Capital Additions	$ 18,516.3	$ 19,071.8	$ 19,644.0	$ 20,233.3	$ 20,840.3	$ 21,465.5	$ 22,109.5	$ 22,772.7	$ 23,455.9	$ 24,159.6
35	Rate Base - Ending Year	370,871.5	375,779.2	380,789.8	385,906.4	391,132.1	396,470.1	401,923.8	407,496.5	413,191.8	418,996.3
36	Revenue Requirement (Base Bill) - Inside District	$ 121,082.0	$ 123,463.4	$ 125,903.4	$ 128,403.4	$ 130,964.9	$ 133,589.5	$ 136,278.9	$ 139,034.8	$ 141,858.9	$ 144,768.5
37	Debt Service (Desal SRF Financed Portion)	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0
38	Debt Service (Desal Public Agency Financed Portion)	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0
39	Total Revenue Requirement - Inside District	$ 131,582.0	$ 133,963.4	$ 136,403.4	$ 138,903.4	$ 141,464.9	$ 144,089.5	$ 146,778.9	$ 149,534.8	$ 152,358.9	$ 155,268.5
40	Annual Increase in Revenue Requirement	1.8%	1.8%	1.8%	1.8%	1.8%	1.9%	1.9%	1.9%	1.9%	1.9%

Values shown in $1,000s and adjusted for the system inside MPWMD boundaries.

[1] Adjusted from baseline status quo projection to include O&M expenses beginning in 2021 associated with the Desalination Plant. Projection of Desal O&M expenses from MPWSP Model V.2.1 - 6.4 MGD.xlsx.

[2] Adjusted from baseline status quo projection to include O&M expenses beginning in 2021 associated with the Pure Water Monterey project.

[3] Adjusted from baseline status quo projection to reflect avoided operating expenses of wells and pumping beginning in 2021 due to desalination plant operations. Projection from MPWSP Model V.2.1 - 6.4 MGD.xlsx.

Exhibit 16: Typical Monthly Residential Water Bill Projection (Scenario A – CAW Status Quo)

Rate Component	Units	Current FY 2019	Proposed FY 2019	Projected FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Projected Rates														
Average Rate Increase				0.0%	66.8%	7.8%	0.9%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
Base Bill:														
Water Service Charge (5/8")	per month	$20.94	$21.08	$21.08	$35.17	$37.93	$38.27	$38.91	$39.56	$40.23	$40.92	$41.62	$42.34	$43.08
Water Usage Charges:														
Tier 1 (first 29.9 CGLs)	per 100 gals	$0.9125	$0.9187	$0.9188	$1.5329	$1.6531	$1.6678	$1.6956	$1.7241	$1.7533	$1.7832	$1.8138	$1.8452	$1.8774
Tier 2 (next 29.9 CGL)	per 100 gals	$1.3688	$1.3781	$1.3782	$2.2994	$2.4797	$2.5019	$2.5435	$2.5863	$2.6301	$2.6749	$2.7209	$2.7679	$2.8162
Tier 3 (next 44.9 CGL)	per 100 gals	$3.1939	$3.2155	$3.2157	$5.3651	$5.7858	$5.8375	$5.9347	$6.0345	$6.1367	$6.2413	$6.3485	$6.4584	$6.5709
Tier 4 (next 67.3 CGL)	per 100 gals	$5.9314	$5.9717	$5.9721	$9.9639	$10.7451	$10.8413	$11.0218	$11.2070	$11.3968	$11.5911	$11.7903	$11.9943	$12.2033
Tier 5 (over 172 CGLs)	per 100 gals	$7.3002	$7.3497	$7.3502	$12.2631	$13.2246	$13.3429	$13.5651	$13.7931	$14.0266	$14.2659	$14.5109	$14.7620	$15.0192
Surcharges:														
Conservation	per 100 gals	$0.0751	$0.0062	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063
Consolidated Expense Balancing Account (CEBA)	per 100 gals	$0.0827	$0.1733	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773
Low Income Rate Assistance (LIRA)	per month	$1.81	$1.8100	$1.81	$3.02	$3.26	$3.29	$3.34	$3.40	$3.45	$3.51	$3.57	$3.64	$3.70
Water Rev Adj Mech/Modified Cost Bal Acct (WRAM/MCBA)	per 100 gals	$0.2219	$0.2219	$0.2219	$0.2219	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
High Cost Fund	per month	$0.0000	$0.2936	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491
MPWMD User Fee	% of Base	8.325%	$0.0833	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%
Meter Based WRAM/MCBA (5/8")	per month	$10.08	$10.08	$10.08	$10.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:														
Commission Surcharge	% of Bill	1.40%	$0.01	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%
License Tax	% of Bill	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Franchise Fee	% of Bill	0.00%	$0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Typical Bill (37.91 CGLs/Mo):														
Base Bill:														
Water Service Charge (5/8")		$20.94	$21.08	$21.08	$35.17	$37.93	$38.27	$38.91	$39.56	$40.23	$40.92	$41.62	$42.34	$43.08
Water Usage Charges:														
Tier 1		$27.28	$27.47	$27.47	$45.83	$49.43	$49.87	$50.70	$51.55	$52.42	$53.32	$54.23	$55.17	$56.13
Tier 2		$10.96	$11.04	$11.04	$18.42	$19.86	$20.04	$20.37	$20.72	$21.07	$21.43	$21.79	$22.17	$22.56
Tier 3		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 4		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 5		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Surcharges:														
Conservation		$2.85	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24
CEBA		$3.14	$6.57	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72
LIRA		$1.81	$1.81	$1.81	$3.02	$3.26	$3.29	$3.34	$3.40	$3.45	$3.51	$3.57	$3.64	$3.70
WRAM/MCBA		$8.41	$8.41	$8.41	$8.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
High Cost Fund		$0.00	$0.29	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35
MPWMD User Fee		$4.93	$4.96	$4.96	$8.28	$8.93	$9.01	$9.16	$9.31	$9.47	$9.63	$9.79	$9.96	$10.14
Meter Based WRAM/MCBA (5/8")		$10.08	$10.08	$10.08	$10.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:														
Commission Surcharge		$1.20	$1.22	$1.22	$1.80	$1.65	$1.66	$1.69	$1.72	$1.74	$1.77	$1.80	$1.83	$1.86
License Tax		$1.71	$1.74	$1.74	$2.56	$2.36	$2.38	$2.41	$2.45	$2.49	$2.53	$2.57	$2.61	$2.66
Franchise Fee		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Bill Status Quo		**$93.31**	**$94.91**	**$95.13**	**$140.88**	**$130.72**	**$131.82**	**$133.89**	**$136.01**	**$138.19**	**$140.41**	**$142.70**	**$145.03**	**$147.43**
Total Bill Increase (%)				**0.2%**	**48.1%**	**-7.2%**	**0.8%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.7%**

Source for Current and Proposed Rates: Ch 10 in the 2019 General Rate Case, p.385 of 1015 of the Final Application Exhibits A, C-D.pdf.

Exhibit 16 (Cont'd): Typical Monthly Residential Water Bill Projection (Scenario A – CAW Status Quo)

Rate Component	Units	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040
Projected Rates											
Average Rate Increase		1.8%	1.8%	1.8%	1.8%	1.8%	1.9%	1.9%	1.9%	1.9%	1.9%
Base Bill:											
Water Service Charge (5/8")	per month	$43.83	$44.63	$45.44	$46.27	$47.13	$48.00	$48.90	$49.81	$50.75	$51.72
Water Usage Charges:											
Tier 1 (first 29.9 CGLs)	per 100 gals	$1.9103	$1.9449	$1.9803	$2.0166	$2.0538	$2.0919	$2.1310	$2.1710	$2.2120	$2.2542
Tier 2 (next 29.9 CGL)	per 100 gals	$2.8656	$2.9175	$2.9706	$3.0250	$3.0808	$3.1380	$3.1965	$3.2566	$3.3181	$3.3814
Tier 3 (next 44.9 CGL)	per 100 gals	$6.6862	$6.8072	$6.9312	$7.0583	$7.1884	$7.3218	$7.4585	$7.5985	$7.7420	$7.8898
Tier 4 (next 67.3 CGL)	per 100 gals	$12.4174	$12.6421	$12.8724	$13.1083	$13.3501	$13.5977	$13.8515	$14.1116	$14.3781	$14.6527
Tier 5 (over 172 CGLs)	per 100 gals	$15.2828	$15.5594	$15.8428	$16.1332	$16.4307	$16.7355	$17.0479	$17.3679	$17.6960	$18.0339
Surcharges:											
Conservation	per 100 gals	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063
Consolidated Expense Balancing Account (CEBA)	per 100 gals	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773
Low Income Rate Assistance (LIRA)	per month	$3.76	$3.83	$3.90	$3.97	$4.05	$4.12	$4.20	$4.28	$4.36	$4.44
Water Rev Adj Mech/Modified Cost Bal Acct (WRAM/MCBA)	per 100 gals	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
High Cost Fund	per month	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491
MPWMD User Fee	% of Base	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%
Meter Based WRAM/MCBA (5/8")	per month	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:											
Commission Surcharge	% of Bill	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%
License Tax	% of Bill	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Franchise Fee	% of Bill	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Typical Bill (37.91 CGLs/Mo):											
Base Bill:											
Water Service Charge (5/8")		$43.83	$44.63	$45.44	$46.27	$47.13	$48.00	$48.90	$49.81	$50.75	$51.72
Water Usage Charges:											
Tier 1		$57.12	$58.15	$59.21	$60.30	$61.41	$62.55	$63.72	$64.91	$66.14	$67.40
Tier 2		$22.95	$23.37	$23.79	$24.23	$24.68	$25.14	$25.60	$26.09	$26.58	$27.09
Tier 3		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 4		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 5		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Surcharges:											
Conservation		$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24
CEBA		$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72
LIRA		$3.76	$3.83	$3.90	$3.97	$4.05	$4.12	$4.20	$4.28	$4.36	$4.44
WRAM/MCBA		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
High Cost Fund		$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35
MPWMD User Fee		$10.32	$10.50	$10.69	$10.89	$11.09	$11.30	$11.51	$11.72	$11.94	$12.17
Meter Based WRAM/MCBA (5/8")		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:											
Commission Surcharge		$1.89	$1.92	$1.96	$1.99	$2.02	$2.06	$2.10	$2.13	$2.17	$2.21
License Tax		$2.70	$2.75	$2.79	$2.84	$2.89	$2.94	$2.99	$3.05	$3.10	$3.16
Franchise Fee		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Bill Status Quo		**$149.88**	**$152.46**	**$155.10**	**$157.80**	**$160.57**	**$163.41**	**$166.32**	**$169.30**	**$172.36**	**$175.50**
Total Bill Increase (%)		**1.7%**	**1.7%**	**1.7%**	**1.7%**	**1.8%**	**1.8%**	**1.8%**	**1.8%**	**1.8%**	**1.8%**

Source for Current and Proposed Rates: Ch 10 in the 2019 General Rate Case, p.385 of 1015 of the Final Application Exhibits A, C-D.pdf.

