Docket	:	A.25-07-003
Exhibit Number	:	Cal Adv - #
Commissioner	:	Matthew Baker
Administrative Law Judge	:	Rafael Lirag
Public Advocates Office Witness(es)	:	Daphne Goldberg

PUBLIC ADVOCATES OFFICE
CALIFORNIA PUBLIC UTILITIES COMMISSION

REPORT ON THE CENTRAL DIVISION PLANT AND TANK PAINTING

California American Water Company's
General Rate Case Application 25-07-003
Test Year 2027

San Francisco, California
January 23, 2026

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MEMORANDUM

The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) examined application material, data request responses, and other information presented by California American Water Company (Cal Am) in Application (A.) 25-07-003 to provide the California Public Utilities Commission ("Commission" or "CPUC") with recommendations in the interest of ratepayers for safe and reliable service at the lowest cost. Mr. Brian Yu is Cal Advocates' project lead for this proceeding. This Report is prepared by Mrs. Daphne Goldberg. Mr. Mukunda Dawadi is the oversight supervisor. Mr. Niki Bawa and Ms. Ritta Merza are the legal counsel.

Although every effort was made to comprehensively review, analyze, and provide the Commission with recommendations on each ratemaking and policy aspect presented in the Application, the absence of any particular issue from Cal Advocates' testimony connotes neither agreement nor disagreement with the underlying request, methodology, or policy position related to that issue.

Chapter #	Description	Witness
1	Central Division Plant	Daphne Goldberg
2	Tank Painting	Daphne Goldberg

CHAPTER 1 Central Division Plant

I. INTRODUCTION

This chapter addresses Cal Am's Central Division's plant project budget requests including repeated requests for ratepayer funding of incomplete projects previously authorized in prior General Rate Cases (GRC),[1] as well as excessive and premature budgets for certain projects. Cal Advocates reviewed Cal Am's minimum data requirements, application, testimony, workpapers, project cost estimates, Comprehensive Planning Study, and Cal Am's responses to Cal Advocates' data requests.[2]

Cal Am's Central Division includes the following systems: Monterey Main, Bishop, Ryan Ranch, Hidden Hills, Toro, Ambler Park, Chualar, Garrapata, Ralph Lane, and the newly acquired West San Martin and Corral de Tierra.[3] The Monterey systems, with the exception of the West San Martin system, are supplied by wells pumping from the Carmel Valley aquifers near the Carmel River, Seaside Groundwater Basin groundwater wells[4], Aquifer Storage and Recovery, Sand City desalination plant, and Pure Water Monterey supply.[5] Cal Am's newly acquired West San Martin system is supplied by groundwater wells.[6,7] Cal Am's newly acquired Corral de Tierra system will

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[1] *Application of California-American Water Company (U210W) to Increase Revenue in Each of its Districts Statewide*, July 1, 2025 (Application), Minimum Data Requirements II.D.5. – Plant Improvements Authorized But Not Built, Exhibit B, Part 1 of 3 (MDR Sections A-F) and *Application of California-American Water Company (U210W) to Increase Revenues in Each of its Districts Statewide*, Direct Testimony of Lacy Carothers at 82-104.

[2] Cal Advocates also conducted a field investigation of Cal Am's Central Division systems on August 18-19, 2025

[3] *Application of California-American Water Company (U210W) to Increase Revenues in Each of its Districts Statewide*, Direct Testimony of Gary Hofer at 7.

[4] Direct Testimony of Gary Hofer at 7.

[5] Direct Testimony of Gary Hofer at 9-10.

[6] The West San Martin system has 320 metered connections and is located in Santa Clara County. *See* Resolution (Res.) W-5280, *Order Authorizing California-American Water Company to Acquire West San Martin Water Works,* January 16, 2025. *See also* Direct Testimony of Gary Hofer at 66.

[7] Direct Testimony of Gary Hofer at 66.

be supplied by Toro system water.[8] Cal Am's Central Division also includes eight wastewater systems.[9]

II. SUMMARY OF RECOMMENDATIONS

The Commission should make the following project budget adjustments for Cal Am's Central Division:

- Reject Cal Am's requested additional budgets of $12,434,175 in 2027 and $100,000 in 2028 for carryover projects.
- Reject Cal Am's request to include, in the 2027 rate base, two Per- and Polyfluoroalkyl Substances (PFAS) treatment facilities[10] in its West San Martin system with budget amounts of $921,000 in 2025 and $2,763,000 in 2026.[11]
- Reject Cal Am's request to include, in the 2027 rate base, the newly purchased office building amounts of $6,906,148 in 2025 and $2,884,262 in 2026.[12]
- Reject Cal Am's request to include, in the 2027 rate base, costs for installation of battery energy storage systems in the amount of $921,000 in 2025 and 921,000 in 2026.[13]

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[8] The Corral de Tierra system has 15 connections. Resolution W-5280; Direct Testimony of Gary Hofer at 67.

[9] Direct Testimony of Gary Hofer at 7.

[10] *Application of California-American Water Company (U210W) to Increase Revenues in Each of its Districts Statewide*, Cal Am Engineering Workpaper, I15-470001 at 3.

[11] *Application of California-American Water Company (U210W) to Increase Revenues in Each of its Districts Statewide*, Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[12] Cal Am's 2027 plant budget should be reduced by a total of $9,790,410 ($6,906,148+ $2,884,262) to account for the Central District Office. *See* Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[13] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

- Reduce Cal Am's 2028 budget request to $1,340,000 (from 4,340,000)[14] for its 2027-2029 Well Installation and Replacement program.
- Reject Cal Am's request of $151,000 in 2027[15] and 151,000 in 2028[16] to replace the existing Carmel Valley Road Transmission Mains (24"-30" diameter) with smaller diameter mains (18" diameter)[17] to address stagnant water, water quality issues, and low chlorine residual.
- Reduce Cal Am's budget request for its Main Replacement Program to $3,445,198 in 2027 and $3,445,198[18] in 2028 (from $6,647,000 in 2027 and $11,223,000 in 2028[19]).
- Reject Cal Am's budget request of $74,000 in 2027 and $804,000 in 2028 for its Standby Generator Improvement Program[20] because it would not be a prudent investment.
- Reject Cal Am's request to include, in the 2027 rate base, a budget of $350,000 in 2025 for a study on the feasibility of replacing the Begonia Iron Removal Plant (BIRP).[21]
- Reduce Cal Am's request for its SCADA improvements budget to $37,090 in 2027 and $37,090 in 2028.
- Reduce Cal Am's request for Hydrants, Valves, and Manholes Replaced projects to $180,258 in 2027 and $180,258 in 2028.

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[14] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[15] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[16] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[17] The total project cost is $32,718,400. *See* Cal Am Engineering Workpaper, I15-400179 at 1.

[18] Attachment 1-4, Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.7. Attachment 1 and Attachment 1-10, Cal Am Response to Public Advocates Office Data Request DKG-19 (Completed Monterey Main Projects) Q.1. Attachment 1.

[19] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[20] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[21] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

- Reject Cal Am's specific 2029 plant projects and corresponding budget requests in this general rate case.

With the above adjustments, the Commission should adopt the capital budget summary presented in Table 1-1 below.

Table 1-1: Capital Budget Summary – Central Division[22]

Central Division	2027	2028	Annual Average
Public Advocates' Office Recommended Budget	$ 12,871,087	$ 21,244,568	$ 17,057,827
Cal Am's Requested Budget	$ 30,113,716	$ 34,505,022	$ 32,309,369
Cal Am > Public Advocates' Office	$ 17,242,629	$ 13,260,454	$ 15,251,542
Public Advocates' Office as a Percentage of Cal Am	43%	62%	52%

III. ANALYSIS

Cal Am's proposed plant budgets burden ratepayers by including project budgets previously authorized in prior GRCs, but not yet completed, proposed budgets that are excessive, and premature project budget requests that will result in an increase in rates. Cal Am's proposed plant investments are included in its total Utility Plant In Service amounts. A comparison of Cal Am's 2020-2028 total increase in Monterey County

[22] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

District Utility Plant in Service per customer shows that by 2028, Utility Plant In Service per customer will increase 61%, from $8,983[23],[24] in 2020 to $14,486[25],[26] in 2028.

From 2020 and 2028, Cal Am's estimated Utility Plant in Service will increase by 61%, or $225,863,716.[27] However, Cal Am's estimated number of customers will increase by just 0.23% (92 customers) for the same period.[28],[29] In addition to considering minimal customer growth, the Commission should remove forecasted budgets for projects that should not be funded by ratepayers and budgets that are excessive.

A. Reject Carryover Projects That Were Previously Included in Rates But Do Not Provide a Benefit to Ratepayers.

The Commission should reject budgets of $12,434,175 in 2027 and $100,000 in 2028 for carryover projects. Carryover projects are incomplete projects, previously authorized by the Commission and funded in rates, which have not provided the assumed benefit to ratepayers. In its current GRC application, Cal Am requests additional budget for some of its carryover projects. However, authorizing continued recovery of incomplete projects would result in

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[23] 2020 Utility Plant In Service/Customer is: ($366,536,731/40,802 customers) = $8,983. In 2020, Cal Am recorded a total of 40,802 Monterey County, Chualar, and Central Satellite System customers. *See* Cal Am Application RO model file "ALL_CH03_REV_RO_Sales-Customers," tab: "Proj Cust Calc WS-3" Cells Sum of J31-J46.

[24] Cal Am's 2020 Monterey County Utility Plant In Service was $366,536,731. *See* Cal Am Application RO model file "ALL_CH07_PLT_RO_Recorded," tab: "OUT_R_PPT Bal by District WS-9."

[25] 2028 Utility Plant In Service/Customer is ($592,400,447/40,894 customers) = $14,553. In 2028, Cal Am forecasts 40,894 Monterey County, Chualar, and Central Satellite customers. *See* Cal Am Application RO model file "ALL_CH03_REV_RO_Sales-Customers," tab: "Proj Cust Calc WS-3" Cells Sum of BK31-BK49.

[26] In 2028, Cal Am forecasts Monterey County Utility Plant In Service of $592,400,447 in 2028. *See* Cal Am Application RO model file "ALL_CH07_PLT_RO_Forecast," tab: "OUT_F_PPT Bal by District."

[27] In 2020, Cal Am recorded Utility Plant In Service of $366,536,731 and in 2028, forecasts $592,400,447. Therefore, $592,400,447 - $366,536,731 = $225,863,716. *See* Cal Am Application RO model file "ALL_CH07_PLT_RO_Forecast," tab: "OUT_F_PPT Bal by District."

[28] In 2020, Cal Am forecasts 40,802 Monterey County, Chualar, and Central Satellite customers. *See* Cal Am Application RO model file "ALL_CH03_REV_RO_Sales-Customers," tab: "Proj Cust Calc WS-3" Cells Sum of BK31-BK49.

[29] In 2028, Cal Am forecasts 40,894 Monterey County, Chualar, and Central Satellite customers. *See* Cal Am Application RO model file "ALL_CH03_REV_RO_Sales-Customers," tab: "Proj Cust Calc WS-3" Cells Sum of BK31-BK49.

repeated ratepayer funding of projects that have been funded twice but yet to demonstrate any benefits. If Cal Am completes these projects during this GRC cycle, it may seek recovery of the project costs when it files its next general rate case application in 2028.

Table 1-2, below, includes carryover projects previously funded in rates that Cal Am includes in its current GRC application.

Table 1-2: Carryover Projects Previously Included in Rates But Not Providing a Benefit to Ratepayers

	Direct Cost			
Project Description	**2025**	**2026**	**2027**	**2028**
Del Rey Regulating Station	$ 83,120	$ 365,729	$ 1,213,556	$ -
Rancho Fiesta Tanks and Pump Station	$ 187,366	$ 524,626	$ 1,161,672	$ -
Interconnect- RR, HH, Bishop	$ 964,563	$ 803,803	$ 1,446,845	$ -
Los Padres Dam Outlet Modifications	$ 675,738	$ 1,689,344	$ 2,702,951	$ -
Carmel Valley Transmission Main	$ 325,113	$ 325,113	$ 100,000	$ 100,000
2024-2026 Pump Station Rehabilitation Program	$ 508,392	$ 838,847	$ 1,194,721	
2024-2026 Well Installation Program	$ 1,782,246	$ 864,119	$ 2,754,379	$ -
2024-2026 Tank Installation and Replacement Program	$ 1,395,039	$ 972,300	$ 1,860,052	$ -

Below are three examples of carryover projects, identified in Table 1-2, that were previously included in rates but do not currently provide a benefit to ratepayers.

1. Del Rey Regulating Station Project (I15-400137)

The Commission should reject Cal Am's request of $1,213,556 in 2027,[30] to relocate the Del Rey Regulating Station to a structure next to Highway 218,[31] because ratepayers should not continue to pay for a project that the Commission authorized in 2021 and has not yet been constructed.

Four years have passed since the Commission authorized the project and Cal Am has not yet constructed it. Cal Am first proposed the Del Rey Regulating Station project in its 2019 GRC with a proposed budget of $1,260,000.[32] The Commission authorized the project in Cal Am's 2019 GRC[33] and again in Cal Am's 2022 GRC with an updated $1,805,000 budget to account for additional costs.[34] Cal Am states that the project is currently at 30% design and cannot be constructed until the Transportation Agency for Monterey County completes the Fort Ord Regional Trail and Greenway Project, which currently has a mid-2026 construction timeline.[35] Ratepayers should not pay for these projects multiple times without receiving any benefits. The Commission should therefore remove the budgets from this GRC for rate-making purposes.

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[30] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[31] A.19-07-004, *Application of California-American Water Company (U210W) for Authorization to Increase its Revenues for Water Service by $25,999,900 or 10.60% in the year 2021, by $9,752,500 or 3.59% in the year 2022, and by $10,754,500 or 3.82% in the year 2023,* July 1, 2019, Cal Am Engineering Workpaper, I15-400137 at 1.

[32] A.19-07-004, Cal Am Engineering Workpaper, I15-400137 at 1.

[33] D.21-11-018, *Decision Approving and Adopting Settlement Agreements, Resolving the Remainder of Disputed Issues and Authorizing California-American Water Company's General Rate Increase for 2021, 2022, and 2023,* November 23, 2021, Settlement Agreement at 211.

[34] A.19-07-004, Cal Am Engineering Workpaper, I15-400137 at 1; D.24-12-025, *Decision Resolving Miscellaneous Matters and Closing Proceeding,* December 9, 2024, Settlement Agreement at 121.

[35] Direct Testimony of Lacy Carothers at 91 and Attachment 1-10: Cal Am Response to Public Advocates Office Data Request DKG-08 (Monterey Projects) Q.5.

2. Rancho Fiesta Tanks and Pump Station Project (I15-400138)

The Commission should reject Cal Am's request of $1,161,172 in 2027 to construct two pressure zones to provide water service to the Rancho Fiesta area.[36] The Commission authorized and ratepayers already funded this project four years ago, yet Cal Am has not built it.[37] The Commission should therefore remove the budgets from this GRC for rate-making purposes.

Four years have passed since the Commission authorized the project, yet Cal Am has not constructed it. Cal Am first proposed the Rancho Fiesta Tank project in its 2019 GRC with a proposed budget of $1,440,000.[38] The Commission authorized the project in Cal Am's 2019 GRC[39] and again in Cal Am's 2022 GRC with an updated $1,823,000 budget to account for additional scope refinement.[40] Cal Am states that State Water Resources Control Board Division of Drinking Water is currently reviewing the project, which could take a few months "in addition to the time required for redesign, response writing, and coordination occurring between each resubmittal iteration."[41] Since Cal Am still has not constructed the project and acknowledges that the project is still in review phase, ratepayers should not continue to fund it. Therefore, the Commission should remove Cal Am's request of $1,161,172 in 2027.

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[36] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[37] A.19-07-004, Cal Am Engineering Workpaper, I15-400138 at 1.

[38] A.19-07-004, Cal Am Engineering Workpaper, I15-400138 at 1.

[39] D.21-11-018, Settlement Agreement at 211.

[40] A.19-07-004, Cal Am Engineering Workpaper, I15-400138 at 1 and D.24-12-025, Settlement Agreement at 121.

[41] Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Visit Follow-up) Q.8.

3. 2024-2026 Well Installation and Replacement Program (I15-400164)

The Commission should reject Cal Am's 2027 budget request of $2,754,379 for its 2024-2026 Well Installation and Replacement program. The Commission authorized and ratepayers already funded the 2024-2026 Well Installation and Replacement program in 2024, however, Cal Am has not yet started two of the three originally proposed well replacements included in the program.[42] The Commission should therefore remove the budgets from this GRC for rate-making purposes.

Cal Am proposed the 2024-2026 Well Installation and Replacement program in its 2022 GRC with a proposed budget of $4,200,000.[43] In its current GRC, Cal Am proposes to increase the budget to $6,200,000 to include additional wells.[44]However, Cal Am has not yet completed the three originally proposed well replacement projects under this program. The Rancho Canada #3 well project is on hold and Cal Am has not identified a Garrapata #1 well project location. The Rancho Canada #3 well project, with an estimated $3,000,000 budget,[45] is on hold until Cal Am secures an easement. Cal Am states that CEQA approval and design cannot progress.[46] Without an estimated date for easement acquisition and a construction period, ratepayers should not pay for the project. Cal Am has not yet started construction of the Garrapata #1 well project, with an estimated $3,000,000 budget,[47] because Cal Am has not yet identified a

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[42] D.24-12-025, Settlement Agreement at 134.

[43] A.22-07-004, Cal Am Engineering Workpaper, I15-400164 at 1.

[44] Cal Am Engineering Workpaper I15-400164 at 1.

[45] Cal Am Engineering Workpaper I15-400164 at 2.

[46] Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Visit Follow-up) Q.2 at A-56-57.

[47] Cal Am Engineering Workpaper I15-400164 at 2.

location for the well.[48] Therefore, the Commission should reject Cal Am's 2024-2026 Well Installation and Replacement program requested in 2027 budget.

B. Performed or Planned Projects Without Prior Commission Authorization

1. West San Martin Per- and Polyfluoroalkyl (PFAS) Treatment (I15-470001)

The Commission should reject Cal Am's request to include, in the 2027 rate base, two PFAS treatment facilities in its West San Martin system with budget amounts of $921,000 in 2025 and $2,763,000 in 2026.[49, 50] Cal Am has not demonstrated that PFAS treatment is required to comply with the Environmental Protection Agency's (EPA) PFAS regulations. PFAS (including PFOA and PFOS chemicals)[51] are widely used, long-lasting chemicals, found in many consumer, commercial, and industrial products. Scientific studies have shown that exposure to PFAS chemicals may have harmful health effects.52 The EPA's PFAS regulations state, in part, that PFOA and PFOS Maximum Contaminant Levels (MCL) are 4 parts per trillion.53

Cal Am has not shown, with its water quality data, that PFAS treatment is required to comply with the Environmental Protection

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[48] Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Visit Follow-up) Q.2 at A-56-57.

[49] Cal Am Engineering Workpaper, I15-470001 at 3.

[50] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[51] PFOA is Perfluorooctanoic acid and PFOS is Perfluorooctanesulfonic acid.

[52] United States Environmental Protection Agency, Per- and Polyfluoroalkyl Substances (PFAS) Explained, available at https://www.epa.gov/pfas/pfas-explained [accessed December 11, 2025]

[53] United States Environmental Protection Agency, Per- and Polyfluoroalkyl Substances (PFAS), Final PFAS National Primary Drinking Water Regulation, available at https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas [accessed December 11, 2025]

Agency's (EPA) PFAS regulations.[54] For example, Cal Am states that it has not yet determined if the County Building Well or Well 1 need treatment.[55] In addition, Cal Am has not yet completed the studies to support its PFAS treatment request.[56] Cal Am recommends a "groundwater source contamination study "of the West San Martin system wells prior to installing PFAS treatment.[57] The goals of the groundwater source contamination study are to determine 1) the proximity of groundwater, 2) contamination to existing wells, 3) if the existing well sites have sufficient area for treatment, and 4) the possibility of replacing the existing wells in a different location which may yield better water quality.[58] Cal Am states that it will complete the groundwater source contamination study by February 2026.[59] Cal Am also plans to complete, by March 2026, a Comprehensive Planning Study of the West San Martin system, which will determine whether there is sufficient system supply.[60] In the absence of water quality data and recommendations from completed studies, ratepayers should not fund the treatment projects. Therefore, the Commission should reject Cal Am's request for PFAS treatment facilities.

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[54] United States Environmental Protection Agency, Per- and Polyfluoroalkyl Substances (PFAS), Final PFAS National Primary Drinking Water Regulation, available at https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas [accessed December 11, 2025]

[55] Cal Am Engineering Workpaper, I15-470001 at 2.

[56] Attachment 1-2: Cal Am Response to Public Advocates Office Data Request DKG-02 (Monterey Pipelines Office and WSM PFAS) Q.5.

[57] Cal Am Engineering Workpaper, I15-470001 at 2.

[58] Cal Am Engineering Workpaper, I15-470001 at 2.

[59] Attachment 1-2: Cal Am Response to Public Advocates Office Data Request DKG-02 (Monterey Pipelines Office and WSM PFAS) Q.5 at A-10-11.

[60] Attachment 1-2: Cal Am Response to Public Advocates Office Data Request DKG-02 (Monterey Pipelines Office and WSM PFAS) Q.5 at A-10-11.

2. Consolidation and Relocation of The Central Division Office and Operations Yard To A New Office Building (I15-400169)

The Commission should reject Cal Am's request to include, in the 2027 rate base, the newly purchased office building in the amounts of $6,906,148 in 2025 and $2,884,262 in 2026.[61] These budgets cannot be justified in Cal Am's 2027 rate base because ratepayers will receive no additional benefit from Cal Am's purchase of the new office building compared to the currently leased office building. Cal Am's request will result in higher monthly bills, placing an additional financial burden on ratepayers without delivering improvements in service quality, infrastructure, or reliability.

Cal Am's request to include its new office building in test year (TY) 2027 rate base does not provide added ratepayer benefit compared to its current location. Cal Am purchased a commercial building in March 2025.[62] Cal Am plans to consolidate and relocate its administrative office and its operations staff to an office building in Ryan Ranch, in the third quarter of 2026.[63] Cal Am's current administrative office is located in a leased Pacific Grove office building, and its operations yard is located on three Cal Am-owned parcels one mile away from the Pacific Grove administrative building.[64] Cal Am states that the new office building's central location provides greater customer access.[65] However, the new

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[61] Cal Am's 2027 plant budget should be reduced by a total of $9,790,410 ($6,906,148+ $2,884,262) to account for the Central District Office. *See* Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[62] Attachment 1-2: Cal Am Response to Public Advocates Office Data Request DKG-02 (Monterey Pipelines Office and WSM PFAS) Q.4 at A-9, A-10-22.

[63] Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Visit Follow-up) Q.12.c.

[64] Cal Am Engineering Workpaper, I15-400169 at 1.

[65] Direct Testimony of Lacy Carothers at 141.

office does not provide added benefit to ratepayers since it is only approximately 10 miles east of Cal Am's currently leased administrative office.[66] Cal Am also states that since the COVID pandemic, its customers have found new ways to get customer assistance.[67] In December 2023, Cal Am closed its in-person customer service payment center and installed an ATM payment service machine outside the front entrance for bill pay.[68] Since Cal Am's customers no longer visit the customer service window to pay their bills at the Pacific Grove office, there is no added ratepayer benefit compared to Cal Am's existing Pacific Grove office location. Therefore, the Commission should reject Cal Am's request of $6,906,148 in 2025[69] and $2,884,262 in 2026 for its Central Division office building.

3. Energy Storage Grid Resilience and Innovation Partnership Project (GRIP) (I15-400168)

The Commission should reject Cal Am's request to include, in the 2027 rate base, installation of battery energy storage systems in the amounts of $921,000 in 2025 and 921,000 in 2026.[70] Ratepayers should not pay for a project for which the final project details and GRIP award funding amount are unknown. Cal Am is partnering with Generac to install battery energy storage systems at 12 sites initially, followed by an additional 28 sites in the future to provide backup power during emergencies, such as

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[66] Attachment 1-2: Cal Am Response to Public Advocates Office Data Request DKG-02 (Monterey Pipelines Office and WSM PFAS) Q.3.d. at A-8.

[67] Attachment 1-2: Cal Am Response to Public Advocates Office Data Request DKG-02 (Monterey Pipelines Office and WSM PFAS) Q.2.b. at A-6.

[68] During its August 18-19, 2025, Monterey field visit, Cal Advocates staff observed that Cal Am's Customer Service window was permanently closed. *See* Attachment 1-2: Cal Am Response to Public Advocates Office Data Request DKG-02 (Monterey Pipelines Office and WSM PFAS) Q.2.b.

[69] Cal Am's 2027 plant budget should be reduced by a total of $9,790,410 ($6,906,148+ $2,884,262) to account for the Central District Office. *See* Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[70] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

wildfires.[71] Cal Am states that the project will be partially funded by the United States Department of Energy (DOE) Grid Resilience and Innovation Partnerships Program (GRIP).[72] However, Cal Am states that the final project discussions, which will be used to determine the GRIP award funding amount between the DOE and Generac, are on-hold.[73] In addition, Cal Am states that it does not know when the DOE will respond to Generac's June 2025 responses to the DOE's request for data.[74] Cal Am states that it currently has at least nine generators in its Monterey District, which it can use to provide emergency power and Cal Am has not demonstrated that they are insufficient.[75] The Commission should reject Cal Am's request of $921,000 in 2025[76] and 921,000 in 2026[77] since the project is currently on hold and Cal Am has existing emergency backup generators available.

C. Proposed Projects

1. 2027-2029 Well Installation and Replacement Program (I15-400177)

The Commission should reduce Cal Am's 2028 budget request to $1,340,000 (from 4,340,000)[78] for its 2027-2029 Well Installation and

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[71] Attachment 1-11: Cal Am Response to Public Advocates Office Data Request DKG-01 (Application Initial Questions) Q.3.b.., Attachment 2., Cal Am Engineering Workpaper, I15-400768 at 1.

[72] Cal Am Engineering Workpaper, I15-400768 at 1.

[73] Cal Am Engineering Workpaper, I15-400768 at 1; Attachment 1-8, Cal Am Response to Public Advocates Office Data Request JMI-10 (GRIP Projects) Q.1.f.i.

[74] Attachment 1-8: Cal Am Response to Public Advocates Office Data Request JMI-10 (GRIP Projects) Q.2. Attachment 1.

[75] Attachment 1-9: Cal Am Response to Public Advocates Office Data Request JM1-10 (GRIP Projects) Q.1.f.ii.

[76] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[77] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[78] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

Replacement program because Cal Am includes a duplicate Garrapata #1 well project budget of $3,000,000, which is the same request included and approved in its 2024-2026 Well Installation and Replacement Program.[79] Ratepayers should not pay twice for the same projects, which has not yet been built.[80] Cal Am has not yet finalized a location for the Garrapata #1 well nor has it started well design. Therefore, the Commission should reduce 2028 budget request to $1,340,000 for its Well Installation and Replacement program.

2. Carmel Valley Road Transmission Main Downsizing Project (I15-400179)

The Commission should reject Cal Am's request of $151,000 in 2027[81] and 151,000 in 2028[82] to replace the existing Carmel Valley Road Transmission Mains (24"-30" diameter) with smaller diameter mains (18" diameter)[83] to address stagnant water, water quality issues, and low chlorine residual for the following reasons: 1) Cal Am did not perform the previously proposed project evaluation study on the same transmission main included in its 2022 GRC[84] and 2) Cal Am's own study and results of recommended operational changes do not support Cal Am's request[85].

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[79] Cal Am Engineering Workpaper I15-400177 at 4. Cal Am's 2024-2026 Well Installation and Replacement Project I15-400164 Engineering Workpaper at 1, includes a Garrapata Well #1 project budget of $3,000,000.

[80] Cal Am Engineering Workpaper I15-400177 at 4. Cal Am's Well Installation and Replacement Project I15-400164 Engineering Workpaper includes a Garrapata Well #1 project budget of $3,000,000.

[81] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[82] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[83] The total project cost is $32,718,400. *See* Cal Am Engineering Workpaper, I15-400179 at 1.

[84] A.22-07-001, Cal Am Engineering Workpaper I15-400125, project "BA-301" "Carmel Valley Pipeline Diameter Reduction" at 7.

[85] Attachment 1-3: Cal Am Response to Public Advocates Office Data Request DKG-03 (Monterey Proposed Projects) Q.2.c-d.., Attachment 1 "Upper Valley Chlorine Residual Management and TTHM Control Study" at 11.

Ratepayers should not pay for a project that is not needed. To address water quality issues due to stagnant water in the transmission main, Cal Am proposed, in its 2022 GRC, to evaluate sliplining 24,000 feet of existing 24-inch pipe to reduce water age as part of its Main Replacement Program.[86] In 2022, the Commission authorized Cal Am's Main Replacement program budget.[87] However, Cal Am did not initiate the project.[88] Cal Am now proposes the Carmel Valley Transmission Main project with a different scope: replacing the existing pipeline with a smaller diameter pipeline.[89] However, ratepayers should not pay for this project twice.

Cal Am's own 2018 study states that no "major capital improvement projects" are necessary to maintain the Trihalomethanes Location Running Annual Average[90] in the Upper Valley area and address low chlorine residual.[91] Instead, the study recommends operational changes to the Clearwell and the Del Monte Pumping scheme as a "reasonable option".[92] Cal Am's own operational notes included in response to the 2018 study

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[86] A.22-07-001, Cal Am Engineering Workpaper I15-400125, project "BA-301" "Carmel Valley Pipeline Diameter Reduction", at 7.

[87] D.24-12-025, Settlement Agreement at 134.

[88] Attachment 1-7: Cal Am Response to Public Advocates Office Data Request DKG-18 (Carmel Valley Main Monterey Office and 2019 Projects) Q. 2.

[89] Cal Am Engineering Workpaper I15-400179 at 1.

[90] Attachment 1-3: Cal Am Response to Public Advocates Office Data Request DKG-03 (Monterey Proposed Projects) Q.2.c-d., Attachment 1, "Upper Valley Chlorine Residual Management and TTHM Control Study" at 11. Cal Am's "Upper Valley Chlorine Residual Management and TTHM Control Study" states that the contaminant Maximum Contaminant Level (MCL) for each class of Disinfection Byproducts (DBP) is exceeded when the Locational Running Annual Average (LRAA) for any single sampling location within a distribution system exceeds the level specified for the DBP class. The LRAA for TTHMs cannot exceed the 80 parts per billion.

[91] Attachment 1-3: Cal Am Response to Public Advocates Office Data Request DKG-03 (Monterey Proposed Projects) Q.2.c-d., Attachment 1, "Upper Valley Chlorine Residual Management and TTHM Control Study" at 11.

[92] Attachment 1-3: Cal Am Response to Public Advocates Office Data Request DKG-03 (Monterey Proposed Projects) Q.2.c-d., Attachment 1, "Upper Valley Chlorine Residual Management and TTHM Control Study" at 11.

recommendations state "we were able to maintain the minimum chlorine residual level in the Clearwell to above 0.4 ppm (parts per million). Quarterly TTHM results in the area were all below 60 ppb."[93] In addition, Cal Am states that it did not investigate the existing pipe condition, but solely relies on its Pipeline Prioritization Model to determine pipe condition.[94] Since Cal Am did not perform the sliplining evaluation proposed in its 2022 GRC and Cal Am's own study states that the project is not needed, the Commission should reject Cal Am requested budget of $151,000 in 2027[95] and 151,000 in 2028 for the Carmel Valley Road Transmission Main Downsizing project.

3. 2027-2029 Main Replacement Program (I15-400170)

The Commission should reduce Cal Am's budget request for its Main Replacement Program to $3,445,198[96] in 2027 and $3,445,198[97] in 2028 (from $6,647,000 in 2027[98] and $11,223,000 in 2028[99]) because Cal Am's budget request is not supported by individual pipeline projects, including names, locations, or project budgets. Because Cal Am does not

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[93] Attachment 1-3: Cal Am Response to Public Advocates Office Data Request DKG-03 (Monterey Proposed Projects) Q.2.c-d., Attachment 1, "Upper Valley Chlorine Residual Management and TTHM Control Study" at 14.

