

520 Capitol Mall, Suite 630 Sacramento, CA 95814 P (916) 568-4237

www.amwater.com

July 26, 2023

California Public Utilities Commission Water Division Room 3102, State Building 505 Van Ness Ave. San Francisco, CA 94102-3298

Dear Division of Water and Audits:

Enclosed please find an original and three copies of Advice Letter No. 1416.

Regards,

/s/ Leana Ramirez

Leana Ramirez Business Support Specialist

CC: Mukunda Dawadi, California Public Utilities Commission, Office of Ratepayer Advocates, 505 Van Ness Ave., San Francisco, CA 94102-3298

CALIFORNIA PUBLIC UTILITIES COMMISSION DIVISION OF WATER AND AUDITS

Advice Letter Cover Sheet

Utility Name:	California American Water	Date Mailed to Service List:	July 26, 2023		
District:	All Service Areas				
CPUC Utility #:	U210W	Protest Deadline (65 th Day):	September 29, 2023		
Advice Letter #:	1416	Review Deadline (135 th Day):	December 8, 2023		
Tier	□1 □2 ⊠3 □ Compliance	Requested Effective Date:	TBD		
Authorization	N/A	Pate I word	60 Al		
Description:	West San Martin Acquisition	Rate Impact:	See AL See AL%		

The protest or response deadline for this advice letter is 20 days from the date that this advice letter was mailed to the service list. Please see the "Response or Protest" section in the advice letter for more information.

Utility Contact:	Jonathan Morse	Utility Contact:	Leana Ramirez
Phone:	916-568-4237	Phone:	916-568-4279
Email:	Jonathan.Morse@amwater.com	Email:	leana.ramirez@amwater.com

DWA Contact: Tariff Unit

Phone: (415) 703-1133

Email: <u>Water.Division@cpuc.ca.gov</u>

	DWA USE ONLY								
DATE	<u>STAFF</u>			<u>COMMENTS</u>					
[] APPROVED		[] WITHDR	RAWN	[] REJECTE	D				
Signature:		Comm	ents:						
Date:									



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July 26, 2023 ADVICE LETTER NO. 1416

TO THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

I. <u>PURPOSE</u>

Pursuant to Sections 851-854 and 2718-2720 of the California Public Utilities Code, Decision ("D.") 99-10-064 and D.20-08-047, Article 2 of the California Public Utilities Commission ("Commission") Rules of Practice and Procedure ("Rules") and Rule 3.6, as well as Commission General Order 96-B, California-American Water Company (U-210-W) ("California American Water") in this Advice Letter requests the Commission authorize the sale of West San Martin Water Works, Inc.'s (U-170-W) ("West San Martin") assets, California American Water's purchase of those assets, and certain related actions.

II. INTRODUCTION

Consolidation of West San Martin Water's assets into California American Water's much larger system is in the public interest. The consolidation furthers important public policies and customer interests.

Provided the Commission grants approval, California American Water's acquisition of West San Martin's utility assets will occur pursuant to the asset purchase agreement dated December 20, 2022 ("Asset Purchase Agreement"), between West San Martin and California American Water. A copy of the Asset Purchase Agreement is included as "Confidential Attachment" to the minimum data requirements ("MDRs") included with this Advice Letter. This Advice Letter asks the Commission to approve the Asset Purchase Agreement, the transaction contemplated in that Agreement, and certain related matters. Specifically, the Advice Letter requests Commission authority:

- 1. Approving the Asset Purchase Agreement's terms and conditions.
- 2. Expanding California American Water's Certificate of Public Convenience and Necessity ("CPCN") so the Company may assume all public utility responsibilities for the operation and ownership of the water utility operations in West San Martin's current service area.
- Establishing the rate base of the acquired system, at the time of approval of a resolution in this Advice Letter proceeding, as the full purchase price to be paid by California American Water for the West San Martin system's assets covered by the Asset Purchase Agreement.
- 4. Authorizing California American Water to record the acquisition on a net basis consistent with generally accepted accounting principles.

- 5. Allowing California American Water immediate consolidation of the West San Martin system into California American Water's Central Division for operational purposes.¹
- 6. Permitting California American Water to (until implementation of the decision in the Company's next GRC) maintain existing Commission-approved rates and charges for West San Martin customers in effect at the time this acquisition closes.
- 7. Approving California American Water's request to file standard CPI-U rate increases for West San Martin as allowed for Class D utilities until West San Martin is consolidated for rate making purposes into one of California American Water's Divisions following the decision in the Company's next GRC.
- 8. Allowing California American Water to integrate the West San Martin system into one of its Divisions (and Corporate Office) for ratemaking purposes as of January 1, 2027. The rates for West San Martin customers from January 1, 2027, forward would be determined in California American Water's next GRC, set for filing in the summer of 2025.
- 9. Approving California American Water's Request to create a West San Martin Acquisition Contingency Memorandum Account ("WSMACMA"). This account would capture the differences between revenues billed at current West San Martin and California American Water rates and revenues that would have been billed under the final rates if West San Martin were fully consolidated for rate making purposes upon close of the acquisition.
- 10. Establishing a West San Martin Transaction Cost Memorandum Account, pursuant to Commission Standard Practice U-27-W, to track all transaction related costs with rate treatment determined in California American Water's subsequent GRC.
- 11. Approving California American Water's request to allow tracking of costs of addressing any required environmental improvements and compliance issues in the already established memorandum account related to the same issues for the Dunnigan, Geyserville, Meadowbrook, Rio Plaza, Fruitridge Vista, Hillview, East Pasadena, and Bass Lake acquisitions.
- 12. Relieving, after the close of the asset acquisition, West San Martin of its public utility responsibilities and obligations to serve customers and cancelling its CPCN.

The relief requested in this Advice Letter should not be controversial. The proposed acquisition furthers important Legislative and Commission polices and goals. The acquisition also benefits West San Martin and California American Water customers. This proceeding, therefore, should move along quickly and be approved by resolution in accordance with the timeline established in D.99-10-064.

¹ No changes in California American Water's tariff schedules result from the acquisition. After the acquisition closes, West San Martin Water Works customers would be subject to tariff schedules and rules applicable to California American's Monterey County District. Such schedules and rules would become effective five days after California American Water files a Tier 1 Advice Letter that provides details of the finalized purchase of the water system. West San Martin customers would remain on their current rates until implementation of the decision from California American Water's next general rate case ("GRC").

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III. BACKGROUND:

<u>West San Martin</u>: Is a Commission-regulated Class D water service provider with approximately 318 metered customer connections. The system serves primarily residential connections with 47 commercial connections and 5 irrigation connections. The system is close (less than 50 miles) to California American Water's Monterey County service area. This will allow West San Martin's operations to be folded into California American Water's Central Division.

As a Class D water utility, West San Martin's revenue requirement is based on rate of margin instead of rate of return. In West San Martin's last GRC, the Commission authorized a revenue requirement that achieved the Commission's then authorized rate of margin of 24.89%.

<u>California American Water</u>: A California corporation, is a Class A public utility water and wastewater company regulated by the Commission. The Company provides regulated water and/or wastewater utility services in parts of San Diego, Los Angeles, Ventura, Monterey, Sonoma, Yolo, Sacramento, Merced, and Placer counties, serving approximately 680,000 people in 50 communities.

California American Water is an experienced water and wastewater system operator, with operations near West San Martin. California American Water has also recently received Commission approval to acquire several smaller water providers, ranging from Class D to Class B providers as well as mutual water companies and a municipal water system.² California American Water is a subsidiary of American Water Works Company, Inc. ("American Water"), the largest publicly traded water and wastewater utility in the United States, with operations serving approximately 14 million people across North America. A description of California American Water's plant, water systems, and property is on file with the Commission in California American Water's most recent Annual Report to the Commission.

² See, e.g., D.15-11-012, Decision Authorizing California-American Water Company to Purchase the Public Utility Assets of Dunnigan Water Works, dated Nov. 10, 2015; Resolution W-5042, Order Approving California American Water Company's Request to Acquire Ox Bow Mutual Water Company, dated June 11, 2015; D.16-11-014, Decision Authorizing the Sale and Adopting Settlement Agreement (Geyserville acquisition), dated Nov. 17, 2016; D.16-12-014, Decision Adopting Settlement Agreement and Approving Joint Application of California-American Water Company to Purchase and Meadowbrook Water Company of Merced, Inc., to Sell the Meadowbrook Water System, dated Dec. 6, 2017; D.19-04-015, Decision Authorizing Sale and Transfer, dated May 2, 2019; D.19-12-038, Decision Authorizing the Purchase of Water Utility Assets by California-American Water Company, dated December 19, 2019; D.21-08-002, Decision Approving the Sale of East Pasadena Water Utility Assets to California-American Water Company, Inc., issued August 6, 2021; D.22-10-003, Decision Approving California-American Water Company's Acquisition of Bellflower Municipal Water System, issued October 11, 2022.

IV. ASSET PURCHASE AGREEMENT:

Under the Asset Purchase Agreement, California American Water will acquire certain assets associated with West San Martin. For those assets, California American Water will pay between \$1,600,000 and \$1,800,000 plus or minus a small adjustment amount.³ This range is explained as follows:

- At closing, from the \$1,800,000 purchase price, California American Will place \$300,000 in an escrow account.⁴
- Of the amount placed in the escrow account, \$100,000 is an indemnity holdback for satisfying indemnity obligations of West San Martin, with any remainder from that \$100,000 distributed to West San Martin.⁵
- The remaining \$200,000 of the funds placed in the escrow account constitute the Twin Valley Allocation.⁶ Portions of that Allocation will be released to West San Martin's owners as milestones in the Twin Valley project are reached. Any remaining portion from that \$200,000 not paid to West San Martin's owners because of unreached milestones will, at the end of a specified period, be returned to California American Water and not counted as part of the rate base for the new system.⁷ The Twin Valley Project is discussed in greater detail below.

V. CUSTOMER BENEFITS AND PUBLIC INTEREST:

A. Legislative Declarations and Other Resolutions Support the Acquisition

In Public Utilities Code Section 2719, the Legislature found and declared (1) public water systems face the need to replace or upgrade infrastructure to meet increasingly stringent state and federal laws and regulations, (2) increasing amounts of capital are required to finance the necessary investment in that infrastructure, (3) scale economies are achievable in the operation of public water systems, and (4) providing water corporations with an incentive to achieve these scale economies provides benefits to ratepayers.⁸ Similarly, State Water Resources Control Board (SWRCB) Resolution No. 2008-0048 states: small water systems (1) often cannot provide the economies of scale necessary to build and maintain adequate water and wastewater systems; (2) lack resources and in-house expertise, including those necessary to best manage long-term operations; and (3) need financial and technical assistance to ensure compliance.

More recently, in D.20-08-047, the Commission recognized the benefits of transactions such as the one being proposed in this Advice Letter: "Consolidation may be a means to improve affordability, by leveraging greater economies of scale and scope, and by importing

³ See MDR Response Attachment 26 (Confidential), Asset Purchase Agreement, at Exhibit 1 thereto, under Definitions, p. 28 ("Cash Purchase Price"); Section 2.2(a), (b), and (e).

⁴ Id. at MDR Response Attachment 26 (Confidential), at Section 2.2(b) thereto.

⁵ Id. at MDR Response Attachment 26 (Confidential), at Section 2.2(b) thereto.

⁶ Id. at MDR Response Attachment 26 (Confidential), at Section 2.2(b) thereto.

⁷ Id. at MDR Response Attachment 26 (Confidential), at Section 2.2(b) and (e); Asset Purchase Agreement, Exhibit 4, pp. 38-39 ("Calculation of Adjustment Amount").

⁸ Pub. Util. Code § 2719.

best, or better, practices related to operating a water utility, as well as designing rates to allow recovery of reasonable expenses."⁹

California American Water serves a population of approximately 680,000 throughout California. It is one of the largest investor-owned water utilities in the State. Its parent company, American Water, is the largest publicly traded water and wastewater utility in the United States, with operations serving approximately 16 million people across North America. As is discussed in further detail below, California American Water's size, experience, and resources give it a distinct advantage in being able to replace or upgrade systems effectively and efficiently to meet increasingly stringent state and federal mandates and provide improved access to the capital needed to finance such infrastructure investments. California American Water's acquisition of West San Martin will also achieve efficiencies and economies of scale that would otherwise not be available.

1. Improved Access to Capital Supports Approving this Advice Letter

As the expense of meeting increasingly stringent regulations climbs, greater amounts of capital will be required to fund infrastructure projects. California American Water has better access to capital and likely at lower costs than West San Martin. By D.18-07-013, the Commission authorized California American Water to issue up to \$359,450,000 in long-term debt. Recently, in D.23-05-008, the Commission authorized California American Water to issue up to \$397,261,000 in new long-term debt securities. California American Water has a Financial Services Agreement with American Water Capital Corporation, another subsidiary of American Water. That Agreement's purpose is to provide financing to other subsidiaries, such as California American Water.¹⁰ The Commission and Legislature have recognized that access to capital is important and benefits the public interest. Additionally, the carrying cost of rate base for California American Water would be lower than the prevailing cost under West San Martin's current ownership. California American Water's current rate of return is 7.61%,¹¹ which is below the 24.89% rate of margin that W-4905 authorized rates for West San Martin are forecasted to generate. Thus, California American Water's acquisition of West San Martin ensures access to capital needed to finance infrastructure necessary to supply West San Martin customers with safe water.

2. Benefits from Economies of Scale Support Approval

Benefits from economies of scale also strongly support approving this advice letter. Examples of where economies of scale often benefit larger utilities and their customers include: (1) compliance with regulatory requirements, (2) maintaining customer information and billing systems, (3) purchasing materials and supplies, (4) maintaining high levels of customer service, (5) maintaining and improving quality of treated water, (6) providing for current infrastructure

⁹ D.20-08-047, p. 85.

¹⁰ See D.18-07-013, Application of California-American Water Company (U210W) to issue, sell and deliver debt securities consisting of long-term notes not exceeding \$359,450,000 in the aggregate, and other related requests, dated July 12, 2018 ("D.18-07-013").

¹¹ This is California American Water's current rate of return pending implementation of its new authorized rate pursuant to D.23-06-025 as well as any subsequent adjustments based on the Water Cost of Capital Adjustment Mechanism.

needs and future growth, and (7) supporting a level of expertise required to navigate often complex requirements for government programs such as grant funds and revolving fund loans.

Larger utilities, such as California American Water, can develop greater in-house expertise, creating institutional knowledge. California American Water employs personnel with specific expertise in such specialized functions as water quality and testing, environmental compliance, customer service, engineering, and conservation. Smaller utilities frequently must rely on outside consultants who usually cost more and leave at the end of the project, taking their institutional knowledge with them. Benefits from more diverse and specialized workforces at larger utilities provide advantages over smaller systems in numerous areas, including environmental and water quality, financing, human resources, and general operations. In addition, with California American Water's greater size and more extensive personnel, West San Martin customers will have greater assurance of high-quality service. California American Water has a more sizeable workforce with overlapping skills, which reduces the chance of coverage gaps due to illness, vacation, or unavailability. It also has greater access to more advanced equipment and technology, which aids in resolving issues more quickly.

California American Water's ability to spread fixed costs, lowering per-customer share of such costs, supports approval of this Advice Letter. Economies of scale are also driven by the relationship between the fixed and variable costs of operation. Utilities are capital intensive. Fixed costs are high relative to variable costs. For example, testing equipment for a system of 200 customers may cost the same as that for a system of 20,000. With greater environmental and regulatory requirements, fixed costs will likely only increase, presenting a problem for smaller water companies, such as West San Martin. With its much smaller customer base, West San Martin will have trouble spreading those increased fixed costs. Because of California American Water's large size, it has a much better ability to spread costs and improve efficiencies.

California American Water anticipates savings. These include from reducing West San Martin's miscellaneous expenses related to regulatory, materials, and plant maintenance through leveraging economies of scale, existing employees, and existing statewide shared services. These specific items will not necessarily create dollar-for-dollar savings, as much of the associated work will still need to be performed; however, California American Water will be able to leverage existing economies of scale to perform the work at lower cost, creating long-term savings for West San Martin customers.

Thus, economies of scale based on the ability to spread fixed costs, improved efficiencies through specialization, as well as things such as market presence (which includes access to capital and volume discounts for materials), as well as synergies all support approving this advice letter.

B. State Water Resources Control Board Policy Supports Advice Letter Approval

According to the Public Policy Institute of California, "...the state is actively encouraging one solution: the consolidation of smaller systems into larger ones." In Resolution No. 2008-0048, the SWRCB noted that small water systems: (1) often cannot provide the economies of scale necessary to build and maintain adequate water and wastewater systems; (2) lack resources and in-house expertise, including those necessary to best manage long-term operations; and (3) need financial and technical assistance to ensure compliance. Senate Bill 88 (2015) added sections 116680-116684 to the California Health and Safety Code, giving the SWRCB the ability to mandate consolidation when appropriate – underscoring the Legislature's

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recognition of the need for consolidation. In implementing that new authority, the SWRCB has publicly stated that it "has encouraged – and will continue to encourage –voluntary consolidations of public water systems...." According to the SWRCB, "Small public water systems are often less resilient to natural disasters, such as drought and fire, have more difficulty adjusting to regulatory changes, and may struggle to fund infrastructure maintenance and replacement due to poor economies of scale and lack of staff." This is why the SWRCB "supports water partnerships whenever feasible."

As noted above, California American Water's acquisition of West San Martin will help to provide greater economies of scale and bring greater resources and expertise (financial, technical, personnel) to the management and operation of West San Martin. This is consistent with the SWRCB's recognition of the benefits of this type of transaction.

C. The Commission's Water Action Plan Supports Advice Letter Approval

The Commission's Water Action Plan recognizes that to maintain the highest standards of water quality, the Commission should provide incentives for the acquisition or operation of smaller water and sewer utilities. In adopting the plan, the Commission noted:

Smaller water companies often do not have the resources or expertise to operate in full compliance with increasingly stringent and complex water quality regulations. Many water companies are too small to be viable in the long-term, raising questions as to whether they will be able to continue to provide clean and reliable water in the future. DPH requests Class A utilities (over 10,000 connections) to report on an annual basis which smaller utilities they might consider purchasing.

The Water Action Plan's objectives include: (1) maintaining the highest standards of water quality; (2) strengthening water conservation programs to a level comparable to those of energy utilities; (3) promoting water infrastructure investment; (4) assisting low-income ratepayers; (5) streamlining Commission regulatory decision making; and (6) setting rates that balance investment, conservation, and affordability. This advice letter seeks approval of a transaction that will further these Commission objectives.

1. Maintaining the Highest Standards of Water Quality

California American Water's purchase of West San Martin will ensure that the first objective of the Water Action Plan (maintaining the highest standards of water quality) is met. This Advice Letter seeks approval of a transaction that furthers these Commission objectives. The purchase of a smaller system by a larger system makes economic sense. California American Water will bring economies of scale, greater internal expertise, access to resources, and greater knowledge and experience. These will help maintain the highest standards of water quality.

2. Strengthening Water Conservation Programs

The proposed transaction will also promote the Water Action Plan objective of strengthening conservation. California American Water has an established, successful, more robust conservation program. West San Martin customers would ultimately have access to California American Water's wide-ranging conservation programs.

3. Promoting Water Infrastructure Investment

California American Water has greater access to resources, including financing and personnel trained in planning for infrastructure development, therefore helping to advance the Water Action Plan's goal of promoting water infrastructure investment.

4. Assisting Low-Income Ratepayers

West San Martin currently lacks a low-income program. Given West San Martin's size, such a program could prove difficult for West San Martin to implement. California American Water has a well-functioning low-income program and has implemented that program in acquired systems. Moreover, California American Water's program benefits from the company's ability (through coordination with energy companies) to identify customers that qualify. This ability is important because some qualified customers may be unaware of the programs or unsure how to subscribe to them. Because of California American Water's size and scope of operations, the data processing costs are kept low on a per-customer basis. The acquisition, therefore, advances the Water Action Plan's objective of assisting low-income ratepayers.

5. Streamlining Commission's Regulatory Decision-Making

California American Water's acquisition of West San Martin's assets will reduce the workload in terms of Commission review. It decreases the number of independent systems the Commission must regulate and better centralizes reporting for systems.

6. Setting Rates That Balance Investment, Conservation, and Affordability

Due to California American Water's size, financial strength, and the breadth of expertise of its employees, the acquisition supports the Commission Water Action Plan's objectives of strengthening water conservation programs and setting rates that balance investment, conservation, and affordability. In addition, California American Water can spread costs to operate, maintain, and invest over a much larger customer base.

For all these reasons, the acquisition will further the Commission's goals under the Water Action Plan and should be approved by the Commission.

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D. Customer Benefits

As discussed above, the purchase will increase the likelihood of the West San Martin community's long-term access to safe and reliable water services at affordable prices. California American Water's size, and position in the industry and association with American Water, will allow California American Water to meet water quality, reliability, and customer service standards efficiently. California American Water's larger and more specialized workforce and nearby locations allow for expanded customer service options and for assistance in emergency situations. In addition, after the acquisition, customers now served by West San Martin will have access to web self-service for many services, paperless billing and call centers that have the capacity to obtain translation services in several languages.

California American Water also has a robust safety program that focuses on leading indicators. The Company's near miss program is one example of this. Employees are encouraged to report incidents that could have created an injury or accident but did not in that instance. Near miss incidents are reported through a phone call, computer, or handheld device. Corrective actions are then taken if appropriate. Another program is the Company's Safety Lead Program, where field employees are empowered to perform job site safety checks and teach safety courses for co-workers. Learning from their peers is an excellent way to make certain that California American Water communicates safety information to employees and contractors. Finally, each worker carries a "Stop Work Authority" reminder on the back of his/her work identification card. This is a reminder that if an employee feels that a job is unsafe, the employee is empowered to stop the job immediately until the unsafe situation is remedied. All these programs will enhance the safety of the water service provided to customers now served by West San Martin.

The acquisition also benefits current California American Water customers. In the long run, a larger total customer base will spread costs and risks, benefiting all current and future California American Water customers.

E. The Transaction Furthers the Commission's Environmental and Social Justice Goals

The Commission's Environmental and Social Justice Action Plan ("ESJ Plan") identifies existing inequities and proposes actions for how the Commission can use its regulatory authority to address health and safety, consumer protection, program benefits, and enforcement to encompass all the industries it regulates, including energy, water, and communications programs. Goal 3 of the Commission's ESJ Plan is to improve access to high-quality water, communications, and transportation services for ESJ Communities. For water utilities, objectives for this goal include (1) consolidating small water systems, and (2) expanding low-income programs.

The ESJ Plan recognizes consolidation of smaller systems is an important tool to ensure customers receive safe and reliable water. The Commission recognizes smaller water systems often lack the ability to fully comply with increasingly stringent water quality regulations and to be viable in the long-term. As noted above, California American Water will bring economies of

scale, internal expertise, access to resources, as well as greater knowledge and experience. California American Water's much larger size will also enable it to spread costs over a much broader customer base, reducing the chance of rate shock for customers and ensuring that necessary rate increases are more moderate.

As previously discussed, California American Water has a low-income assistance program that has assisted many customers. The Commission's approval of California American Water's acquisition of West San Martin could allow for expansion of that program to customers of West San Martin, which does not currently offer a low-income assistance program. California American Water reports annually to the Commission on its supplier diversity. The Company also conducts diversity fairs to provide opportunities for diverse vendors. California American Water has a Diversity Champion Network and conducts numerous employee trainings. As is noted above, California American Water also provides translation services for customers who would prefer to communicate with the Company in a language other than English.

VI. RATES AND REGULATORY TREATMENT:

A. Request for Authorized Rate Base Equal to Fair Market Value

Applicants request the Commission authorize rate base equal to the total final purchase price (i.e., between \$1,600,000 and \$1,800,000 million plus possible adjustments, if any). This range results from possible payments in connection with the Twin Valley Project.

- Under the Asset Purchase Agreement, the Cash Purchase Price for West San Martin is \$1,800,000.¹²
- At closing, from the \$1,800,000 purchase price, California American will place \$300,000 in an escrow account.¹³
- Of the \$300,000 placed in the escrow account, \$100,000 is an indemnity holdback for satisfying indemnity obligations of West San Martin, with any remainder from the \$100,000 indemnity holdback distributed to West San Martin after a set period of time.¹⁴
- With the holdback, therefore, the minimum amount under the Asset Purchase Agreement that California American Water will pay to purchase West San Martin's assets is \$1,600,000.
- The remaining \$200,000 of the funds placed in the escrow account constitute the Twin Valley Allocation.¹⁵ Twin Valley is a Commission-regulated "Class D" water utility near West San Martin. Twin Valley's system suffers from water quality issues and may seek to connect with and purchase water from West San Martins' system. Such a large, new customer for West San Martin would provide new revenue for West San Martin's system, effectively increasing the number of connections. In recognition of that possibility, the Twin Valley Allocation was included in the Asset Purchase Agreement.

¹² See MDR Response Attachment 26 (Confidential), at Exhibit 1 "Definitions," p. 28 thereto. (CONFIDENTIAL)

¹³ Id. at MDR Response Attachment 26 (Confidential), at Section 2.2(b) thereto.

¹⁴ Id. at MDR Response Attachment 26 (Confidential), at Section 2.2(b) thereto.

¹⁵ Id. at MDR Response Attachment 26 (Confidential), at Section 2.2(b) thereto.

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 Based on the Twin Valley Allocation, portions of the \$200,000 in escrow will be released to West San Martin as milestones in the Twin Valley project are reached. Any remaining portion from the \$200,000 not paid to West San Martin because of unreached milestones will, at the end of a specified period, be returned to California American Water and thereafter such returned portions will be removed from the purchase price and associated rate base for the new system.¹⁶

California American Water requests to record the acquisition on a net basis consistent with generally accepted accounting principles. At close of the acquisition, with California American Water's taking ownership of all of West San Martin's assets included in the transaction, the new rate base for the system would total \$1,800,000. The rate base could then subsequently decrease, potentially to as low as \$1,600,000 (less any depreciation as well), if not all payments in connection with the Twin Valle Allocation are made from escrow.

This purchase price resulted from negotiations between a willing and informed buyer and a willing and informed seller with neither side compelled to enter the transaction hastily or out of necessity. The purchase price conforms to the definition of "fair market value" set forth in Code of Civil Procedure Section 1263.320(a). Inclusion of the entire purchase price (subject to potential reductions associated with the Twin Valley Allocation) in rate base is supported by Commission Decision D.99-10-064 and the Public Water System Investment and Consolidation Act of 1997 ("Consolidation Act"), codified at Public Utilities Code Sections 2718-2720. The Legislature enacted the Consolidation Act to facilitate the acquisitions by Class A water utilities and to:

...aid water systems in making infrastructure improvements, to meet increasingly stringent state and federal drinking water laws, to recognize that economies of scale are achievable in the operation of public water systems, and to provide water corporations with incentives to achieve economies that benefit ratepayers.

Public Utilities Code Section 2720(a) provides that the Commission "shall use the standard of fair market value when establishing the rate base for the distribution system of a public water system acquired by a water [utility]. This standard shall be used for ratesetting." Public Utilities Code Section 2720(a)(2) defines "fair market value" as having the meaning set forth in Code of Civil Procedure Section 1263.320, which states that fair market value is "the highest price … that would be agreed to by a seller, being willing to sell but under no particular or urgent necessity for doing, nor obligated to sell, and a buyer, being ready, willing, and able to buy but under no particular necessity for doing so." The Act, therefore, requires that any water corporation acquiring a public water system use the fair market value as the rate base value of the acquired distribution system.

Applicants request that the Commission authorize inclusion of the full purchase price reached through the Asset Purchase Agreement into California American Water's rate base. As described above, this purchase price is the result of arms' length negotiations between a willing

¹⁶ Id. at MDR Response Attachment 26 (Confidential), at Section 2.2(b) and (e); Asset Purchase Agreement, Exhibit 4, pp. 38-39 ("Calculation of Adjustment Amount").

and knowledgeable buyer and seller. The total purchase price therefore represents the fair market value for the assets purchased, pursuant to Public Utilities Code Section 2720 and Code of Civil Procedure Section 1263.320(a).

D.99-10-064 specifically recognizes that Public Utilities Code Sections 2718-2720 require that any water corporation acquiring a public water system use the fair market value as the rate base value of the acquired distribution system. It should also be noted that, as the appraisal makes clear, the value of the rate base being requested is well below the replacement or reproduction cost new less depreciation value for the system. In addition to being required by statute, the ratemaking requested is in the public interest. The purchase of West San Martin's assets by California American Water supports and furthers the long-term provision of safe, reliable, and affordable water and services to current West San Martin customers.

B. The Appraisal Complies with Commission Guidelines and Supports the Acquisition

The "West San Martin Water Works, Inc. Water System Condition Assessment, Valuation and Capital Improvement Plan," dated March 2023 ("Appraisal"), is <u>MDR Response</u> <u>13 Attachment</u>. The Appraisal complies with Commission guidelines and is appropriate for this type of transaction. The \$10.6 million appraised value for the system well exceeds the possible maximum purchase price or \$1.8 million. Thus, the Appraisal supports approval of the acquisition.

Under the Commission guidelines for water system acquisitions established in D.99-10-064, Appendix D, Section 2.05, applications to acquire water systems should include an appraisal and that appraisal "should include all assets, including the value of the land and the cost of replacing the existing improvements, less accumulated depreciation." The Appraisal provided with this Advice Letter includes all assets and the cost of replacing those assets less accumulated depreciation.¹⁷ It, therefore, meets these requirements.

D.99-10-064, Appendix D, Section 2.05 further states: "The complexity and detail required [for the appraisal] will necessarily vary based on the size and price of the acquired water system." West San Martin is a small water system acquisition. The total purchase price is well below \$2 million dollars. The number of connections barely exceeds 300. The Appraisal, therefore, is simpler and not as complex as larger, more sophisticated acquisitions might require.¹⁸

¹⁷ See Appraisal, p. 13, include as <u>MDR Response 13 Attachment</u>.

¹⁸ The appraisal in this acquisition is a Replacement Cost New Less Depreciation Appraisal. It considers basic depreciation of the assets. It does not, as significantly more complex appraisals do, account for things such as economic obsolescence. By way of example, in A.20-04-003, California American Water sought Commission authorization to purchase the East Pasadena Water Company. That transaction involved a \$34 million purchase price for a system with over 3,000 connections. The "size and price" of that acquisition warranted a correspondingly more complex appraisal that considered economic obsolescence. In that case, the total value of the system prior to consideration of economic obsolescence was \$49.2 million. Applying economic obsolescence reduced the value in the appraisal to \$43.2 million. Given that the Appraisal in

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Finally, pursuant to Cal. Pub. Util. Code section 2720(b), "[i]f the fair market value exceeds the reproduction cost, as determined in accordance with Section 820 of the Evidence Code, the commission may include the difference in rate base for rate setting purposes if" certain conditions are met. Here, there is no need to conduct the section 2720(b) analysis. The appraised value of \$10.6 million well exceeds the purchase price or between \$1.6 and \$1.8 million.¹⁹

C. Rate Impact

Eventual impacts to West San Martin Water Works customers transitioning to California American Water rates will vary, depending on a customer's usage. This acquisition will not impact current California American Water Customers' rates or West San Martin customers' rates until 2027.

For purposes of illustration, if current California American Water customer rates did initially change based on the acquisition, it is expected those changes would be as follows:

COMPARISON OF TOTAL RESIDENTIAL BILL PER CUSTOMER PER MONTH										
	BASED ON CURRENT AUTHORIZED RATES									
2	Avg Res Usage	Pre- Acquisition	Post- Acquisition Forecasted	<u></u>	24					
District	(CGL)(-)			\$ Increase	% Increase					
Sacramento	/8.30	\$65.10	\$65.14	\$0.04	0.064%					
Fruitridge	78.30	\$70.90	\$70.95	\$0.05	0.064%					
Larkfield	60.47	\$81.40	\$81.45	\$0.05	0.064%					
Dunnigan WW	N/A	\$41.96	\$41.98	\$0.03	0.064%					
Meadowbrook	120.94	\$61.38	\$61.42	\$0.04	0.064%					
Monterey	34.83	\$117.48	\$117.56	\$0.07	0.064%					
Central Satellites	82.91	\$121.20	\$121.28	\$0.08	0.064%					
Chualar	117.19	\$45.52	\$45.55	\$0.03	0.064%					
Monterey Wastewater - Active	N/A	\$146.16	\$146.26	\$0.09	0.064%					
Monterey Wastewater - Passive	N/A	\$93.15	\$93.21	\$0.06	0.064%					
Ventura	92.68	\$100.96	\$101.03	\$0.06	0.064%					
LA - Duarte	106.69	\$98.92	\$98.98	\$0.06	0.064%					

the current acquisition came in more than \$8 million over the \$1.6 - \$1.8 million purchase price, it is not expected that, even if economic obsolesce was considered, that would reduce the appraised value to any point near where the purchase price exceeded that appraised value. ¹⁹ See Appraisal, p. 13, include here as <u>MDR Response 13 Attachment</u>.

LA - Baldwin Hills	89.06	\$87.79	\$87.84	\$0.06	0.064%
LA - San Marino	121.95	\$113.28	\$113.35	\$0.07	0.064%
San Diego	56.70	\$78.91	\$78.96	\$0.05	0.064%
West San Martin	113.56	\$72.44	\$72.49	\$0.05	0.064%

(1) Residential usage per customer per month from A.22-07-001

(2) Total Bill based on Rates from AL 1404 & AL1406

(3) Bill impacts are presented as monthly comparison; however, flat rate residential customers are billed on a semi-annual basis. Applicable surcharges are estimated based on location.

VII. MEMORANDUM ACCOUNTS

California American Water seeks authorization to track certain costs in the memorandum accounts discussed below. Costs included therein may be considered for recovery in subsequent GRCs. Establishing memorandum accounts does not guarantee recovery of costs. It is simply a first step in the recovery process. To establish a memorandum account, the following may be considered with respect to the expense to be tracked: (1) were they caused by an event of an exceptional nature not under the control of the utility; (2) could they have been reasonably foreseen; (3) are they of a substantial nature in monetary terms; and (4) do ratepayers benefit from the memorandum account treatment.

A. West San Martin Acquisition Contingency Memorandum Account

Although integration of West San Martin for ratemaking purposes will not take place until 2027, it is still necessary for California American Water to obtain recovery of the approved acquisition consideration paid in the interim period. To track this revenue requirement associated with the acquisition, California American Water requests authority to create the WSMACMA to track lost revenue from all affected entities until the acquisition can be integrated for ratemaking purposes as part of a subsequent GRC. This account would capture the differences between revenues billed at current West San Martin rates and revenues that would have been billed under the final rates effective January 1, 2024²⁰, if the West San Martin system were integrated for ratemaking following the decision in California American Water's pending GRC. The associated revenue requirement will consist of items including, but not limited to, return on investment, ad valorem tax, depreciation, general office costs, other taxes and fees, and incremental operating expenses.

Here, the requirements under Standard Practice U-27-W to establish a memorandum account are met. First, the expense is caused by an event of an exceptional nature not under

²⁰ This differential capture would include differences in all revenue requirements of all entities in California American Water where a difference may occur due to the inability to capture the West San Martin acquisition in the prior California American Water GRC.

the utility's control. This memorandum account is only required because the acquisition could not be incorporated into the GRC filed on July 1, 2022 for Test Year 2024. As noted above, the APA was executed on December 20, 2022, or a little more than 6 months after the submittal of California American Water's GRC application filed in July 2022, and this Advice Letter requesting approval of the acquisition was filed in July of 2023. Clearly, it was not possible for California American Water to include incorporation of the West San Martin acquisition within the last GRC filing. Further, the acquisition of a Class D water system with over 300 connections is an event of exceptional nature. The Commission will decide on the schedule for this proceeding and the date of the ultimate Resolution. Such a Resolution and its timing are outside of California American Water's control.

Second, the expenses in question here could not have been reasonably foreseen in California American Water's last GRC and would occur before the utility's next scheduled case. California American Water's last GRC for which there is a final decision is Application 19-07-004, filed on July 1, 2019 and closed with D.21-11-018 issued in November of 2021. As noted above, California American Water has a pending GRC Application, A.22-07-001. This Advice Letter for the acquisition of West San Martin is being filed in July 2023, so clearly it could not have been reasonably foreseen in the last GRC decision issued by the Commission or even in the last GRC Application will be filed in July of 2025 for Test Year 2027. Although this acquisition filing will be incorporated into that GRC, it will likely be approved prior to the 2027 Test Year.

Third, the expense is of a substantial nature as to the amount of money involved. The requested memorandum account would track the differences between revenues billed at current rates and revenues that would have been billed assuming full ratemaking integration upon close. The associated revenue requirement will consist of items including, but not limited to, return on investment, ad valorem tax, depreciation, other taxes and fees, and incremental operating expenses. Given the rate base at issue, these expenses would be of a substantial nature.

Fourth, the ratepayers will benefit by the memorandum account treatment. The purchase of West San Martin by California American Water promotes the public interest and is in line with Commission and SWRCB directives and findings, which recognize that the purchase of smaller utilities is important and provides benefits, including to ratepayers. Ensuring the appropriate recovery of costs associated with such transactions helps make such acquisitions possible. Further, a memorandum account provides for tracking of costs for future Commission prudency and reasonableness review prior to cost recovery. Thus, customers will benefit from the acquisition and will benefit by establishment of this account.

B. West San Martin Transaction Cost Memorandum Account

With any acquisition, certain transaction costs are inevitable. Here, they may include the cost for outsourced services, such as legal, engineering, surveying, the appraisal, noticing, and other professional activities necessary to complete the proposed transaction. California American Water requests establishment of a memorandum account to track these transaction costs.

This memorandum account meets the requirements established pursuant to Commission Standard Practice U-27-W. With respect to transaction costs, each of these requirements is met. First, the expense is caused by an event of an exceptional nature that is not under the utility's control. This memorandum account is necessary given the acquisition of a Class D water utility with just above 300 connections is an event of exceptional nature. Transaction costs are inherent in the acquisition of smaller water systems and the acquiring company should receive due consideration of recovery of these costs. The Commission will decide on the schedule for this proceeding and the date of the ultimate decision and recovery of costs. Thus, such a decision and its timing are outside of California American Water's control.

Second, the expenses in question here could not have been reasonably foreseen in California American Water's last GRC and will occur before the utility's next scheduled case. The West San Martin acquisition could not have been included in California American Water's last GRC given that the agreement between West San Martin and California American Water was not executed until December 2022 – six months after the 2022 GRC was filed. Were the Commission to approve this acquisition, California American Water intends to integrate for rates purposes the West San Martin system in California American Water's 2025 GRC, provided that can be achieved. Therefore, these transaction costs have been and will be incurred between rate cases.

Third, the expense is of a substantial nature as to the amount of money involved. As noted above, transaction costs include outsourced services, such as legal, engineering, surveying, the appraisal, noticing costs, and other professional activities necessary to complete the proposed transaction. These costs are substantial in nature.

Fourth, the ratepayers will benefit by the memorandum account treatment. As discussed in this Advice Letter, the purchase of West San Martin by California American Water promotes the public interest and is in line with Commission and SWRCB directives and findings, which recognize that the purchase of smaller utilities is important and provides benefits, including to ratepayers. Ensuring the appropriate recovery of costs associated with such transactions helps make such acquisitions possible. Further, a memorandum account provides for tracking of costs for future Commission prudency and reasonableness review prior to cost recovery. Thus, customers will benefit from the acquisition and will benefit by this account.

California American Water should be permitted to establish a memorandum account to track transaction costs for future recovery. California American Water further proposes that it be allowed to defer any unrecovered transaction cost as a recoverable regulatory asset. In its subsequent GRC, California American Water will support the prudency of the transaction costs, seek recovery of the costs, and request that the Commission authorize such recovery.

C. West San Martin Memorandum Account for Environmental Improvements and Compliance Issues

California American Water also requests Commission approval to expand the currently authorized memorandum account entitled "Memorandum Account for Environmental Improvements and Compliance Issues for Acquisitions." That approval would allow California American Water to record in that account the same type of costs in connection with the West San Martin acquisition as California American Water was allowed to record in that account for the acquisitions of the Dunnigan, Geyserville, Meadowbrook, Fruitridge Vista, East Pasadena, and Rio Plaza water systems.²¹ The costs to address environmental compliance and required

²¹ Because California American Water is not seeking to establish a new memorandum account, meeting the prerequisites for creating such an account is not necessary. That said, because of the nature of the costs to be tracked, such prerequisites are nonetheless satisfied. The

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improvements have yet to be determined. Such costs are not under the utility's control, nor can they be reasonably foreseen. Compliance with such requirements, however, ensures safety, benefitting ratepayers. The proposed memorandum account treatment helps make certain that the requisite capital expenditures will be subject to regulatory oversight and that funds will be used judiciously.

VIII. CALIFORNIA ENVIRONMENTAL QUALITY ACT

California Environmental Quality Act (CEQA) review is not required as this advice letter filing involves only the transfer of the existing water facilities and no new construction or changes in the source of water supply are being proposed with the proposed asset sale. Accordingly, approval of this advice letter is not a CEQA project as it is not possible that the transaction will have any significant effect on the environment.

IX. NOTICE

The final draft of the proposed notice is included as MDR Response 20 Attachment. It was provided to the Commission's Public Advisor's Office ("PAO") on June 28, 2023. The PAO returned the edited, approved final draft later that day. The notice will be served on both California American Water customers across California as well as West San Martin Customers. Because it will take up to 45 days to send out all the notices, as indicated in the notice, the protest period for this Advice Letter will be 65 days rather than the standard 20 days.

Tier Designation:

Pursuant to General Order No. 96-B, this advice letter is designated as a Tier 3 filing.

Effective Date:

California American Water requests California American Water's Monterey District tariffs become effective for five days after California American Water files a Tier 3 Advice Letter that provides details of the finalized purchase.

Notice and Service List:

In accordance with General Order 96-B, General Rule 4.3 and 7.2 and Water Industry Rule 4.1, a copy of this advice letter will be transmitted electronically to competing and adjacent utilities and other utilities or interested parties having requested such notification. *Please note that this advice letter will only be distributed electronically.*

A sample copy of notice provided to West San Martin Water Works customers is attached as Exhibit H. A sample copy of notice provided to existing California American Water Monterey District customers is attached as Exhibit I.

memorandum account treatment helps make certain that the requisite capital expenditures will be subject to regulatory oversight and that funds are used judiciously.

Protest and Responses:

Anyone may respond to or protest this advice letter. A response supports the filing and may contain information that proves useful to the Commission in evaluating the advice letter.

A protest objects to the advice letter in whole or in part and must set forth the specific grounds on which it is based. These grounds may include the following:

(1) The utility did not properly serve or give notice of the advice letter;

(2) The relief requested in the advice letter would violate statute or Commission order, or is not authorized by statute or Commission order on which the utility relies;

(3) The analysis, calculations, or data in the advice letter contain material error or omissions;

(4) The relief requested in the advice letter is pending before the Commission in a formal proceeding; or

(5) The relief requested in the advice letter requires consideration in a formal hearing, or is otherwise inappropriate for the advice letter process; or

(6) The relief requested in the advice letter is unjust, unreasonable, or discriminatory (provided that such a protest may not be made where it would require relitigating a prior order of the Commission.)

A protest shall provide citations or proofs where available to allow staff to properly consider the protest.