Exhibit 17: Revenue Requirement Adjustments MPWMD vs. CAW Ownership (Scenario B)

Line	Description	Projected FY 2021	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Projected FY 2027	Projected FY 2028	Projected FY 2029	Projected FY 2030
1	**Adjustments to CAW Cost Structure**										
2	Operating Expense Adjustments ($ in thousands)										
3	Amort of Tank Painting[1]	$ (765.0)	$ (772.7)	$ (790.4)	$ (808.6)	$ (827.2)	$ (846.3)	$ (865.7)	$ (885.6)	$ (906.0)	$ (926.8)
4	Regulatory Expenses[2]	(347.5)	(351.0)	(359.0)	(367.3)	(375.7)	(384.4)	(393.2)	(402.3)	(411.5)	(421.0)
5	Citizens Acquisition Premium[1]	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)
6	General Office Return on Rate Base[3]	(667.1)	(682.5)	(698.2)	(714.2)	(730.6)	(747.4)	(764.6)	(782.2)	(800.2)	(818.6)
7	Return on and of Utility Plant Acq Adjustment[1]	(863.2)	(845.4)	(827.5)	(809.7)	(791.8)	(773.9)	(756.1)	(738.2)	(720.4)	(702.5)
8	San Clemente Dam[1]	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)
9	General Taxes (Ad Valorem)[4]	(3,095.2)	(3,157.1)	(3,220.2)	(3,284.6)	(3,350.3)	(3,417.3)	(3,485.7)	(3,555.4)	(3,626.5)	(3,699.0)
10	Payroll Taxes: FICA-to-PERS Adjustment[5]	171.1	174.8	178.9	183.0	187.2	191.5	195.9	200.4	205.0	209.7
11	Adjustment to Operations[5,6]	(3,020.2)	(3,086.7)	(3,157.7)	(3,230.3)	(3,304.6)	(3,380.6)	(3,458.4)	(3,537.9)	(3,619.3)	(3,702.5)
12	CAW General Office Allocation[3]	(4,746.4)	(4,793.8)	(4,904.1)	(5,016.9)	(5,132.3)	(5,250.3)	(5,371.1)	(5,494.6)	(5,621.0)	(5,750.3)
13	Service Company Costs (Mgmt Fee)[3]	(2,796.4)	(2,858.0)	(2,923.7)	(2,990.9)	(3,059.7)	(3,130.1)	(3,202.1)	(3,275.7)	(3,351.1)	(3,428.2)
14	Operating Expense Adjustments	$ (23,263.8)	$ (23,506.0)	$ (23,835.8)	$ (24,173.4)	$ (24,519.0)	$ (24,872.7)	$ (25,234.8)	$ (25,605.4)	$ (25,984.7)	$ (26,373.0)
15	Adjusted for Inside-District Systems[7]	(22,267.6)	(22,499.8)	(22,815.7)	(23,139.1)	(23,470.1)	(23,808.9)	(24,155.8)	(24,510.8)	(24,874.2)	(25,246.1)
16	Capital Expense Adjustments[8]										
17	ROR on Rate Base	$ (25,592.7)	$ (25,978.8)	$ (26,301.3)	$ (26,643.1)	$ (26,991.4)	$ (27,346.3)	$ (27,708.1)	$ (28,077.0)	$ (28,453.2)	$ (28,836.8)
18	Depreciation Expense Recovery	(9,227.7)	(12,328.6)	(12,699.9)	(13,082.3)	(13,476.3)	(13,882.0)	(14,299.9)	(14,730.4)	(15,173.7)	(15,630.4)
19	Gross Up for Taxes	(7,294.7)	(7,404.8)	(7,496.7)	(7,594.1)	(7,693.4)	(7,794.6)	(7,897.7)	(8,002.9)	(8,110.1)	(8,219.4)
20	Capital Revenue Requirement Deductions	$ (42,115.1)	$ (45,712.2)	$ (46,497.9)	$ (47,319.5)	$ (48,161.0)	$ (49,022.9)	$ (49,905.8)	$ (50,810.3)	$ (51,737.0)	$ (52,686.7)
21	Adjusted for Inside-District Systems[7]	(40,733.1)	(44,284.0)	(45,022.4)	(45,796.0)	(46,588.5)	(47,400.5)	(48,232.6)	(49,085.3)	(49,959.3)	(50,855.3)
22	Total Estimated Deductions (Adjusted)	$ (63,000.7)	$ (66,783.7)	$ (67,838.1)	$ (68,935.0)	$ (70,058.6)	$ (71,209.5)	$ (72,388.4)	$ (73,596.1)	$ (74,833.5)	$ (76,101.3)
23	**Adjustments to District Cost Structure**										
24	District Administrative Costs	$ 3,934.6	$ 4,021.2	$ 4,113.7	$ 4,208.3	$ 4,305.1	$ 4,404.1	$ 4,505.4	$ 4,609.0	$ 4,715.0	$ 4,823.5
25	Annual Capital Expenditures (Paygo)[9]	13,777.9	14,191.2	14,617.0	15,055.5	15,507.1	15,972.3	16,451.5	16,945.1	17,453.4	17,977.0
26	Reduction for Capitalized Labor[5]	(831.9)	$ (850.2)	$ (869.8)	$ (889.8)	$ (910.3)	$ (931.2)	$ (952.6)	$ (974.5)	$ (996.9)	$ (1,019.9)
27	Debt Service (Acquistion & Transition Cost)	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2
28	**Total Net Adjustment Under District Ownership**	$ (12,564.9)	$ (15,866.4)	$ (16,422.1)	$ (17,005.9)	$ (17,601.5)	$ (18,209.0)	$ (18,828.9)	$ (19,461.4)	$ (20,106.8)	$ (20,765.5)

[1]Amortizations of CAW costs are excluded in District Ownership scenarios.

[2]Regulatory expense is an avoided cost under District Ownership scenarios.

[3]General office expenses for CAW replaced with District general office expenses.

[4]Ad Valorem tax expense is an avoided cost under District Ownership scenarios.

[5]Adjustment provided by MPWMD.

[6]Adjustment to operations include personnel, pension & benefits, and customer accounting, and insurance adjustments.

[7]Adjustment for portion inside MPWMD. Assumed 95.5% based on % of water delivery to inside MPWMD customers compared to total water delivered, except the desal facilities which we assume are 100% associated with inside MPWMD.

[8]CAW capital cost recovery calculated using the Utility Basis approach replaced with District capital revenue requirement based on cash needs.

[9]Assumed annual capital expenditure needs under District ownership.

Exhibit 17 (Cont'd): Revenue Requirement Adjustments MPWMD vs. CAW Ownership (Scenario B)

Line	Description	Projected FY 2031	Projected FY 2032	Projected FY 2033	Projected FY 2034	Projected FY 2035	Projected FY 2036	Projected FY 2037	Projected FY 2038	Projected FY 2039	Projected FY 2040
1	**Adjustments to CAW Cost Structure**										
2	Operating Expense Adjustments ($ in thousands)										
3	Amort of Tank Painting[1]	$ (948.1)	$ (970.0)	$ (992.3)	$ (1,015.1)	$ (1,038.4)	$ (1,062.3)	$ (1,086.8)	$ (1,111.7)	$ (1,137.3)	$ (1,163.5)
4	Regulatory Expenses[2]	(430.7)	(440.6)	(450.7)	(461.1)	(471.7)	(482.5)	(493.6)	(505.0)	(516.6)	(528.5)
5	Citizens Acquisition Premium[1]	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)
6	General Office Return on Rate Base[3]	(837.4)	(856.7)	(876.4)	(896.6)	(917.2)	(938.3)	(959.9)	(981.9)	(1,004.5)	(1,027.6)
7	Return on and of Utility Plant Acq Adjustment[1]	(684.7)	(666.8)	(648.9)	(631.1)	(613.2)	(595.4)	(577.5)	(559.7)	(541.8)	(523.9)
8	San Clemente Dam[1]	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,246.4)
9	General Taxes (Ad Valorem)[4]	(3,773.0)	(3,848.5)	(3,925.4)	(4,004.0)	(4,084.0)	(4,165.7)	(4,249.0)	(4,334.0)	(4,420.7)	(4,509.1)
10	Payroll Taxes: FICA-to-PERS Adjustment[5]	214.5	219.5	224.5	229.7	235.0	240.4	245.9	251.6	257.4	263.3
11	Adjustment to Operations[5,6]	(3,787.7)	(3,874.8)	(3,963.9)	(4,055.1)	(4,148.3)	(4,243.8)	(4,341.4)	(4,441.2)	(4,543.4)	(4,647.9)
12	CAW General Office Allocation[3]	(5,882.5)	(6,017.8)	(6,156.2)	(6,297.8)	(6,442.7)	(6,590.9)	(6,742.5)	(6,897.5)	(7,056.2)	(7,218.5)
13	Service Company Costs (Mgmt Fee)[3]	(3,507.0)	(3,587.7)	(3,670.2)	(3,754.6)	(3,841.0)	(3,929.3)	(4,019.7)	(4,112.1)	(4,206.7)	(4,303.5)
14	Operating Expense Adjustments	$ (26,770.4)	$ (27,177.1)	$ (27,593.4)	$ (28,019.4)	$ (28,455.4)	$ (28,901.6)	$ (29,358.2)	$ (29,825.4)	$ (30,303.6)	$ (30,793.9)
15	Adjusted for Inside-District Systems[7]	(25,626.7)	(26,016.3)	(26,415.0)	(26,823.0)	(27,240.6)	(27,668.0)	(28,105.4)	(28,552.9)	(29,010.9)	(29,480.5)
16	Capital Expense Adjustments[8]										
17	ROR on Rate Base	$ (29,228.2)	$ (29,628.3)	$ (30,036.6)	$ (30,453.4)	$ (30,878.8)	$ (31,313.2)	$ (31,756.8)	$ (32,209.8)	$ (32,672.6)	$ (33,144.1)
18	Depreciation Expense Recovery	(16,100.8)	(16,585.3)	(17,084.3)	(17,598.3)	(18,127.7)	(18,673.0)	(19,234.6)	(19,813.1)	(20,409.0)	(21,040.6)
19	Gross Up for Taxes	(8,331.0)	(8,445.0)	(8,561.4)	(8,680.2)	(8,801.5)	(8,925.3)	(9,051.7)	(9,180.8)	(9,312.8)	(9,447.1)
20	Capital Revenue Requirement Deductions	$ (53,659.9)	$ (54,658.6)	$ (55,682.3)	$ (56,731.9)	$ (57,808.0)	$ (58,911.4)	$ (60,043.1)	$ (61,203.7)	$ (62,394.3)	$ (63,631.8)
21	Adjusted for Inside-District Systems[7]	(51,773.7)	(52,716.6)	(53,683.4)	(54,674.8)	(55,691.7)	(56,734.7)	(57,804.7)	(58,902.4)	(60,028.6)	(61,199.7)
22	Total Estimated Deductions (Adjusted)	$ (77,400.5)	$ (78,732.9)	$ (80,098.4)	$ (81,497.9)	$ (82,932.3)	$ (84,402.7)	$ (85,910.0)	$ (87,455.3)	$ (89,039.5)	$ (90,680.3)
23	**Adjustments to District Cost Structure**										
24	District Administrative Costs	$ 4,934.4	$ 5,047.9	$ 5,164.0	$ 5,282.8	$ 5,404.3	$ 5,528.6	$ 5,655.7	$ 5,785.8	$ 5,918.9	$ 6,055.0
25	Annual Capital Expenditures (Paygo)[9]	18,516.3	19,071.8	19,644.0	20,233.3	20,840.3	21,465.5	22,109.5	22,772.7	23,455.9	24,159.6
26	Reduction for Capitalized Labor[5]	$ (1,043.3)	$ (1,067.3)	$ (1,091.9)	$ (1,117.0)	$ (1,142.7)	$ (1,168.9)	$ (1,195.8)	$ (1,223.3)	$ (1,251.5)	$ (1,280.3)
27	Debt Service (Acquistion & Transition Cost)	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2
28	**Total Net Adjustment Under District Ownership**	$ (21,437.8)	$ (22,125.3)	$ (22,827.1)	$ (23,543.6)	$ (24,275.2)	$ (25,022.4)	$ (25,785.4)	$ (26,564.8)	$ (27,361.0)	$ (28,190.7)