[94] Attachment 1-3: Cal Am Response to Public Advocates Office Data Request DKG-03 (Monterey Proposed Projects) Q.2.f.

[95] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[96] Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.7. Attachment 1 and Attachment 1-9: Cal Am Response to Public Advocates Office Data Request DKG-19 (Completed Monterey Main Projects) Q.1. Attachment 1. Cal Am's annual 2020-2024 recorded pipeline replacement costs are: 2020: $4,459,189, 2021: $1,220,776, 2022: $3,079,066, 2023: $3,260,030, and 2024: $5,206,929. Therefore, the 2020-2024 average is: $3,445,198.

[97] Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.7. Attachment 1 and Attachment 1-9, Cal Am Response to Public Advocates Office Data Request DKG-19 (Completed Monterey Main Projects) Q.1. Attachment 1.

[98] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[99] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

identify specific main replacements in its "High Risk and Very High Risk" and "High Likelihood of Failure" pipeline groups, Cal Am's annual budgets should be based on its five-year average of completed (2020-2024) annual main replacement project costs.

Cal Am's main replacement program is undefined since the majority of the proposed main replacements are grouped into "High Risk and Very High Risk" pipeline replacements and "High Likelihood of Failure" pipelines[100] without identifying specific project names, locations, and budgets.[101] Pipeline replacement projects require planning and coordination with local city and/or state agencies, depending on the project and with the exception of emergencies, cannot be started without prior planning.[102] Although Cal Am states that its new Pipeline Prioritization Model enables its staff to identify a pipeline replacement project "immediately prior to the beginning of a project,"[103] Cal Am would not be able to begin the project "immediately" due to required planning and coordination.[104] In addition, Cal Am does not have a defined main replacement program plan for achieving its 1% benchmark annual main replacements, which for Monterey, would be approximately six miles of main replacements each year.[105]

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[100] Cal Am Engineering Workpaper I15-400170 at 5.

[101] Cal Am Engineering Workpaper I15-400170 at 5. Cal Am identifies only three specific pipelines for replacement.

[102] Attachment 1-4, Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.5.

[103] Attachment 1-4, Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.5.

[104] Attachment 1-4, Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.5.

[105] Attachment 1-4, Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.5.

Cal Am's pipeline replacement program lacks pipeline condition assessment data. According to the American Water Works Association, condition based assessment is the "identification of the likelihood that an asset will continue to perform its required function."[106] Condition assessment includes collecting data through various methods to determine the "physical characteristics of the pipe and how they may impact the pipeline's likelihood that it will leak, break, or otherwise fail to perform."[107] Some examples of condition based assessment tools include field testing methods such as physical entry testing, acoustic velocity testing, and electromagnetic testing.[108] Because Cal Am has not identified any specific main replacement projects in its "High Risk and Very High Risk" and "High Likelihood of Failure" pipeline groups that could be evaluated for reasonableness, Cal Am's proposed main replacement budgets should be based on its five-year average of completed (2020-2024) annual main replacement project costs,[109],[110] as shown in Chart 1-1, below.

[106] Attachment 1-12: American Water Works Association Manual "Condition Assessment of Water Mains" M77 at 2.

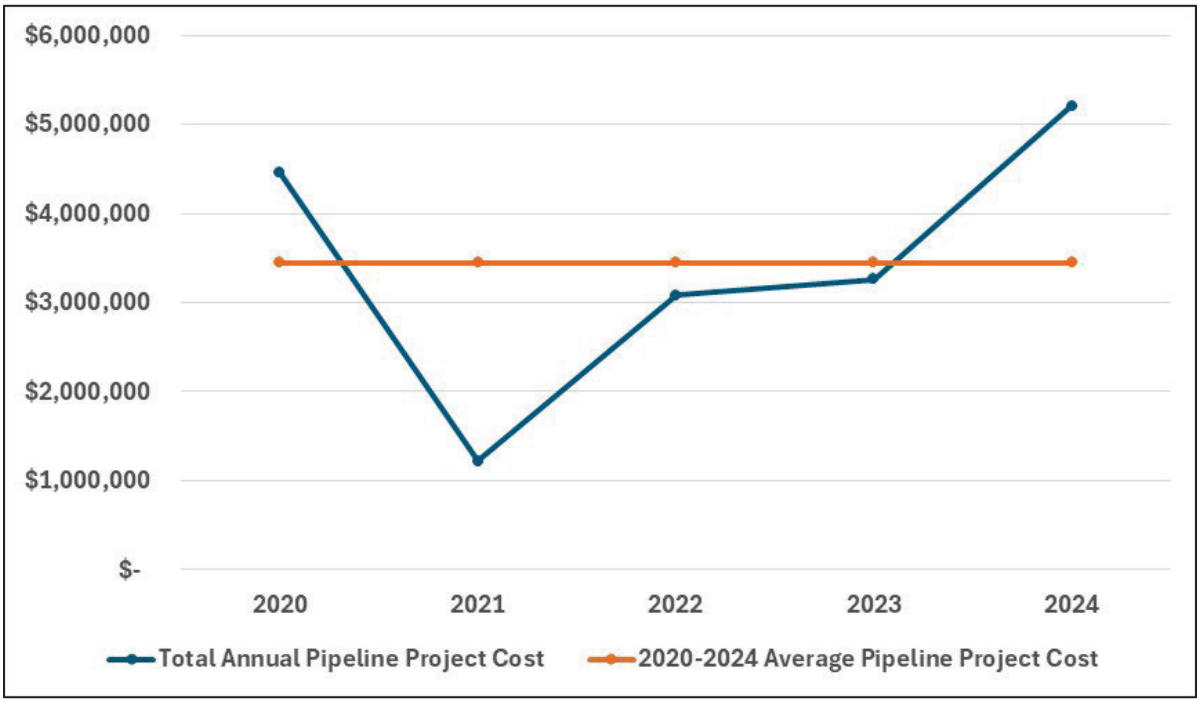
[107] Attachment 1-12: American Water Works Association Manual "Condition Assessment of Water Mains" M77 at 2.

[108] Attachment 1-12: American Water Works Association Manual "Condition Assessment of Water Mains" M77, CH 9, CH 10, and CH 11.

[109] Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.7. Attachment 1 and Attachment 1-9: Cal Am Response to Public Advocates Office Data Request DKG-19 (Completed Monterey Main Projects) Q.1. Attachment 1.

[110] Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.7. Attachment 1 and Attachment 1-9: Cal Am Response to Public Advocates Office Data Request DKG-19 (Completed Monterey Main Projects) Q.1. Attachment 1.

Chart 1-1: 2020-2024 Annual Completed Main Replacement Project Costs



Therefore, the Commission should reduce Cal Am's budget request for its Main Replacement Program to $3,445,198[111] in 2027 and $3,445,198[112] in 2028.

4. 2027-2029 Standby Generator Improvement Program (I15-400176)

The Commission should reject Cal Am's $74,000 budget in 2027 and $804,000 in 2028 for its Standby Generator Improvement Program[113]

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[111] Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.7. Attachment 1 and Attachment 1-9: Cal Am Response to Public Advocates Office Data Request DKG-19 (Completed Monterey Main Projects) Q.1. Attachment 1. Using Cal Am's 2020-2024 annual recorded pipeline project costs, the five-year average is $784,628. Cal Am's 2020 average pipeline cost is $743,198; 2021 average is $610,388; 2022 average is $615,813; 2023 average is $652,006; 2024 average is $1,301,732.

[112] Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Q.7. Attachment 1 and Attachment 1-9, Cal Am Response to Public Advocates Office Data Request DKG-19 (Completed Monterey Main Projects) Q.1. Attachment 1.

[113] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

because it has not been demonstrated to be a prudent investment. Cal Am's proposed Standby Generator Improvement Program is not supported by its own current generator inventory data, and includes undefined generator replacement requests.

Cal Am has not demonstrated that its current generator inventory is insufficient. Cal Am states that it has at least nine owned generators, purchased between 2018 and 2021, which it can use to provide emergency power in its Central Division.[114] Excluded from Cal Am's generator inventory data without justification, are Cal Am's eight specific generator replacement requests listed in its 2027-2032 Standby Generator Improvement project.[115] In addition, Cal Am requests additional budget for generator replacements on "other sites not yet identified (up to two or three)".[116] However, ratepayers should not pay for undefined generator replacements without justification. Because Cal Am has at least nine generators in its Central Division it can use to provide emergency power in this GRC cycle, ratepayers should not fund Cal Am's request. Therefore, the Commission should reject Cal Am's request for its Standby Generator Improvement Program budgets.

D. Engineering Studies

1. Begonia Iron Removal Plant Replacement Feasibility Study (Project A-10)

The Commission should reject Cal Am's request to include, in the 2027 rate base, a study on the feasibility of replacing the Begonia Iron

[114] Attachment 1-9: Cal Am Response to Public Advocates Office Data Request JM1-10 (GRIP Projects) Q.1.f.ii.

[115] Cal Am Engineering Workpaper I15-400176 at 4.

[116] Cal Am Engineering Workpaper I15-400176 at 4.

Removal Plant (BIRP) with a budget amount of $350,000 in 2025.[117] These budgets cannot be justified in Cal Am's 2027 rate base because Cal Am's proposal to fund a feasibility study lacks support and justification and would increase financial burden for ratepayers without demonstrated benefits. The BIRP treats Lower Carmel Valley well groundwater for iron and manganese. The Begonia Iron Removal Plant is currently operating as intended,[118] with substantial upgrades in-progress,[119] therefore there is no need for ratepayers to fund a feasibility study during this GRC. Furthermore, ratepayers should never be required to fund studies that may never lead to a beneficial project. If a beneficial project results, the costs of the study should be capitalized for ratemaking purposes and added to ratebase.

Since 2018, ratepayers have funded BIRP improvement projects, which are still in progress. Between 2018 and 2024, ratepayers funded $5,867,112[120] for Phase 1 and Phase 2 plant improvement projects that are currently at 95% and 72% completion, respectively.[121] Additional BIRP investments of $5,854,798 are in-progress or planned through 2028, as shown in Chart 1-2 and discussed below.

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[117] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

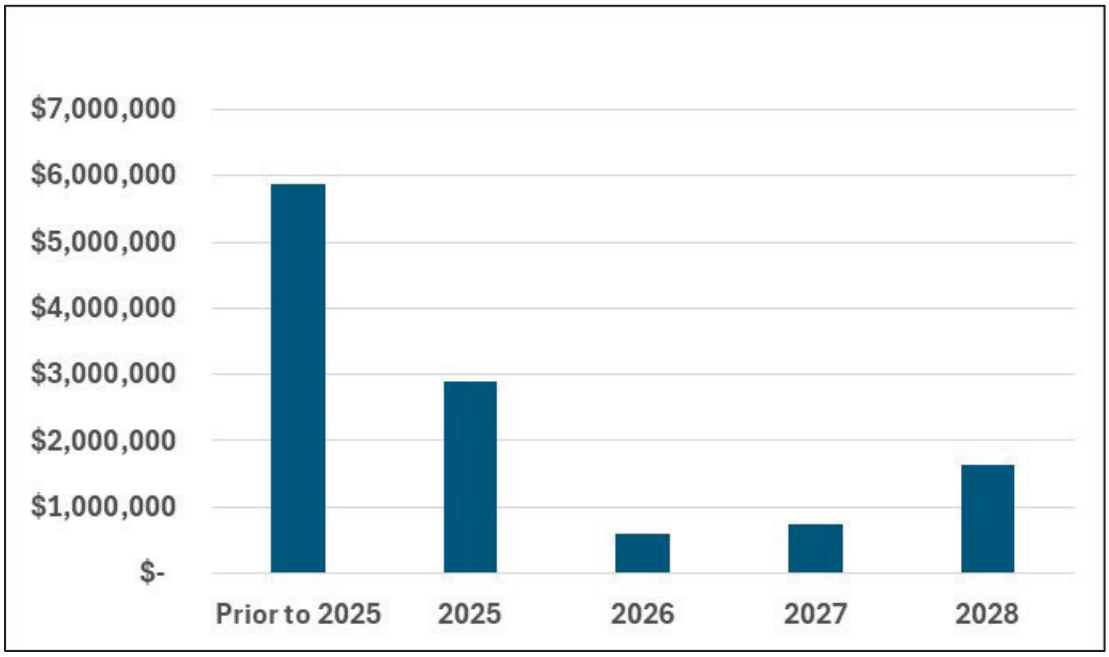
[118] Attachment 1-7: Cal Am response to Public Advocates Office data request DKG-12, Q.2. During the period 2023-2024, the BIRP only went offline once. Also, during Cal Advocates' August 18-19, 2025, field visit, Cal Am confirmed that the plant is operating as intended.

[119] Engineering workpapers I15400110,

[120] BIRP Phase 1 Improvements Project I15-400110 ($4,903,291) + BIRP Phase 2 Improvements I15400133 ($963,821) = $5,867,112. Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Y_Actual Project Spending-WS11C."

[121] Attachment 1-5: Cal Am Response to Public Advocates Office Data Request DKG-12 (Begonia Iron Removal Plant Follow-up) Q.4 and Q.5.

Chart 1-2: Begonia Iron Removal Plant Investments



2016 GRC Proposed BIRP Improvements

Cal Am initially proposed BIRP improvements (Phase 1) in its 2016 GRC with a $1.25 million budget[122] to replace inoperable air piping, valves, and filter piping.[123]

2019 GRC Proposed BIRP Improvements

In its 2019 GRC, Cal Am included the BIRP Phase 1 project as a carry-over project to continue the work.[124] Cal Am also proposed BIRP Phase 2 improvements in its 2019 GRC with a $2.55 million budget to replace 56 valves, retrofit of return backwash pond 3, a new air lift/mixing system for Pond 3, electrical and mechanical building for the air lift/mixing process, instrumentation, new smaller chemical feed pumps for summer mode operations, and leak detection

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[122] A.16-07-002, *Application of California-American Water Company (U210W) for Authorization to Increase its Revenues for Water Service by $34,559,200 or 16.29% in the year 2018, by $8,478,500 or 3.43% in the year 2019, and by $7,742,600 or 3.03% in the year 2020,* July 1, 2016, Direct Testimony of Mark Schubert Project I15-400110 at 175.

[123] A.16-07-002, Engineering Workpaper Project I15-400110 at 2.

[124] A.19-07-004, Direct Testimony of Ian Crooks Project I15-400133 at 127. Cal Am Engineering Workpaper, I15-400133 at 1.

and improvements to double containment systems for bulk storage and delivery of chemicals.[125]

2022 GRC Proposed BIRP Improvements

In its 2022 GRC, Cal Am updated the BIRP Phase 1 improvements budget to $3.56 million for additional improvements which included replacement of Sludge Pond #3 reclaim pumps and floating decanter, replacement of the 24 inch effluent pipeline and installation of sodium hypochlorite feed pumps, control panel and process piping, epoxy coating of the air scour and blowdown piping, design and constructing of the caustic feed pump improvements, and construction of a safety platform to access sodium hypochlorite injectors and replacement of all filter media.[126] Phase 1 is currently 95% complete.[127] Cal Am also included the BIRP Phase 2 project as a carry-over project with an updated $2.6 million budget in the 2022 GRC with additional scope to add backwash pond covers and replacement of the bulk sodium hydroxide storage tank.[128] Also proposed, was a project to construct a soundwall on the west side of the property for sound attenuation with a budget of $300,000.[129]

2025 GRC Proposed BIRP Improvements

In its current GRC, Cal Am includes the BIRP Phase 2 project as a carry-over project with an updated budget of $3.6 million and additional work to replace the sodium hydroxide day tanks and associated piping and sensors, concrete repair for the secondary containment vault and new chemical resistant coating, and roof

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[125] A.19-07-004, Direct Testimony of Ian Crooks Project I15-400110 at 127 and 193; Cal Am Engineering Workpaper, I15-400110 at 1.

[126] A.22-07-001, Direct Testimony of Ian Crooks Project I15-400110 at 98; Cal Am Engineering Workpaper, I15-400110 at 1.

[127] Attachment 1-5: Cal Am Response to Public Advocates Office Data Request DKG-12 (Begonia Iron Removal Plant Follow-up) Q.4 and Q.5.

[128] A.19-07-004, Direct Testimony of Ian Crooks Project I15-400133 at 110.

[129] Cal Am Engineering Workpaper I15-400154 at 1.

and sprinkler system improvements.[130] Phase 2 is currently 72% complete.[131] Cal Am also includes an updated soundwall construction project proposed budget of $350,000.[132]

Cal Am must comply with the Division of Drinking Water's (DDW) requirement to install backwash tanks that will replace the outdoor backwash ponds to meet the California Code of Regulations Title 22 requirements to prevent contamination.[133] In response to the requirement, Cal Am proposes in this GRC a project to install two backwash tanks with a total budget of $2,855,101.[134, 135] Cal Advocates does not oppose Cal Am's proposed funding for any of the aforementioned BIRP site improvements.

Ratepayers should not fund BIRP's replacement study, especially when it is working as intended after spending on significant improvements.

It is unreasonable for ratepayers to pay for a study that may result in BIRP replacement, which will result in future investment and rate increases. Ratepayers previously funded $5,867,112[136] (prior to 2025) for recent substantial improvements to the BIRP, and additional substantial improvements are in-progress ($2,889,711 in 2025 and $596,882 in 2026)[137] and planned ($730,344 in

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[130] Cal Am Engineering Workpaper I15-400133 at 1-2.

[131] Attachment 1-5: Cal Am Response to Public Advocates Office Data Request DKG-12 (Begonia Iron Removal Plant Follow-up) Q.4 and Q.5.

[132] Cal Am Engineering Workpaper I15-400154 at 1.

[133] Title 22: California Code of Regulations, Article 6, Section 64585 - Design and Construction | California Code of Regulations | Justia

[134] Cal Am Engineering Workpaper, I15-400167 at 1.

[135] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5." Cal Am includes $132,790 in 2025, $354,106 in 2026, $730,344 in 2027, and $1,637,861 in 2028 for the project.

[136] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Y_Actual Project Spending-WS11C." BIRP Phase 1 Improvements Project I15-400110 ($4,903,291) + BIRP Phase 2 Improvements I15-400133 ($963,821) = $5,867,112.

[137] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5." 2025 BIRP project costs: BIRP Phase 1 Improvements Project I15-400110 ($250,512) + BIRP Phase 2

2027 and $1,637,861 in 2028).[138] Therefore, the Commission should reject Cal Am's inclusion of $350,000 in 2025[139] to study the feasibility of replacing the Begonia Iron Removal Plant (BIRP). Cal Am is able to proceed with a study without ratepayer funding and recover all reasonable capitalized costs when a used and useful project is produced.

E. Recurring Budgets

1. SCADA Equipment and Systems Projects (R1540L27 and R1540L28)

The Commission should reduce Cal Am's request for SCADA improvements to $37,090 in 2027 (from $829,000) and $37,090 in 2028 (from $853,000) consistent with Cal Am's five-year average (2020-2024) of completed SCADA project costs.[140]

Cal Am's proposed 2027 and 2028 annual SCADA recurring project budgets are inflated compared to its 2020-2024 recorded SCADA project costs. For both 2027 and 2028, Cal Am's proposed budget is approximately twenty-two times greater than Cal Am's average 2020-2024 recorded SCADA costs. To help ensure that ratepayers fund only the capital spending that Cal Am is likely to accomplish, Cal Am's 2027 and 2028 proposed budgets should be based on Cal Am's five-year average (2020-2024) of completed project costs.[141] Therefore, the Commission should authorize $37,090 in 2027 and 2028.

Improvements I15-400133 ($2,184,980) + Backwash tanks I15-400167 ($132,790) + BIRP Soundwall ($321,429) = $2,889,711. 2026 BIRP project costs: BIRP Phase 2 Improvements I15-400133 ($242,776) + I15-400167 Backwash tanks ($354,106) = $596,882.

[138] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[139] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[140] Attachment 1-6: Cal Am Response to Public Advocates Office Data Request JMI-01 (Recurring Budgets) Q.2., Attachment 1 (Corrected). Cal Am's annual 2020-2024 recorded Monterey and Garrapata SCADA costs are: 2020: $7,531, 2021: $30,159, 2022: $34,347, 2023: $44,856, and 2024: $68,559. Therefore, the 2020-2024 average is: $37,090.

[141] Attachment 1-6: Cal Am Response to Public Advocates Office Data Request JMI-01 (Recurring

2. Hydrants, Valves, and Manholes-Replaced Projects (R1540F27 and R1540F28)

The Commission should reduce Cal Am's request for Hydrants, Valves, and Manholes-Replaced projects to $180,258 in 2027 (from $770,000) and $180,258 in 2028 (from $792,000) consistent with Cal Am's five-year average (2020-2024) of completed project costs.[142]

Cal Am's proposed 2027 and 2028 annual Hydrants, Valves, and Manholes Replaced recurring project budgets are inflated compared to its 2020-2024 recorded project costs. For each year 2027 and 2028, Cal Am's proposed budget is approximately four times greater than Cal Am's average 2020-2024 recorded costs. To help ensure that ratepayers fund only the capital spending that Cal Am is likely to accomplish, Cal Am's 2027 and 2028 proposed budgets should be based on Cal Am's five-year average (2020-2024) of completed project costs.[143] Therefore, the Commission should authorize $180,258 in 2027 and 2028.

F. 2029 Plant Additions

The Commission should not authorize any specific project budgets for 2029 in the current rate case. Capital project budgets in 2029 are not part of the purview of the current GRC and would be examined for reasonableness in the subsequent GRC filing. In the current GRC, the capital budget for 2029 is calculated formulaically as an attrition year increase and is not affected by 2029 specific project budgets.[144]

Budgets) Q.2., Attachment 1 (Corrected).

[142] Attachment 1-6, Cal Am Response to Public Advocates Office Data Request JMI-01 (Recurring Budgets) Q.2., Attachment 1 (Corrected). Cal Am's annual 2020-2024 recorded Hydrants, Valves, and Manholes-Replaced costs are: 2020: $307,118, 2021: $408,616, 2022: $40,919, 2023: $104,380, and 2024: $40,256. Therefore, the 2020-2024 average is: $180,258.

[143] Attachment 1-6: Cal Am Response to Public Advocates Office Data Request JMI-01 (Recurring Budgets) Q.2., Attachment 1 (Corrected).

[144] RO model workbook ALL_CH02_SE_RO Sheet SOU_RevReq Cell L164.

Cal Am has several specific budgets forecast in year 2029. It would be inappropriate to authorize the 2029 specific budget requests in the current GRC for multiple reasons. First, as per the Rate Case Plan (D.04-06-018) and the Revised Rate Case Plan (D.07-05-062) the rate base forecast, including capital additions, will consist of two test years (2027 and 2028) and an attrition year (2029).[145] The capital budget for the attrition year 2029 should be and is calculated according to the Rate Case Plan. The budget for attrition year 2029 is calculated based on the difference of the first and second test years rate base and is unaffected by the proposed specific budgets.[146]

Second, since Cal Am's proposed 2029 budgets do not affect the revenue requirement the projects cannot be reviewed for reasonableness in the current GRC cycle. The revenue requirement for 2029 is forecast only on the difference in rate base additions from the two test years. The effects of the proposed 2029 project budgets would be calculated in the next GRC cycle as with the 2026 project budgets in the current GRC. As such the reasonableness of the 2029 budgets would be appropriate for review in the next GRC filing. Therefore, Cal Advocates takes no position on Cal Am's proposed projects for 2029 other than they are unnecessary to be considered in the current proceeding.

The Commission should not approve any specific capital budgets for the attrition year 2029. The Commission should adopt a rate base for attrition year 2029 based on the methodology described in the Rate Case Plan.

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[145] The Revised Rate Case Plan (D.07-05-062) states at A-19 "All rate base items, including capital additions and depreciation, shall not be escalated but rather shall be subject to two test years and an attrition year, consistent with D.04-06-018."

[146] According to the Rate Case Plan (D.04-06-018), the attrition allowance methodology estimates the rate base additions for the third year of the rate case cycle (2029 in this rate case cycle) based on the difference between the first and second test year rate base.

IV. CONCLUSION

The Commission should adopt plant project budgets of $12,871,087 for 2027 and $21,244,568 for 2028 to ensure that ratepayers only fund projects that provide ratepayers with benefits. The reduction to Cal Am's proposed budgets includes $12,434,175 in 2027 and $100,000 in 2028 for incomplete carryover projects that are not used and useful and $4,371,542 in 2027 and $13,160,454 in 2028 for newly proposed project budgets.

The Commission should also reject Cal Am's request to include, in the 2027 rate base, the following project requests: two PFAS treatment facilities[147] in its West San Martin system with budget amounts of $921,000 in 2025[148] and $2,763,000 in 2026[149]; the newly purchased office building amounts of $6,906,148 in 2025[150] and $2,884,262 in 2026[151]; installation of battery energy storage systems amounts of $921,000 in 2025[152] and 921,000 in 2026;[153] and a study on the feasibility of replacing the Begonia Iron Removal Plant (BIRP) with a budget amount of $350,000 in 2025.[154]

The Commission should not approve any specific capital budgets for the attrition year 2029. The Commission should adopt a rate base for attrition year 2029 based on the methodology described in the Rate Case Plan.

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[147] Cal Am Engineering Workpaper, I15-470001 at 3.

[148] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[149] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[150] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5." Cal Am's 2027 plant budget should be reduced by a total of $9,790,410 ($6,906,148+ $2,884,262) to account for the Central District Office.

[151] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5." Cal Am's 2027 plant budget should be reduced by a total of $9,790,410 ($6,906,148+ $2,884,262) to account for the Central District Office.

[152] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[153] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

[154] Cal Am RO model file "ALL_CH07_PLT_RO_Forecast," tab: "Total Direct CAPEX WS-5."

CHAPTER 2 Tank Painting

I. INTRODUCTION

Cal Am's tank maintenance and painting budget requests includes one tank that Cal Am plans to replace and another that does not require painting in this GRC. As part of the tank maintenance and painting program, Cal Am conducts tank inspections, implements required painting, and recovers project costs over a five to ten-year period.[155] Cal Advocates reviewed the most recent tank inspection reports to determine the reasonableness of Cal Am's requested budget.

II. SUMMARY OF RECOMMENDATIONS

The Commission should reduce the budget to $2,239,188 in 2027 (from $3,739,188)[156] and $1,985,493 (from $1,991,593)[157] in 2028 for tank maintenance and painting projects due to one tank painting project for a tank that Cal Am plans to replace in 2028, and one proposed unnecessary interior tank painting project.

III. ANALYSIS

A. Proposed Projects

1. 437 Reservoir Comprehensive Tank Painting Interior and Exterior and Anniversary Inspection (Sacramento District)

The Commission should reject Cal Am's proposed $500,000 budget in 2027 for the 437 Reservoir tank painting and $6,100 budget in 2028 for its Anniversary Tank Inspection.[158] An Anniversary Tank Inspection

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[155] Cal Am RO model file "ALL_CH04_O&M_WP_Def Prog Maint," tab: "REC."

[156] *Application of California-American Water Company (U210W) to Increase Revenues in Each of its Districts Statewide*, Direct Testimony of Lacy Carothers at 200-203.

[157] Direct Testimony of Lacy Carothers at 200-203.

[158] Cal Am RO model file "ALL_CH04_O&M_WP_Def Prog Maint," tab: "REC."

occurs approximately one year after completion of tank rehabilitation or painting.[159] Cal Am plans to replace the 437 Reservoir with two 250,000 gallon tanks with in-service dates of 2028.[160] Therefore, painting the existing reservoir that will be replaced in 2028 is unreasonable and unnecessary. Ratepayers should not pay for painting a tank that will be replaced in 2028.[161]

2. Rose Parade Tank (Sacramento District)

The Commission should reduce Cal Am's proposed Rose Parade Tank budget to $700,000 (from $1,711,000) in 2027[162] for its comprehensive exterior and interior tank rehabilitation.[163] Cal Am's Rose Parade Tank Inspection Report recommends "exterior spot cleaning and top coating" at a cost of $700,000, but does not recommend interior tank painting at a cost of $1 million.[164],[165] Therefore, the Commission should deny the interior painting budget and reduce Cal Am's Rose Parade Tank project budget to $700,000.

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[159] Attachment 1-3: Cal Am Response to Public Advocates Office Data Request DKG-03 (Monterey Proposed Projects) Q.4.d.

[160] Attachment 2-3: Cal Am Response to Public Advocates Office Data Request JMI-08 (Northern Tank Painting) Q.2.a.-b.

[161] For discussion of Cal Am's Rose Parade Project, see Cal Advocates Report on Northern Division Plant.

[162] Attachment 2-1: Cal Am Response to Public Advocates Office Data Request JMI-08 (Northern Tank Painting) Q.1.a.

[163] Cal Am RO model file "ALL_CH04_O&M_WP_Def Prog Maint," tab: "REC."

[164] Attachment 2-2: Cal Am Response to Public Advocates Office Data Request JMI-02 (Tank Maintenance NOR Division) Q.1., Attachment 11 at 14-15.

[165] Attachment 2-1: Cal Am Response to Public Advocates Office Data Request JMI-08 (Northern Tank Painting) Q.1.a.

IV. CONCLUSION

The Commission should adopt a budget of $2,239,188 in 2027[166] and $1,985,493 [167] in 2028 for tank maintenance and painting projects to ensure that ratepayers only fund Cal Am's prudent investments that provide benefits.

[166] Direct Testimony of Lacy Carothers at 200-203.

[167] Direct Testimony of Lacy Carothers at 200-203.

Attachment 1-1: Qualifications of Witness

QUALIFICATIONS AND PREPARED TESTIMONY
OF
DAPHNE GOLDBERG

Q.1 Please state your name and business address.

A.1 My name is Daphne Goldberg, and my business address is 505 Van Ness Avenue, San Francisco, California 94102.

Q.2 By whom are you employed and what is your job title?

A.2 I am a Utilities Engineer in the Water Branch of the Public Advocates Office.

Q.3 Please describe your educational and professional experience.

A.3 I received a Bachelor of Science Degree in Civil Engineering from Santa Clara University, a Master of Business Administration Degree from San Francisco State University, and a master's in civil/environmental engineering from University of California, Davis. I received my Engineer-in-Training Certification in the State of California, Certificate #141820.

My professional experience in my role as a Utilities Engineer includes work on several General Rate Cases, Acquisition proceedings, and the review of Advice Letters. Prior to joining the Public Advocates Office, my professional experience includes work as a Staff Engineer at URS Corporation in the Civil Engineering Group where I assisted the civil engineers and planners in infrastructure design projects, development of project schedules and budgets and preparation of new project proposals. Prior to URS, I was a Design Trainee at the San Francisco Public Utilities Commission where I worked on the Water System Improvement Program in the Project Management Bureau on performance reporting documents related to water resources planning, scheduling, risk management and operations.

Q.4 What is your area of responsibility in this proceeding?

A.4 My responsibility in this proceeding is Central Division Plant and Tank Painting requests.

Q.5 Does that complete your prepared testimony?

A.5 Yes.

Attachment 1-2: Cal Am Response to Public Advocates Office Data Request DKG-02 (Monterey Pipelines Office and WSM PFAS) Excerpt

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Tim O'Halloran**
Title:	**Mgr Engrg - Project Delivery**
Address:	**California American Water 511 Forest Lodge Rd, Ste 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-02**
Company Number:	**Cal Adv DKG-02 Q002**
Date Received:	**July 8, 2025**
Date Response Provided:	**July 22, 2025**
Subject Area:	**Monterey Pipelines Divisional Office and West San Martin PFAS**

DATA REQUEST:

2. Please refer to the Direct Testimony of Lacy Carothers dated July 1, 2025 (Lacy Carothers Testimony). Regarding Cal Am's Monterey Divisional Office project, Lacy Carothers testimony, pp. 141-142, states:

> "These two facilities are located at two separate addresses on the western edge of our service territory, which make for extended drives for customers in Carmel Valley and along the Highway 68 corridor near Salinas."

a. Between January 1, 2021 and December 31, 2024, provide the annual number of customers that Cal Am provided assistance to in-person at its Pacific Grove customer service location in the table below.