A response or protest must be made in writing or by electronic mail and must be received by the Water Division within 65 days of the date this advice letter is filed. The address for mailing or delivering a response or protest is:

Tariff Unit, Water Division, 3rd floor California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, CA 94102 water division@cpuc.ca.gov

On the same date the response or protest is submitted to the Water Division, the respondent or protestant shall send a copy by mail (or e-mail) to us, addressed to:

Recipients:	E-Mail:	Mailing Address:
CA Rates	ca.rates@amwater.com	520 Capitol Mall, Suite
		630
		Sacramento, CA 95814
Sarah E. Leeper	sarah.leeper@amwater.com	555 Montgomery Street
-		Suite 816

Vice President - Legal, Regulatory		San Francisco, CA 94102 Fax: (415) 863-0615
Nicholas Subias Director, Legal – Regulatory	nicholas.subias@amwater.com	555 Montgomery Street Suite 816 San Francisco, CA 94102 Fax: (415) 293-3024
Jonathan Morse <i>Sr. Manager –</i> <i>Rates & Regulatory</i>	jonathan.morse@amwater.com	520 Capitol Mall, Suite 630 Sacramento, CA 95814

Cities and counties that need Board of Supervisors or Board of Commissioners approval to protest should inform the Water Division, within the protest period (here, 65-days), so that a late filed protest can be entertained. The informing document should include an estimate of the date the proposed protest might be voted on.

The actions requested in this advice letter are not now the subject of any formal filings with the California Public Utilities Commission, including a formal complaint, nor action in any court of law.

This filing will not cause the withdrawal of service, nor conflict with other schedules or rules.

If you have not received a reply to your protest within 10 business days, please contact me at (916) 568-4279.

CALIFORNIA-AMERICAN WATER COMPANY

/s/ Leana Ramirez

Leana Ramirez Business Support Specialist

BY MAIL:

Maxine Harrison California Public Utilities Commission Executive Division 320 West 4th Street Suite 500 Los Angeles, CA 90013

Gregory J. Smith, County Clerk County of San Diego County Administration Center 1600 Pacific Highway, Room 260 San Diego, CA 92101

Jim Sandoval, City Manager City of Chula Vista 276 Forth Avenue Chula Vista, CA 91910

Sacramento County WMD 827 7th Street, Room 301 Sacramento, CA 95814

Citrus Heights Water District 6230 Sylvan Road Citrus Heights, CA 95610 rchurch@chwd.org

San Gabriel County Water District 8366 Grand Ave Rosemead, CA 91770

Louis A. Atwell Director of Public Works City of Inglewood One W. Manchester Blvd. Inglewood, CA 90301 Noland, Hamerly, Etienne & Hoss 333 Salinas Street Salinas, CA 93901

Wallin, Kress, Reisman & Krantiz, LLP 11355 West Olympic Blvd., SUITE 300 Los Angeles, CA 90064

Barbara Delory 4030 Bartlett Avenue Rosemead, CA 91770-1332

Gary E. Hazelton County Clerk – Recorder Santa Cruz County 701 Ocean Street, Room 210 Santa Cruz, CA 95060

Henry Nanjo Department of General Services Office of Legal Services, MS-102 PO Box 989052 West Sacramento, CA 95798-9052

City of Chula Vista Director of Public Works 276 Forth Avenue Chula Vista, CA 91910

City of Camarillo 601 Carmen Drive Camarillo, CA 93010

Los Angeles Docket Office California Public Utilities Commission 320 West 4th Street, Suite 500 Los Angeles, CA 90013 Mark Brooks Utility Workers Union Of America 521 Central Ave. Nashville, TN 37211

Ann Camel City Clerk City of Salinas 200 Lincoln Avenue Salinas, CA 93901

Carol Nickborg POB 4029 Monterey, CA 93942

Steven J. Thompson 5224 Altana Way Sacramento, CA 95814

Hatties Stewart 4725 S. Victoria Avenue Los Angeles, CA 90043

Anne Moore, City Attorney City of Chula Vista 276 Forth Avenue Chula Vista, CA 91910

Karen Crouch City Clerk, Carmel-By-The-Sea PO Box CC Carmel-by-the-Sea, CA 93921

Marcus Nixon Asst. Public Advisor 320 W. 4th Street, Suite 500 Los Angeles, CA 90013

James R. Lough, City Attorney City of Imperial Beach 825 Imperial Beach Blvd. Imperial Beach, CA 91932

Robert C. Baptiste 9397 Tucumcari Way Sacramento, CA 95827-1045

Mario Gonzalez 111 Marwest Commons Circle Santa Rosa, CA 95403

William M. Marticorena Rutan & Tucker, LLP 611 Anton Blvd., 14th Floor Costa Mesa, CA 92626-1931

James L. Markman Richards, Watson & Gershon 355 South Grand Avenue, 40th Floor Los Angeles, CA 90071-3101

Rex Ball SR/WA, Senior Real Property MGMT County of Los Angeles 222 South Hill Street, 3rd Floor Los Angeles, CA 90012

City of San Gabriel City Clerk 425 S. Mission Drive San Gabriel, CA 91776

Michelle Keith City Manager City of Bradbury 600 Winston Avenue Bradbury, CA 91008 Ventura County Waterworks District 7150 Walnut Canyon Road P.O. Box 250 Moorpark, CA 93020

Michelle Keith City Manager City of Bradbury 600 Winston Avenue Bradbury, CA 91008

City of Sand City City Hall California & Sylvan Avenues Sand City, CA 93955 Attn: City Clerk

Yazdan Enreni, P.E. Public Works Director Monterey County DPW 168 West Alisal Steet, 2nd Floor Salinas, CA 93901-4303

Fruitridge Vista Water Company P.O. Box 959 Sacramento, CA 95812

Monterey Regional Water Pollution Control Agency (MRWPCA) 5 Harris Court Road. Bldg D. Monterey, CA 93940

Carol Smith 6241 Cavan Drive, 3 Citrus Heights, CA 95621

Anthony La Bouff, County Counsel Placer County 175 Fulweiler Avenue Auburn, CA 95603 Temple City City Clerk 9701 Las Tunas Dr. Temple City, CA 91780

City of Los Angeles Department of Water and Power 111 North Hope Street Los Angeles, CA 90012 Attn: City Attorney

Darryl D. Kenyon Monterey Commercial Property Owners Association P.O. Box 398 Pebble Beach, CA 93953

Edward W. O'Neill Davis Wright Tremaine LLP 505 Montgomery Street San Francisco, CA 94111-6533

Marc J. Del Piero 4062 El Bosque Drive Pebble Beach, CA 93953-3011

Barbara Morris Layne 36652 Hwy 1, Coast Route Monterey, CA 93940

Irvin L. Grant Deputy County Counsel County of Monterey 168 W. Alisal Street, 3rd floor Salinas, CA 93901-2680

Deborah Mall, City Attorney City of Monterey 512 Pierce Street Monterey, CA 93940

Penngrove/Kenwood Water Co 4984 Sonoma Hwy Santa Rosa, CA 95409

City of Monrovia City Clerk 415 South Ivy Ave Monrovia, CA 91016

City of Rosemead City Clerk 8838 E. Valley Blvd Rosemead, CA 91770

Alco Water Service 249 Williams Road Salinas, CA 93901 Will and Carol Surman 36292 Highway One Monterey, CA 93940

Don Jacobson 115 Farm Road Woodside, CA 94062-1210

Jose E. Guzman, Jr. Guzman Law Offices 288 Third Street, Ste. 306 Oakland, CA 94607

Sacramento Suburban Water District 3701 Marconi Avenue, Suite 100 Sacramento, CA 95821-5303 City of Thousand Oaks Water Dept. 2100 E. Thousand Oaks Blvd. Thousand Oaks, CA 91362

Rio Linda Water District 730 L Street Rio Linda, CA 95673

Robert A. Ryan, Jr. County of Sacramento Downtown Office 700 H Street, Suite 2650 Sacramento, CA 95814

Valerie Ralph, Clerk of the Board County of Monterey P.O. Box 1728 Salinas, CA 93902

BY E-MAIL:

Public Advocates Office California Public Utilities Commission <u>dra_water_al@cpuc.ca.gov</u>

Sunnyslope Water Company 1040 El Campo Drive Pasadena, CA 91109 <u>sswc01_jcobb@sbcglobal.net</u> Lori Ann Dolqueist Nossaman LLP 50 California Street, 34th Floor San Francisco, CA 94111 Idolqueist@nossaman.com

Richard Rauschmeier California Public Utilities Commission PAO - Water Branch, Rm 4209 505 Van Ness Ave San Francisco, CA 94102 rra@cpuc.ca.gov

East Pasadena Water Company 3725 Mountain View Pasadena, CA 91107 <u>larry@epwater.com</u> Johanna Canlas, City Attorney City of Coronado 501 West Broadway, Suite 1600 Coronado, CA 92101 jcanlas@bwslaw.com

Ms. Lisa Bilir California Public Utilities Commission Public Advocates Office 505 Van Ness Avenue San Francisco, CA 94102 Lwa@cpuc.ca.gov

Christina Baker, City Clerk City of San Marino 2200 Huntington Drive, 2nd floor San Marino, CA 91108 <u>cityclerk@cityofsanmarino.org</u>

Annette Juarez, City Clerk City of Duarte 1600 Huntington Drive Duarte, CA 91010 ajuarez@accessduarte.com

B. Tilden Kim Attorney At Law Richards Watson & Gershon 355 South Grand Avenue, 40th Floor Los Angeles, CA 90071 <u>tkim@rwglaw.com</u> Monterey Peninsula Water Mgmt Dist. Chief Financial Officer

P.O. Box 85 Monterey, CA 93942 <u>suresh@mpwmd.net</u> <u>arlene@mpwmd.net</u> Rates Department

California Water Service Company 1720 North First Street San Jose, CA 95112 rateshelp@calwater.com

Laura Nieto City of Irwindale Chief Deputy City Clerk 5050 North Irwindale Avenue Irwindale, CA 91706 Inieto@IrwindaleCA.gov

Dana McRae County Counsel County of Santa Cruz 701 Ocean Street, Room 505 Santa Cruz, CA 95060 dana.mcrae@co.santa-cruz.ca.us

Citrus Heights Water District 6230 Sylvan Road Citrus Heights, CA 95610 hstraus@chwd.org

Johnny Yu 5356 Arnica Way Santa Rosa, CA 95403 johnnyyu@sbcglobal.net Lisa Travis Deputy County Counsel County of Sacramento 600 8th Street Sacramento, CA 95814 <u>travisl@saccounty.net</u>

Barry Gabrielson bdgabriel1@aol.com

John Corona Utilities Superintendent City of Arcadia Water Dept. Arcadia, CA 91006 jcorona@arcadiaca.gov

San Gabriel Valley Water Company 11142 Garvey Blvd. El Monte, CA 91734 <u>dadellosa@sgvwater.com</u>

City of Inglewood City Hall One W. Manchester Blvd. Inglewood, CA 90301 brai@cityofinglewood.org

James Bouler Larkfield/Wikiup Water District Advisory 133 Eton Court Santa Rosa, CA 95403 jbouler@comcast.net

Tim & Sue Madura 411 Firelight Drive Santa Rosa, CA 95403 <u>suemadura@sbcglobal.net</u>

City of Sacramento, Water Division 1391 35th Avenue Sacramento, CA 95822 <u>utilitiescs@cityofsacramento.org</u> Cliff Finley, PE Director of Public Works City of Thousand Oaks 2100 Thousand Oaks Blvd Thousand Oaks, CA 91363 <u>cfinley@toaks.org</u>

Placer County Water Agency Customer Service Department <u>customerservices@pcwa.net</u>

John K. Hawks Executive Director California Water Association 601 Van Ness Avenue, Suite 2047 San Francisco, CA 94102-3200 jhawks_cwa@comcast.net

Mary Martin 4611 Brynhurst Ave. Los Angeles, CA 90043 <u>Marymartin03@aol.com</u>

Brent Reitz Capital Services P.O. Box 1767 Pebble Beach CA 93953 reitzb@pebblebeach.com

Marvin Philo 3021 Nikol Street Sacramento, CA 95826 <u>mhphilo@aol.com</u>

Jim McCauley, Clerk-Recorder Placer County 2954 Richardson Drive Auburn, CA 95603 <u>skasza@placer.ca.gov</u>

Jim Heisinger P.O. Box 5427 Carmel, CA 93921 <u>hbm@carmellaw.com</u>

Florin County Water District P.O. Box 292055 Sacramento, CA 95829 <u>fcwd@sbcglobal.net</u>

George Riley Citizens for Public Water 1198 Castro Road Monterey, CA 91940 georgetriley@gmail.com

City of Del Rey Oaks City Hall 650 Canyon Del Rey Road Del Rey Oaks, CA 93940 Attn: City Clerk <u>citymanager@delreyoaks.org</u> <u>kminami@delreyoaks.org</u>

David C. Laredo and Fran Farina Attorneys at Law DeLay & Laredo 606 Forest Ave Pacific Grove, CA 93950 <u>dave@laredolaw.net</u>

City of El Monte Chief Deputy City Clerk 11333 Valley Blvd El Monte CA 91731-3293 Cityclerk@elmonteca.gov

County of Ventura 800 South Victoria Avenue Ventura, CA 93009 wspc@ventura.org

Jennifer Ekblad, MMC, CPM City Clerk City of Coronado 1825 Strand Way Coronado, CA 92118 <u>cityclerk@coronado.ca.us</u> Amy Van, City Clerk City of Citrus Heights 6237 Fountain Square Drive Citrus Heights, CA 95621 avan@citrusheights.net

Yvonne Zepeda, Deputy City Clerk City of Isleton P.O. Box 716 Isleton, CA 95641 <u>Yvonne.zepeda@cityofisleton.com</u>

Clerk of the Board County of Monterey P.O. Box 1728 Salinas, CA 93902 <u>cob@co.monterey.ca.us</u>

Bernardo R. Garcia PO Box 37 San Clemente, CA 92674-0037

Mike Niccum General Manager Pebble Beach Community Svcs. District 3101 Forest Lake Road Pebble Beach, CA 93953 <u>mniccum@pbcsd.org</u>

Carmel Area Wastewater District 3945 Rio Road Carmel, CA 93923 <u>buikema@cawd.org</u>

Monterey Peninsula Water Mgmt Dist. Chief Financial Officer P.O. Box 85 Monterey, CA 93942 <u>suresh@mpwmd.net</u> Laura L. Krannawitter California Public Utilities Commission Executive Division, Rm 5303 505 Van Ness Avenue San Francisco, CA 94102 Laura.krannawitter@cpu.ca.gov

City of Monterey City Hall Monterey, CA 93940 Attn: City Clerk connolly@ci.monterey.ca.us

City of Seaside, City Hall Seaside, CA 93955 Attn: City Clerk <u>dhodgson@ci.seaside.ca.us</u> to'halloran@ci.seaside.ca.us <u>cityatty@ix.netcom.com</u> <u>cityattorney@ci.seaside.ca.us</u>

City of Salinas Christopher A. Callihan, Esq. City Attorney 200 Lincoln Avenue Salinas, CA 93901 <u>chrisc@ci.salinas.ca.us</u>

Audrey Jackson Golden State Water Company 630 E. Foothill Blvd. San Dimas, CA 91773 <u>afjackson@gswater.com</u>

David Heuck Accounting 2700 17 Mile Drive Pebble Beach, CA 93953 heuckd@pebblebeach.com

Mara W. Elliott, City Attorney City of San Diego 1200 Third Avenue, Suite 1620 San Diego, CA 92101 <u>cityattorney@sandiego.gov</u>

Thomas Montgomery, County Counsel County of San Diego County Administration Center 1600 Pacific Highway, Room 260 San Diego, CA 92101 thomas.montgomery@sdcounty.ca.gov

Sheri Damon City of Seaside, City Attorney 440 Harcourt Avenue Seaside, CA 93955 <u>cityatty@ix.netcom.com</u> cityattorney@ci.seaside.ca.us

Rafael Lirag California Public Utilities Commission Administrative Law Judge 505 Van Ness Avenue Room 4101 San Francisco, CA 94102-3214 <u>Rafael.lirag@cpuc.ca.gov</u> Jacqueline M. Kelly, MMC City Clerk City of Imperial Beach 825 Imperial Beach Blvd. Imperial Beach, CA 91932 jkelly@imperialbeachca.gov

Susan Sommers City Of Petaluma P.O. Box 61 Petaluma, CA 94953 <u>suesimmons@ci.petaluma.ca.us</u> Elizabeth Maland, City Clerk City of San Diego 202 C Street, 2nd Floor San Diego, CA 92101 <u>cityclerk@sandiego.gov</u>

Jon Giffen City Attorney City of Carmel-By-The-Sea P.O. Box 805 Carmel-By-The-Sea, CA 93921 jgiffen@kaglaw.net

CALIFORNIA-AMERICAN WATER COMPANY ADVICE LETTER 1416 SUPPORTING DOCUMENTATION FOR STAFF

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CALIFORNIA AMERICAN WATER WEST SAN MARTIN WATER COMPANY ACQUISITION

REVENUE REQUIREMENT ASSUMING CONSOLIDATION (\$ in Thousands)

\$1.8M PURCHASE PRICE

	West San Martin Forecast	West San Martin Standalone Post- Acquisition Without Increase/Decrease in Rates**	West San Martin Standalone Post- Acquistion Earning Authorized ROR	West San Martin Revenue Supported Rate Base	Revenue Requirement of Rate Base Transferred to Corporate	CAW Forecasted (per GRC A. 22- 07-001)	Combined
	Year 2024*	Year 2024*	Year 2024*	Year 2024*	Year 2024*	Year 2024*	Year 2024*
	(1)	(2)	(3)	(4)	(5)	(6)	(7) = (3) + (6)
Operating Revenues							
Total Revenue	670.5	670.5	889.6	670.5	219.1	344,155	345,045
Operation & Maintenance Exp							
Total O&M expenses	619.7	579.9	579.9	579.9	-	200,007	200,587
Depreciation	20.4	51.3	51.3	15.0	36.3	44,094	44,145
General Taxes	68.1	68.1	68.1	19.9	48.2	13,384	13,452
Total Operating Expenses	708.1	699.4	699.4	614.9	84.5	257,484	258,184
Income Before Income Taxes	(37.7)	(28.9)	190.2	55.6	134.6	86,671	86,861
Total Income Taxes TOTAL EXPENSES	3.2 711.3	- 699.4	53.2 752.6	15.6 630.4	37.7 122.2	17,211 274,695	17,264 275,448
Utility Operating Income	(40.9)	(28.9)	137.0	40.1	96.9	69,460	69,597
Average Rate Base Return on Rate Base	292.8 -13.95%	1,800.0 -1.60%	1,800.0 7.61%	526.3 7.61%	1,273.7 7.61%	912,744 7.61%	914,544 7.61%
% Revenue Increase Attributed to West San Martin Customers: % Revenue Increase Attributed to CAW customers: Total % Revenue Increase:							0.19% 0.06% 0.26%

*Assumes acquisition closes in 2024 per CPUC approved processing schedule approved in D.99-10-064 and estimated 30 to 90 days post-Decision to close

**Modeling assumes synergies incorporated in Y1

CALIFORNIA AMERICAN WATER WEST SAN MARTIN WATER COMPANY ACQUISITION \$1.8M PURCHASE PRICE

COMPARISON OF TOTAL RESIDENTIAL BILL PER CUSTOMER PER MONTH BASED ON CURRENT AUTHORIZED RATES										
Post-Acquisition Avg Res Usage Pre-Acquisition Forecasted District (CGL) ⁽¹⁾ Total Bill ⁽²⁾ Total Bill \$ Increase % Inc										
Sacramento	78.30	\$65.10	\$65.14	\$0.04	0.064%					
Fruitridge	78.30	\$70.90	\$70.95	\$0.05	0.064%					
Larkfield	60.47	\$81.40	\$81.45	\$0.05	0.064%					
Dunnigan WW	N/A	\$41.96	\$41.98	\$0.03	0.064%					
Meadowbrook	120.94	\$61.38	\$61.42	\$0.04	0.064%					
Monterey	34.83	\$117.48	\$117.56	\$0.07	0.064%					
Central Satellites	82.91	\$121.20	\$121.28	\$0.08	0.064%					
Chualar	117.19	\$45.52	\$45.55	\$0.03	0.064%					
Monterey Wastewater - Active	N/A	\$146.16	\$146.26	\$0.09	0.064%					
Monterey Wastewater - Passive	N/A	\$93.15	\$93.21	\$0.06	0.064%					
Ventura	92.68	\$100.96	\$101.03	\$0.06	0.064%					
LA - Duarte	106.69	\$98.92	\$98.98	\$0.06	0.064%					
LA - Baldwin Hills	89.06	\$87.79	\$87.84	\$0.06	0.064%					
LA - San Marino	121.95	\$113.28	\$113.35	\$0.07	0.064%					
San Diego	56.70	\$78.91	\$78.96	\$0.05	0.064%					
West San Martin	113.56	\$72.44	\$72.49	\$0.05	0.064%					

(1) Residential usage per customer per month from A.22-07-001

(2) Total Bill based on Rates from AL 1404

(3) Bill impacts are presented as monthly comparison, however flat rate residential customers are billed on a semi-annual basis

* Surcharges are estimated as License Tax, Franchise Fee, and WRAM/MCBA varies base on location.

CALIFORNIA AMERICAN WATER WEST SAN MARTIN WATER COMPANY ACQUISITION \$1.8M PURCHASE PRICE

COMPARISON OF TOTAL RESIDENTIAL BILL PER CUSTOMER PER MONTH BASED ON PENDING GRC RATE CHANGES										
District	Avg Res Usage (CGL) ⁽¹⁾	Pre-Acquisition Total Bill ⁽²⁾	Post-Acquisition Forecasted Total Bill	\$ Increase	% Increase					
Sacramento	78.30	\$67.20	\$67.24	\$0.04	0.064%					
Fruitridge	78.30	\$70.99	\$71.03	\$0.05	0.064%					
Larkfield	60.47	\$78.80	\$78.85	\$0.05	0.064%					
Dunnigan WW	N/A	\$48.56	\$48.59	\$0.03	0.064%					
Meadowbrook	120.94	\$58.64	\$58.67	\$0.04	0.064%					
Monterey	34.83	\$112.81	\$112.88	\$0.07	0.064%					
Central Satellites	82.91	\$129.97	\$130.05	\$0.08	0.064%					
Chualar	117.19	\$45.67	\$45.70	\$0.03	0.064%					
Monterey Wastewater - Active	N/A	\$159.90	\$160.01	\$0.10	0.064%					
Monterey Wastewater - Passive	N/A	\$100.84	\$100.90	\$0.06	0.064%					
Ventura	92.68	\$101.83	\$101.90	\$0.06	0.064%					
LA - Duarte	106.69	\$100.92	\$100.98	\$0.06	0.064%					
LA - Baldwin Hills	89.06	\$88.93	\$88.98	\$0.06	0.064%					
LA - San Marino	121.95	\$113.66	\$113.73	\$0.07	0.064%					
San Diego	56.70	\$77.56	\$77.61	\$0.05	0.064%					
West San Martin	113.56	\$72.44	\$72.49	\$0.05	0.064%					

(1) Residential usage per customer per month from A.22-07-001

(2) Total Bill from Application 22-07-001 before the California Public Utilities Commission

(3) Bill impacts are presented as monthly comparison, however flat rate residential customers are billed on a semi-annual basis

* Surcharges are estimated as License Tax, Franchise Fee, and WRAM/MCBA varies base on location.

CALIFORNIA AMERICAN WATER WEST SAN MARTIN WATER COMPANY ACQUISITION \$1.8M PURCHASE PRICE

Results of Operations Year 1 and Year 5 Projections (\$1,000)

	California American							Combined Water				
		Wa	ter'	t	V	/est Sa	an N	lartin	Companies			
		Y1 **		Y5 ***	Y	1 **	Y	′5 ***		Y1 **		Y5 ***
Operating Water Revenues	\$	344,155	\$	424,855	\$	670	\$	728	\$	344,826	\$	425,583
Operating Expenses	\$	200,007	\$	218,490	\$	580	\$	630	\$	200,587	\$	219,120
Depreciation	\$	44,094	\$	59,345	\$	51	\$	86	\$	44,145	\$	59,430
General Taxes	\$	13,384	\$	16,915	\$	68	\$	74	\$	13,452	\$	16,989
Total Exp. Before Inc Tax	\$	257,484	\$	294,750	\$	699	\$	789	\$	258,184	\$	295,539
Income Taxes (Fed & State)	\$	17,211	\$	26,031	\$	-	\$	-	\$	17,211	\$	26,031
Total Expenses	\$	274,695	\$	320,781	\$	699	\$	789	\$	275,395	\$	321,571
Net Operating Revenue	\$	69,460	\$	104,074	\$	(29)	\$	(61)	\$	69,431	\$	104,013

*Y1 based on pending GRC forecasted revenue requirement; Y5 based on GRC forecast plus escalation assumptions

** - does not include any increase due to the West San Martin acquisition since it is requested that rates are increased in Test Year 2024 of the next GRC *** - Includes the amounts to cover the revenue shortfall per West San Martin - Attachment 1 that is proposed to be included in General Office

CALIFORNIA AMERICAN WATER COMPANY WEST SAN MARTIN WATER COMPANY ACQUISITION

REVENUE REQUIREMENT ASSUMING CONSOLIDATION (\$ in Thousands)

\$1.6M PURCHASE PRICE

	West San Martin Forecast	West San Martin Standalone Post- Acquisition Without Increase/Decrease in Rates**	West San Martin Standalone Post- Acquistion Earning Authorized ROR	West San Martin Revenue Supported Rate Base	Revenue Requirement of Rate Base Transferred to Corporate	CAW Forecasted (per GRC A. 22- 07-001)	Combined
	Year 2024*	Year 2024*	Year 2024*	Year 2024*	Year 2024*	Year 2024*	Year 2024*
	(1)	(2)	(3)	(4)	(5)	(6)	(7) = (3) + (6)
Operating Revenues							
Total Revenue	670.5	670.5	862.7	670.5	192.3	344,155	345,018
Operation & Maintenance Exp							
Total O&M expenses	619.7	579.9	579.9	579.9	-	200,007	200,587
Depreciation	20.4	45.6	45.6	14.6	31.0	44,094	44,139
General Taxes	68.1	68.1	68.1	21.8	46.3	13,384	13,452
Total Operating Expenses	708.1	693.7	693.7	616.3	77.3	257,484	258,178
Income Before Income Taxes	(37.7)	(23.2)	169.1	54.1	114.9	86,671	86,840
Total Income Taxes TOTAL EXPENSES	3.2 711.3	- 693.7	47.3 741.0	15.1 631.5	32.2 109.5	17,211 274,695	17,258 275,436
Utility Operating Income	(40.9)	(23.2)	121.8	39.0	82.8	69,460	69,582
Average Rate Base Return on Rate Base	292.8 -13.95%	1,600.0 -1.45%	1,600.0 7.61%	512.2 7.61%	1,087.8 7.61%	912,744 7.61%	914,344 7.61%
% Revenue Increase Attributed to West San Martin Customers: % Revenue Increase Attributed to CAW customers: Total % Revenue Increase:							0.19% 0.06% 0.25%

*Assumes acquisition closes in 2024 per CPUC approved processing schedule approved in D.99-10-064 and estimated 30 to 90 days post-Decision to close

**Modeling assumes synergies incorporated in Y1

CALIFORNIA AMERICAN WATER COMPANY WEST SAN MARTIN WATER COMPANY ACQUISITION \$1.6M PURCHASE PRICE

COMPARISON OF TOTAL RESIDENTIAL BILL PER CUSTOMER PER MONTH BASED ON CURRENT AUTHORIZED RATES									
District	Avg Res Usage (CGL) ⁽¹⁾	Pre-Acquisition Total Bill ⁽²⁾	Post-Acquisition Forecasted Total Bill	\$ Increase	% Increase				
Sacramento	78.30	\$65.10	\$65.13	\$0.04	0.056%				
Fruitridge	78.30	\$70.90	\$70.94	\$0.04	0.056%				
Larkfield	60.47	\$81.40	\$81.44	\$0.05	0.056%				
Dunnigan WW	N/A	\$41.96	\$41.98	\$0.02	0.056%				
Meadowbrook	120.94	\$61.38	\$61.42	\$0.03	0.056%				
Monterey	34.83	\$117.48	\$117.55	\$0.07	0.056%				
Central Satellites	82.91	\$121.20	\$121.27	\$0.07	0.056%				
Chualar	117.19	\$45.52	\$45.55	\$0.03	0.056%				
Monterey Wastewater - Active	N/A	\$146.16	\$146.25	\$0.08	0.056%				
Monterey Wastewater - Passive	N/A	\$93.15	\$93.20	\$0.05	0.056%				
Ventura	92.68	\$100.96	\$101.02	\$0.06	0.056%				
LA - Duarte	106.69	\$98.92	\$98.97	\$0.06	0.056%				
LA - Baldwin Hills	89.06	\$87.79	\$87.83	\$0.05	0.056%				
LA - San Marino	121.95	\$113.28	\$113.34	\$0.06	0.056%				
San Diego	56.70	\$78.91	\$78.95	\$0.04	0.056%				
West San Martin	113.56	\$72.44	\$72.48	\$0.04	0.056%				

(1) Residential usage per customer per month from A.22-07-001

(2) Total Bill based on Rates from AL 1404

(3) Bill impacts are presented as monthly comparison, however flat rate residential customers are billed on a semi-annual basis

* Surcharges are estimated as License Tax, Franchise Fee, and WRAM/MCBA varies base on location.

CALIFORNIA AMERICAN WATER COMPANY WEST SAN MARTIN WATER COMPANY ACQUISITION \$1.6M PURCHASE PRICE

COMPARISON OF TOTAL RESIDENTIAL BILL PER CUSTOMER PER MONTH BASED ON PENDING GRC RATE CHANGES									
District	Avg Res Usage (CGL) ⁽¹⁾	Pre-Acquisition Total Bill ⁽²⁾	Post-Acquisition Forecasted Total Bill	\$ Increase	% Increase				
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Fruitridge	78.30	\$70.99	\$71.03	\$0.04	0.056%				
Larkfield	60.47	\$78.80	\$78.84	\$0.04	0.056%				
Dunnigan WW	N/A	\$48.56	\$48.59	\$0.03	0.056%				
Meadowbrook	120.94	\$58.64	\$58.67	\$0.03	0.056%				
Monterey	34.83	\$112.81	\$112.87	\$0.06	0.056%				
Central Satellites	82.91	\$129.97	\$130.04	\$0.07	0.056%				
Chualar	117.19	\$45.67	\$45.69	\$0.03	0.056%				
Monterey Wastewater - Active	N/A	\$159.90	\$159.99	\$0.09	0.056%				
Monterey Wastewater - Passive	N/A	\$100.84	\$100.90	\$0.06	0.056%				
Ventura	92.68	\$101.83	\$101.89	\$0.06	0.056%				
LA - Duarte	106.69	\$100.92	\$100.97	\$0.06	0.056%				
LA - Baldwin Hills	89.06	\$88.93	\$88.98	\$0.05	0.056%				
LA - San Marino	121.95	\$113.66	\$113.73	\$0.06	0.056%				
San Diego	56.70	\$77.56	\$77.60	\$0.04	0.056%				
West San Martin	113.56	\$72.44	\$72.48	\$0.04	0.056%				

(1) Residential usage per customer per month from A.22-07-001

(2) Total Bill from Application 22-07-001 before the California Public Utilities Commission

(3) Bill impacts are presented as monthly comparison, however flat rate residential customers are billed on a semi-annual basis

* Surcharges are estimated as License Tax, Franchise Fee, and WRAM/MCBA varies base on location.

CALIFORNIA AMERICAN WATER WEST SAN MARTIN WATER COMPANY ACQUISITION \$1.6M PURCHASE PRICE

Results of Operations Year 1 and Year 5 Projections (\$1,000)

	California American						Combined Water					
	Water*			West San Martin			Companies					
		Y1 ** Y5 ***		Y1 **		Y5 ***		Y1 **		Y5 ***		
Operating Water Revenues	\$	344,155	\$	424,831	\$	670	\$	728	\$	344,826	\$	425,559
Operating Expenses	\$	200,007	\$	218,490	\$	580	\$	630	\$	200,587	\$	219,120
Depreciation	\$	44,094	\$	59,345	\$	46	\$	80	\$	44,139	\$	59,425
General Taxes	\$	13,384	\$	16,915	\$	68	\$	74	\$	13,452	\$	16,989
Total Exp. Before Inc Tax	\$	257,484	\$	294,750	\$	694	\$	784	\$	258,178	\$	295,534
Income Taxes (Fed & State)	\$	17,211	\$	26,026	\$	-	\$	-	\$	17,211	\$	26,026
Total Expenses	\$	274,695	\$	320,776	\$	694	\$	784	\$	275,389	\$	321,560
Net Operating Revenue	\$	69,460	\$	104,055	\$	(23)	\$	(56)	\$	69,437	\$	103,999

*Y1 based on pending GRC forecasted revenue requirement; Y5 based on GRC forecast plus escalation assumptions

** - does not include any increase due to the West San Martin acquisition since it is requested that rates are increased in Test Year 2024 of the next GRC *** - Includes the amounts to cover the revenue shortfall per West San Martin - Attachment 1 that is proposed to be included in General Office
Minimum Data Requirement Responses

In accordance with R.17-06-024 /D.20-08-047, below are Minimum Data Requirement responses in support of the Joint Advice Letter for a Resolution Authorizing Sale and Purchase of Utility Property.

1. Estimate the potential monthly incremental cost impact on existing and acquired customers based on Buyer's most recently authorized tariffs.

Immediately following California American Water's acquisition of West San Martin Water, there are no expected monthly incremental cost impacts to existing or acquired customers until 2027. See AL 1416 workpaper 1-2.

a. If a Buyer has pending request before the California Public Utilities Commission ("Commission") to change rates, it must also calculate the above using data as proposed in its pending request.

California American Water has the following rate changes pending before the CPUC:

- Advice Letter 1412 Pure Water Monterey Expansion Carmel Valley Pump Station
- Advice Letter 1413 Pure Water Monterey Purchased Water Surcharge Update
- Advice Letter 1415 Water Cost of Capital Adjustment Mechanism filing¹
- Application 22-07-001 Application of California-American Water Company for Authorization to Increase its Revenues for Water Service.
- Application 21-05-001 Application of California-American Water Company for Authority to Establish its Authorized Cost of Capital for the Period from January 1, 2022 through December 31, 2024.²

West San Martin Water has the following anticipated rate changes pending future approval by the CPUC:

- N/A
- 2. If the Buyer is seeking authority to increase the acquired system's rates to a certain level, please state the basis for the targeted rate and period of time for such targetedrate to be implemented.

N/A

3. Provide the annual depreciation expense using the proposed rate base of the

¹ Advice Letter 1415 as well as D.23-06-025 addressing cost of capital were so recently issued that their impact could not be included here. To the extent a revised calculation is requested to update figures to include those changes, California American Water will provide those revisions. ² Ibid.

acquired assets. If the exact depreciation expense is not available, provide the bestestimate of the annual depreciation expense. Show how the depreciation expense is calculated.

See AL 1416 Workpaper 1-1

4. Provide an estimate of the annual revenue requirement of the system proposed to be acquired. Provide the assumptions for the annual revenue requirement, including expected rate of return, expected depreciation expense, O&M expenses, etc.

See AL 1416 workpaper 1-1.

5. Other than the revenue requirement data requested above, separately identify all other approved and/or intended impacts to customer bills (i.e., surcharges, passthrough fees, etc.).

California American Water does not anticipate applying any surcharges or passthrough costs approved for West San Martin Water to California American Water's current customers. If, as anticipated, West San Martin customers are included in California American Water's Customer Assistance Program, these customers would be subject to the same funding surcharge as applicable to current California American Water customers. This surcharge is currently \$1.59 per-customer permonth for all customers not enrolled in the program.

6. Provide a listing of any entities that currently receive free service from the acquired utility.

1005 Highland Avenue, which is the site of the utility office, yard, and residence of the operator.

7. If the acquired utility has increased rates in the last year, please state the date of the increase and provide a copy of the new rate schedule and the total annual revenues projected under the new rates.

See MDR Response Attachment 7.

8. Are there any leases, easements, and access to public rights-of-way that Buyer expects to be needed to provide service that will not be conveyed at closing? If yes, identify when the conveyance will take place and whether there are expected to be additional costs involved.

At this time, it is not expected there are any leases, easements, or accesses to public rights-of-way that California American Water will need to operate the system that are not being conveyed.

9. Provide a breakdown of the estimated transaction and closing costs. Provide invoices to support any transaction and closing costs that have already been incurred. A table is provided below for invoices supporting already-incurred costs, see <u>MDR</u> <u>Response 9 Attachment</u> for related invoices. In terms of estimated future costs, that will depend on many factors, including the amount of opposition involved and the complexity of issues that arise. For example, legal closing costs on recent acquisitions have ranged between \$15,000 and \$85,000. Similarly, if the consultants who worked on the appraisal must respond to discovery, provide rebuttal, and otherwise spend more time on the matter, that will result further costs. In addition, there are expected to be costs associated with noticing and Phase 1 environmental review of real property.

Incurred Acquisition Costs

Zuber (legal)	\$ 19,390.00
Valentine Engineering (appraisal and capital plan)	\$ 17,500.00

10. Describe known and anticipated general expense savings and efficiencies under Buyer's ownership. State the basis for assumptions used in developing these savings and efficiencies and provide all supporting documentation for the assumptions.

See Advice Letter 1416 Section V.A.1, – V.A.2., Section V.C.1 – V.C.6, Section V.D., and Section V.E.

11. Provide a copy of the Seller's request for proposals (if there was one) and any accompanying exhibits with respect to the proposed sale of the water system or water system assets.

N/A.

12. Provide a copy of the response to the request for proposals (if there was one) of theBuyer for the purchase of the acquired water system or water system assets.

N/A.

13. For each Utility Valuation Expert ("UVE") providing testimony or

exhibits, pleaseprovide the following:

The appraisal is provided as <u>MDR Response 13 Attachment</u>. The UVE is Valentine Engineering.

a. A list of valuations of utility property performed by the UVE in the last two years:

None.

b. A list of appraisals of utility property performed by the UVE in the last two years:

None.

c. A list of all dockets in which the UVE submitted testimony to a public utility commission or regulatory authority related to the acquisition of utility property in the last two years:

None.

d. An electronic copy of or electronic link to written testimony in which the UVE testified on public utility fair value acquisitions in the past two years.

None.

14. Explain each discount rate used in the appraisals and valuations, including explanations of the capital structure, cost of equity and cost of debt. State the basis for each input. Provide all sources, documentation, calculations and/or workpapersused in determining the inputs.

N/A.

15. Explain whether the appraisal/valuation used replacement cost or reproduction cost and why that methodology was chosen.

Cal Pub. Util. Code Section 2720(b) states: "reproduction cost, as determined in accordance with Section 820 of the Evidence Code…" Section 820 of the Evidence Code states: a witness may take into account … the value of the land together with the cost of replacing or reproducing the existing improvements thereon…" D.99-10-064, Appendix D sets forth the guidelines for acquisitions. At Section 2.05 Appraisal, Appendix D states: "The Appraisal should include all assets, including the value of the land and the cost of replacing the existing improvements, less accumulated depreciation."

The appraisal provided with the Advice Letter in this proceeding uses replacement value, not reproduction value. Reproduction cost looks at the cost of reproducing an exact copy of the existing system. On the other hand, replacement cost looks at

the cost of replacing a system with similar functionality, i.e., one that would use newer materials and techniques, including ones that are less costly than those needed to reproduce the old system exactly as that system was constructed in the past. Thus, reproduction costs are generally greater than replacement costs. Because replacement cost is typically lower, that is why we chose to use it here instead of the reproduction cost approach.

The Replacement Cost New Less Depreciation appraisal provided with this Advice Letter considers basic depreciation of the assets in compliance with the guidelines set forth in D.99-10-064, Appendix D, Section 2.05. The appraisal does not, as significantly more complex appraisals do, account for things such as economic obsolescence. By way of example, in A.20-04-003, California American Water sought Commission authorization to purchase the East Pasadena Water Company. That transaction involved a \$34 million purchase price for a system with over 3,000 connections. The "size and price" of that acquisition warranted a correspondingly more complex appraisal that considered economic obsolescence. In that case, the total value of the system prior to consideration of economic obsolescence was \$49.2 million. Applying economic obsolescence reduced the value in the appraisal to \$43.2 million over the \$1.6 - \$1.8 million purchase price, it is not expected that, even if economic obsolesce was considered, that would reduce the appraised value to any point near where the purchase price exceeded that appraised value.

16. Explain the basis for any comparable acquisitions used in the appraisal/valuationincluding the purchase price and number of customers for each comparable acquisition.

N/A.

17. Are there any other appraisals of the West San Martin system conducted in the past five years?

Yes. There is one. It is included as MDR Response 17 Attachment.

- 18. Are there any outstanding compliance issues, including but not limited to water quality violations, that the Seller's system has pending with the Board's Division of Drinking Water? If yes, provide the following information: No.
 - a. Identify the compliance issue(s): N/A.
 - **b.** Provide an estimated date of compliance: N/A.
 - c. Explain Buyer's anticipated or actual plan for remediation: N/A.
 - d. Provide Buyer's estimated costs for remediation: $N\!/\!A.$

- e. Indicate whether the cost of remediation was or is anticipated to be factored into either or both fair market valuation appraisals offered in this proceeding. N/A.
- **19.** Are there any outstanding compliance issues that the Seller's system has pending with the US Environmental Protection Agency? If yes, provide the following information: No.
 - a. Identify the compliance issue(s): N/A.
 - b. Provide an estimated date of compliance: $N\!/\!A.$
 - c. Explain Buyer's anticipated or actual plan for remediation: $N\!/A.$
 - d. Provide Buyer's estimated costs for remediation; and, indicate whether the cost of remediation was or is anticipated to be factored into either or both fair market valuation appraisals offered in this proceeding. N/A.
- 20. Provide copies of all notices of a proposed acquisition given to affected customers.

The proposed notice is included as MDR Response 20 Attachment.

21. Provide copies of all disclosures and customer notices required by Pub. Util. Code §10061 related to the sale and disposal of utilities owned by municipal corporations.

N/A.

- 22. Describe other requests to be included in the application or advice letter, including, but not limited to, requests for approval of:
 - a. Consulting, transition of service, water wholesaling, or other agreements: $N\!/\!A.$
 - b. Interim rate increases outside of a general rate case proceeding or other special rate treatment (e.g., CPI-U rate increases, or rate increases underClass C/D requirements):

California American Water requests approval to file standard CPI-U rate increases as allowed for Class D utilities. For example, if the sale closes in 2024 or early 2025, California American Water would file for CPI-U increases for West San Martin customers effective January of 2025 & 2026. West San Martin would be consolidated for ratemaking in 2027. As provided in Commission standard practice, these CPI-U increases would be subject to an earnings test based on the rate base determination from this proceeding.

c. Facilities construction:

N/A

d. Memorandum or Balancing Accounts.

Memorandum Accounts

California American Water requests the following memorandum accounts:

- West San Martin Contingency Memorandum Account.
- West San Martin Transaction Cost Memorandum Account.
- Memorandum Account for Environment Improvements and Compliance Issues for Acquisitions.

23. Identify the ratepayer benefits that accrue to current ratepayers of the system being acquired due to this transaction.

See Advice Letter 1416, Section V.A.1, – V.A.2., Section V.C.1 – V.C.6, Section V.D., and Section V.E.

24. Identify all actions the applicant has taken with governmental agencies related to obtaining required permits and/or approvals to effectuate the acquisition.

California American Water will provide notice to governmental agencies and work with them, as it has done in its many recent acquisitions, to ensure the acquisition proceeds efficiently and those agencies are well-informed.

25. Provide all workpapers that support the testimony for each of the documents that accompany the application or advice letter, in native format where possible.

Supporting workpapers are included with the Advice Letter.

26. Provide a copy of the purchase agreement.

Please see MDR Response 26 Attachment (Confidential), for a copy of the asset purchase agreement, dated December 20, 2022.