[1]Amortizations of CAW costs are excluded in District Ownership scenarios.

[2]Regulatory expense is an avoided cost under District Ownership scenarios.

[3]General office expenses for CAW replaced with District general office expenses.

[4]Ad Valorem tax expense is an avoided cost under District Ownership scenarios.

[5]Adjustment provided by MPWMD.

[6]Adjustment to operations include personnel, pension & benefits, and customer accounting, and insurance adjustments.

[7]Adjustment for portion inside MPWMD. Assumed 95.5% based on % of water delivery to inside MPWMD customers compared to total water delivered, except the desal facilities which we assume are 100% associated with inside MPWMD.

[8]CAW capital cost recovery calculated using the Utility Basis approach replaced with District capital revenue requirement based on cash needs.

[9]Assumed annual capital expenditure needs under District ownership.

Exhibit 18: Revenue Requirements Projection (Scenario B – MPWMD Ownership with District Staff Operations)

Line	Description	Projected FY 2021	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Projected FY 2027	Projected FY 2028	Projected FY 2029	Projected FY 2030
1	Revenues	$ 93,018.2	$ 100,286.3	$ 98,486.4	$ 100,242.1	$ 101,622.5	$ 103,037.0	$ 104,488.6	$ 105,978.1	$ 107,506.5	$ 109,075.0
2	Operating Expenses	$ 54,350.0	$ 59,077.6	$ 59,357.7	$ 60,496.8	$ 61,667.3	$ 62,866.1	$ 64,093.8	$ 65,351.1	$ 66,638.8	$ 67,957.6
3	Less Deductions (Ln 15)	(22,267.6)	(22,499.8)	(22,815.7)	(23,139.1)	(23,470.1)	(23,808.9)	(24,155.8)	(24,510.8)	(24,874.2)	(25,246.1)
4	Add: District Adminstrative Costs (Ln 24)	3,934.6	4,021.2	4,113.7	4,208.3	4,305.1	4,404.1	4,505.4	4,609.0	4,715.0	4,823.5
5	Adjusted Operating Expenses	$ 36,017.0	$ 40,599.1	$ 40,655.7	$ 41,566.1	$ 42,502.3	$ 43,461.2	$ 44,443.4	$ 45,449.4	$ 46,479.7	$ 47,535.0
6	Debt Service										
7	Debt Service (Acquistion & Transition Cost)	$ 33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2
8	Debt Service (Desal SRF Financed Portion)	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0
9	Debt Service (Desal Public Agency Financed Portion)	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0
10	Total Debt Service	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2
11	Other Revenue Requirements										
12	Capital Expenditures (Net of Capitalized Labor)	$ 12,946.0	$ 13,341.0	$ 13,747.2	$ 14,165.7	$ 14,596.9	$ 15,041.2	$ 15,498.9	$ 15,970.5	$ 16,456.5	$ 16,957.2
13	Working Capital (Incremental)	-	2,291.0	28.3	455.2	468.1	479.5	491.1	503.0	515.2	527.7
14	Total Revenue Requirements	$ 93,018.2	$ 100,286.3	$ 98,486.4	$ 100,242.1	$ 101,622.5	$ 103,037.0	$ 104,488.6	$ 105,978.1	$ 107,506.5	$ 109,075.0
15	YOY % Change in Revenue Requirements	47.0%	7.8%	-1.8%	1.8%	1.4%	1.4%	1.4%	1.4%	1.4%	1.5%
16	Beginning Cash Balance	$ 18,008.5	$ 18,008.5	$ 20,299.5	$ 20,327.9	$ 20,783.0	$ 21,251.2	$ 21,730.6	$ 22,221.7	$ 22,724.7	$ 23,239.9
17	Revenues Over (Under) Expenditures	-	2,291.0	28.3	455.2	468.1	479.5	491.1	503.0	515.2	527.7
18	Ending Cash Balance	$ 18,008.5	$ 20,299.5	$ 20,327.9	$ 20,783.0	$ 21,251.2	$ 21,730.6	$ 22,221.7	$ 22,724.7	$ 23,239.9	$ 23,767.5
19	Ending Cash Balance (Days of O&M)	180	180	180	180	180	180	180	180	180	180
20	DSC (All-In)	1.29	1.35	1.31	1.33	1.34	1.35	1.36	1.37	1.39	1.40
21	Revenue Requirements - District Ownership	$ 93,018.2	$ 100,286.3	$ 98,486.4	$ 100,242.1	$ 101,622.5	$ 103,037.0	$ 104,488.6	$ 105,978.1	$ 107,506.5	$ 109,075.0
22	Revenue Requirements - CAW Ownership	$ 105,583.1	$ 113,861.6	$ 114,880.2	$ 116,792.8	$ 118,755.8	$ 120,766.6	$ 122,826.4	$ 124,936.5	$ 127,098.2	$ 129,312.9
23	Difference - Net Cost (Savings)	(12,564.9)	(13,575.3)	(16,393.7)	(16,550.7)	(17,133.3)	(17,729.6)	(18,337.8)	(18,958.4)	(19,591.6)	(20,237.9)
24	Financing Assumptions:										
25	Acquisition Cost (in $ thousands)	$ 513,384									
26	Transition Cost	9,500									
27	Initial 180 Day Cash Reserve (Debt Funded)	18,009									
28	Total Financing	$ 540,893									
29	Debt Service Reserve	33,600	1 yr of DS								
30	Financing Including Debt Service Reserve	574,493									
31	Interest Rate	4.0%									
32	Term	30 yrs									
33	Issuance Cost	1.00%									

Exhibit 18 (Cont'd): Revenue Requirements Projection (Scenario B – MPWMD Ownership with District Staff Operations)