Year	Number of Customers that Cal Am provided assistance to in-person in the office
2021	
2022	
2023	
2024	

b. For each year, 2021, 2021,2022, 2023, and 2024, provide the number of Carmel Valley and along the Highway 68 corridor near Salinas customers that Cal Am provided assistance to in-person, in the in the table below.

Year	Number of Carmel Valley and Highway 68 corridor customers that Cal Am provided assistance to in-person in the office
2021	
2022	
2023	
2024	

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is stated fully here. Subject to, and without waiving, those objections, California American Water responds:

Detailed logs of number of customers and their location are not kept. The office was closed to the public during COVID and re-opened on October 2021. Therefore, the number of customers visiting the office was considerably reduced.

Once re-opened, it was noted that customers had found new ways to seek customer assistance. In December 2023, an ATM payment service was introduced at the office eliminating requirements for customer service interaction in most cases for bill pay. Customer service logged customer interactions from January 24, 2024, to March 4, 2024. Based on the log, customer service helped approximately 4 customers per day, which based on customer service experience, remains steady today. This is approximately 1,000 customers annually that are helped by the customer service team.

This number does not include customers or developers meeting with other departments such as Engineering for new service applications.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Tim O'Halloran**
Title:	**Mgr Engrg - Project Delivery**
Address:	**California American Water 511 Forest Lodge Rd, Ste 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-02**
Company Number:	**Cal Adv DKG-02 Q003**
Date Received:	**July 8, 2025**
Date Response Provided:	**July 22, 2025**
Subject Area:	**Monterey Pipelines Divisional Office and West San Martin PFAS**

DATA REQUEST:

3. Please refer to Lacy Carothers testimony, p. 142, that states:

"An existing building has been identified in the Ryan Ranch Business Park in Monterey, California. The building is approximately 30,000 square feet of office space on 3.5 acres of land. The building will require improvements to meet our needs, and we plan to fully move in once the current tenants exit. There are two tenants with leases, one for 6,843 sq. ft. extending through April of 2028 and the other for 5,869 sq. ft. expiring in August of 2031."

a. Provide the distance (miles) between Cal Am's current Operations Yard in Pacific Grove and the Ryan Ranch building.
b. Provide the distance (miles) between Carmel Valley and Cal Am's current Operations Yard in Pacific Grove.
c. Provide the distance (miles) between Carmel Valley and the Ryan Ranch building.
d. Provide the distance (miles) between Cal Am's current customer service and administrative office in Pacific Grove and the Ryan Ranch building.
e. Provide the detailed cost estimate for the required improvements referenced above.

CAL-AM'S RESPONSE

3. California American Water incorporates its general objections as if each is stated fully here. California American Water further objects to the extent this request overly burdensome and seeks information equally available to either party, including by asking California American Water to perform research that the requesting party could have

performed. Subject to, and without waiving these objections, California American Water responds:

See individual responses below to questions. To the extent these responses contain statements of mileage, these are estimates based on directions provided by Google.

a. The distance between Cal Am's current Operations Yard in Pacific Grove and the Ryan Ranch building is 10.8 miles.
b. The distance between Carmel Valley and Cal Am's current Operations Yard in Pacific Grove is 17.3 miles.
c. The distance between Carmel Valley and the Ryan Ranch Building is 11.5 miles.
d. The distance between Cal Am's current customer service and administrative office in Pacific Grove and the Ryan Ranch building is 10.1 miles.
e. Please see below for a breakdown providing a more detailed cost estimate based upon assumed improvements. Architectural Improvement drawings are currently being developed for renovation of the building.

Monterey Office Project Cost	
Purchase Price	$ 5,406,000.00
Tenant Improvements	
Architectural Improvements	$ 2,884,400.00
Interior Design Installation	$ 875,000.00
Civil Improvements	$ 625,000.00
Subtotal	$ 4,384,400.00
Total	$ 9,790,400.00

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Tim O'Halloran**
Title:	**Mgr Engrg - Project Delivery**
Address:	**California American Water 511 Forest Ldg Rd,Ste 100 Pacific Grove CA**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-02**
Company Number:	**Cal ADV DKG-02 Q004**
Date Received:	**July 8, 2025**
Date Response Provided:	**July 22, 2025**
Subject Area:	**Monterey Pipelines Divisional Office and West San Martin PFAS**

DATA REQUEST:

4. Please refer to Lacy Carothers testimony, p. 142. that states:

"A purchase and sale agreement and closing was finalized in May of 2025. It is expected that month-to-month tenants will vacate by the end of 2025 with tenant improvements occurring in 2026 and California American Water staff occupancy forecasted in late 2026 or early 2027."

   a. Provide the purchase and sale agreement and closing documents referenced in the quote above.
   b. Provide written confirmation that the month-to-month tenants will vacate at the end of 2025.

CAL-AM'S RESPONSE

4. See below individual responses.

   a. Purchase and sale agreement and all closing documents have been provided in the materials provided with CAW Response Cal Adv DKG-02 Q004 Attachment 1 PSA.
   b. All month-to-month tenants were, on July 2, 2024, by the property manager, provided with written notice to vacate by October 31, 2025.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Nina Miller**
Title:	**Manager Engineering-Asset Planning**
Address:	**California American Water 511 Forest Lodge Rd, Ste 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-02**
Company Number:	**Cal Adv DKG-02 Q005**
Date Received:	**July 8, 2025**
Date Response Provided:	**July 22, 2025**
Subject Area:	**Monterey Pipelines Divisional Office and West San Martin PFAS**

DATA REQUEST:

5. Regarding the West San Martin PFAS Treatment Facility project, Cal Am's engineering workpaper for the project, with the file name "096 - I15-470001_WSM PFAS_REV," states:

> "Prior to installing treatment, it is recommended that a groundwater source contamination study be completed. This study is intended to provide a more comprehensive understanding of groundwater contamination and its proximity to existing wells, determine if the existing well sites have sufficient footprint for treatment, and determine the feasibility of replacing the existing wells in a different location, as new well sites may have more favorable water quality. However, without knowledge of the outcome of this study, it is currently recommended that CAW plan for the installation of treatment at the Colony Well and the County Building Well."
>
> "In 2023, the West San Martin Water Works, Inc. Water System Condition Assessment, Valuation and Capital Improvements Plan was completed by Valentine Engineers. This assessment estimated the MOD to be approximately 652 gpm. The assessment also listed the well capacities as 340 gpm for Well 1, 300 gpm for the Colony Well, and 400 gpm for the County Building Well. The firm capacity, or the total capacity with the largest well out of service, is 640 gpm, which is very close to the MOD. The current adequacy of supply will be analyzed in the 2025 Comprehensive Planning Study to determine if another well is needed based on an updated analysis of MOD and well capacities."

a. Provide the groundwater source contamination study referred to in the quote above. If the study is not yet complete, provide the expected completion date.

b. Provide the 2023 West San Martin Water Works, Inc. Water System Condition Assessment, Valuation and Capital Improvements Plan completed by Valentine Engineers referenced in the quote above.
c. Provide the 2025 Comprehensive Planning Study referenced in the quote above.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as though each is stated fully here. California American Water further objects to the extent this request is overly burdensome in requesting documents previously provided to the requesting party. Subject to, but without waiving these objections, California American Water responds:

a) The Source Contamination Study is expected to be completed by February 2026.

b) The West San Martin Condition Assessment, Valuation and Capital Improvements Plan 2023 is included as "CAW Response Cal Adv DKG-02 Q005.b Attachment 1WSM Plan 2023_Redacted."

c) The 2025 Comprehensive Planning Study is anticipated to be completed by March 2026.

AIRCRE contracts

STANDARD OFFER, AGREEMENT AND ESCROW INSTRUCTIONS FOR PURCHASE OF REAL ESTATE

(Non-Residential)

Dated: March 10, 2025

1. Buyer.

1.1 California-American Water Company, ("**Buyer**") hereby offers to purchase the real property, hereinafter described, from the owner thereof ("**Seller**") (collectively, the "**Parties**" or individually, a "**Party**"), through an escrow ("**Escrow**") to close ~~30 or~~ 14 days after the waiver or satisfaction of the Buyer's Contingencies, ("**Expected Closing Date**") to be held by Old Republic Title of Monterey ("**Escrow Holder**") whose address is 503 Abrego Street, Monterey, CA 93940 (Escrow Officer - Heather Tremper - htremper@ortc.com), Phone No. (831) 372-7378, Facsimile No. (866) 558-9259 upon the terms and conditions set forth in this agreement ("**Agreement**"). Buyer shall have the right to assign Buyer's rights hereunder, but any such assignment shall not relieve Buyer of Buyer's obligations herein unless Seller expressly releases Buyer.

1.2 The term "**Date of Agreement**" as used herein shall be the date when by execution and delivery (as defined in paragraph 20.2) of this document or a subsequent counteroffer thereto, Buyer and Seller have reached agreement in writing whereby Seller agrees to sell, and Buyer agrees to purchase, the Property upon terms accepted by both Parties.

2. Property.

2.1 The real property ("**Property**") that is the subject of this offer consists of (insert a brief physical description) +- 29,870 SF of building on a +- 3.51 acres of land is located in the County of Monterey, is commonly known as (street address, city, state, zip) 5 Mandeville Court, Monterey, CA 93940 and is legally described as: _____ (APN: 259-031-050).

2.2 If the legal description of the Property is not complete or is inaccurate, this Agreement shall not be invalid and the legal description shall be completed or corrected to meet the requirements of Old Republic Title of Monterey ("**Title Company**"), which shall issue the title policy hereinafter described.

2.3 The Property includes, at no additional cost to Buyer, the permanent improvements thereon, including those items which pursuant to applicable law are a part of the property, as well as the following items, if any, owned by Seller and at present located on the Property: electrical distribution systems (power panel, bus ducting, conduits, disconnects, lighting fixtures); telephone distribution systems (lines, jacks and connections only); space heaters; heating, ventilating, air conditioning equipment ("**HVAC**"); air lines; fire sprinkler systems; security and fire detection systems; carpets; window coverings; wall coverings; and all tangible and intangible personal property, including plans, specifications and other documentation in Seller's possession concerning the Property, free and clear of all liens and encumbrances (collectively, the "**Improvements**").

2.4 The fire sprinkler monitor: ☐ is owned by Seller and included in the Purchase Price, ☐ is leased by Seller, and Buyer will need to negotiate a new lease with the fire monitoring company, ☑ ownership will be determined during Escrow, or ☐ there is no fire sprinkler monitor.

2.5 Except as provided in Paragraph 2.3, the Purchase Price does not include Seller's personal property, furniture and furnishings, and _____ all of which shall be removed by Seller prior to Closing.

3. Purchase Price.

3.1 The purchase price ("**Purchase Price**") to be paid by Buyer to Seller for the Property shall be $5,300,000.00, payable as follows: *(Strike any not applicable)*

(a) Cash down payment, including the Deposit as defined in paragraph 4.3 (or if an all cash transaction, the Purchase Price): $5,300,000.00

~~(b) Amount of "New Loan" as defined in paragraph 5.1, if any:~~

~~(c) Buyer shall take title to the Property subject to and/or assume the following existing deed(s) of trust ("Existing Deed(s) of Trust") securing the existing promissory note(s) ("Existing Note(s)"):~~

~~(i) An Existing Note ("First Note") with an unpaid principal balance as of the Closing of approximately:~~

~~Said First Note is payable at _____ per month, including interest at the rate of _____% per annum until paid (and/or the entire unpaid balance is due on _____).~~

~~(ii) An Existing Note ("Second Note") with an unpaid principal balance as of the Closing of approximately:~~

~~Said Second Note is payable at _____ per month, including interest at the rate of _____% per annum until paid (and/or the entire unpaid balance is due on _____).~~

~~(d) Buyer shall give Seller a deed of trust ("Purchase Money Deed of Trust") on the property, to secure the promissory note of Buyer to Seller described in paragraph 6 ("Purchase Money Note") in the amount of:~~

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Total Purchase Price: $5,300,000.00

3.2 If Buyer is taking title to the Property subject to, or assuming, an Existing Deed of Trust and such deed of trust permits the beneficiary to demand payment of fees including, but not limited to, points, processing fees, and appraisal fees as a condition to the transfer of the Property, Buyer agrees to pay such fees up to a maximum of 1.5% of the unpaid principal balance of the applicable Existing Note.

4. Deposits.

4.1 ~~Buyer has delivered to Broker a check in the sum of _____, payable to Escrow Holder, to be delivered by Broker to Escrow Holder within 2 or _____ business days after both Parties have executed this Agreement and the executed Agreement has been delivered to Escrow Holder, or~~ ☑ within 2 ~~or _____~~ business days after both Parties have executed this Agreement and the executed Agreement has been delivered to Escrow Holder Buyer shall deliver to Escrow Holder a check in the sum of $100,000.00. If said check is not received by Escrow Holder within said time period then Seller may elect to unilaterally terminate this transaction by giving written notice of such election to Escrow Holder whereupon neither Party shall have any further liability to the other under this Agreement. Should Buyer and Seller not enter into an agreement for purchase and sale, Buyer's check or funds shall, upon request by Buyer, be promptly returned to Buyer.

4.2 Additional deposits:

~~(a) Within 5 business days after the Date of Agreement, Buyer shall deposit with Escrow Holder the additional sum of _____ to be applied to the Purchase Price at the Closing.~~

~~(b) Within 5 business days after the contingencies discussed in paragraph 9.1 (a) through (m) are approved or waived, Buyer shall deposit with Escrow Holder the additional sum of _____ to be applied to the Purchase Price at the Closing.~~

~~(c) If an Additional Deposit is not received by Escrow Holder within the time period provided then Seller may notify Buyer, Escrow Holder, and Brokers, in writing that, unless the Additional Deposit is received by Escrow Holder within 2 business days following said notice, the Escrow shall be deemed terminated without further notice or instructions.~~

4.3 Escrow Holder shall deposit the funds deposited with it by Buyer pursuant to paragraphs 4.1 and 4.2 (collectively the "**Deposit**"), in a State or Federally chartered bank in an interest bearing account whose term is appropriate and consistent with the timing requirements of this transaction. The interest therefrom shall accrue to the benefit of Buyer, who hereby acknowledges that there may be penalties or interest forfeitures if the applicable instrument is redeemed prior to its specified maturity. Buyer's Federal Tax Identification Number is _____. NOTE: Such interest bearing account cannot be opened until Buyer's Federal Tax Identification Number is provided.

4.4 Notwithstanding the foregoing, within 5 days after Escrow Holder receives the monies described in paragraph 4.1 above, Escrow Holder shall release $100 of said monies to Seller as and for independent consideration for Seller's' execution of this Agreement and the granting of the contingency period to Buyer as herein provided. Such independent consideration is non-refundable to Buyer but shall be credited to the Purchase Price in the event that the purchase of the Property is completed.

4.5 Upon waiver of all of Buyer's contingencies the Deposit shall become non-refundable but applicable to the Purchase Price except in the event of a Seller breach, or in the event that the Escrow is terminated pursuant to the provisions of Paragraph 9.1(n) (Destruction, Damage or Loss) or 9.1(o) (Material Change).

~~5. Financing Contingency.~~ ***~~(Strike if not applicable)~~***

~~5.1 This offer is contingent upon Buyer obtaining from an insurance company, financial institution or other lender, a commitment to lend to Buyer a sum equal to at least _____% of the Purchase Price, on terms acceptable to Buyer. Such loan ("**New Loan**") shall be secured by a first deed of trust or mortgage on the Property. If this Agreement provides for Seller to carry back junior financing, then Seller shall have the right to approve the terms of the New Loan. Seller shall have 7 days following receipt of the commitment setting forth the proposed terms of the New Loan to approve or disapprove of such proposed terms. If Seller fails to notify Escrow Holder, in writing, of the disapproval within said 7 days it shall be conclusively presumed that Seller has approved the terms of the New Loan.~~

~~5.2 If Buyer shall fail to notify its Broker, Escrow Holder and Seller, in writing within _____ days following the Date of Agreement, that the New Loan has not been obtained, it shall be conclusively presumed that Buyer has either obtained said New Loan or has waived this New Loan contingency.~~

~~5.3 If Buyer shall notify its Broker, Escrow Holder and Seller, in writing, within the time specified in paragraph 5.2 hereof, that Buyer has not obtained said New Loan, this Agreement shall be terminated, and Buyer shall be entitled to the prompt return of the Deposit, plus any interest earned thereon, less only Escrow Holder and Title Company cancellation fees and costs, which Buyer shall pay.~~

~~6. Seller Financing~~ (Purchase Money Note) ***~~(Strike if not applicable)~~***

~~6.1 If Seller approves Buyer's financials (see paragraph 6.5) the Purchase Money Note shall provide for interest on unpaid principal at the rate of _____% per annum, with principal and interest paid as follows: _____. The Purchase Money Note and Purchase Money Deed of Trust shall be on the current forms commonly used by Escrow Holder, and be junior and subordinate only to the Existing Note(s) and/or the New Loan expressly called for by this Agreement.~~

~~6.2 The Purchase Money Note and/or the Purchase Money Deed of Trust shall contain provisions regarding the following (see also paragraph 10.3 (b)):~~

~~(a) *Prepayment*. Principal may be prepaid in whole or in part at any time without penalty, at the option of the Buyer.~~

~~(b) *Late Charge*. A late charge of 6% shall be payable with respect to any payment of principal, interest, or other charges, not made within 10 days after it is due.~~

~~(c) *Due On Sale*. In the event the Buyer sells or transfers title to the Property or any portion thereof, then the Seller may, at Seller's option, require the entire unpaid balance of said Note to be paid in full.~~

~~6.3 If the Purchase Money Deed of Trust is to be subordinate to other financing, Escrow Holder shall, at Buyer's expense prepare and record on Seller's behalf a request for notice of default and/or sale with regard to each mortgage or deed of trust to which it will be subordinate.~~

~~6.4 WARNING: CALIFORNIA LAW DOES NOT ALLOW DEFICIENCY JUDGEMENTS ON SELLER FINANCING. IF BUYER ULTIMATELY DEFAULTS ON THE LOAN, SELLER'S SOLE REMEDY IS TO FORECLOSE ON THE PROPERTY.~~

~~6.5 Seller's obligation to provide financing is contingent upon Seller's reasonable approval of Buyer's financial condition. Buyer to provide a current financial statement and copies of its Federal tax returns for the last 3 years to Seller within 10 days following the Date of Agreement. Seller has 10 days following receipt of such documentation to satisfy itself with regard to Buyer's financial condition and to notify Escrow Holder as to whether or not Buyer's financial condition is acceptable. If Seller fails to notify Escrow Holder, in writing, of the disapproval of this contingency within said time period, it shall be conclusively presumed that Seller has approved Buyer's financial condition. If Seller is not satisfied with Buyer's financial condition or if Buyer fails to deliver the required documentation then Seller may notify Escrow Holder in writing that Seller Financing will not be available, and Buyer shall have the option, within 10 days of the receipt of such notice, to either~~

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~~terminate this transaction or to purchase the Property without Seller financing. If Buyer fails to notify Escrow Holder within said time period of its election to terminate this transaction then Buyer shall be conclusively presumed to have elected to purchase the Property without Seller financing. If Buyer elects to terminate, Buyer's Deposit shall be refunded less Title Company and Escrow Holder cancellation fees and costs, all of which shall be Buyer's obligation.~~

7. Real Estate Brokers.

7.1 Each Party acknowledges receiving a Disclosure Regarding Real Estate Agency Relationship, confirms and consents to the following agency relationships in this transaction with the following real estate broker(s) ("**Brokers**") and/or their agents ("Agent(s)"):

Seller's Brokerage Firm Mahoney & Associates Commercial Real Estate License No. 01521253 is the broker of (check one): ☑ the Seller; or ☐ both the Buyer and Seller (dual agent).

Seller's Agent Ryan Edwards & Josh Jones License No. 01403313 & 01352818 is (check one): ☑ the Seller's Agent (salesperson or broker associate); or ☐ both the Seller's Agent and the Buyer's Agent (dual agent).

Buyer's Brokerage Firm Mohr Partners License No. _____ is the broker of (check one): ☑ the Buyer; or ☐ both the Buyer and Seller (dual agent).

Buyer's Agent Robin Leamy & Michael Leamy License No. 00942559 is (check one): ☑ the Buyer's Agent (salesperson or broker associate); or ☐ both the Buyer's Agent and the Seller's Agent (dual agent).

The Parties acknowledge that other than the Brokers and Agents listed above, there are no other brokers or agents representing the Parties or due any fees and/or commissions under this Agreement. Buyer shall use the services of Buyer's Broker exclusively in connection with any and all negotiations and offers with respect to the Property for a period of 1 year from the date inserted for reference purposes at the top of page 1.

7.2 Buyer and Seller each represent and warrant to the other that he/she/it has had no dealings with any person, firm, broker, agent or finder in connection with the negotiation of this Agreement and/or the consummation of the purchase and sale contemplated herein, other than the Brokers and Agents named in paragraph 7.1, and no broker, agent or other person, firm or entity, other than said Brokers and Agents is/are entitled to any commission or finder's fee in connection with this transaction as the result of any dealings or acts of such Party. Buyer and Seller do each hereby agree to indemnify, defend, protect and hold the other harmless from and against any costs, expenses or liability for compensation, commission or charges which may be claimed by any broker, agent, finder or other similar party, other than said named Brokers and Agents by reason of any dealings or act of the indemnifying Party.

8. Escrow and Closing.

8.1 Upon acceptance hereof by Seller, this Agreement, including any counteroffers incorporated herein by the Parties, shall constitute not only the agreement of purchase and sale between Buyer and Seller, but also instructions to Escrow Holder for the consummation of the Agreement through the Escrow. Escrow Holder shall not prepare any further escrow instructions restating or amending the Agreement unless specifically so instructed by the Parties or a Broker herein. Subject to the reasonable approval of the Parties, Escrow Holder may, however, include its standard general escrow provisions. In the event that there is any conflict between the provisions of the Agreement and the provisions of any additional escrow instructions the provisions of the Agreement shall prevail as to the Parties and the Escrow Holder.

8.2 As soon as practical after the receipt of this Agreement and any relevant counteroffers, Escrow Holder shall ascertain the Date of Agreement as defined in paragraphs 1.2 and 20.2 and advise the Parties and Brokers, in writing, of the date ascertained.

8.3 Escrow Holder is hereby authorized and instructed to conduct the Escrow in accordance with this Agreement, applicable law and custom and practice of the community in which Escrow Holder is located, including any reporting requirements of the Internal Revenue Code. In the event of a conflict between the law of the state where the Property is located and the law of the state where the Escrow Holder is located, the law of the state where the Property is located shall prevail.

8.4 Subject to satisfaction of the contingencies herein described, Escrow Holder shall close this escrow (the "**Closing**") by recording a general warranty deed (a grant deed in California) and the other documents required to be recorded, and by disbursing the funds and documents in accordance with this Agreement.

8.5 Buyer and Seller shall each pay one-half of the Escrow Holder's charges and Seller shall pay the usual recording fees and any required documentary transfer taxes. Seller shall pay the premium for a standard coverage owner's or joint protection policy of title insurance. (See also paragraph 11.)

8.6 Escrow Holder shall verify that all of Buyer's contingencies have been satisfied or waived prior to Closing. The matters contained in paragraphs 9.1 subparagraphs (b), (c), (d), (e), (g), (i), (n), and (o), 9.4, 12, 13, 14, 16, 18, 20, 21, 22, and 24 are, however, matters of agreement between the Parties only and are not instructions to Escrow Holder.

8.7 If this transaction is terminated for non-satisfaction and non-waiver of a Buyer's Contingency, as defined in paragraph 9.2 or disapproval of any other matter subject to Buyer's approval, then neither of the Parties shall thereafter have any liability to the other under this Agreement, except to the extent of a breach of any affirmative covenant or warranty in this Agreement. In the event of such termination, Buyer shall, subject to the provisions of paragraph 8.10, be promptly refunded all funds deposited by Buyer with Escrow Holder, less only the $100 provided for in paragraph 4.4 and the Title Company and Escrow Holder cancellation fees and costs, all of which shall be Buyer's obligation. If this transaction is terminated as a result of Seller's breach of this Agreement then Seller shall pay the Title Company and Escrow Holder cancellation fees and costs.

8.8 The Closing shall occur on the Expected Closing Date, or as soon thereafter as the Escrow is in condition for Closing; provided, however, that if the Closing does not occur by the Expected Closing Date and said Date is not extended by mutual instructions of the Parties, a Party not then in default under this Agreement may notify the other Party, Escrow Holder, and Brokers, in writing that, unless the Closing occurs within 5 business days following said notice, the Escrow shall be deemed terminated without further notice or instructions.

8.9 Except as otherwise provided herein, the termination of Escrow shall not relieve or release either Party from any obligation to pay Escrow Holder's fees and costs or constitute a waiver, release or discharge of any breach or default that has occurred in the performance of the obligations, agreements, covenants or warranties contained therein.

8.10 If this Escrow is terminated for any reason other than Seller's breach or default, then ~~as a condition to the return of Buyer's deposit,~~ Buyer shall within 5 days after written request deliver to Seller, at no charge, copies of all surveys, engineering studies, soil reports, maps, master plans, feasibility studies and other similar items prepared by or for Buyer that pertain to the Property.

9. Contingencies to Closing.

9.1 **IF, BEFORE EXPIRATION OF THE APPLICABLE TIME, BUYER FAILS TO PROVIDE ESCROW HOLDER WRITTEN NOTICE OF BUYER'S ~~DIS~~APPROVAL OF ANY OF BUYER'S CONTINGENCIES OR ANY OTHER MATTER THAT IS SUBJECT TO BUYER'S APPROVAL IN THIS AGREEMENT, THEN BUYER SHALL BE CONCLUSIVELY DEEMED TO HAVE ~~SATISFIED~~ DISAPPROVED SUCH BUYER'S CONTINGENCIES AND/OR DISAPPROVED OF SUCH OTHER MATTERS.** If a number of days is completed in

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any of the optional spaces in subparagraphs 9.1 (a) through (m), then such number shall apply and override the pre-printed number, even if the pre-printed number is not stricken; provided that, notwithstanding anything to the contrary herein, Seller shall deliver all due diligence materials to Buyer within 5 days of the Date of Agreement, and Buyer shall have until 5:00 Pacific time on the date which is 45 days after the Date of Agreement to approve or disapprove Buyer's contingencies. If Buyer disapproves, then this Agreement shall automatically terminate and the Deposit shall be returned to Buyer. The Closing of this transaction is contingent upon the satisfaction or waiver of the following contingencies:

(a) *Disclosure*. Seller shall make to Buyer, through Escrow, all of the applicable disclosures required by law (See AIR CRE ("**AIR**") standard form entitled "**Seller's Mandatory Disclosure Statement**") and provide Buyer with a completed Property Information Sheet ("**Property Information Sheet**") concerning the Property, duly executed by or on behalf of Seller in the current form or equivalent to that published by the AIR within ~~10 or~~ 5 days following the Date of Agreement. Buyer has ~~10~~ 45 days from the ~~receipt of said disclosures~~ Date of Agreement to approve or disapprove the matters disclosed.

(b) *Physical Inspection*. Buyer has ~~10 or~~ 45 days following the ~~receipt of the Property Information Sheet or the~~ Date of Agreement~~, whichever is later,~~ to satisfy itself with regard to the physical aspects and size of the Property.

(c) *Hazardous Substance Conditions Report*. Buyer has ~~30 or~~ 45 days following the ~~receipt of the Property Information Sheet or the~~ Date of Agreement~~, whichever is later,~~ to satisfy itself with regard to the environmental aspects of the Property. Seller recommends that Buyer obtain a Hazardous Substance Conditions Report concerning the Property and relevant adjoining properties. Any such report shall be paid for by Buyer. A "**Hazardous Substance**" for purposes of this Agreement is defined as any substance whose nature and/or quantity of existence, use, manufacture, disposal or effect, render it subject to Federal, state or local regulation, investigation, remediation or removal as potentially injurious to public health or welfare. A "**Hazardous Substance Condition**" for purposes of this Agreement is defined as the existence on, under or relevantly adjacent to the Property of a Hazardous Substance that would require remediation and/or removal under applicable Federal, state or local law.

(d) *Soil Inspection*. Buyer has ~~30 or~~ 45 days following the ~~receipt of the Property Information Sheet or the~~ Date of Agreement~~, whichever is later,~~ to satisfy itself with regard to the condition of the soils on the Property. Seller recommends that Buyer obtain a soil test report. Any such report shall be paid for by Buyer. Seller shall provide Buyer copies of any soils report that Seller may have within 10 days following the Date of Agreement.

(e) *Governmental Approvals*. Buyer has ~~30 or~~ 45 days following the Date of Agreement to satisfy itself with regard to approvals and permits from governmental agencies or departments which have or may have jurisdiction over the Property and which Buyer deems necessary or desirable in connection with its intended use of the Property, including, but not limited to, permits and approvals required with respect to zoning, planning, building and safety, fire, police, handicapped and Americans with Disabilities Act requirements, transportation and environmental matters.

(f) *Conditions of Title*. Escrow Holder shall cause a current commitment for title insurance ("**Title Commitment**") concerning the Property issued by the Title Company, as well as legible copies of all documents referred to in the Title Commitment ("**Underlying Documents**"), and a scaled and dimensioned plot showing the location of any easements to be delivered to Buyer within ~~10 or~~ 5 days following the Date of Agreement. Buyer has ~~10~~ 45 days from the ~~receipt of the Title Commitment, the Underlying Documents and the plot plan~~ Date of Agreement to satisfy itself with regard to the condition of title. The disapproval by Buyer of any monetary encumbrance, which by the terms of this Agreement is not to remain against the Property after the Closing, shall not be considered a failure of this contingency, as Seller shall have the obligation, at Seller's expense, to satisfy and remove such disapproved monetary encumbrance at or before the Closing.

(g) *Survey*. Buyer has ~~30 or~~ 45 days following the ~~receipt of the Title Commitment and Underlying Documents~~ Date of Agreement to satisfy itself with regard to any ALTA title supplement based upon a survey prepared to American Land Title Association ("**ALTA**") standards for an owner's policy by a licensed surveyor, showing the legal description and boundary lines of the Property, any easements of record, and any improvements, poles, structures and things located within 10 feet of either side of the Property boundary lines. Any such survey shall be prepared at Buyer's direction and expense. If Buyer has obtained a survey and approved the ALTA title supplement, Buyer may elect within the period allowed for Buyer's approval of a survey to have an ALTA extended coverage owner's form of title policy, in which event Buyer shall pay any additional premium attributable thereto.

(h) *Existing Leases and Tenancy Statements*. Seller shall within ~~10 or~~ 5 days following the Date of Agreement provide both Buyer and Escrow Holder with legible copies of all leases, subleases or rental arrangements (collectively, "**Existing Leases**") affecting the Property, and with a tenancy statement ("**Estoppel Certificate**") in the latest form or equivalent to that published by the AIR, executed by Seller and/or each tenant and subtenant of the Property. Seller shall use its best efforts to have each tenant complete and execute an Estoppel Certificate. If any tenant fails or refuses to provide an Estoppel Certificate then Seller shall complete and execute an Estoppel Certificate for that tenancy. Buyer has ~~10~~ 45 days from the ~~receipt of said Existing Leases and Estoppel Certificates~~ Date of Agreement to satisfy itself with regard to the Existing Leases and any other tenancy issues.