SUPPLEMENTAL INFORMATION

1. A list of recommended, proposed, or required capital improvements to the acquired water system known at the time of the application, with cost estimates, if available:

Please see MDR Response 13 Attachment.

2. If applicable, supporting documentation for the designation of DisadvantagedCommunity:

N/A

3. If applicable, documents required by Pub. Util. Code Section 10061(c). $N\!/\!A$

MDR Response Attachment 7

CALIFORNIA PUBLIC UTILITIES COMMISSION Water Division Advice Letter Cover Sheet

Utility Name:	West San N	Martin	Water	Works, Inc.	Da	ate Mailed to Service List:	8/15/22
District:	NA						
CPUC Utility #:	WTD-170				Pr	otest Deadline (20 th Day):	9/4/22
Advice Letter #:	77-W				Re	eview Deadline (30 th Day):	9/14/22
Tier	X1	□2	□3	□ Compliance	F	Requested Effective Date:	8/15/22
Authorization	D.92-03-093	}				Rate Impact:	\$29,614 7.0%

Description: 2021 CPI-U Rate Adjustment

The protest or response deadline for this advice letter is 20 days from the date that this advice letter was mailed to the service list. Please see the "Response or Protest" section in the advice letter for more information.

Utility Contact:	Brian Ukestad	Utility Contact:
Phone:	408-683-2098	Phone:
Email:	b.ukestad@wsmwater.com	Email:

DWA Contact: Tariff Unit

Phone: (415) 703-1133

Email: <u>Water.Division@cpuc.ca.gov</u>

	DWA USE ONLY	
DATE	<u>STAFF</u>	<u>COMMENTS</u>

[] APPROVED [] WITHDRAWN [] REJECTED
Signature:_____Comments: _____

1005 Highland Ave., San Martin, CA 95046

Telephone: 408-683-2098

August 15, 2022

Advice Letter No. 77-W

TO THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

West San Martin Water Works, Inc. (WSM) hereby transmits for filing one original and one copy of this advice letter (AL) and the following tariff sheets which are enclosed:

NEW SHEET #	TITLE	CANCELLING SHEET #
406-W	Schedule No. 1, General Metered Service	402-W
407-W	Schedule No. 4, Private Fire Protection Service	403-W
408-W	Table of Contents	405-W

REQUEST

By AL 77-W, WSM requests permission to increase its revenues (based on increase to the present monthly quantity rate and service charge) by 7%, the Consumer Price Index (CPI) for 2021. The projected revenue increase of \$29,614 will not result in a rate of margin which exceeds the authorized rate of margin of 24.89%. Workpapers justifying this increase are enclosed.

BACKGROUND

The present rates became effective on May 12, 2021, by approval of AL No. 75-W, which implemented a Consumer Price Index increase of \$6,401 or 1.4%.

The last general rate increase became effective on February 16, 2012, pursuant to Resolution W-4905, which authorized a general rate increase of \$97,219, or 29.59% and a rate of margin of 24.89% for test year 2011.

1005 Highland Ave., San Martin, CA 95046

Telephone: 408-683-2098

AL 77-W is filed pursuant to Ordering Paragraphs No. 1 of **Decision 92-03-093** and **Resolution W-4493**, which authorize Class C and D water and sewer utilities to file a request for a CPI increase once a year by AL. The increase is to be passed on to the utility's customers in their quantity rate and service charge.

1005 Highland Ave., San Martin, CA 95046

Telephone: 408-683-2098

TIER DESIGNATION AND REQUESTED EFFECTIVE DATE

This AL and the enclosed tariff sheets are submitted pursuant to General Order (GO.) 96-B. AL 77-W is designated as a Tier 1 AL and the enclosed tariff sheets will become effective upon filing.¹

NOTICE

This AL does not require notice;² however, the utility shall inform its customers, by bill insert in the first bill that includes the increase, of the amount of the increase expressed in dollar and percentage terms.³ A copy of this AL has been served to all parties listed on the service list⁴ on the last page of this AL. This filing will not cause withdrawal of service nor conflict with any other schedule or rule.

RESPONSE OR PROTEST⁵

Anyone may respond to or protest this AL. A response supports the filing and may contain information that proves useful to the Commission in evaluating the AL. A protest objects to the AL in whole or in part and must set forth the specific grounds on which it is based. These grounds are:

- 1. The utility did not properly serve or give notice of the AL;
- 2. The relief requested in the AL would violate statute or Commission order, or is not authorized by statute or Commission order on which the utility relies;
- 3. The analysis, calculations, or data in the AL contain material error or omissions;
- 4. The relief requested in the AL is pending before the Commission in a formal proceeding; or
- 5. The relief requested in the AL requires consideration in a formal hearing, or is otherwise inappropriate for the AL process; or

¹ GO. 96-B, Water Industry Rule 7.3.1

² GO. 96-B, General Rule 4.2

³ GO. 96-B, General Rule 3.2

⁴ GO. 96-B, Water Industry Rule 4.1

⁵ GO. 96-B, General Rule 7.4.1

1005 Highland Ave., San Martin, CA 95046

Telephone: 408-683-2098

6. The relief requested in the AL is unjust, unreasonable, or discriminatory, provided that such a protest may not be made where it would require relitigating a prior order of the Commission.

A protest may not rely on policy objections to an AL where the relief requested in the AL follows rules or directions established by statute or Commission order applicable to the utility.

A protest shall provide citations or proofs where available to allow staff to properly consider the protest. Water Division (WD) must receive a response or protest via email (<u>or</u> postal mail) within 20 days of the date the AL is filed. The addresses for submitting a response or protest are:

Email Address:	Mailing Address:
Water.Division@cpuc.ca.gov	California Public Utilities
	Commission
	Water Division, 3rd Floor
	505 Van Ness Avenue
	San Francisco, CA 94102

On the same day the response or protest is submitted to WD, the respondent or protestant shall send a copy of the protest to WSM at:

Email Address:	Mailing Address:
b.ukestad@wsmwater.com	West San Martin Water Works, Inc.
	1005 Highland Ave
	San Martin, CA 95046

Cities and counties that need Board of Supervisors or Board of Commissioners approval to protest should inform WD, within the 20 day protest period, so that a late filed protest can be entertained. The informing document should include an estimate of the date the proposed protest might be voted on.

1005 Highland Ave., San Martin, CA 95046

Telephone: 408-683-2098

REPLIES

The utility shall reply to each protest and may reply to any response. Any reply must be received by WD within five business days after the end of the protest period, and shall be served on the same day on each person who filed the protest or response to the AL.⁶

⁶ GO. 96-B, General Rule 7.4.3

1005 Highland Ave., San Martin, CA 95046

Telephone: 408-683-2098

ADVICE LETTER #77-W

SERVICE LIST

San Martin County Water District P.O. Box 120 San Martin, CA 95046

Twin Valley Water Company P.O. Box 433 Morgan Hill, CA 95038

I hereby certify that the above service list has been served a copy of AL 77-W on August 15, 2022.

Executed in San Martin, California on August 15, 2022.

West San Martin Water Works, Inc.

By: /s/BRIAN UKESTAD Brian Ukestad President

Enclosures

P.U.C. Sheet No. 406-W Cancelling 402-W

Schedule No. 1

GENERAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service

TERRITORY

The community of San Martin, and vicinity, Santa Clara County

RATES

	Quantity Rate:			
	First 800 cu. ft., per 100 cubic feet	\$	2.71	(I)
	Over 800 cu. ft., per 100 cubic feet	\$	3.19	(I)
	Service Charge:	Pe	r Meter	
		Pe	<u>r Month</u>	
For	$5/8 \ge 3/4$ -inch meter	\$	26.57	(I)
For	3/4-inch meter	\$	26.57	(I)
For	1-inch meter	\$	37.20	(I)
For	1 1/2 -inch meter	\$	47.85	(I)
For	2-inch meter	\$	63.78	(I)
For	3-inch meter	\$	79.74	(I)
For	4-inch meter	\$	93.03	(I)
For	6-inch meter	\$.	159.45	(I)
For	8-inch meter	\$	212.62	(I)
For	10-inch meter	\$	265.77	(I)

The service charge is a readiness-to-serve charge, which is applicable to all metered service, and to which is added the monthly charge for water used computed at the Quantity Rate.

SPECIAL CONDITIONS

All bills are subject to the reimbursement fee set forth in Schedule No. UF. 1.

(continued)

(To be inserted by utility)	Issued By	(To be inserted by P.U.C.)
Advice Letter No. <u>77-W</u>	Brian Ukestad	Date Filed
Decision No. <u>D.92-03-093</u>	President	Effective
		Resolution No.

P.U.C. Sheet No. <u>407-W</u> Cancelling <u>403-W</u>

Schedule No. 4

PRIVATE FIRE PROTECTION SERVICE

APPLICABILITY

Applicable to all water service furnished to privately owned fire protection systems

TERRITORY

The community of San Martin, and vicinity, Santa Clara County, between city limits of Morgan Hill and Gilroy

RATES

	Per Servie	ce Connec	ction
	Pe	er Month	
For each 2-inch service	\$	5.87	(I)
For each 3-inch service	\$	8.39	(I)
For each 4-inch service	\$	10.95	(I)
For each 6-inch service	\$	18.53	(I)
For each 8-inch service	\$	29.31	(I)
For each 10-inch service	\$	48.81	(I)
For each 12-inch service	\$	70.29	(I)

SPECIAL CONDITIONS

- 1. The fire protection service shall be installed by the utility and the cost paid by the applicant. Such payment shall not be subject to refund. The facilities paid for by the applicant shall be the sole property of the applicant.
- 2. If a distribution main of adequate size to serve a private fire protection system in addition to all other normal service does not exist in the street or alley adjacent to the premises to be served, then a service main of adequate capacity shall be installed by the utility and the cost paid by the applicant. Such payment shall not be subject to refund.

(continued)

(To be inserted by utility)	Issued By	(To be inserted by P.U.C	C.)
Advice Letter No. 77-W	Brian Ukestad	Date Filed	
Decision No. <u>D.92-03-093</u>	President	Effective	
		Resolution No.	

Workpaper 3-19

West San Martin Water Works, Inc. (WTD 170) Santa Clara County

P.U.C. Sheet No. 408-W

Cancelling 405-W

The follow service of t	<u>TABLE OF CON</u> ing listed tariff sheets contain all effective rates he utility, together with other pertinent infor	<u>TENTS</u> ates and rules affecting the charges and rmation:	
		Cal. P.U.C.	
Subject Ma	tter of Sheet	Sheet No.	
Title Page		263-W	
Table of C	ontents	408-W , 359-W	(
Preliminar	v Statement	151-W. 284-W – 286-W. 327-W – 330-W	(
Service Ar	ea Map	242-W	
Rate Sched	ules:		
Schedul	e No. 1, General Metered Service	406-W , 342-W	(
Schedul	e No. 2TR, Special Temporary Flat Rate Se	rvice 227-W	
Schedul	e No. 4, Private Fire Protection Service	407-W , 301-W	(
Schedul	e No. 5, Public Fire Hydrant Service	70-W	
Schedul	e No. 6, Facilities Financing Charge	101-W	
Schedul	e No. 6R, Resale Service	228-W	
Schedul	e No. F, Facilities Fees	404-W	
Schedul	e No. UF, Surcharge to Fund PUC Reimbur	sement Fee 394-W	
Rules:			
No. 1	Definitions	369-W, 370-W	
No. 2	Description of Service	84-W	
No. 3	Application for Service	305-W	
No. 4	Contracts	9-W	
No. 5	Special Information Required on Forms	371-W – 373-W	
No. 6	Establishment and Re-establishment of Cre	edit 12-W	
No. 7	Deposits	267-W, 268-W	
No. 8	Notices	374-W, 376-W	
No. 9	Rendering and Payment of Bills	397-W - 400-W	
No. 10	Disputed Bills	377-W, 378-W	
No. 11	Discontinuance and Restoration of Service	≥ 379-W – 388-W	
No. 12	Information Available to Public	23-W, 24-W	
No. 13	Temporary Service	25-W, 26-W	
No. 14	Continuity of Service	27-W	
No. 14.	Voluntary Water Conservation Plan	318-W – 325-W	
No. 15	Main Extensions 117-W -119-	W, 308-W, 121-W, 167-W, 309-W, 168-W,	
	125-W, 169-	W, 170-W, 128-W, 129-W, 171-W, 362-W	
No. 16	Service Connections, Meters, and Custome	er Facilities $218-W, 310-W - 312-W, 221-W - 224-W$	
No. 17	Standards for Measurement of Service	158-W	
No. 18	Meter Tests and Adjustment of Bills for M	leter Error 159-W. 42-W. 43-W	
No. 19	Service to Separate Premises and Multiple	Units.	
1.0117	And Resale of Water	191-W. 192-W	
No. 20	Water Conservation	161-W	
No. 21	Fire Protection	278-W	
	(continued))	

(To be inserted by utility)

Issued By

(To be inserted by P.U.C.)

Date Filed _____

Effective

Advice Letter No.	77-W

Decision No. <u>D.92-03-093</u>

Brian R. Ukestad <u>President</u>

Resolution No.

Earnings Test

West San Martin Water Works, Inc.

Summary of Earnings

Category	Most Recent Adopted in Resolution W-4905 Feb. 16, 2012 TY2011	Actual 2021	CPI Increase @7% on Adopted Revenue Only	Revenue After CPI Increase, Actual Expenses, & Actual Rate Base
	а	b	c=a*7%	(Revenues) d=b + c
Operatine Revenues:				
Flat Rate	424 742	575 540	-	0
Metered	421,748	575,512	29,522	605,034
Private Fire Protection	4,002		92	92
TOTAL OPERATING REVENUES	425,750	575,512	29,614	605,126
Operatine Expenses:				
Purchased Water	-	-		-
Purchased Power	49,296	75,591		75,591
Purchased Chemicals	-			-
Other Volume Related Expenses	88,905	163,468		163,468
Employee Labor	18,085	-		-
Materials	2,653	2,673		2,673
Contract Work	18,093	131,081		131,081
Water Testing		-		-
Transportation Expense	3,058	1,235		1,235
Other Plant Maintenance	6,027	70		70
Office Salaries	18,500	55,000		55,000
Management Salaries	29,500	30,000		30,000
Employee Pension and Benefits	18,176	418		418
Uncollectibles	2,129	-		-
Office Service and Rentals	6,000	11,648		11,648
Office Supplies and Expenses	9,843	1,245		1,245
Professional Services	5,603	15,016		15,016
Insurance	8.303	6.734		6.734
Regulatory Commission Expense	5,598	7,109		7,109
General Expenses	2.595	49.360		49.360
SUBTOTAL	292,364	550,648		550.648
Depreciation	12.399	17.900		17.900
Taxes Other than Income	14.428	61.742		61.742
State and Federal Income Taxes	30.698	800		800
Interest	-	679		679
TOTAL DEDUCTIONS	349,889	631,769		631,769
NET REVENUE	75,861	(56,257)		(26,643)
RATE BASE				
Average Plant	1,877,559	2,284,073		2,284,073
Less: Average Accumulated Depreciation	1,052,207	1,637,384		1,637,384
NET PLANT	825,352	646,689		646,689
Less: Advances	154,223	151,468		151,468
Contributions	660,129	306,049		306,049
Plus: Working Cash	4,000	72,300		72,300
Materials & Supplies	27,200	8,423		8,423
RATE BASE	42,200	269,895		269,895
RATE OF MARGIN	24.89%	-9.52%		-4.16%
Earnings Test:	-4.16%	<	24.89%	

Earnings Test

West San Martin Water Works, Inc. Working Cash

SIMPLIFIED BASIS DETERMINATION OF WORKING CASH ALLOWANCE

(A utility operating as an individual or partnership using monthly billing at meter rates)

1 Operating Expenses, Excluding Taxes and Depreciation	471,006
2 Purchased Power and/or Purchased Commodity for Resale*	75,591
3 Two Months' Average Operating Expenses (1/6 x Line 1)	78,501
4 One Month's Average Purchased Power and/or Purchased Commodity [*] (1/12 x Line 2)	6,299
5 Average Tax Accruals Available	
6 Working Cash Allowance (Line 3 - Line 4 - Line 5)	72,202
7 Use	72,300

* Electric power, gas or other fuel purchased for pumping and or purchased water or gas or electricity for resale billed after receipt (metered).

Meter Rates

West San Martin Water Works, Inc.

METERED RATES:

CPI RATE	7.00%			
Service Charge:	OLD <u>Per Meter</u>	<u>Pe</u>	NEW r Meter Per	
QR	Per Month		<u>Month</u>	
First 800 cu. ft., per 100 cu. ft.	\$2.53	\$	2.71	(I)
Over 800 cu. ft., per 100 cu. ft.	\$2.98	\$	3.19	(I)
5/8 x 3/4-inch meter	 \$24.83	\$	26.57	(I)
3/4-inch meter	 \$24.83	\$	26.57	(I)
1-inch meter	 \$34.77	\$	37.20	(I)
1-1/2 inch meter	 \$44.72	\$	47.85	(I)
2-inch meter	 \$59.61	\$	63.78	(I)
3-inch meter	 \$74.52	\$	79.74	(I)
4-inch meter	 \$86.94	\$	93.03	(I)
6-inch meter	 \$149.02	\$	159.45	(I)
8-inch meter	 \$198.71	\$	212.62	(I)
10-inch meter	 \$248.38	\$	265.77	(I)

PRIVATE FIRE PROTECTION:

2-inch meter	 \$5.49	\$ 5.87	(I)
3-inch meter	 \$7.84	\$ 8.39	(I)
4-inch meter	 \$10.23	\$ 10.95	(I)
6-inch meter	 \$17.32	\$ 18.53	(I)
8-inch meter	 \$27.39	\$ 29.31	(I)
10-inch meter	 \$45.62	\$ 48.81	(I)
10-inch meter	 \$65.69	\$ 70.29	(I)

MDR Response Attachment 9

INVOICE

Invoice Information

Firm/Vendor:	ZLLLP
Office:	Los Angeles
Invoice Number:	39353
Date of Invoice:	05/26/2022
Billing Period:	04/11/2022 - 04/30/2022
Date Posted:	05/26/2022
Invoice Description/Comment:	

Amount Approved

Approved Total	\$217.50
Invoice Currency:	USD
Date Approved:	05/26/2022
Final Approver:	Anthony Cerasuolo
Approved Fees	\$217.50
Approved Expenses	\$0.00
Approved Total (excl. Tax)	\$217.50
Comments to AP:	

Accounting Code Allocations

Company Code Cost Cente	r General Ledge	r <u>WBS</u>	Internal Order Profit Center AWE Account String Amount	Percentage Comment
1015	53155000	E15-1600-150120	\$217.50	100%

Vendor Address & Tax Information in Legal Tracker

ZL LLP 350 S Grand Avenue 32nd Floor Los Angeles, California 90071

Tel: 213-596-5620 Fax: 213-596-5621

Remittance Address Same as mail address Vendor Tax ID: 200175027 VAT ID: --GST ID: --HST ID: --

Other Invoice and Firm Information

Regulatory Statements: -

Amount Billed

 Billed Total
 \$217.50

 Invoice Currency:
 USD

 Billed Fees
 \$217 50

 Billed Expenses
 \$0.00

 Billed Total (excl. Tax)
 \$217 50

Approval History

User	Action	Date	Amount	Comment
Valerie Silva	Posted	05/26/2022	\$217.50	
Anthony Cerasuolo	Approved	05/26/2022	\$217.50	
Renee Maloney	AP Batch Run	05/31/2022	\$217.50	Batch ID: 009000129 (Sent to AP: 05/31/2022 7:59:21 AM)

Additional Financial Information

SAP Vendor ID:119858Name of Invoice File in .Zip:ZLD LLP - 39353 htmlComments to Firm:AP Route:CA, HI - SAP

Matter Information

Matter Name (Short):T. West San Martin APAMatter ID:202200018Lead Company Person:Yamakawa, AikoOrganizational unit:California-American Water CompanyPractice group:Business Development

Law Firm Matter No.: 1949-1025 Country (in Matter): United States

Invoice Line Items:

Date	Descrip	tion Narrative	Timekeeper	Units	Rate	Adjust Taxes	TaxType%	Amount
04/11/	2022 -	DEDAC	Robertson, James	s 0.3	\$435.00			\$130 50
04/15/	2022 -	REDAC	Robertson, James	s 0.2	\$435.00			\$87.00

INVOICE

Invoice Information

Firm/Vendor:	ZLLLP
Office:	Los Angeles
Invoice Number:	39447
Date of Invoice:	06/06/2022
Billing Period:	05/18/2022 - 05/31/2022
Date Posted:	06/06/2022
Invoice Description/Comment:	

Amount Approved

Approved Total	\$696.00
Invoice Currency:	USD
Date Approved:	06/07/2022
Final Approver:	Anthony Cerasuolo
Approved Fees	\$696.00
Approved Expenses	\$0.00
Approved Total (excl. Tax)	\$696.00
Comments to AP:	

Accounting Code Allocations

Company Code Cost Cente	r General Ledge	r <u>WBS</u>	Internal Order Profit Center AWE Account String Amount	Percentage Comment
1015	53155000	E15-1600-150120	\$696.00	100%

Vendor Address & Tax Information in Legal Tracker

ZL LLP 350 S Grand Avenue 32nd Floor Los Angeles, California 90071

Tel: 213-596-5620 Fax: 213-596-5621

Remittance Address Same as mail address Vendor Tax ID: 200175027 VAT ID: --GST ID: --HST ID: --

Other Invoice and Firm Information

Regulatory Statements: -

Amount Billed

 Billed Total
 \$696.00

 Invoice Currency:
 USD

 Billed Fees
 \$696.00

 Billed Expenses
 \$0.00

 Billed Total (excl. Tax)
 \$696.00

Approval History

User	Action	Date	Amount	Comment			
Valerie Silva	Posted	06/06/2022	\$696.00				
Anthony Cerasuolo	Approved	06/07/2022	\$696.00				
Serengeti Administrator	AP Batch Run	06/08/2022	\$696.00	Batch ID: 009000131	(Sent to AP: 06/0	08/2022 3:03:4	5 AM)

Additional Financial Information

SAP Vendor ID:119858Name of Invoice File in .Zip:ZLD LLP - 39447 htmlComments to Firm:AP Route:CA, HI - SAP

Matter Information

Matter Name (Short):T. West San Martin APAMatter ID:202200018Lead Company Person:Yamakawa, AikoOrganizational unit:California-American Water CompanyPractice group:Business Development

Law Firm Matter No.: 1949-1025 Country (in Matter): United States

Invoice Line Items:

Date Description Narrative

05/18/2022 -

05/20/2022 -



Timekeeper	Units	Rate	Adjust	Taxes	TaxType%	Amount
Robertson, James	02	\$435.00				\$87.00
Robertson, James	1.4	\$435.00				\$609.00

INVOICE

Invoice Information

Firm/Vendor:	Zuber Lawler LLP
Office:	Los Angeles
Invoice Number:	39999
Date of Invoice:	07/19/2022
Billing Period:	06/13/2022 - 06/30/2022
Date Posted:	07/19/2022
Invoice Description/O	Comment:

Amount Approved

Approved Total	\$4,571.00
Invoice Currency:	USD
Date Approved:	07/19/2022
Final Approver:	Anthony Cerasuolo
Approved Fees	\$4,571.00
Approved Expenses	\$0.00
Approved Total (excl. Tax)	\$4,571.00
Comments to AP:	

Accounting Code Allocations

Company Code Cost Cente	r General Ledge	r <u>WBS</u>	Internal Order Profit Center AWE Account String Amount	Percentage Comment
1015	53155000	E15-1600-150120	\$4,571.0) 100%

Vendor Address & Tax Information in Legal Tracker

Zuber Lawler LLP 350 S Grand Avenue 32nd Floor Los Angeles, California 90071

Tel: 213-596-5620 Fax: 213-596-5621

Remittance Address Same as mail address Vendor Tax ID: 200175027 VAT ID: --GST ID: --HST ID: --

Other Invoice and Firm Information

Regulatory Statements: -

Amount Billed

Billed Total	\$4,571.00
Invoice Currency:	USD
Billed Fees	\$4,571.00
Billed Expenses	\$0.00
Billed Total (excl. Tax)	\$4,571.00

Approval History

User	Action	Date	Amount	Comment
Valerie Silva	Posted	07/19/2022	\$4,571.00	
Anthony Cerasuolo	TK Rates Reviewed	07/19/2022		
Anthony Cerasuolo	Approved	07/19/2022	\$4,571.00	
Serengeti Administrator	AP Batch Run	07/20/2022	\$4,571.00	Batch ID: 009000135 (Sent to AP: 07/20/2022 3:03:13 AM)

Additional Financial Information

SAP Vendor ID:119858Name of Invoice File in .Zip:ZLD LLP - 39999 htmlComments to Firm:AP Route:AP Route:CA, HI - SAP

Matter Information

Matter Name (Short):T. West San Martin APAMatter ID:202200018Lead Company Person:Yamakawa, AikoOrganizational unit:California-American Water Company

Invoice Line Items:

Date Description Narrative	Timekeeper Units Rate Adjust Taxes TaxType% Amount
06/13/2022 -	Fanckboner, 0.3 \$340.00 \$102.00 Lizzie
06/17/2022 -	Fanckboner, 0.5 \$340.00 \$170.00 Lizzie
06/18/2022 -	Fanckboner, 1.1 \$340.00 \$374.00
06/21/2022 -	Fanckboner, 3.1 \$340.00 \$1,054.00 Lizzie
06/21/2022 -	Robertson, 2.3 \$435.00 \$1,000.50 James
06/23/2022 -	Robertson, 2.7 \$435.00 \$1,174.50 James
06/24/2022 -	Robertson, 1.4 \$435.00 \$609.00 James
06/27/2022 -	Robertson, 0.2 \$435.00 \$87.00 James

INVOICE

Invoice Information

Firm/Vendor:	Zuber Lawler LLP
Office:	Los Angeles
Invoice Number:	40208
Date of Invoice:	08/09/2022
Billing Period:	07/05/2022 - 07/31/2022
Date Posted:	08/09/2022
Invoice Description/Comment:	

Amount Approved

Approved Total	\$261.00
Invoice Currency:	USD
Date Approved:	08/09/2022
Final Approver:	Anthony Cerasuolo
Approved Fees	\$261.00
Approved Expenses	\$0.00
Approved Total (excl. Tax)	\$261.00
Comments to AP:	

Accounting Code Allocations

Company Code Cost Cente	r General Ledge	er <u>WBS</u>	Internal Order Profit Center AWE Account String Amount Percentage Comment	
1015	53155000	E15-1600-150120	\$261.00 100%	

Vendor Address & Tax Information in Legal Tracker

Zuber Lawler LLP 350 S Grand Avenue 32nd Floor Los Angeles, California 90071

Tel: 213-596-5620 Fax: 213-596-5621

Remittance Address Same as mail address Vendor Tax ID: 200175027 VAT ID: --GST ID: --HST ID: --

Other Invoice and Firm Information

Regulatory Statements: -

Amount Billed

Billed Total	\$261.00
Invoice Currency:	USD
Billed Fees	\$261.00
Billed Expenses	\$0.00
Billed Total (excl. Tax)	\$261.00

Approval History

User	Action	Date	Amount	Comment
Valerie Silva	Posted	08/09/2022	\$261.00	
Anthony Cerasuolo	Approved	08/09/2022	\$261.00	
Serengeti Administrator	· AP Batch Run	08/10/2022	\$261.00	Batch ID: 009000138 (Sent to AP: 08/10/2022 3:03:33 AM)

Additional Financial Information

SAP Vendor ID:119858Name of Invoice File in .Zip:ZLD LLP - 40208 htmlComments to Firm:AP Route:CA, HI - SAP

Matter Information

Matter Name (Short):T. West San Martin APAMatter ID:202200018Lead Company Person:Yamakawa, AikoOrganizational unit:California-American Water CompanyPractice group:Business Development

Law Firm Matter No.: 1949-1025 Country (in Matter): United States

Invoice Line Items:

Date Description Narrative

07/05/2022 -



TimekeeperUnitsRateAdRobertson,0.6\$435.00James

UnitsRateAdjustTaxesTaxType%Amount0.6\$435.00\$261.00

INVOICE

Invoice Information

Firm/Vendor:	Zuber Lawler LLP
Office:	Los Angeles
Invoice Number:	40557
Date of Invoice:	09/09/2022
Billing Period:	08/09/2022 - 08/31/2022
Date Posted:	09/09/2022
Invoice Description/Comment:	

Amount Approved

Approved Total	\$3,959.50
Invoice Currency:	USD
Date Approved:	09/09/2022
Final Approver:	Anthony Cerasuolo
Approved Fees	\$3,959.50
Approved Expenses	\$0.00
Approved Total (excl. Tax)	\$3,959.50
Comments to AP:	

Accounting Code Allocations

Company Code Cost Cente	r General Ledge	r <u>WBS</u>	Internal Order Profit Center AWE Account String Amount	Percentage Comment
1015	53155000	E15-1600-150120	\$3,959.50	100%

Vendor Address & Tax Information in Legal Tracker

Zuber Lawler LLP 350 S Grand Avenue 32nd Floor Los Angeles, California 90071

Tel: 213-596-5620 Fax: 213-596-5621

Remittance Address Same as mail address Vendor Tax ID: 200175027 VAT ID: --GST ID: --HST ID: --
Other Invoice and Firm Information

Regulatory Statements: -

Amount Billed

Billed Total	\$3,959.50
Invoice Currency:	USD
Billed Fees	\$3,959.50
Billed Expenses	\$0.00
Billed Total (excl. Tax)	\$3,959.50

Approval History

User	Action	Date	Amount	Comment
Brenda Harding	Posted	09/09/2022	\$3,959.50	
Anthony Cerasuolo	Approved	09/09/2022	\$3,959.50	
Serengeti Administrato	r AP Batch Run	09/14/2022	\$3,959.50	Batch ID: 009000143 (Sent to AP: 09/14/2022 3:03:23 AM)

Additional Financial Information

SAP Vendor ID:119858Name of Invoice File in .Zip:ZLD LLP - 40557 htmlComments to Firm:AP Route:CA, HI - SAP

Matter Information

Matter Name (Short):T. West San Martin APAMatter ID:202200018Lead Company Person:Yamakawa, AikoOrganizational unit:California-American Water CompanyPractice group:Business Development

Law Firm Matter No.: 1949-1025 Country (in Matter): United States

Invoice Line Items:

Date	Description Narrative	Timekeeper	Units	Rate	Adjust Taxes TaxType%	Amount
08/09/20		Fanckboner, Lizzie	1.1	\$340.00		\$374.00
08/11/20	REDAUTED	Fanckboner, Lizzie	3.4	\$340.00	-	\$1,156.00
08/11/20		Robertson, James	1.7	\$435.00		\$739 50
08/12/20		Fanckboner, Lizzie	1	\$340.00		\$340.00
08/18/20		Fanckboner, Lizzie	0.9	\$340,00		\$306.00
08/18/20		Robertson, James	09	\$435.00		\$391 50
08/29/20		Robertson, James	15	\$435.00		\$652 50

INVOICE

Invoice Information

Firm/Vendor:	Zuber Lawler LLP
Office:	Los Angeles
Invoice Number:	40886
Date of Invoice:	10/05/2022
Billing Period:	09/06/2022 - 09/30/2022
Date Posted:	10/05/2022
Invoice Description/Comment:	

Amount Approved

Approved Total	\$2,286.50
Invoice Currency:	USD
Date Approved:	10/05/2022
Final Approver:	Anthony Cerasuolo
Approved Fees	\$2,286.50
Approved Expenses	\$0.00
Approved Total (excl. Tax)	\$2,286.50
Comments to AP:	

Accounting Code Allocations

Company Code Cost Cente	r General Ledge	r <u>WBS</u>	Internal Order Profit Center AWE Account String Amount	Percentage Comment
1015	53155000	E15-1600-150120	\$2,286.50	100%

Vendor Address & Tax Information in Legal Tracker

Zuber Lawler LLP 350 S Grand Avenue 32nd Floor Los Angeles, California 90071

Tel: 213-596-5620 Fax: 213-596-5621

Remittance Address Same as mail address Vendor Tax ID: 200175027 VAT ID: --GST ID: --HST ID: --

Other Invoice and Firm Information

Regulatory Statements: -

Amount Billed

Billed Total	\$2,286.50
Invoice Currency:	USD
Billed Fees	\$2,286.50
Billed Expenses	\$0.00
Billed Total (excl. Tax)	\$2,286.50

Approval History

User	Action	Date	Amount	Comment
Brenda Harding	Posted	10/05/2022	\$2,286.50	
Anthony Cerasuolo	Approved	10/05/2022	\$2,286.50	
Serengeti Administrator	· AP Batch Run	10/12/2022	\$2,286.50	Batch ID: 009000147 (Sent to AP: 10/12/2022 3:02:57 AM)

Additional Financial Information

SAP Vendor ID:	119858
Name of Invoice File in .Zip:	ZLD LLP - 40886 html
Comments to Firm:	
AP Route:	CA, HI - SAP

Matter Information

Matter Name (Short):T. West San Martin APAMatter ID:202200018Lead Company Person:Yamakawa, AikoOrganizational unit:California-American Water CompanyPractice group:Business Development

Invoice Line Items:

Date	Description Narrative	Timekeeper	Units	Rate	Adjust Taxes TaxType% A	mount
09/06/202		Fanckboner, Lizzie	0.2	\$340.00	\$6	68.00
09/07/202	REDAUTED	Robertson, James	0.3	\$435.00	\$1	130 50
09/20/202		Robertson, James	0.9	\$435.00	\$3	391 50
09/27/202		Robertson, James	2.5	\$435.00	\$1	1,087.50
09/29/202		Robertson, James	0.7	\$435.00	\$3	304 50
09/30/202	-	Robertson, James	0.7	\$435.00	\$3	304 50

INVOICE

Invoice Information

Firm/Vendor:	Zuber Lawler LLP
Office:	Los Angeles
Invoice Number:	41342
Date of Invoice:	11/08/2022
Billing Period:	10/05/2022 - 10/31/2022
Date Posted:	11/08/2022
Invoice Description/Comment:	

Amount Approved

Approved Total	\$217.50
Invoice Currency:	USD
Date Approved:	11/09/2022
Final Approver:	Anthony Cerasuolo
Approved Fees	\$217.50
Approved Expenses	\$0.00
Approved Total (excl. Tax)	\$217.50
Comments to AP:	

Accounting Code Allocations

Company Code Cost Center	r General Ledge	r <u>WBS</u>	Internal Order Profit Center AWE Account String Amount	t Percentage Comment
1015	53155000	E15-1600-150120	\$217.50	100%

Vendor Address & Tax Information in Legal Tracker

Zuber Lawler LLP 350 S Grand Avenue 32nd Floor Los Angeles, California 90071

Tel: 213-596-5620 Fax: 213-596-5621

Remittance Address Same as mail address Vendor Tax ID: 200175027 VAT ID: --GST ID: --HST ID: --

Other Invoice and Firm Information

Regulatory Statements: -

Amount Billed

Billed Total	\$217.50
Invoice Currency:	USD
Billed Fees	\$217 50
Billed Expenses	\$0.00
Billed Total (excl. Tax)	\$217 50

Approval History

User	Action	Date	Amount	Comment
Brenda Harding	Posted	11/08/2022	\$217.50	
Anthony Cerasuolo	Approved	11/09/2022	\$217.50	
Serengeti Administrato	r AP Batch Run	11/16/2022	\$217.50	Batch ID: 009000152 (Sent to AP: 11/16/2022 3:02:58 AM)

Additional Financial Information

SAP Vendor ID:119858Name of Invoice File in .Zip:ZLD LLP - 41342 htmlComments to Firm:AP Route:CA, HI - SAP

Matter Information

Matter Name (Short):T. West San Martin APAMatter ID:202200018Lead Company Person:Yamakawa, AikoOrganizational unit:California-American Water CompanyPractice group:Business Development

Law Firm Matter No.: 1949-1025 Country (in Matter): United States

Invoice Line Items:

Date D	escription Narrative		and a second	Тітекеерег	Units	Rate	Adjust Taxes TaxType	6 Amount
10/05/2022 -	DE		TED	Robertson, James	0.3	\$435.00		\$130.50
10/19/2022 -	RE	DAC	IED	Robertson, James	0.2	\$435.00		\$87.00

INVOICE

Invoice Information

Firm/Vendor:	Zuber Lawler LLP
Office:	Los Angeles
Invoice Number:	41609
Date of Invoice:	12/05/2022
Billing Period:	11/07/2022 - 11/30/2022
Date Posted:	12/05/2022
Invoice Description/Comment:	

Amount Approved

Approved Total	\$693.50
Invoice Currency:	USD
Date Approved:	12/09/2022
Final Approver:	Aiko Yamakawa
Approved Fees	\$693.50
Approved Expenses	\$0.00
Approved Total (excl. Tax)	\$693.50
Comments to AP:	

Accounting Code Allocations

Company Code Cost Cente	r General Ledge	r <u>WBS</u>	Internal Order Profit Center AWE Account String Amount Percentage Comment	
1015	53155000	E15-1600-150120	\$693.50 100%	

Vendor Address & Tax Information in Legal Tracker

Zuber Lawler LLP 350 S Grand Avenue 32nd Floor Los Angeles, California 90071

Tel: 213-596-5620 Fax: 213-596-5621

Remittance Address Same as mail address Vendor Tax ID: 200175027 VAT ID: --GST ID: --HST ID: --

Other Invoice and Firm Information

Regulatory Statements: -

Amount Billed

 Billed Total
 \$693.50

 Invoice Currency:
 USD

 Billed Fees
 \$693 50

 Billed Expenses
 \$0.00

 Billed Total (excl. Tax)
 \$693 50

Approval History

User	Action	Date	Amount	Comment
Brenda Harding	Posted	12/05/2022	\$693.50	
Aiko Yamakawa	Approved	12/09/2022	\$693.50	
Serengeti Administrator	AP Batch Run	12/14/2022	\$693.50	Batch ID: 009000156 (Sent to AP: 12/14/2022 3:19:51 AM)

Additional Financial Information

SAP Vendor ID:119858Name of Invoice File in .Zip:ZLD LLP - 41609 htmlComments to Firm:AP Route:CA, HI - SAP

Matter Information

Matter Name (Short):T. West San Martin APAMatter ID:202200018Lead Company Person:Yamakawa, AikoOrganizational unit:California-American Water CompanyPractice group:Business Development

Law Firm Matter No.:	1949-1025	
Country (in Matter):	United States	

Invoice Line Items:

Date Desc	ription Narrative	Timekeeper Units Rate Adjust Taxes TaxType% Amount
11/07/2022 -	DEDACTED	Robertson, 0.5 \$435.00 \$217.50 James
11/10/2022 -	REDAUIED	Fanckboner, 1.4 \$340.00 \$476.00 Lizzie

INVOICE

Invoice Information

Firm/Vendor:	Zuber Lawler LLP
Office:	Los Angeles
Invoice Number:	41964
Date of Invoice:	01/06/2023
Billing Period:	12/05/2022 - 12/31/2022
Date Posted:	01/06/2023
Invoice Description/Comment:	

Amount Approved

Approved Total	\$4,965.00
Invoice Currency:	USD
Date Approved:	01/06/2023
Final Approver:	Aiko Yamakawa
Approved Fees	\$4,965.00
Approved Expenses	\$0.00
Approved Total (excl. Tax)	\$4,965.00
Comments to AP:	

Accounting Code Allocations

Company Code Cost Cente	r General Ledge	r <u>WBS</u>	Internal Order Profit Center AWE Account String Amount	Percentage Comment
1015	53155000	E15-1600-150120	\$4,965.00	100%

Vendor Address & Tax Information in Legal Tracker

Zuber Lawler LLP 350 S Grand Avenue 32nd Floor Los Angeles, California 90071

Tel: 213-596-5620 Fax: 213-596-5621

Remittance Address Same as mail address Vendor Tax ID: 200175027 VAT ID: --GST ID: --HST ID: --

Other Invoice and Firm Information

Regulatory Statements: -

Amount Billed

Billed Total	\$4,965.00
Invoice Currency:	USD
Billed Fees	\$4,965.00
Billed Expenses	\$0.00
Billed Total (excl. Tax)	\$4,965.00

Approval History

User	Action	Date	Amount	Comment
Brenda Harding	Posted	01/06/2023	\$4,965.00	
Aiko Yamakawa	Approved	01/06/2023	\$4,965.00	
Serengeti Administrator	AP Batch Run	01/11/2023	\$4,965.00	Batch ID: 009000160 (Sent to AP: 01/11/2023 3:20:25 AM)

Additional Financial Information

SAP Vendor ID:	119858
Name of Invoice File in .Zip:	ZLD LLP - 41964 html
Comments to Firm:	
AP Route:	CA, HI - SAP

Matter Information

Matter Name (Short):T. West San Martin APAMatter ID:202200018Lead Company Person:Yamakawa, AikoOrganizational unit:California-American Water CompanyPractice group:Business Development

Invoice Line Items:

Date	Description Narrative	Timekeeper U	Jnits Rate	Adjust Taxes TaxType% Amount
12/05/202		Robertson, 0 James	\$435,00	\$87.00
12/07/202	REDAUTE	Fanckboner, 2 Lizzie	9 \$340.00	\$986.00
12/08/202		Fanckboner, 2 Lizzie	\$340.00	\$782.00
12/08/202		Robertson, 0 James	\$435.00	\$87.00
12/09/202		Fanckboner, 2 Lizzie	\$340.00	\$714.00
12/09/202	2 -	Robertson, 0 James	.8 \$435,00	\$348.00
12/12/202		Fanckboner, 0 Lizzie	0.6 \$340.00	\$204.00
12/13/202		Fanckboner, 0 Lizzie	.1 \$340.00	\$34.00
12/13/202		Robertson, 0 James	\$435.00	\$130 50
12/15/202		Fanckboner, 2 Lizzie	.8 \$340.00	\$952.00
12/15/202		Robertson, 0 James	\$435.00	\$130 50
12/19/202	2 -	Fanckboner, 0 Lizzie	\$340.00	\$170.00
12/20/202		Fanckboner, 0 Lizzie	0.6 \$340.00	\$204.00
12/22/202	2 -	Fanckboner, 0 Lizzie	0.4 \$340.00	\$136.00

INVOICE

Invoice Information

Firm/Vendor:	ZLLLP
Office:	Los Angeles
Invoice Number:	37930
Date of Invoice:	02/14/2022
Billing Period:	01/20/2022 - 01/31/2022
Date Posted:	02/14/2022
Invoice Description/Comment:	

Amount Approved

Approved Total	\$1,522.50
Invoice Currency:	USD
Date Approved:	02/14/2022
Final Approver:	Anthony Cerasuolo
Approved Fees	\$1,522.50
Approved Expenses	\$0.00
Approved Total (excl. Tax)	\$1,522.50
Comments to AP:	

Accounting Code Allocations

Company Code Cost Cente	r General Ledge	r <u>WBS</u>	Internal Order Profit Center AWE Account String Amount	Percentage Comment
1015	53155000	E15-1600-150120	\$1,522.50	100%

Vendor Address & Tax Information in Legal Tracker

ZL LLP 350 S Grand Avenue 32nd Floor Los Angeles, California 90071

Tel: 213-596-5620 Fax: 213-596-5621

Remittance Address Same as mail address Vendor Tax ID: 200175027 VAT ID: --GST ID: --HST ID: --

Other Invoice and Firm Information

Regulatory Statements: -

Amount Billed

Billed Total	\$1,522.50
Invoice Currency:	USD
Billed Fees	\$1,522.50
Billed Expenses	\$0.00
Billed Total (excl. Tax)	\$1,522.50

Approval History

User	Action	Date	Amount	Comment
Valerie Silva	Posted	02/14/2022	\$1,522.50	
Anthony Cerasuolo	Approved	02/14/2022	\$1,522.50	
Serengeti Administrator	AP Batch Run	02/16/2022	\$1,522.50	Batch ID: 009000116 (Sent to AP: 02/16/2022 3:02:27 AM)

Additional Financial Information

SAP Vendor ID:119858Name of Invoice File in .Zip:ZLD LLP - 37930 htmlComments to Firm:AP Route:CA, HI - SAP

Matter Information

Matter Name (Short):T. West San Martin APAMatter ID:202200018Lead Company Person:Yamakawa, AikoOrganizational unit:California-American Water CompanyPractice group:Business Development

Invoice Line Items:

Date	Description Narrative
01/20/202	
01/27/2022	REDAUIED

Timekeeper	Units	Rate	Adjust Taxes	TaxType%	Amount
Robertson, James	15	\$435,00			\$652 50
Robertson, James	2	\$435.00			\$870.00

Valentine Environmental Engineers

15845 South 46th Street, Suite 144

Bill To California American Water PO#3000625817 AP Dept 1015 1 Water Street Camden, NJ 08102-1658

Project #		Contract Amount				
PO3000625817	W	\$17,650				
Task/Allowance	Task Amount	Prior Amt	Curr %	Total %	Amount	
West San Martin Water System Condition Assessment	17,650.00			90.00%	90.00%	15,885.00
For services through May 2023		Total		\$15,885.00		
	Payments/0	\$0.00				
Phone #	Balance	Due \$15,885.00				

Phoenix, AZ 85048

Ship To		

Date

6/3/2023

Workpaper 3-54

Invoice

Invoice #

2562

Phone #

(480) 283-8991

MDR Response Attachment 13

Workpaper 3-56



West San Martin Water Works, Inc. Water System Condition Assessment, Valuation and Capital Improvements Plan

June 2023



Prepared for: California American Water



CALL CLASED PROFESSIONAL ENCINE R



West San Martin Water Works, Inc. CONDITION ASSESSMENT, VALUATION AND CAPITAL IMPROVEMENTS PLANT

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Attachment 1 – Unit Cost Backup Attachment 2 – Site Visit Pictures



1.0 INTRODUCTION

California-American Water Company (CAW) intends to purchase the water system owned and operated by the West San Martin Water Works, Inc. (WSMWW), Water System No. 4300543.