Line	Description	Projected FY 2031	Projected FY 2032	Projected FY 2033	Projected FY 2034	Projected FY 2035	Projected FY 2036	Projected FY 2037	Projected FY 2038	Projected FY 2039	Projected FY 2040
1	Revenues	$ 110,684.6	$ 112,419.4	$ 114,171.7	$ 115,969.5	$ 117,813.9	$ 119,706.4	$ 121,648.1	$ 123,640.3	$ 125,684.4	$ 127,780.3
2	Operating Expenses	$ 69,308.2	$ 70,746.8	$ 72,220.1	$ 73,728.6	$ 75,273.2	$ 76,854.8	$ 78,474.2	$ 80,132.4	$ 81,830.3	$ 83,568.7
3	Less Deductions (Ln 15)	(25,626.7)	(26,016.3)	(26,415.0)	(26,823.0)	(27,240.6)	(27,668.0)	(28,105.4)	(28,552.9)	(29,010.9)	(29,480.5)
4	Add: District Adminstrative Costs (Ln 24)	4,934.4	5,047.9	5,164.0	5,282.8	5,404.3	5,528.6	5,655.7	5,785.8	5,918.9	6,055.0
5	Adjusted Operating Expenses	$ 48,615.9	$ 49,778.4	$ 50,969.1	$ 52,188.3	$ 53,436.9	$ 54,715.4	$ 56,024.6	$ 57,365.3	$ 58,738.3	$ 60,143.3
6	Debt Service										
7	Debt Service (Acquistion & Transition Cost)	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2	33,555.2
8	Debt Service (Desal SRF Financed Portion)	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0
9	Debt Service (Desal Public Agency Financed Portion)	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0
10	Total Debt Service	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2	$ 44,055.2
11	Other Revenue Requirements										
12	Capital Expenditures (Net of Capitalized Labor)	$ 17,473.0	$ 18,004.5	$ 18,552.1	$ 19,116.3	$ 19,697.6	$ 20,296.5	$ 20,913.6	$ 21,549.4	$ 22,204.5	$ 22,879.3
13	Working Capital (Incremental)	540.4	581.3	595.3	609.6	624.3	639.3	654.6	670.4	686.5	702.5
14	Total Revenue Requirements	$ 110,684.6	$ 112,419.4	$ 114,171.7	$ 115,969.5	$ 117,813.9	$ 119,706.4	$ 121,648.1	$ 123,640.3	$ 125,684.4	$ 127,780.3
15	YOY % Change in Revenue Requirements	1.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.7%	1.7%
16	Beginning Cash Balance	$ 23,767.5	$ 24,308.0	$ 24,889.2	$ 25,484.5	$ 26,094.2	$ 26,718.4	$ 27,357.7	$ 28,012.3	$ 28,682.7	$ 29,369.1
17	Revenues Over (Under) Expenditures	540.4	581.3	595.3	609.6	624.3	639.3	654.6	670.4	686.5	702.5
18	Ending Cash Balance	$ 24,308.0	$ 24,889.2	$ 25,484.5	$ 26,094.2	$ 26,718.4	$ 27,357.7	$ 28,012.3	$ 28,682.7	$ 29,369.1	$ 30,071.6
19	Ending Cash Balance (Days of O&M)	180	180	180	180	180	180	180	180	180	180
20	DSC (All-In)	1.41	1.42	1.43	1.45	1.46	1.48	1.49	1.50	1.52	1.54
21	Revenue Requirements - District Ownership	$ 110,684.6	$ 112,419.4	$ 114,171.7	$ 115,969.5	$ 117,813.9	$ 119,706.4	$ 121,648.1	$ 123,640.3	$ 125,684.4	$ 127,780.3
22	Revenue Requirements - CAW Ownership	$ 131,582.0	$ 133,963.4	$ 136,403.4	$ 138,903.4	$ 141,464.9	$ 144,089.5	$ 146,778.9	$ 149,534.8	$ 152,358.9	$ 155,268.5
23	Difference - Net Cost (Savings)	(20,897.4)	(21,544.0)	(22,231.7)	(22,934.0)	(23,651.0)	(24,383.1)	(25,130.8)	(25,894.5)	(26,674.5)	(27,488.2)

Values shown in $1,000s.

Exhibit 19: Typical Monthly Residential Water Bill Projection (Scenario B – MPWMD Ownership with District Staff Operations)

Rate Component	Units	Current FY 2019	Proposed FY 2019	Projected FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Projected Rates														
Average Rate Increase				0.0%	47.0%	7.8%	-1.8%	1.8%	1.4%	1.4%	1.4%	1.4%	1.4%	1.5%
Base Bill:														
Water Service Charge (5/8")	per month	$20.94	$21.08	$21.08	$30.99	$33.41	$32.81	$33.39	$33.85	$34.32	$34.81	$35.30	$35.81	$36.34
Water Usage Charges:														
Tier 1 (first 29.9 CGLs)	per 100 gals	$0.9125	$0.9187	$0.9188	$1.3504	$1.4560	$1.4298	$1.4553	$1.4754	$1.4959	$1.5170	$1.5386	$1.5608	$1.5836
Tier 2 (next 29.9 CGL)	per 100 gals	$1.3688	$1.3781	$1.3782	$2.0257	$2.1840	$2.1448	$2.1831	$2.2131	$2.2439	$2.2755	$2.3080	$2.3413	$2.3754
Tier 3 (next 44.9 CGL)	per 100 gals	$3.1939	$3.2155	$3.2157	$4.7266	$5.0960	$5.0045	$5.0937	$5.1639	$5.2357	$5.3095	$5.3852	$5.4629	$5.5426
Tier 4 (next 67.3 CGL)	per 100 gals	$5.9314	$5.9717	$5.9721	$8.7781	$9.4640	$9.2942	$9.4599	$9.5901	$9.7236	$9.8606	$10.0012	$10.1454	$10.2934
Tier 5 (over 172 CGLs)	per 100 gals	$7.3002	$7.3497	$7.3502	$10.8037	$11.6479	$11.4389	$11.6428	$11.8031	$11.9674	$12.1360	$12.3090	$12.4865	$12.6687
Surcharges:														
Conservation	per 100 gals	$0.0751	$0.0062	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063
Consolidated Expense Balancing Account (CEBA)	per 100 gals	$0.0827	$0.1733	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773
Low Income Rate Assistance (LIRA)	per month	$1.81	$1.8100	$1.81	$2.66	$2.87	$2.82	$2.87	$2.91	$2.95	$2.99	$3.03	$3.08	$3.12
Water Rev Adj Mech/Modified Cost Bal Acct (WRAM/MCBA)	per 100 gals	$0.2219	$0.2219	$0.2219	$0.2219	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
High Cost Fund	per month	$0.0000	$0.2936	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491
MPWMD User Fee	% of Base	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%
Meter Based WRAM/MCBA (5/8")	per month	$10.08	$10.08	$10.08	$10.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:														
Commission Surcharge	% of Bill	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%
License Tax	% of Bill	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Franchise Fee	% of Bill	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Typical Bill (37.91 CGLs/Mo):														
Base Bill:														
Water Service Charge (5/8")		$20.94	$21.08	$21.08	$30.99	$33.41	$32.81	$33.39	$33.85	$34.32	$34.81	$35.30	$35.81	$36.34
Water Usage Charges:														
Tier 1		$27.28	$27.47	$27.47	$40.38	$43.53	$42.75	$43.51	$44.11	$44.73	$45.36	$46.00	$46.67	$47.35
Tier 2		$10.96	$11.04	$11.04	$16.23	$17.49	$17.18	$17.49	$17.73	$17.97	$18.23	$18.49	$18.75	$19.03
Tier 3		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 4		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 5		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Surcharges:														
Conservation		$2.85	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24
CEBA		$3.14	$6.57	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72
LIRA		$1.81	$1.81	$1.81	$2.66	$2.87	$2.82	$2.87	$2.91	$2.95	$2.99	$3.03	$3.08	$3.12
WRAM/MCBA		$8.41	$8.41	$8.41	$8.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
High Cost Fund		$0.00	$0.29	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35
MPWMD User Fee		$4.93	$4.96	$4.96	$7.29	$7.86	$7.72	$7.86	$7.97	$8.08	$8.19	$8.31	$8.43	$8.55
Meter Based WRAM/MCBA (5/8")		$10.08	$10.08	$10.08	$10.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:														
Commission Surcharge		$1.20	$1.22	$1.22	$1.62	$1.46	$1.44	$1.46	$1.48	$1.50	$1.52	$1.54	$1.56	$1.58
License Tax		$1.71	$1.74	$1.74	$2.32	$2.09	$2.06	$2.09	$2.12	$2.15	$2.17	$2.20	$2.23	$2.26
Franchise Fee		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Bill - Public Ownership		**$93.31**	**$94.91**	**$95.13**	**$127.29**	**$116.03**	**$114.09**	**$115.99**	**$117.48**	**$119.01**	**$120.58**	**$122.19**	**$123.84**	**$125.54**
Total Bill Increase (%)				**0.2%**	**33.8%**	**-8.8%**	**-1.7%**	**1.7%**	**1.3%**	**1.3%**	**1.3%**	**1.3%**	**1.4%**	**1.4%**
Total Bill - Status Quo		**$93.31**	**$94.91**	**$95.13**	**$140.88**	**$130.72**	**$131.82**	**$133.89**	**$136.01**	**$138.19**	**$140.41**	**$142.70**	**$145.03**	**$147.43**
Total Bill Increase (%)				**0.2%**	**48.1%**	**-7.2%**	**0.8%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.7%**

Source for Current and Proposed Rates: Ch 10 in the 2019 General Rate Case, p.385 of 1015 of the Final Application Exhibits A, C-D.pdf.

Exhibit 19 (Cont'd): Typical Monthly Residential Water Bill Projection (Scenario B – MPWMD Ownership with District Staff Operations)

Rate Component	Units	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040
Projected Rates											
Average Rate Increase		1.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.7%	1.7%
Base Bill:											
Water Service Charge (5/8")	per month	$36.87	$37.45	$38.03	$38.63	$39.25	$39.88	$40.52	$41.19	$41.87	$42.57
Water Usage Charges:											
Tier 1 (first 29.9 CGLs)	per 100 gals	$1.6069	$1.6321	$1.6576	$1.6837	$1.7104	$1.7379	$1.7661	$1.7950	$1.8247	$1.8551
Tier 2 (next 29.9 CGL)	per 100 gals	$2.4105	$2.4483	$2.4864	$2.5256	$2.5657	$2.6070	$2.6492	$2.6926	$2.7372	$2.7828
Tier 3 (next 44.9 CGL)	per 100 gals	$5.6243	$5.7125	$5.8015	$5.8929	$5.9866	$6.0828	$6.1815	$6.2827	$6.3866	$6.4931
Tier 4 (next 67.3 CGL)	per 100 gals	$10.4453	$10.6090	$10.7744	$10.9441	$11.1181	$11.2967	$11.4799	$11.6680	$11.8609	$12.0586
Tier 5 (over 172 CGLs)	per 100 gals	$12.8556	$13.0571	$13.2606	$13.4695	$13.6837	$13.9035	$14.1290	$14.3604	$14.5978	$14.8412
Surcharges:											
Conservation	per 100 gals	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063
Consolidated Expense Balancing Account (CEBA)	per 100 gals	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773
Low Income Rate Assistance (LIRA)	per month	$3.17	$3.22	$3.27	$3.32	$3.37	$3.42	$3.48	$3.54	$3.59	$3.65
Water Rev Adj Mech/Modified Cost Bal Acct (WRAM/MCBA)	per 100 gals	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
High Cost Fund	per month	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491
MPWMD User Fee	% of Base	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%
Meter Based WRAM/MCBA (5/8")	per month	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:											
Commission Surcharge	% of Bill	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%
License Tax	% of Bill	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Franchise Fee	% of Bill	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Typical Bill (37.91 CGLs/Mo):											
Base Bill:											
Water Service Charge (5/8")		$36.87	$37.45	$38.03	$38.63	$39.25	$39.88	$40.52	$41.19	$41.87	$42.57
Water Usage Charges:											
Tier 1		$48.05	$48.80	$49.56	$50.34	$51.14	$51.96	$52.81	$53.67	$54.56	$55.47
Tier 2		$19.31	$19.61	$19.92	$20.23	$20.55	$20.88	$21.22	$21.57	$21.92	$22.29
Tier 3		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 4		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 5		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Surcharges:											
Conservation		$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24
CEBA		$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72
LIRA		$3.17	$3.22	$3.27	$3.32	$3.37	$3.42	$3.48	$3.54	$3.59	$3.65
WRAM/MCBA		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
High Cost Fund		$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35
MPWMD User Fee		$8.68	$8.81	$8.95	$9.09	$9.24	$9.38	$9.54	$9.69	$9.85	$10.02
Meter Based WRAM/MCBA (5/8")		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:											
Commission Surcharge		$1.61	$1.63	$1.65	$1.68	$1.70	$1.73	$1.75	$1.78	$1.81	$1.84
License Tax		$2.29	$2.33	$2.36	$2.40	$2.43	$2.47	$2.51	$2.55	$2.59	$2.63
Franchise Fee		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Bill - Public Ownership		**$127.28**	**$129.16**	**$131.05**	**$133.00**	**$134.99**	**$137.04**	**$139.14**	**$141.29**	**$143.50**	**$145.77**
Total Bill Increase (%)		**1.4%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.6%**	**1.6%**
Total Bill - Status Quo		**$149.88**	**$152.46**	**$155.10**	**$157.80**	**$160.57**	**$163.41**	**$166.32**	**$169.30**	**$172.36**	**$175.50**
Total Bill Increase (%)		**1.7%**	**1.7%**	**1.7%**	**1.7%**	**1.8%**	**1.8%**	**1.8%**	**1.8%**	**1.8%**	**1.8%**