(i) *Owner's Association*. Seller shall within ~~10 or~~ 5 days following the Date of Agreement provide Buyer with a statement and transfer package from any owner's association servicing the Property. Such transfer package shall at a minimum include: copies of the association's bylaws, articles of incorporation, current budget and financial statement. Buyer has ~~10~~ 45 days from the ~~receipt of such documents~~ Date of Agreement to satisfy itself with regard to the association.

(j) *Other Agreements*. Seller shall within ~~10 or~~ 5 days following the Date of Agreement provide Buyer with legible copies of all other agreements ("**Other Agreements**") known to Seller that will affect the Property after Closing. Buyer has ~~10~~ 45 days from the ~~receipt of said Other Agreements~~ Date of Agreement to satisfy itself with regard to such Agreements.

~~(k) *Financing*. If paragraph 5 hereof dealing with a financing contingency has not been stricken, the satisfaction or waiver of such New Loan contingency.~~

~~(l) *Existing Notes*. If paragraph 3.1(c) has not been stricken, Seller shall within 10 or _____ days following the Date of Agreement provide Buyer with legible copies of the Existing Notes, Existing Deeds of Trust and related agreements (collectively, "**Loan Documents**") to which the Property will remain subject after the Closing. Escrow Holder shall promptly request from the holders of the Existing Notes a beneficiary statement ("**Beneficiary Statement**") confirming: (1) the amount of the unpaid principal balance, the current interest rate, and the date to which interest is paid, and (2) the nature and amount of any impounds held by the beneficiary in connection with such loan. Buyer has 10 or _____ days following the receipt of the Loan Documents and Beneficiary Statements to satisfy itself with regard to such financing. Buyer's obligation to close is conditioned upon Buyer being able to purchase the Property without acceleration or change in the terms of any Existing Notes or charges to Buyer except as otherwise provided in this Agreement or approved by Buyer, provided, however, Buyer shall pay the transfer fee referred to in paragraph 3.2 hereof. Likewise if Seller is to carry back a Purchase Money Note then Seller shall within 10 or _____ days following the Date of Agreement provide Buyer with a copy of the proposed Purchase Money Note and Purchase Money Deed of Trust. Buyer has 10 or _____ days following the receipt of such documents to satisfy itself with regard to the form and content thereof.~~

(m) *Personal Property*. In the event that any personal property is included in the Purchase Price, Buyer has ~~10 or~~ 45 days following the Date of Agreement to satisfy itself with regard to the title condition of such personal property. Seller recommends that Buyer obtain a UCC-1 report. Any such report shall be paid for by Buyer. Seller shall provide Buyer copies of any liens or encumbrances affecting such personal property that it is aware of within ~~10 or~~ 5 days following the Date of Agreement.

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(n) *Destruction, Damage or Loss.* Subsequent to the Date of Agreement and prior to Closing there shall not have occurred a destruction of, or damage or loss to, the Property or any portion thereof, from any cause whatsoever, which would cost more than $10,000.00 to repair or cure. If the cost of repair or cure is $10,000.00 or less, Seller shall repair or cure the loss prior to the Closing. Buyer shall have the option, within 10 days after receipt of written notice of a loss costing more than $10,000.00 to repair or cure, to either terminate this Agreement or to purchase the Property notwithstanding such loss, but without deduction or offset against the Purchase Price. If the cost to repair or cure is more than $10,000.00, and Buyer does not elect to terminate this Agreement, Buyer shall be entitled to any insurance proceeds applicable to such loss. Unless otherwise notified in writing, Escrow Holder shall assume no such destruction, damage or loss has occurred prior to Closing.

(o) *Material Change.* Buyer shall have 10 days following receipt of written notice of a Material Change within which to satisfy itself with regard to such change. "**Material Change**" shall mean a substantial adverse change in the use, occupancy, tenants, title, or condition of the Property that occurs after the date of this offer and prior to the Closing. Unless otherwise notified in writing, Escrow Holder shall assume that no Material Change has occurred prior to the Closing.

(p) *Seller Performance.* The delivery of all documents and the due performance by Seller of each and every undertaking and agreement to be performed by Seller under this Agreement.

(q) *Brokerage Fee.* Payment at the Closing of such brokerage fee as is specified in this Agreement or later written instructions to Escrow Holder executed by Seller and Brokers ("**Brokerage Fee**"). It is agreed by the Parties and Escrow Holder that Brokers are a third party beneficiary of this Agreement insofar as the Brokerage Fee is concerned, and that no change shall be made with respect to the payment of the Brokerage Fee specified in this Agreement, without the written consent of Brokers.

9.2 The contingencies specified in subparagraphs 9.1(a) through (m) are for the benefit of, and may be waived by, Buyer, and are referred to collectively as "**Buyer's Contingencies**" and individually as a "**Buyer's Contingency**."

9.3 Prior to the expiration of Buyer's Contingencies, Buyer shall have the right to notify and discuss with Seller any issues that arise in connection with Buyer's investigation of Buyer's Contingencies. ~~Buyer's timely and written disapproval or conditional approval of a Buyer's Contingency or any other matter that is subject to Buyer's approval in this Agreement shall constitute disapproval thereof ("**Disapproved Item(s)**"). Concurrent with notice of a Disapproved Item, Buyer may make a request to Seller regarding such Disapproved Item ("**Buyer's Request**"). If Buyer fails to make a timely and written Buyer's Request, then this Agreement shall terminate due to the non-satisfaction and non-waiver of a contingency. Seller may respond to a Buyer's Request within 10 days following Seller's receipt thereof ("**Seller's Response**"). Seller's acceptance of a Buyer's Request shall amend this Agreement accordingly. If Seller fails to provide a timely and written Seller's Response, then Seller's Response shall be deemed to be a rejection of Buyer's Request. Buyer may, within 10 days following the earlier of Buyer's receipt of a Seller's Response (which is not an acceptance of Buyer's Request) or the date of Seller's deemed rejection of a Buyer's Request ("**Buyer's Reply Period**"), reply to a Seller's Response ("**Buyer's Reply**") and elect to (i) terminate this Agreement due to the non-satisfaction and non-waiver of the applicable contingency, (ii) accept the Seller's Response in which event this Agreement shall be amended accordingly, or (iii) withdraw Buyer's Request and waive the Disapproved Item in which event Buyer shall accept the Property subject to the Disapproved Item. If Buyer fails to provide a timely and written Buyer's Reply, then Buyer shall be deemed to have elected to terminate this Agreement as of the end of the Buyer's Reply Period. The date Buyer accepts a Seller's Response or withdraws a Buyer's Request and waives a Disapproved Item shall be the date of Buyer's approval of the Disapproved Item. A Party shall provide to Escrow Holder copy of all notices of a Disapproved Item, Buyer's Request, Seller's Response and Buyer's Reply and Escrow Holder shall promptly provide copies thereof to the other Party. Unless the Parties in writing agree otherwise, if the Expected Closing Date is a specific calendar date and a Buyer's Reply Period expires after such specific calendar date, then notwithstanding paragraph 1.1, the Expected Closing Date shall be extended to be 3 business days after the earlier of the date Buyer withdraws a Buyer's Request and waives the applicable Disapproved Item or Buyer accepts the applicable Seller's Response.~~

9.4 The Parties acknowledge that extensive local, state and Federal legislation establish broad liability upon owners and/or users of real property for the investigation and remediation of Hazardous Substances. The determination of the existence of a Hazardous Substance Condition and the evaluation of the impact of such a condition are highly technical and beyond the expertise of Brokers. The Parties acknowledge that they have been advised by Brokers to consult their own technical and legal experts with respect to the possible presence of Hazardous Substances on the Property or adjoining properties, and Buyer and Seller are not relying upon any investigation by or statement of Brokers with respect thereto. The Parties hereby assume all responsibility for the impact of such Hazardous Substances upon their respective interests herein.

10. Documents and Other Items Required at or Before Closing.

10.1 Five days prior to the Closing date Escrow Holder shall obtain an updated Title Commitment concerning the Property from the Title Company and provide copies thereof to each of the Parties.

10.2 Seller shall deliver to Escrow Holder in time for delivery to Buyer at the Closing:

(a) Grant or general warranty deed, duly executed and in recordable form, conveying fee title to the Property to Buyer.

(b) If applicable, the Beneficiary Statements concerning Existing Note(s).

(c) If applicable, the Existing Leases and Other Agreements together with duly executed assignments thereof by Seller and Buyer. The assignment of Existing Leases shall be on the most recent Assignment and Assumption of Lessor's Interest in Lease form published by the AIR or its equivalent.

(d) An affidavit executed by Seller to the effect that Seller is not a "foreign person" within the meaning of Internal Revenue Code Section 1445 or successor statutes. If Seller does not provide such affidavit in form reasonably satisfactory to Buyer at least 3 business days prior to the Closing, Escrow Holder shall at the Closing deduct from Seller's proceeds and remit to the Internal Revenue Service such sum as is required by applicable Federal law with respect to purchases from foreign sellers.

(e) If the Property is located in California, an affidavit executed by Seller to the effect that Seller is not a "nonresident" within the meaning of California Revenue and Tax Code Section 18662 or successor statutes. If Seller does not provide such affidavit in form reasonably satisfactory to Buyer at least 3 business days prior to the Closing, Escrow Holder shall at the Closing deduct from Seller's proceeds and remit to the Franchise Tax Board such sum as is required by such statute.

(f) If applicable, a bill of sale, duly executed, conveying title to any included personal property to Buyer.

(g) If the Seller is a corporation, a duly executed corporate resolution authorizing the execution of this Agreement and the sale of the Property.

10.3 Buyer shall deliver to Seller through Escrow:

(a) The cash portion of the Purchase Price and such additional sums as are required of Buyer under this Agreement shall be deposited by Buyer with Escrow Holder, by federal funds wire transfer, or any other method acceptable to Escrow Holder in immediately collectable funds, no later than 2:00 P.M. on the business day prior to the Expected Closing Date provided, however, that Buyer shall not be required to deposit such monies into Escrow if at the time set for the deposit of such monies Seller is in default or has indicated that it will not perform any of its obligations hereunder. Instead, in such circumstances in order to reserve its rights to proceed Buyer need only provide Escrow with evidence establishing that the required monies were available.

(b) If a Purchase Money Note and Purchase Money Deed of Trust are called for by this Agreement, the duly executed originals of those documents, the Purchase Money Deed of Trust being in recordable form, together with evidence of fire insurance on the improvements in the amount of the full replacement cost naming Seller as a mortgage loss payee, and a real estate tax service contract (at Buyer's expense), assuring Seller of notice of the status of payment of real property

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taxes during the life of the Purchase Money Note.

(c) The Assignment and Assumption of Lessor's Interest in Lease form specified in paragraph 10.2(c) above, duly executed by Buyer.

(d) Assumptions duly executed by Buyer of the obligations of Seller that accrue after Closing under any Other Agreements.

(e) If applicable, a written assumption duly executed by Buyer of the loan documents with respect to Existing Notes.

(f) If the Buyer is a corporation, a duly executed corporate resolution authorizing the execution of this Agreement and the purchase of the Property.

10.4 At Closing, Escrow Holder shall cause to be issued to Buyer a standard coverage (or ALTA extended, if elected pursuant to 9.1(g)) owner's form policy of title insurance effective as of the Closing, issued by the Title Company in the full amount of the Purchase Price, insuring title to the Property vested in Buyer, subject only to the exceptions approved by Buyer. In the event there is a Purchase Money Deed of Trust in this transaction, the policy of title insurance shall be a joint protection policy insuring both Buyer and Seller.

IMPORTANT: IN A PURCHASE OR EXCHANGE OF REAL PROPERTY, IT MAY BE ADVISABLE TO OBTAIN TITLE INSURANCE IN CONNECTION WITH THE CLOSE OF ESCROW SINCE THERE MAY BE PRIOR RECORDED LIENS AND ENCUMBRANCES WHICH AFFECT YOUR INTEREST IN THE PROPERTY BEING ACQUIRED. A NEW POLICY OF TITLE INSURANCE SHOULD BE OBTAINED IN ORDER TO ENSURE YOUR INTEREST IN THE PROPERTY THAT YOU ARE ACQUIRING.

11. Prorations and Adjustments.

11.1 *Taxes.* Applicable real property taxes and special assessment bonds shall be prorated through Escrow as of the date of the Closing, based upon the latest tax bill available. The Parties agree to prorate as of the Closing any taxes assessed against the Property by supplemental bill levied by reason of events occurring prior to the Closing. Payment of the prorated amount shall be made promptly in cash upon receipt of a copy of any supplemental bill.

11.2 *Insurance.* **WARNING**: Any insurance which Seller may have maintained will terminate on the Closing. Buyer is advised to obtain appropriate insurance to cover the Property.

11.3 *Rentals, Interest and Expenses.* Scheduled rentals, interest on Existing Notes, utilities, and operating expenses shall be prorated as of the date of Closing. The Parties agree to promptly adjust between themselves outside of Escrow any rents received after the Closing.

11.4 *Security Deposit.* Security Deposits held by Seller shall be given to Buyer as a credit to the cash required of Buyer at the Closing.

11.5 *Post Closing Matters.* Any item to be prorated that is not determined or determinable at the Closing shall be promptly adjusted by the Parties by appropriate cash payment outside of the Escrow when the amount due is determined.

11.6 *Variations in Existing Note Balances.* In the event that Buyer is purchasing the Property subject to an Existing Deed of Trust(s), and in the event that a Beneficiary Statement as to the applicable Existing Note(s) discloses that the unpaid principal balance of such Existing Note(s) at the closing will be more or less than the amount set forth in paragraph 3.1(c) hereof ("**Existing Note Variation**"), then the Purchase Money Note(s) shall be reduced or increased by an amount equal to such Existing Note Variation. If there is to be no Purchase Money Note, the cash required at the Closing per paragraph 3.1(a) shall be reduced or increased by the amount of such Existing Note Variation.

11.7 *Variations in New Loan Balance.* In the event Buyer is obtaining a New Loan and the amount ultimately obtained exceeds the amount set forth in paragraph 5.1, then the amount of the Purchase Money Note, if any, shall be reduced by the amount of such excess.

11.8 *Owner's Association Fees.* Escrow Holder shall: (i) bring Seller's account with the association current and pay any delinquencies or transfer fees from Seller's proceeds, and (ii) pay any up front fees required by the association from Buyer's funds.

12. Representations and Warranties of Seller and Disclaimers.

12.1 Seller's warranties and representations shall survive the Closing and delivery of the deed for a period of 3 years, and any lawsuit or action based upon them must be commenced within such time period. Seller's warranties and representations are true, material and relied upon by Buyer and Brokers in all respects. Seller hereby makes the following warranties and representations to Buyer and Brokers:

(a) *Authority of Seller.* Seller is the owner of the Property and/or has the full right, power and authority to sell, convey and transfer the Property to Buyer as provided herein, and to perform Seller's obligations hereunder.

(b) *Maintenance During Escrow and Equipment Condition At Closing.* Except as otherwise provided in paragraph 9.1(n) hereof, Seller shall maintain the Property until the Closing in its present condition, ordinary wear and tear excepted.

(c) *Hazardous Substances/Storage Tanks.* Seller has no knowledge, except as otherwise disclosed to Buyer in writing, of the existence or prior existence on the Property of any Hazardous Substance, nor of the existence or prior existence of any above or below ground storage tank.

(d) *Compliance.* Except as otherwise disclosed in writing, Seller has no knowledge of any aspect or condition of the Property which violates applicable laws, rules, regulations, codes or covenants, conditions or restrictions, or of improvements or alterations made to the Property without a permit where one was required, or of any unfulfilled order or directive of any applicable governmental agency or casualty insurance company requiring any investigation, remediation, repair, maintenance or improvement be performed on the Property.

(e) *Changes in Agreements.* Prior to the Closing, Seller will not violate or modify any Existing Lease or Other Agreement, or create any new leases or other agreements affecting the Property, without Buyer's written approval, which approval will not be unreasonably withheld.

(f) *Possessory Rights.* Seller has no knowledge that anyone will, at the Closing, have any right to possession of the Property, except as disclosed by this Agreement or otherwise in writing to Buyer. Other than the Existing Leases delivered to Buyer pursuant to Section 9.1(h), there are no other leases or similar occupancy agreements affecting the Property.

(g) *Mechanics' Liens.* There are no unsatisfied mechanics' or materialmens' lien rights concerning the Property.

(h) *Actions, Suits or Proceedings.* Seller has no knowledge of any actions, suits or proceedings pending or threatened before any commission, board, bureau, agency, arbitrator, court or tribunal that would affect the Property or the right to occupy or utilize same.

(i) *Notice of Changes.* Seller will promptly notify Buyer and Brokers in writing of any Material Change (see paragraph 9.1(o)) affecting the Property that becomes known to Seller prior to the Closing.

(j) *No Tenant Bankruptcy Proceedings.* Seller has no notice or knowledge that any tenant of the Property is the subject of a bankruptcy or insolvency proceeding.

(k) *No Seller Bankruptcy Proceedings.* Seller is not the subject of a bankruptcy, insolvency or probate proceeding.

(l) *Personal Property.* Seller has no knowledge that anyone will, at the Closing, have any right to possession of any personal property included in the Purchase Price nor knowledge of any liens or encumbrances affecting such personal property, except as disclosed by this Agreement or otherwise in writing to Buyer.

12.2 Buyer hereby acknowledges that, except as otherwise stated in this Agreement, Buyer is purchasing the Property in its existing condition and will, by the time called for herein, make or have waived all inspections of the Property Buyer believes are necessary to protect its own interest in, and its contemplated use of, the Property. The Parties acknowledge that, except as otherwise stated in this Agreement, no representations, inducements, promises, agreements, assurances, oral or written, concerning the Property, or any aspect of the occupational safety and health laws, Hazardous Substance laws, or any other act, ordinance or law, have been made by either Party or Brokers, or relied upon by either Party hereto.

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12.3 In the event that Buyer learns that a Seller representation or warranty might be untrue prior to the Closing, and Buyer elects to purchase the Property anyway then, and in that event, Buyer waives any right that it may have to bring an action or proceeding against Seller or Brokers regarding said representation or warranty.

12.4 Any environmental reports, soils reports, surveys, and other similar documents which were prepared by third party consultants and provided to Buyer by Seller or Seller's representatives, have been delivered as an accommodation to Buyer and without any representation or warranty as to the sufficiency, accuracy, completeness, and/or validity of said documents, all of which Buyer relies on at its own risk. Seller believes said documents to be accurate, but Buyer is advised to retain appropriate consultants to review said documents and investigate the Property.

13. Possession.
Possession of the Property shall be given to Buyer at the Closing subject to the rights of tenants under Existing Leases.

14. Buyer's Entry.
At any time during the Escrow period, Buyer, and its agents and representatives, shall have the right at reasonable times and subject to rights of tenants, to enter upon the Property for the purpose of making inspections and tests specified in this Agreement. No destructive testing shall be conducted, however, without Seller's prior approval which shall not be unreasonably withheld. Following any such entry or work, unless otherwise directed in writing by Seller, Buyer shall return the Property to the condition it was in prior to such entry or work, including the re-compaction or removal of any disrupted soil or material as Seller may reasonably direct. All such inspections and tests and any other work conducted or materials furnished with respect to the Property by or for Buyer shall be paid for by Buyer as and when due and Buyer shall indemnify, defend, protect and hold harmless Seller and the Property of and from any and all claims, liabilities, losses, expenses (including reasonable attorneys' fees), damages, including those for injury to person or property, arising out of or relating to any such work or materials or the acts or omissions of Buyer, its agents or employees in connection therewith.

15. Further Documents and Assurances.
The Parties shall each, diligently and in good faith, undertake all actions and procedures reasonably required to place the Escrow in condition for Closing as and when required by this Agreement. The Parties agree to provide all further information, and to execute and deliver all further documents, reasonably required by Escrow Holder or the Title Company.

16. Attorneys' Fees.
If any Party or Broker brings an action or proceeding (including arbitration) involving the Property whether founded in tort, contract or equity, or to declare rights hereunder, the Prevailing Party (as hereafter defined) in any such proceeding, action, or appeal thereon, shall be entitled to reasonable attorneys' fees and costs. Such fees may be awarded in the same suit or recovered in a separate suit, whether or not such action or proceeding is pursued to decision or judgment. The term **"Prevailing Party"** shall include, without limitation, a Party or Broker who substantially obtains or defeats the relief sought, as the case may be, whether by compromise, settlement, judgment, or the abandonment by the other Party or Broker of its claim or defense. The attorneys' fees award shall not be computed in accordance with any court fee schedule, but shall be such as to fully reimburse all attorneys' fees reasonably incurred.

17. Prior Agreements/Amendments.
17.1 This Agreement supersedes any and all prior agreements between Seller and Buyer regarding the Property.
17.2 Amendments to this Agreement are effective only if made in writing and executed by Buyer and Seller.

~~**18. Broker's Rights.**~~
~~18.1 If this sale is not consummated due to the default of either the Buyer or Seller, the defaulting Party shall be liable to and shall pay to Brokers the Brokerage Fee that Brokers would have received had the sale been consummated. If Buyer is the defaulting party, payment of said Brokerage Fee is in addition to any obligation with respect to liquidated or other damages.~~
~~18.2 Upon the Closing, Brokers are authorized to publicize the facts of this transaction.~~

19. Notices.
19.1 Whenever any Party, Escrow Holder or Brokers herein shall desire to give or serve any notice, demand, request, approval, disapproval or other communication, each such communication shall be in writing and shall be delivered personally, by messenger, or by mail, postage prepaid, to the address set forth in this agreement or by facsimile transmission, electronic signature, digital signature, or email.
19.2 Service of any such communication shall be deemed made on the date of actual receipt if personally delivered, or transmitted by facsimile transmission, electronic signature, digital signature, or email. Any such communication sent by regular mail shall be deemed given 48 hours after the same is mailed. Communications sent by United States Express Mail or overnight courier that guarantee next day delivery shall be deemed delivered 24 hours after delivery of the same to the Postal Service or courier. If such communication is received on a Saturday, Sunday or legal holiday, it shall be deemed received on the next business day.
19.3 Any Party or Broker hereto may from time to time, by notice in writing, designate a different address to which, or a different person or additional persons to whom, all communications are thereafter to be made.

20. Duration of Offer.
20.1 If this offer is not accepted by Seller on or before 5:00 P.M. according to the time standard applicable to the city of Monterey on the date of March 19, 2025, it shall be deemed automatically revoked.
20.2 The acceptance of this offer, or of any subsequent counteroffer hereto, that creates an agreement between the Parties as described in paragraph 1.2, shall be deemed made upon delivery to the other Party or either Broker herein of a duly executed writing unconditionally accepting the last outstanding offer or counteroffer.

21. LIQUIDATED DAMAGES. (This Liquidated Damages paragraph is applicable only if initialed by both Parties).
THE PARTIES AGREE THAT IT WOULD BE IMPRACTICABLE OR EXTREMELY DIFFICULT TO FIX, PRIOR TO SIGNING THIS AGREEMENT, THE ACTUAL DAMAGES WHICH WOULD BE SUFFERED BY SELLER IF BUYER FAILS TO PERFORM ITS OBLIGATIONS UNDER THIS AGREEMENT. THEREFORE, IF, AFTER THE SATISFACTION OR WAIVER OF ALL CONTINGENCIES PROVIDED FOR THE BUYER'S BENEFIT, BUYER BREACHES THIS AGREEMENT AND THE CLOSING FAILS TO OCCUR AS A RESULT THEREOF, SELLER SHALL AS ITS SOLE AND EXCLUSIVE REMEDY BE ENTITLED TO LIQUIDATED DAMAGES IN THE AMOUNT OF $100,000.00. UPON PAYMENT OF SAID SUM TO SELLER, BUYER SHALL BE RELEASED FROM ANY FURTHER LIABILITY TO SELLER, AND ANY ESCROW CANCELLATION FEES AND TITLE COMPANY CHARGES SHALL BE PAID BY SELLER.

Initial DS

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TW SL
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Initial DS

Buyer's Initials Seller's Initials

22. ARBITRATION OF DISPUTES. (This Arbitration of Disputes paragraph is applicable only if initialed by both Parties.)

22.1 ANY CONTROVERSY AS TO WHETHER SELLER IS ENTITLED TO LIQUIDATED DAMAGES AND/OR BUYER IS ENTITLED TO THE RETURN OF THE DEPOSIT SHALL BE DETERMINED BY BINDING ARBITRATION ADMINISTERED BY THE JUDICIAL ARBITRATION & MEDIATION SERVICES, INC. ("JAMS") IN ACCORDANCE WITH ITS COMMERCIAL ARBITRATION RULES ("COMMERCIAL RULES"). ARBITRATION HEARINGS SHALL BE HELD IN THE COUNTY WHERE THE PROPERTY IS LOCATED. SUCH CONTROVERSY SHALL BE ARBITRATED BY A SINGLE ARBITRATOR, APPOINTED UNDER THE COMMERCIAL RULES WHO HAS HAD AT LEAST 5 YEARS OF EXPERIENCE IN THE TYPE OF REAL ESTATE THAT IS THE SUBJECT OF THIS AGREEMENT. THE ARBITRATOR SHALL HEAR AND DETERMINE SAID CONTROVERSY IN ACCORDANCE WITH APPLICABLE LAW OF THE JURISDICTION WHERE THE PROPERTY IS LOCATED, THE INTENTION OF THE PARTIES AS EXPRESSED IN THIS AGREEMENT AND ANY AMENDMENTS THERETO, AND UPON THE EVIDENCE PRODUCED AT AN ARBITRATION HEARING. PRE-ARBITRATION DISCOVERY SHALL BE PERMITTED IN ACCORDANCE WITH THE COMMERCIAL RULES OR STATE LAW APPLICABLE TO ARBITRATION PROCEEDINGS. THE ARBITRATOR SHALL RENDER AN AWARD WITHIN 30 DAYS AFTER THE CONCLUSION OF THE HEARING, WHICH MAY INCLUDE ATTORNEYS' FEES AND COSTS TO THE PREVAILING PARTY PER PARAGRAPH 16 HEREOF AND SHALL BE ACCOMPANIED BY A REASONED OPINION. THE FAILURE OR REFUSAL OF A PARTY TO PAY SUCH PARTY'S REQUIRED SHARE OF THE DEPOSITS FOR ARBITRATOR COMPENSATION OR ADMINISTRATIVE CHARGES SHALL CONSTITUTE A WAIVER BY SUCH PARTY TO PRESENT EVIDENCE OR CROSS-EXAMINE WITNESSES, BUT SUCH WAIVER SHALL NOT ALLOW FOR A DEFAULT JUDGMENT AGAINST THE NON-PAYING PARTY IN THE ABSENCE OF EVIDENCE AND LEGAL ARGUMENT AS THE ARBITRATOR MAY REQUIRE FOR MAKING AN AWARD. JUDGMENT MAY BE ENTERED ON THE AWARD IN ANY COURT OF COMPETENT JURISDICTION NOTWITHSTANDING THE FAILURE OF A PARTY DULY NOTIFIED OF THE ARBITRATION HEARING TO APPEAR THEREAT.

22.2 BUYER'S RESORT TO OR PARTICIPATION IN SUCH ARBITRATION PROCEEDINGS SHALL NOT BAR SUIT IN A COURT OF COMPETENT JURISDICTION BY THE BUYER FOR DAMAGES AND/OR SPECIFIC PERFORMANCE UNLESS AND UNTIL THE ARBITRATION RESULTS IN AN AWARD TO THE SELLER OF LIQUIDATED DAMAGES, IN WHICH EVENT SUCH AWARD SHALL ACT AS A BAR AGAINST ANY ACTION BY BUYER FOR DAMAGES AND/OR SPECIFIC PERFORMANCE.

22.3 NOTICE: BY INITIALING IN THE SPACE BELOW YOU ARE AGREEING TO HAVE ANY DISPUTE ARISING OUT OF THE MATTERS INCLUDED IN THE "ARBITRATION OF DISPUTES" PROVISION DECIDED BY NEUTRAL ARBITRATION AS PROVIDED BY CALIFORNIA LAW AND YOU ARE GIVING UP ANY RIGHTS YOU MIGHT POSSESS TO HAVE THE DISPUTE LITIGATED IN A COURT OR JURY TRIAL. BY INITIALING IN THE SPACE BELOW YOU ARE GIVING UP YOUR JUDICIAL RIGHTS TO DISCOVERY AND APPEAL, UNLESS SUCH RIGHTS ARE SPECIFICALLY INCLUDED IN THE "ARBITRATION OF DISPUTES" PROVISION. IF YOU REFUSE TO SUBMIT TO ARBITRATION AFTER AGREEING TO THIS PROVISION, YOU MAY BE COMPELLED TO ARBITRATE UNDER THE AUTHORITY OF THE CALIFORNIA CODE OF CIVIL PROCEDURE. YOUR AGREEMENT TO THIS ARBITRATION PROVISION IS VOLUNTARY.

WE HAVE READ AND UNDERSTAND THE FOREGOING AND AGREE TO SUBMIT DISPUTES ARISING OUT OF THE MATTERS INCLUDED IN THE "ARBITRATION OF DISPUTES" PROVISION TO NEUTRAL ARBITRATION.

Initial DS

Buyer's Initials Seller's Initials

23. Miscellaneous.

23.1 **Binding Effect.** This Agreement shall be binding on the Parties without regard to whether or not paragraphs 21 and 22 are initialed by both of the Parties. Paragraphs 21 and 22 are each incorporated into this Agreement only if initialed by both Parties at the time that the Agreement is executed. Signatures to this Agreement accomplished by means of electronic signature or similar technology shall be legal and binding.

23.2 **Applicable Law.** This Agreement shall be governed by, and paragraph 22.3 is amended to refer to, the laws of the state in which the Property is located. Any litigation or arbitration between the Parties hereto concerning this Agreement shall be initiated in the county in which the Property is located.

23.3 **Time of Essence.** Time is of the essence of this Agreement.

23.4 **Counterparts.** This Agreement may be executed by Buyer and Seller in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Escrow Holder, after verifying that the counterparts are identical except for the signatures, is authorized and instructed to combine the signed signature pages on one of the counterparts, which shall then constitute the Agreement.

23.5 **Waiver of Jury Trial. THE PARTIES HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO TRIAL BY JURY IN ANY ACTION OR PROCEEDING INVOLVING THE PROPERTY OR ARISING OUT OF THIS AGREEMENT.**

23.6 **Conflict.** Any conflict between the printed provisions of this Agreement and the typewritten or handwritten provisions shall be controlled by the typewritten or handwritten provisions. **Seller and Buyer must initial any and all handwritten provisions.**

23.7 **1031 Exchange.** Both Seller and Buyer agree to cooperate with each other in the event that either or both wish to participate in a 1031 exchange. Any party initiating an exchange shall bear all costs of such exchange. The cooperating Party shall not have any liability (special or otherwise) for damages to the exchanging Party in the event that the sale is delayed and/or that the sale otherwise fails to qualify as a 1031 exchange.

23.8 **Days.** Unless otherwise specifically indicated to the contrary, the word "days" as used in this Agreement shall mean and refer to calendar days.

24. Disclosures Regarding the Nature of a Real Estate Agency Relationship.

24.1 The Parties and Brokers agree that their relationship(s) shall be governed by the principles set forth in the applicable sections of the California Civil Code, as summarized in paragraph 24.2.

24.2 When entering into a discussion with a real estate agent regarding a real estate transaction, a Buyer or Seller should from the outset understand what type of agency relationship or representation it has with the agent or agents in the transaction. Buyer and Seller acknowledge being advised by the Brokers in this transaction, as follows:

(a) *Seller's Agent.* A Seller's agent under a listing agreement with the Seller acts as the agent for the Seller only. A Seller's agent or subagent has the following affirmative obligations: (1) *To the Seller:* A fiduciary duty of utmost care, integrity, honesty, and loyalty in dealings with the Seller. (2) *To the Buyer and the Seller:* a. Diligent exercise of reasonable skills and care in performance of the agent's duties. b. A duty of honest and fair dealing and good faith. c. A duty to disclose all facts known to the agent materially affecting the value or desirability of the property that are not known to, or within the diligent attention and observation of, the Parties. An agent is not obligated to reveal to either Party any confidential information obtained from the other Party which does not involve the affirmative duties set forth above.