The WSMWW water system serves San Martin, an unincorporated area in Santa Clara County. The WSMWW currently serves approximately 309 connections and consists of groundwater supply sources, water storage, booster pump stations, fire hydrants and water distribution pipe systems. The system has three pressure zones and includes three active groundwater wells and one inactive groundwater well, approximately 550,000 gallons of storage capacity (provided by four tanks), distribution pipelines, fire hydrants, service laterals and water meters. There is approximately 73,238 lineal feet of 2-inch through 8-inch waterlines (excluding service lines) of cast iron, asbestos cement pipe (ACP) and plastic materials of construction.

There are three active groundwater wells and one well that has been out of service for an extended period. The three active wells are Well 1 (Chester/Sewell Well), the Colony Well, and the County Building Well. The Colony Well site also includes the inactive well, Well 2. The wells are in the lowest pressure zone or zone 1. The active and inactive wells do not have chlorination facilities. Water produced by the wells is pumped into distribution and also to fill two tanks - a 400,000-gallon tank (Big Tank) and a 50,000 gallon tank (Tank 1) at the top of the first pressure zone. The wells start and stop based upon levels in the tanks.

There are two booster pump stations. Booster Station 1 draws water from Tank 1 and pumps up to Tank 2 and the pumps start and stop based on level setpoints in Tank 2. Chlorination occurs at Booster Station 1, where it is dosed into the pump station discharge line. Tank 2 is also a 50,000-gallon buried tank. The Tank 2 site includes Booster Pump Station 2 that pumps to Tank 3, also a 50,000-gallon buried tank. Tank 3 serves the system to the north and services between Tank 2 and Tank 3.

The locations of the key system features are shown on Figure 1, West San Martin Water Works, Inc. System Site Plan.

In August 2022, the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) issued a letter detailing the 2022 Sanitary Survey Findings. The letter included a corrective action plan to address deficiencies in the system. A summary of the corrective action plan requested by the SWRCB is as follows:

• Well 1 (Chester/Sewell) has had several events of positive total coliform detentions. Despite disinfecting the well several times, total coliform was still detected. There is no information on the depth and thickness of the sanitary seal.



- The well has been offline since the detection of total coliform. The Division recommended the following items be performed:
 - o Investigate the issue and perform improvements to resolve the issue.
 - Install a chlorination system and submit application for approval, if the issue persists and the WSMWW desires to resume use of the well.
 - Install a source sampling tap between the wellhead and the check valve.
- County Building Well:
 - Disconnect hose and cap outlet of pump to waste tank or remove pump to waste tank.
- Colony well:
 - o Install a source sampling tap between the wellhead and the check valve.
- Seal and fix holes and gaps at the storage tanks.
- Address the inadequacy of meeting Maximum Day Demand (MDD). After review of 10-years' worth of production data, the Division estimated that the MDD for the system is 700 gpm. The County Building Well and Colony Wells have a total capacity of 666 gpm. The Division recommended that Well 1 should be returned into service as soon as possible.
- Implement all recommendations from the cross-connection survey and make sure that all backflow devices are certifier tested annually.
- Address corrosion on piping at pump stations, remove and paint.
- Update the source water quality monitoring schedule for perchlorate.
- Provide system chlorination operational records.
- Update the bacterial sample siting plan.
- Address the abandonment or restoration of use of Colony Well 2.
- Repair the existing emergency generator or obtain a new emergency generator.

CAW requested Valentine Engineers (Valentine) prepare an assessment of existing conditions, a system valuation, a capital improvements plan, and independent opinion of costs associated with the capital improvements plan. The condition assessment, system valuation, capital improvements plan with costs, and supporting information is provided in this report.

1.1 WSMWW Information Sources

The findings presented in this report relied upon the following information:

- 2017, 2018, 2019 and 2020 Annual Reports for the West San Martin Water Works, Inc. Water System.
- 2022 Sanitary Survey Findings for the West San Martin Water Works, Inc. Water System No. 4300543.
- WSMWW List of Fixed Assets, date unknown.
- February 3, 2023, site visit with water system owner and operator.



West San Martin Water Works Inc. | Water System Condition Assessment, Valuation and Capital Improvements Plan

West San Martin Water System Map

- Tank
- Well
- BPS
- 2-inch piping
- 6-inch piping
- 8-inch piping
- 10-inch piping
- 12-inch piping



Workpaper 3-60



2.0 WSMWW DEMAND

WSMWW current demand data was requested but has not yet been received. However, after review of the information provided by the WSMWW the following information regarding the sources that previously estimated maximum day demand (MDD) were found:

- 700 gallons per minute (gpm), Source: 2022 Sanitary Survey.
- Analyzing the 2017, 2018, 2019 and 2020 Annual Reports:
 - o 2017: Average: 189 gpm Max (Assuming peaking factor of 3): 567 gpm
 - o 2018: Average: 194 gpm Max (Assuming peaking factor of 3): 584 gpm
 - Max (Assuming peaking factor of 3): 600 gpm
 - 2019: Average: 200 gpm
 2020: Average: 203 gpm
 - Max (Assuming peaking factor of 3): 600 gpm Max (Assuming peaking factor of 3): 609 gpm
 - o 2020: Average: 203 gpm M
- lax (Assuming peaking factor of 5). 009 gr

In September 2022, WSMWW response to the 2022 Sanitary Survey comments indicated that based on data for July of 2020, WSMWW believes the maximum day demand to be 0.94 million gallons per day (mgd) or 652 gpm.

The MDD selected for this evaluation is based on 652 gpm.

3.0 SYSTEM DESCRIPTION

The WSMWW service area is primarily residential (approximately 80% of the customer base) but also serves approximately 40 commercial customers and a golf course resort. The system is comprised of three pressure zones equipped with the following infrastructure:

- Four ground water wells in the lower or first zone with three wells that are active.
- A 400,000-gallon tank and 50,000-gallon tank at the top of the first zone, a 50,000-gallon tank at the top of the second zone, a 50,000-gallon tank at the top of the third pressure zone. A total of 550,000-gallons of storage is available in this system.
- Two booster pump stations to transfer water from the first zone to the second zone and from the second zone to the third zone.
- 73,238 lineal feet of 2-inch through 8-inch waterlines (excluding service lines) of cast iron, asbestos cement pipe (ACP) and plastic materials of construction.
- Approximately 309 connections with meters ranging in size from 5/8-inch by ³/₄-inch to 4-inch. Approximately 72 meters have been converted to automatic read radio style meters.
- Approximately 124 fire hydrants.
- Approximately 70 backflow devices.

Pictures of the existing facility are included in Attachment 2.



The following sections provide detailed descriptions of the wells, storage, and distributions systems. In addition, these sections summarize the most recent sanitary survey findings and the results of a simplistic condition-based assessment.

A simplistic condition-based assessment was performed and is based upon a site visit on February 3, 2023 and information provided by the WSMWW operator (see Section 1.1). The condition assessment relies on site observations and information obtained from operations staff during the site visit. The condition assessment analyzed the criticality of each system component as well as the physical parameters, condition, and performance.

3.1 Wells

There are four groundwater wells in the lower zone and all four wells are equipped with submersible well pumps. There are three active wells designated as Well 1 (Chester/Sewell), Colony Well, and County Building Well. Well 2 is currently not in use.

The reported well capacities are summarized in Table 1 below. Well 2 is reported as a good producing well but has nitrate contamination and when it was in operation, it was blended with the Colony Well. The Colony Well and the County Building Well have perchlorate contamination and were previously equipped with perchlorate treatment systems. The systems were removed when the perchlorate concentrations came into compliance with the maximum contaminant level.

Table 1 summarizes the approximate pump capacity, nitrate contamination, well status and well condition for each well. The information presented in Table 1 was taken from the 2022 Sanitary Survey and the 2020 Annual Report to the California Public Utilities Commission.

Table 1. West San Martin Water Works, Inc. System Well SummaryWest San Martin Water Works, Inc. – Condition Assessment, Valuation and CapitalImprovements Plan						
Well	Well Pump Capacity	Water Quality	Well Status	Well and Pump	Other Information	

	(gpm)	Considerations		Condition	
1	340	Total coliform detections	Active, but not in use due to total coliform issue	Well & Pump – Unknown	50 ft depth to water 12-inch diameter Installed in 1950, rehabilitated in the last 20 years (approximately 2003)



 Table 1. West San Martin Water Works, Inc. System Well Summary

 West San Martin Water Works, Inc. – Condition Assessment, Valuation and Capital

 Improvements Plan

Well	Well Pump Capacity (gpm)	Water Quality Considerations	Well Status	Well and Pump Condition	Other Information				
2	unknown	Nitrate	OUS	Well & Pump – Unknown Pump - Unknown					
Colony Well	300	Perchlorate, but under the MCL	Active	Well & Pump – Unknown	50 ft depth to water 10-inch diameter Installed in 2014				
County Building Well	400	Perchlorate, but under the MCL	Active	Well & Pump – Unknown	50 ft depth to water 10-inch diameter Installed in 1995				
Notes: OUS – O	ut of Service.								

The Colony Well site and Well 1 are located on properties owned by WSMWW. Well 2 is also located on the Colony Well site. The County Building Well site is located within an easement.

3.1.1 Well Capacity Evaluation

A community water system using only groundwater must have a minimum of two approved water sources and capable of meeting the MDD with the highest capacity source off-line. The WSMWW MDD has been established at 652 GPM for this evaluation.

Currently, the Colony Well and the County Building Well are in service and have a total capacity of 700 GPM. With the largest of these two wells out of service, the WSMWW MDD cannot be met. The re-instatement of Well 1, after addressing compliance issues, can allow the system to very closely meet the MDD with the largest well out of service.

At some point in the future, the WSMWW could also serve the Twin Valley Water, Inc. system. The Twin Valley Water, Inc. MDD is estimated to be 125,000 GPD or 87 GPM. The total WSMWW and Twin Valley Water, Inc. MDD is 696 GPM. With the largest WSMWW well out of service (the County Building Well), the combined demand of the two water systems cannot be met (even with assuming Well 1 is returned to service).



3.1.2 Well Condition Assessment

The criticality of the wells is high because currently the water system demand cannot be met with the largest well out of service. The 2022 Sanitary Survey recommended that Well 1 be returned to operation, after resolving the total coliform contamination, in order to meet the MDD for the WSMWW.

The condition of the wells (casing, screening) is unknown. The well pump systems (well pump, motor, column piping and ancillary components) is unknown. The water system operator has indicated that the Colony Well was rehabilitated in approximately 2003.

The well sites are secured with chainlink fencing and gates. Well 1 is enclosed inside a building while the Colony Well and the County Building Well are located outside.

The wellhead piping is in fair condition but there are mixed materials of construction, and some fittings are severely corroded.

Well 1 and the Colony Well power meters, motor control panels, and radio controls are in a wooden enclosure. These systems (power meters, motor control panels and radio controls) are located on stanchions, within panels, open to the elements for the County Building Well. The existing control system is an unlicensed radio telemetry system.

Overall, considering the high criticality and production issues of the wells, the condition assessment of the wells is poor in terms of performance and fair in terms of condition, until more data is available to determine otherwise.

The following are recommended for immediate improvements to the wells:

- Treatment for Well 1 so that it can be returned to service.
- Investigations into the conditions of all wells to determine useful life.
- Return of Well 2 into service, if feasible, and blending with the Colony Well, if feasible, to meet the nitrate maximum contaminant limit.

3.2 Storage and Booster Pump Station

The following storage facilities exist in the WSMWW:

- One 400,000-gallon circular partially buried concrete tank and one 50,000-gallon concrete tank (Tank 1) in the lower zone. These two tanks receive water from the wells in the lower zone.
- One 50,000-gallon buried concrete tank in zone 2 (Tank 2) and one 50,000-gallon buried concrete tank in zone 3 (Tank 3).



 Table 2.
 West San Martin Water Works, Inc. System Storage Tank Summary

 West San Martin Water Works, Inc. – Condition Assessment, Valuation and Capital

 Improvements Plan

Tank	Volume (gallons)	Year Built	Materials of Construction	Date of Last Inspection						
Big	400,000	2000	Concrete with Aluminum Geodesic Type Cover	Approximately 2 years ago, dive						
1	50,000	Early 1980s	Concrete	Approximately 2 years ago						
2	50,000	Early 1980s	Concrete	Approximately 2 years ago						
3	50,000	Early 1980s	Concrete	Approximately 2 years ago						

3.2.1 Storage Tank and Booster Pump Station Capacity Evaluation

For systems serving less than 1,000 customers, the system must have storage capacity equal or greater than the MDD, unless the system can demonstrate that it has an additional source of supply or an emergency source connection that can meet the MDD requirement.

The current storage, in combination with an additional source of supply (the wells) meets the MDD requirement for the WSMWW.

There are two booster pumps. Booster Station 1 is located a short distance away and from Tank 1 and higher in elevation than Tank 1. Two 20 hp are located at this station. Only one pump is allowed to run at a time because with two pumps operating, the level in Tank 1 is drawn down rapidly. This pump station starts and stops based on desired level setpoints that are monitored in Tank 2.

Booster Station 2 is located on the same site as Tank 2. This station has two 15 hp pumps. This pump station starts and stops based on desired level setpoints that are monitored in Tank 3.

3.2.2 Storage Tank and Booster Pump Station Condition Assessment

The performance of the storage tanks and booster pump stations appears adequate to satisfy current WSMWW demands. The condition of the tanks and booster pump stations appears to be fair, however, some of the tank repairs recommended in the 2022 Sanitary Survey should be performed, if not already addressed. The location of Booster Station 1 relative to Tank 1 does not appear to be hydraulically optimal as the booster station is above the tank and may be limiting the operating level in the tank.



If the interconnection to the Twin Valley, Inc. water system is provided in the future, it is likely that all the booster pump capacities will need to be increased in capacity to be able to supply the MDD. Each pump station will need to be increased in capacity by at least 86 GPM. In addition, the impact of increasing the Booster Station 1 on Tank 1 operating levels should be investigated further. Relocating the booster pumps to Tank 1 might be required.

3.3 Distribution System

The existing distribution system has approximately 73,238 lineal feet of 2-inch through 8-inch waterlines (excluding service lines) of cast iron, asbestos cement pipe (ACP) and plastic materials of construction (Source: 2020 CPUC Annual Repot). It is believed that most of the distribution system was installed in the early 1980s. A breakdown of the distribution system pipe materials and sizes is as follows:

- Cast Iron: 6-inch at 1,230 feet, 8-inch at 2,590 feet.
- Asbestos Cement (ACP): 6-inch at 9,900 feet, 8-inch at 24,214 feet.
- Plastic: 4-inch at 540 feet, 6-inch at 8,693 feet, 8-inch at 23,621 feet.
- Other: 4-inch at 100 feet.

There appear to be 309 connections according to review of the 2020 Annual CPUC Report (272 residential and 37 industrial/commercial). The breakdown of connections by meter size, according to the 2020 Annual CPUC Report, is:

- 5/8 x ³/₄ inch 117 meters
- 1-inch 78 meters
- 1-1/2 44 meters
- 2-inch 65 meters
- 3-inch 3 meters
- 4-inch 2 meters

The system has 124 fire hydrants of unknown make and model (Source: WSMWW List of Fixed Assets, date unknown).

The condition of the existing piping and meters is unknown. To better define the useful life of the existing distribution system piping, a pipeline condition assessment is recommended and could be a combination of potholing and camera investigations.



4.0 SYSTEM VALUATION, CAPITAL IMPROVEMENT PLAN AND ESTIMATION OF COSTS

Two types of cost estimates were developed. The first cost estimate provides an estimate of the current costs to replace the existing system (replacement cost).

The second cost estimate is for five-year capital improvements cost. Five-year capital improvements costs address useful life, condition and upgrading certain components of the system to California American Water standards.

4.1 Estimate of Replacement Cost and Replacement Cost New Less Depreciation

Replacement costs to replace the existing WSMWW facilities were prepared and are presented in this report. The replacement cost is the cost to replace the existing assets with modern materials. For example, existing ACP pipelines are assumed to be replaced with PVC pipelines. The replacement cost does not include costs to improve facilities to meet current codes or design standards.

These estimated costs are consistent with an Association for the Advancement of Cost Engineering International (AACE) Class 4 estimate, which is defined as a Planning Level estimate.

Table 3 presents the opinion of replacement costs, the estimated remaining useful life, and the replacement cost less depreciation.

The quantities of components, materials of construction and their size (horsepower, volume, diameter, etc.) were gathered from WSMWW during the site visit or obtained from information provided by WSMWW. This information is also summarized in the previous sections of this report.

The approximate installation date for each key water system component was gathered from WSMWW. The service life of each of the key water system components was either based upon experience and judgement or the California Public Utilities Commission (CPUC) Standard Practice for Determination Of Straight-Line Remaining Life Depreciation Accruals dated January 3, 1961.

An age-based and condition-based remaining useful life was calculated. The methods to develop age-based and condition-based remaining useful life is based upon a previous valuation performed by Brown and Caldwell (Warring Water Service System Value Assessment, dated August 27, 2019). The methods are summarized as follows:

• Age-based remaining useful life is calculated by **Equation 1** below:



Equation 1: Aged-based remaining useful life = expected service life - age of the component

- If the age of the component is greater than the expected service life, this calculation results in a negative age-based remaining useful life. In those circumstances the remaining life of the asset is assumed to be the condition-based useful life.
- Condition-based remaining useful life is calculated based on the following methodology:
 - A condition score was assigned to each component based on observations made during the site visit and information provided by WSMWW.
 - The condition score ranged from one to five, with one indicating a new component and five indicating a component near failure.
 - The condition score for components that could not be visually observed (i.e., pipelines, distribution system valves, etc.) was assigned based on the age of the component.
 - The following table provides a guide for the condition score:

Condition Rank Description

- 1 Asset as new
- 2 Asset showing initial signs of deterioration (light housekeeping issues)
- 3 Asset condition generally satisfactory (moderate housekeeping issues)
- 4 Asset in poor condition; action required soon (disrepair)
- 5 Asset in need of urgent action (exposed, burned)
 - Next, a decay curve developed by the Water Environment & Reuse Foundation (WERF) was used to determine the fraction of life remaining from the condition score. The decay curve is shown below. For example, for a condition score of two, the fraction of remaining life would be 0.91.





• The condition-based remaining useful life was calculated by Equation 2:

Equation 2: Condition-based remaining useful life = Fraction of life remaining x Expected service life.

For the example above, if the expected service life of the component is 15 years, then the condition-based remaining useful life = 0.91×15 year = 13.65 years.

• This method will always result in a positive condition-based remaining useful life.

The remaining useful life of each component is the lower value of age-based remaining useful life and condition-based remaining useful life calculated for the component, unless the age-based remaining useful life is negative, in which case the remaining useful life is the condition-based remaining useful life.

Straight-line depreciation was used to determine the replacement cost new less depreciation. Straight-line depreciation assumes a linear depreciation of value with age. For example, if the component is new, then it is worth 100 percent of its value. If the component is at 100 percent of its useful life, it has no value. This calculation did not consider obsolescence.



Image Image <t< th=""><th>Replacemer</th><th>t Costs</th><th></th><th></th><th></th><th></th><th>So</th><th>ft Costs</th><th></th><th></th><th>Re</th><th>maining Useful</th><th>Life</th><th>a</th><th></th><th></th></t<>	Replacemer	t Costs					So	ft Costs			Re	maining Useful	Life	a		
	Description	Quantity	Unit	Unit Cost	Cost	Note (1)	Soft Costs (2)	Total	Installed Date	Service Life (3) Age	Age-Based Remaining Service Life	Condition Rank	RUL Factor	Condition- Based Remaining Useful Life	Remaining Useful Life	RCNLD
Del Astronomonitorie of the second	Well 1 (Chester/Sewell Well)															
A. A. Sonon-Man J. J.S. Sono B. Sono P. S. Sono <td>Well (12-inch diameter, 100 ft depth)</td> <td>1</td> <td>LS</td> <td>\$170,000</td> <td>\$170,000</td> <td>1a</td> <td>\$117,300</td> <td>\$287,300</td> <td>2003</td> <td>75</td> <td>7 58</td> <td>3 2.0</td> <td>0.91</td> <td>6</td> <td>8 58</td> <td>\$222,179</td>	Well (12-inch diameter, 100 ft depth)	1	LS	\$170,000	\$170,000	1a	\$117,300	\$287,300	2003	75	7 58	3 2.0	0.91	6	8 58	\$222,179
Contan I I D <td>40-hp Submersible Pump</td> <td>1</td> <td>LS</td> <td>\$26,370</td> <td>\$26,370</td> <td>1b</td> <td>\$18,195</td> <td>\$44,565</td> <td>2003</td> <td>10</td> <td>7 -7</td> <td>7 4.0</td> <td>0.62</td> <td>2</td> <td>6 6</td> <td>\$27,630</td>	40-hp Submersible Pump	1	LS	\$26,370	\$26,370	1b	\$18,195	\$44,565	2003	10	7 -7	7 4.0	0.62	2	6 6	\$27,630
	6" Check Valve	1	EA	\$3,627	\$3,627	1c	\$2,502	\$6,129	2003	30	7 13	3 3.5	0.71	2	1 13	\$2,656
Party Partial manual Part Part Part Part Part Part Part Part	6" Flow Meter	1	EA	\$4,397	\$4,397	1d	\$3,034	\$7,432	2003	30	7 13	3 3.5	0.71	2	1 13	\$3,220
I have I have<	6" Ductile Iron Above Grade Pining	50	LE	\$2,966	\$5,931 \$13.044	1e 1f	\$4,093	\$10,024	2003	30	7 13	3 3.5	0.7	2	1 13	\$4,344
The ner an energy of a set of	6' x 8' Building	1	LS	\$1,679	\$1,679	1g	\$1,159	\$2,838	2003	25	7 8	3 4.0	0.62	2 1	6 8	\$908
	Electrical and Instrumentation	1	LS	\$11,790	\$11,790	1ĥ	\$8,135	\$19,925	2003	25	7 8	3 4.0	0.62	2 1	6 8	\$6,376
Description 1 1.1 1.5 1																
	Colony Well	1	10	£142.400	£142.400	10	¢09.046	6040.046	2014	75	e er	2.0	0.01		0 60	\$000 F00
C / C / C / C / C / C / C / C / C / C /	30-hp Submersible Pump	1	EA	\$19,936	\$19,936	1b	\$13,756	\$33.692	2014	10	6 4	1 2.0	0.9		9 4	\$13.47
C hash base C H C H C H C H C H C H D H <thd h<="" th=""> D H <thd h<="" th=""> <thd< td=""><td>4" Check Valve</td><td>1</td><td>EA</td><td>\$2,831</td><td>\$2,831</td><td>1c</td><td>\$1,953</td><td>\$4,785</td><td>2014</td><td>30</td><td>6 24</td><td>1 2.0</td><td>0.91</td><td>2</td><td>7 24</td><td>\$3,828</td></thd<></thd></thd>	4" Check Valve	1	EA	\$2,831	\$2,831	1c	\$1,953	\$4,785	2014	30	6 24	1 2.0	0.91	2	7 24	\$3,828
Process Process <t< td=""><td>4" Ductile Iron Piping (Flanged, above grade)</td><td>40</td><td>LF</td><td>\$218</td><td>\$8,705</td><td>1f</td><td>\$6,006</td><td>\$14,712</td><td>2014</td><td>30</td><td>6 24</td><td>1 2.0</td><td>0.91</td><td>2</td><td>7 24</td><td>\$11,769</td></t<>	4" Ductile Iron Piping (Flanged, above grade)	40	LF	\$218	\$8,705	1f	\$6,006	\$14,712	2014	30	6 24	1 2.0	0.91	2	7 24	\$11,769
b b b b b b b b b b b b b b b b b b b b b b b b b b b	6" Flow Meter	1	EA	\$4,397	\$4,397	1d	\$3,034	\$7,432	2014	30	6 24	1 2.0	0.91	2	7 24	\$5,945
	4" Gate Valve	1	EA	\$2,042	\$2,042	10	\$1,409	\$3,451	2014	30	6 24	1 2.0	0.9	2	7 24	\$2,76
Decomposition T C Filling Filing Filling Filin	6" Ductile Iron Piping (Flanged, above grade)	50	LA	\$2,900	\$13,044	16 1f	\$9,040	\$22.045	2014	30	6 24	1 2.0	0.9	2	7 24	\$17,636
Alternational and partial	Electrical Building	1	LS	\$12,800	\$12,800	1g	\$8,832	\$21,632	2014	30	6 24	1 5.0	0.05	5	2 2	\$1,08
Conv Conv <th< td=""><td>Electrical and Instrumentation</td><td>1</td><td>LS</td><td>\$13,635</td><td>\$13,635</td><td>1h</td><td>\$9,408</td><td>\$23,043</td><td>2014</td><td>25</td><td>6 19</td><td>3.5</td><td>0.71</td><td>1</td><td>8 18</td><td>\$16,36</td></th<>	Electrical and Instrumentation	1	LS	\$13,635	\$13,635	1h	\$9,408	\$23,043	2014	25	6 19	3.5	0.71	1	8 18	\$16,36
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Displanding Displanding <thdisplanding< th=""> <thdisplanding< th=""></thdisplanding<></thdisplanding<>	Well (10-inch diameter 100 ft depth)	1	1.5	\$143.400	\$143.400	12	\$08 0/6	\$242.246	1005	75	5 5) ?=	0.74	E	3 60	\$161 56
T CP CharA I D D S D S D S D S D S D S D S D S D S D S	60-hp Submersible Pump	1	LS	\$15,750	\$15,750	1b	\$10,868	\$26.618	1995	10	25 -15	5 5.0	0.05	5	1 1	\$1.33
Pho Name 1 D 6.4.22 94.20 94.20 95.	6" Check Valve	1	EA	\$3,627	\$3,627	1c	\$2,502	\$6,129	1995	30	25 5	5 4.0	0.62	2 1	9 5	\$1,02
D M PARA D M <thd m<="" th=""> D M <thd m<="" th=""> <thd <="" m<="" td=""><td>6" Flow Meter</td><td>1</td><td>EA</td><td>\$4,397</td><td>\$4,397</td><td>1d</td><td>\$3,034</td><td>\$7,432</td><td>1995</td><td>30 3</td><td>25 E</td><td>5 4.0</td><td>0.62</td><td>2 1</td><td>9 5</td><td>\$1,23</td></thd></thd></thd>	6" Flow Meter	1	EA	\$4,397	\$4,397	1d	\$3,034	\$7,432	1995	30 3	25 E	5 4.0	0.62	2 1	9 5	\$1,23
bit dot bit dot <t< td=""><td>6" Gate Valves</td><td>3</td><td>EA</td><td>\$2,966</td><td>\$8,897</td><td>1e</td><td>\$6,139</td><td>\$15,036</td><td>1995</td><td>30</td><td>25 5</td><td>5 4.0</td><td>0.62</td><td>2 1</td><td>9 5</td><td>\$2,500</td></t<>	6" Gate Valves	3	EA	\$2,966	\$8,897	1e	\$6,139	\$15,036	1995	30	25 5	5 4.0	0.62	2 1	9 5	\$2,500
Converting F Converting F Converting <	6" Ductile Iron Above Grade Piping	50	EA	\$261	\$13,044	1† 1b	\$9,001	\$22,045	1995	30 25	5 5 5 (5 4.0 5 0	0.62	2 1	9 5	\$3,674
By Alt Set of the set of t			LA	\$10,000	φ10,000		\$3,010	ψ22,010	1555	20		5 0.0	0.00	,		φ
Absolution from (from the number low (from the nu	Big Tank															
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	400,000-gallon Buried Concrete Tank with Aluminum Cover	1	LS	\$486,371	\$486,371	1i	\$335,596	\$821,967	2000	75 2	3 52	2 2.0	0.91	6	8 52	\$569,897
Part Control Image of the control from the table harmon Control Image of the control from the table harmon Control Image of the control from the table harmon Control Image of the control from the table harmon Control Image of the control from the table harmon Control Image of the control from the table harmon Control Image of the control	Overflow and Drain Piping, 6"	40	LF	\$230	\$9,203	1f	\$6,350	\$15,552	2000	30 2	3 7	3.5	0.71	2	1 7	\$3,629
Tack 1 Tack 1 Tack 2 Part 2<	6" Gate Valve (Buried)	3	EA	\$2,375	\$7,126	1d	\$4,917	\$12,044	2000	30 3	23 7	7 3.5	0.71	2	1 7	\$2,810
Stand Jack Lorent S fm in Humm Core 1 <th1< th=""> 1 <th1< th=""></th1<></th1<>	Tank 1	-														
Outrine Jour Party II 40 15 100 50 60 60 10<	50,000-gallon Buried Concrete Tank with Aluminum Cover	1	LS	\$104,424	\$104,424	1i	\$72,053	\$176,477	1980	75	0 35	5 2.0	0.91	6	8 35	\$82,356
of det Average 3 K.A. U.S. VI.C.B. VI.	Overflow and Drain Piping, 6"	40	LF	\$230	\$9,203	1f	\$6,350	\$15,552	1980	30 4	-10	3.5	0.71	2	1 21	\$11,042
booke Part Part <t< td=""><td>6" Gate Valve (Buried)</td><td>3</td><td>EA</td><td>\$2,375</td><td>\$7,126</td><td>1d</td><td>\$4,917</td><td>\$12,044</td><td>1980</td><td>30 4</td><td>-10</td><td>3.5</td><td>0.71</td><td>1 2</td><td>1 21</td><td>\$8,55</td></t<>	6" Gate Valve (Buried)	3	EA	\$2,375	\$7,126	1d	\$4,917	\$12,044	1980	30 4	-10	3.5	0.71	1 2	1 21	\$8,55
Solve Skanninge 2 6.4 6.14 90.00 1 92.440 9000 10 44 900 45 900 7 7 92.200 Starth Parc G 2 6.4 15.000 16 15.000 16 15.000 16 4.4 16 16.4 16 16.4 16 16.4 16 16.4 16 16.4 16 16.4 16 16.4 16 16.4 16 16.4 16 16.4 1	Beaster Dump Station 4	_														
Schen Propin 2 EA 94.00 95.00 <th< td=""><td>20-hp Submersible Booster Pumps</td><td>2</td><td>FA</td><td>\$18,000</td><td>\$36,000</td><td>1i</td><td>\$24.840</td><td>\$60.840</td><td>1980</td><td>15</td><td>-25</td><td>5 4.5</td><td>i 0.46</td><td>3</td><td>7 7</td><td>\$27.986</td></th<>	20-hp Submersible Booster Pumps	2	FA	\$18,000	\$36,000	1i	\$24.840	\$60.840	1980	15	-25	5 4.5	i 0.46	3	7 7	\$27.986
C Parto Deck Value 2 E A 52,037 83,	12-inch Pump Can	2	EA	\$5,430	\$10,860	1k	\$7,493	\$18,353	1980	30 4	-10) 4.5	0.46	, 5 1.	4 14	\$8,443
C date function 2 6 A 5 2.42 8 4.40 1 2 3.81 8 5.00 1 30 2 4.5 6 4.6 1 4 4 5.77 Start March Start March Start March Mark Mark Mark Mark Mark Mark Mark Mark	4" Swing Check Valve	2	EA	\$2,831	\$5,662	1c	\$3,907	\$9,569	1980	30 4	-10	4.5	0.46	5 1-	4 14	\$4,402
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	4" Gate Valve (Flanged)	2	EA	\$2,042	\$4,084	1e	\$2,818	\$6,901	1980	30 4	-10	4.5	0.46	<u>5</u> 1.	4 14	\$3,175
$ \begin{array}{c} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	6" Gate Valves (Burled, MJ) Sedium Hungeblarite Storage and Chamical Food Rump	3	EA	\$2,375	\$7,126	1e	\$4,917	\$12,044	1980	30 4	-10	4.5	0.40	5 1-	4 14	\$5,540
Embed and Potencial Bake Strutter 1 15 97/96 10 97/96 10 97/97 97/96 10 97/97	Injection Quill	2	FA	\$563	\$1.125	1m	\$776	\$1,055	1980	30 4	-10	4.5	0.40	5 1- 5 1-	4 14	\$300
Bitch and Instantantian 1 15 91,02	Electrical and Chemical Shade Structure	1	LS	\$2,785	\$2,785	1n	\$1,922	\$4,707	1980	10 4	-30	0 4.5	0.46	3	5 5	\$2,165
Task 2 and boards Pung Salar 2. Is Normal Normal <td>Electrical and Instrumentation</td> <td>1</td> <td>LS</td> <td>\$10,403</td> <td>\$10,403</td> <td>1h</td> <td>\$7,178</td> <td>\$17,581</td> <td>1980</td> <td>25</td> <td>-15</td> <td>5 4.5</td> <td>0.46</td> <td>6 1:</td> <td>2 12</td> <td>\$8,087</td>	Electrical and Instrumentation	1	LS	\$10,403	\$10,403	1h	\$7,178	\$17,581	1980	25	-15	5 4.5	0.46	6 1:	2 12	\$8,087
DBD Application Extract Controls Fails and Automa Dover 1 16 1914.424 191 497.407 198 7.6 49 38 20 9.9 68 30 Controls and Early Location 4 6.4 154 45.8 157.7 198 30 40 -10 4.6 1.4	Tank 2 and Basatan Dump Station 2															
Decretion and tham Pring, a ⁺ Diff 93/16 93/16 93/17 1980 30 40 -10 4.5 0.46 14 14 95/28 15% bit shares 2 0.5 11.0 15.000 55/20.000 11.0 15.000 55/20.000 10.0 4.5 0.46 14 14 52/20.000 15% bit shares 2 0.4 0.20,000 10.0 4.5 0.46 14 14 52/20.000 15% bit shares 10.0 10.0 10.0 4.5 0.46 10.0 4.5 0.46 10.0 4.5 0.46 14 14 52/20.000 15% bit shares 10.0 10.0 10.0 4.5 0.46 10.0 4.5 0.46 10.0 4.5 0.46 10.0 4.5 0.46 10.0 10.0 4.5 0.46 10.0 10.0 4.5 0.46 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	50,000-gallon Buried Concrete Tank with Aluminum Cover	1	15	\$104.424	\$104 424	1i	\$72.053	\$176 477	1980	75	0 34	5 20	0.91	6	8 35	\$82.356
1* Muscher Ausse 4 EA 3829 33.715 10 52.836 56.278 185 30 40 -10 4.5 0.46 14 45 52.836 155 3.4500 52.700 11 52.836 56.26 180 56.26	Overflow and Drain Piping, 6"	50	LF	\$198	\$9,900	1f	\$6,831	\$16,731	1980	30 4	-10	0 4.5	0.46	6 1	4 14	\$7,696
15-bb Semanthie Booster Pung. 2 LS 51-bb Semanthie Booster Pung. 15 40 -25 4.5 0.6 -7 7 55000 15-bb Semanthie Booster Pung. 2 EA S2.03 Strong Price <	1" Air Vac Relief Valve	4	EA	\$929	\$3,715	10	\$2,563	\$6,278	1980	30 4	-10	4.5	0.46	5 1-	4 14	\$2,888
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	15-hp Submersible Booster Pumps	2	LS	\$13,500	\$27,000	1j	\$18,630	\$45,630	1980	15 4	-25	5 4.5	0.46	3	7 7	\$20,990
2 Gin Voine 2 EA 2 Kord 5 Kord 1 is 2 Supple Sup	12-Inch Pump Can 4" Swing Chock Volvo	2	EA	\$5,430	\$10,860	1K 10	\$7,493	\$18,353	1980	30 4	-10	4.5	0.40	i 1-	4 14	\$8,443
Bench Structure 1 1.5 8.2.765 10 9.7.92 9.7.9 9.9.90 7.5 4.0 3.5 4.5.8 0.46 3.5 4.5.8 0.45 0.4.6 0.4.	4" Gate Valve	2	EA	\$2,031	\$4,084	1e	\$2,818	\$6,901	1980	30 4	0 -10	4.5	0.46	5 <u>1</u>	4 14	\$3.175
Betherial Instrumentation 1 LS 98,314 98,314 98,314 98,314 98,377 97,70 97,405 99 25 40 4.5 0.46 10 97	Electrical Shade Structure	1	LS	\$2,785	\$2,785	1n	\$1,922	\$4,707	1980	75	0 35	5 4.5	0.46	3 3	5 35	\$2,165
Table and Data Departed Concenter Tark with Alaminum Cover 1 15 \$\$104.424 1 \$\$72.035 \$\$105.552 \$1080 30 40 55 \$20.05 \$105.552 \$1080 30 40 55 \$20.05 \$105.552 \$1080 30 40 .0 45 \$0.46 \$14 \$17.263 \$15.552 \$1080 30 40 .0 45 \$0.46 \$14 \$17.263 \$15.552 \$1080 30 40 .0 45 \$0.46 \$12 \$12.052 \$100 \$10.052 \$10.0	Electrical and Instrumentation	1	LS	\$8,314	\$8,314	1h	\$5,737	\$14,051	1980	25	-15	5 4.5	0.46	6 1:	2 12	\$6,464
Data Data Data Data Data Develo fave with Admirum Cover 1 1 5 610.424 610.44 610.444 610.444							\$0									
Openform and Data Parging: 10 LF 92.00 10 15.550 1980 20 40 -10 4.5 0.46 0.4 42 97.15 0° Cale Vale 3 EA 52.375 57.126 1 68.3450 58.450 1890 20 4.0 -20 4.5 0.46 9 9 55.454 Detribution System - <td< td=""><td>Lank 3 50,000 collon Ruried Concrete Tank with Aluminum Cover</td><td>1</td><td>18</td><td>\$104.424</td><td>\$104.424</td><td>46</td><td>\$72.052</td><td>\$176 A77</td><td>1090</td><td>75</td><td>0 26</td><td>2.0</td><td>0.01</td><td>6</td><td>0 25</td><td>¢00.050</td></td<>	Lank 3 50,000 collon Ruried Concrete Tank with Aluminum Cover	1	18	\$104.424	\$104.424	46	\$72.052	\$176 A77	1090	75	0 26	2.0	0.01	6	0 25	¢00.050
3 EA 82,375 57,126 1 54,917 512,044 1980 20 40 -20 4.5 0.46 9 9 55,547 Distribution System -	Overflow and Drain Piping. 6"	40	LS	\$230	\$9,203	1f	\$6,350	\$15.552	1980	30	0 -10) 2.0	0.9	1 01 5 1-	4 14	\$7,154
Electrication System LS \$5,000 <	6" Gate Valve	3	EA	\$2,375	\$7,126	1e	\$4,917	\$12,044	1980	20	-20	0 4.5	0.46	3	9 9	\$5,540
Distribution System Inc. Inc. </td <td>Electrical and Instrumentation</td> <td>1</td> <td>LS</td> <td>\$5,000</td> <td>\$5,000</td> <td>1h</td> <td>\$3,450</td> <td>\$8,450</td> <td>1980</td> <td>25 4</td> <td>-15</td> <td>5 4.5</td> <td>0.46</td> <td>6 1:</td> <td>2 12</td> <td>\$3,887</td>	Electrical and Instrumentation	1	LS	\$5,000	\$5,000	1h	\$3,450	\$8,450	1980	25 4	-15	5 4.5	0.46	6 1:	2 12	\$3,887
Under Mann, Color u	Distribution Ocean															
2-brch PVC Water Man, SCH 40 2.350 LF 540 940 9158.860 190 77 40 35 3.5 0.71 53 35 574.13 4-nch PVC Water Man, CO00 (ACP Replaced with PVC) 9.900 LF \$97 \$811 \$51.616,707 1980 75 40 35 3.5 0.71 53 35 \$97.615 1980 75 40 35 3.5 0.71 53 35 \$97.615 35 \$97.615 35 \$97.615 35 \$97.71 53 35 \$97.71 53 35 \$97.71 53 35 \$0.71 53 35 \$97.71 53 35 \$2.49.11 \$95.93.77 \$19.80 75 40 35 3.5 0.71 53 35 \$2.49.11 \$95.93.757 \$19.80 \$75 40 35 3.5 0.71 53 35 \$22.49.21 \$95.93.751 \$19.85.99 \$19.90 75 40 35 3.5 0.71 \$53	Distribution System Pineline															
4-hot PVC Water Main, C300 (ACP Replaced whiter VC) 9:00 LF S81 \$51:1616 1p \$53:753 \$57:569 1980 75 40 35 3.5 0.71 53 35 \$57:539 6-hot PVC Water Main, C300 (ACP Replaced whit PVC) 24,24 LF \$57 \$57:348 1p \$58:0.317 \$1:42:1.355 1980 75 40 35 3.5 0.71 53 35 \$575:39 6-hot PVC Water Main, C300 (ACP Replaced with PVC) 24,241 LF \$128 \$3:00:384 1p \$2:042,717 1580 75 40 35 3.5 0.71 53 35 \$575:39 6-hot Cast from Water Main, C300 23:02 122 \$2:02 22:02 52:02 1p \$52:02 \$57:19 1p \$52:02 53:12:03 1980 75 40 35 35 0.71 63 35 90.71 63 35 0.71 63 35 \$2:38,170 \$16:00 1p \$51:32,170 1980 75 40 35 35 0.71 63 35 \$2:38,170 \$10:00	2-inch PVC Water Main, SCH 40	2.350	LF	\$40	\$94,000	1p	\$64.860	\$158.860	1980	75 4	0 35	5 3.5	0.71	5	3 35	\$74.135
G-inch PVC Water Main, C300 (ACP Replaced with PVC) 9.90 LF 9.97 5.97 5.987(.35) 10 5.860(.37) 5.147(.37) 1980 7.5 40 3.5 0.71 5.3 3.5 5.75.38 8-inch PVC Water Main, C300 (ACP Replaced with PVC) 24,241 LF \$128 \$3.105.384 1p \$5.239(.47,115) \$5.2480.099 1980 7.5 40 3.5 0.71 5.3 35 \$5.239(.49,115) 8-inch PVC Water Main, C300 (ACP Replaced with PVC) 2.424 LF \$128 \$5.209.2333 1p \$5.239(.49,115) 57.30 10 3.5 0.71 5.3 35 \$2.239.17 8-inch Cast Inon Water Main 1.230 LF \$229 \$255 \$5.75.38 1p \$5.879.66 \$1.293.109 100 7.5 40 3.5 0.71 6.3 35 \$0.71 5.3 35 \$2.39.17 \$1.49 \$3.5 \$0.71 5.3 35 \$2.39.17 \$1.50 \$2.13.75 \$1.50 \$1.65 \$1.23.17 \$1.50 \$1.65 \$1.23.17 \$1.50 \$2.39.17 \$1.50 \$2.5 \$1.60	4-inch PVC Water Main, C900	640	LF	\$81	\$51,816	1p	\$35,753	\$87,569	1980	75	0 35	5 3.5	0.71	5	3 35	\$40,865
G-Inch PVC Water Main, C900 6,693 LF \$97 \$241.09 fp \$580.377 \$1.421.355 1980 75 40 55 3.5 0.71 53 35 \$2.449.113 B-Inch PVC Water Main, C900 23.621 LF \$128 \$3.105.384 1p \$2.2090.420 \$5.119.573 1980 75 40 35 0.71 53 35 \$2.749.113 G-Inch Cast Iron Water Main 2.300 LF \$228 \$785.151 1p \$552.965 \$1.293.109 75 40 35 3.5 0.71 53 35 \$22.317 G-Inch Cast Iron Water Main 2.590 LF \$228 \$785.151 1p \$552.7966 \$1.293.109 75 40 35 3.5 0.71 53 35 \$52.33.7 G-Inch Cast Iron Water Main 2.590 LF \$218.575 \$219.357 1q \$151.369 \$570.744 1980 30 40 -10 4.5 0.46 14 41 \$151.555 \$121.535 1980 30 40 -10 4.5 0.46 14	6-inch PVC Water Main, C900 (ACP Replaced with PVC)	9,900	LF	\$97	\$957,815	1p	\$660,892	\$1,618,707	1980	75	40 35	5 3.5	0.71	5	3 35	\$755,396
d-ind PVC water Main Ostol (RuC Prepaede with PVC) 24, 214 LP \$120 \$31, 020, 333 1p \$2, 142, 715 \$53, 240, 991 1990 75 40 35 0.71 53 35 0.71 53 35 0.71 53 35 0.71 53 35 52, 2489, 13 6-indn PVC water Main 1,230 LF \$223 \$222, 978 1p \$51, 293, 19 90 75 40 35 3.5 0.71 53 35 \$52, 2489, 13 6-indn PVC water Main 1,230 LF \$2230 \$222, 950 \$1,293, 199 75 40 35 3.5 0.71 53 35 \$52, 489, 13 6-indn PVC water Main 2.590 LF \$2230 \$219, 375 1q \$113, 509 \$370, 744 1980 30 40 -10 4.5 0.46 14 41 \$118, 51 1.5 inch 24 55, 000 \$165, 000 1q \$113, 55 \$278, 50 1980 30 40 -	6-inch PVC Water Main, C900	8,693	LF	\$97	\$841,039	1p	\$580,317	\$1,421,355	1980	75 4	0 35	3.5	0.71	5	3 35	\$663,299
Drint PC Materiania US00 2005 LF 322 2005/05 1p 2005/06 3115/05 3100 175 40 36 3.5 0.71 53 35 52233 1980 75 40 36 3.5 0.71 53 35 52233 1980 75 40 36 3.5 0.71 53 35 52233 1980 75 40 36 3.5 0.71 53 35 52233 1980 75 40 36 3.5 0.71 53 35 5803.45 100 100 4.5 0.46 14 14 5170.54 100 30 40 -10 4.5 0.46 14 14 5170.55 100 30 40 -10 4.5 0.46 14 14 5170.55 100 30 40 -10 4.5 0.46 14 14 517.55 210.75 100 30 40 -10 4.5 0.46 14	8-inch PVC Water Main, C900 (ACP Replaced with PVC) 8-inch PVC Water Main, C900	24,214		\$128	\$3,105,384	1p 1p	\$2,142,715	\$5,248,099	1980	75 4	0 35	3.5	0.71	5	3 35	\$2,449,113
Brinch Cast tron Water Main 2,550 LF \$295 \$765,163 1p \$527,956 \$1,283,109 1980 775 40 35 3.5 0.71 53 35 \$603,457 Service Connections <td>6-inch Cast Iron Water Main</td> <td>1,230</td> <td>LF</td> <td>\$230</td> <td>\$282,978</td> <td>1p</td> <td>\$195,255</td> <td>\$478,233</td> <td>1980</td> <td>75</td> <td>0 35</td> <td>5 3.5</td> <td>0.7</td> <td>5</td> <td>3 35</td> <td>\$2,309,13</td>	6-inch Cast Iron Water Main	1,230	LF	\$230	\$282,978	1p	\$195,255	\$478,233	1980	75	0 35	5 3.5	0.7	5	3 35	\$2,309,13
Service Connections	8-inch Cast Iron Water Main	2,590	LF	\$295	\$765,153	1p	\$527,956	\$1,293,109	1980	75	0 35	5 3.5	0.71	5	3 35	\$603,451
3/4 Inch 117 EA \$13,75 \$219,375 1g \$151,369 \$370,744 1980 30 40 -10 4.5 0.46 14 14 \$170,542 1 inch 78 EA \$52,00 \$195,000 1g \$131,850 \$522,550 1980 30 40 -10 4.5 0.46 14 14 \$170,842 2 inch 65 EA \$50,000 \$125,000 1g \$224,250 \$549,250 1980 30 40 -10 4.5 0.46 14 14 \$128,276 3 inch 3 EA \$5,000 \$15,000 1g \$224,260 \$549,250 1980 30 40 -10 4.5 0.46 14 14 \$128,276 3 inch 3 EA \$5,000 \$10,000 1g \$69,900 \$18,900 30 40 -10 4.5 0.46 14 14 \$57,977 4 inch 11 EA \$15,50 \$17,753 1r \$8,800 \$21,853 1980 30 40 -	Service Connections															
1 inch 78 EA \$2,500 \$195,000 1q \$134,550 \$329,550 1990 30 40 -10 4.5 0.46 14 14 \$151,51 1.5 inch 65 EA \$5,000 \$196,000 1q \$134,550 \$3278,850 1990 30 40 -10 4.5 0.46 14 14 \$151,822,27 2 inch 3 66 EA \$5,000 \$15,000 1q \$224,250 \$549,250 1980 30 40 -10 4.5 0.46 14 14 \$228,257 3 inch 3 EA \$5,000 \$10,000 1q \$224,250 \$549,250 1980 30 40 -10 4.5 0.46 14 14 \$228,257 3 inch 2 EA \$5,000 \$10,000 1q \$6,900 \$18,000 \$1980 30 40 -10 4.5 0.46 14 14 \$9,914 3/4 inch 117 EA \$15,090 \$17,753 1r \$8,802 \$21,553 \$1990	3/4 inch	117	EA	\$1,875	\$219,375	1q	\$151,369	\$370,744	1980	30 4	-10) 4.5	0.46	5 1-	4 14	\$170,542
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1 inch 1 6 inch	78	EA	\$2,500	\$195,000	1q 1g	\$134,550	\$329,550	1980	30 4	-10) 4.5	0.46	5 1	4 14	\$151,593
Sinch 3 EA \$\$5,000 \$\$15,000 19 \$\$25,350 1980 30 40 -10 4.5 0.46 14 14 \$\$11,66 4 inch 2 EA \$\$5,000 \$\$10,000 19 \$\$00 \$\$16,000 1980 30 40 -10 4.5 0.46 14 14 \$\$11,66 4 inch 2 EA \$\$5,000 \$\$10,000 19 \$\$00 \$\$16,000 1980 30 40 -10 4.5 0.46 14 14 \$\$11,67 3/4 inch 117 EA \$\$109 \$\$12,753 1r \$\$8,800 \$\$21,553 1980 30 40 -10 4.5 0.46 14 14 \$\$9,993 1 inch EA \$\$155 \$12,753 1r \$8,800 \$\$21,943 1980 30 40 -10 4.5 0.46 14 14 \$\$9,993 1 inch 2 EA \$\$255 \$17,071	2 inch	65	FA	\$5,000	\$325,000	10	\$224 250	\$549,250	1980	30 4	-10	4.5	0.40	, i-	4 14	\$252.655
4 inch 2 EA \$50,000 \$10,000 1q \$60,000 \$16,900 \$180,000 \$10,00	3 inch	3	EA	\$5,000	\$15,000	1q	\$10,350	\$25,350	1980	30 4	-10	0 4.5	0.46	6 1	4 14	\$11,661
Meters	4 inch	2	EA	\$5,000	\$10,000	1q	\$6,900	\$16,900	1980	30 4	-10) 4.5	0.46	6 1-	4 14	\$7,774
3rd mon 117 EA \$109 \$12,753 1r \$8,800 \$21,553 1980 30 40 -10 4.5 0.46 14 14 \$9,939 1 inch 78 EA \$155 \$12,090 1r \$80,017 \$20,422 1980 30 40 -10 4.5 0.46 14 14 \$9,939 1.5 inch 44 EA \$353 \$15,532 1r \$10,717 \$26,249 1980 30 40 -10 4.5 0.46 14 14 \$20,932 2 inch 65 EA \$494 \$32,110 1r \$10,717 \$26,249 1980 30 40 -10 4.5 0.46 14 14 \$12,077 2 inch 3 EA \$635 \$1,905 1r \$1,071 \$2,2631 1980 30 40 -10 4.5 0.46 14 14 \$1,483 3 inch 2 EA \$1,552 1r \$1,071 \$2,623 1980 30 40 -10 4.5 <t< td=""><td>Meters</td><td></td><td></td><td></td><td></td><td>I</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>-</td><td></td></t<>	Meters					I		-						-	-	
Instrict 10 EA \$150 \$12,000 II 30,042 \$20,042 1890 30 40 -10 4.5 0.46 14 14 14 \$13,000 1.5 inch 65 EA \$494 \$32,110 1r \$26,249 1980 30 40 -10 4.5 0.46 14 14 \$12,071 2 inch 3 EA \$8494 \$32,110 1r \$26,249 1980 30 40 -10 4.5 0.46 14 14 \$24,220 3 inch 3 EA \$8495 \$1,552 1r \$1,111 \$2,223 1980 30 40 -10 4.5 0.46 14 14 \$24,943 4 inch 2 EA \$776 \$1,552 1r \$1,071 \$2,623 1980 30 40 -10 4.5 0.46 14 14 \$1,483 2 inch 2 EA \$864 \$1,728 1e \$1,192 \$2,292 1980 30 40 -10 4.5 0.46 <td>3/4 inch</td> <td>117</td> <td>EA</td> <td>\$109</td> <td>\$12,753</td> <td>1r</td> <td>\$8,800</td> <td>\$21,553</td> <td>1980</td> <td>30 4</td> <td>-10</td> <td>4.5</td> <td>0.46</td> <td>i 1.</td> <td>4 14</td> <td>\$9,914</td>	3/4 inch	117	EA	\$109	\$12,753	1r	\$8,800	\$21,553	1980	30 4	-10	4.5	0.46	i 1.	4 14	\$9,914
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1.5 inch	44	FA	\$155 \$353	\$12,090	1r 1r	\$8,342 \$10.717	\$20,432	1980	30 4	-10	4.5	0.46	, 1, } 1,	4 14 4 14	\$9,39
3 inch 3 EA \$635 \$1,905 1r \$1,314 \$3,219 1980 30 40 -10 4.5 0.46 14 14 \$1,48 4 inch 2 EA \$776 \$1,552 1r \$1,071 \$2,623 1980 30 40 -10 4.5 0.46 14 14 \$1,48 4 inch 2 EA \$776 \$1,552 1r \$1,071 \$2,623 1980 30 40 -10 4.5 0.46 14 14 \$1,051 Solation (Cate) Valves	2 inch	65	EA	\$494	\$32,110	1r	\$22,156	\$54.266	1980	30 4	-10	. 4.5	0.46	. 1. 5 1.	4 14	\$24.96
4 inch 2 EA \$776 \$1,552 1r \$1,071 \$2,623 1980 30 40 -10 4.5 0.46 14 14 \$1,201 Isolation (Gate) Valves -	3 inch	3	EA	\$635	\$1,905	1r	\$1,314	\$3,219	1980	30 4	010	4.5	0.46	1	414	\$1,48
Isolation (Gate) Valves -	4 inch	2	EA	\$776	\$1,552	1r	\$1,071	\$2,623	1980	30 4	-10	4.5	0.46	6 1-	4 14	\$1,20
Z IIIGAT Z EA 300-4 31,720 1e 31,122 32,220 1980 30 40 -10 4.5 0.46 14 14 14 \$1,227 4 inch 2 EA \$1,656 \$8,280 1e \$2,019 \$4,945 1980 30 40 -10 4.5 0.46 14 14 \$2,277 6 inch 5 EA \$1,656 \$8,280 1e \$5,713 \$13,993 1980 30 40 -10 4.5 0.46 14 14 \$6,433 8 inch 11 EA \$20,480 1e \$20,341 \$4,9821 1990 30 40 -10 4.5 0.46 14 14 \$2,274 8 inch 11 EA \$20,800 1e \$20,341 \$49,821 1990 30 40 -10 4.5 0.46 14 14 \$22,914 14 EA \$6,700 \$830,800 1s \$573,25	Isolation (Gate) Valves	-									-					
2 Ln 91,403 92,200 10 94,017 94,949 1900 30 40 -10 4.5 0.46 14 14 \$2,471 6 inch 5 EA \$1,666 \$29,480 1e \$5,713 \$13,993 1990 30 40 -10 4.5 0.46 14 14 \$6,421 8 inch 11 EA \$29,480 1e \$2,573 \$13,993 30 40 -10 4.5 0.46 14 14 \$6,247 Modern Fire Hydrant (Clow 4.5 x 2.5) 124 EA \$8,700 \$830,800 1s \$573,252 \$1,404,052 1980 30 40 -0 4.5 0.46 14 14 \$2,913 Land 1 LS \$875,000 \$875,000 1t \$875,000 \$875,000 \$875,000 \$875,000 \$875,000 \$875,000 \$875,000 \$875,000 \$875,000 \$875,000 \$875,000 \$875,000 \$875,000 \$875,000	2 IICI	2	EA EA	\$864 \$1.462	\$1,728	1e	\$1,192	\$2,920	1980	30 4	-10	4.5	0.46	1	4 14	\$1,343
Binch 11 EA \$22,880 \$22,480 1e \$20,341 \$49,821 1980 30 40 -10 4.5 0.46 14 14 \$22,210 Modern Fire Hydrant (Clow 4.5 x 2.5) 124 EA \$6,700 \$830,800 1s \$573,252 \$1,404,052 1980 40 0 4.5 0.46 14 14 \$22,910 Modern Fire Hydrant (Clow 4.5 x 2.5) 124 EA \$6,700 \$830,800 1s \$573,252 \$1,404,052 1980 40 0 4.5 0.46 14 14 \$22,910 Lod \$875,000 1s \$573,252 \$1,404,052 1980 40 0 4.5 0.46 14 0 \$27,500 Lod \$875,000 1s 5875,000 1s 5875,000 5875,000 5875,000 5875,000 5875,000 5875,000 5875,000 5875,000 5875,000 5875,000 5875,000 5875,000 5875,000 5875,000 5875,000 5875,	6 inch	2	EA	\$1,656	\$8,280	1e	\$5,713	\$4,945	1980	30 4	-10	4.5	0.46	, 14 5 14	- 14 4 14	\$2,272
Modern Fire Hydrant (Clow 4.5 x 2.5) 124 EA \$6,700 \$830,800 1s \$573,252 \$1,404,052 1980 40 0 4.5 0.46 18 0 \$\$0 Land 1 LS \$875,000 1t \$875,000 \$875,0	8 inch	11	EA	\$2,680	\$29,480	1e	\$20,341	\$49,821	1980	30 4	-10	4.5	0.46	5 1-	4 14	\$22,918
Land 1 LS \$875,000 1t \$875,000 \$875,000 tt	Modern Fire Hydrant (Clow 4.5 x 2.5)	124	EA	\$6,700	\$830,800	1s	\$573,252	\$1,404,052	1980	40 4	0 0	4.5	0.46	6 14	8 0	\$0
	Land	1	LS	\$875,000	\$875,000	1t		\$875,000								\$875,000