Source for Current and Proposed Rates: Ch 10 in the 2019 General Rate Case, p.385 of 1015 of the Final Application Exhibits A, C-D.pdf.

Exhibit 20: Revenue Requirement Adjustments MPWMD vs. CAW Ownership
(Scenario C– MPWMD Ownership with Contract Operations)

Line	Description	Projected FY 2021	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Projected FY 2027	Projected FY 2028	Projected FY 2029	Projected FY 2030
1	**Adjustments to CAW Cost Structure**										
2	Operating Expense Adjustments ($ in thousands)										
3	Amort of Tank Painting[1]	$ (765.0)	$ (772.7)	$ (790.4)	$ (808.6)	$ (827.2)	$ (846.3)	$ (865.7)	$ (885.6)	$ (906.0)	$ (926.8)
4	Regulatory Expenses[2]	(347.5)	(351.0)	(359.0)	(367.3)	(375.7)	(384.4)	(393.2)	(402.3)	(411.5)	(421.0)
5	Citizens Acquisition Premium[1]	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)
6	General Office Return on Rate Base[3]	(667.1)	(682.5)	(698.2)	(714.2)	(730.6)	(747.4)	(764.6)	(782.2)	(800.2)	(818.6)
7	Return on and of Utility Plant Acq Adjustment[1]	(863.2)	(845.4)	(827.5)	(809.7)	(791.8)	(773.9)	(756.1)	(738.2)	(720.4)	(702.5)
8	San Clemente Dam[1]	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)
9	General Taxes (Ad Valorem)[4]	(3,095.2)	(3,157.1)	(3,220.2)	(3,284.6)	(3,350.3)	(3,417.3)	(3,485.7)	(3,555.4)	(3,626.5)	(3,699.0)
10	Payroll Taxes: FICA-to-PERS Adjustment[5]	88.3	90.2	92.3	94.4	96.6	98.8	101.1	103.4	105.8	108.2
11	Adjustment to Operations[5,6]	2,636.7	2,694.7	2,756.6	2,820.0	2,884.9	2,951.3	3,019.1	3,088.6	3,159.6	3,232.3
12	CAW General Office Allocation[3]	(4,746.4)	(4,793.8)	(4,904.1)	(5,016.9)	(5,132.3)	(5,250.3)	(5,371.1)	(5,494.6)	(5,621.0)	(5,750.3)
13	Service Company Costs (Mgmt Fee)[3]	(2,796.4)	(2,858.0)	(2,923.7)	(2,990.9)	(3,059.7)	(3,130.1)	(3,202.1)	(3,275.7)	(3,351.1)	(3,428.2)
14	Operating Expense Adjustments	$ (17,689.7)	$ (17,809.3)	$ (18,008.0)	$ (18,211.6)	$ (18,420.1)	$ (18,633.5)	$ (18,852.1)	$ (19,075.9)	$ (19,305.1)	$ (19,539.7)
15	Adjusted for Inside-District Systems	(16,941.7)	(17,056.7)	(17,247.4)	(17,442.8)	(17,642.8)	(17,847.6)	(18,057.3)	(18,272.1)	(18,491.9)	(18,717.1)
16	Capital Expense Adjustments[8]										
17	ROR on Rate Base	(25,592.7)	(25,978.8)	(26,301.3)	(26,643.1)	(26,991.4)	(27,346.3)	(27,708.1)	(28,077.0)	(28,453.2)	(28,836.8)
18	Depreciation Expense Recovery	(9,227.7)	(12,328.6)	(12,699.9)	(13,082.3)	(13,476.3)	(13,882.0)	(14,299.9)	(14,730.4)	(15,173.7)	(15,630.4)
19	Gross Up for Taxes	(7,294.7)	(7,404.8)	(7,496.7)	(7,594.1)	(7,693.4)	(7,794.6)	(7,897.7)	(8,002.9)	(8,110.1)	(8,219.4)
20	Capital Revenue Requirement Deductions	$ (42,115.1)	$ (45,712.2)	$ (46,497.9)	$ (47,319.5)	$ (48,161.0)	$ (49,022.9)	$ (49,905.8)	$ (50,810.3)	$ (51,737.0)	$ (52,686.7)
21	Adjusted for Inside-District Systems	(40,733.1)	(44,284.0)	(45,022.4)	(45,796.0)	(46,588.5)	(47,400.5)	(48,232.6)	(49,085.3)	(49,959.3)	(50,855.3)
22	Total Estimated Deductions (Adjusted)	$ (57,674.8)	$ (61,340.7)	$ (62,269.9)	$ (63,238.7)	$ (64,231.3)	$ (65,248.1)	$ (66,289.9)	$ (67,357.4)	$ (68,451.3)	$ (69,572.3)
23	**Adjustments to District Cost Structure**										
24	District Administrative Costs[3]	$ 1,800.1	$ 1,839.7	$ 1,882.0	$ 1,925.2	$ 1,969.5	$ 2,014.8	$ 2,061.2	$ 2,108.6	$ 2,157.1	$ 2,206.7
25	Annual Capital Expenditures (Paygo)[9]	13,777.9	14,191.2	14,617.0	15,055.5	15,507.1	15,972.3	16,451.5	16,945.1	17,453.4	17,977.0
26	Reduction for Capitalized Labor[5]	(831.9)	(850.2)	(869.8)	(889.8)	(910.3)	(931.2)	(952.6)	(974.5)	(996.9)	(1,019.9)
27	Debt Service (Acquistion & Transition Cost)	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2
28	**Total Net Adjustment Under District Ownership**	$ (9,274.6)	$ (12,505.8)	$ (12,986.5)	$ (13,493.6)	$ (14,010.7)	$ (14,537.9)	$ (15,075.6)	$ (15,624.1)	$ (16,183.5)	$ (16,754.3)

[1]Amortizations of CAW costs are excluded in District Ownership scenarios.

[2]Regulatory expense is an avoided cost under District Ownership scenarios.

[3]General office expenses for CAW replaced with District general office expenses.

[4]Ad Valorem tax expense is an avoided cost under District Ownership scenarios.

[5]Adjustment provided by MPWMD.

[6]Adjustment to operations include personnel, pension & benefits, and customer accounting, and insurance adjustments. Markups for contract operations also added.

[7]Adjustment for portion associated with inside MPWMD. Assumed 95.5% based on % of water delivery to inside MPWMD customers compared to total water delivered.

[8]CAW capital cost recovery calculated using the Utility Basis approach replaced with District capital revenue requirement based on cash needs.

[9]Assumed annual capital expenditure needs under District ownership.

Exhibit 20 (Cont'd): Revenue Requirement Adjustments MPWMD vs. CAW Ownership (Scenario C– MPWMD Ownership with Contract Operations)