Initial DS

INITIALS INITIALS

(b) *Buyer's Agent.* A selling agent can, with a Buyer's consent, agree to act as agent for the Buyer only. In these situations, the agent is not the Seller's agent, even if by agreement the agent may receive compensation for services rendered, either in full or in part from the Seller. An agent acting only for a Buyer has the following affirmative obligations. (1) *To the Buyer:* A fiduciary duty of utmost care, integrity, honesty, and loyalty in dealings with the Buyer. (2) *To the Buyer and the Seller:* a. Diligent exercise of reasonable skills and care in performance of the agent's duties. b. A duty of honest and fair dealing and good faith. c. A duty to disclose all facts known to the agent materially affecting the value or desirability of the property that are not known to, or within the diligent attention and observation of, the Parties. An agent is not obligated to reveal to either Party any confidential information obtained from the other Party which does not involve the affirmative duties set forth above.

(c) *Agent Representing Both Seller and Buyer.* A real estate agent, either acting directly or through one or more associate licensees, can legally be the agent of both the Seller and the Buyer in a transaction, but only with the knowledge and consent of both the Seller and the Buyer. (1) In a dual agency situation, the agent has the following affirmative obligations to both the Seller and the Buyer: a. A fiduciary duty of utmost care, integrity, honesty and loyalty in the dealings with either Seller or the Buyer. b. Other duties to the Seller and the Buyer as stated above in their respective sections (a) or (b) of this paragraph 24.2. (2) In representing both Seller and Buyer, the agent may not, without the express permission of the respective Party, disclose to the other Party confidential information, including, but not limited to, facts relating to either Buyer's or Seller's financial position, motivations, bargaining position, or other personal information that may impact price, including Seller's willingness to accept a price less than the listing price or Buyer's willingness to pay a price greater than the price offered. (3) The above duties of the agent in a real estate transaction do not relieve a Seller or Buyer from the responsibility to protect their own interests. Buyer and Seller should carefully read all agreements to assure that they adequately express their understanding of the transaction. A real estate agent is a person qualified to advise about real estate. If legal or tax advice is desired, consult a competent professional. Buyer has the duty to exercise reasonable care to protect Buyer, including as to those facts about the Property which are known to Buyer or within Buyer's diligent attention and observation. Both Seller and Buyer should strongly consider obtaining tax advice from a competent professional because the federal and state tax consequences of a transaction can be complex and subject to change.

(d) *Further Disclosures.* Throughout this transaction Buyer and Seller may receive more than one disclosure, depending upon the number of agents assisting in the transaction. Buyer and Seller should each read its contents each time it is presented, considering the relationship between them and the real estate agent in this transaction and that disclosure. Buyer and Seller each acknowledge receipt of a disclosure of the possibility of multiple representation by the Broker representing that principal. This disclosure may be part of a listing agreement, buyer representation agreement or separate document. Buyer understands that Broker representing Buyer may also represent other potential buyers, who may consider, make offers on or ultimately acquire the Property. Seller understands that Broker representing Seller may also represent other sellers with competing properties that may be of interest to this Buyer. Brokers have no responsibility with respect to any default or breach hereof by either Party. The Parties agree that no lawsuit or other legal proceeding involving any breach of duty, error or omission relating to this transaction may be brought against Broker more than one year after the Date of Agreement and that the liability (including court costs and attorneys' fees), of any Broker with respect to any breach of duty, error or omission relating to this Agreement shall not exceed the fee received by such Broker pursuant to this Agreement; provided, however, that the foregoing limitation on each Broker's liability shall not be applicable to any gross negligence or willful misconduct of such Broker.

24.3 *Confidential Information.* Buyer and Seller agree to identify to Brokers as "Confidential" any communication or information given Brokers that is considered by such Party to be confidential.

25. Construction of Agreement. In construing this Agreement, all headings and titles are for the convenience of the Parties only and shall not be considered a part of this Agreement. Whenever required by the context, the singular shall include the plural and vice versa. This Agreement shall not be construed as if prepared by one of the Parties, but rather according to its fair meaning as a whole, as if both Parties had prepared it.

26. Additional Provisions.

Additional provisions of this offer, if any, are as follows or are attached hereto by an addendum or addenda consisting of paragraphs _____ through _____. (If there are no additional provisions write "NONE".)

_____

ATTENTION: NO REPRESENTATION OR RECOMMENDATION IS MADE BY AIR CRE OR BY ANY BROKER AS TO THE LEGAL SUFFICIENCY, LEGAL EFFECT, OR TAX CONSEQUENCES OF THIS AGREEMENT OR THE TRANSACTION TO WHICH IT RELATES. THE PARTIES ARE URGED TO:

1. SEEK ADVICE OF COUNSEL AS TO THE LEGAL AND TAX CONSEQUENCES OF THIS AGREEMENT.

2. RETAIN APPROPRIATE CONSULTANTS TO REVIEW AND INVESTIGATE THE CONDITION OF THE PROPERTY. SAID INVESTIGATION SHOULD INCLUDE BUT NOT BE LIMITED TO: THE POSSIBLE PRESENCE OF HAZARDOUS SUBSTANCES, THE ZONING OF THE PROPERTY, THE INTEGRITY AND CONDITION OF ANY STRUCTURES AND OPERATING SYSTEMS, AND THE SUITABILITY OF THE PROPERTY FOR BUYER'S INTENDED USE.

WARNING: IF THE PROPERTY IS LOCATED IN A STATE OTHER THAN CALIFORNIA, CERTAIN PROVISIONS OF THIS AGREEMENT MAY NEED TO BE REVISED TO COMPLY WITH THE LAWS OF THE STATE IN WHICH THE PROPERTY IS LOCATED.

NOTE:

1. **THIS FORM IS NOT FOR USE IN CONNECTION WITH THE SALE OF RESIDENTIAL PROPERTY.**
2. **IF EITHER PARTY IS A CORPORATION, IT IS RECOMMENDED THAT THIS AGREEMENT BE SIGNED BY TWO CORPORATE OFFICERS.**

Initial DS TW SL

INITIALS INITIALS

The undersigned Buyer offers and agrees to buy the Property on the terms and conditions stated and acknowledges receipt of a copy hereof.

Date: _____

BROKER

Mohr Partners

Attn: Robin Leamy & Michael Leamy
Title: _____

Address: _____
Phone: _____
Fax: _____
Email: _____
Federal ID No.: _____
Broker DRE License #: _____
Agent DRE License #: 00942559

BUYER

California-American Water Company

By: Kevin Tilden (Mar 19, 2025 13:50 PDT)
Name Printed: Kevin Tilden
Title: President
Phone: _____
Fax: _____
Email: _____

By: _____
Name Printed: _____
Title: _____
Phone: _____
Fax: _____
Email: _____

Address: _____
Federal ID No.: _____

27. Acceptance.

27.1 Seller accepts the foregoing offer to purchase the Property and hereby agrees to sell the Property to Buyer on the terms and conditions therein specified.

27.2 In consideration of real estate brokerage service rendered by Brokers, Seller agrees to pay Brokers a real estate Brokerage Fee in a sum equal to 5.000 % of the Purchase Price to be divided between the Brokers as follows: Seller's Broker 3.000 % and Buyer's Broker 2.000 %. This Agreement shall serve as an irrevocable instruction to Escrow Holder to pay such Brokerage Fee to Brokers out of the proceeds accruing to the account of Seller at the Closing.

27.3 Seller acknowledges receipt of a copy hereof and authorizes Brokers to deliver a signed copy to Buyer.

NOTE: A PROPERTY INFORMATION SHEET IS REQUIRED TO BE DELIVERED TO BUYER BY SELLER UNDER THIS AGREEMENT.

Date: 3/20/2025

BROKER

Mahoney & Associates Commercial Real Estate

Attn: Ryan Edwards & Josh Jones
Title: _____

Address: _____
Phone: _____
Fax: _____
Email: _____
Federal ID No.: _____
Broker DRE License #: 01521253
Agent's DRE License #: 01403313 & 01352818

SELLER

Mandeville RE LLC

By: Signed by: Tom Wilson 14C080050844D9...
Name Printed: _____
Title: _____
Phone: _____
Fax: _____
Email: _____ 3/20/2025

By: DocuSigned by: Scott Leggett B3EADD178EA9443...
Name Printed: _____
Title: _____
Phone: _____
Fax: _____
Email: _____

Address: _____
Federal ID No.: _____

Attachment 1-3: Cal Am Response to Public Advocates Office Data Request DKG-03 (Monterey Proposed Projects) Excerpt

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**David Pezzini**
Title:	**Senior Project Engineer**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-03**
Company Number:	**Cal Adv DKG-03 Q002**
Date Received:	**July 10, 2025**
Date Response Provided:	**July 24, 2025**
Subject Area:	**Monterey Proposed Projects**

DATA REQUEST:

2. **Project Code I15-400179 MRY-Carmel Valley Road Transmission Main Downsizing (Proposed Project)**

Refer to Lacy Carothers' Testimony, p. 176 which states:

"The transmission main between the Clearwell at the upper end of Carmel Valley and the Del Monte Vista pump station was initially designed to deliver supply from the Carmel River prior to the removal of the San Clemente Dam. Pipelines along the alignment range from 24 to 30-inches in diameter with portions installed in the 1920s to 1940s. The transmission main now has low demand which results in low chlorine residuals and stagnant water with water quality issues. In addition, the pipeline has been identified as a high-risk pipeline in the Pipeline Prioritization Model, meaning it has a high likelihood of failure and a high consequence of failure. Replacing this main with a smaller diameter main will increase system reliability, improve water quality, and optimize operations. This project to replace approximately 24,200 linear feet of 24 to 30-inch diameter transmission pipelines with new 18-inch diameter pipelines is recommended in the 2025 Monterey County District CPS, and due to the size and length of this main, it is recommended that this project be approached in phases, beginning with a phasing study."

Refer to Cal Am's 2025 Monterey CPS, p. 4-68 which states:

"Carmel Valley Road. This area includes the transmission main from the BIRP plant/supply from the Lower Carmel Valley. Since there is only a single transmission main, this area has a high consequence of failure."

Cal Am's 2025 Monterey CPS, p. 4-68 also states:

"Pipes with high consequence of failure should be investigated to determine pipe condition."

a. Provide supporting data and documents that shows on what date the Carmel Valley Road Transmission Main's demand changed to "low demand", as referenced in the quote above.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is stated fully here. California American Water further objects on the basis this request is a precise date when one may not be available and one is not relevant. Subject to, but without waiving, these objections, California American Water responds:

The transmission main was constructed to transport water that was treated at the Carmel Valley Filter Plant (CVFP). This included water from the San Clemente Dam as well as Russell Wells 2 and 4. The last year CVFP treated water from the San Clemente Dam was in 2003. CVFP was taken offline in 2009 when the Russell Wells were last operated in June 2009.

The CVFP was designed at a capacity of 10 million gallons per day, or up to 11,200 AFY. Production records from 1990 to 2010 show that water treated at the CVFP slowly declined, eventually to zero as the State Water Resources Control Board ordered stoppage of diversions from the San Clemente Reservoir (SWRCB Order 2001-04). From 2002 to 2009, CVFP treated on average approximately 470 AFY. From July 2009 on, when the Russell Wells and the CVFP were taken offline, the transmission main was only utilized to meet local demands as pumped through the Del Monte pump station.

See "CAW Response Cal Adv DKG-03 Q002.a Attachment 1 CVFP Production Data" for production data from source waters to CVFP.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Candace Coleman**
Title:	**Senior Planning Engineer**
Address:	**California American Water 655 West Broadway #1410 San Diego**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-03**
Company Number:	**Cal Adv DKG-03 Q002.b**
Date Received:	**July 10, 2025**
Date Response Provided:	**July 24, 2025**
Subject Area:	**Monterey Proposed Projects**

DATA REQUEST:

2. **Project Code I15-400179 MRY-Carmel Valley Road Transmission Main Downsizing (Proposed Project)**

Refer to Lacy Carothers' Testimony, p. 176 which states:

"The transmission main between the Clearwell at the upper end of Carmel Valley and the Del Monte Vista pump station was initially designed to deliver supply from the Carmel River prior to the removal of the San Clemente Dam. Pipelines along the alignment range from 24 to 30-inches in diameter with portions installed in the 1920s to 1940s. The transmission main now has low demand which results in low chlorine residuals and stagnant water with water quality issues. In addition, the pipeline has been identified as a high-risk pipeline in the Pipeline Prioritization Model, meaning it has a high likelihood of failure and a high consequence of failure. Replacing this main with a smaller diameter main will increase system reliability, improve water quality, and optimize operations. This project to replace approximately 24,200 linear feet of 24 to 30-inch diameter transmission pipelines with new 18-inch diameter pipelines is recommended in the 2025 Monterey County District CPS, and due to the size and length of this main, it is recommended that this project be approached in phases, beginning with a phasing study."

Refer to Cal Am's 2025 Monterey CPS, p. 4-68 which states:

"Carmel Valley Road. This area includes the transmission main from the BIRP plant/supply from the Lower Carmel Valley. Since there is only a single transmission main, this area has a high consequence of failure."

Cal Am's 2025 Monterey CPS, p. 4-68 also states:

"Pipes with high consequence of failure should be investigated to determine pipe condition."

b. Provide the Carmel Valley Road Transmission Main's demand data beginning from the date in response to Q2. a. until June 30, 2025.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is stated fully here. California American Water further objects to this request as relying on vague and imprecise terms. Subject to, but without waiving, those objections, California American Water responds: According to the 2018 study for Upper Valley chlorine residual management and disinfection byproducts (Trihalomethanes (TTHM)) attached to response Q002.c-d, the typical demand in the Upper Valley area is about 0.3 million gallons per day.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Shilpa Singh**
Title:	**Senior Manager Water Quality & Environmental Compliance**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Response Provided By:	**Kirti Chandra**
Title:	**Senior Water Quality & Environmental Compliance Specialist**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-03**
Company Number:	**Cal Adv DKG-03 Q002.c-d**
Date Received:	**July 10, 2025**
Date Response Provided:	**July 24, 2025**
Subject Area:	**Monterey Proposed Projects**

DATA REQUEST:

2. **Project Code I15-400179 MRY-Carmel Valley Road Transmission Main Downsizing (Proposed Project)**

Refer to Lacy Carothers' Testimony, p. 176 which states:

"The transmission main between the Clearwell at the upper end of Carmel Valley and the Del Monte Vista pump station was initially designed to deliver supply from the Carmel River prior to the removal of the San Clemente Dam. Pipelines along the alignment range from 24 to 30-inches in diameter with portions installed in the 1920s to 1940s. The transmission main now has low demand which results in low chlorine residuals and stagnant water with water quality issues. In addition, the pipeline has been identified as a high-risk pipeline in the Pipeline Prioritization Model, meaning it has a high likelihood of failure and a high consequence of failure. Replacing this main with a smaller diameter main will increase system reliability, improve water quality, and optimize operations. This project to replace approximately 24,200 linear feet of 24 to 30-inch diameter transmission pipelines with new 18-inch diameter pipelines is recommended in the 2025 Monterey County District CPS, and due to the size and length of this main, it is recommended that this project be approached in phases, beginning with a phasing study."

Refer to Cal Am's 2025 Monterey CPS, p. 4-68 which states:

"Carmel Valley Road. This area includes the transmission main from the BIRP plant/supply from the Lower Carmel Valley. Since there is only a single transmission main, this area has a high consequence of failure."

Cal Am's 2025 Monterey CPS, p. 4-68 also states:

"Pipes with high consequence of failure should be investigated to determine pipe condition."

c. Provide supporting data and documents that shows "low chlorine residuals" referenced in the quote above in the Carmel Valley Road Transmission Main.
d. Provide supporting data and documents that shows "stagnant water with water quality issues" in the Carmel Valley Road Transmission Main referenced in the quote above.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is stated fully here. Subject to, but without waiving, those objections, California American Water responds: The 2018 study for Upper Valley chlorine residual management and disinfection byproduct (Trihalomethanes (TTHM)) control is attached as "CAW Response to DKG-03 Q002.c-d Attachment 1 Upper Valley Chorine Residual Management and TTHM Control".

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**David Pezzini**
Title:	**Senior Project Engineer**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-03.e-f**
Company Number:	**Cal Adv DKG-03 Q002.e-f**
Date Received:	**July 10, 2025**
Date Response Provided:	**July 24, 2025**
Subject Area:	**Monterey Proposed Projects**

DATA REQUEST:

2. **Project Code I15-400179 MRY-Carmel Valley Road Transmission Main Downsizing (Proposed Project)**

Refer to Lacy Carothers' Testimony, p. 176 which states:

"The transmission main between the Clearwell at the upper end of Carmel Valley and the Del Monte Vista pump station was initially designed to deliver supply from the Carmel River prior to the removal of the San Clemente Dam. Pipelines along the alignment range from 24 to 30-inches in diameter with portions installed in the 1920s to 1940s. The transmission main now has low demand which results in low chlorine residuals and stagnant water with water quality issues. In addition, the pipeline has been identified as a high-risk pipeline in the Pipeline Prioritization Model, meaning it has a high likelihood of failure and a high consequence of failure. Replacing this main with a smaller diameter main will increase system reliability, improve water quality, and optimize operations. This project to replace approximately 24,200 linear feet of 24 to 30-inch diameter transmission pipelines with new 18-inch diameter pipelines is recommended in the 2025 Monterey County District CPS, and due to the size and length of this main, it is recommended that this project be approached in phases, beginning with a phasing study."

Refer to Cal Am's 2025 Monterey CPS, p. 4-68 which states:

"Carmel Valley Road. This area includes the transmission main from the BIRP plant/supply from the Lower Carmel Valley. Since there is only a single transmission main, this area has a high consequence of failure."

Cal Am's 2025 Monterey CPS, p. 4-68 also states:

"Pipes with high consequence of failure should be investigated to determine pipe condition."

e. Provide the phasing study referenced in Lacy Carothers' Testimony quoted above. If Cal Am has not yet completed the phasing study, provide the expected completion date.
f. Explain if Cal Am investigated and determined the Carmel Valley Road Transmission Main pipe condition. If Cal Am completed the investigation, provide the pipe condition report. If an investigation was not started, or has not yet completed, explain why and when it is expected to be completed.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as each is stated fully here. California American Water further objects on the basis this request is vague and ambiguous. Subject to, but without waiving these objections, California American Water responds:

A phasing study has not been started and is planned to be performed as part of the project. It is anticipated that the phasing study be performed during the engineering design phase which is scheduled to begin in 2027.

An individual condition report was not performed although in sections that are exposed our operations team has reported corrosion and leaks in some areas. The pipe condition was analyzed as part of the Pipeline Prioritization Model. Portions of the pipe were determined to have a high or very high consequence of failure as well as a high overall risk score.

DATA REQUEST:

4. **Project Code I15-400174 MRY-Storage Tank Rehabilitation and Replacement (Proposed Project)**

Refer to Project Code I15-400174 MRY-Storage Tank Rehabilitation and Replacement engineering workpaper, at p.5-6, which includes:

Projects Included in the Program:

PROJECT NAME	RECOMMENDED SOLUTION	ESTIMATED COST
Highest Priority – Recommended for rehabilitation from 2027 through 2032 Previously Identified		
Upper Middle Canyon	Full rehabilitation or replacement depending on overall conditions	$394,000
Ord Grove		$943,200
Country Club Heights		$505,000
Rio Vista Tank #1		$531,000
Rio Vista Tank #2		$340,000
Rio Vista Tank #3		$261,000
	Subtotal	$2,974,200
Other Project Costs: Engineering, Construction Management and Program Implementation		$892,260
	Total	**$3,866,460**
High Priority – Anticipated for full rehabilitation in 2027 through 2032		
Seismic Assessment	Perform a study to assess existing storage tanks and their ability to meet seismic requirements and determine if rehabilitation is required for the following tanks: Upper Tierra Grande, Lower Robles, Upper Paseo Privado, York, Segunda 1, Ralph Lane, Ryan Ranch, Mt Devon	$75,000
Upper Tierra Grande	Full Rehabilitation	$1,139,000
Lower Robles	Full Rehabilitation	$670,000
Upper Paseo Privado	Full Rehabilitation	$944,476
York	Full Rehabilitation	$804,000
Segunda	Full Rehabilitation of both tanks (1.5 MG and 2.225 MG)	$2,556,000
Ralph Lane	Full Rehabilitation on existing tank and add 20,000 gallons to existing sire	$535,000
Ryan Ranch	Full Rehabilitation	$2,010,000
Pebble Beach #1	Full Rehabilitation	472,238
Del Mesa	Full Rehabilitation	472,238
Upper Toyon	Full Rehabilitation	472,238
Lower Walden Tank	Full Rehabilitation	$134,000
	Subtotal	$9,145,190
Other Project Costs: Engineering, Construction Management and Program Implementation		$2,743,557

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

PROJECT NAME	RECOMMENDED SOLUTION	ESTIMATED COST
	Total	**$11,888,747**
High Priority – Fire flow improvements 2027 through 2032 coordinated with Fire Flow Projection task force		
Garrapata Storage Expansion	Provide additional 14,000 gallons of storage	$140,000
Ambler Storage Upgrades at Paseo Privado	Provide additional 24,000 gallons of storage in the Paseo Privado zone	$240,000
Seismic Assessment	Perform a study to assess existing storage tanks and their ability to meet seismic requirements and determine if rehabilitation is required for the following tanks: Upper Tierra Grande, Lower Robles, Upper Paseo Privado, York, Segunda 1, Ralph Lane, Ryan Ranch, Mt Devon	$75,000
Duplicate Tank Feasibility Studies	Perform studies to assess the potential for existing sites to support construction of a duplicate tank. Refer to the discussion below	$1,271,764
	Subtotal	$1,726,764
	Other Project Costs: Engineering, Construction Management and Program Implementation	$518,029
	Total	**$2,244,793**
	Total Program	**$18,000,000**
	Cost per year (2027 – 2032)	**$3,000,000**

Refer to Lacy Carothers' Testimony, Tank Maintenance, pp. 200-202 which includes:

Coastal Division				
Site	**2027**	**2028**	**2029**	**Site Total**
Aguajito 2		$6,500		$6,500
Airways, Lower		$6,500		$6,500
Airways, Upper			$6,500	$6,500
Carmel Views		$6,500		$6,500
Carmel Woods 3		$6,500		$6,500
Carola 2	$6,500			$6,500
Chualar 1			$6,500	$6,500
Chualar 2	$6,500			$6,500
Corte Cordillera 1			$6,500	$6,500
Corte Cordillera 2			$6,500	$6,500
Corte Cordillera Hydro		$6,500		$6,500
Country Club Heights	$404,000	$3,300		$407,300

Crest Canyon			$6,500	$6,500
Cypress 2		$6,500		$6,500
Del Mesa			$6,500	$6,500
Estrella D'oro, Upper Hydro		$6,500		$6,500
Estrella D'Oro 1, Upper	$6,500			$6,500
Estrella D'Oro 2, Upper		$6,500		$6,500
Estrella D'Oro, Lower	$6,500			$6,500
Fairways 1			$6,500	$6,500
Fairways 2			$6,500	$6,500
Fairways 3			$6,500	$6,500
Forest Lake 2	$6,500			$6,500
Forest Lake 3		$6,500		$6,500
Garrapata 1	$6,500			$6,500
Garrapata 2		$6,500		$6,500
Hidden Hills Clearwell 1	$6,500			$6,500
Hidden Hills Clearwell 2		$6,500		$6,500
Hilby 2	$6,500			$6,500
Hilby Hydro 1	$6,500			$6,500
Hilby Hydro 2		$6,500		$6,500
Hilby 1	$6,500			$6,500
Huckleberry 3	$6,500			$6,500
Los Tulares, Lower		$6,500		$6,500
Markham, Hydro		$6,500		$6,500
Mercurio			$6,500	$6,500
Middle Canyon 2, Lower			$6,500	$6,500
Middle Canyon, Upper	$350,000	$6,500		$356,500
Myer Hydro	$6,500			$6,500
Ord Grove	$500,000	$6,500		$506,500
Pacific Meadows	$6,500			$6,500
Paseo Privado 1, Lower	$6,500			$6,500
Paseo Privado 2, Lower		$6,500		$6,500
Paseo Privado, Upper	$6,500	$250,000	$6,500	$263,000
Pebble Beach 1			$6,500	$6,500
Pebble Beach 2		$6,500		$6,500
Pebble Beach 3	$6,500			$6,500
Presidio 2	$6,500			$6,500
Quail Meadows			$6,500	$6,500
Ralph Lane	$6,500			$6,500
Ralph Lane Hydro			$6,500	$6,500
Ralph Lane			$300,000	$300,000
Ranchitos 2	$6,500			$6,500

Rancho Fiesta, Upper	$6,500			$6,500
Rimrock 3, Upper	$6,500			$6,500
Rio Vista 1	$3,500			$3,500
Rio Vista 2	$3,500			$3,500
Rio Vista 3	$3,500			$3,500
Robles, Lower		$6,500	$350,000	$356,500
Ryan Ranch			$606,500	$606,500
Segunda 1		$6,500	$950,000	$956,500
Spectacular Bid 1	$6,500			$6,500
Tierra Grande, Upper		$450,000	$6,500	$456,500
Toyon 1, Upper			$6,500	$6,500
Viejo	$6,500			$6,500
Vista Dorado	$6,500			$6,500
Walden, Lower			$6,500	$6,500
Withers 3			$6,500	$6,500
Withers 4			$6,500	$6,500
York Road	$6,500	$450,000	$6,500	$463,000
Total	**$1,427,000**	**$1,283,300**	**$2,343,000**	**$5,053,300**

a. For each of the following tanks listed below, explain why each is included in both the project description in Lacy Carothers' testimony "Tank Maintenance" section and the Project Code I15-400174 MRY-Storage Tank Rehabilitation and Replacement engineering workpaper with different budgets. For example, in the engineering workpaper table, the Rio Vista 1 tank project has an estimated cost of $531,000 but in Lacy Carothers' testimony the Rio Vista 1 tank project has a cost of $3,500:
    1. Rio Vista 1
    2. Rio Vista 2
    3. Rio Vista 3
    4. Country Club Heights
    5. Ord Grove
b. For each of the tanks in Q.4.a., explain if there is an overlap of any tank maintenance tasks to be performed in the two project cost amounts presented in both tables. For example, are any of the Rio Vista 1 tank maintenance tasks included in the amount of $3,500 also included in the Rio Vista 1 tank work amount of $531,000?
c. Provide the most recent TIC tank inspection reports for the following tanks listed in the table below:

Rio Vista #1
Upper Tierra Grande

Upper Paseo Privado
Segunda Tanks
Ryan Ranch
York
Pebble Beach #1

d. Cal Am's engineering workpaper table, above, entry "Duplicate Tank Feasibility Study" "Recommended Solution" column states that there is a "discussion below" but the discussion is missing. Please provide the "discussion" referred to in the table.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is asserted fully here. California American Water further objects to the extent this request seeks information previously provided. Subject to, but without waiving these objections, California American Water responds:

a. The estimated cost of construction expenses for tank rehabilitation is in Project Code I15-400174 MRY-Storage Tank Rehabilitation and Replacement engineering workpaper. The cost for comprehensive inspection reports and anniversary tank inspection reports are listed in the "Tank Maintenance" section.

Tank Industry Consultants (TIC) provides comprehensive inspection reports detailing the condition of each tank approximately every 5 years to assess which may require attention or, if needed, full rehabilitation. TIC separately inspects the condition of the tank and the work quality of the contractor at approximately one year following any rehabilitation project providing an anniversary inspection report. The inspection reports, both 5-year comprehensive and post-rehabilitation anniversary, inform engineering and maintenance decisions, and are different from the costs of rehabilitation. The costs of rehabilitation may include planning, permitting, design, project management, construction, inspection, and procurement expenses necessary to complete the project.

Inspection reports specified several tanks requiring rehabilitation. Tanks that were proposed for the 2024-2026 rehabilitation program included Ord Grove scheduled for 2025, as well as County Club Heights, and Rio Vista Tanks #1, #2, and #3 which were scheduled for 2026.

1. Rio Vista 1: $3,500 is the estimated cost of the anniversary inspection report scheduled for 2027, approximately one year after the estimated $531,000 tank rehabilitation scheduled for 2026.
2. Rio Vista 2: $3,500 is the estimated cost of the anniversary inspection report scheduled for 2027, approximately one year after the estimated $340,000 tank rehabilitation scheduled for 2026.
3. Rio Vista 3: $3,500 is the estimated cost of the anniversary inspection report scheduled for 2027, approximately one year after the estimated $261,000 tank rehabilitation scheduled for 2026.
4. Country Club Heights: $3,300 is the estimated cost of the anniversary inspection report scheduled for 2028, approximately one year after the estimated $404,000 tank rehabilitation scheduled for 2027.
5. Ord Grove: $6,500 is the estimated cost of the anniversary inspection report scheduled for 2028, approximately one year after the estimated $500,000 tank rehabilitation scheduled for 2027.

b. For each tank in Q.4.a. there is no overlap in any tank maintenance tasks to be performed in the two project cost amounts presented in both tables.

1. Rio Vista 1: No, none of the Rio Vista 1 tank maintenance tasks included in the amount of $3,500 are included in the Rio Vista 1 tank work amount of $531,000. The anniversary inspection report (estimated at $3,500) provides information on the condition of the tank following construction. Any inspection included in the $531,000 cost is construction inspection only and primarily documents the workmanship of the contractor, daily person-hours and activities on the job site. Construction inspection does not provide a single, detailed, packaged report of the overall tank condition, unlike comprehensive and anniversary inspections.
2. Rio Vista 2: No, the same reasoning from Rio Vista 1 applies (see above).
3. Rio Vista 3: No, the same reasoning from Rio Vista 1 applies (see above).
4. Country Club Heights: No, the same reasoning from Rio Vista 1 applies (see above).
5. Ord Grove: No, the same reasoning from Rio Vista 1 applies (see above).

c. The most recent TIC tank inspection reports for the tanks listed have been provided. Please see:

- CAW Response to Cal Adv DKG03 Q004.c Attachment 1 – Rio Vista Tank #1_Redacted
- CAW Response to Cal Adv DKG03 Q004.c Attachment 2 – Teirra Grande, Upper Tank_Redacted
- CAW Response to Cal Adv DKG03 Q004.c Attachment 3 -Upper Paseo Privado Tank_Redacted

- CAW Response to Cal Adv DKG03 Q004.c Attachment 4 – Segunda Tank #1 Anniversary
- CAW Response to Cal Adv DKG03 Q004.c Attachment 5 – Segunda 2 Tank_Redacted
- CAW Response to Cal Adv DKG03 Q004.c Attachment 6 – Ryan Ranch Tank_Redacted
- CAW Response to Cal Adv DKG03 Q004.c Attachment 7 – York Road Tank_Redacted
- CAW Response to Cal Adv DKG03 Q004.c Attachment 8 – Pebble Beach Tank_Redacted

d. Rehabilitation may be challenging due to the difficulty of providing temporary storage at some locations. Therefore, if feasible, installing duplicate storage tanks would be beneficial. This would allow tanks to be taken offline for maintenance without the need for costly mobilization and demobilization of temporary storage facilities, significant fluctuation in pressure due to the lack of storage (i.e., pump stations not equipped with variable frequency drives), and additional operating requirements (and staffing) required during these periods.

CALIFORNIA
AMERICAN WATER

Monterey Water System

511 Forest Lodge Road, Pacific Grove, CA 93950

Summary Report

Upper Valley Chlorine Residual Management and TTHM Control Study

November 14, 2018

Jack Wang, Ph.D.