California American Water West San Martin Water Works, Inc. – Water System Condition Assessment, Valuation and Capital Improvements Plan June 2023

Workpaper 3-70



Table 3 Notes:

1 – Unit costs per item are summarized in Attachment 1.

2 – Soft costs include the following, applied to the total cost of each component line item:

Contingency – 30% Engineering – 10% Construction Oversight – 10% Permitting – 5% Oversight – 5%

3 – Service life for key components was assigned as follows:

Well	CPUC U-4-W lists 20-40 years, revised to 75
	based on experience. Condition rank based on
	age and description of operation
30 to 40 hp Submersible	CPUC U-4-W lists pumping equipping life as 15-
Well Pump	35 years, reduced due to experience with
	submersible well pumps
Check Valves	Judgement/experience
Flow Meters	Judgement/experience
Gate Valves	Judgement/experience
Ductile Iron Piping	Judgement/experience
Small Prefabricated Building	CPUC U-4-W lists 20-60 years for structures.
Buried Concrete Tank	CPUC U-4-W lists 25-100 years
15 to 20 hp Submersible	CPUC U-4-W lists 15-35 years for Pumping
Booster Pump	Equipment
Submersible Pump Can	Judgement/experience
Shade Structure	CPUC U-4-W lists 20-60 years for structures,
	increased to 75 years based on experience.
Electrical and	CPUC U-4-W lists 25-45 years for Production
Instrumentation Systems	Plant Accessory elec. Equip. and 15-25 years for
	Other Production Accessory Elec. Equip., based
	on experience.
Chemical Storage, Pumping	CPUC U-4-W lists 15-35 years for Pumping
& Injection Systems	Equipment; Chemical Storage and Injection
	based on judgement/experience
PVC Water Main	CPUC U-4-W lists 25-50 years for other pipes.
	Revised to 75 years for PVC. U-4-W dated 1961
	before PVC was widely used.
Service Laterals	CPUC U-4-W lists 20-40
Water Meters	CPUC U-4-W lists 20-40



4.2 Capital Improvements Plan

The Capital Improvements Plan first focuses on improvements required to address compliance issues within the next five years. The short term recommended improvements are:

- Well 1 disinfection system and other minor piping modifications.
- Colony Well disinfection system.
- Replace the standby generator at the Colony Well with a permanent standby generator.
- County Building Well Disinfection System.
- Add a standby generator at the County Building Well.
- Add connections for portable generators at the Booster Stations and purchase a portable generator.
- Site security improvements including intrusion alarms.
- Replacement of existing manual read meters with automatic read meters.
- Replacement of existing SCADA system with standard California American Water SCADA system.

Table 4. West San Martin Water Works, Inc. 5 Year Capital Improvements and Cost West San Martin Water Works, Inc. – Condition Assessment, Valuation and Capital Improvements Plan

Component	Year	CIP Cost
Well 1, Colony Well & County Building Well Disinfection Upgrades	1	\$65,000
Colony Well & County Building Well Standby Generator	2	\$378,000
Booster Stations Automatic Transfer Switch and Portable Generator	3	\$235,000
Site Security Improvements	1	\$58,000
Automatic Meter Readers	1	\$160,000
SCADA System Upgrades	1	\$405,000
Recurring Projects, Cost per Year	Annually	\$35,000
Total for 5 Years		\$1,476,000

Notes:

1 –Costs include the following markups on the base construction cost estimate: 10% Contractor General Conditions (if not included in unit costs), 15% Contractor Overhead and Profit (if not included in unit costs), 30% Contingency, 10% Escalation, 25% Permitting and Engineering, and 5% for California American Water Project Implementation Costs.
Attachment 1

Unit Cost Backup

1a. Well Installation Costs

Recent bid tabulation for a 16-inch diameter well at 400 feet (location is Arizona) is below. Using the mid bid price, the cost per lineal foot for well installation is \$2295 per lineal ft. Adjusting for 10-inch and 12-inch diameter well installation by linear interpolation:

10-inch diameter well: \$1434 per lineal foot

12-inch diameter well: \$1700 per lineal foot

-			No. of	Date Availabl	AZ Beeman e: 04/2023		Date Available: 07/20	23	Date Available: 04/03	2023	Date A	vailable: 03/27/20	stensen 023	Date A	Available: July 202	1 <u>3</u>
New York	Dependencies		linin	Line Prin		Todal Price	Ibrit Deine		Usil Dian	Total Drive	100	di Duine	Total Prim			Total Price
	Mobilization / Demobilization	Lumo Sum	- I		80.000 S	80,000,00	\$ 60,000 \$	80,000,00	\$ 120,000	120,000,00		169 400 5	189,400,00		05 545	05 545 00
2	Surface Casing Construction	Lump Sum	1		22,500 \$	22,500,00	\$ 24,000 3	24 000.00	\$ 18,000	16,000,00		37.875 \$	37,875,00	÷	22 225 5	22 225 00
-	20 inch Deschola Construction	comp com			CELEVEN V	22,000.00		21,000.00		10,000.00	-	01,010 0	01,010,00	-	LL,LLV V	
	A 16-inch (minimum) pilot hole	Lint	710	e	110 5	79 100 00	e 120 s	96 200 00	s 110	79 100 00	-	147 \$	104 270 00		2 33	48 150 00
	B 26-inch borabola reaming	Ling	710	-	95 5	87 450 00	5 109 1	76,690,00	5 125	95 850 00		162 5	115 020 00	-	114 5	80.940.00
	C. Lest Circulation ⁵	Linuska.		-	400	01,400.00	E 700	10,000.00	e eoo	00,000.00		800	110,020.00	-	700	00,010,00
	D. Dolling fluids used during last	Houriy			400		- /00		3 000		-	000		-	700	
	b. Drining holds used during lost				100		100								150	
-	Circulatori allowance	% Markup	\$ 3,000		1076	10,000,00	10%	7 500 00	1016	0.000.00	-	3%	24.070.00	-	1016	17.050.00
-	Ceophysical Logging	Camp Sum	-	-	10,000 3	10,000.00		7,300.00	3 3,000	5,000.00		21,8/0 3	21,870.00		17,850 5	17,850.00
3	A Air lift development (additional)	Jampies	5		450	62,500.00	5 8,000	40,000.00	5 600	75,000.00		43,670 3	218,350,00		700	91,250.00
6	Carina Cost	ribury		-	400		-					Test		-	100	
	A 1675-inch OD 16-inch ID HSI A blank															
	(0.375-inch wall with bullnose cap)	Linft	422	e	242 5	102 124 00	\$ 250 3	105 500 00	s 225	04 050 00	*	320 \$	135 040 00		227 S	05 704 00
			122		212 0	102.121.00		100,000.00			· · ·	5	100,010,00	-	S.	
	(0.090 slot .0.375-inch wall)	l in ft	290	5	310 5	89 900 00	\$ 325 3	94 250 00	\$ 200	84 100 00	5	415 5	120 350 00	s	283 5	82 070 00
	C. 2-inch (ID) HSLA sounding tube			-										-		
	(Sch 40, blank)	Lin ft.	402	s	21 5	8 442.00	\$ 21.25 5	8.542.50	\$ 25	10 050 00	5	42 S	16,884,00	5	19 S	7 638 00
	D. 2-inch (ID) HSLA sounding tube			-										-		
	(Sch 40, 0.050" mill slot)	Lin ft.	290	5	33 S	9.570.00	\$ 33.75 3	9,787.50	\$ 38	11.020.00	s	51 \$	14,790.00	s	30 \$	8,700.00
	E. 3-inch (ID) HSLA gravel feed tube															
	(Sch 40)	Lin ft.	392	5	43 S	16.856.00	\$ 43.75 5	17,150.00	\$ 45	5 17,640.00	\$	82 S	24.304.00	s	39 S	15,288.00
7	Casing Installation						1	-				\$		-	S	
	A. Well casing and screen	Lin ft.	702	5	25 \$	17,550.00	\$ 15 3	10,530.00	\$ 28	19,656.00	\$	47 5	32,994.00	5	120 \$	84,240.00
	B. Sounding tube	Lin ft.	692	\$	8 \$	5,536.00	\$ 7.50 3	5,190.00	\$ 12	8,304.00	\$	25 \$	17,300.00	\$	1 5	692.00
_	C. Gravel feed tube	Lin ft.	392	S	10 \$	3,920.00	\$ 93	3,528.00	\$ 15	5,880.00	\$	27 \$	10,584.00	S	1 \$	392.00
8	Annular Materials Cost and Installation									s -		\$			S	
	A. Bentonite seal	Cubic ft.	26	\$	75 \$	1,950.00	\$ 100 5	2,600.00	\$ 510	5 13,260.00	\$	475 \$	12,350.00	S	22 \$	572.00
	B. 6 x 9 mesh silica sand filter pack	Tons	50	\$	800 \$	40,000.00	\$ 750 5	37,500.00	\$ 985	49,250.00	\$	729 \$	36,450.00	S	600 S	30,000.00
	C. Fine silica sand seal	Tons	1	S	1,500 \$	1,500.00	\$ 600 3	600.00	\$ 1,000	5 1,000.00	\$	3,250 \$	3,250.00	3	690 S	690.00
	D. Filter Pack Disinfection	Lump Sum	1	S	5,000 \$	5,000.00	\$ 1,000 \$	1,000.00	\$ 3,750	3,750.00	\$	3.620 \$	3,620.00	S	1,000 \$	1,000.00
	E. Cement Grout	Cubic yard	4	\$	650 \$	2,600.00	\$ 600 3	2,400.00	\$ 1,500	6,000.00	\$	3,567 \$	14,268.00	\$	665 \$	2,660.00
_	F. Formation Stabilizer	Tons	41	5	150 \$	6,150.00	\$ 225	9,225.00	\$ 550	22,550.00	\$	367 \$	15,047.00	5	135 \$	5,535.00
9	Swab and Airlift Development	Hourly	168	\$	450 S	75,600.00	\$ 600 \$	100,800.00	\$ 575	96,600.00	\$	725 \$	121,800.00	5	650 \$	109,200.00
10	Pump Development and Aquiter Testing													_		
	A. Furnish, Install, and remove test								and the second se			and the second se				
	pumping, monitoring, and ancillary	Luna Cum										17.000	17.050.00		77.000	77 000 00
	equipment	Lump Sum	1	2 4	45,000 S	45,000.00	\$ 20,000 3	20,000.00	\$ 35,000	35,000.00	<u> </u>	47,850 3	47,950.00	3	77,800 3	77,800.00
	 B. Pumping tests (Development, Step rate and Constant rate) 	Linuder			175 6	24 000 00		40.000.00		44 000 00		200	04 000 00			10 000 00
	C Well re-chlorination (Enceded)	Lumo Sum	00	-	2 500	34,000,00	S 4000	40,000.00	\$ 2,750	44,000.00		2 620	31,200,00	-	6,000	40,000.00
44	Plumbners and Alignment Test and	comp som					4,000		4 5,150		-	0.020		-	0,000	
	A Plumbness & Alignment Test	Lumo Sum	1.1	e	3.000 \$	3 000 00	5 1.875	1.875.00	\$ 4.500	4 500 00	*	8 700 \$	8 700 00	*	3.450 \$	3 450 00
	B Video Survey	Lumo Sum	4	e.	2.500 \$	2 500 00	5 1.500 3	1.500.00	\$ 2,000	2 000 00	· · ·	2,000 \$	2,900,00	-	2,500 \$	2 500 00
	C. Dummy Test (if required)	Lumo Sum	- i	5	5,000	2,000.00	\$ 5,000	1,000.00	\$ 3,750	2,000.00		9 700	2,000,00		2,500	2,000.00
12	Unavoidable Delav								-					-		
	A. With crew	Hourly		s	400		\$ 700		S 600.00		5	725.00		s	700.00	_
	B. Without crew	Hourty		S	250		\$ 600		\$ 550.00		3	429.00		5	600.00	
13	Well Abandonment	Lin ft.	710	3	35	State 1	\$ 50		\$ 50.00		\$	67.00		\$	65.00	
14	Taxes	Lump Sum	1	\$ 23,7	725.00 S	23,725.00	\$ 36,427.15	36,427.15	\$ 46,123.00	46,123.00	\$	65,000.00 S	65,000.00	\$	40,166.00 S	40,166.00
-	Tax Rate		-			2.983%		4.471%		4.782%	-		4.637%	-		4.173%
	Subtotal				S	771,748.00	1	778,358.00		922,460.00		s	1,336,856.00		S	922,281.00
	TOTAL PRICE /	tome 1-14) Nue	neric Value:	1000 C	\$	795,473.00		814,785,15		968.583.00		5	1 401 856 00		5	962.447.00

1b. Well Pump Costs

40 hp submersible well pump

Source: Goulds

						Adjusted for	
					San Jose Cost	City Cost	
Item	Size	Cost Per Unit	Material & Labor	Subtotal	Index	Index	Source
Submersible Well Pump	40-hp	\$ 10,332.00	\$ 10,848.60	\$ 21,180.60	124.5	\$ 26,369.85	Goulds, Material & Labor based on experience
Submersible Well Pump	30-hp	\$ 7,749.00	\$ 8,136.45	\$ 15,885.45	125.5	\$ 19,936.24	Used Goulds 40 hp price and adjusted, Material & Labor based on experience

Goulds 6M404, CentriPro 6" Motor (40 HP, 3 Phase, 460 Volts, 6" Diameter)



MSRP: 5	10,322.00
Your Price Price	e: Add to Cart to View
Quantity:	1
	ADD TO CART

1c. Swing Check Valves, Flanged Ends

Source: Flomatic Valves 2023 Price List, Effective January 16, 2023 for valve material cost, see material cost below. The labor and materials cost for valve installation was obtained from the 2023 Heavy Construction Costs with RS Means Data, see table following materials price list.

						Adjusted for	
					San Jose Cost	City Cost	
Item	Size	Cost Per Unit	Material & Labor	Subtotal	Index	Index	Source
Check Valves, Flanged Connections	4-inch	\$ 2,022.00	\$ 252.00	\$ 2,274.00	124.5	\$ 2,831.13	Flowmatic For Valve Cost, 2023 Heavy Construction Costs with RS Means Data for Material & Labor
Includes Material & Labor	6-inch	\$ 2,661.00	\$ 252.00	\$ 2,913.00	124.5	\$ 3,626.69	Flowmatic For Valve Cost, 2023 Heavy Construction Costs with RS Means Data for Material & Labor
	8-inch	\$ 3,964,00	\$ 252.00	\$ 4,216,00	124.5	\$ 5.248.92	Flowmatic For Valve Cost, 2023 Heavy Construction Costs with RS Means Data for Material & Labor

					WWW.FLOW	IATIC CO	м	The second secon			
78		Discourt	itCode	8 78	A	Discou	nt Code 🛛 🖻	93LW	-	Discon	utitodo B
	-		2		100	4-	3			-	
78 - Epoxy cost leas 150. Mets other seals are a sepecially to chi femp Max: 140° size Pi	ted ductile ind al reinforced i available the foremines. In I°F (80°C) WRT ND.	on body. Flang neoprene swin t are chemica Hine serviceal Preseur Wut.	ged connect ng disc, ally resistant ible. re Max: 175 Latt M	tion, 78A conn t swing resist PSI (Sam RSCE	- Epoxy coated ductile i ection, class 150. Meta disc, other seels are a ant especially to chlora e as ANSI 80° etbow dar Max: 140°F (80°C)	ron body. Fian I reinforced n vallable that r imines. In-fine mension). Preesur	nged eoprene are chemically serviceable. e Max: 175 PSI	93LW - s lever and connection steel trim secondly for AG/Irr side only.	Epoxy coated ductik weight. Epoxy coat on, class 125. Meet with stainless stee Rubber seating at gation purposes, n	e iron body wil ed cast iron b e AWWA CSO i shaft an bro andard. Impo ot municipal.	th outside ody. Flanged 8. Stainless nze clapper rted, mainly Arm on left
78 - Epoxy cost leas 150. Mets other seals are of sepecially to chi femp Max: 140' size (%) 142' 2	ted ductile inc al reinforced i available tha foramines. In IPF (60°C) WRT ND. 2181	on body. Flang neoprene awi it are chemica Fline servicea Preseun Wor. 35	ged connect ng diac, ally resistant tole. re Max: 175 Lisit M &	tion, 78A conn t swing resial P3) (Sem resce 545 Size	- Epoxy coated ductile i ottor, claas 150. Meta disc, other seals are a sant especially to chlora e as ANSI 80° elbow dar (Max: 140°F (80°C) PAtt No.	iron body. Fier In reinforced mines. In-fine mension). Pressur Wat.	nged eoprene ars chemically serviceable. e Max: 175 P8I LIST PRICE	93LW - s lever and connectic steel trim secently for AG/Im side only. Temp Ma	Epoxy coated ductik weight. Epoxy coat n, class 125. Meet with stainless stee Rubber exerting at gation purposes, n x: 180°F (80°C)	e iron body wi ed cast iron b a AWWA CSO i shaft an bro anderd. Impo ot municipel. Preesur	th outside ody. Flanged 8. Stainless nze clapper rted, mainly Arm on left e Max: 200 PBI
78 - Epoxy coat laces 150. Meta sepecially to chi remp Max: 140' MZE PP 2 142' 2 2' 22' 2	ted ductile in al reinforced i available the foramines. In I°F (60°C) %HT ND. 2181 2182	on body. Flang neoprete swi t are chemica eline servicea Presaun W0T. 35 38	ed connect ng disc, ally resistant bis. re Max: 175 List PI <u>\$</u> 8	tion, 78A comm resid (Sam) resid (Sam) (Sa	- Epoxy coated ductile i ection, claas 150. Meta disc, other seals are a sant especially to chlore e as ANSI 80° elbow dir Max: 140°F (80°C) PART NO. 2182A	iron body. Fian I reinforced in wailable that r minas. In-line mension). Preesur wat. 33	nged eoprene are chemically serviceable. e Max: 175 PSI LIST PRICE 8 822	93LW - E lever and connectio steel trim secondly for AG/Im side only. Temp Ma	Epoxy coated ductik weight. Epoxy coat on, cleas 125. Meet with stainleas ates Rubber seating at gation purposes, n at 180°F (80°C)	e iron body wi ed cast iron b e AWWA CSO I shaft an bro andard. Impo ot municipal. Preesur	th outside ody. Flanged 8. Stainless mae clapper rted, maintly Arm on left e Max: 200 PBI
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78 - Epoxy coath lises 1.50. Meta specially to chil remp Max: 140° izze Pi 145° 2 1° 2 1° 2 1° 2 1° 2 1° 2	ted ductile ing al reinforced i available the forumines. In IPF (60°C) (altf ND. 2181 2182 2183 2188	on body. Flang neoprete swi t are chemica Fresour WUT. 35 38 49 172	(ed connect addre, ally reeistant ble, re Max: 175 Listi P 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	tion, 78A conn t enving resial PSI Temp RSCE SIZE 676 3' 863 4' 242 8'	Epoxy coated ducile is ection, class 150. Mete diac, other seals are a ant especially to chiora as ANB 80 chiow dia Max: 140°F (80°C) PART NO. 2183A 2183A 2183A	iron body. Fier il reintorced n viaitable that r minas. In-line mension). Pressur wat. 33 48 90	ngad soprene are chemically sorviceable. e Max: 175 PSI LIST PRICE 3 822 5 1,147 5 1,911	93LW - E lever and connection steel trim steel trim steel trim aide only. Temp Ma st2E 2"	Epoxy coated ductik weight. Epoxy coat with stainless stee Rubber seating at gation purposes, n x: 180°F (80°C) Pairt NO. 2804LW	a iron body wi ad cast iron b a AWWA CSO i shaft an bro andard. Impo ot municipal. Preesur W07. 38	th outside ody. Flanged 8. Stainless nze clapper rted, mainty Arm on left e Max: 200 PSI List PHILCE § 1.782
78 - Epoxy coath Jana 150, Meta Ither scale are i appecially to chil item Max: 140° Item Max: 140° Item 2 Item 2 Item 2 Item 2 Item 2 Item 2 Item 2	ted ductile inc available tha foramines. In foramines. In foramines. (************************************	on body. Flang neoprete swi ti are chemica Fressun Wut. 35 38 49 172	ed connect ally resistant ble. Te Max: 175 Lait M 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	tion, 78A commercial realizi reali realizi realizi realizi realizi realizi realizi realizi rea	Epoxy coated ductie is ection, class 150. Mole disc, other weeks are a sant especially to chlore e as AN21 BO [®] (60°C) PART R0. 2283A 2283A 2385A 2385A 2386A	ron body. Fiad i reinforced n visitable that r mines. In-fine mension). Preesur Well. 33 48 80 172	nged eoprene are chemically aervicable. e Max: 175 P8i List PRICE <u>\$ 822</u> <u>\$ 1,941</u> <u>\$ 3,947</u>	93LW - E lever and connection steel trim sasembly for AG/Im aide only. Temp Me st2E 2" 3"	Epoxy coated ductik weight. Epoxy coate with stainless stee gation purposes, n x: 180°F (80°C) Pairr NO. 2806LW 2806LW	e iron body wi ed cast iron b e AWWA CSO i shaft an bro andard. Impo ot municipal. Preesur WUT. 38 82	th outside cody. Fanged 8. Stainlean mae clapper rted, mainly Arm on left e Max: 200 PSI List PRICE \$ 1,782 \$ 1,822
78 - Epoxy coefficients 150. Mets states 150. Mets sepecially to chil femp Max: 140' size Pr 24' 2 5' 2 5' 2	ted ductile inc al reinforced i evaluation the foramines. In PF (80°C) %RT ND. 2181 2182 2183 2188 2188	on body. Flang neopretie awa t are chemice rine serviceal Preseur W0T. 35 38 49 49 172	ed connect ng diac, ally resistant tole. re Max: 175 Latt M S S S S S S S S S S S S S S S S S	tion, 78A conn resid PSI (Sem PSI (Sem	- Epoxy costed ductie i schon, class 150. Mole disc, other vesals are a sant especially to chiora e as ANSI 80° etbow dir Max: 140°F (80°C) PART NS, 2182A 2182A 2183A 2183A 2185A 2187A	ron body. Fier I reinforced n valiable that in minas. In-fine mension). Pressur Well. 33 48 80 90 17/2 335	nged soprene are chemically asrviceable. LIST PRICE 5 822 5 1,047 5 1,041 5 3,0417 5 8,597	93LW - s lever and connection assembly for AG/Im aide only. Temp Ma stZE 2* 3* 4*	Epony coated ductile weight. Epony coat models and an eponetry of the with atainless ates Rubber useful at atainless ates gation purposes, n at 180°F (80°C) paint No. 2804LW 2804LW 2807LW	a iron body wil ad cast iron b a AWWA CSOU a AWWA CSOU andard. Impo ot municipel. Preesur W0T. 38 82 90	th outside col, Fanged B. Stainlees mae clapper rted, mainly Arm on left e Max: 200 PSI List Piece \$ 1,782 \$ 1,822 \$ 2,022
78 - Epoxy coati lass 150. Meta ther reals are in appocially to child femp Max: 140' little Pr 2 May 2 5' 2 5' 2 5' 2	ted ductile inc available the forumines. In IPF (60°C) aRT ND. 2181 2182 2183 2188	on body. Flang neopretie swi it are chemica Hine berviceal Presaun Walt. 35 38 49 172	Sed connect ng diac, ally reeistant ble. To Max: 175 Lisit M S S S S S S S S S S S S S S S S S S	tion, 78A comm resid PSI Temp RIGE SIZE 6776 3' 245 867 4' 242 8' 10' 12'	Epoxy coated ductile is ection, class 150. Mete disc, other weals are a ant especially to chlore e as ANSI BO ethow dis Max: 140°F (80°C) PART No. 2182A 2183A 2188A 2188A	ron body. Fian I reinforced n wailable that is mines. In-the mension). Preesur Wet. 33 46 80 172 335 432	nged ecoprene are chemically serviceable. e Max: 175 PSI LIST PRICE 5 1,147 5 1,011 5 3,647 7 5 8,637 POA	93LW - 6 lever and connectic steel trim sesembly for AC/Inr aide only. Temp Ma st25 2" 3" 4" 8"	Epary coated ductik weight. Epary coat with stainless test Rubber sector at gation purposes, n x: 180 ³ F (80 ³ C) PAIR No. <u>2804LW</u> 2805LW 2805LW	e iron body wi ed cast iron b a AWWA CSOU anderd. Impo ot municipal. Preesur W07. 38 62 90 163	th outside cody. Flanged 8. Stainless mae clapper fred, mainly Arm on left e Max: 200 PSI List PROE \$ 1,922 \$ 2,021 \$ 2,081

33 1	4 17 - Site Hater Other Service La	1	Deily	Inher-		-	2023 Bore	Costs		Total
	47 45 Tanning Crosses and Sleeves	Crew	Output	Hours	Unit	Noterial	Lober	Equipment	Total	Ind Ogo
8800	Helentude bas 6' long	8-20	20	1.200	Ea.	360	63		423	4
8820	S' long		18	1,333		415	70		485	5
8830	When here w/lid 4' deep		14	1,714		117	90		207	2
8840	Value bax and large base w/lid	+	14	1.714	+	360	90		450	5
33 1	4 19 - Valves and Hydrants for Wat	er Utility Se	rvic	2		_			_	_
33 14	19.10 Valves							_		_
0010	VALVES water distribution									
6011	See Sections 22 05 23 20 and 22 05 23.60									
3000	Batterfly volves with boxes, cost iron, mechanical joint									
3100	4" demeter	8-6	6	4	Ea.	1,050	206	46	1,302	1,5
3180	8" dameter		6	4		1,750	206	46	2,002	2,3
3340	12" dameter		6	4		3,275	206	46	3,527	3,
3400	14" dométer		4	6		6,050	310	69.5	6,429.5	7,
3460	18" dometer		4	6		12,000	310	69.5	12,379.5	13,
3480	20" diemeter		4	.6		15,800	310	69.5	16,179.5	17
3500	24" dameter		4	6		26,700	310	69.5	27,079.5	29
3510	30" daneter		4	6		16,900	310	69.5	17,279.5	19,
3520	36" dometer		4	ő		21,000	310	69.5	21,379.5	23,
3530	42" dameter		4	6	11	26,600	310	69.5	26,979.5	29,
3540	48" dameter	4	4	6	ψI	34,300	310	69.5	34,679.5	38,
3600	With lever operator				. 1			1.21		
3610	4" dameter	B-6	6	4	Ec.	925	206	46	1,177	1,
3616	8" dometer		6	4	T	1,650	206	46	1,902	2,
3620	12" diameter		6	4		3,150	206	46	3,402	3,
3624	16" diameter		4	6	13	9,250	310	69.5	9,629.5	10,
3630	24* dameter	*	4	6	· ·	26,300	310	69.5	26,679.5	29,
3700	Check volves, forged						-			
3710	4" dometer	3-6	6	4	En.	1,175	206	46	1,427	1,
3714	6" dameter	11	6	4	11	2,350	206	46	2,602	2,
3716	8" diameter		6	4	11	3,975	205	46	4,227	4,
3720	12" dameter		6	4		12,600	206	46	12,852	14,
3726	18" dometer		4	6		33,600	310	69.5	33,979.5	37,
3730	24" dometer		4	6	7	60,000	310	69.5	60,379.5	66,
800	Gate valves, C.I., 125 psi, mechanical joint, w/baxes		_				-14		1	
810	4" dometer	8-6	6	4	En	1,600	206	46	1,852	2,
814	6" diometer		6	- 4		2,500	206	46	2,752	3,
816	8" diameter		6	4		5,025	206	46	5,277	5,
818	10" dometer		6	4		9,050	206	46	9,302	10,
1820	12" dometer		6	4		12,300	206	46	12,552	13,
8822	14" dometer		4	6	11	25,300	310	69.5	25,679.5	28,3
M24	16" dometer		4	6		35,700	310	69.5	36,079.5	39,8
020	20° dometer		4	6	1	60,000	310	69.5	60,379.5	66,5
630	24" dometer		4	6	11	89,000	310	69.5	89,379.5	98,5
832	30" dometer		4	6	11	58,500	310	69.5	58,879.5	65,0
890	35" dometer	+	4	6		91,500	310	69.5	91,879.5	101.0
884	seere, for topping moust, 8" x 4", add		-			1,525			1,525	1
888	10 x 6 , 000					1,525		1	1,525	1
892	127 - 27 - 24				1	1,650			1,650	- 18
a de	12 × 0,000				21	2 100			0.100	2:

1d. Flow Meter, Flanged Ends

Source: Instramart for flow meter costs, materials and labor costs applied were based on judgement.