Line	Description	Projected FY 2031	Projected FY 2032	Projected FY 2033	Projected FY 2034	Projected FY 2035	Projected FY 2036	Projected FY 2037	Projected FY 2038	Projected FY 2039	Projected FY 2040
1	**Adjustments to CAW Cost Structure**										
2	Operating Expense Adjustments ($ in thousands)										
3	Amort of Tank Painting[1]	$ (948.1)	$ (970.0)	$ (992.3)	$ (1,015.1)	$ (1,038.4)	$ (1,062.3)	$ (1,086.8)	$ (1,111.7)	$ (1,137.3)	$ (1,163.5)
4	Regulatory Expenses[2]	(430.7)	(440.6)	(450.7)	(461.1)	(471.7)	(482.5)	(493.6)	(505.0)	(516.6)	(528.5)
5	Citizens Acquisition Premium[1]	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)	(888.4)
6	General Office Return on Rate Base[3]	(837.4)	(856.7)	(876.4)	(896.6)	(917.2)	(938.3)	(959.9)	(981.9)	(1,004.5)	(1,027.6)
7	Return on and of Utility Plant Acq Adjustment[1]	(684.7)	(666.8)	(648.9)	(631.1)	(613.2)	(595.4)	(577.5)	(559.7)	(541.8)	(523.9)
8	San Clemente Dam[1]	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,245.4)	(6,246.4)
9	General Taxes (Ad Valorem)[4]	(3,773.0)	(3,848.5)	(3,925.4)	(4,004.0)	(4,084.0)	(4,165.7)	(4,249.0)	(4,334.0)	(4,420.7)	(4,509.1)
10	Payroll Taxes: FICA-to-PERS Adjustment[5]	110.7	113.3	115.9	118.5	121.2	124.0	126.9	129.8	132.8	135.8
11	Adjustment to Operations[5,6]	3,306.6	3,382.7	3,460.5	3,540.1	3,621.5	3,704.8	3,790.0	3,877.2	3,966.3	4,057.6
12	CAW General Office Allocation[3]	(5,882.5)	(6,017.8)	(6,156.2)	(6,297.8)	(6,442.7)	(6,590.9)	(6,742.5)	(6,897.5)	(7,056.2)	(7,218.5)
13	Service Company Costs (Mgmt Fee)[3]	(3,507.0)	(3,587.7)	(3,670.2)	(3,754.6)	(3,841.0)	(3,929.3)	(4,019.7)	(4,112.1)	(4,206.7)	(4,303.5)
14	Operating Expense Adjustments	$ (19,779.9)	$ (20,025.9)	$ (20,277.7)	$ (20,535.4)	$ (20,799.3)	$ (21,069.4)	$ (21,345.8)	$ (21,628.8)	$ (21,918.5)	$ (22,215.9)
15	Adjusted for Inside-District Systems	(18,947.5)	(19,183.5)	(19,425.0)	(19,672.3)	(19,925.5)	(20,184.6)	(20,449.8)	(20,721.3)	(20,999.1)	(21,284.5)
16	Capital Expense Adjustments[8]										
17	ROR on Rate Base	(29,228.2)	(29,628.3)	(30,036.6)	(30,453.4)	(30,878.8)	(31,313.2)	(31,756.8)	(32,209.8)	(32,672.6)	(33,144.1)
18	Depreciation Expense Recovery	(16,100.8)	(16,585.3)	(17,084.3)	(17,598.3)	(18,127.7)	(18,673.0)	(19,234.6)	(19,813.1)	(20,409.0)	(21,040.6)
19	Gross Up for Taxes	(8,331.0)	(8,445.0)	(8,561.4)	(8,680.2)	(8,801.5)	(8,925.3)	(9,051.7)	(9,180.8)	(9,312.8)	(9,447.1)
20	Capital Revenue Requirement Deductions	$ (53,659.9)	$ (54,658.6)	$ (55,682.3)	$ (56,731.9)	$ (57,808.0)	$ (58,911.4)	$ (60,043.1)	$ (61,203.7)	$ (62,394.3)	$ (63,631.8)
21	Adjusted for Inside-District Systems	(51,773.7)	(52,716.6)	(53,683.4)	(54,674.8)	(55,691.7)	(56,734.7)	(57,804.7)	(58,902.4)	(60,028.6)	(61,199.7)
22	Total Estimated Deductions (Adjusted)	$ (70,721.3)	$ (71,900.1)	$ (73,108.4)	$ (74,347.2)	$ (75,617.1)	$ (76,919.3)	$ (78,254.5)	$ (79,623.6)	$ (81,027.8)	$ (82,484.2)
23	**Adjustments to District Cost Structure**										
24	District Administrative Costs[3]	$ 2,257.4	$ 2,309.4	$ 2,362.5	$ 2,416.8	$ 2,472.4	$ 2,529.3	$ 2,587.4	$ 2,646.9	$ 2,707.8	$ 2,770.1
25	Annual Capital Expenditures (Paygo)[9]	18,516.3	19,071.8	19,644.0	20,233.3	20,840.3	21,465.5	22,109.5	22,772.7	23,455.9	24,159.6
26	Reduction for Capitalized Labor[5]	(1,043.3)	(1,067.3)	(1,091.9)	(1,117.0)	(1,142.7)	(1,168.9)	(1,195.8)	(1,223.3)	(1,251.5)	(1,280.3)
27	Debt Service (Acquistion & Transition Cost)	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2
28	**Total Net Adjustment Under District Ownership**	$ (17,336.6)	$ (17,932.0)	$ (18,539.6)	$ (19,159.8)	$ (19,792.9)	$ (20,439.2)	$ (21,099.2)	$ (21,773.0)	$ (22,461.3)	$ (23,180.5)

[1]Amortizations of CAW costs are excluded in District Ownership scenarios.

[2]Regulatory expense is an avoided cost under District Ownership scenarios.

[3]General office expenses for CAW replaced with District general office expenses.

[4]Ad Valorem tax expense is an avoided cost under District Ownership scenarios.

[5]Adjustment provided by MPWMD.

[6]Adjustment to operations include personnel, pension & benefits, and customer accounting, and insurance adjustments. Markups for contract operations also added.

[7]Adjustment for portion associated with inside MPWMD. Assumed 95.5% based on % of water delivery to inside MPWMD customers compared to total water delivered.

[8]CAW capital cost recovery calculated using the Utility Basis approach replaced with District capital revenue requirement based on cash needs.

[9]Assumed annual capital expenditure needs under District ownership.

Exhibit 21: Revenue Requirements Projection (Scenario C – MPWMD Ownership with Contract Operations)

Line	Description	Projected FY 2021	Projected FY 2022	Projected FY 2023	Projected FY 2024	Projected FY 2025	Projected FY 2026	Projected FY 2027	Projected FY 2028	Projected FY 2029	Projected FY 2030
1	Revenues	$ 96,308.5	$ 103,681.9	$ 101,959.5	$ 103,792.8	$ 105,252.5	$ 106,748.3	$ 108,282.9	$ 109,857.4	$ 111,472.8	$ 113,130.2
2	Operating Expenses	$ 54,350.0	$ 59,077.6	$ 59,357.7	$ 60,496.8	$ 61,667.3	$ 62,866.1	$ 64,093.8	$ 65,351.1	$ 66,638.8	$ 67,957.6
3	Less Deductions (Ln 15)	(16,941.7)	(17,056.7)	(17,247.4)	(17,442.8)	(17,642.8)	(17,847.6)	(18,057.3)	(18,272.1)	(18,491.9)	(18,717.1)
4	Add: District Adminstrative Costs (Ln 24)	1,800.1	1,839.7	1,882.0	1,925.2	1,969.5	2,014.8	2,061.2	2,108.6	2,157.1	2,206.7
5	Adjusted Operating Expenses	$ 39,208.3	$ 43,860.6	$ 43,992.3	$ 44,979.3	$ 45,994.1	$ 47,033.3	$ 48,097.6	$ 49,187.6	$ 50,304.0	$ 51,447.2
6	Debt Service										
7	Debt Service (Acquistion & Transition Cost)	$ 33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2
8	Debt Service (Desal SRF Financed Portion)	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0
9	Debt Service (Desal Public Agency Financed Portion)	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0
10	Total Debt Service	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2
11	Other Revenue Requirements										
12	Capital Projects Funded with Cash	$ 12,946.0	$ 13,341.0	$ 13,747.2	$ 14,165.7	$ 14,596.9	$ 15,041.2	$ 15,498.9	$ 15,970.5	$ 16,456.5	$ 16,957.2
13	Working Capital (Incremental)	-	2,326.1	65.8	493.5	507.4	519.6	532.2	545.0	558.2	571.6
14	Total Revenue Requirements	$ 96,308.5	$ 103,681.9	$ 101,959.5	$ 103,792.8	$ 105,252.5	$ 106,748.3	$ 108,282.9	$ 109,857.4	$ 111,472.8	$ 113,130.2
15	YOY % Change in Revenue Requirements	52.2%	7.7%	-1.7%	1.8%	1.4%	1.4%	1.4%	1.5%	1.5%	1.5%
16	Beginning Cash Balance	$ 19,604.2	$ 19,604.2	$ 21,930.3	$ 21,996.1	$ 22,489.7	$ 22,997.0	$ 23,516.7	$ 24,048.8	$ 24,593.8	$ 25,152.0
17	Revenues Over (Under) Expenditures	-	2,326.1	65.8	493.5	507.4	519.6	532.2	545.0	558.2	571.6
18	Ending Cash Balance	$ 19,604.2	$ 21,930.3	$ 21,996.1	$ 22,489.7	$ 22,997.0	$ 23,516.7	$ 24,048.8	$ 24,593.8	$ 25,152.0	$ 25,723.6
19	Ending Cash Balance (Days of O&M)	180	180	180	180	180	180	180	180	180	180
20	DSC (All-In)	1.29	1.35	1.31	1.33	1.34	1.35	1.36	1.37	1.39	1.40
21	Revenue Requirements - District Ownership	$ 96,308.5	$ 103,681.9	$ 101,959.5	$ 103,792.8	$ 105,252.5	$ 106,748.3	$ 108,282.9	$ 109,857.4	$ 111,472.8	$ 113,130.2
22	Revenue Requirements - CAW Ownership	$ 105,583.1	$ 113,861.6	$ 114,880.2	$ 116,792.8	$ 118,755.8	$ 120,766.6	$ 122,826.4	$ 124,936.5	$ 127,098.2	$ 129,312.9
23	Difference - Net Cost (Savings)	(9,274.6)	(10,179.7)	(12,920.7)	(13,000.1)	(13,503.3)	(14,018.3)	(14,543.5)	(15,079.0)	(15,625.3)	(16,182.6)
24	Financing Assumptions:										
25	Acquisition Cost (in $ thousands)	$ 513,384									
26	Transition Cost	9,500									
27	Initial 180 Day Cash Reserve (Debt Funded)	19,604									
28	Total Financing	$ 542,488									
29	Debt Service Reserve	$ 33,700	1 yr of DS								
30	Financing Including Debt Service Reserve	$ 576,188									
31	Interest Rate	4.0%									
32	Term	30 yrs									
33	Issuance Cost	1.00%									

Exhibit 21 (Cont'd): Revenue Requirements Projection (Scenario C – MPWMD Ownership with Contract Operations)