Director of Water Quality and Environmental Compliance

Problem Statement and Scope of Study

Disinfection Byproducts (DBPs) are a group of eleven carcinogens grouped into four classes: four species of Trihalomethanes (collectively "TTHMs"); five species of haloacetic acids ("HAA5"); Bromate, and Chlorite. U.S. EPA, under its Stage 2 Disinfection Byproducts (DBP) Rule, and the California Division of Drinking Water (DDW), which has adopted regulations similar to U.S. EPA's DBP rule, regulates DBP concentrations in drinking water.[1] The DBP Rule sets a separate Maximum Contaminant Level (MCL) for each class of DBPs. The MCL is exceeded (a violation of the DBP Rule) when the Locational Running Annual Average (LRAA) for any single sampling location within a distribution system exceeds the level specified for that DBP class. In this case, the LRAA for TTHMs cannot exceed the 80 ppb. The DBP Rule also requires water purveyors to calculate the Operational Evaluation Level (OEL), which calculated as the sum of the two prior quarters' TTHM results, and twice the current quarter's result, divided by four. If the TTHM OEL exceeds 80 ppb, the water purveyor is required to assess the various operational aspects of the treatment and distribution system to determine the contributing factors to DBP formation, and steps that could reduce future exceedances.

In addition to DBP regulation, water purveyors are required by various California and federal regulations, and drinking water system best practices, to disinfect water supplies. Water purveyors typically monitor the effectiveness of disinfection practices by measuring the disinfectant residual in the drinking water at various points of the distribution system. If there is no detectable disinfectant residual, there is an increased risk of microbial water contamination.

California American Water's (CAW) main Monterey Water System has challenges in maintaining a detectable chlorine residual, and controlling Total Trihalomethane concentrations at certain locations of the Upper Carmel Valley area where water residence time is excessively long. This study is to investigate if these challenges can be resolved by controlling water age and system hydraulics, or if additional capital investments will be required.

Background Information

The DBP Rule requires CAW to monitor DBPs in its distribution system quarterly. TTHM results at the Sleepy Hollow monitoring site slowly increased during the period of 2014 to 2015. The highest concentration of 132 ppb occurred in March 2014. In addition, operational reports showed that the Company needed to add disinfectant routinely at several storage tanks in the Upper Valley area so that the required chlorine residual level can be maintained.

The high TTHM site is at the eastern end of the Upper Valley area, in the vicinity of the Clearwell of the former Carmel Valley Filter Plant (CVFP). The Clearwell was constructed in the Year 2000. The original design and construction of Clearwell was intended to provide contact time for Surface Water Treatment Rule Contact Time/Disinfection credit for surface water from the San Clemente Reservoir treated at the CVFP as well as finished water storage. Contact Time requirements were met by constructing internal baffle walls in the Clearwell, which produce plug flow to increase contact time for the chlorinated water prior to leaving the tank.

[1] The primary requirement at issue for this memo is the same under both the federal and California rules. Accordingly, the analysis in this memo will simply refer to the "DBP Rule" without distinguishing between California and federal requirements.

The Clearwell consists of two separate 750,000 gallon chambers for a total of 1.5 million gallons. The two chambers are identified as Chamber "A" and Chamber "B". Each chamber has three baffle walls as mentioned earlier. The CVFP was decommissioned in June 2009. Since that time, the Clearwell has been used only as a distribution system storage tank, receiving treated water from the Begonia Iron Removal Plant (BIRP) or Upper Valley wells via the Del Monte Pump Station. The treated water is chlorinated at BIRP, or at individual Upper Valley wells. Chlorine is also added at the Clearwell as needed.

Efforts Prior to 2017

Based on the 2014 TTHM monitoring results, CAW's Water Quality and Environmental Compliance (WQ/EC) team was required to conduct an OEL assessment in 2014, and those efforts continued into 2016.

Site Evaluation: The Sleepy Hollow TTHM sampling site is approximately one quarter mile from the Clearwell. This DBP sample site was approved in November of 2013 by DDW. The WQ/EC team met with Operations on April 8, 2014 to evaluate if this site is a true representative location. Through a series of evaluations and sampling, CAW requested, and DDW agreed, to replace the initial 132 ppb result with a repeat sample (87 ppb) because the initial sample was not representative of the distribution system. The June 2014 compliance sample result at the location was relatively low (37 ppb) due to a large operational turnover of the tank. The compliance sample at the site was 71 ppb for Q4 2014, which resulted in a LRAA of 64 ppb, alleviating the immediate threat of an MCL exceedance. Through the site evaluation, the Sleepy Hollow site was also replaced a new DBP sampling location on Via La Gitana starting in Q1 2016.

TTHM Mitigation Measures Implemented: With the slowly increasing levels of TTHM at the Sleepy Hollow sample site, CAW implemented several measures to reduce the TTHM levels. CAW cleaned the Clearwell in March of 2015 to remove any accumulated sediment. Removing any accumulated sediment would reduce TOC levels, as TOC reacts with disinfectants to form TTHMs. The cleaning and inspection were accomplished by cleaning Chamber A while Chamber B was in operation and then cleaning Chamber B when Chamber A was in operation.

The cleaning of the Clearwell did not appear to have a significant effect on the TOC levels nor TTHM levels. Therefore, CAW implemented additional mitigation measures by researching best available technologies (BATs) for in situ reduction of TTHMs in the Clearwell. A PAX TTHM removal system was installed in Chamber B of the Clearwell in 2016.

Increased Monitoring: To better understand the situation and evaluate the effectiveness of mitigation measures implemented, WQ/EC team initiated weekly TTHM sampling at Via La Gitana site and bi-weekly sampling at the Clearwell in 2016. The increase monitoring showed that the compliance risk at the Via La Gitana site still existed, and additional evaluation and mitigation measures may be needed.

2017 Study – Understanding of System Hydraulics

The general system layout in the Upper Valley area is relatively simple, as it can be viewed as an "enclosed system." The water consumed in the area is supplied from the Del Monte Pumping Station,

with the Clearwell being the main storage reservoir. The Company uses a series of booster pump stations coupled with small storage facilities to maintain pressure and fire storage in the higher elevations of the distribution system. Attachment A shows the map of the Upper Valley service area.

The Del Monte Pump Station connects to the Clearwell via transmission main with a diameter that varies between 20" and 30", as specified in Table 1. When the Del Monte pump station is on, it sends water from Begonia Iron Removal Plant and other Upper Valley wells (when they are in operation) to the Upper Valley area at a rate of 700 gallons per minute (gpm). Table 1 shows the theoretical calculation of time needed for water from the pump station to reach at various distribution system locations between the pump station and the Clearwell.

Table 1
Upper Valley Distribution System Travel Time Calculations

Location	Distance from Del Monte Pump Station (feet)	Pipe Sizes (inch)	Estimated Total Pipe Volume (gallon)	Pumping Rate (gpm)	Total Time Needed to Reach from Del Monte (hour)
Via Contenta (Feed to Lower Airway)	8,500	24"	204,000	700	4.9
Suction of Lower Los Tulares	17,400	24"/20"/30"	400,000	700	9.5
Clearwell	22,850	24"/20"/30"	600,000	700	14.3

Typical demand in the Upper Valley area is about 0.3 million gallons per day. The Del Monte Pump Station is controlled by the level settings at the Clearwell. Due to the size of the transmission main between the Pump Station and the Clearwell, and the corresponding large volume of water, the actual water retention time in that part of the system can vary greatly from location to location depending on the operating range of the Clearwell. This is especially true for the area that is distant from the Del Monte Pump Station. For example, the water in the Clearwell will be almost stagnant if the Del Monte Station operates in short but frequent bursts associated with a small operating range in the Clearwell because little fresh water from the Del Monte pump station can reach the Clearwell under this scenario. To minimize the water residence time in areas that are more distant from the pump station, it is better to run the Del Monte pump station less frequently, but for longer duration when it is on, and use a greater operating range of Clearwell storage to manage the system demand. CAW staff modeled the water age using a greater Clearwell operating range from 10 to 22 feet, and arrived at a theoretical water age in the area of about 5 days.

017 Study – Testing the System Hydraulic Understanding

CAW staff then sought to validate its water age model on a smaller scale. We first tested the system hydraulic understanding at the Upper Airway Tank. The Upper Airway Tank receives water from Lower Airway tank via a pump station next to the Lower Tank. Table 2 shows the distance and calculated time required for sending water from lower Airway to Upper Airway.

Table 2
Upper Air Tank Hydraulic Calculations

Location	Distance from Lower Airway (feet)	Pipe Sizes (inch)	Estimated Total Pipe Volume (gallon)	Pumping Rate to Upper Airway (gpm)	Total Time Needed to Reach from Lower Tank (hour)
Upper Airway Tank	5,800	6"/8"	11,600	100	1.9

The Lower Airway tank receives water from the Del Monte Pump Station daily from the connection at Via Contenta based on a comparison of the station's operating status and the calculations shown in Table 1. The chlorine residual in the Lower Airway tank historically has been very good and stable based on operational monitoring. However, the residual level in the Upper Airway Tank was often low, especially during the summer/fall season, requiring the Company to add disinfectant at the Upper Airway Tank periodically to maintain an appropriate chlorine residual level.

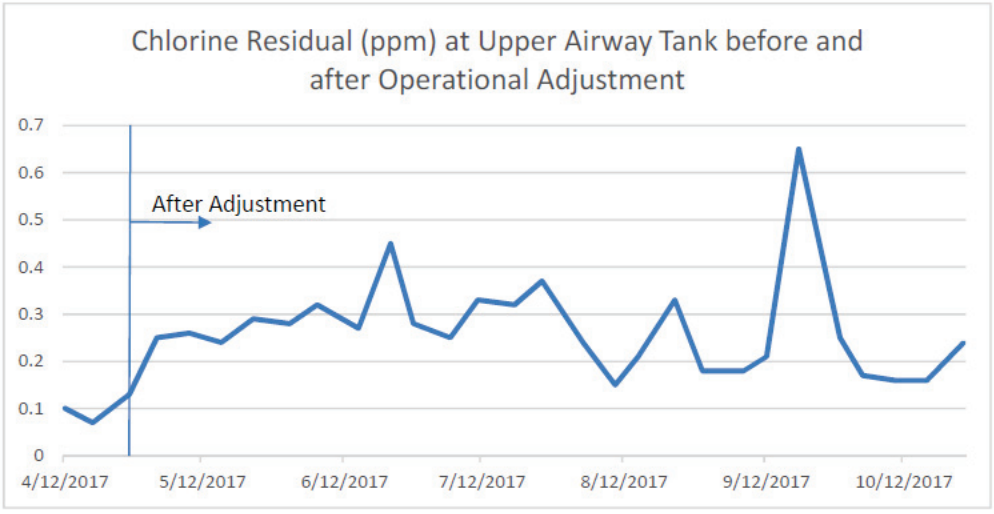

Figure 1

In April 2017, CAW staff investigated the operating status between the pump station that sends water to Upper Airway and the control levels at Upper Airway. We discovered that the Upper Airway Tank level was set at a very narrow operating range (13 feet low to 14 feet high). The setting limited the run time of the pump station to less than 90 minutes, resulting little fresh water exchange in the Upper Airway Tank. Staff recommended changing the tank setting to 10.5 feet low and 14.5 feet high, which increases the run time of the pump station from 90 minutes to 5.5 hours. The Operation team adjusted the Upper Airway Tank operating range at the end of April 2017. There was an immediate improvement in the chlorine residual, as shown in Figure 1. The setting at the Upper Airway Tank was later adjusted to 12 feet low and 14.5 feet high in July 2017 to balance the needs of water quality management and storage needs for fire flow. CAW has been able to maintain the residual in the Upper Airway Tank, eliminating the need to add disinfectant since the adjustment.

Having validated the water age and disinfectant residual model on a smaller scale, the Company then applied the lesson from the Upper Airway Tank to the operation of the Clearwell. Recall the Cleawell has two chambers: A and B. Chamber A has been out of service for a couple of years. The Chamber B operating range was set at 12 feet low and 18 feet high, which limited the continuous run time of the Del Monte pump station to less than 5 hours each time. Under this operating scenario, the Clearwell effectively had no fresh water exchange from the Del Monte Pump Station, requiring the Company to add disinfectant in the Clearwell to maintain the needed residual level. Based on the lesson from Upper Airway, staff increased the Clearwell operating range. The first change was made on June 22, 2017. Figure 2 captures the chlorine residual level and operating status at the Clearwell before and after the change.

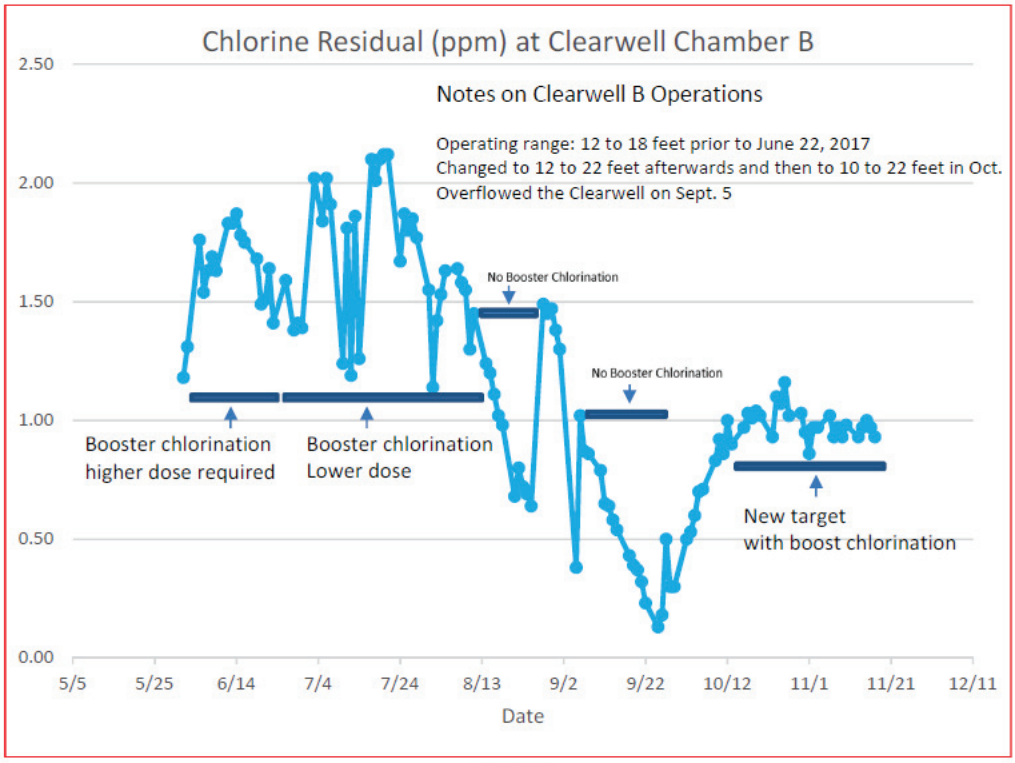

Figure 2

Figure 2 shows the change of the Clearwell operating level had a significant impact on the chlorine residual in the Clearwell. Specifically,

- The residual in the Clearwell can last for about three weeks after the change as compared to about one week prior to the change, eliminating the need for daily disinfectant addition; and
- The disinfectant dose required to maintain the target residual target is lower after the change

The water age improvement at the Clearwell also affected the water quality in the area nearby as shown in Figure 3. The figure shows the comparison between the Clearwell and Upper Los Tulares Tank. The upper tank is supplied by Lower Tulares Tank, which draws water from the area near the Clearwell. As shown by the figure, the residual trend at the upper tank mimics the trend in the Clearwell.

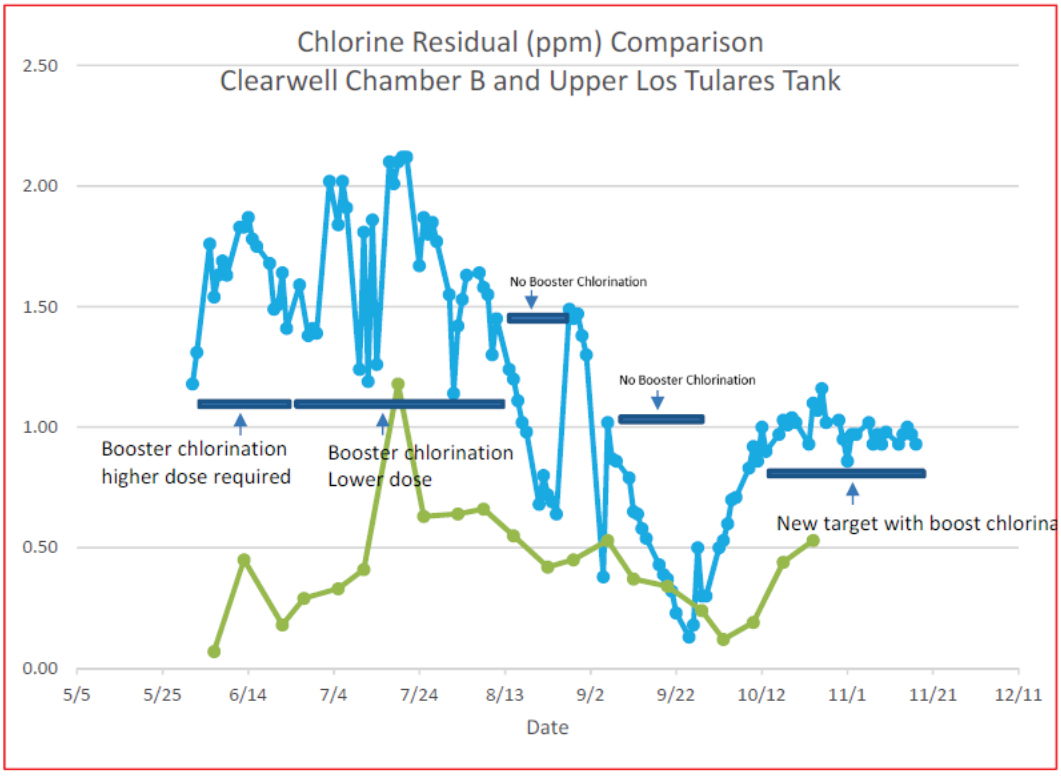

Figure 3

The chlorine residual monitoring results at various locations show that water quality in the Upper Valley area is controlled by two factors: the fresh water from Del Monte Pump Station at the west end, and the stored water in the Clearwell on the east end. Due to the large volume of the transmission main that connects the pump station and the Clearwell, operating the system in a manner that increases fresh water exchange from the Del Monte pump station to the Clearwell, and minimizes the actual water age in the Clearwell improves the disinfectant residual in the Upper Valley. Based on these results, the Company should increase the operating range at the Clearwell to allow longer continuous pumping at the Del Monte Pump Station (at least 15 hours) to reduce the actual water age in the area of the Clearwell, and therefore improve the overall water quality in the vicinity.

2017 Study – TTHM Results

TTHM formation is a function of variables that include precursors (e.g., TOC, bromide) concentration, chlorine dose, water age, pH and temperature. Due to the source water and treatment processes CAW uses for the Upper Valley area (i.e. Begonia Iron Removal Plant and direct chlorination at Upper Valley wells), the variables that can be easily controlled by system operation are chlorine dose and water age.

The water leaving the Begonia Iron Removal Plant typically has TTHM levels less than 20 ppb, and a chlorine residual of 1.50 to 2.0 ppm. As water travels to the Upper Valley area and the water age increases, TTHM levels increase and chorine residual decreases. To maintain the chlorine residual in the Upper Valley area, the Company previously added disinfectant to the water in the Clearwell daily, which further promotes the formation of TTHMs in the Clearwell.

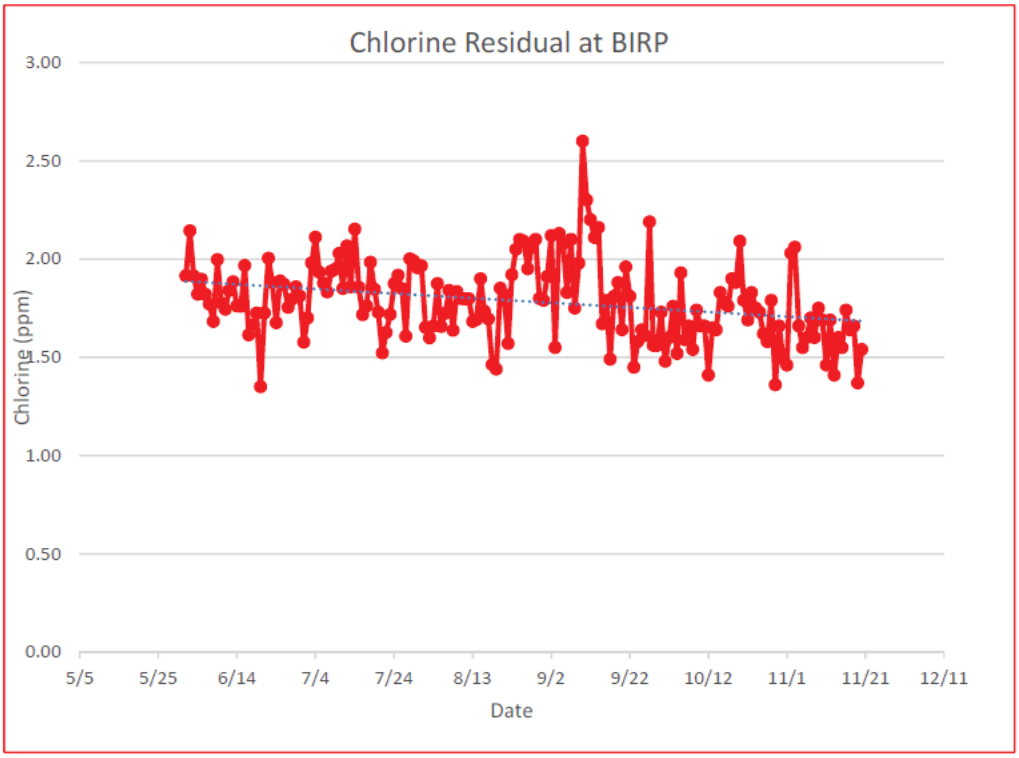

Figure 4

Figure 4 shows the chlorine residual level in the finished water from BIRP. The chlorine residual level at the plant effluent fluctuates between 1.3 to over 2.5 mg/L. The residual level leaving the plant was often above 2 ppm. In addition, the water was re-chlorinated in the Clearwell for residual management in the distribution system, especially during the summer and fall months. This strategy is actually counter-productive to the needs for TTHM control.

As discussed previously, the water quality in the Upper Valley area is controlled by two factors: the fresh water from Del Monte Pump Station at west end (i.e. from the Begonia plant), and the stored water in the Clearwell at the east end. Since the fresher water from Del Monte Pump Station has low TTHM level, any high TTHM levels in the Upper Valley must be from the Clearwell. Figure 5 shows the TTHM level at the Clearwell and one of the compliance site at in the Upper Valley. The data clearly confirmed the correlation between TTHM levels in the Clearwell and the Upper Valley compliance site.

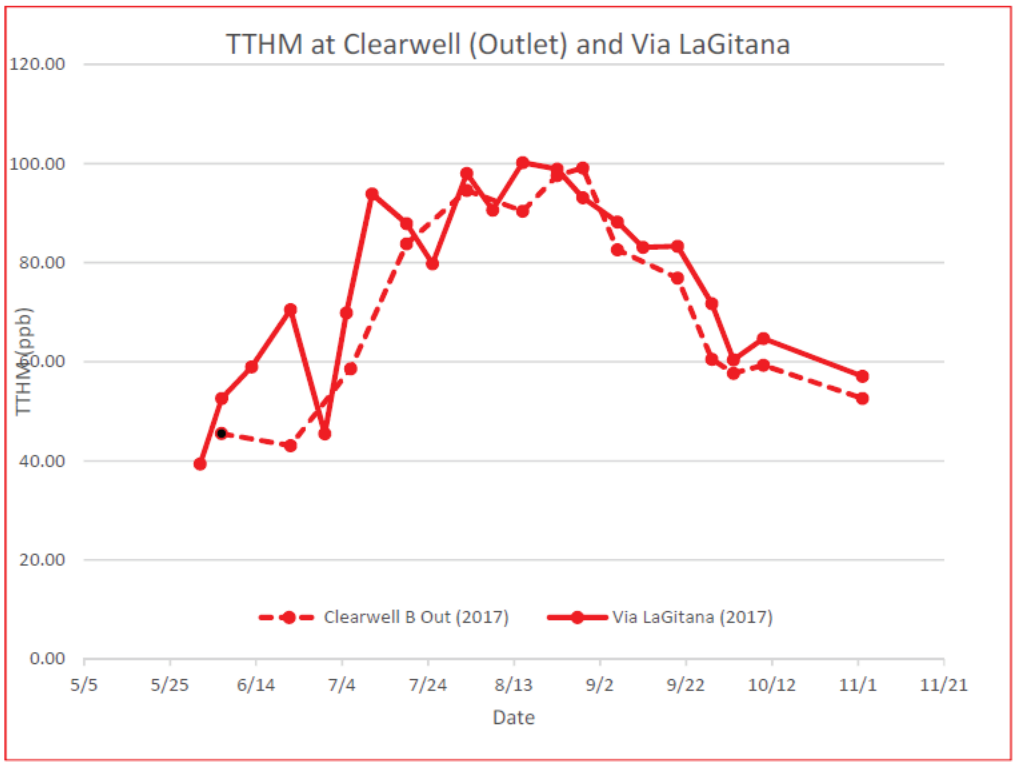

Figure 5

Without a major capital investment, there are two available options to minimize the TTHM levels in the Clearwell: a) relying on the TTHM removal system installed in the Clearwell, and b) optimizing the Clearwell operation to reduce additional TTHM formation occurring at the Clearwell. Figure 6 shows the monitoring results for the efficiency of the installed TTHM removal system (PAX system). The results indicated that the removal efficiency of the PAX system is on average, less than 15 percent, which is not adequate for controlling the TTHM to below MCL at some of the compliance monitoring sites. Therefore, optimizing the Clearwell operation is the only remaining option to reducing TTHM levels at the Upper Valley compliance site, absent major capital improvements.

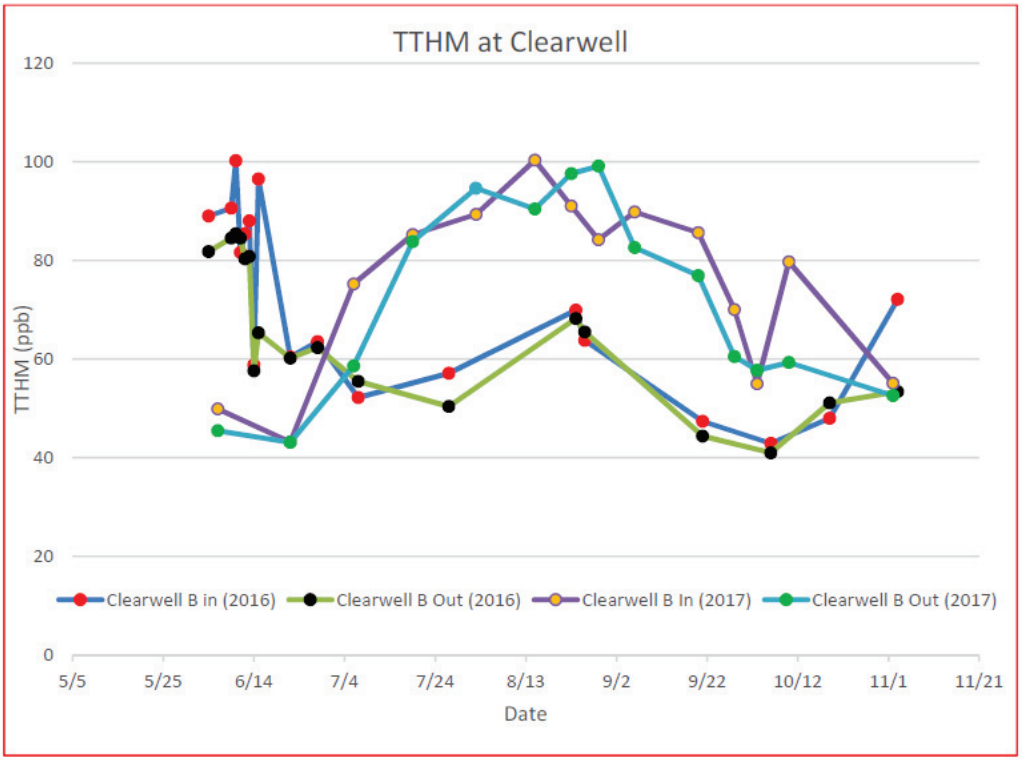

Figure 6

Optimizing the Clearwell operation resulted in a reduction of the actual water age in the Clearwell, which further reduces the need for disinfactant addition at the Clearwell (for residual management in the system), and therefore limits the additional TTHM formation in the Clearwell. Monitoring results shown in Figures 3, 5 and 6 confirmed the effectiveness of this strategy. After changing the Clearwell operating range to 10 feet low and 22 feet high (which reduced the actual water age in the Clearwell) and stabilizing the chlorine residual at 1 ppm (which reduced the chlorine addition at the Clearwell) in late September 2017, the TTHM level in the Clearwell and the Via La Gitana site decreased to below 70 ppb.

For operational simplicity, it is desired that the chlorine residual leaving the Begonia plant is stable at an appropriate level for the residual maintenance at the Clearwell. This will eliminate the needs for re-chlorination at the Clearwell and minimize the additional formation of TTHM. While this desired outcome is feasible, additional studies and system modifications are needed for the following two reasons:

1. Currently, there are difficulties in controlling the chlorine residual in the Begonia plant effluent to a very tight range. This is a result of existing control settings at the plant. The plant currently does not have a way to control the flow changes when switching its source from one well to another. In addition, the location of on-line chlorine analyzer does not allow timely response to

feed dose change. To achieve the ability for controlling the effluent chlorine residual in a tight range, capital improvements are needed to address the two issues mentioned.

2. The information on chlorine decay rate in the system is limited. As a result, the desired chlorine residual level leaving the Begonia plant cannot be accurately determined at this point. More seasonal observations are needed before an accurate water quality model can be built.

Conclusions and Recommendations for Operations

Maintaining the TTHM LRAA in the Upper Valley area to below the 80 ppb MCL is feasible without major capital improvement projects. Specifically, the strategy of minimizing the actual water age in the Clearwell by adjusting the Clearwell settings and the Del Monte Pumping scheme is a reasonable option to use.

The monitoring results obtained during the period of 2016 to 2017 at the Clearwell and the compliance site of Via La Gitana showed that the TTHM level is lower in Q1, Q2 and Q4 (below 60 ppb typically) and high in Q3 (as high as 100 ppb). While this strategy of minimizing the actual water age does not provide 100% assurance that the TTHM level at Clearwell and Via La Gitana is maintained at below 80 ppb at all times, it is an effective compliance strategy as the compliance of DBP rule is based on quarterly LRAA. Using this strategy, the quarterly LRAA will be below 70 ppb (with the projection of 3 quarters at 60 ppb or below and 1 quarter at 100 ppb or below) if it is implemented correctly.

To implement the strategy appropriately, the team is recommending the following operational changes:

1. Clean and place Clearwell Chamber A in service so that both chambers are in service. Placing both chambers in service will improve fire protection, but could negatively impacted WQ if not managed appropriate. Therefore, Recommendations 2 and 3 must also be implemented.

2. Set the Clearwell control level to 10 feet low and 22 feet high so that the continuous run time at the Del Monte Pump Station is above 17 hours. This will minimize the actual water age at the Clearwell and its vicinity to below 5 days.

3. Lower the targeted chlorine residual at the Clearwell from 1.0 ppm to 0.8 ppm. With reduced water age, the lowered residual level at the Clearwell should be adequate to maintain needed residual throughout the system.

4. When opportunities become available, improve the process control at BIRP so that the targeted effluent chlorine residual can be tightly controlled.