					San Jose Cost	Adjusted for City Cost	
Item	Size	Cost Per Uni	t Material & Labor	Subtotal	Index	Index	Source
MAG Flow Meter							
	4-inch	\$ 2,920.00	\$ 252.00	\$ 3,172.00	124.5	\$ 3,949.14	Instrumart for Meter Cost, Material and Labor Judgement
	6-inch	\$ 3,280.00	\$ 252.00	\$ 3,532.00	124.5	\$ 4,397.34	Instrumart for Meter Cost, Material and Labor Judgement

Four inch flow meter:

Configuration for VN144BA0100B	110000000000000	×
Shopping Cart		
\$2,503.64		
Nominal Diameter		
4in (DN 100) (+\$415.92)		
Nominal PresideINE OPTIFLUX 2000 Elec	tromagnetic Flow Sensor	
NSI 150#, 0144BA0100B110000000000000		
Approvals A Show Configuration		
None- not explosion proof		
System Design/ Cable Connection		
Compact with aluminum converter housings cab	e connection at converter	
Converter Model Compatibility		
Without Price:	\$2,919.56	
Lining		
Standard	1	
Electrodes Subtotal:	\$2,919.56	
Hastelloy C22 (standard)	100000	
Remove Housing/ Flange Material		
Steel/ steel st 37-C22/ A 105		
Protection Class/ Dimension		
IP 67/ Standard		
Ceble		\$2,919.
None for compact integral mount converters		
Cable Length hipping None for compact integral mount converters		
Grounding Ring Material		
Without		
Total Configured Price: otal		\$7 919 5
\$2,919.56		φ2,313.
Calculated during Checkout		

Six inch flow meter:

ComigBiation for VN144DA	D100B110000000000000	×
Shopping Cart		-
Nominal Diameter 6in (DN 150) (+\$775.13) Nominal Pressure ANSI 150#, KROHNE OPTIFLUX 20 pprovals VN144DA0100B110000000 None- not explicition pixeliguration System Design/Cable Collinaction	00 Electromagnetic Flow Sensor 000000	
Converter Model Compatibility	ories	
Price: Standard Quantity: Electrodes Housing/ Flange Material Steel/ steel st 37-C22/ A 105 Protection Class/ Dimension IP 67/ Standard	\$3,278.77 1 \$3,278.77	
Cable	erters	\$3,278
Shippenfor compact integral mount conve Grounding Ring Material	arters	
Total Configured Price:		\$3,278.

1e. Gate Valves, MJ and Flanged Connections

Source: Flomatic Valves 2023 Price List, Effective January 16, 2023 for valve material cost, see material cost below. The labor and materials cost for valve installation was obtained from the 2023 Heavy Construction Costs with RS Means Data, the same labor and materials cost that was applied for check valves was applied for gate valves.

							Ad	justed for	
						San Jose Cost	c	City Cost	
Item	Size	Cost	t Per Unit	Material & Labor	Subtotal	Index		Index	Source
Gate Valves, NRS, Flanged Connections	4-inch	\$	1,388.00	\$ 252.00	\$ 1,640.00	124.5	\$	2,041.80	Flowmatic For Valve Cost, 2023 Heavy Construction Costs with RS Means Data for Material & Labor
Includes Material & Labor	6-inch	\$	2,130.00	\$ 252.00	\$ 2,382.00	124.5	\$	2,965.59	Flowmatic For Valve Cost, 2023 Heavy Construction Costs with RS Means Data for Material & Labor
	8-inch	\$	3,176.00	\$ 252.00	\$ 3,428.00	124.5	\$	4,267.86	Flowmatic For Valve Cost, 2023 Heavy Construction Costs with RS Means Data for Material & Labor

	U)	Discour	nt Code	C
	(6		
MECHA valves wi	nich meet AWWA C5: n class 150 MJ flar	tile iron resili 15 standard, nge Non risi	ient wed with sta	ge gate inless
MECHA valves wi steel ster Temp Ma	NICAL JOINT - Duc nich meet AWWA C5: n, class 150, MJ flar IX: 140°F (60°C)	tile iron resili 15 standard, nge. Non risir Pressur	ient wed with sta ng stem. re Max: 2	ge gate inless 250 PSI
MECHA valves wi steel ster Temp Ma SIZE	NICAL JOINT - Duc hich meet AWWA C5: m, class 150, MJ flar IX: 140°F (60°C) PART NO.	tile iron resili 15 standard, nge. Non risir Pressur WGT.	ient wed, with sta ng stem. e Max: 2 LIST	ge gate inless 250 PSI PRICE
MECHA valves wl steel ster Temp Ma SIZE 2"	NICAL JOINT - Duc hich meet AWWA C5: n, class 150, MJ flan x: 140°F (60°C) PART NO. 8560MJ	tile iron resili 15 standard, nge. Non risin Pressur WGT. 28	ient wed, with sta ng stem. re Max: 2 LIST \$	ge gate inless 250 PSI PRICE 442
MECHA valves wi steel ster Temp Ma SIZE 2" 3"	NICAL JOINT - Duc hich meet AWWA C5: n, class 150, MJ flan ix: 140°F (60°C) PART NO. 8560MJ 8562MJ	tile iron resili 15 standard, nge. Non risin Pressur WGT. 28 44	ient wed, with sta ng stem. re Max: 2 LIST \$ \$	ge gate inless 250 PSI PRICE 442 737
MECHA valves wi steel ster Temp Ma SIZE 2" 3"	NICAL JOINT - Duc hich meet AWWA C5: n, class 150, MJ flan ix: 140°F (60°C) PART NO. 8560MJ 8562MJ 8563MJ	tile iron resili 15 standard, nge. Non risin Pressur WGT. 28 44 69	ient wed with sta ng stem. re Max: 2 LIST \$ \$ \$	ge gate inless 250 PSI PRICE 442 737 923
MECHA valves wi steel ster Temp Ma SIZE 2" 3" 4" 6"	NICAL JOINT - Duc hich meet AWWA C5: m, class 150, MJ flan ix: 140°F (60°C) PART NO. 8560MJ 8562MJ 8563MJ 8564MJ	tile iron resili 15 standard, nge. Non risin Pressur WGT. 28 44 69 119	ient wed with sta ng stem. re Max: 2 LIST S S S	ge gate inless 250 PSI PRICE 442 737 923 1,656
MECHA valves wi steel stee Temp Ma SIZE 2" 3" 4" 6" 8"	NICAL JOINT - Duc hich meet AWWA C5: m, class 150, MJ flan ix: 140°F (60°C) PART NO. 8560MJ 8562MJ 8563MJ 8564MJ 8565MJ	tile iron resili 15 standard, nge. Non risin Pressur WGT. 28 44 69 119 203	ient wed, with sta ng stem. re Max: 2 LIST \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	ge gate inless 250 PSI PRICE 442 737 923 1,656 2,680
MECHA valves wi steel ster Temp Ma size 2" 3" 4" 6" 8" 10"	NICAL JOINT - Duc hich meet AWWA C53 m, class 150, MJ flar ix: 140°F (60°C) PART NO. 8560MJ 8562MJ 8563MJ 8566MJ 8566MJ	tile iron resili 15 standard, nge. Non risin Pressur WGT. 28 44 69 119 203 278	ient wed, with sta ng stem. e Max: 2 LIST \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	ge gate inless 250 PSI PRICE 442 737 923 1,656 2,680 3,934
MECHA valves wl steel steel Temp Ma SIZE 2" 3" 4" 6" 8" 10" 12"	NICAL JOINT - Duc hich meet AWWA C53 m, class 150, MJ flan x: 140°F (60°C) PART NO. 8560MJ 8562MJ 8563MJ 8565MJ 8566MJ 8566MJ 8566MJ	tile iron resili 15 standard, nge. Non risin Pressur WGT. 28 44 69 119 203 278 421	ient wed, with sta ng stem, re Max: 2 LIST S S S S S S S S S S S S S	ge gate inless 250 PSI PRICE 442 737 923 1,656 2,680 3,934 5,503



FLANGED - Ductile iron resilient wedge gate valves which meet AWWA C509 standard with bronze stem, class 150. Non rising stem.

Temp Max: 140°F (60°C) Pressure Max: 250 PSI

Tapped & plugged

SIZE	PART NO.	WGT.	LIST PRICE
2 1/2"	8461	38	\$ 1,087
3"	8462	56	\$ 1,260
4"	8463	78	\$ 1,388
6"	8464	138	\$ 2,130
8"	8465	214	\$ 3,176
10"	8466	360	\$ 4,683
12"	8467	531	\$ 5,893

1f. Above Ductile Iron Piping

See section 1p.

1g. Prefabricated Building

Source: Duramax, see below



Duramax 8X6 Palladiur Light Gray [41372]	n Metal Shed Kit -
The DuraMax 8x6 Palladium metal shed is outdoor storage to a modern world.	a unique looking shed that brings
Free shipping	
\$1,679.00	
Visit Sheds F	or Less
Price History	
	\$1679.00 today
\$1679.00 median	
	•
View detailed price history	

1h. Electrical

Electrical and instrumentation costs are assumed to be 30% to 50% of construction cost (excluding tank or well installation costs).

1i. Buried Concrete Tank Costs

Source: Estimated using tank sizes and assumed depths of tanks. Estimated excavation, backfill, concrete and tank cover costs. Estimates for the 400,000 gallon Big Tank and the 50,000 gallon Tanks 1, 2 and 3 are included below.

Insert 400,000 gallon tank estimate

Insert 50,000 gallon tank estimate

1j. 15- and 20- hp Submersible Booster Pumps

Source: Quote from pump rep for 30-hp submersible booster pump and motor for a project in California was \$26,997. Cost is for materials only. Assuming linear interpolation the costs of 15- and 20- hp pumps are as follows:

15-hp: \$13,500

20-hp: \$18,000

1k. 12-inch Booster Pump Can

Source: Assuming a 12-inch diameter ductile iron pump can, 10 ft length per pump.

r		-					SIZ	E: 1	2 IN	CH								_
	121	FxF	1.1	FxP	E	F	xG			GxG			GxPE			PExP	E	
LENL	WT.	PRICE	WT.	- 1	PRICE	WT.	0	PRICE	WT.		RICE	WT.	1	PRICE	WT.	- 4	PRICE	LENL
1.0.	151	\$2,009	100	5	1,164	100	\$	1,515	49	\$	1,175	49	\$	824	49	\$	473	1.0.
1'6"	176	\$2,199	125	\$	1,354	125	\$	1,705	74	\$	1,365	74	\$	1,014	74	\$	663	1.6.
2.0.	200	\$2,389	149	\$	1,544	149	\$	1,895	98	\$	1,555	98	\$	1,204	98	\$	853	Z' 0"
2.6.	225	\$2,579	174	\$	1,734	174	\$	2,085	123	s	1,745	123	\$	1,394	123	\$	1,043	2°6*
3.0.	250	\$2,769	199	\$	1,924	199	5	2,275	148	\$	1,935	148	\$	1,584	148	\$	1,233	3.0.
3.6.	274	\$2,959	223	\$	2,114	223	\$	2,465	172	\$	2,125	172	\$	1,774	172	\$	1,423	3'6"
4.0.	299	\$3,149	248	\$	2,304	248	5	2,655	197	\$	2,315	197	\$	1,964	197	\$	1,613	4.0.
4.6.	323	\$3,339	272	\$	2,494	272	\$	2,845	221	s	2,505	221	\$	2,154	221	\$	1,803	4. 2.
5.0.	348	\$3,529	297	\$	2,684	297	5	3,035	246	\$	2,695	246	\$	2,344	246	\$	1,993	5'0"
56	373	\$3,719	322	\$	2,874	322	\$	3,225	271	s	2,885	271	\$	2,534	271	\$	2,183	5'6"
6.0.	397	\$3,909	346	\$	3,064	346	\$	3,415	295	\$	3,075	295	\$	2,724	295	\$	2,373	6.0.
6.6.	422	\$4,099	371	\$	3,254	371	\$	3,605	320	\$	3,265	320	\$	2,914	320	\$	2,563	6.6.
70	446	\$4,289	395	\$	3,444	395	\$	3,795	344	\$	3,455	344	\$	3,104	344	\$	2,753	7'0"
7'6"	471	\$4,479	420	\$	3,634	420	\$	3,985	369	\$	3,645	369	\$	3,294	369	\$	2,943	7'6"
8.0.	496	\$4,669	445	\$	3,824	445	\$	4,175	394	\$	3,835	394	\$	3,484	394	\$	3,133	8.0.
8'6"	520	\$4,859	469	\$	4,014	469	\$	4,365	418	\$	4,025	418	\$	3,674	418	\$	3,323	8'6"
9.0	545	\$5,049	494	5	4,204	494	\$	4,555	443	\$	4,215	443	\$	3,864	443	\$	3,513	9'0"
9'6"	569	\$5,239	518	\$	4,394	518	\$	4,745	467	\$	4,405	467	\$	4,054	467	\$	3,703	9'6"
10.0.	594	\$5,429	543	\$	4,584	543	\$	4,935	492	\$	4,595	492	\$	4,244	492	\$	3,893	10' 0"
10' 6"	619	\$5,619	568	\$	4,774	568	\$	5,125	517	s	4,785	517	\$	4,434	517	\$	4,083	10. 6.
11.0.	643	\$5,809	592	\$	4,964	592	\$	5,315	541	\$	4,975	541	\$	4,624	541	\$	4,273	11.0.
11'6"	668	\$5,999	617	\$	5,154	617	\$	5,505	566	\$	5,165	566	\$	4,814	566	\$	4,463	11.6.
12'0"	692	\$6,189	641	\$	5,344	641	\$	5,695	590	\$	5,355	590	\$	5,004	590	\$	4,653	12'0"
12'6"	717	\$6,379	666	\$	5,534	666	\$	5,885	615	s	5,545	615	\$	5,194	615	\$	4,843	12'6"
13'0"	742	\$6,569	691	\$	5,724	691	\$	6,075	640	\$	5,735	640	\$	5,384	640	\$	5,033	13'0"
13'6"	766	\$6,759	715	\$	5,914	715	\$	6,265	664	\$	5,925	664	\$	5,574	664	\$	5,223	13'6"
14.0.	791	\$6,949	740	\$	6,104	740	\$	6,455	689	\$	6,115	689	\$	5,764	689	\$	5,413	14'0"
14.6.	815	\$7,139	764	\$	6,294	764	5	6,645	713	\$	6,305	713	\$	5,954	713	\$	5,603	14' 6"
15'0"	840	\$7,329	789	5	6,484	789	\$	6,835	738	\$	6,495	738	\$	6,144	738	\$	5,793	15'0"
15'6"	865	\$7,519	814	\$	6,674	814	\$	7,025	763	\$	6,685	763	\$	6,334	763	\$	5,983	15'6"
16'0"	889	\$7,709	838	5	6,864	836	\$	7,215	787	\$	6,875	787	\$	6,524	787	\$	6,173	16 0
16'6"	914	\$7,899	863	\$	7,054	863	\$	7,405	812	\$	7,065	812	\$	6,714	812	\$	6,363	16' 6"
17'0"	938	\$8,089	887	5	7,244	887	\$	7,595	836	\$	7,255	836	\$	6,904	836	\$	6,553	17'0"
17'6"	963	\$8,279	912	5	7,434	912	\$	7,785	861	\$	7,445	861	\$	7,094	861	\$	6,743	17'6"
\$18.0	988	\$8,469	937	\$	7,624	937	\$	7,975	886	\$	7,635	886	\$	7,284	886	\$	6,933	\$ 18' 0"
\$18.6"	1012	\$8,659	961	5	7,814	961	\$	8,165	910	\$	7,825	910	\$	7,474	910	\$	7,123	1 18' 6"
\$19°0°	1037	\$8,849	986	\$	8,004	986	\$	8,355	935	\$	8,015	935	\$	7,664	935	\$	7,313	‡ 19° 0°
\$19'6"	1061	\$9,039	1010	\$	8,194	1010	\$	8,545	959	\$	8,205	959	\$	7,854	959	\$	7,503	\$ 19' 6"
\$ 20° 0°	1086	\$9,229	1035	\$	8,384	1035	\$	8,735	984	\$	8,395	984	\$	8,044	984	\$	7,693	‡ 20° 0°
‡ SUBJEC	T TO AV	AILABILITY	_									12		C	-		1.1-	-
								ADD -	ON5			12		cen	ne	T	LIN	ea

11. Sodium Hypochlorite Storage and Chemical Feed Pump

Source: Poolweb, this chemical storage and feed pump is like what is installed at West San Martin Booster Pump Station 1



1m. Sodium Hypochlorite Injection Quill

Source: Grainger.

Easy	-Mainte	nance	Injec	tors												
t	Inlet Lg	Outle	"	Dutlet A ball down Tube ball ve	valve allo the line. T live and u	ows you to t to remove th inhook the it	solate the ne tube fro mit chains	flow to m m the pip . There n	ninimize s be, looser nay be sp	pillage. Outlet the compress illage if the pro	tubes can be remo sion fitting and retra access pipe is under	oved for mai of it until the pressure.	Intenance and c Ilmit chains are	teaning taugh	r without sh t. Then, clos	utling the
Infot	1			ICAD	For tech	nical drawin	gs and 3-I) models	, click on	a part number.						
(n)	jector for Ch	lorine and	Water		-	Ini	et.						Value			
Pipe Size	Thread Type	Gender	Tube Lg.	Tube Material	Pipe	Thread Type	Gender	Lg.	Lg.	Retractable	Seal Material	Max. Pressure, psi	Material	Туре		Each
For Chi	orine and V	Vater	-	1												
3/4	NPT	Male	6*	CPVC Plastic	1/2	NPT	Male	12 1/4"	18 1/4*	Retractable	Fluoroelastomer Rubber	150	CPVC Plaslic	Ball	3347K42	\$562.54
1	NPT	Male	6*	CPVC Plastic	1/2	NPT	Male	15*	21 1/4"	Retractable	Fluoroelastomer Rubber	150	CPVC Plastic	Ball	33471644	622.22

1n. Electrical and Chemical Shade Structure

Assumed to be \$20 per square foot of area covered.

1o. 1-inch Air Vacuum Relief Valve

Source: 2023 Heavy Construction Costs with RS Means Data.

Source
2023 Heavy Construction Costs with RS Means Data
2023 Heavy Construction Costs with RS Means Data

YNTS Spect size, modulating, 21/2" diameter 54 6 4 10.00 20.00 44 6, 6,075 20.00 44 7,377 4" diameter 6 4 7,125 20.00 44 9,502 4" diameter 6 4 12,000 20.00 44 9,502 4" diameter 6 4 12,000 20.00 44 9,052 10" diameter 6 4 12,000 20.00 44 9,052 10" diameter 6 4 12,000 20.00 44 20,052 2" diameter 6 4 12,000 20.00 44 20,052 2" diameter 6 4 12,000 20.00 45 50,072 3" diameter 6 4 12,000 20.06 45 50,072 4" diameter 6 4 12,000 20.06 45 51,572 4" diameter 6 4 5,000 20.6 45	19.20 Valves	Grew	Daily Labo Output Heu	r- rs Unit	Material	2023 Bare (Labor Eq	iosts uipment	Total	Total Incl O&P
Specific time and an analysis 56 6 4 10. 6075 206 46 6,337 3" durates 6 4 7,125 206 46 9,252 6" durates 6 4 8,003 206 46 9,252 6" durates 6 4 12,000 206 46 9,252 6" durates 6 4 12,000 206 46 9,052 10" durates 6 4 20,200 206 46 6,042 11" durates 6 4 20,200 206 46 6,042 3" durates 6 4 9,000 206 46 7,002 3" durates 6 4 9,000 206 46 7,272 6" durates 6 4 10,000 206 46 5,272 6" durates 6 4 5,475 206 46 5,572 6" durates 6 4 <td< th=""><th>VALVES</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>	VALVES								
page between any for anima pp 6 4 115 506 46 7,377 e ⁺ donotes 6 4 7,155 506 46 7,377 e ⁺ donotes 6 4 7,155 506 46 7,257 e ⁺ donotes 6 4 12,300 706 44 13,352 10 ⁺ donotes 6 4 12,000 706 44 13,352 10 ⁺ donotes 6 4 20,000 706 45 73,52 10 ⁺ donotes 6 4 20,000 706 45 73,52 g ⁺ donotes 6 4 7,000 76 46 7,000 76 46 7,000 76 46 7,000 76 46 7,000 76 46 7,000 76 46 7,000 76 46 7,000 76 46 7,000 76 46 7,000 76 46 7,000 76 46 7,0	Speciel tim or use				1 017	-		1 337	7.00
3' annie 6 4 7,15 246 6 7,27 a' dameter 6 4 1,210 206 46 1,252 a' dameter 6 4 1,200 206 46 1,252 a' dameter 6 4 1,200 206 46 1,252 12' dameter 6 4 1,200 206 46 1,052 12' dameter 6 4 6,000 206 46 6,002 3' dameter 6 4 6,205 206 46 6,002 3' dameter 6 4 1,000 206 46 1,352 10' dameter 6 4 1,3000 206 46 1,352 10' dameter 6 4 1,000 206 46 1,352 10' dameter 6 4 1,000 206 46 1,352 10' dameter 6 4 1,000 206 46 <t></t>	Anade wolve, single ecting, moustaining, 2-172 outness	9.0	0 4	£0.	6,0/5	206	40	6,32/	7,05
* autom 6 4 1,000 206 6 7,002 8* deneter 6 4 13,000 206 6 13,521 10* deneter 6 4 13,000 206 46 13,522 10* deneter 6 4 13,000 206 46 20,602 200 205 45 20,622 206 45 6,402 3* deneter 6 4 7,000 206 45 6,472 4* deneter 6 4 7,000 206 45 6,472 4* deneter 6 4 13,600 206 46 13,522 10* deneter 6 4 13,600 206 46 13,522 10* deneter 6 4 5,000 206 46 13,522 10* deneter 6 4 5,000 206 46 5,522 4* deneter 6 4 9,000 206 46	3' admeter	11	6 4		7,125	205	40	1,3/1	8,17
& datherin b - 1,100 246 46 1,232 10° donnter 6 4 20,00 205 45 7,352 12° donnter 6 4 20,000 205 45 70,452 12° donnter 6 4 20,000 205 45 70,452 12° donnter 6 4 6 4 70,000 206 45 70,452 10° donnter 6 4 70,000 206 45 7552 6 46 13,552 10° 45 13,552 10° 46 13,552 10° 45 13,552 10° 46 13,552 10° 46 13,552 10° 46 13,552 10° 46 13,552 10° 46 13,552 10° 10° 10° 10° 10° 10° 10° 10° 10° 10° 10° 10° 10° 10° 10° 10° 10° 10°	4 gomens		0 9		12,100	200	40	19 252	10,10
or domine or domine or domine or domine dot domine dot dot domine<	6 denietar		1 1		12,100	200	40	12,332	12,7
Dr Guines B 4 20,00 36 43 20,473 17' domier 6 4 20,400 206 45 20,452 ghods vide, single acting, non-mobiliting, 21/2" dometer 6 4 6,400 206 45 6,002 3" dometer 6 4 6,203 206 45 6,002 4" dometer 6 4 7,300 206 45 7,572 6" dometer 6 4 13,000 206 46 13,552 10" dometer 6 4 13,000 206 46 13,552 12" dometer 6 4 5,475 206 45 5,777 3" dometer 6 4 5,470 206 46 5,552 4" dometer 6 4 5,400 206 46 7,552 10" dometer 6 4 13,000 206 46 7,552 4" dometer 6 4 10,000 <td>8° Oppresenter</td> <td></td> <td>° .</td> <td></td> <td>10,000</td> <td>200</td> <td>40</td> <td>10,352</td> <td>10,0</td>	8° Oppresenter		° .		10,000	200	40	10,352	10,0
12 0 42 0 42 0 42 0 42 0 42 0 42 0 42 0 42 0 42 0 42 0 43 0 44 0 0 44 0 0 44 0 0 45 0 45 0 45 0 45 0 15 16 16 17 0 45 17 16 16 17 17 16 17 <td>12º dometer</td> <td></td> <td>6 4</td> <td></td> <td>20,200</td> <td>200</td> <td>46</td> <td>20,452</td> <td>22 R</td>	12º dometer		6 4		20,200	200	46	20,452	22 R
Bit Start, and a construction of a second start of a second s	the double sincle or find non-modulating, 2-1/2" dometer	1	4 4		£ 150	200	46	6 402	71
Journal 6 7 </td <td>Arrouge volve, angle acception</td> <td></td> <td>6 4</td> <td></td> <td>6 225</td> <td>206</td> <td>46</td> <td>6 477</td> <td>17</td>	Arrouge volve, angle acception		6 4		6 225	206	46	6 477	17
• •	ar demeter		4 4		7 310	204	46	7 552	83
& dumeter 6 4 13,00 206 46 13,252 10° daneter 6 4 13,600 206 46 13,852 12° dameter 6 4 13,600 206 46 13,852 12° dameter 6 4 21,000 206 46 13,852 12° dameter 6 4 5,700 206 46 5,552 4° dameter 6 4 7,500 206 46 5,552 4° dameter 6 4 9,600 206 46 7,802 8° dameter 6 4 13,000 206 46 7,802 10° dameter 6 4 19,000 206 46 7,802 12° dameter 6 4 19,000 206 46 7,052 12° dameter 14 5,00 287 36 233 3,4* inler 13,52 12° dameter 9 897 640	6" dameter		1414		9 025	206	46	9,277	10.3
0 0	8" dometer		4		13,000	206	46	13 252	14.7
10 0	10" dometer		4 4		13,400	206	46	13,852	15
Hinde wire, duile orling, normoduluing, 2*1/2* duranter 6 4 5,475 206 46 5,727 3* donater 6 4 5,000 206 46 5,552 4* donater 6 4 5,000 206 46 5,552 6* donater 6 4 7,550 206 46 7,802 8* donater 6 4 7,550 206 46 7,802 8* donater 6 4 13,000 206 46 7,802 10* donater 6 4 19,000 206 46 13,552 12* donater 7 8 500 216 36 222 1* list 16 500 216 36 222 21 1* list 16 500 216 36 252 21 1* list 14 571 705 41 744 4r relaxe varoant value for worts, 1/2* list 16 500	12" dometer	- 11	6 6		21.000	206	46	21,252	23.
and a	stende wive double acting, non-modulating, 2-1/2* dometer		6 4	dia an	5.475	206	46	5,727	6.3
4 'dometer 6 4 6,700 705 46 6,552 6 'dometer 6 4 7,500 706 46 7,802 8 'dometer 6 4 7,500 706 46 7,802 10 ''dometer 4 6 4 19,000 706 46 7,802 10 ''dometer 4 6 4 19,000 706 46 7,802 12 ''dometer 4 6 4 19,000 706 46 70,052 2 ''dometer 4 6 500 287 36 223 23 3/4 ''niter 16 500 287 36 252 27 1'' list 70 36 206 26 47 44 71 705 41 746 74 47	3" dioueter		1 4		\$ 200	206	46	5.952	61
6" dimeter 6 4 7,550 206 46 7,802 8" dimeter 6 4 9,400 206 46 9,852 10" dimeter 4 6 4 13,000 206 46 9,852 12" dimeter 4 6 4 19,000 206 46 20,052 #r elease vice for water, 1/2" inter 16 500 287 36 323 3/4" inter 16 500 287 36 252 1" list 14 571 355 41 396 2" lobt 7 887 680 64 744 4r release & succum velve for water, 1/2" inter 16 500 170 36 206 3/4" inter 16 500 170 36 206 471 14 571 705 41 746 476 46 40.089 46 323 36 471 476 476 476 47	4" diameter		6 6		6 700	206	46	6.952	1
8" dameter 6 4 9,400 206 46 9,852 10" dameter 12" dameter 4 4 13,000 206 46 13,552 12" dameter 4 4 19,000 206 46 20,052 Ar release whole for wohr, 1/2" inlet 1Pm 16 500 216 36 233 3/4" inlet 14 571 355 41 396 206 2" inlet 9 357 680 64 744 366 200 4r release Xourus where for wohre, 1/2" inlet 16 500 170 36 206 3/4" inlet 5 300 100 22,230 206 474 1" inlet 9 389 1,005 64 1,089 2,230 3/4" inlet 5 3,200 3,075 208 3,283 4,508 3"inlet 6 4 3,375 206 46 3,627 4" inlet 5	6" diameter		6 4		7 550	206	46	7,802	B.
10° diameter 6 4 13,000 206 46 13,252 12° diameter v 6 4 19,000 206 46 20,052 Ar release value for watter, 1/2° inlet 116 500 207 36 323 3/4° inlet 16 500 206 46 20,052 1° inlet 16 500 207 36 323 2' inlet 16 500 216 36 252 1° inlet 14 571 355 48 366 2' inlet 16 500 100 36 205 3/4° inlet 16 500 103 36 471 1° inlet 14 571 705 36 471 1° inlet 16 500 105 64 1089 3° inlet 0-1 8 2 2,100 130 2,230 3' inlet 5 3,200 3,025 64 1,089 3° inlet 5 3,200 1,430 208 14,508 10° inlet v 5 3,200 1,430 208 14,508 10° inlet v 5 3,200 <td< td=""><td>8" diameter</td><td>11</td><td>6 6</td><td></td><td>9.600</td><td>206</td><td>46</td><td>9,852</td><td>111</td></td<>	8" diameter	11	6 6		9.600	206	46	9,852	111
12° dometer 4 4 19,00 206 46 20,052 Ar relean volve for wother, 1/2" inlet 1Pen 16 500 287 36 323 3/4" inlet 16 500 287 36 232 36 233 1" inlet 14 571 355 41 366 206 2" inlet 9 857 680 64 744 Ar release & vicuum volve for wother, 1/2" inlet 16 500 170 36 206 3/4" inlet 16 500 170 36 206 237 4 17" inlet 7 859 1,025 64 1,069 3/4" inlet 5 3,200 3,075 208 3,283 6 5 3,200 1,425 208 4,633 6 3,275 206 46 7,027 14 10" inlet 7 5 3,200 14,200 208 14,508	10* dometer		6 4		13,000	206	46	13,252	14.
He release value for watter, 1/2" inlet 174 16 500 207 36 323 3/4" inlet 16 500 216 36 252 1" inlet 14 571 355 41 396 2" labb 98 500 170 36 208 Ar release & vacuum value for watter, 1/2" inlet 16 500 170 36 208 3/4" inlet 98 500 170 36 208 364 411 1" inlet 98 500 170 36 208 364 411 1" inlet 98 316 500 1205 64 1.089 3" inlet 5 3200 3,075 208 4,533 6" inlet 5 3200 14,200 208 14,533 9" dometer 5 3,200 16,000 208 14,208 10" inlet 7 5 3,200 16,000 208 16,208	12" diameter		6 4		19.800	206	46	20.052	22.
3/4* inlet 16 500 216 36 252 1* linit 14 571 355 41 396 2* inlet 9 385* 680 64 744 Ar release X vacuum value for write, 1/2* inlet 16 500 170 36 206 3/4* rate 9 385* 680 64 744 76 206 3/4* rate 9 385* 680 64 744 76 206 3/4* rate 9 389* 16.500 435 36 471 1* inite 9 989* 10.055 64 1089 3* inite 04 8 2 100 130 2,230 4* initet 5 3,200 3,075 208 4,533 5* initet 5 3,200 14,000 208 14,508 10* inlet 5 3,200 14,000 208 14,508 10* inlet 5 3,	Air selence where for writer, 1/2" inlet	1 Plen	16 50	0	287	36		323	
1" infet 14 571 355 41 396 2" kildt 9 .895 640 64 744 Ar releces & vacuum view for water, 1/2" inter 16 500 705 41 746 3/4" inter 16 500 705 41 746 2" inter 16 500 705 41 746 2" inter 9 .895 1.025 64 1.089 2" inter 0-1 8 2 2.000 130 2.230 4" inter 5 3.200 3.075 208 3.633 6" inter 5 3.200 3.075 208 4.533 6" inter 5 3.200 14.300 208 14.508 10" inter 5 3.200 14.000 208 16.208 10" inter 5 3.200 14.000 208 16.208 10" inter 5 3.200 14.000 206 46 3.627 Wolves, gate wize, N.R.S. PIV with post, 4" diameter 86 4 4.775 206 46 7.027 12" diameter 6 4 1.059 206 46 1.352 12" diameter	3/4" inlet		16 .50	0	216	36	-	252	
2" inlet 9 .857 680 64 744 Ar release & uncust velve for water, 1/2" inlet 16 .500 170 36 .205 3/4" inlet 16 .500 170 36 .205 3/4" inlet 16 .500 170 36 .205 3/4" inlet .715 .41 .571 .705 .41 .746 1" inlet .9 .897 .025 .64 .069 .230 3" inlet .01 8 2 .2,100 .130 .2,230 4" inlet .5 .3,200 .0,075 .088 .4,508 .4,508 6" inlet .5 .3,200 .4,255 .008 .4,508 .1,508 10" inlet .7 .5 .2,001 .16,000 .008 .1,6,208 10" inlet .7 .5 .2,001 .1,000 .006 .1,352 10" inlet .7 .5 .2,001 .1,000 .1,45,208 <td>1" inlet</td> <td></td> <td>14 57</td> <td>1</td> <td>355</td> <td>41</td> <td></td> <td>396</td> <td></td>	1" inlet		14 57	1	355	41		396	
Ar release & vacuum value for watter, 1/2" intel 16 500 170 36 205 3/4" intet 16 500 435 36 471 1" intet 14 571 705 41 746 2" intet 9 899 716 54 146 2" intet 9 89 300 300 2,230 4" intet 5 3200 3,075 206 3,283 6" intet 5 3200 14,205 208 14,508 10" intet 5 3200 14,200 208 14,508 10" intet 5 3200 14,200 208 14,508 10" intet 5 3200 16,000 208 16,208 10" intet 5 3200 16,000 208 16,208 10" intet 5 3200 16,000 208 16,208 10" intet 5 3200 16,000 206 16 1	2" inlet		9 .85	19	680	64		744	
3/4" riget 16 500 435 36 471 1" right 14 571 705 41 746 2" riftet 9 989 1,025 64 1,089 3" riftet 0-1 8 2 2,100 130 2,230 4" riftet 5 3,200 3,075 208 3,283 6" riftet 5 3,200 4,425 208 4,633 B" riftet 5 3,200 4,425 208 4,508 10" riele 5 3,200 16,000 208 14,508 Volves, gate valve, N.R.S. PIV with post, 4" durater 54 4 3,375 206 46 3,627 Volves, gate valve, N.R.S. PIV with post, 4" durater 54 4 4,000 208 14,502 10" riele 9 3,000 16,000 208 146 1,352 Volves, gate valve, N.R.S. PIV with post, 4" durater 64 4 1,050 206 46 1,352 <td>Air release & vacuum volve for water, 1/2° inlet</td> <td></td> <td>16 50</td> <td>0</td> <td>170</td> <td>36</td> <td></td> <td>206</td> <td></td>	Air release & vacuum volve for water, 1/2° inlet		16 50	0	170	36		206	
1* intet 14 571 705 41 746 2* intet y 9 589 1,025 64 1,089 3* intet 01 8 2 2,100 130 2,230 4* intet 5 3,200 3,075 208 3,283 6* intet 5 3,200 4,425 208 4,633 B* intet 5 3,200 14,500 208 14,508 10* intet 5 3,200 14,500 208 14,508 10* intet 5 3,200 14,600 208 14,508 10* intet 5 3,200 14,600 208 16,208 10* intet 5 3,200 14,600 208 16,208 Wess, gate wave, R.R.S. PIV with post, 4* diameter 6 4 6,7027 12* diameter 10* diameter 6 4 1,059 206 46 1,302 05&X, 4* diameter 6 4 1,059	3/4" injet		16 50	0	435	36	1	471	
2" infet y 9 889 1,025 64 1,089 3" inlet 0-1 8 2 2,100 130 2,230 4" inlet 5 3,200 3,075 208 3,233 6" inlet 5 3,200 4,425 208 4,633 B" inlet 5 3,200 14,300 208 14,508 10" inlet 7 5 3,200 16,000 208 16,208 10" dometer 6 4 1,375 206 466 3,927 12" dometer 6 4 1,625 206 466 3,927	1" inlet		14 57	1	705	41		746	
3" inlet 0-1 8 2 2,100 130 2,230 4" inlet 5 3,200 3,075 206 3,283 6" inlet 5 3,200 3,075 208 3,633 B" inlet 5 3,200 14,250 208 14,508 10" inlet y 5 3,200 14,475 208 14,508 10" inlet y 5 3,200 16,000 208 16,208 10" inlet y 5 3,200 16,000 208 16,208 Valves, gate valve, N.R.S. PIV with post, 4" diameter 84 4 4 6,7027 8" diameter 64 4 6,715 206 46 7,6027 12" diameter 64 4 1,050 206 46 1,302 0FS.X" 4" diameter 64 4 1,675 206 46 1,302 12" diameter 64 4 1,675 206 46 1,302	2" inlet	+	9 .88	19	1,025	64		1,089	1
4" infet 5 3.200 3.075 208 3.283 6' infet 5 3.200 4,425 208 4,633 B" infet 5 3.200 4,225 208 4,533 B" infet 5 3.200 14,300 208 14,508 IO" infet 5 3.200 16,000 208 16,208 Valves, garb valve, N.R.S. PIV with post, 4" diameter 84 4 3,375 206 46 3,627 B" diameter 6 4 6,775 206 46 14,502 OSK 4" diameter 6 4 1,050 206 46 1,302 OSK 4" diameter 6 4 1,625 206 46 1,302 12" diameter 6 4 3,675 206 46 1,302 12" diameter 6 4 3,675 206 46 1,302 12" diameter 6 4 3,675 206 46 3,977	3" inlet	01	8 2		2,100	130	1	2,230	2
5' infet 5 3.200 4.425 208 4.633 B' infet 5 3.200 14,000 205 14,506 10' infet 5 3.200 14,000 208 16,208 10' infet 5 3.200 16,000 208 16,208 Valves, gate valve, N.R.S., Pit' with post, 4" diameter 84 4 3.375 206 46 3.627 B' diameter 6 4 6,775 206 46 1,302 OS&X, 4" diameter 6 4 1,050 206 46 1,302 OS&X, 4" diameter 6 4 1,050 206 46 1,302 OS &X, 4" diameter 6 4 3,075 206 46 3,977 12" diameter 6 4 3,075 206 46 3,977 14" diameter 6 4 3,075 206 46 4,227 8" diameter 6 4 1,175 206 46	4" inlet		5 3.2	00	3,075	208		3,283	3
B 'infer 5 3.200 14,300 208 14,508 10'' inlet 5 3.200 16,000 208 16,208 10'' inlet 5 3.200 16,000 208 16,208 Walves, gate vulve, N.R.S. Pl' with port, 4'' diameter B-6 4 3,375 206 46 3,627 B 'diameter 6 4 14,100 206 46 1,4352 12'' diameter 6 4 14,000 206 46 1,302 05.8', 4'' diameter 6 4 1,625 206 46 1,302 05.8', 4'' diameter 6 4 1,625 206 46 3,927 12'' diameter 6 4 3,675 206 46 3,927 14'' diameter 6 4 3,675 206 46 3,927 14'' diameter 6 4 1,175 206 46 1,427 8'' diameter 6 4 1,275 206<	6" infet		5 3.2	00	4,425	208		4,633	5
Difficient 5 3.200 16,000 208 16,208 Wokes, gate valve, N.R.S. PIV with post, 4" diameter 84 4 3,375 206 46 3,627 B° diameter 8" diameter 6 4 6,775 206 46 7,027 12" diameter 6 4 6,775 206 46 1,027 12" diameter 6 4 1,100 206 46 1,332 05.8% of diameter 6 4 1,675 206 46 1,332 05.8% of diameter 6 4 1,050 206 46 1,332 05.8% of diameter 6 4 1,675 206 46 1,332 12" diameter 6 4 1,675 206 46 1,837 12" diameter 6 4 3,675 206 46 1,837 14" diameter 6 4 3,075 206 46 1,427 4" diameter 6	B" inlat		5 32	00	14,300	208		14,508	16
Volves, girb volve, R.S.S. PIV with post, 4" demeter Bet 6 4 3,375 206 46 3,627 B" domoter 12" domoter 6 4 6,775 206 46 7,027 12" domoter 5 4 14,100 206 46 1,332 058 X, 4" domoter 6 4 1,050 206 46 1,332 06 dismoter 6 4 1,625 206 46 1,302 06 dismoter 6 4 3,675 206 46 1,302 12" domoter 6 4 3,675 206 46 1,302 12" domoter 6 4 3,675 206 46 1,302 14" domoter 6 4 3,675 206 46 1,877 Check valves, nobae disc, 2-1/2" diameter 6 4 1,175 206 46 1,427 8" diameter 6 4 3,975 206 46 1,227	10" inlat		5 3.2	00	16,000	208		16,208	17
B domotes 6 4 6,775 206 46 7,027 12" domotes 6 4 14,100 206 46 14,352 058", 4" domoter 6 4 1,050 206 46 1,352 058", 4" domoter 6 4 1,050 206 46 1,352 058", 4" domoter 6 4 1,050 206 46 1,302 8" domoter 6 4 3,475 206 46 3,927 12" domoter 6 4 3,475 206 46 3,927 14" domoter 6 4 3,475 206 46 3,927 14" domoter 6 4 3,475 206 46 797 4" domoter 6 4 1,175 206 46 4,227 8" domoter 6 4 1,2,00 206 46 1,2,852 12" domoter 6 4 1,2,00 206	Volvos noto volvo NRS PIV with next d" demoter	8.6	6 4		3,375	206	46	3,627	4
12" dometer 6 4 14,100 206 46 14,352 05&X,4" durineter 6 4 1,050 206 46 1,302 8" durineter 6 4 1,050 206 46 1,302 12" dometer 6 4 3,475 206 46 1,877 12" dometer 6 4 3,475 206 46 3,927 14" dometer 6 4 545 206 46 1,4727 Check values, nbher disc, 2-1/2" dometer 6 4 1,175 206 46 4,227 8" dometer 6 4 1,275 206 46 4,227 12" dometer 6 4 1,250 206 46 4,227 12" dometer 6 4 1,240 206 46 1,2457 12" dometer 6 4 2,525 206 46 2,777 Detector check valakes, redusing, 4" dometer 6 4<	R" diameter	11	6 4		6,775	206	46	7,027	1 7
6 4 1,050 206 46 1,302 05832, 4" diameter 6 4 1,625 206 46 1,877 12" diameter 6 4 1,625 206 46 1,877 12" diameter 6 4 3,675 206 46 3,927 14" diameter 6 4 5,570 5,577.55 5,577.55 5,577.55 Check whes, mblae disc, 2-1/2" diameter 6 4 1,175 206 46 1,427 4" diameter 6 4 3,075 206 46 1,247 8" diameter 6 4 1,250 206 46 1,247 12" dometer 6 4 2,502 206 <td>12" dometer</td> <td></td> <td>6 4</td> <td></td> <td>14,100</td> <td>206</td> <td>46</td> <td>14,352</td> <td>15</td>	12" dometer		6 4		14,100	206	46	14,352	15
6 4 1,825 206 46 1,877 8° diameter 6 4 3,675 206 46 3,927 12° diameter 6 4 3,675 206 46 3,927 14° diameter 4 6 5,000 310 69.5 5,779.5 Check valves, indue disc, 2-1/2° diameter 6 4 545 206 46 797 4° diameter 6 4 1,175 206 46 1,427 8° diameter 6 4 12,400 206 46 1,227 12° dometer 6 4 12,600 206 46 12,852 12° dometer 6 4 2,525 206 46 2,777 Better: dock valves, reducing, 4° diameter 6 4 2,525 206 46 5,800 8° diameter 6 4 5,500 206 46 5,800	OSEV A" diamater		6 4		1,050	206	46	1,302	1 1
6 4 3,675 206 46 3,927 12" dometer 4 6 5,400 310 69.5 5,779.5 14" dometer 6 4 545 206 46 1,427 4" dometer 6 4 1,175 206 46 1,427 4" dometer 6 4 1,175 206 46 1,427 B" dometer 6 4 1,250 206 46 1,285 12" dometer 6 4 1,2500 206 46 1,2852 12" dometer 6 4 2,525 206 46 2,777 Better: doek valves, reducing, 4" dometer 6 4 5,550 206 46 5,802 8" dometer 6 4 5,550 206 46 5,802	8" diameter		6 4		1,625	206	46	1,877	1
La connetar 4 6 5,400 310 69,5 5,779,5 Check valves, nubber disc, 2-1/2" durineter 6 4 545 206 46 797 4" diameter 6 4 1,175 206 46 1,427 8" diameter 6 4 1,175 206 46 1,427 8" diameter 6 4 12,500 206 46 4,227 12" dometer 6 4 12,400 206 46 12,852 12" dometer 6 4 2,525 206 46 2,777 Betacter check valves, reducing, 4" diameter 6 4 5,500 206 46 5,802 8" diameter 6 4 5,500 206 46 5,802	12" domator		6 4		3,675	206	46	3,927	1
6 4 545 206 46 797 Check values, nbhær disc, 2-1/2" darmeter 6 4 1,175 206 46 1,427 4" diameter 6 4 1,175 206 46 4,227 8" diameter 6 4 1,275 206 46 4,227 12" dometer 6 4 12,800 206 46 12,852 12" dometer 6 4 2,525 206 46 2,777 Betectur check valves, reducing, 4" diameter 6 4 5,550 206 46 5,802 8" diameter 6 4 5,550 206 46 5,802	14" diamatar		4 6		5,400	310	69.5	5,779.5	1
6 4 1,175 206 46 1,427 4" dometer 6 4 3,975 206 46 4,227 8" dometer 6 4 3,975 206 46 4,227 12" dometer 6 4 12,400 206 45 12,852 Detects check valves, reducing, 4" dometer 6 4 2,525 206 46 5,802 8" dometer 6 4 5,50 206 46 5,802	Check unber nichter dier 2.1 /2" darmeiter		6 4		545	206	46	797	1.
8" diameter 6 4 3,975 206 46 4,227 8" diameter 6 4 12,400 206 46 12,852 12" diameter 6 4 2,525 206 46 2,777 Betctric check valves, reducing, 4" diameter 6 4 5,530 206 46 5,802 8" diameter 6 4 5,550 206 46 5,802	A" diameter	11	6 4	11	1,175	206	46	1,427	
12" dameter 6 4 12,800 206 46 12,852 Detective deck valves, reducing, 4" diameter 6 4 2,525 206 46 2,777 8" diameter 6 4 5,550 206 46 5,802	R" dirmeter		6 1		3,975	206	46	4,227	1 1
better ded values, reducing, 4" diameter 6 4 2,525 206 46 2,777 Better ded values, reducing, 4" diameter 6 4 5,550 206 46 5,802	12" demeter		6 4		12,500	206	46	12,852	1
6 4 5,550 206 46 5,802 8" dameter 6 4 5,550 206 46 5,802	Detector chark where enduring AV domains		6 4		2,525	206	46	2,777	
0 0000000 0000	Denector crieck valves, recoong, 4" alameter		6 1		5,550	206	46	5,802	1
6 4 2,450 206 46 2,702	a autherer		6	1	2,450	206	46	2,702	
bewanzee, 4 aumeter 6,225 206 46 6,477	borvanized, 4" diameter	1.1	6	1 .	6,225	206	46	6,477	

1p. Pipeline

Source: 2023 Heavy Construction Costs with RS Means Data was used for ductile iron pipe costs (below grade), US pipe was used for ductile iron pipe costs above grade, and for PVC C900 pipe material cost a price sheet from Core and Main in San Jose was used. The cost by pipe size and material is outlined below with the supporting pages from Means, US pipe or Core and Main behind.