Line	Description	Projected FY 2031	Projected FY 2032	Projected FY 2033	Projected FY 2034	Projected FY 2035	Projected FY 2036	Projected FY 2037	Projected FY 2038	Projected FY 2039	Projected FY 2040
1	Revenues	$ 114,830.8	$ 116,658.7	$ 118,506.3	$ 120,401.4	$ 122,345.6	$ 124,340.0	$ 126,385.9	$ 128,484.8	$ 130,638.1	$ 132,845.6
2	Operating Expenses	$ 69,308.2	$ 70,746.8	$ 72,220.1	$ 73,728.6	$ 75,273.2	$ 76,854.8	$ 78,474.2	$ 80,132.4	$ 81,830.3	$ 83,568.7
3	Less Deductions (Ln 15)	(18,947.5)	(19,183.5)	(19,425.0)	(19,672.3)	(19,925.5)	(20,184.6)	(20,449.8)	(20,721.3)	(20,999.1)	(21,284.5)
4	Add: District Adminstrative Costs (Ln 24)	2,257.4	2,309.4	2,362.5	2,416.8	2,472.4	2,529.3	2,587.4	2,646.9	2,707.8	2,770.1
5	Adjusted Operating Expenses	$ 52,618.1	$ 53,872.7	$ 55,157.5	$ 56,473.1	$ 57,820.2	$ 59,199.5	$ 60,611.9	$ 62,058.1	$ 63,539.0	$ 65,054.4
6	Debt Service										
7	Debt Service (Acquistion & Transition Cost)	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2	33,654.2
8	Debt Service (Desal SRF Financed Portion)	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0	4,700.0
9	Debt Service (Desal Public Agency Financed Portion)	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0	5,800.0
10	Total Debt Service	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2	$ 44,154.2
11	Other Revenue Requirements										
12	Capital Projects Funded with Cash	$ 17,473.0	$ 18,004.5	$ 18,552.1	$ 19,116.3	$ 19,697.6	$ 20,296.5	$ 20,913.6	$ 21,549.4	$ 22,204.5	$ 22,879.3
13	Working Capital (Incremental)	585.4	627.3	642.4	657.8	673.5	689.7	706.2	723.1	740.4	757.7
14	Total Revenue Requirements	$ 114,830.8	$ 116,658.7	$ 118,506.3	$ 120,401.4	$ 122,345.6	$ 124,340.0	$ 126,385.9	$ 128,484.8	$ 130,638.1	$ 132,845.6
15	YOY % Change in Revenue Requirements	1.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.7%	1.7%	1.7%
16	Beginning Cash Balance	$ 25,723.6	$ 26,309.1	$ 26,936.3	$ 27,578.8	$ 28,236.5	$ 28,910.1	$ 29,599.8	$ 30,305.9	$ 31,029.0	$ 31,769.5
17	Revenues Over (Under) Expenditures	585.4	627.3	642.4	657.8	673.5	689.7	706.2	723.1	740.4	757.7
18	Ending Cash Balance	$ 26,309.1	$ 26,936.3	$ 27,578.8	$ 28,236.5	$ 28,910.1	$ 29,599.8	$ 30,305.9	$ 31,029.0	$ 31,769.5	$ 32,527.2
19	Ending Cash Balance (Days of O&M)	180	180	180	180	180	180	180	180	180	180
20	DSC (All-In)	1.41	1.42	1.43	1.45	1.46	1.48	1.49	1.50	1.52	1.54
21	Revenue Requirements - District Ownership	$ 114,830.8	$ 116,658.7	$ 118,506.3	$ 120,401.4	$ 122,345.6	$ 124,340.0	$ 126,385.9	$ 128,484.8	$ 130,638.1	$ 132,845.6
22	Revenue Requirements - CAW Ownership	$ 131,582.0	$ 133,963.4	$ 136,403.4	$ 138,903.4	$ 141,464.9	$ 144,089.5	$ 146,778.9	$ 149,534.8	$ 152,358.9	$ 155,268.5
23	Difference - Net Cost (Savings)	(16,751.2)	(17,304.7)	(17,897.2)	(18,502.0)	(19,119.3)	(19,749.6)	(20,393.0)	(21,049.9)	(21,720.8)	(22,422.8)

Values shown in $1,000s.

Exhibit 22: Typical Monthly Residential Water Bill Projection (Scenario C – MPWMD Ownership with Contract Operations)

Rate Component	Units	Current FY 2019	Proposed FY 2019	Projected FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Projected Rates														
Average Rate Increase				0.0%	52.2%	7.7%	-1.7%	1.8%	1.4%	1.4%	1.4%	1.5%	1.5%	1.5%
Base Bill:														
Water Service Charge (5/8")	per month	$20.94	$21.08	$21.08	$32.08	$34.54	$33.96	$34.57	$35.06	$35.56	$36.07	$36.59	$37.13	$37.68
Water Usage Charges:														
Tier 1 (first 29.9 CGLs)	per 100 gals	$0.9125	$0.9187	$0.9187	$1.3981	$1.5052	$1.4802	$1.5068	$1.5280	$1.5497	$1.5720	$1.5948	$1.6183	$1.6423
Tier 2 (next 29.9 CGL)	per 100 gals	$1.3688	$1.3781	$1.3781	$2.0973	$2.2578	$2.2203	$2.2602	$2.2920	$2.3246	$2.3580	$2.3923	$2.4275	$2.4636
Tier 3 (next 44.9 CGL)	per 100 gals	$3.1939	$3.2155	$3.2155	$4.8935	$5.2681	$5.1806	$5.2738	$5.3480	$5.4240	$5.5019	$5.5819	$5.6640	$5.7482
Tier 4 (next 67.3 CGL)	per 100 gals	$5.9314	$5.9717	$5.9717	$9.0880	$9.7838	$9.6213	$9.7943	$9.9320	$10.0732	$10.2180	$10.3665	$10.5190	$10.6754
Tier 5 (over 172 CGLs)	per 100 gals	$7.3002	$7.3497	$7.3497	$11.1851	$12.0415	$11.8414	$12.0543	$12.2239	$12.3976	$12.5758	$12.7587	$12.9463	$13.1388
Surcharges:														
Conservation	per 100 gals	$0.0751	$0.0062	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063
Consolidated Expense Balancing Account (CEBA)	per 100 gals	$0.0827	$0.1733	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773
Low Income Rate Assistance (LIRA)	per month	$1.81	$1.8100	$1.81	$2.75	$2.97	$2.92	$2.97	$3.01	$3.05	$3.10	$3.14	$3.19	$3.24
Water Rev Adj Mech/Modified Cost Bal Acct (WRAM/MCBA)	per 100 gals	$0.2219	$0.2219	$0.2219	$0.2219	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
High Cost Fund	per month	$0.0000	$0.2936	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491
MPWMD User Fee	% of Base	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%
Meter Based WRAM/MCBA (5/8")	per month	$10.08	$10.08	$10.08	$10.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:														
Commission Surcharge	% of Bill	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%
License Tax	% of Bill	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Franchise Fee	% of Bill	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Typical Bill (37.91 CGLs/Mo):														
Base Bill:														
Water Service Charge (5/8")		$20.94	$21.08	$21.08	$32.08	$34.54	$33.96	$34.57	$35.06	$35.56	$36.07	$36.59	$37.13	$37.68
Water Usage Charges:														
Tier 1		$27.28	$27.47	$27.47	$41.80	$45.00	$44.26	$45.05	$45.69	$46.34	$47.00	$47.68	$48.39	$49.11
Tier 2		$10.96	$11.04	$11.04	$16.80	$18.09	$17.78	$18.10	$18.36	$18.62	$18.89	$19.16	$19.44	$19.73
Tier 3		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 4		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 5		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Surcharges:														
Conservation		$2.85	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24
CEBA		$3.14	$6.57	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72
LIRA		$1.81	$1.81	$1.81	$2.75	$2.97	$2.92	$2.97	$3.01	$3.05	$3.10	$3.14	$3.19	$3.24
WRAM/MCBA		$8.41	$8.41	$8.41	$8.41	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
High Cost Fund		$0.00	$0.29	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35
MPWMD User Fee		$4.93	$4.96	$4.96	$7.55	$8.13	$7.99	$8.14	$8.25	$8.37	$8.49	$8.61	$8.74	$8.87
Meter Based WRAM/MCBA (5/8")		$10.08	$10.08	$10.08	$10.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:														
Commission Surcharge		$1.20	$1.22	$1.22	$1.67	$1.51	$1.49	$1.51	$1.53	$1.55	$1.57	$1.59	$1.62	$1.64
License Tax		$1.71	$1.74	$1.74	$2.38	$2.16	$2.12	$2.16	$2.19	$2.22	$2.25	$2.28	$2.31	$2.34
Franchise Fee		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Bill - Public Ownership Loaded CO		**$93.31**	**$94.91**	**$95.13**	**$130.84**	**$119.70**	**$117.84**	**$119.82**	**$121.40**	**$123.01**	**$124.67**	**$126.38**	**$128.12**	**$129.92**
Total Bill Increase (%)				**0.2%**	**37.5%**	**-8.5%**	**-1.6%**	**1.7%**	**1.3%**	**1.3%**	**1.3%**	**1.4%**	**1.4%**	**1.4%**
Total Bill - Status Quo Loaded		**$93.31**	**$94.91**	**$95.13**	**$140.88**	**$130.72**	**$131.82**	**$133.89**	**$136.01**	**$138.19**	**$140.41**	**$142.70**	**$145.03**	**$147.43**
Total Bill Increase (%)				**0.2%**	**48.1%**	**-7.2%**	**0.8%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**	**1.7%**

Source for Current and Proposed Rates: Ch 10 in the 2019 General Rate Case, p.385 of 1015 of the Final Application Exhibits A, C-D.pdf.

Exhibit 22 (Cont'd): Typical Monthly Residential Water Bill Projection (Scenario C – MPWMD Ownership with Contract Operations)