5. Continue to monitor the system responses to the changes made above and finalize the target chlorine residual level at the Begonia plant effluent.

Acknowledgement

This report is a result of collective effort between WQ/EC and Operations. Contributions from Treatment operators, Robert James, Bowen Kendrick, Nina Miller, Susy Jacobson and Helen Lau were essential to the successful conclusion of the 2017 study.

Additional Notes on March 9, 2018

Water Treatment Operations took the recommendations made by the team and made the following changes to the system:

1. Placed Clearwell Chamber A in service on January 23, 2018 and set the operating range of both chambers at 10 feet low and 22 feet high.

2. Stopped re-chlorination at the Clearwell on January 26, 2018 an there has been no chlorine feed to the Clearwell since.

The system responses to the changes made are summarized below.

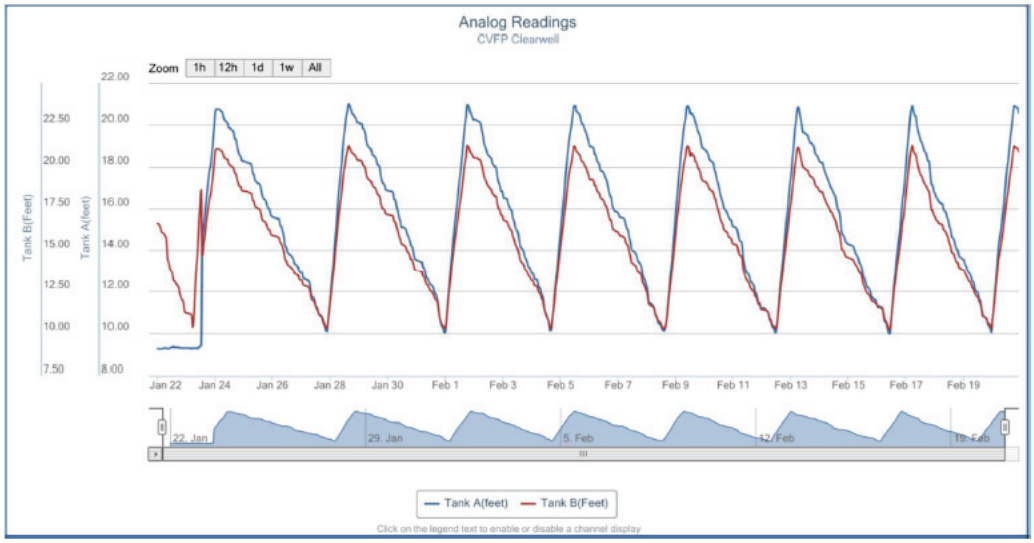

Figure 7

Figure 7 shows the Clearwell's fill and drain cycle after the change. From January 23 to March 9, 2018, the fill cycles (Del Monte Pump Station is on) last about 19 hours. The drain cycles (Del Monte Pump Station is off) last about 75 to 94 hours depending on the demand of a particular day. Based on the run hours of the pump station and the estimated travel time shown in Table 1, it is estimated that the Clearwell receives 14% of fresher water exchange each cycle.

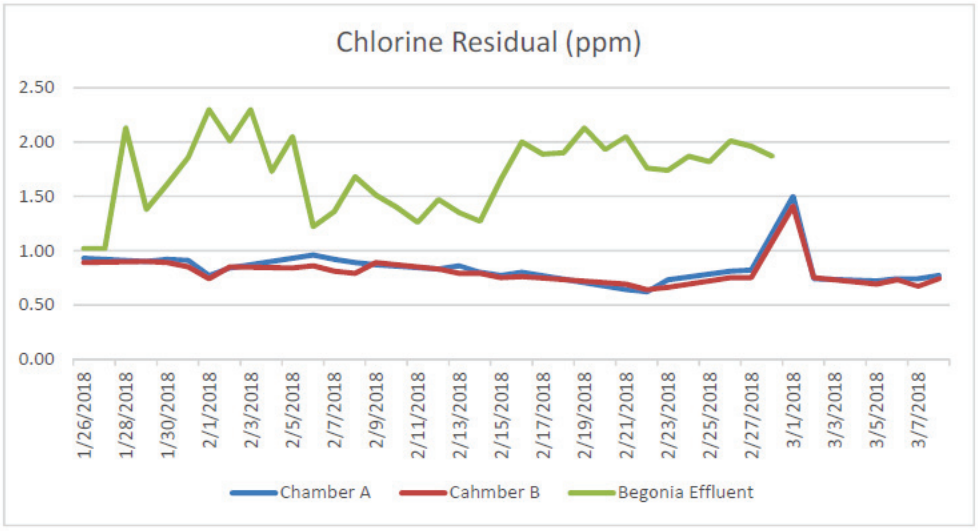

Figure 8

Figure 8 shows the chlorine residual trends at the Clearwell chambers after the practice of re-chlorination at the Clearwell was stopped. A closer comparison of the sampling times with the Clearwell fill and drain cycles indicated that the fresh water entering the Clearwell had a chlorine residual of about 1.5 mg/L during the monitoring period. At the tail end of the drain cycle, the chlorine residual in the Clearwell was about 0.70 mg/L. Therefore, it is calculated that the Chlorine residual in the Clearwell at the beginning of the drain cycle is about 0.81 mg/L using the 14% fresh water exchange in each cycle. This translates a chlorine decay rate of about 0.032 mg/L/day under current condition.

It is expected that the chlorine decay rate will be higher during summer/fall months due to higher water temperatures. Assuming that the chlorine decay rate increases to 0.05 mg/L/day during summer/fall months (note: this is a reasonable guess based on team members' experience), a steady state for the system chlorine residual will not be achieved until the residual in the Clearwell drops to 0.25 mg/L. This is too low for appropriately manage the residual in the distribution system. Therefore, we will need to either add chlorine at the Clearwell periodically or further increase the operating range of the Clearwell during summer/fall months. Without any re-chlorination at the Clearwell, it is estimated that a steady residual level of 0.75 mg/L in the Clearwell can be achieved by lowering the low setting to 8 feet if the chlorine decay rate does not exceed 0.05mg/L/day. We highly recommend Operations to try it out during the upcoming summer to verify the valid of this option.

Table 3 Summary of Quarter 1 TTHM Data at Clearwell and Nearby Sampling Sites

Year	2014	2015	2016	2017	2018
Results (ppb)	86.5 – 132.1	37.0 – 65.3	68.1 – 81.7	27.8 – 56.5	39.7 – 41.7

Table summarizes the Quarter 1 TTHM monitoring results from the Clearwell and it nearby sites. It appears that the new operating strategy yielded a favorable outcome as predicted. However, a direct

comparison from year to year cannot be made as certain critical system operating information was not captured for previous samples. For the 2018 results, the data was collected when all Upper Valley wells were off line, which represents the worst scenario situation as all water to the Clearwell was from the Begonia plant (i.e. highest residence time in the system). Based on the 2018 Q1 results, the team is confident with its previous conclusion that DBP compliance can be achieved with the recommended operating strategy.

Additional Notes on November 14, 2018

WQ/EC monitored the chlorine residual and TTHM levels in the upper valley area for continuously for the summer and fall months. As expected, the chlorine decay rate in the Clearwell was increased during the months of July to October. A minor adjustment was made (increased the Clearwell level operating range by 1 foot from previous setting) during the summer. This effectively increase the fill cycle to 24 hours. By doing so, we were able to maintain the minimum chlorine residual level in the Clearwell to above 0.4 ppm. Quarterly TTHM results in the area were all below 60 ppb.

comparison from year to year cannot be made as certain critical system operating information was not captured for previous samples. For the 2018 results, the data was collected when all Upper Valley wells were off line, which represents the worst scenario situation as all water to the Clearwell was from the Begonia plant (i.e. highest residence time in the system). Based on the 2018 Q1 results, the team is confident with its previous conclusion that DBP compliance can be achieved with the recommended operating strategy.

Additional Notes on November 14, 2018

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Attachment 1-4: Cal Am Response to Public Advocates Office Data Request DKG-16 (Field Trip Follow-Up) Excerpt

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Scott Ottmar**
Title:	**Sr. Project Engineer**
Address:	**California American Water 511 Forest Ldg Rd,Ste 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-16**
Company Number:	**Cal Adv DKG-16 Q002**
Date Received:	**August 22, 2025**
Date Response Provided:	**September 5, 2025**
Subject Area:	**Field Visit Follow-up**

DATA REQUEST:

2. **Project I15400164: 2024-2026 Well Installation Program (Refer to the Direct Testimony of Lacy Carothers' testimony at 102):**

a. Provide the design percent completion for each of the following wells: Toro #5 well, the Rancho Canada #3 well, and the Garrapata #1 well.
b. Provide a status update on the Rancho Canada #3 well CEQA permitting.
c. Provide the expected completion date of the study to evaluate the feasibility of combining the Toro and Ambler systems.

CAL-AM'S RESPONSE

California American Water incorporates its General Objections as though each is submitted fully here. California American Water further objects to this request to the extent it is vague and ambiguous. Subject to, but without waiving, those objections, California American Water responds as follows:

a. The overall design completion percentage for the Toro 5 project is about 30%. Plans and specifications to drill the well are 90% complete. Design for mechanical and electrical improvements is expected to start this month and be substantially complete by the end of calendar year 2025. CEQA preparation has begun and also has a target completion date of December 31, 2025. Rancho Canada #3 is currently in the stage of easement negotiations with the Monterey Peninsula Regional Park District. Preliminary plans and specifications to drill the well have been completed. A potential location for the well has been identified, but until an easement is secured, CEQA and final design preparation are on hold.

Garrapata #1 design has not yet started. The first step will be to identify the potential location for the replacement well and begin easement acquisition.

b. As noted above, CEQA preparation for Rancho Canada #3 has begun but is on hold until a permanent easement has been negotiated with the Monterey Peninsula Regional Park District (MPRPD). A general project description has been developed and the CEQA preparation will benefit from the work currently in progress for the Rancho Canada Village well project. As a public entity, the easement process with MPRPD is anticipated to extend to the fall 2026.
c. The evaluation of combining the Toro and Ambler water systems is expected to be finalized by November of 2026, once the Toro #5 well has been drilled and its capacity verified.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**David Pezzini**
Title:	**Senior Project Engineer**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Response Provided By:	**Candace Coleman**
Title:	**Senior Planning Engineer**
Address:	**California American Water 655 West Broadway #1410 San Diego**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-16**
Company Number:	**Cal Adv DKG-16 Q005**
Date Received:	**August 22, 2025**
Date Response Provided:	**September 5, 2025**
Subject Area:	**Field Visit Follow-up**

DATA REQUEST:

5. **Projects I15-400170: Mains (Refer to the I15-400170 engineering workpaper):**

a. Provide a list of High and Very High Risk mains, including street name, city name, and estimated budget that Cal Am plans to complete in each year 2027 and 2028.

b. Provide a map overlay showing the proposed pipeline replacement alignments.

CAL-AM'S RESPONSE

California American Water incorporates its General Objections as though each is submitted fully here. California American Water further objects to this request to the extent it is vague, ambiguous, and/or over-broad. California American Water also objects to this request as duplicative and therefore overly burdensome. Subject to, but without waiving, those objections, California American Water responds:

The list of High and Very High Risk mains has already been provided as part of a previous data request. California American Water proposes to spend approximately $19.4M per year on main replacements in 2027 through 2029. This is based on replacing High and Very High risk mains at a rate of approximately $540 per linear foot.

This replacement rate is approximately 1% per year. However, California American Water will not know which specific mains will be replaced until immediately prior to beginning the main replacement projects, as explained below.

In the past, California American Water has relied on a desktop condition-based assessment (CBA) of pipe risk to identify pipe replacement projects. This assessment was static, meaning that it provided a set list of prioritized projects. The problem with this method is that it captured a snapshot of the distribution system at the time the model was developed, but did not capture changes in the system, such as new breaks, pipes that were recently replaced, or new pipe information, such as actual field verification of pipe condition. Often, the pipe projects that were identified from the CBA were replaced by more urgent projects. For example, if a pipe not on the project list experienced a significant break, or a City shared a paving project that would allow California American Water to replace pipe without the cost of repaving and/or would result in a moratorium in accessing a pipe in a particular street in the future.

American Water recently developed the Pipe Prioritization Model (PPM) that uses essentially the same data as the CBA to determine pipe risk, but in a model that can be updated from other data sources, such as GIS, MapCall, and hydraulic models. The PPM is a dynamic tool, meaning that it can be updated at any time. This is beneficial to California American Water because it allows staff to determine a pipe replacement project immediately prior to beginning the project using the most up-to-date information available. The intent is that operations, engineering, and planning will meet to review the updated PPM and decide on short-term projects based on factors such as pipe risk, project feasibility, known activity in the area, and proximity to other pipe projects. This method allows for more precise identification of pipe replacement needs.

A 1% main replacement rate is often referred to and compared with as a benchmark during top-down KANEW statistical model/Nessie curve main replacement financial planning analysis, which assumes 100-year life expectancy or replacement cycle. The average life expectancy of water distribution mains is 78 years according to the 2025 American Society of Civil Engineers (ASCE) drinking water infrastructure report, which corresponds to 1.3% average replacement rate. The 2021 ASCE drinking water infrastructure report stated an average industry replacement rate of 0.5% in 2015, increasing to 1%-4.8% by 2019. A 1% replacement rate in the Monterey System would equate to replacement of approximately six miles of main each year. The current replacement rate is approximately 1 to 2 miles each year with an annual budget of about $4 million (See DKG-16 Q007 response). That is not close to the budget needed to replace 1% of the mains per year. To meet the 1% target, we are asking for a budget of $19.4M per year for main replacements for 2027-2029.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**David Pezzini**
Title:	**Senior Project Engineer**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-16**
Company Number:	**Cal Adv DKG-16 Q007**
Date Received:	**August 22, 2025**
Date Response Provided:	**September 5, 2025**
Subject Area:	**Field Visit Follow-up**

DATA REQUEST:

7. **Monterey Mains:**

   a. For each year 2022, 2023, and 2024, provide the following information for each of the completed Monterey main replacement project in Excel format.

   b. Provide a map overlay showing the recorded pipeline replacement alignments.

Example: 2022

Project Name	Project Description including pipe diameter and material	Length (feet)	Recorded Cost ($)

CAL-AM'S RESPONSE

California American Water incorporates its General Objections as though each is submitted fully here. California American Water further objects to this request to the extent the request seeks an analysis, calculation, or compilation that has not previously been performed or gathered and is therefore unduly burdensome. California American

Water additionally objects to this request to the extent it is vague and ambiguous. Subject to, but without waiving, those objections, California American Water responds:

a. See CAW Response Cal Adv DKG-16 Q007 Attachment 1 excel sheet of main replacement projects completed under the main replacement programs I15-400125 & I15-400157. Projects include main replacements, new fire hydrants, and replacement of service lines to properties.
b. See CAW Response Cal Adv DKG-16 Q007 Attachment 2 of project alignments.

Number	Project Name	Year Completed	Length (ft)	Recorded Cost ($)
1	Viejo Road Main Replacement	2022	1620	$ 578,271.19
2	Ocean View Main Replacement	2022	2160	$ 968,140.60
3	Spruance Road Intertie	2022	125	$ 69,421.74
4	De El Rio Main Replacement	2022	600	$ 379,463.73
5	Mesa-Trevis Main Raplcement	2022	2670	$ 1,083,768.91
6	Garrapata Main Replacement	2023	200	$ 264,514.29
7	Monterey Circle Main Replacement	2023	840	$ 407,438.68
8	Helvic Avenue Main Replacement	2023	1750	$ 828,636.64
9	Esplanade Street Main Replacement	2023	450	$ 642,514.71
10	PG Main Replacements Project	2023	2130	$ 1,116,925.90
11	2nd-4th Street Main Replacement	2024	2700	$ 1,561,737.24
12	New Monterey Main Replacement	2024	2640	$ 1,421,555.86
13	Beacon Ave Main Replacement	2024	600	$ 519,985.31
14	Dolores Street Main Replacement	2024	3160	$ 1,703,651.47

CAL-AM'S RESPONSE

California American Water incorporates its General Objections as though each is submitted fully here. California American Water further objects to this request to the extent the request is vague and ambiguous. California American Water additionally objects to this request to the extent it seeks information or documents that are equally available to the parties. Subject to, but without waiving, those objections, California American Water responds:

8.a. Design percent complete: ~90%

8.b. Planning percent complete: ~90% – The County of Monterey has conditionally approved the project and the Division of Drinking Water (DDW) is reviewing site security.

8.c. Permitting efforts for the project include approval by DDW and the County of Monterey. Through the design process, California American Water pursued variances to DDW requests including a variance from the Title 22 regulations to construct groundwater monitoring wells uphill and downhill of each underground tank because groundwater is highly unlikely to occur near the proposed project sites.

DDW review can take a few months on average in addition to the time required for redesign, response writing, and coordination occurring between each resubmittal iteration. California American Water has worked extensively with the County of Monterey and the neighborhood HOA with presentations at a Land Use Advisory Committee meeting and a Zoning Administrator meeting. California American Water just received conditional approval of the project at the Zoning Administrator meeting on 8/28/2025.

8.d. California American Water drilled four groundwater monitoring wells in response to DDW requirements.

8.e. The workpaper states "The project is planned for construction in 2026 due to permitting delays and the recent requirement for well drilling", referring to the DDW denial of a California American Water's variance request on the drilling of groundwater monitoring wells. DDW references "Waterworks Standards" as the regulations and requirements that led to their determination. Attached as CAW Response Cal Adv DKG-16 Q008 Attachment 1 is a copy of California Code of Regulations Title 22 Division 4 Chapter 16 California Waterworks Standards.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Jenna Engelken**
Title:	**Project Manager**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-16**
Company Number:	**Cal Adv DKG-16 Q008**
Date Received:	**August 22, 2025**
Date Response Provided:	**September 5, 2025**
Subject Area:	**Field Visit Follow-up**

DATA REQUEST:

8. **Project I15-400138: Rancho Fiesta Tanks and Pump Station (Refer to the Direct Testimony of Lacy Carothers' testimony at 91-92 and I15-400138 engineering workpaper):**

a. Provide the design percent completion of the Rancho Fiesta Tanks and Pump Station project.
b. Provide the permitting percent completion of the Rancho Fiesta Tanks and Pump Station project.
c. Provide details of the permitting delays referenced in the engineering workpaper.
d. The I15-400138 engineering workpaper states "Monitoring wells were identified by the local permitting agencies as a necessity to monitor groundwater near the buried tank." Provide the number of monitoring wells Cal Am plans to drill.
e. Provide details of the "recent requirements for well drilling" stated in the engineering workpaper. Provide a copy of the well drilling regulations and requirements.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Tim P O'Halloran**
Title:	**Manager Engineering - Project Delivery**
Address:	**California American Water** **511 Forest Ldg Rd, Ste 100** **Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-16**
Company Number:	**Cal Adv DKG-16 Q012**
Date Received:	**August 22, 2025**
Date Response Provided:	**September 5, 2025**
Subject Area:	**Field Visit Follow-up**

DATA REQUEST:

12. **Project I15-400137: New Monterey District Office (Refer to the Direct Testimony of Lacy Carothers' testimony at 141-142):**

a. Explain what Cal Am plans to do with its current Operations Yard parcel, that it owns, after the Operations department moves to the new Monterey District Office.
b. Provide the date that the current Pacific Grove building lease ends.
c. Provide the date Cal Am plans to move to the new Monterey District Office.

CAL-AM'S RESPONSE

California American Water incorporates its General Objections as though each is submitted fully here. California American Water further objects to this request to the extent it is vague and ambiguous. Subject to, but without waiving, those objections, California American Water responds as follows:

a. We plan to sell the operations yard parcels located in Pacific Grove & Monterey and retain any easement rights in regards to infrastructure located on the parcels that is needed for operations of the water system.
b. The current lease for the Pacific Grove office expires 12/31/2027.
c. We plan to begin moving in Q3 of 2026.

Attachment 1-5: Cal Am Response to Public Advocates Office Data Request DKG-12 (Begonia Iron Removal Plant Follow-up)

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Scott Ottmar**
Title:	**Sr. Project Engineer**
Address:	**California American Water 511 Forest Ldg Rd,Ste 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-12**
Company Number:	**Cal Adv DKG-12 Q004**
Date Received:	**August 8, 2025**
Date Response Provided:	**August 21, 2025**
Subject Area:	**Begonia Iron Removal Plant Follow-up**

DATA REQUEST:

4. In response to DKG-06, Q.7., Cal Am responded that "Phase 1 BIRP Improvement Project, I15- 400110, is approximately 95% complete." Clarify if 95% complete refers to design plans or construction. Provide invoices for the work completed.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is asserted fully here. California American Water further objects to the extent this request is vague, ambiguous, and unnecessarily burdensome. Subject to, but without waiving these objections, California American Water responds:

The 95% completion refers to both design and construction. Both Phase 1 & 2 BIRP Improvement projects are being constructed using a design-build model, where the construction contractor is also responsible for performing design. With design-build projects, the contractor can complete the work in phases such that some work is completed before other portions have been designed. Prior to construction, the design-build contractor must provide a cost estimate to construct the work for review.

A copy of the most recent invoice from the design-build contractor is included with this response as CAW Response Cal Adv DKG-12 Q004 Attachment 1. The invoice includes a summary of previous costs associated with both phase 1 and 2 and was the basis of the initial data request response. As shown by the invoice, phase 1 work is at 92.99% complete. The response to the initial data request was rounded to 95%. Individual invoices can be provided if requested.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Scott Ottmar**
Title:	**Sr. Project Engineer**
Address:	**California American Water 511 Forest Ldg Rd,Ste 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-12**
Company Number:	**Cal Adv DKG-12 Q005**
Date Received:	**August 8, 2025**
Date Response Provided:	**August 21, 2025**
Subject Area:	**Begonia Iron Removal Plant Follow-up**

DATA REQUEST:

5. In response to DKG-06, Q.7., Cal Am responded that "Phase 2 BIRP Improvement Project I15- 400133 is approximately 70% complete." Clarify if 70% complete refers to design plans or construction. Provide invoices for the work completed.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is asserted fully here. California American Water further objects to the extent this request is vague and ambiguous. Subject to, but without waiving these objections, California American Water responds:

The 70% completion refers to both design and construction. Both Phase 1 & 2 BIRP Improvement projects are being constructed using a design-build model, where the construction contractor is also responsible for performing design. With design-build projects, the contractor can complete the work in phases such that some work is completed before other portions have been designed. Prior to construction, the design-build contractor must provide a cost estimate to construct the work for review.

A copy of the most recent invoice from the design-build contractor is included with this response as CAW Response Cal Adv DKG-12 Q005 Attachment 1. The invoice includes a summary of previous costs associated with both phase 1 and 2 and was the basis of the initial data request response. As shown by the invoice, phase 2 work is at 72.84% complete. The response to the initial data request was rounded to 70%. Individual invoices can be provided if requested.

	alternatives. SCADA systems are also installed at booster stations, treatment plants and interties.
Examples from 2019-2024 completed RP SCADA projects: • Replaced VFD (variable frequency drive) pump at one site. • Replaced cell modem at one or more sites. • Replaced one flowmeter. • Replaced one PLC (programmable logic controller). • Replaced one turbidity and one chlorine monitor. • Replaced six ultrasonic level transmitters. • Replaced one flowmeter (different site than above). • Replaced one antenna. • Integrated one site. • Replaced cell modem at one or more sites (different sites than above). • Replaced one nitrate analyzer. • Cell modem upgrades various sites. • Purchase one SCADA laptop.	Examples from CPS studies: • Electrical and SCADA panel upgrades. • New SCADA at sites without existing SCADA. • Integrate satellite systems (Meadowbrook, Hillview, others) to be centrally managed (district-specific). Examples from completed IP SCADA projects: • Replaced flowmeters, pressure and level transmitters, chlorine analyzers and communications equipment at multiple sites (over 40 sites). • Replaced items with relatively short life of service such as cellular radios, DC power supplies, component heaters and fans at multiple sites. • Replaced SCADA servers and software due to failure and obsolescence. • SCADA upgrades at one or more large sites such as a large water treatment plant.
3. All SCADA is budgeted under RP starting with Test Year 2027.	

Attachment 1-6: Cal Am Response to Public Advocates Office Data Request JMI-01 (Recurring Projects) Q.2., Attachment 1, Corrected, Excerpt

COMPLETED RECURRRING PROJECTS 2019-2024					
Project Description	Yea	District	System	RP Category	Project Cost
Blanket Hydrants Valves-Replaced	2019	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	248,408
Hydrants Valves and Manholes-Replaced	2020	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	307,118
Hydrants Valves and Manholes-Rep-2020	2021	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	406,805
Boronda Rd. PP #67 unit #1 - check valve	2021	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	1,810
Viscaino PP# 11A Pump #1 Check Valv	2022	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	2,977
Viscaino PP# 11A Pump #2 Check Valv	2022	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	3,835
Viscaino PP# 11A Pump #3 Check Valv	2022	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	3,314
Pearce Well - Check Valve	2022	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	7,810
Ambler TP - Filter Valves	2022	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	22,983
Luzern - Backwash Valve	2023	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	38,106
Corona PP#13 - valves (2)	2023	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	6,067
Los Tulares PP#50 - check valve	2023	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	1,807
Carmel Valley Ranch PP #60 - air va	2023	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	312
Cal Trans 218 Hydrant Relocations	2023	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	27,145
Ambler WTP-booster pump check valve	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	3,273
BIRP - sludge press check valve	2023	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	844
Luzern WTP - valve	2023	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	30,100
Chualar - valve for booster pump	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	5,555
Huckleberry PP-Pump#3 check valve	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	396
Withers PP-expansion joint&check va	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	1,633
Fairways Tank #1 - 6" Valve Replace	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	1,575
Paralta Well blowoff valve	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	1,330
Via Contenta PP#16-2 check valves-p	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	6,947
Vault Cover for PRV-9th St,PG	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	7,218
Via Verde PRV-2in Cla Valve	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	5,397
Carola Tanksite-2.5in Cla Valve	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	5,186
Via Contenta PP#16-check valve-pump	2024	Monterey	Monterey	Hydrants Valves and Manholes-Replaced	1,747

COMPLETED RECURRRING PROJECTS 2019-2024					
Project Description	Yea	District	System	RP Category	Project Cost
Chualar - replacement electrical equipment	2019	Monterey	Monterey	SCADA Equipment and Systems	30,687
Segunda PP - VFD for Pump#1	2019	Monterey	Monterey	SCADA Equipment and Systems	24,682
Bishop TP - PLC Module	2019	Monterey	Monterey	SCADA Equipment and Systems	406
Chlorine Testers to analyze calibration	2020	Monterey	Monterey	SCADA Equipment and Systems	7,531
Cell modems for CV wells/pumping plant	2021	Monterey	Monterey	SCADA Equipment and Systems	16,692
Rio Vista PP #53 - UPS	2021	Monterey	Monterey	SCADA Equipment and Systems	216
Hidden Hills - SEL equipment	2021	Monterey	Monterey	SCADA Equipment and Systems	4,896
Chualar well #3 - Flowmeter	2021	Monterey	Monterey	SCADA Equipment and Systems	6,339
York tank - PLC	2021	Monterey	Monterey	SCADA Equipment and Systems	2,016
Upper Los Tulares PP - VFDs	2022	Monterey	Monterey	SCADA Equipment and Systems	10,561
Cell modem modules-78 sites	2022	Monterey	Monterey	SCADA Equipment and Systems	20,320
Cell Modem upgrades-various sites	2023	Monterey	Monterey	SCADA Equipment and Systems	32,455
Carmel Woods PP #8-PanelView	2022	Monterey	Monterey	SCADA Equipment and Systems	3,465
PG Office SCADA workstation	2023	Monterey	Monterey	SCADA Equipment and Systems	2,736
Cell modem upgrades	2023	Monterey	Monterey	SCADA Equipment and Systems	9,665
SCADA laptop	2024	Monterey	Monterey	SCADA Equipment and Systems	4,499
SCADA system (Ignition 2.0) upgrade	2024	Monterey	Monterey	SCADA Equipment and Systems	48,561
SCADA workstation	2024	Monterey	Monterey	SCADA Equipment and Systems	1,812

Attachment 1-7: Cal Am Response to Public Advocates Office Data Request DKG-18 (Carmel Valley Main Monterey Office and 2019 Projects) Excerpt

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**David Pezzini**
Title:	**Senior Project Engineer**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-18**
Company Number:	**Cal Adv DKG-18 Q002**
Date Received:	**September 2, 2025**
Date Response Provided:	**September 16, 2025**
Subject Area:	**Carmel Valley Main Monterey Office and 2019 Projects**

DATA REQUEST:

Please refer to Cal Am's engineering workpapers I15-400179 and I15-400125 provided in Cal Am's July 1, 2025 Application A.25-07-003 and A.22-07-001, respectively, for questions 1 through 3.

2. If the two Carmel Valley Pipeline projects included in Q.1. are the same, explain if Cal Am completed the work described: "Evaluate sliplining 24,000 feet of existing 24-inch pipe to reduce water age" with an original proposed budget of $7,290,000 described in engineering workpaper I15-400125.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is stated fully here. California American Water further objects to the extent this request is vague, and ambiguous. Subject to, but without waiving, these objections, California American Water responds:

An evaluation study was not completed. Project BA-301 was not initiated under the previous main replacement program.

The Carmel Valley Road Transmission Main Downsizing Project was reviewed as part of the most recent 2025 CPS. As mentioned, it identified the alignment required downsizing due to water quality concerns but also identified that the pipeline was at a high likelihood of failure and high consequence of failure consequently requiring that the pipeline be replaced and downsized rather than sliplined. Sliplining utilizes the existing pipeline as a carrier pipe for a new pipeline.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**David Pezzini**
Title:	**Senior Project Engineer**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-18**
Company Number:	**Cal Adv DKG-18 Q002**
Date Received:	**September 2, 2025**
Date Response Provided:	**September 16, 2025**
Subject Area:	**Carmel Valley Main Monterey Office and 2019 Projects**

DATA REQUEST:

Please refer to Cal Am's engineering workpapers I15-400179 and I15-400125 provided in Cal Am's July 1, 2025 Application A.25-07-003 and A.22-07-001, respectively, for questions 1 through 3.

2. If the two Carmel Valley Pipeline projects included in Q.1. are the same, explain if Cal Am completed the work described: "Evaluate sliplining 24,000 feet of existing 24-inch pipe to reduce water age" with an original proposed budget of $7,290,000 described in engineering workpaper I15-400125.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is stated fully here. California American Water further objects to the extent this request is vague, and ambiguous. Subject to, but without waiving, these objections, California American Water responds:

An evaluation study was not completed. Project BA-301 was not initiated under the previous main replacement program.

The Carmel Valley Road Transmission Main Downsizing Project was reviewed as part of the most recent 2025 CPS. As mentioned, it identified the alignment required downsizing due to water quality concerns but also identified that the pipeline was at a high likelihood of failure and high consequence of failure consequently requiring that the pipeline be replaced and downsized rather than sliplined. Sliplining utilizes the existing pipeline as a carrier pipe for a new pipeline.

Project I15-400179 recommends to perform the project in phases therefore during design any alternative construction methods can be evaluated.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**David Pezzini**
Title:	**Senior Project Engineer**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-18**
Company Number:	**Cal Adv DKG-18 Q004**
Date Received:	**September 2, 2025**
Date Response Provided:	**September 16, 2025**
Subject Area:	**Carmel Valley Main Monterey Office and 2019 Projects**

DATA REQUEST:

Please refer to Cal Am's engineering workpaper I15-400169.provided in Cal Am's July 1, 2025 Application A.25-07-003 for question 4 and 5.