Pipeline Installation Costs									
Below Grade Pining			_	-			-		
below Grade Fiping									
AWWA C900, DR 18, Class 150, 4-inch									
	Unit Cost	Source							
Pipe Materials and Installation	\$15.12	Core and Main with Means Labor and Equipment Added		_					
Excavation/Trenching/Backfill/Compaction	\$6.20	2023 Heavy Construction Costs with RS Means Data							
Pipe Bedding	\$2.41	2023 Heavy Construction Costs with RS Means Data	Area per	r ft		Sq Yard P	er Foot		Cost Per Foot
Pavement Removal	\$4.89	2023 Heavy Construction Costs with RS Means Data		4 ft2		0.444444	l sq yd		4.888888889
Pavement Replacement	\$35.91	2023 Heavy Construction Costs with RS Means Data	_	4 ft3		0.444444	l sq yd		35.9111111
Traffic Control	\$0.50	Judgement		_					
Subtotal	\$65.03	2022 Hanne Canada attaction Canton ide DC Margar Data	_	_					
San Jose Cost Index	124.5	2023 Heavy Construction Costs with RS Means Data	_	_					
	380.90								
AWWA C900, DR 18, Class 150, 6-inch	Unit Cost	Source							
	627.00	Company Marin with Margarian and Environment Added	_	_					
Pipe Materials and Installation	\$27.80	Core and Main with Means Labor and Equipment Added		_					
Excavation/Trenching/Backfill/Compaction	\$6.20	2023 Heavy Construction Costs with RS Means Data							
Pipe Bedding	\$2.41	2023 Heavy Construction Costs with RS Means Data	Area pe	r ft		Sq Yard P	er Foot		Cost Per Foot
Pavement Removal	\$4.85	2023 Heavy Construction Costs with RS Means Data		4 112		0.444444	sq ya		4.8888888889
Pavement Replacement	\$35.91	2023 Heavy Construction Costs with RS Means Data	_	4 113		0.444444	r sq ya		35.9111111
I raffic Control	\$0.50	Judgement	_	-					
Subtotal	\$/7.71	2022 Hoovy Construction Costs with BS Moons Data					-		
Total	\$96.75	2023 Heavy Construction Costs with K3 Means Data		-					
AWWA COOL DP 19 Class 150 9 inch	Unit Cost	Source		_					
AWWA C500, DK 18, Class 150, 8-IIICII	Unit Cost	Source		-					
Pipe Materials and Installation	\$47.72	Core and Main with Means Labor and Equipment Added							
Excavation/Trenching/Backfill/Compaction	\$8.28	2023 Heavy Construction Costs with RS Means Data							
Pipe Bedding	\$5.21	2023 Heavy Construction Costs with RS Means Data	Area per	r ft		Sq Yard P	er Foot		Cost Per Foot
Pavement Removal	\$4.89	2023 Heavy Construction Costs with RS Means Data		4 ft2		0.444444	sq yd		4.888888889
Pavement Replacement	\$35.91	2023 Heavy Construction Costs with RS Means Data		4 ft2		0.444444	sq yd		35.9111111
Traffic Control	\$1.00	Judgement							
Subtotal	\$103.01								
San Jose Cost Index	124.5	2023 Heavy Construction Costs with RS Means Data							
Total	\$128.25								
6-inch DIP, MJ	Unit Cost	Source		-					
Pipe Materials and Installation	\$130.00	2023 Heavy Construction Costs with RS Means Data							
Excavation/Trenching/Backfill/Compaction	\$8.28	2023 Heavy Construction Costs with RS Means Data							
Pipe Bedding	\$5.21	2023 Heavy Construction Costs with RS Means Data	Area per	r ft		Sq Yard P	er Foot		Cost Per Foot
Pavement Removal	\$4.89	2023 Heavy Construction Costs with RS Means Data		4 ft2		0.444444	sq yd		4.888888889
Pavement Replacement	\$35.91	2023 Heavy Construction Costs with RS Means Data		4 ft3		0.444444	sq yd		35.9111111
Traffic Control	\$0.50	Judgement							
Subtotal	\$184.79								
San Jose Cost Index	124.5	2023 Heavy Construction Costs with RS Means Data							
Total	\$230.06								
8-inch DIP, MJ	Unit Cost	Source							
Pipe Materials and Installation	\$182.00	2023 Heavy Construction Costs with RS Means Data		-					
Excavation/Trenching/Backfill/Compaction	\$8.78	2023 Heavy Construction Costs with RS Means Data							
Pipe Bedding	\$5.21	2023 Heavy Construction Costs with RS Means Data	Area pe	r ft		So Yard P	er Foot		Cost Per Foot
Pavement Removal	\$4.89	2023 Heavy Construction Costs with RS Means Data		4 ft2		0 444444	L sa vd		4 888888889
Pavement Replacement	\$35.91	2023 Heavy Construction Costs with BS Means Data		4 ft3		0.444444	L sa vd		35.9111111
Traffic Control	\$1.00	Judgement							
Subtotal	\$237.29								
San Jose Cost Index	124.5	2023 Heavy Construction Costs with BS Means Data							
Total	\$295.43								
Above Grade Piping									
Hanged, Ductile Iron Pipe, Cement Lined			Motor	-		San Jose	Adjus	ted	
	C'	Cont Day Units	iviateria	al	Cubactel	LOST	TOP C	ιy de::	Cours-
	Size	Cost Per Unit	& Labo	or i	Subtotal	Index	Cost In	dex	Source
	4-INCN	2 164.80			1/4.80	124.5	; \$ 21	0.00	US Pipe
	0-1000	2 199.5	5 5 10.00	U Ş	209.55	124.5	> 20 c 20	0.69	US Pipe
	8-inch	ə 281.1	5 \$ 10.00	υļŞ	291.15	124.5) \$ 36	2.48	US Pipe

33	14 13 - Public Water Utility Distributio	ii rip	ing	1.1	-		_					
				Da	ly Lab	-10	1.3	Haterial	2023 B	are Casts	Telel	Total
33 1	4 13.20 Water Supply, Polyethylene Pipe, C901	-	Crew D.1A	20	s na	IS I	Fa.	3.3	2.5	equipment	5.8	I Ind Og
2200	1-1/2 dometer		10 IA	20	5 .00	0		4.6	2.8		74	
2200	2 damerer			4	15	5	ы	17	11		127	1.2
2200	Coupling, 3/4" ciometer	1		5	1 17	5	i I	22	12.7		149	
2240	1 Corneter			3	10			55	14.2		197	
1340	1-1/2 dometer			10	20	8		7.0	15.1		221	
2400	Z dunerer			1	10	2		28	11		13.8	
400	1" Amotor	-	18	51	17	5	1-1	33	127		16.0	
0440	1.1/2" Annuber			51	10			87	14.2		22.9	4
460	2" diameter			19	20	a a		11.6	151		267	-
500	Tea 3/4" demater			40	20	0 0	11	33	17.7		20.4	
520	1" domator	1		94	-13		11	5.6	18.6		24	-
540	1-1/2" demote			37	20	2	11	13.0	22		35.0	
560	2" danster	- 1	4	33	.30.			17.6	24		41.6	
3 1/	12 05 Water Supply Behatind Chloride Dias		*	1 30	1.33	3 .	Ý I	17.0	41		41.0	
010	WATER CURRENT POLYMINAL CHLORIDE PIPE			_		_	-					
020	Extinction automation as had fill and an and fill											
100	PW size Class 150 1.1 (22 Genetic	- 14			1.0							
120	2º domates		Q-1A	750	.013	1	E	1.4	.97		2.4	
140	2.1/2" dometer		44	686	.015		-i	1.4	1.0	1	2.4	-
AD	3" Annater		*	500	.020	11		2.3	1.4		3.8	
010	AWAY CODE PP 100 DP 25		8-20	430	.056	14	1	3.0	Z.9		5.7	
30	14" demater		8.91	110	191	1.	1	10.0			21.0	
40	16" damater		0.51	213	.131	14	r	18.8	1.1	.91	20.0	3
50	18" diameter			140	.140			45.3	1.0	1.70	39,1	
60	20" diameter			133	.1/3	11		31	1.0	1.2	41./	-
70	24" diameter	_		107	747	10	11	57.5	445	1.4	79.5	
80)	30° diameter	-	1	80	350	71	÷ŕ	2 10	10.5	1.0	13.5	- 12
90	36" diameter			80	350	11		140	191	2.4	110.0	13
00	42" dometer			60	467	11		202	26.5	2.4	1/0.5	17
00	48° dometer	1	11	60	447	11		257	25.5	3.2	230.7	20
20	Pressure pipe Class 150, SDR 18, AWWA C900, 4" diameter	1	-20	380	643	M	1-	52	22.3	3.2	105.1	SL
10	6" digmeter	- 10		316	076			75	3,3		0.5	1
0	8" diameter		21	264	106	21		94	3.9	20	11.4	-
0	10" dameter	- 12	1	220	127	21		13.0	0.0	./3	10.1	1
0	12" diameter	1.	11	186	1.151	11	T	17.7	0.9	.60	20.8	1
0	Fittings with rubber pasket		×			1.4		11.1	0.2	1.0	20.7	3
3	Cless 150, DR 18											
5	90° bend, 4° diameter	8-	20	100	240	Fa			127			
)	6" doneter	- 13		90	267	- 1	1	102	12.6	and i	69.6	8
1	8" dameter	B	21	80	350		1.	102	14		116	13
θĒ.,	10" diameter	1.10		50	560	1	1	205	19.1	2.4	218.5	24
612	12" diameter			30	.933	1	1.	570	30.5	3.8	419.3	4/
T	Tee, 4" diameter		T	90	311	1	1	145	14.0	0.4	62/.4	/1
	6" diameter			80	.350	1	E	240	10.7	2.1	184.0	21
1	8* diameter			70	.400		1	490	72	2.4	290.5	32
	10" diameter			40	.700		1	1 450	10	10	1400.0	575
1	12" diameter			20	1.400	-		2 075	30	9.0	1,492.8	1,65
	45° bend, 4" dameter	8-2	0	100	.240		Ł	72	12.4	3.0	4,161.1	2,40
	6" dometer			90	.267		1	134	14		65.6	9
1	8" diameter	B-2	1	50	.560	1	1.	335	30.5	20	240 -	16
1	10" diameter	11	11	50 1	540 1	10	r -	333	30.3	3.0	369.3	415

For customer support on your Heator Construction

G1030 Site Earthwork

vstem Components	1 1			COST PER L.F.	States and
ysiem components	QUANTITY	UNIT	EQUIP.	LABOR	TOTAL
SYSTEM G1030 805 1310					
TRENCHING, COMMON EARTH, NO SLOPE, 2' WIDE, 2' DP, 3/8 C.Y. BUCKET					
Excavation, trench, hyd. backhoe, track mtd., 3/8 C.Y. bucket	.148	C.Y.	.30	1.30	E. C.
Backfill and load spoil, from stockpile	.153	L.C.Y.	.17	.39	list.
Compaction by vibrating plate, 6" lifts, 4 passes	.118	C.Y.	.13	.47	111
Remove excess spoil, 8 C.Y. dump truck, 2 mile roundtrip	.040	L.C.Y.	.15	.22	
	1 1		T	1.225	
TOTAL			.75	2.38	10. 7

61	030 805	Transhing Common Easth	(OST PER L.F.	1
		It enaming common curin	EQUIP.	LABOR	TOTAL
1310	Trenching, commo	on earth, no slope, 2' wide, 2' deep, 3/8 C.Y. bucket	.75	2,38	3,31
1320		3' deep, 3/8 C.Y. bucket	1.09	3.58	437
1330		4' deep, 3/8 C.Y. bucket	1.43	4.77	6.00
1340		6' deep, 3/8 C.Y. bucket	2.08	6.20	8,8
1350		8' deep, 1/2 C.Y. bucket	2.80	8.20	<u></u>
1360		10 ^r deep, 1 C.Y. bucket	5.25	9.80	15.55
1400	1	4' wide, 2' deep, 3/8 C.Y. bucket	1.64	4.75	6.19
	1				

			The Pipe E various pip sand is us 12" over th Various sic accommo sizes vary	Bedding System be diameters. C ed for pipe bed he pipe. No bad de slopes are a date different si from 6" to 84" (n is shown fo ompacted ba ding and to kfill is includ nown to pil conditions diameter.	or ank fill ed. <mark> Pip</mark> e
				C	OST PER L.F.	
ystem Components		QUANTITY		MAT.	OST PER L.F.	TOTAL
ystem Components SYSTEM G1030 815 1440 PIPE BEDDING, SIDE SLOPE 0 TO 1, 1' WIDE, PIPE SIZE 6" DIAMETER Borrow, bank sand, 2 mile haul, machine spread Commation, vibrating plate		QUANTITY .086 .085	C.Y. C.Y.	MAT. 1.30	0ST PER L.F. INST. 81 31	TOTAL
ystem Components SYSTEM G1030 815 1440 PIPE BEDDING, SIDE SLOPE 0 TO 1, 1' WIDE, PIPE SIZE 6" DIAMETER Borrow, bank sand, 2 mile haul, machine spread Compaction, vibrating plate	TOTAL	QUANTITY .086 .086	UNIȚ C.Y. C.Y.	MAT. 1.30	81 31 1.12	TOTAL
ystem Components System G1030 815 1440 PIPE BEDDING, SIDE SLOPE 0 TO 1, 1' WIDE, PIPE SIZE 6" DIAMETER Borrow, bark sard, 2 mile haul, machine spread Compaction, vibrating plate	TOTAL	QUANTITY .086 .086	UNIT C.Y. C.Y.	MAT. 1.30	SOST PER L.F. INST. 81 31 1.12	TOTAL

1010 der	AOLISH, REMOVE PAVEMENT AND CURB	R024119-10			Stand Stand					
010	Pavement removal, bituminous reads, up to 3" thick	B-38 69	90 . 	058 5	o.Y.		3.0	1.9	5.0	6
050 100	4"-6" linck	4,	20 . 40	095			اد در	3.1	8.2	- II -
900 900	Brummous envewoys		40 r r	163 167			6.6 C 0	£.0 C 1	С.И. 19 с (10
20	40 Flovible Device		5 - I					eproj		
• <u>7</u> 4	12 Flexible Paving		i i i		n al frit Na ann a					
32 12	16 – Asphalt Paving									
32 12 1	6.13 Plant-Mix Asphalt Paving		Crew	Daily Output	Labor- Hours	Unit	Material	2023 Bo Labor	ore Costs Equipment	Total
0851	1-1/2" thick	B	3-25B	630	.152	Ton	76	8.0	5.5	R
0852	2" thick	1 S		690	.139	en i	76	7.3	5.0	1.5
	2-1/2" thick		$\sum_{i=1}^{n} a_i$	765	.125	5	76	6.6	4.5	
0853				000	100		74	63	43	-
0853 0854	3" thick			800	.120		70	0.0	- n T.U	1.
0853 0854 1000	3" thick Pavement replacement over trench, 2" thick	B	3-17C	800 90	.120	S.Y.	70 8	28	22.5	
0853 0854 1000 1050	3" thick Pavement replacement over trench, 2" thick 4" thick	B	3-17C	90 90 70	.120 .533 .686	S.Y.	8 15.8	28 36	22.5	
0853 0854 1000 1050 1080	3" thick Pavement replacement over trench, 2" thick <mark>4" thick</mark> 6" thick	2	3-17C	90 90 70 55	.120 .533 .686 .873	S.Y.	8 15.8 25	28 36 45.5	22.5 29 37	8 5 8 16

U	S	P	Л	P	3-
	FA	1111	ATEL	IN	

DUCTILE IRON PIPE FABRICATED PIPE

Quality Products...Delivered on Time! USP FAB DIP 2023-01

							S	ZE: 4	4 IN(CH								
		FxF	FxPE			FxG GxG							PExPE					
LENL	WT.	PRICE	WT.		PRICE	WT.	- 1	PRICE	WT.	-	PRICE	WT.	ŧ	RICE	WT.	-	PRICE	LENL
1.0.	38	\$636	26	\$	382	26	5	513	14	\$	442	14	\$	311	14	\$	180	1.0.
1'6"	45	\$706	33	\$	452	33	\$	583	21	\$	512	21	\$	381	21	\$	250	1.6.
5.0.	52	\$776	40	\$	522	40	5	653	28	\$	582	28	5	451	28	\$	320	Z' 0"
Z'6"	59	\$846	47	s	592	47	\$	723	35	\$	652	35	\$	521	35	\$	390	2'6"
3.0.	65	\$916	53	\$	662	53	5	793	41	\$	722	41	5	591	41	\$	460	3.0.
3.6.	72	\$986	60	s	732	60	\$	863	48	\$	792	48	\$	661	48	\$	530	3'6"
4.0.	79	\$1,056	67	\$	802	67	5	933	55	\$	862	55	5	731	55	\$	600	4.0.
4.6.	86	\$1,126	74	s	872	74	\$	1,003	62	\$	932	62	\$	801	62	\$	670	4. 2.
5'0"	93	\$1,196	81	\$	942	81	5	1,073	69	\$	1,002	69	\$	871	69	\$	740	5'0"
56	100	\$1,266	88	\$	1,012	88	\$	1,143	76	\$	1,072	76	\$	941	76	\$	810	5'6"
6.0.	107	\$1,336	95	\$	1,082	95	\$	1,213	83	\$	1,142	83	\$	1,011	83	\$	880	6.0.
86	114	\$1,406	102	\$	1,152	102	\$	1,283	90	\$	1,212	90	\$	1,081	90	\$	950	6.6.
7.0*	121	\$1,476	109	5	1,222	109	\$	1,353	97	\$	1,282	97	\$	1,151	97	\$	1,020	7'0"
76	128	\$1,546	116	\$	1,292	116	\$	1,423	104	\$	1,352	104	\$	1,221	104	\$	1,090	7'6"
8.0.	134	\$1,616	122	\$	1,362	122	\$	1,493	110	\$	1,422	110	\$	1,291	110	\$	1,160	8.0.
8.6.	141	\$1,686	129	\$	1,432	129	\$	1,563	117	\$	1,492	117	\$	1,361	117	\$	1,230	8.6.
9.0.	148	\$1,756	136	5	1,502	136	\$	1,633	124	\$	1,562	124	\$	1,431	124	\$	1,300	9.0.
9.6.	155	\$1,826	143	\$	1,572	143	\$	1,703	131	\$	1,632	131	\$	1,501	131	\$	1,370	9.6.
10'0"	162	\$1,896	150	\$	1,642	150	\$	1,773	138	\$	1,702	138	\$	1,571	138	\$	1,440	10' 0"
10. 6.	169	\$1,966	157	\$	1,712	157	\$	1,843	145	\$	1,772	145	\$	1,641	145	\$	1,510	10. 6.
11.0.	176	\$2,036	164	\$	1,782	164	\$	1,913	152	\$	1,842	152	\$	1,711	152	\$	1,580	11.0.
11. 6.	183	\$2,106	171	\$	1,852	171	\$	1,983	159	\$	1,912	159	\$	1,781	159	s	1,650	11.6.
12.0.	190	\$2,176	178	\$	1,922	178	\$	2,053	166	\$	1,982	166	\$	1,851	166	\$	1,720	12.0.
12. 6.	197	\$2,246	185	\$	1,992	185	\$	2,123	173	s	2,052	173	\$	1,921	173	s	1,790	12. 6.
13.0.	203	\$2,316	191	\$	2,062	191	\$	2,193	179	\$	2,122	179	\$	1,991	179	\$	1,860	13.0.
13' 6"	210	\$2,386	198	\$	2,132	198	\$	2,263	186	\$	2,192	186	\$	2,061	186	\$	1,930	13. 6.
14'0"	217	\$2,456	205	5	2,202	205	\$	2,333	193	s	2,262	193	\$	2,131	193	\$	2,000	14'0"
14'6"	224	\$2,526	212	\$	2,272	212	\$	2,403	200	\$	2,332	200	\$	2,201	200	\$	2,070	14'6"
15.0.	231	\$2,596	219	5	2,342	219	\$	2,473	207	\$	2,402	207	\$	2,271	207	\$	2,140	15.0.
15.6.	238	\$2,666	226	\$	2,412	226	\$	2,543	214	\$	2,472	214	\$	2,341	214	\$	2,210	15.6.
16'0"	245	\$2,736	233	\$	2,482	233	\$	2,613	221	\$	2,542	221	\$	2,411	221	\$	2,280	16.0.
16'6"	252	\$2,806	240	\$	2,552	240	\$	2,683	228	\$	2,612	228	\$	2,481	228	\$	2,350	16'6"
17.0-	259	\$2,876	247	\$	2,622	247	\$	2,753	235	\$	2,682	235	\$	2,551	235	\$	2,420	17.0-
17.6*	266	\$2,946	254	\$	2,692	254	\$	2,823	242	s	2,752	242	\$	2,621	242	s	2,490	17.6
\$18.0	272	\$3,016	260	\$	2,762	260	\$	2,893	248	\$	2,822	248	\$	2,691	248	\$	2,560	1 18.0.
\$18.6.	279	\$3,086	267	\$	2,832	267	\$	2,963	255	s	2,892	255	\$	2,761	255	s	2,630	\$ 18. 6.
\$19.0	286	\$3,156	274	\$	2,902	274	5	3,033	262	\$	2,962	262	\$	2,831	262	\$	2,700	‡ 19° 0°
\$19.6	293	\$3,226	281	\$	2,972	281	\$	3,103	269	\$	3,032	269	\$	2,901	269	s	2,770	\$ 19' 6"
\$20°0°	300	\$3,296	288	\$	3,042	288	\$	3,173	276	\$	3,102	276	\$	2,971	276	\$	2,840	‡ 20° 0°
‡ SUBJEC	T TO A	AILABILITY	_	_							-	Δ	"C	om	en	+ 1	ine	d
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DUCTILE IRON PIPE FABRICATED PIPE

Quality Products...Delivered on Time! USP FAB DIP 2023-01

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		FxF		Fx	PE		FxG			GxG			GxPE	1.5.1	1	PExP	E	
LEN.	WT.	PRICE	WT.		PRICE	WT.	<u> </u>	PRICE	WT.		PRICE	WT.		RICE	WT.	1	PRICE	LEN.
1.0.	55	\$799	38	\$	472	38	\$	627	21	\$	528	21	\$	373	21	\$	218	1'0'
1.6.	66	\$883	49	\$	556	49	s	711	32	\$	612	32	5	457	32	\$	302	1.6.
2.0.	77	\$967	60	\$	640	60	\$	795	43	\$	696	43	\$	541	43	\$	386	Z' 0"
Z' 6"	88	\$1,051	71	\$	724	71	\$	879	54	\$	780	54	\$	625	54	\$	470	Z' 6'
3.0.	98	\$1,135	81	\$	808	81	\$	963	64	\$	864	64	5	709	64	\$	554	3'0"
3'6"	109	\$1,219	92	\$	892	92	\$	1,047	75	\$	948	75	\$	793	75	\$	638	3'6'
4.0.	120	\$1,303	103	\$	976	103	5	1,131	86	5	1,032	86	5	877	86	\$	722	4101
4.6.	130	\$1,387	113	\$	1,060	113	\$	1,215	96	\$	1,116	96	\$	961	96	\$	806	4.6.
5'0"	141	\$1,471	124	\$	1,144	124	5	1,299	107	5	1,200	107	\$	1,045	107	\$	890	5'0"
5'6"	152	\$1,555	135	\$	1,228	135	\$	1,383	118	5	1,284	118	\$	1,129	118	\$	974	5'6"
6.0.	162	\$1,639	145	\$	1,312	145	\$	1,467	128	5	1,368	128	\$	1,213	128	5	1,058	6'0"
6'6"	173	\$1,723	156	\$	1,396	156	5	1,551	139	\$	1,452	139	\$	1,297	139	\$	1,142	6.6.
7'0"	184	\$1,807	167	\$	1,480	167	\$	1,635	150	5	1,536	150	\$	1,381	150	\$	1,226	7'0"
7.6	195	\$1,891	178	\$	1,564	178	\$	1,719	161	\$	1,620	161	\$	1,465	161	\$	1,310	7 6
8.0.	205	\$1,975	188	\$	1,648	188	\$	1,803	171	5	1,704	171	\$	1,549	171	5	1,394	8'0"
8.6.	216	\$2,059	199	\$	1,732	199	\$	1,887	182	\$	1,788	182	\$	1,633	182	\$	1,478	8'6"
9.0.	227	\$2,143	210	\$	1,816	210	\$	1,971	193	5	1,872	193	\$	1,717	193	5	1,562	9'0"
9'6"	237	\$2,227	220	\$	1,900	220	\$	2,055	203	\$	1,956	203	\$	1,801	203	\$	1,646	9'6"
10.0.	248	\$2,311	231	5	1,984	231	5	2,139	214	5	2,040	214	\$	1,885	214	5	1,730	10'0'
10' 6"	259	\$2,395	242	\$	2,068	242	\$	2,223	225	5	2,124	225	\$	1,969	225	\$	1,814	10'6'
11'0"	269	\$2,479	252	\$	2,152	252	5	2,307	235	5	2,208	235	\$	2,053	235	5	1,898	11.0
11'6"	280	\$2,563	263	\$	2,236	263	\$	2,391	246	\$	2,292	246	\$	2,137	246	\$	1,982	11.6
12'0"	291	\$2,647	274	\$	2,320	274	5	2,475	257	5	2,376	257	\$	2,221	257	5	2,066	12'0'
12'6"	302	\$2,731	285	\$	2,404	285	\$	2,559	268	\$	2,460	268	\$	2,305	268	5	2,150	12'6'
13'0"	312	\$2,815	295	\$	2,488	295	5	2,643	278	5	2,544	278	\$	2,389	278	5	2,234	13'0'
13'6"	323	\$2,899	306	\$	2,572	306	5	2,727	289	\$	2,628	289	\$	2,473	289	\$	2,318	13'6
14'0"	334	\$2,983	317	5	2,656	317	\$	2,811	300	5	2,712	300	\$	2,557	300	5	2,402	14.0
14' 6"	344	\$3,067	327	\$	2,740	327	5	2,895	310	\$	2,796	310	\$	2,641	310	\$	2,486	14.6
15'0"	355	\$3,151	338	\$	2,824	338	\$	2,979	321	5	2,880	321	\$	2,725	321	5	2,570	15'0'
15'6"	366	\$3,235	349	\$	2,908	349	5	3,063	332	\$	2,964	332	\$	2,809	332	\$	2,654	15'6
16'0"	376	\$3,319	359	5	2,992	359	\$	3,147	342	5	3,048	342	\$	2,893	342	5	2,738	16'0'
16'6"	387	\$3,403	370	\$	3,076	370	\$	3,231	353	\$	3,132	353	\$	2,977	353	\$	2,822	16 6
17'0"	398	\$3,487	381	5	3,160	381	5	3,315	364	5	3,216	364	5	3,061	364	5	2,906	17 0
17'6"	409	\$3,571	392	\$	3,244	392	\$	3,399	375	5	3,300	375	\$	3,145	375	5	2,990	17 6
18 0	419	\$3,655	402	\$	3,328	402	5	3,483	385	5	3,384	385	\$	3,229	385	5	3,074	1 18'0
18 6	430	\$3,739	413	\$	3,412	413	\$	3,567	396	\$	3,468	396	\$	3,313	396	\$	3,158	118'6
t 19° 0°	441	\$3,823	424	\$	3,496	424	\$	3,651	407	5	3,552	407	5	3,397	407	5	3,242	\$ 19'0
19'6"	451	\$3,907	434	\$	3,580	434	\$	3,735	417	\$	3,636	417	\$	3,481	417	5	3,326	1 19'6
t 20° 0°	462	\$3,991	445	\$	3,664	445	\$	3,819	428	5	3,720	428	\$	3,565	428	5	3,410	1 20" 0
_	TTOM	ALLABUTY		-								-		-				

1.q Service Laterals

Source: Per California American Water, 1-inch service connections are \$2500 each. Linear interpolation was used to estimate other service later connection size costs up to 2-inches. Service laterals for 2-inch and higher were assumed to be the same cost as a 2-inch connection.

1.r Water Meters

Source: California American Water. Cost for 3-inch and 4-inch diameter meters based upon \$141/inch cost adder to meters 2-inch and above.

Size	2022
Group	Price
5/8	\$ 85.94
3/4	\$ 109.15
3/4	\$ 109.15
1	\$ 154.60
1.5	\$ 353.18
2	\$ 494.70

1.s Fire Hydrants

Source: Recent Bid Tab, see below.

hot tap and gate valve and all

Pavement Replacement

Permits, including SWPPP,

Traffic Control Plan and Permit

appurtenances

Fees

Total of All Unit Price Bid Items

ltem No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Pri
<u>1</u>	6" Gate Valves (MJxMJ)	EA	<u>5</u>	\$1700-	\$950C
2	Meters, including meter box, PRV, excavation, backfill and & appurtenances	EA	45	\$1290,9	\$58,03
3	Water Service Laterals, including excavation, backfill, pavement replacement and including appurtenances	EA	<u>45</u>	\$ 22000	\$99,00
Norton \	Way Watermain Bid Items (below)	must meet	AIS Requirem	ents	
4	6 <u>-inch watermain including all</u> fittings, restraints, excavation and backfill, encasement, and appurtenances ²⁷ P.V.C.	LF	533	\$64.9	\$34,11
5	<u>6-inch gate valve, fire hydrant</u> and all appurtenancesConcrete Encasement	£F <u>EA</u>	28 <u>1</u>	\$ 6,100,00	\$ 4700.0
	6" 11.25" Bend (MJxMJ)4-inch				

EA

<u>SF</u>

LS

<u>21</u>

1

1,485

\$ 4500.00 \$4500.00

\$8.00

\$ 10,000.00

11,800.00

\$10,000.00

\$ 732,742 Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be

1t. Land Costs

6

7

8

Based on real estate comps in the area, a local realtor provided estimates:

From:	stephen.sbplanning@gmail.com
To:	Teresa A. Valentine; Thomas.Brunet@amwater.com
Cc:	stephen.sbplanning@gmail.com; sbabcock@kw.com
Subject:	Comps for West San Martin comps
Date:	Monday, February 13, 2023 10:11:29 AM
Attachments:	Agent 1 Line cma.csv

Teresa, Thomas

I found some properties that have sold near west San Martin. 779-10-028 is a about 8,500 sf and 79-10-011 is about 5,500 sf. After doing my comps I think apn 779-10-028 could be worth between \$400,000- \$450,000. Apn 779-10-011 is worth between \$375,000 and \$425,000. I hope this helps. Kristin can give you an exact appraisal.

Best regards Stephen Babcock Developer/Project Manager Realtor DRE #01941032

Attachment 2 Site Pictures Well 1



Well 1 Continued



Colony Well





Colony Well, continued



Colony Well, continued



County Building Well





County Building Well, continued



County Building Well, continued

Big Tank





Big Tank, Continued



Tank 1



Tank 1, continued



Booster Pump Station 1







Booster Pump Station 1, continued





Booster Pump Station 1, continued

Tank 2 and Booster Pump Station 2





Tank 2 and Booster Pump Station, continued





Tank 2 and Booster Pump Station, continued


Tank 3



Tank 3, continued







MDR Response Attachment 17

DRAFT

CONFIDENTIAL

November 6, 2018

Mr. Robert Ukestad, President West San Martin Water Company 1005 Highland Avenue San Martin, California 95046

Subject: An Opinion of Fair Market Value of the West San Martin Water Company

Dear Mr. Ukestad:

In accordance with the agreement between your company and myself, I have made a review and analysis of data supporting an opinion of fair market value of the West San Martin Water Company (WSMWC). It is my understanding that this valuation analysis may be used in negotiations for potential sale of the company. Attachment A contains my resume and qualifications presenting my competency to perform this appraisal.

As used in this letter, fair market value is defined as the highest price in terms of money which a water system would bring if exposed for sale on the open market, by a seller who is willing but not under compulsion to sell, with a reasonable time allowed to find a buyer who is willing but not obligated to buy, with both parties having full knowledge of the uses, purposes and limitations of the property involved. Based upon my investigation of the WSMWC, it is my opinion that the fair market value of this water company, as of December 31, 2017, is \$1,360,000 if sold to a Class A utility purchaser (see the last section

on Opinion of Value for estimates of likely sales prices for other classes of buyers). The following sections discuss in greater detail the basis for this opinion.

This opinion of WSMWC's value assumes the market value of the utility plant assets, easements, business franchise rights, going concern value, and materials and supplies. However, the opinion does not include working funds, current and accrued assets, and any other investment and fund accounts of the WSMWC. Further, current and accrued liabilities, deferred revenues and longterm liabilities are not included. In summary, the opinion of value considers all assets, liabilities and operating rights of the WSMWC used in its water system operations, and not related current assets and liabilities that would be transferred in a sale.

DATE OF VALUE

The opinion of fair market value expressed in this report is based upon a date of valuation of December 31, 2017, i.e., the facilities and intangible assets being valued are those which existed as of December 31, 2017. This date was chosen because of the availability of financial statements plus asset records. It is believed that the asset value of the system as of the date of this letter would not be significantly different than the value expressed herein as of December 31, 2017.

SCOPE OF INVESTIGATION

Studies and preparation undertaken in connection with this appraisal include the following:

1. Review of the historic accounting records (from December 31, 1981 through December 31, 2017) representing annual plant asset additions and retirements, income and expense data, and other relevant financial records

provided by the company (selected balance sheets from the 1970s); and the most recent rate resolution (W-4905) issued by the PUC.

- 2. Review of WSMWC Annual Reports to the State Water Resources Control Board (SWRCB) for years 2009 through 2017 as submitted by utility; Consumer Confidence Reports to customers prepared by the company for years 2013 through 2017; SWRCB permit engineering reports (February 2008 and April 2015); selected tank inspection and other asset reports; recent water qualify data and an interview of Mr. Brian Ukestad, system operator, in order to gain an understanding on the current status of company operations, water quality and resources, system condition, ratepayer satisfaction and growth, and related issues.
- 3. Field visit to the service area of WSMWC in order to view aboveground system components and service area characteristics with assistance from Mr. Robert Ukestad, utility owner.
- 4. A review of regulatory files in the field offices of the SWRCB located in Richmond, including interviews with Eric Lacey and Samantha Mak, regulatory personnel
- 5. Estimation of the rate base that would be expected to be allowed by the California Public Utilities Commission (PUC) in determining the amount of investment returns which would be allowed on these facilities under private ownership.
- 6. Performance of a capitalization of earnings study for alternative purchasers subject to PUC regulation.
- 7. Investigation of sales of those systems identified to be comparable to this system, including a review of data and proceeding records contained in the files of the PUC for selected sales.
- 8. Derivation of the reproduction cost new less depreciation (RCNLD) estimate for the water system assets utilizing company asset records; escalation by use of either the Handy-Whitman Index of Municipal Water

System Construction, or US Department of Labor Consumer or Producer Price Indexes; and anticipated depreciation accruals based on experience obtained by me in preparing many RCNLD studies of similar properties.

QUALIFYING CONDITIONS

The opinion of value expressed in this letter is subject to the following qualifying conditions:

- 1. The valuation assumes good and clear title to the property and facilities being valued. Further, it is assumed that a purchase of the system would be on an all-cash basis.
- 2. The facilities included in the appraisal are dedicated to the provision of water service to WSMWC ratepayers, and their acquisition by a regulated purchaser (other than a public agency or mutual water company) would be under the regulatory jurisdiction of the California PUC. It is also assumed that a purchaser; either a public agency, mutual water company or private investor, would be able to obtain a permit from the SWRCB in order to operate the water system.
- 3. The estimated fair market value of the WSMWC expressed in this report is based on a projected net income through the ROM (return to margin) PUC regulatory approach. In view of the last rate proceeding processed in 2012, the utility may be required to undertake a current rate proceeding to establish the potential net revenues envisioned in this appraisal analysis.
- 4. The information and data reported in connection with this appraisal have been obtained from sources which are deemed reliable and, after review, are believed to be substantially correct.
- 5. The appraiser has no present or prospective direct or indirect financial interest connected with any of the parties involved with this utility, and his employment in preparing this appraisal report is not in any manner

contingent on finding of any specified or implied values, or otherwise contingent on anything other than the preparation of this opinion.

METHODS OF APPRAISAL

The methods of valuation considered in the formation of the opinion of fair market value of WSMWC included capitalization of earnings (income approach), reproduction cost new less depreciation (cost approach), and comparable sales (market approach).

DESCRIPTION OF SYSTEM

The WSMWC serves approximately 304 metered customers in a contiguous service area located in San Martin, an unincorporated area of southern Santa Clara County, near Morgan Hill, California. Most are residential customers with mainly ³/₄-inch to 1-inch services. There are also a small number of commercial, industrial and agricultural users with up to 4-inch services. Service was began to a small customer base in the early 1960s. The WSMWC was given a PUC operating certificate in 1963.

Water is produced from three wells with capacities from 300 to 400 gallons per minute. The service area has three pressure zones served by well delivery and two booster stations. Storage is provided by three 50,000 gallon concrete reservoirs (all constructed in 1981) and one 400,000 gallon concrete tank (constructed in 2001). Tank inspection reports indicate all tanks are in good condition. A field visit to aboveground facilities (well sites, booster stations and tanks) show the system is well maintained and in good condition. The PUC concluded the system meets all of its general order No. 103 operating requirements. A meeting was conducted in the offices of the SWRCB in Richmond to review regulatory files and interview supervisory personnel. The opinion of the staff was that WSMWC was well operated and maintained.

Workpaper 3-118

Robert Ukestad November 6, 2018 Page 6

The utility reports it contains approximately 92,000 feet of distribution mains (mainly C-900 plastic and asbestos cement), of which an estimated 3,000 feet is 2 to 4 inches in diameter (mainly polyvinyl chloride); about 20,000 feet of 6-inch; approximately 50,500 feet of 8-inch; over 13,000 feet of 10-inch; and about 5,600 feet of 12-inch. The system also has 129 hydrants of various brands (most common Clow 960).