Rate Component	Units	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040
Projected Rates											
Average Rate Increase		1.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.7%	1.7%	1.7%
Base Bill:											
Water Service Charge (5/8")	per month	$38.25	$38.86	$39.47	$40.11	$40.75	$41.42	$42.10	$42.80	$43.52	$44.25
Water Usage Charges:											
Tier 1 (first 29.9 CGLs)	per 100 gals	$1.6670	$1.6935	$1.7204	$1.7479	$1.7761	$1.8051	$1.8348	$1.8652	$1.8965	$1.9285
Tier 2 (next 29.9 CGL)	per 100 gals	$2.5006	$2.5404	$2.5806	$2.6219	$2.6643	$2.7077	$2.7522	$2.7979	$2.8448	$2.8929
Tier 3 (next 44.9 CGL)	per 100 gals	$5.8346	$5.9275	$6.0214	$6.1177	$6.2165	$6.3178	$6.4218	$6.5284	$6.6378	$6.7500
Tier 4 (next 67.3 CGL)	per 100 gals	$10.8358	$11.0083	$11.1827	$11.3615	$11.5450	$11.7332	$11.9262	$12.1243	$12.3275	$12.5358
Tier 5 (over 172 CGLs)	per 100 gals	$13.3363	$13.5486	$13.7631	$13.9832	$14.2090	$14.4406	$14.6783	$14.9220	$15.1721	$15.4285
Surcharges:											
Conservation	per 100 gals	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063	$0.0063
Consolidated Expense Balancing Account (CEBA)	per 100 gals	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773	$0.1773
Low Income Rate Assistance (LIRA)	per month	$3.28	$3.34	$3.39	$3.44	$3.50	$3.56	$3.61	$3.67	$3.74	$3.80
Water Rev Adj Mech/Modified Cost Bal Acct (WRAM/MCBA)	per 100 gals	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
High Cost Fund	per month	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491	$0.3491
MPWMD User Fee	% of Base	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%	8.325%
Meter Based WRAM/MCBA (5/8")	per month	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:											
Commission Surcharge	% of Bill	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%	1.40%
License Tax	% of Bill	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Franchise Fee	% of Bill	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Typical Bill (37.91 CGLs/Mo):											
Base Bill:											
Water Service Charge (5/8")		$38.25	$38.86	$39.47	$40.11	$40.75	$41.42	$42.10	$42.80	$43.52	$44.25
Water Usage Charges:											
Tier 1		$49.84	$50.64	$51.44	$52.26	$53.11	$53.97	$54.86	$55.77	$56.70	$57.66
Tier 2		$20.03	$20.35	$20.67	$21.00	$21.34	$21.69	$22.05	$22.41	$22.79	$23.17
Tier 3		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 4		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 5		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Surcharges:											
Conservation		$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24	$0.24
CEBA		$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72	$6.72
LIRA		$3.28	$3.34	$3.39	$3.44	$3.50	$3.56	$3.61	$3.67	$3.74	$3.80
WRAM/MCBA		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
High Cost Fund		$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35
MPWMD User Fee		$9.00	$9.14	$9.29	$9.44	$9.59	$9.75	$9.91	$10.07	$10.24	$10.41
Meter Based WRAM/MCBA (5/8")		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Taxes and Fees:											
Commission Surcharge		$1.66	$1.69	$1.71	$1.74	$1.76	$1.79	$1.82	$1.85	$1.88	$1.91
License Tax		$2.37	$2.41	$2.45	$2.48	$2.52	$2.56	$2.60	$2.64	$2.68	$2.72
Franchise Fee		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Bill - Public Ownership Loaded CO		**$131.76**	**$133.73**	**$135.73**	**$137.78**	**$139.88**	**$142.04**	**$144.25**	**$146.52**	**$148.85**	**$151.24**
Total Bill Increase (%)		**1.4%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.6%**	**1.6%**	**1.6%**	**1.6%**
Total Bill - Status Quo Loaded		**$149.88**	**$152.46**	**$155.10**	**$157.80**	**$160.57**	**$163.41**	**$166.32**	**$169.30**	**$172.36**	**$175.50**
Total Bill Increase (%)		**1.7%**	**1.7%**	**1.7%**	**1.7%**	**1.8%**	**1.8%**	**1.8%**	**1.8%**	**1.8%**	**1.8%**

Source for Current and Proposed Rates: Ch 10 in the 2019 General Rate Case, p.385 of 1015 of the Final Application Exhibits A, C-D.pdf.

APPENDIX B:

Status Quo Financial Forecast Assumptions Memo

RAFTELIS

Monterey Peninsula Water Management District
Status Quo Financial Forecast Assumptions – CAW Monterey District
Draft
August 30, 2019

WATER SYSTEM ASSUMPTIONS

General:

- Many of the forecast assumptions were based on historical and projected results of operations reported by CAW from the 2016 and 2019 General Rate Case, and annual reports from 2014-2018. We assume that the information contained in these documents are complete and accurate.
- CAW Results of Operations reported in its 2016 and 2019 General Rate Case Application files generally do not include surcharge revenues and expenses. It is assumed that revenues and expenses incurred by CAW related to surcharge items are reported separately from reported CAW Results of Operations.

Operation and Maintenance Expenses:

Historical O&M expenses were obtained from CAW's General Rate Case Decision tables. Historical trends in O&M expenses are shown in the table below:

O&M Cost Category	CAGR 2011-2015	CAGR 2011-2018	CAGR 2012-2018	CAGR 2013-2018
Labor	0.4%	1.4%	2.3%	2.8%
Pension & Benefits	-5.3%	-1.5%	-7.9%	-7.7%
Purchased Water	-5.4%	-1.4%	4.4%	6.0%
Purchased Power	-4.4%	-2.2%	-1.5%	-1.7%
Chemicals	-0.4%	2.4%	0.7%	-2.3%
Other Administrative & General	2.7%	3.8%	7.0%	-0.1%
Service Company Costs	0.6%	-0.6%	-0.3%	-1.5%
General Office Return on Rate Base	33.7%	15.2%	8.6%	6.2%
General Taxes (property)	6.1%	2.8%	1.8%	1.0%
General Taxes (Payroll, Franchise)	-0.4%	1.4%	2.0%	3.0%
Other Non-Labor	1.1%	4.2%	9.2%	7.8%
Total	3.7%	5.4%	6.7%	6.5%

CAGR = Compound annual growth rate.

Forecasted O&M expense assumptions were obtained from GRC documents and vary by expense category. Cost escalation assumptions are summarized as follows:

O&M Cost Category	2020	2021	2022	2023+	Basis/Source
Labor	2.3%	2.4%	2.2%	2.3%	ORA inflation estimates from 2016 GRC Decision, Appendix C. 2023+ Inflation estimate.
Pension & Benefits	2.3%	2.4%	2.2%	2.3%	ORA inflation estimates from 2016 GRC Decision, Appendix C. 2023+ Inflation estimate.
Purchased Water	4.5%	4.5%	4.5%	4.5%	Historical trends for O&M and Wheeling fee portion, lease amortization Sand City lease
Purchased Power	1.8%	1.1%	1.0%	2.3%	ORA inflation estimates from 2016 GRC Decision, Appendix C. 2023+ Inflation estimate.
Chemicals	1.8%	1.1%	1.0%	2.3%	ORA inflation estimates from 2016 GRC Decision, Appendix C. 2023+ Inflation estimate.
General Taxes (Ad Valorem)	2.0%	2.0%	2.0%	2.0%	Historical trends.
General Taxes (Payroll, Franchise)	2.3%	2.4%	2.2%	2.3%	Per Labor escalator
Other Non-Labor	1.8%	1.1%	1.0%	2.3%	ORA inflation estimates from 2016 GRC Decision, Appendix C. 2023+ Inflation estimate.
Service Company Costs	2.3%	2.4%	2.2%	2.3%	Projected similar to labor escalation.
General Office Return on Rate Base	3.5%	3.3%	2.3%	2.3%	Reduced historical escalation by 3.5% then trended escalation to general inflation rate.
Citizens Acquisition Premium	0.0%	0.0%	0.0%	0.0%	Mortgage style depreciation per 2016 GRC Decision, p.77 of 340.
San Clemente Dam	0.0%	0.0%	0.0%	0.0%	Amortization schedule from 2016 GRC Decision Appendix B and 2019 GRC Application.

Capital Expenses:

Historical additions to Rate Base for CAW's Monterey District

Description	2013	2014	2015	2016	2017	2018	Avg
Utility Plant Additions (Annual Reports)	$16,316	$17,145	$11,047	$9,402	$13,317	$4,410	$13,445
Utility Plant Additions (2016 GRC)	$14,248	$17,145	$12,136	$11,682	$8,098		$12,662
Utility Plant Additions (2019 GRC)		$17,145	$12,136	$8,314	$13,317	$4,434	$11,069

(in $1,000s). Sources: Annual reports. 2013-2018, GRC Results of Operations – Central Division.

Included in the above are plant recurring capital expenditures for smaller unforeseen operational capital investment tasks and routine every year-type of projects. These were reported in the 2016 GRC Decision (p.148) for the Monterey District Water to be $3,014,976 for 2018 and $2,938,954 for 2019.

For the status quo projection, forecasted capital expenses were assumed at $14.0M per year (escalated), a level slightly higher than the five-year annual average shown above. This amount corresponds to the future annual capital spend estimated in the Draft MPWMD Ops Model / Capital Plan worksheet. These expenses were assumed to escalate each year at the long-term ENR Construction Cost Index rate of 3.0% per year.

Rate Base and Depreciation:

Rate Base and depreciation expense estimates used in the forecast were based on the following key assumptions:

Description	Value	Basis/Source
Existing Rate Base	$205,146	For 2020 from 2019 GRC Application, Table 9.1, adjusted by deducting 30% of the Monterey Pump Station and Pipeline not yet used and useful. Value in $1,000s.
Working Capital Component Working Capital as % of Opex	21.3%	2014-2018 Annual Reports for Monterey District.
Materials and Supplies Component M&S as % of Gross Plant	0.09%	2014-2015 Average from Annual Reports and GRC Decision Appendices.
Annual Depreciation of Existing Assets (years)	40	Approximate average composite depreciable life Annual Reports 2014-2018. This was also used in the workpapers 100-103.
New Rate Base Added	See Note	Same as annual capital expense assumptions above with no lag assumed. Includes working capital and M&S components.
Annual Depreciation of New Rate Base (years)	40	Assumed same composite depreciable life as historical.
Annual Depreciation of Monterey Pipeline	41.8	Workpaper 100 File, Workpaper 103, Step 2
Annual Depreciation of Desal Plant	40	From MPWSP Model V 2.1 - 6.4 MGD.xlsx / Capex tab Cell F 59.
Annual Depreciation of Desal Equipment Replacement	20	From MPWSP Model V 2.1 - 6.4 MGD.xlsx / Capex tab Row 59.

Revenues

Revenues include operating revenues generated from rates charged to metered customers, private fire, Method 5 Revenues, antenna leases, and miscellaneous service revenues, but exclude revenues from separate customer surcharges. Forecasted revenues were calculated as the sum of (1) operating expense recovery, (2) depreciation expense recovery, and (3) return on rate base, and based on the following key assumptions:

Description	Value	Basis/Source
Return on Rate Base	7.61%	Cost of Capital Decision.pdf.
Income Tax Gross Up Factor	1.4253x	Calculation reflecting Federal Income Tax Rate of 21%, California tax of 8.84% and other adjustments.

Other Forecast Assumptions:

The status quo forecast was prepared based on the following additional assumptions:

Description	Value	Basis/Source
Uncollectibles as a % of Metered Revenue	0.45%	Historical actuals 2011-2018
Payroll Taxes as a % of Labor and Benefits	7.6%	Historical results 2011-2018, GRC Decision Appendices
Ratio of Ad Valorem Taxes to Net Plant	1.116%	Line 9 of Workpaper 101