The system has experienced a low number of operating problems during the last four years (2014 through 2017). Only one main break annually and two outages (main repair and booster pump failure) have occurred during the period. Complaints likewise have been minimal over this same time period with none in 2014 and one in 2015; but with 3 to 4 pressure complaints in 2016 and 2017, plus 6 to 12 complaints for the same two years primarily related to leaks and the above mentioned outages. The 2014 SWRCB inspection report notes that the system was well maintained and operated by knowledgeable staff.

Recent water quality test data (November 2015 through mid-2018) for all three well sources show excellent water quality with total dissolved solids of 320 milligrams per liter (mg/l) or less, about 250 mg/l hardness (as calcium carbonate) or less, and 7.7 or lower mg/l total nitrates (as N). Other inorganic and organic test results were also very low or non-detected in comparison to standards. Pressure zones 2 and 3 are treated with chlorination (sodium hyprochlorite). Historically, two of the system's wells were treated with ion exchange for the removal of perchlorate contamination. Treatment costs were underwritten by Olin Corporation, the identified responsible party. Declining levels to below the drinking water standard in the raw groundwater source resulted in approval by the SWRCB several years ago to suspend treatment. Infrastructure is still in place should treatment be needed again in the future. Lead and copper levels are well within standards.

WSMWC has no adjudicated groundwater rights (although the basin is managed by the Santa Clara Water District). No incremental or separate value was identified attached to any claimed water rights. A knowledgeable buyer would be aware that the PUC would not approve the severing or marketing of

any water rights for the utility in view of their dedication to the public utility use.

Historic growth over recent years has been minimal. At the end of 2010, the system served a reported 297 metered connections; at the end of 2017 its customer base had grown to 305, an increase of only 8 connections in 7 years, or about 1 per year. Future growth within the WSMWC service area is also considered to be minimal with identified potential residential and commercial developments totaling on the order of 20 connections. However, a substantial water sales increase is potential for wholesale service to the adjacent water company service area of Twin Valley (TV), a system of about 95 connections, which has severe water quality and supply problems.

The latter potential expansion of wholesale water sales has been taken into account in arriving at an opinion of value expressed in this report. It is unlikely that a potential buyer of WSMWC would pay a significant incremental premium from this potential alone for the following reasons:

- 1. A source capacity analysis performed in 2018 on behalf of the courtappointed receiver presented other potential alternatives for additional source capacity and treatment including blending, construction of new wells, and use of either reverse osmosis or ultrafiltration. A connection to WSMWC was considered to be the best and most cost effective alternative. However, at this time an increase in wholesale sales is considered tentative. A subsequent owner of the system, including a possible newly formed mutual water company owned by the ratepayers may not want to be dependent on an outside utility for its water source.
- 2. The cost of connection would be borne by TV and not result in an increase in the rate base of WSMWC. Any increase in water sales and associated revenues would not result in a long-term increase in rate of return for the WSMWC. The PUC would adjust rates downward to offset increased net income. A knowledgeable buyer would know that the PUC has acted on its own initiative in the past in cases where a

utility is earning substantially greater than its last authorized rate of return.

3. This appraisal analysis reaches an opinion of value which reflects a sale price premium substantially above the imputed potential rate base (which takes into account all positive and negative characteristics of the system including potential growth). Paying an even greater premium than reached would have an adverse effect on subsequent rates which could result in the PUC disapproving the proposed sale.

UTILITY REGULATION

The primary regulatory agency that exerts jurisdiction over the WSMWC system operations is the SWRCB. Also essential to consider in this valuation as a regulatory agency is the California Public Utilities Commission (PUC) which exerts regulation over rates and potential purchasers of the WSMWC.

CALIFORNIA PUBLIC UTILITIES COMMISSION (PUC)

The California PUC has jurisdiction over privately owned water utilities in the state including regulation of rates, financial practices and operating adequacy. As indicated above, WSMWC is under the jurisdiction of the PUC. PUC policy regarding the acquisition of water systems by regulated investor owned water companies has to be taken into account when considering the potential fair market value of the WSMWC. Relevant PUC policy is discussed below.

STATE WATER RESOURCES CONTROL BOARD (SWRCB)

The WSMWC system is under the regulatory jurisdiction of the Richmond office of the State Water Resources Control Board, Office of Drinking Water. A visit to the SWRCB offices was made in order to interview regulatory personnel and review regulatory files.

CAPITALIZATION OF EARNINGS

An indication of the value of the WSMWC system sold to a regulated investor can also be developed through the capitalization of earnings approach. The operations of a water utility in California including earnings (if not a mutual water company or in the possession of a public agency), are required to be regulated by the California PUC if charges are applied to water deliveries. The WSMWC system, currently under PUC jurisdiction, would continue to be regulated by the PUC if the system were sold to a private investor. Under the policies of the PUC, the earnings are designed to yield a fair rate of return on the capital invested by the owners of the utility. This invested capital is referred to as rate base.

RELATIONSHIP BETWEEN RATE BASE AND CAPITALIZED EARNINGS VALUE

The earnings allowed can be expected to be established at levels which will yield a rate of return on capital invested by the owners of the utility sufficient to attract capital considering other investment opportunities. Assuming that earnings are maintained by rate adjustments when necessary, then capitalization of these earnings (at a capitalization rate equal to the fair rate of return allowed by the PUC) would by definition result in a number equal to the rate base. This is demonstrated by the following example (with the specific figures in the example being for illustrative purposes only and assuming 100 percent equity):

Rate Base = \$150,000

Rate of Return allowed by PUC = 10%

Then the PUC will allow water rates sufficient to produce net revenues which will provide (after general and administrative costs, operating expenses, taxes and depreciation) an annual income of:

0.10 X \$150,000 = \$15,000 per year

The amount which a purchaser would be willing to pay for a system which would produce a net income of \$15,000 per year, if the purchaser were willing to accept a 10 percent return on his investment, would be:

 $\frac{\$15,000}{0.10} = \$150,000$

This is equivalent to the rate base.

It should be noted that although the rate base and the capitalized earnings value are the same numbers, conceptually they are different values.

To the extent that the PUC allows a fair rate of return on the rate base higher than a rate of return demanded by an investor considering other potential investments, or to the extent that growth pressures or other factors enhance the expectation of future earnings, the purchaser could be expected to be willing to pay a premium over the rate base. Alternatively, if expected earnings in the estimation of the buyer are lower than required considering other potential investments, then the price paid by the buyer could be expected to include a discount from the rate base (in the case of a stock purchase).

ESTIMATED RATE BASE

The operations of an investor owned water utility in California including earnings are required to be regulated by the California PUC if charges are applied to water deliveries. The WSMWC system is currently under PUC jurisdiction in view of its operation as an investor-owned water company. Under the policies of the PUC, a utility's earnings are designed to yield a fair rate of return on the capital invested in the facilities by the owners of the utility. This invested capital is referred to as rate base.

The rate base which may be expected to be allowed for facilities owned by an investor-owned utility by the PUC is normally made up of the following elements:

1. The historic capital costs of the facilities comprising the utility plant which remain in service;

- 2. A deduction for the accumulated depreciation applicable to the foregoing facilities computed in accordance with the policies of the PUC;
- 3. Deductions for that portion of the utility plant financed by means other than investment by the utility owner. These deductions include contributions in aid of construction, or "CIAC" (on the basis of the depreciated value of the facilities represented by these contributions) and unreimbursed advances for construction remaining on the books at the time of computation of the rate base;
- 4. Deductions for any portions of the depreciated costs which represent an imprudent expenditure of funds, including money used for facilities not used or useful in supplying the water system demands or for over design of the system;
- 5. Allowances for working cash and for materials and supplies;
- 6. An allowance for the given rate making unit's pro rata share of common plant (such as a utility's general offices) in the case of larger water companies owning multiple water systems.

Several of the above items, including investment by others and common plant, although they would typically make up a part of the rate base, do not relate to the property being valued in this report.

ESTIMATED EXISTING RATE BASE OF WSMWC WATER SYSTEM

In order to perform a comparable sales analysis for the WSMWC system potentially to be acquired by a purchaser under the regulation of the PUC, it was necessary to first establish an estimated current rate base for the system facilities potentially to be purchased at the date of value (December 31, 2017). Table 1 presents my assessment of the potential utility plant component of rate base (representing that portion of the rate base being considered for sale) in the amount of \$216,656 for the water system facilities as of December 31, 2017. The basis for this rate base estimate is the utility account balances reported in the WSMWC 2017 Annual Report to the PUC. It should be noted that the current

rate base for WSMWC based on Resolution W-4905 is \$42,200 for test year 2011. A new rate proceeding (or advice letter rate base offset) would have to be processed in order to obtain PUC recognition of the Table 1 estimated rate base as of the date of value. However, it is prospective current rate base that a buyer would take into account in determining value of the system.

Theoretically, a large Class A or B regulated utility buyer (over 10,000 and between 2,000 and 10,000 connections, respectively) could request from the PUC a stepped up rate base based on a purchase price above the existing rate base in accordance with PUC policy. This possibility is discussed below following the presentation of recent comparable sales.

TABLE 1

POTENTIAL ESTIMATED UTILITY PLANT COMPONENT OF RATE BASE WEST SAN MARTIN WATER COMPANY

DECEMBER 31, 2017

Account No.	Description	Amount
301	Intangible Plant	\$4,272
303	Land	4,030
304	Structures	10,569
307	Wells	159,067
311	Pumping Equipment	179,389
320	Water Treatment Plant	1,435
330	Reservoirs	161,761
331	Water Mains	1,463,981
333	Services	76,879
334	Meters	68,713
335	Hydrants	37,432
339	Other Equipment	79,511
340	Furniture & Office Equipment	11,879
341	Transportation Equipment	13,606
114	Water Plant Acquisition Adjustment	7,986
	Subtotal, Utility Plant in Service	\$2,280,510
108	Depreciation Reserve	<u>(1,433,854)</u>
	Subtotal, Depreciated Utility Plant	\$846,656
151	Plus, Materials and Supplies	7,607
114	Less, Plant Acquisition Adjustment	(7,986)
252	Less, Advances for Construction	(151,468)
271	Less, Contributions in Aid Construction	(478,153)
	Utility Plant Component of Rate Base	\$216,656

RATE OF RETURN

As stated above, for regulated investor owned water utilities, the PUC will authorize rates sufficient to generate earnings in order to attract investment and finance capital considering other market opportunities are competing for capital. Earnings are measured as a rate of return both to the utility investment overall and specifically to the equity shareholders. The shareholders obtain a higher rate of return than debt holders as a result of financial leverage through the use of lower cost borrowed capital to make up a significant portion of the utility's capitalization. The authorized rate of return varies between utilities based on current economic conditions, the historic embedded cost of debt financing, and a judgement on the shareholder's risk for a particular utility based on a variety of factors.

It is not possible at this time to project with certainty a rate of return on overall rate base for a potential purchaser of the WSMWC system without knowing specifically the identity of the buyer. However, Table 3 presents recent annual returns awarded by the California PUC both on common equity and overall return to rate base to several large California water utilities which are potential purchasers of small water systems in the state. As shown, equity returns for five of the large utilities for 2018 average at a level of 9.20 percent. In order to provide these levels of return to shareholders through financial leverage, it is estimated by the PUC staff that the overall rate of return would vary between about 7.5 to 9.1 percent, with an average overall rate of return of about 8.0 percent. For the capitalization analysis performed in this report for large Class A utilities, it is assumed an overall prospective rate of return of 7.7 percent is appropriate.

TABLE 3							
RECENT PUC AUTHORIZED RATES OF RETURN FOR MAJOR CALIFORNIA WATER UTILITIES							
Utility	S & P Bond Rating	Return on Rate Base	Return on Common Eq.				
California American Water Co.	NA	7.61%	9.20%				
California Water Service Co.	AA-	7.48%	9.20%				
San Jose Water Works	NA	7.64%	8.90%				
Golden State Water Co.	A+	7.91%	8.90%				
Great Oaks Water Company		9.10%	9.79%				
Average		7.97%	9.20%				

For a Class B buyer, the prospective overall rate of return, based on recent rate cases averages 10.07 percent with a range of from 10.06 to 11.06 percent. For a potential purchaser of this size, it is deemed reasonable to use a capitalization rate of return of 10.10 percent. For a Class C buyer, or a small investor buying the WSMWC as a standalone system retaining the Class D status, the anticipated rate of return to rate base ranges from 10.56 to 11.56 percent. It is considered reasonable to estimate a rate of return to rate base of 11.00 required for a Class D owner.

WSMWC is a Class D utility with the last general rate case occurring in 2012 when an ROM (Return on Margin- a return to the total of operating expenses, depreciation and taxes other than income) was authorized of 24.89 percent, the PUC staff recommended level for a Class D utility setting rates based on this approach. In view of the low rate base in the 2012 rate proceeding, WSMWC was authorized an alternative rate increase according to PUC policy based on a return to margin. The PUC is mandated to adopt whichever approach, return of rate base or ROM produces the greater net income. For 2018, the prospective ROM for a Class D system is 24.00 percent.

PROJECTED EARNINGS AND IMPUTED RATE BASE

For a utility such as WSMWC having a low rate base, and eligible for net income based on a ROM, net revenues can be capitalized using an appropriate rate of return to rate base to derive an imputed rate base. In order to make this calculation, projected net income based on a forthcoming rate proceeding by either the buyer or seller needs to first be estimated based on recent utility operating experience. Attachment B contains estimated total expenses of operating expenses, taxes other than income and depreciation based on the last three years of PUC annual reports. The estimated projected total of \$436,831 can then be multiplied by the recommended ROM of 24.00 percent to yield an expected net revenue of \$104,839. Capitalizing this revenue stream by 11.00 percent indicates an imputed rate base as a Class D utility of \$953,082.

CAPITALIZED EARNINGS VALUE

It is my opinion that the anticipated rate of return which would be expected to be allowed by the PUC on a comparable Class D utility investment is a reasonable rate at which to capitalize earnings. At an 11.00 percent rate of return on the potential revenue stream anticipated as developed through an ROM approach above by a small buyer of the WSMWC system, the earnings that would be about \$104,800 per year. Capitalization of this amount at a capitalization rate of 11.0 percent would indicate a potential sales price of approximately \$953,000. Consequently, the capitalization of earnings approach for a small buyer retaining the status of a Class D utility indicates a potential price for the WSMWC system essentially equivalent to the anticipated imputed rate base component of the facilities being valued, or \$953,000.

For a Class B buyer, anticipating a rate of return of 10.1 percent, assuming no rate increase over a Class D utility operation, the capitalized earnings value would increase to about \$1,038,000. Finally, if a Class A utility purchaser acquired WSMWC requiring a 7.7 rate of return, and keeping the prospective revenues at the same level, the capitalized earnings level would be approximately \$1,361,500. However, if the Class A utility buyer required a rate

of return of 9.0 percent this amount would decrease to \$1,164,000. It should be pointed out that in the alternative case of either a Class A or B buyer acquiring WSMWC, both have the ability to potentially escalate the rate base by paying a greater amount than the current rate base as indicated above in Table 1. However, a Class D or C buyer do not have this regulatory ability and could only pay an amount greater than the current rate base by acquiring the stock of the utility rather than the assets alone.

COMPARABLE SALES

A comparable sale is a sale of property, the price of which will shed light on the value of the property being appraised. Based on my many decades of knowledge and experience gained in appraising water utility facilities, it can be stated generally that market sales of water systems follow the same economic principles of supply and demand as other market transactions and provide a basis for making a prediction of the fair market value of water system facilities being valued. In appraisal practice there are several characteristics of a transaction which are typically considered in evaluating whether a transaction is a "comparable sale".

CHARACTERISTICS OF COMPARABLE SALES

Among the characteristics considered for selecting comparable sales are:

- The character and use of the property in relation to that being appraised;
- The size of the property involved in the particular transaction in relation to the size of that being appraised;
- The geographic proximity of the property to that being appraised; and
- The date of the transaction in relation to the date of value for the property being appraised.

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All of the sales that I consider as being comparable are sales of water system facilities which following sale were under the regulatory jurisdiction of the PUC. All of the utility properties sold deliver water for domestic and associated commercial use through distribution systems consisting of pipelines and appurtenant equipment. After sale, the facilities were all governed by the <u>rules of the PUC</u>. Most importantly, the rate setting procedures and the determination of return on invested capital would be similar for all of these properties for the purchasers. Consequently, I concluded that for all of the sales I have considered, the character and use of the property following sale are sufficiently similar to that of the property being appraised that the sales can be considered as comparable.

From the standpoint of size, adjustments have been made for the differences between various sales by expressing the sales price as a percentage of rate base, rather than making a comparison of actual dollar amounts paid. Further, only sales of facilities having rate bases of sufficient magnitude, but not excessively large, were considered. For this appraisal, a sale range was considered for utilities having rate bases in the range of approximately \$216,000 to \$962,000. The same buyers involved in the sales utilized as comparable are also likely purchasers of WSMWC. Hence, it is considered that from the standpoint of size, the sales I have utilized are comparable.

All of the comparable sales considered are utilities within the State of California and following sale were under the regulatory jurisdiction of the PUC. The PUC utilizes the same procedures and criteria for setting rates and for determination of allowable rates of return throughout the state. Accordingly, any sale taking place within the State of California can be considered as sufficiently close in location to the property being valued to be a comparable sale.

The other characteristic to be considered is the time when a sale took place in relation to the date of value applicable to this analysis. In order to sufficiently analyze the utility market for system facilities of comparable size, I have reviewed sales occurring from 2013 through the date of this report. However, the price paid for a system was not used directly in this approach to value, but rather a review of the price paid as a percentage of the rate base was used to

determine value. Therefore, I consider that the earlier sales are sufficiently close in time to the date of value of this analysis to provide meaningful data for comparison purposes. Before analyzing comparable sales it is necessary first to derive a potential rate base for the WSMWC system which is utilized as a comparable sale parameter.

PUBLIC WATER SYSTEM INVESTMENT AND CONSOLIDATION ACT OF 1997 (SB 1268)

In 1997, the Public Water System Investment and Consolidation Act (Act) was signed into law. There are three major elements to this legislation, only one of which is pertinent to this study. That element addresses sales of water utility property to regulated buyers of water systems and the associated recognition of rate base by the PUC. This appraisal study takes into account the results of this legislation, as discussed below.

COMPARABLE UTILITY SALES

The specific utility sales considered in this analysis are those meeting the following criteria (in addition to the earlier criteria stated):

- Sales representing arm's length transactions;
- Sales which were limited to utility property (i.e., the sale did not include significant other non-utility property);
- Sales which did not involve any other special circumstances which would cast a doubt on their validity as an indication of what would happen in a normal market transaction;
- Sales of complete water systems (either a complete water company or a separate operating system of a company).

UTILITY SALES TO REGULATED BUYERS

As shown in Table 2, my research reveals that there have been five California water utility sales to regulated purchasers since 2013 sufficiently large enough

to be comparable to the WSMWC system, i.e., systems with a rate base range under the seller's ownership of about \$216,000 to \$962,000, but not excessively large (for comparison, the prospective rate base for WSMWC as shown above is about \$216,600 and the imputed rate base derived by capitalizing the net income through the ROM approach is about \$953,000.

In addition, there is one sale to a non-regulated purchaser with a comparable rate base. Purchase price premiums paid over the prospective rate base component of facilities transferred have ranged from 5 to 253 percent. The last sale (Rio Plaza) is still pending approval by the PUC.

TABLE 2								
SUMMARY OF DATA ON SALES OF CALIFORNIA WATER SYSTEMS								
System	Purchaser	Year	Rate Base Component of Facilities Transferred	Purchase Price	Percent Premium			
SALES TO REGULATED	BUYERS AND NO	ON-REGU	LATED BUYER					
Rural Water Company	Golden State Water Co.	2013	590,000	1,700,000	188			
Traver Water Company	Del Oro Water Co.	2015	216,000	250,000	16			
Geyserville Water Works	Cal-Am Water Co.	2015	962,000	1,415,000	47			
Benbow Water Company	Del Oro Water Co.	2016	565,000	591,000	5			
Rio Plaza Water Company	Cal-Am Water Co.	2016	509,000 (a)	1,796,000	253			
Trinity Village Water Company	Trinity Village Mutual WC	2015	239,000(a)	250,000	5			

(a) Imputed rate base from 2017 test year and income based on rate of margin.

The first sale in Table 2 is the transfer of the assets of Rural Water Company (Rural) to Golden State Water Company (GSWC), a subsidiary of American States Water Company, executed on June 12, 2013. The application for PUC approval was filed on October 10, 2013; followed by a settlement agreement in July 2014. The PUC approved the settlement agreement and sale in 2016 (D.15-06-049). The settlement agreement was uncontested. Rural Water Company serves about 950 customers in, or near Arroyo Grande, San Luis Obispo County. Annual revenues are about \$917,000. Rural also included a sewer utility serving the same customers. The sale did not include the sewer utility. GSWC is the second largest regulated water utility in California, and the third largest in the U.S. by market capitalization. GSWC proposed to add Rural to its Santa Maria service area, composed of five non-contiguous systems, the nearest of which is only six miles away. Service includes customers located in all or portions of the cities of Santa Maria and San Luis Obispo, or in the wider areas of Santa Barbara and San Luis Obispo counties. This service area serves about 13,500 customers before combining with Rural. The seller of Rural was Charles Baker, the sole stockholder who had been operating the system since 1988. On account of his age (80s) and health, he made the decision to sell the system.

The system has 11 active wells with a combined capacity of 1,318 gpm, 5 storage tanks with a combined storage capacity of 1.2 million gallons, and in excess of 66,000 feet of distribution mains. Most of the facilities were constructed after 1983. An RCNLD appraisal, performed by Kennedy Jenks, indicated a value of about \$25 million. Rural's water quality is reportedly meeting standards.

The purchase price was \$1.7 million cash. GSWC proposed to add \$375,000 of the purchase price to the utility's general office rate base (with the rate of return and depreciation revenue requirements allocated to all service areas of the company- the general office allocation was to be depreciated over 8 years). The remaining purchase price of \$1,325,000 was proposed to be added to the Santa Maria service area rate base. Initial rates were the existing Rural rates until new rates were adopted for the Santa Maria service area (with a rate case current and ongoing). The estimate of rate base for Rural in the application for sale approval was approximately \$590,000 indicating a sales price premium of about

\$1,110,000 or 188 percent. One consideration which makes this sale different from most is the amount of contributed facilities. Rural had an estimated \$2.3 million of CIAC which, as stated below, the PUC indicated may be compensated in whole or part in a proposed sale on a case by case basis.

Monthly customer rates for the Santa Maria district are about 35 percent higher than Rural's, but the latter's volumetric rates are greater by 10 to 15 percent. For a customer with a minimum 5/8-inch meter and 20 ccf (hundred cubic feet) usage, rates are close to unchanged (\$52.49 for a Rural customer, versus \$53.05 for a GSWC customer, a difference of only about 1 percent, with GSWC rates pending adoption in the ongoing rate case). Customers with lower usage would see higher bills; customers with higher usage would see lower bills. The active rate case was also targeting higher rates for 2017 and 2018 by 4.2 and 4.0 percent respectively.

In the settlement agreement between the state's utilities and the PUC following the passage of SB 1268 in 1998 regarding how to handle future proposed sales, the PUC stated it would consider inclusion of CIAC as compensable property on a case by case basis (that is, allow the price paid for such purchased contributed facilities to be included in the buyer's rate base). This is the first sale approval I can recall since that time where the PUC cited CIAC as a justification for approving such a high sale premium. In the most recent sale proceedings, the PUC appears to have become much more aggressive and creative in approving proposed sales in order to accomplish consolidation of the smaller water companies into the ownership of the largest Class A utilities in accordance the PUC's 2010 Water Action Plan.

The next sale to a regulated purchaser in Table 2 is the 2015 transfer of Traver Water System to Del Oro Water Company (a Class B utility) for an amount of \$250,000 which includes a 16 percent premium on rate base. This system served approximately 180 flat rate customers at the time of sale and is located in the community of Traver, Tulare County, about 30 miles southwest of Fresno. The source of supply is entirely from groundwater produced through two active wells. The SWRCB in an operating permit transfer request determined the

system had an adequate and safe source capacity, and met state waterworks standards.

In August 2015, California American Water Company (Cal-Am) filed an application (A.15-08-024) with the PUC to acquire the Geyserville Water Works (GWW) in accordance with a sales agreement dated June 16, 2015. Cal-Am is one of the state's largest water utilities serving approximately 630,000 people in 50 communities. GWW serves only about 318 connections, mostly residential, in the community of Geyserville, which is located about 20 miles north of Santa Rosa along the Russian River. The system has three wells and about 31,000 feet of distribution mains.

The purchase price was \$1,415,210 which represented a \$453,000 or 47% premium over the rate base of \$962,210 (from a May 2015 rate increase resolution adopting a rate base of \$902,303; plus \$59,907 of capital investment since the resolution to the sales agreement). Sale consideration was paid in shares of American Water Works common stock. The sellers were Harry and Karen Bosworth, stating their reason for selling was retirement. The RCNLD appraisal submitted, exclusive of contributed facilities, was \$2,108,283. Cal-Am proposed to operate this system as part of its Larkfield District, 18 miles away close to Santa Rosa.

Based on a submitted settlement agreement between the parties and the PUC staff, rate consolidation was accomplished by adding the system and facilities to its Sacramento District with its 58,000 customers, 120 miles away. Rates for Geyserville customers remained the same as recently adopted until the next 2018 rate case for Sacramento when rate consolidation would occur. Currently, Sacramento customers pay about \$56.25 per month (for an average use of 11,969 gallons) compared to \$64.89 for Geyserville customers. Therefore, following the sale, Geyserville ratepayers would see a rate decrease of about 13.3%. There was no public opposition to the sale, nor did any public agency come forward to either protest or offer an alternative purchase. The PUC approved the proposed sale and settlement agreement in Decision D.16-11-014, issued at the end of 2016.

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The next sale to a regulated buyer in Table 2 is the 2016 sale of Benbow Water Company to Del Oro Water Company. This service area is located just south of Garberville, Humboldt County, and contains about 134 metered customers. Treated surface water is delivered from the Eel River. The seller's estimated potential rate base at the time of the sale was approximately \$565,000. The purchase price was \$591,586 indicating an approximate 5 percent sale premium over the potential rate base. Del Oro, a Class B utility, is very active in the acquisition of smaller water companies. Sale documents indicate the Benbow system complied with PUC minimum design and construction standards (General Order No. 103). The PUC approved the sale in May 2017 (D.17-05-003). Rates were unchanged until the next rate case for the buyer.

The last sale presented in Table 2 to regulated purchasers is the 2016 Cal-Am acquisition of the stock of Rio Plaza Water Company in Ventura County, northeast of the City of Oxnard. The sole owner wished to sell the system on account of age and his desire to retire. This system serves approximately 520 metered connections including seven commercial or institutional customers and the remainder residential. The system relies on two groundwater wells, one booster pump station, two reservoirs and about 20,725 feet of distribution mains, primarily 4- to 10-inch diameter asbestos cement. It is believed the system was constructed between 1956 and 1961. The system is in compliance with drinking water standards and has adequate source capacity to serve its customer base. The buyer also owns a large system serving the City of Thousand Oaks located about 20 miles away. Cal-Am is proposing to pay \$1.75 million plus assumption of about \$100,000 for this system to be operated as a standalone rate district. The current rates are based on a return to margin basis as the existing rate base is on the order of \$431,000. Imputing a comparable rate base based on the recently authorized projected net income and recommended average rate of return for Class C utilities in 2017 of 10.5 percent results in an amount of \$509,000. Accordingly, Cal-Am is proposing to acquire this system for a rate base premium of about 253 percent. The claimed submitted RCNLD for this system is \$2,562,401 of which \$1,155,000 is attributed to water rights in an adjudicated groundwater basin.

It should also be noted that a review was made of the pending sale of Mesa Crest Water Company, located in La Canada, Los Angles County, to Liberty Utilities (Park Water Company). However, this sale violates the definition of fair market value in that the seller is under a PUC directive to sell the system to a larger Class A utility as a settlement to a regulatory proceeding investigating the financial and operating practices of the current owners. This investigation was brought by the PUC Consumer Protection and Enforcement Division. The owners were also under a PUC directive to show cause why the Commission should not petition the state Superior Court to appoint a receiver for Mesa-Crest. Clearly, the seller is under a compulsion to sell which the fair market value definition requires the seller not to be. Also, as a part of this appraisal, reviews was made of the pending acquisitions of Fruitridge Vista Water Company in Sacramento, Hillview Water Company in Madera County and and the recently approved sale of Meadowbrook Water Company in Merced County all by Cal-American Water Company. However, these proposed acquisitions, ranging in size from 1,200 to over 4,000 connections, with each having RCNLD amounts in excess of \$20 million are considered to be too large to include in the comparable sales group.

UTILITY SALES TO NON-REGULATED BUYER

The only recent comparable water system sale to a non-regulated buyer shown in Table 2 was the 2015 sale of Trinity Village Water Company to the Trinity Village Mutual Water Company (TVMWC). This system provides service to approximately 191 customers in the community of Salyer, located near Willow Creek, Trinity County. Treated surface water is delivered to customers in two pressure zones. System facilities include two storage tanks totaling 240,000 gallons plus an unstated amount of pipeline footage. In a 2014 rate case proceeding it was reported by customers that service was very good and recent improvements had been made. It was also noted that there were no outstanding compliance orders and water quality met the required state standards. The rate increase resolution authorized a projected net revenue target of \$28,175 designed to return a rate of margin of 20.91 percent on operating costs (including taxes and depreciation). This approach was necessary in view of the very low depreciated rate base (the system recently had almost \$2 million of improvements from State Proposition 50 funding which is not included in rate base). The sale agreement indicated the purchase price paid by the TVMWD was \$250,000. The imputed rate base derived from the targeted net revenue and 2014 Class D range in staff recommended rates of return (10.8 to 11.8 percent) indicated a range of \$238,800 to \$260,900. Accordingly, the premium of sale price over rate base ranged from approximately a (4) percent discount to a 5 percent premium. This appraisal considers a 5 percent premium was paid for this system.

No other comparable sales to non-regulated buyers meeting the definition of fair market value were identified. Also, there are currently no likely potential non-regulated buyers of the WSMWC system. However, any such sale which might occur to a public agency buyer in the near future would most likely take place at a price very close to the one reached by considering the market sales for regulated buyers.

ANALYSIS OF MARKET SALES

Each of the sales in Table 2 was reviewed regarding system condition, service problems, service area growth potential, sale price and terms, and other factors and circumstances.

Prior to the passage of SB 1268 in 1997 (the Act, referenced above), sales of utility properties subject to regulatory jurisdiction could be expected to take place at prices close to or at a moderate premium over the rate base of the subject utility system. As a matter of prior PUC policy, the amount paid in excess of the derived rate base from historical investment was not allowed to be accounted for in the rate base established by the new owner. The sale of a utility could be expected to be at a premium when the system was in very good condition, had good growth potential in the service area, and a strong anticipation by the purchaser of earnings stability and growth. Conversely, a utility without these characteristics could be expected to sell at a price very close to historic rate base. This historic regulatory policy was changed by SB 1268 which required the PUC to henceforth recognize the sale price as the fair market value paid for a utility up to RCNLD as the succeeding rate base.

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However, in the cases of asset acquisition (as opposed to stock acquisition), escalation of the rate base is only available to larger Class A or B water utilities capable of demonstrating economies of scale and ratepayer benefits resulting from the smaller system transfer. The PUC retains the authority to deny any proposed sale which is devoid of benefits and results in significant rate increases.

The above discussed sales to Class A utility buyers are examples of large regulated utilities paying significant premiums over net book value (47 to 253 percent) and having the premiums subsequently recognized by the PUC in the rate base following acquisition. However, as indicated above, the legislation continued to authorize the PUC to have powers of disapproval over any sale not in the public interest (which did occur in the proposed purchase of Peerless Water Company by Southern California Water Company disapproved by the PUC). Recent PUC decisions have put buyers and sellers on notice that sales with significant potential rate increases would not be acceptable.

All of the selected comparable sales support the results of the capitalized earnings analysis. Taken into account in forming an opinion of value based on these sales is not only the premium percentages paid, but also the dollar premium amounts. Both the Rural and Rio Plaza systems were acquired by dollar premiums above rate base exceeding \$1,000,000. It is also considered that the Geyserville system sale at \$1,415,000 is very supportive of the capitalized earnings value for WSMWC at \$1,361,500 with similar system rate bases (Geyserville at \$962,000 and WSMWC at \$953,000 for an imputed rate base), number of connections (318 for the former, and 305 for the latter) and distance from a large system operator with both less than about 30 miles.

Based on the above discussion, it is my opinion that the fair market value of the WSMWC system, as indicated by market sales and limited by the capitalized earnings approach, if acquired by a Class A utility would be \$1,360,000 representing a premium of about 43 percent over the imputed prospective rate base. For a Class B buyer, a sale premium might be expected on the order of 10 percent resulting in a price of approximately \$1,050,000. For a non-regulated buyer, such as a mutual water company formed by the ratepayers, a

prospective sale price is estimated to be \$1,000,000 or approximately 5 percent over rate base, as indicated by the single comparable sale available for analysis.

REPRODUCTION COST NEW LESS DEPRECIATION

The reproduction cost new less depreciation (RCNLD) method of valuation, also known as the cost approach, is based on an estimate of the current cost of construction for the physical facilities of the water system, less the estimated actual depreciation to account for the facilities being less than new. Additionally, separate amounts are added for the current market value of other assets such as land and intangible plant.

The costs of reproducing the WSMWC water system facilities were estimated at price levels that prevailed at the end of 2017. Estimates of reproduction cost new (RCN) were made by utilizing the Handy-Whitman Cost Index for water utility system construction to escalate original costs of facilities as reported in company records. In the case of general plant accounts (office furniture and equipment, transportation assets and similar assets) escalation was undertaken by the use of the Consumer Price Indexes. The amount of accrued depreciation was estimated for all assets by the straight-line method. Expected original and remaining service lives were based on judgment, giving consideration to data from several sources (including company estimates, PUC guidelines and experience gained by me in conducting numerous RCNLD studies). Finally, it should be noted that a reconciliation adjustment was added to account for total asset values between those reported in the 2017 annual report and those derived by evaluating annual changes in asset accounts since 1949.

In accordance with this approach, the current market values of other noninfrastructure assets such as land are normally added to the facilities' depreciated reproduction cost. At this time, separate land appraisal of parcels owned by WSMWC were not conducted in view of the need to retain a separate local land appraiser, the small contributed value to the overall RCNLD from land assets, and the fact that a slightly higher RCNLD than shown below would not change the opinion of fair market value of the entire system expressed in

this report. However, in order to recognize the increase in value of such other assets, both land and intangible assets were escalated by the consumer price index as an approximate estimate of current reproduction value.

The results of the RCNLD analysis are summarized in the following Table 4. As shown, the RCNLD of the WSMWC system facilities is about \$3,144,000. The estimate of RCNLD was considered but given less weight in forming the opinion of fair market value. A knowledgeable buyer of these facilities would recognize that earnings would be controlled by the PUC at a level which would represent a fair rate of return on the market value paid by the purchaser for the system, and that neither the PUC nor the ratepayers would allow it sufficient earnings to justify a price approaching RCNLD as indicated by the capitalized earnings analysis. Additionally, the comparable sales analysis did not support the proposition that a regulated buyer would pay RCNLD for this system.

TABLE 4

ESTIMATE OF REPRODUCTION COST NEW LESS DEPRECIATION FOR WSMWC WATER SYSTEM FACILITIES AS OF DECEMBER 31, 2017

Description	RCN	Depreciation	RCNLD
		I	
Intangible Plant	\$11,702	0	\$11,702
Land	,039, 11	0	11,039
Structures	14,130	4,608	9,522
Wells	228,147	65,364	162,783
Pumping Equipment	376,516	220,358	156,158
Water Treatment Plant	1,931	579	1,352
Reservoirs	1,496,992	549,328	947,669
Pipelines	3,357,698	1,758,214	1,599,484
Services	109,210	45,623	63,587
Meters	141,146	81,981	59,165
Hydrants	56,719	11,732	44,987
Other Equipment	85,967	16,957	69,010
Furniture and Office Equip	15,583	12,437	3,146
Transportation Equipment	13,982	<u>9,152</u>	<u>4,830</u>
TOTALS	\$5,920,762	\$2,776,328	\$3,144,434

OPINION OF VALUE

In arriving at an opinion of value, I used or considered the traditional approaches to value: the earnings approach, the market approach, and the cost approach. Under the earnings approach, the prospective future stream of earnings was capitalized at a rate consistent with the rate of return available on other comparable investments. Under the market approach, an investigation was made of the sales of other properties similar to that being valued and the results were extrapolated to the subject property. Under the cost approach, consideration was made of the cost of reproducing the property, with suitable adjustment for depreciation to reflect that the property being valued is not new. I looked at all of these measures of value and took into account special circumstances concerning this system which might have an influence on value (including service area characteristics, service problems, system condition and design, general economic conditions, statutes of regulatory proceedings, and ratepayer satisfaction with current service). On the basis of this information and my experience and knowledge, I then, by judgement, formed an opinion as to the fair market value.

Therefore, based on the above-described investigation, it is my opinion that the fair market value of the water system facilities of the WSMWC water system, including land, intangible assets, operating rights, going concern value, and water system materials and supplies as of December 31, 2017 is \$1,360,000 if sold to a Class A utility buyer. However, if such a buyer cannot be found, a Class B utility purchaser would likely pay on the order of \$1,050,000; a non-regulated purchaser such as a mutual water company on the order of \$1,000,000 (although a large non-regulated buyer such as the City of Morgan Hill would likely compete with an offer from a Class A buyer); and an investor continuing to operate the system as a Class D utility would likely pay about \$950,000 for the stock (without taking into account the net assets or liabilities attached to that stock which could require a price adjustment).

Please call me to discuss any of the details in this analysis or answer any other questions of concerns you might have.

Yours very truly,

DRAFT

Harold V. Morgan, P.E.
MDR Response Attachment 20

California American Water Advice Letter Notice

Para más información en cómo este cambio impactará su factura, llame al 916-568-4237.

NOTICE OF ADVICE LETTER FILING 1416 Filing to Acquire West San Martin Water Works, Inc. ADVICE LETTER AL1416

Why am I receiving this notice?

On July XX, 2023, California American Water submitted Advice Letter 1416 to the California Public Utilities Commission ("CPUC"). Approval of this Advice Letter is eventually expected to impact your bill.

What California American Water requests?

- Advice Letter 1416 asks the CPUC to approve California American Water's acquisition of West San Martin Water Works, Inc.'s ("West San Martin Water") potable water distribution system and service of West San Martin's customers. West San Martin Water is in southern Santa Clara County.
- The acquisition would add approximately 309 customer connections to California American Water's existing connections and is expected to create greater economies of scale and synergies, benefiting both existing California American Water customers and West San Martin customers.

How could this affect my water bill?

Neither California American Water nor West San Martin Water customers are expected to see any rate or bill impacts related to the acquisition until 2027. California American Water has requested a portion of the purchase price for West San Martin's system be included in its General Office costs and recovered from all of its customers statewide. As described below, if approved, this would be expected to result in an approximately 0.064% cost of service increase to all California American Water customers. California American Water would address consolidation of West San Martin customers for ratemaking purposes in a future general rate case. ("GRC"). California American Water expects to file its next GRC in 2025, for rates to take effect in 2027. You will receive notice of the GRC proceedings.

If California American Water's pending advice letter request is approved by the CPUC, the average residential bill with a 5/8" meter with average residential usage (CGL) would be expected to increase by up to \$0.09 or 0.064% per month based on the purchase price.

COMPARISON OF TOTAL RESIDENTIAL BILL PER CUSTOMER PER MONTH							
BASED ON CURRENT AUTHORIZED RATES							
District	Avg Res Usage (CGL) ⁽¹⁾	Pre- Acquisition Total Bill ⁽²⁾	Post- Acquisition Forecasted Total Bill	\$ Increase	% Increase		
Sacramento	78.30	\$65.10	\$65.14	\$0.04	0.064%		
Fruitridge	78.30	\$70.90	\$70.95	\$0.05	0.064%		
Larkfield	60.47	\$81.40	\$81.45	\$0.05	0.064%		
Dunnigan WW	N/A	\$41.96	\$41.98	\$0.03	0.064%		
Meadowbrook	120.94	\$61.38	\$61.42	\$0.04	0.064%		

Monterey	34.83	\$117.48	\$117.56	\$0.07	0.064%
Central Satellites	82.91	\$121.20	\$121.28	\$0.08	0.064%
Chualar	117.19	\$45.52	\$45.55	\$0.03	0.064%
Monterey Wastewater - Active	N/A	\$146.16	\$146.26	\$0.09	0.064%
Monterey Wastewater - Passive	N/A	\$93.15	\$93.21	\$0.06	0.064%
Ventura	92.68	\$100.96	\$101.03	\$0.06	0.064%
LA - Duarte	106.69	\$98.92	\$98.98	\$0.06	0.064%
LA - Baldwin Hills	89.06	\$87.79	\$87.84	\$0.06	0.064%
LA - San Marino	121.95	\$113.28	\$113.35	\$0.07	0.064%
San Diego	56.70	\$78.91	\$78.96	\$0.05	0.064%
West San Martin	113.56	\$72.44	\$72.49	\$0.05	0.064%

(1) Residential usage per customer per month from A.22-07-001

(2) Total Bill based on Rates from AL 1404 & AL1406

(3) Bill impacts are presented as monthly comparison; however, flat rate residential customers are billed on a semi-annual basis. Applicable surcharges are estimated based on location.

How does the rest of this process work?

This Advice Letter will be reviewed by staff in the Water Division of the CPUC who will determine if the request is reasonable and determine if modifications are necessary.

Protests and Responses to Advice Letter #1416

The deadline to protest this advice letter is September 29, 2023. Please include "Advice Letter #1416" in any response or protest you submit.

The reasons for the protest can be one of the following:

- (1) The utility did not properly serve or give notice of the advice letter;
- (2) The relief requested in the advice letter would violate statute or CPUC order, or is not authorized by statute or CPUC order on which the utility relies;
- (3) The analysis, calculations, or data in the advice letter contain material error or omissions;
- (4) The relief requested in the advice letter is pending before the CPUC in a formal proceeding;
- (5) The relief requested in the advice letter requires consideration in a formal hearing, or is otherwise inappropriate for the advice letter process; or

(6) The relief requested in the advice letter is unjust, unreasonable, or discriminatory (provided that such a protest may not be made where it would require re-litigating a prior order of the CPUC).

If you would like to submit a protest or response about this advice letter, please write to:

California Public Utilities Commission Water Division, 3rd Floor 505 Van Ness Avenue, San Francisco, CA 94102 Email: **Water.Division@cpuc.ca.gov**

On the same date the response or protest is submitted to the Water Division, the respondent or protestant shall send a copy by mail (or e-mail) to [Utility] at the following address:

Email Address:	Mailing Address:
leana.ramirez@amwater.com	520 Capital Mall, Suite 630 Sacramento, CA 95814
sarah.leeper@amwater.com	555 Montgomery Street, Suite 816 San Francisco, CA 94111
<u>ca.rates@amwater.com</u>	520 Capital Mall, Suite 630 Sacramento, CA 95814

Where can I get more information?

Customers with internet access may view and download California American Water's advice letter on California American Water's website by visiting <u>www.amwater.com</u>. If you have technical issues accessing the documents through the website, please e-mail <u>leana.ramirez@amwater.com</u> for assistance and reference Advice Letter #1416 in your e-mail.

To request a hard copy of California American Water's Advice Letter, or to obtain more information about the Advice Letter from California American Water, please write to:

California American Water Advice Letter #1416 520 Capital Mall, Suite 630 Attention: Leana Ramirez leana.ramirez@amwater.com

MDR Response Attachment 26 (CONFIDENTIAL)

OMITTED