4. Provide the current assessed value of Cal Am's "Operations Yard" parcel described in engineering workpaper I15-400169.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is stated fully here. California American Water further objects to the extent this request is vague, and ambiguous. Subject to, but without waiving, these objections, California American Water responds:

The yard is covered by 3 separate parcels crossing City boundary lines of Monterey & Pacific Grove:

The tax assessments are as follows:

1. 006-694-006-000 located in Pacific Grove:
    a. 2025 Assessed Value of $565,365
2. 006-694-005-000 located in Pacific Grove:
    a. 2025 Assessed Value of $13,050,405
3. 001-181-002-000 located in Monterey:
    a. 2025 Assessed Value of $23,211,740

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**David Pezzini**
Title:	**Senior Project Engineer**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-18**
Company Number:	**Cal Adv DKG-18 Q005**
Date Received:	**September 2, 2025**
Date Response Provided:	**September 16, 2025**
Subject Area:	**Carmel Valley Main Monterey Office and 2019 Projects**

DATA REQUEST:

Please refer to Cal Am's engineering workpaper I15-400169.provided in Cal Am's July 1, 2025 Application A.25-07-003 for question 4 and 5.

5. If Cal Am's "Operations Yard" includes a building, provide its current assessed value.

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is stated fully here. California American Water further objects to the extent this request is vague, and ambiguous. Subject to, but without waiving, these objections, California American Water responds:

The tax assessments are as follows:

1. 006-694-006-000 located in Pacific Grove
    a. 2025 Assessed Improvement Value of $518,365
2. 006-694-005-000 located in Pacific Grove
    a. 2025 Assessed Improvement Value of $13,048,605
3. 001-181-002-000 located in Monterey
    a. 2025 Assessed Improvement Value of $23,192,740

Attachment 1-8: Cal Am Response to Public Advocates Office Data Request JMI-10 (GRIP Projects) Excerpt

(BESS)? If Cal Am is installing BESS at sites outside the preliminary site list as part of the GRIP projects, please include a list of those sites in your response.
   i. I15-600120.
   ii. I15-400168.
   iii. I15-500084.

e. Page 11 of the GRIP project summary provided in response to data request DKG-01 shows Cal Am's preliminary site list.[4] One of the columns in the table is labeled "Annual megawatt-hour (MWh)."
   i. Are the values shown in this column recorded or design? If these values are recorded, what was the recorded duration period?
   ii. For the line items 45 (Ditton Well 2 and booster pump station (BPS)) and 46 (Forest Ridge Water Treatment Plant (WTP) and Ditton) in the preliminary site list,[5] the utility and annual MWh columns are labeled "[blank]." Please fill in the blanks.

f. In the GRIP project summary prepared by Generac, it shows a Generac-California Water Association (CWA) project development timeline.[6] In the timeline, it states in the first quarter of 2025, Generac began negotiations with the DOE to finalize the GRIP grant contract.[7]
   i. What is the status of the GRIP grant contract?
   ii. Is the funding from the GRIP grant contract currently available?
   iii. If the GRIP grant contract remains unavailable, will Cal Am still pursue the GRIP projects?

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is asserted fully here. California American Water further objects to the extent this request is vague and ambiguous, particularly as to the phrase "requirements contingent to receiving." Subject to, but without waiving, these objections, California American Water responds:

1. a. In this case, "program requirements" refers to the successful completion of milestones associated with deployment of the battery microgrid projects: (a) Site Selection and Design, (b) Permitting and Siting, (c) Equipment Procurement, (d) Construction and Deployment, (e) Testing and Commissioning. Funding from the DOE GRIP program will be released as projects move through this development pipeline. Additionally, sites will be pre-approved for eligibility to significantly

[4] CAW Response Cal Adv DKG-01 Q3.b Att 1 CONFIDENTIAL at 11.
[5] CAW Response Cal Adv DKG-01 Q3.b Att 1 CONFIDENTIAL at 11.
[6] CAW Response Cal Adv DKG-01 Q3.b Att 1 CONFIDENTIAL at 7.
[7] CAW Response Cal Adv DKG-01 Q3.b Att 1 CONFIDENTIAL at 7.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

1. f. i. In December 2024, the DOE and Generac executed a conditional contract for the GRIP award funding amount. The conditional contract was then to be further negotiated between the parties to execute the final contract. These negotiations are largely focused on establishing the final project milestones and associated program commitments to be achieved by those milestones. That process began in Q1 2025 and then was placed on hold due to an Executive Order requiring the DOE to complete a full review of all GRIP Projects. This has delayed on-going negotiations.

1. f. ii. In June 2025, the DOE made a Data Request to all GRIP project awards to summarize and address a standard set of questions from the DOE. That submission was made by Generac in June 2025. The DOE has not committed to a specific response date on that submission. However, Generac is aware of other GRIP projects which are beginning to receive feedback from the DOE in September 2025. Based on separate discussions with the DOE from the other two Generac GRIP projects under contract, Generac expects to hear guidance from the DOE on this project in the coming weeks.

1. f. iii. If DOE GRIP funds remain unavailable, Cal Am intends to pursue the identified projects via the SGIP Program.

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Audie Foster**
Title:	**Director Operations, Northern Division Operations**
Address:	**California American Water 4701 Beloit Drive Sacramento**
Response Provided By:	**Spencer Vartanian**
Title:	**Director of Operations, Coastal Division**
Address:	**California American Water 511 Forest Ldg Rd, Ste 100 Pacific Grove**
Response Provided By:	**Jessica Taylor**
Title:	**Dir. of Southern Division Operations**
Address:	**California American Water 8657 Grand Avenue Rosemead**
Cal Adv Request:	**A2507003 Public Advocates DR JMI-10**
Company Number:	**Cal Adv JMI-10 Q002**
Date Received:	**September 12, 2025**
Date Response Provided:	**September 26, 2025**
Subject Area:	**GRIP Projects**

DATA REQUEST:

2. Please provide the following information for each generator model name Cal Am either owns or leases in Microsoft Excel format in the template shown below.

a. Generator model.
b. District.
c. Own or lease?
d. Date of purchase or signed lease agreement.
e. Purchased cost or annual lease cost.
f. If leased, provide the lease end date.

Generator Model	District	Own or Lease?	Date of Purchase or Signed Lease Agreement	Purchase Cost or Annual Lease Cost ($)	If Leased, Provide the Lease End Date

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is asserted fully here. California American Water further objects to the extent this request is vague and ambiguous, particularly as to the phrase "information for each generator model name." California American Water further objects on the basis the request appears overly broad, unnecessarily burdensome, and seeks information that is not relevant or reasonably calculated to lead to the discovery of relevant information. The subject area of inquiry is GRIP Projects, but the request appears to go well beyond that by seeking information for each generator across the entire company. Subject to, but without waiving, these objections, California American Water responds:

California American Water will provide an excel document providing information on 10 generators from each of the company's 3 divisions. That list is provided in CAW Response Cal Adv JMI-10 Q002 Attachment 1.

Site (Name of Facility on Permit)	Make	Model	District	Own or Lease?	Date of Purchase or Signed Lease Agreement	Purchase Cost or Annual Lease Cos	If Leased, Provide the Lease Date
Ralph Lane PP/Well/Tank	Jdeere	4045HF285H,I,J	Ralph Lane	Own	2014	$ 43,837	N/A
Corte Cordillera PP	Cummins	4BT3.3G5	Toro	Own	2018	$ 59,435	N/A
Portable, XQ230, 200KW, (Fleet #154003)	Caterpillar	XQ230	Monterey	Own	2020	$ 104,500	N/A
Portable, XQ125, 100KW, (Fleet #154004)	Caterpillar	XQ125	Monterey	Own	2020	$ 66,500	N/A
Garrapata Filter plant XQ35 (A), 30KW, (Fleet #154002)	Caterpillar	XQ35	Garrapata	Own	2020	$ 33,800	N/A
Eardley PP1A	Caterpillar	D600GC	Monterey	Own	2020	$ 78,057	N/A
Ord Grove Water Treatment Plant	Caterpillar	D400GC	Seaside	Own	2020	$ 124,089	N/A
Mesa PP2A	Caterpillar	D550GC	Monterey	Own	2020	$ 92,455	N/A
Encina PP	Taylor	TD20	Monterey	Own	2020	$ 20,850	N/A
Chualar PP/Wells	Caterpillar	C9-D250GC	Chualar	Own	2021	$ 57,700	N/A
Duarte- Scott	Caterpillar	LC5	Los Angeles	Own	2021	$ 446,689	N/A
Duarte- Las Lomas	Caterpillar	D250	Los Angeles	Own	2021	$ 327,254	N/A
East Pasadena- Mountain View	Generac	52100	Los Angeles	Own	Came with acquistion	$ 5,938	N/A
East Pasadena- Woodward	Cummins	14764490200	Los Angeles	Own	Came with acquistion	$ 20,411	N/A
San Marino- Rosemead Yard, Large	Kohler	250REOZJD	Los Angeles	Own	2014	$ 239,026	N/A
San Marino- Rosemead Yard, Small	Caterpillar	C15	Los Angeles	Own	2010	$ 119,456	N/A
Ventura - Piru Wells 2,4,5	Caterpillar	C9	Ventura	Own	Came with acquistion	$ 30,200	N/A
Ventura - Wildwood BPS	Cummins	C100 D6D	Ventura	Own	10/12/2021	$ 62,620	N/A
Ventura - Los Robles BPS	Caterpillar	D125-8	Ventura	Own	5/1/2015 (Engine date, purchase date 2024)	$ 427,649	N/A
Ventura - Ops Center Portable	Kubota	DF-027012	Ventura	Rental	11/6/2024	$ 48,474	As needed, not a signed lease
Andrea 1	Cummins	C200D6R - A040J726	Lincoln Oaks	Own	5/1/2012	$ 122,724	N/A
Lincoln Oaks Tank	Generac	SG250KG20142S18HPLYE	Lincoln Oaks	Own	6/1/2016	$ 129,495	N/A
College Greens	Cummins	C200D6R-A040J726	Suburban	Own	5/1/2012	$ 122,724	N/A
Walerga Tank	Generac	SD0230KG178.7D18HPLY3	West Placer	Own	8/1/2015	$ 192,972	N/A
Larkfield WTP	Caterillar	SR4B	LARKFIELD	Own	2024	$ 309,450	N/A
North Wikiup	Generac	SD20	LARKFIELD	Own	8/1/2024	$ 200,943	N/A
Sierra Lakes TP	Kohler	200RE0ZJF	Oakhurst	Own	1/1/2018	$ 104,646	N/A
Raymond 14	Kohler	120REOZT4	Raymond	Own	1/1/2018	$ 105,165	N/A
Raymond TP	Kohler	200RE0ZJF	Raymond	Own	1/1/2018	$ 104,464	N/A

Attachment 1-9: Cal Am Response to Public Advocates Office Data Request DKG-19 (Completed Monterey Main Projects) Excerpt

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**David Pezzini**
Title:	**Senior Project Engineer**
Address:	**California American Water 511 Forest Lodge Rd, Suite 100 Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-19**
Company Number:	**Cal Adv DKG-19 Q001**
Date Received:	**September 8, 2025**
Date Response Provided:	**September 22, 2025**
Subject Area:	**Completed Monterey Main Projects**

DATA REQUEST:

1. In response to DKG-16, Q.17, Cal Am provided completed 2022-2024 main replacement projects in Attachment 1. Using the same file and table, supplement the table with the same completed main replacement data for the years 2018-2021.

CAL-AM'S RESPONSE

California American Water incorporates its General Objections as though each is submitted fully here. California American Water further objects to this request to the extent it seeks an analysis, calculation, or compilation that has not previously been performed and is therefore unduly burdensome. California American Water additionally objects to this request on the grounds that any benefit of receiving the information is outweighed by the undue burden of providing that information. Subject to, but without waiving, those objections, California American Water responds as follows:

See CAW Response Cal Adv DKG-19 Q001 – Attachment 1 for table of main replacements from 2018 to 2021 as requested under the main replacement programs.

Number	Project Name	Year Completed	Length (ft)	Recorded Cost ($)
1	Cannery Row Main Replacement	2020	1,780	$ 1,741,400.79
2	Ord Grove Main Replacement	2019	1,940	$ 727,591.69
3	Castro Road Main Replacement	2019	710	$ 105,755.03
4	PG Main Replacement#1 - 14th Street	2018	520	$ 110,542.22
5	PG Main Replacement#2-Gibson Alley	2019	475	$ 143,033.19
6	Carmel Knolls Main Replacement	2020	3,430	$ 869,661.22
7	PG Main Replacement#3-Beaumont/14th	2020	1,015	$ 550,956.59
8	PG Main Replacement#4-Lincoln/Lawto	2020	2,265	$ 732,886.92
9	Seaside/Del Rey Oaks Main Replaceme	2020	1,100	$ 417,707.71
10	Dunecrest Main Replacement	2020	350	$ 146,576.28
11	Echo Ave, Seaside	2021	750	$ 362,297.25
12	Lighthouse Ave, Pacific Grove	2021	2,000	$ 858,479.18

Attachment 1-10: Cal Am Response to Public Advocates Office Data Request DKG-08 (Monterey Projects) Excerpt

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**David Pezzini**
Title:	**Senior Project Engineer**
Address:	**California American Water** **511 Forest Lodge Rd, Suite 100** **Pacific Grove**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-08**
Company Number:	**Cal Adv DKG-08 Q005**
Date Received:	**July 31, 2025**
Date Response Provided:	**August 14, 2025**
Subject Area:	**Monterey Projects**

DATA REQUEST:

5. Project Code I15-400137 Del Rey Regulating Station

Refer to Lacy Carothers' testimony (p. 91) to answer the following question:

a. Provide the current status of the project. Explain if Cal Am has already started construction. If not, what is the estimated construction start date?

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is fully asserted here. California American Water further objects to the extent this request is vague and ambiguous. Subject to, but without waiving, these objections, California American Water responds:

The project is currently in the design phase by our consultant. The consultant has completed a necessary survey and is preparing design drawings for construction bidding. The project cannot begin construction until the TAMC project is completed as described in the testimony. The current construction completion schedule for the TAMC project is mid-2026 therefore it is anticipated that construction of the California American Water project would begin approximately towards the end of 2026.

Attachment 1-11: Cal Am Response to Public Advocates Office Data Request DKG-01 (Application Initial Questions) – Attachment 1 Excerpt

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Richard Saldivar**
Title:	**Project Manager**
Address:	**California American Water** **655 West Broadway #1410** **San Diego**
Cal Adv Request:	**A2507003 Public Advocates DR DKG-01**
Company Number:	**Cal Adv DKG-01 Q003.b**
Date Received:	**July 8, 2025**
Date Response Provided:	**July 22, 2025**
Subject Area:	**GRC Application Initial Questions**

DATA REQUEST:

3. Cal Am's Proposed Application, Lacy Carothers testimony, p.174 included the "Project Code I15-400168 MRY-Energy Storage GRIP (Proposed Project)" (see below):

Cal Am's Final Application, Lacy Carothers testimony, p.140 includes the "Project Code I15-400168 MRY-Energy Storage GRIP as (Planned, Not Yet Adopted)":

GENERAC

Contents Summary

GENERAC

DOE GRIP Program Overview

Grid Resilience and Innovation Partnerships (GRIP) Program Overview

- These programs were released as one funding opportunity but provide opportunities for various applications to various entities including states, tribes, utilities, and industry.
  - Topic Area 1- Grid Resilience Grants
  - Topic Area 2- Smart Grid Grants ← Generac / CWA applied under Topic Area #2
  - Topic Area 3- Grid Innovation Program
- DOE Goals for the GRIP Program
  - 1. Transform the U.S. electric grid at the transmission and distribution levels by increasing resilience in the face of extreme disruptions, enabling data-rich and flexible grid performance, and spurring innovation at all stages of project ideation and execution;
  - 2. Prioritize energy justice as an essential component of infrastructure development by dramatically altering the relationship between energy providers and their communities; and
  - 3. Catalyze and leverage private sector and non-federal public capital for impactful technology and infrastructure deployment.

GENERAC

GENERAC

DOE GRIP Program Overview

2. Smart Grid Grants

$3B total (FY 22-26)
FY22 and 23: Up to $1,080 Million

- Grants to support the deployment of technologies to enhance grid flexibility
- Eligible Entities Include*:
  - Institutions of higher education
  - For-profit entities
  - Non-profit entities
  - State and local governmental entities, and tribal nations
- Cost Share: At least 50% of grant**

Goals & Objectives:

- Increase Transmission Capacity
  - Grid Enhancing Technologies
- Mitigate Wildfires
  - Asset Management Technologies
- Load Management/Electrification of "edge devices"
  - Managed Charging/Grid Infrastructure and autonomous control
- Incorporate Secure Communications/Cybersecurity

**DOE GRIP Program Grant is structured as a 50% cost share of eligible project costs (Applicant invests 50% / DOE provides 50% via cost share)

GENERAC

DOE GRIP Program Overview

Summary of Concept Paper Process

Strong Concept Papers

- 575 Concept Papers reviewed across all 3 Topic Areas
- Submissions from all 50 states plus DC & territories
- 373 (65%) Encourage letters sent

Award selection process will be **extremely** competitive

Concept Paper Submission: Generac & CWA submitted our Concept Paper for this project under "Topic Area 2: Smart Grid Grants" on 1/12/24

- DOE "Encouragement" of the project came on 2/29/24 with no identified areas of deficiencies
- DOE highlighted that the applications in this Round 2 of GRIP are more complete and robust…thus driving a highly competitive process

GENERAC

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DOE GRIP Program Overview

Topic Area 2: Smart Grid Grants - 40107

225
Concept Papers Reviewed

160
Concept Papers Encouraged (71%)

BIL Funding Available Through This FOA: Topic Area 2

Full Application Due Date	Anticipated Number of Awards	Anticipated Minimum Award Size	Anticipated Maximum Award Size**	FOA-3195 Approximate Funding (FY24-25)	Total Funding Amount (FY22-26)
May 22, 2024	25–40	$10 Million	All projects: **$50 Million** Exceptions: **$100 million/ $250 million**	$1,080 Million	$3 Billion

Topic Area 2 – Smart Grid Grant:

- DOE anticipates funding 25-40 projects (out of 160) in this tranche (15-25% acceptance)
- 160 Concept Papers totaled >$8B in project scope (~8x oversubscribed from $1B funding allocation)

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Generac - CWA Project Development Timeline

Q3 '23: Generac and CA Water Association (CWA) engage CWA member utilities to explore resiliency solutions for their water utility sites

Q4 '23: DOE Announces a second round of funding allocation under the GRIP Program

Jan '24: Generac and CWA submit Concept Paper to DOE under GRIP Topic Area #2 (Round 2)

Feb '24: DOE "encouraged" the Generac – CWA Concept Paper to proceed to the final application

May '24: Generac and CWA submit full application to DOE

Oct '24: DOE award Generac and CWA $50M cost share grant to support proposed projects under GRIP Round 2 (total project scope proposal $100M)

Q1 '25: Generac began negotiations with the DOE to finalize GRIP grant contract (on-going)

GENERAC

DOE GRIP - Generac / CWA Project Summary

Project Scope: Generac designs, supplies, deploys and operates behind the meter battery systems (BESS) for CWA member water utilities (fully integrating the BESS into any existing onsite energy assets) by leveraging the DOE GRIP grant funding program (50% cost share).

Water Utility & CA Grid Benefits:

- Accelerates clean energy investments at critical infrastructure sites
- Delivers energy management capability to reduce the energy burden on the grid and save energy costs for the water utilities
  - Clean Resiliency: Battery primary dispatch for shorter duration grid outages
  - On-Bill Energy Savings via use of BESS
  - Potential Revenue from Grid Service Program Participation
- Provides critical (clean) grid reliability options for the CEC / PUC emergency and non-emergency programs across a geographically dispersed area (while protecting critical infrastructure)

DOE GRIP - Generac / CWA Project Summary

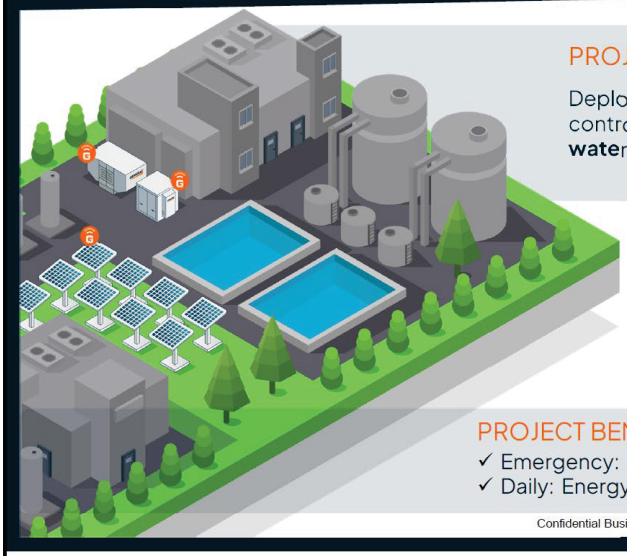
Microgrid Use Case / Dispatch Strategy Summary

Grid Condition	Microgrid Operation	Electric Reliability	Economic Savings
Non-Emergency	Daily Load Mgmt	X	X
Non-Emergency	Bill Optimization		X
Emergency	Firm Capacity	X	X
Outage	Resiliency	X	

Daily Dispatch: Daily microgrid schedule to maximize output during peak hours (4:00 – 9:00 pm)
Bill Optimization: Water utility demand charge and peak usage management
Firm Capacity: Dispatch requests from Balancing Authority during emergency events
Resiliency: Power to loads during PSPS events and recharge from excess on-site generation

Generac and CWA GRIP Program Initiative

Clean Energy Solutions for California Water Utilities



PROJECT SCOPE

Deploy battery energy storage systems (BESS), microgrid controls and remote management software across ~100 **water** utility sites that provide clean drinking water.

MICROGRID SOLUTION

GENERAC LINK

PROJECT BENEFITS

- ✓ Emergency: Increased clean energy storage for grid stress events
- ✓ Daily: Energy savings for water utilities by reducing peak usage

Attachment 1-12: American Water Works Association Manual Excerpt

DEFINITION OF CONDITION ASSESSMENT

The emphasis of this manual is on methods of pipeline condition assessment to identify physical condition. Condition assessment may be defined as the identification of the likelihood that an asset will continue to perform its required function. As part of condition assessment, data and information are collected through direct and/or indirect methods and then analyzed to determine the physical characteristics of the pipe and how they may impact the pipeline's likelihood that it will leak, break, or otherwise fail to perform. Example characteristics include current or future structural, water quality, and hydraulic status of an individual pipe, segment, or collection of similar pipes, among other characteristics.

Condition assessment may be performed in the field, via desktop, or both. The important objective is to do it, update it, and improve upon it as needed. Field condition assessment involves direct and indirect observations of the asset and its environment to determine and document its condition. Desktop condition assessment relies more heavily on existing data and institutional knowledge to make the same determination using design documents, staff knowledge, information systems, industry experience, and other resources to determine or approximate the condition of the pipelines without viewing them physically. Beyond these efforts, condition assessments may use more advanced study and testing to more fully identify pipeline condition.

Some examples of how a condition assessment is used include

- to identify loss of integrity, and that water is leaking—water loss may be observed or detected indirectly through acoustic methods;
- to identify loss of structural competence or weakening of the pipe or that the wall thickness is diminished—wall loss may be established through a variety of methods;
- to find evidence of liner or coating failure—may be visually observed; and
- to recognize other conditions of concern, e.g., pipe is unacceptably out of round.

Condition Assessment and Monitoring as Part of a Risk-based Asset-Management Strategy for Pipes

A fundamental activity for any water utility is to determine the risks associated with asset failure. Understanding the risk of asset failure and determining an acceptable level of risk for the utility allows the balancing of conflicting goals of minimizing lifecycle costs of assets versus delivering the stipulated levels of service (LoS). Risk analysis is used to understand the cause, effect (consequence), and likelihood of events adverse to attainment of LoS; managing such risks to an acceptable level; and providing an audit trail for the management of risks.

Mathematically, risk from a failure can be expressed as the product of the consequence of the failure (CoF) and the likelihood of the failure (LoF):

$$\text{Risk} = \text{CoF} \times \text{LoF}$$

Risk analysis is used to rank assets by their risk of failure and to identify high-risk assets (i.e., assets with a risk of failure above an acceptable level of risk). In assessing risk, CoF and LoF are quantified separately, and the results can be multiplied to calculate the risk-of-failure score of a specific asset.

An asset is considered to be failing if it cannot, or does not, provide the requisite LoS. For water mains, this failure is measured by physical condition, hydraulic performance, and quality of water. Thus, when determining the LoF of a pipeline, these three factors should be assessed, with the physical condition being the most prominent one.

Chapter 9

Physical Entry Inspections

Derek Wurst, Chapter Lead, Black & Veatch
Noy Phannavong, V&A Consulting Engineers, Inc.
Trent Nedens, Ballard Marine Construction

In larger-diameter pipes, direct observations by an experienced engineer or technician can be invaluable. Observations provide the benefits of internal visual inspection by remote methods (as described in Chapter 8), plus the ability to more closely observe and perform physical tests where defects and concerns are observed. Minor repairs may also be performed.

This chapter discusses what can be accomplished through physical entry into transmission pipes. Inspections using people or remote methods are not necessarily mutually exclusive. In some cases, physical entry inspections as described in this chapter and remote visual inspection methods as discussed in Chapter 8 are used together. Both chapters should be read to understand the range of available internal visual inspection methods and their benefits and limitations. Using remote methods in tandem with physical entry inspection can yield a much more comprehensive inspection.

This chapter also describes how physical entries can be performed to obtain visual inspection information on the condition of water mains. Historically, inspections of water transmission mains have frequently employed physical entry. Recent enhancements in physical entry condition assessments have come from the use of various nondestructive inspection tools, as described in other chapters. In fact, many large-diameter inspection tools require physical entry to assemble the device in the pipe and to physically move the rig through the pipe.

AWWA MANUAL

M77

Chapter **10**

Acoustic Velocity Testing

Frank Blaha, Chapter Lead, Water Research Foundation
Kevin Laven and Dave Johnston, Echologics, Division of Mueller
Allison Stroebele, Pure Technologies

Acoustic velocity testing for pipeline condition assessment provides information on the average pipe wall thickness loss over the measured length of the pipe. The actual pipe could be generally degraded over its entire length, or the pipe could have significant degradation at only one or two locations. The technique is often viewed as a screening technique to allow a utility to find pipes in generally poor condition. The technology is nonintrusive, noninvasive, and nondestructive in nature and can be used when the main is fully operational with all connecting valves open and all services active.

The resulting data can be used to inform

- asset management programs,
- rehabilitation and replacement decisions,
- before-and-after construction monitoring,
- evaluation of the pipe's structural adequacy,
- estimation of the pipe's useful remaining service life,
- estimation of the pipe's current and future failure rates,
- selection of mains for additional inspection and analysis, and
- asset valuation.

Chapter 11

Electromagnetic Testing Technologies

Ricardo R. Hernandez, Chapter Lead, Metropolitan Water District of Southern California
Dave Spencer, HDR
Chris Garett, PICA
Joanna Line, City of Calgary
Allison Stroebele, Pure Technologies
Martin Roubal, Rock Solid Group
Rod Jackson, CH2M Hill (now Jacobs)

Electromagnetic (EM) technology has a long history in pipeline assessment dating back several decades. EM technology can broadly be categorized as time domain electromagnetics and frequency domain electromagnetics. Both variations of EM technology are used for pipeline assessment today and are offered as broadband electromagnetics (BEM), a derivative of pulsed eddy current (PEC) and remote field testing (RFT), also referred to as remote-field eddy current (RFEC) or remote field electromagnetic technique.

EM technology can be used to assess the condition of the pipe wall by measuring the relative pipe wall thickness and identifying areas of wall loss and corrosion. The data provided by EM technology can be used to estimate remaining useful life and help inform capital planning decisions to monitor, repair, or replace existing pipelines.

Several commercially available tools have successfully used EM technology; however, there are certain limitations that should be considered before implementation.

The applicability of EM technology to water mains can be summarized as follows.

- Types of applicable materials
  - cast-iron pipe (CIP)

Attachment 2-1: Cal Am Response to Public Advocates Office Data Request JMI-08 (Northern Tank Painting Costs) – Q.1.a. 2.a.-2.b. Excerpt

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**Usmita Pokhrel**
Title:	**Project Manager – Northern Division**
Address:	**California American Water 4701 Beloit Drive Sacramento**
Cal Adv Request:	**A2507003 Public Advocates DR JMI-08**
Company Number:	**Cal Adv JMI-08 Q001**
Date Received:	**September 8, 2025**
Date Response Provided:	**September 22, 2025**
Subject Area:	**Northern Tank Painting Costs**

DATA REQUEST:

1. Tank Industry Consultants (TIC) provides a cost estimate for their recommended improvements in their tank inspection reports for the Rose Parade, 437 Reservoir, and North Wikiup 2.[1]

Table 1: TIC Inspection Report List of Tank Painting Repairs and Estimated Costs[2]

Tank	Item	Cost
437 Reservoir	Clean and Paint Exterior:	
	SP 6, Complete Clean, Epoxy/Polyurethane System	$ 160,000
	Containment	$ 90,000
	Heavy Metal Abatement & Disposal	$ 15,000
	Clean and Paint Interior:	
	SP 10, 3-Coat Epoxy System	$ 215,000
	Heavy Metal Abatement & Disposal	$ 20,000
Rose Parade Tank	Clean and Paint Exterior:	
	Spot Repair and Topcoat	$ 600,000
	Containment	$ 100,000
	Clean and Paint Interior:	
	SP 10, 3-Coat Epoxy System	$ 1,000,000
	Clean and Paint Exterior:	

[1] CAW Response Cal Am JMI-02 Q1 Att 10 437 Reservoir Redacted at pdf p. 17. CAW Response Cal Am JMI-02 Q1 Att 11 Rose Parade Redacted at pdf p. 20. CAW Response Cal Am JMI-02 Q1 Att 12 North Wikiup Redacted at pdf p. 22.

[2] CAW Response Cal Am JMI-02 Q1 Att 10 437 Reservoir Redacted at pdf p. 17. CAW Response Cal Am JMI-02 Q1 Att 11 Rose Parade Redacted at pdf p. 20. CAW Response Cal Am JMI-02 Q1 Att 12 North Wikiup Redacted at pdf p. 22.

North Wikiup Tank #2	Spot Repair and Topcoat	$	105,000
	Containment	$	100,000
	Heavy Metal Abatement & Disposal	$	10,000
	Clean and Paint Interior:		
	SP 10, 3-Coat Epoxy System	$	290,000
	Heavy Metal Abatement & Disposal	$	25,000

a) Please provide a cost breakdown of each item from Table 1 in Microsoft Excel format using the template illustrated below and explain how the unit costs are calculated. Include all support documentation used as a cost basis to calculate the unit costs, excluding the tank inspection reports provided in response to data request JMI-002.

Tank	Item	Breakdown Item	Unit	Quantity	Unit Cost	Total Cost (Quantity x Unit Cost)
437 Reservoir	Clean and Paint Exterior:					
	SP 6, Complete Clean, Epoxy/Polyurethane System					
	Containment					
	Heavy Metal Abatement & Disposal					
	Clean and Paint Interior:					
	SP 10, 3-Coat Epoxy System					
	Heavy Metal Abatement & Disposal					
Rose Parade Tank	Clean and Paint Exterior:					
	Spot Repair and Topcoat					
	Containment					
	Clean and Paint Interior:					
	SP 10, 3-Coat Epoxy System					
North Wikiup Tank #2	Clean and Paint Exterior:					
	Spot Repair and Topcoat					
	Containment					
	Heavy Metal Abatement & Disposal					
	Clean and Paint Interior:					
	SP 10, 3-Coat Epoxy System					
	Heavy Metal Abatement & Disposal					

CAL-AM'S RESPONSE

California American Water incorporates its General Objections as though each is submitted fully here. California American Water further objects to this request to the extent it seeks an analysis, calculation, or compilation that has not previously been performed and is therefore unduly burdensome. California American Water additionally objects to this request on the grounds that any benefit of receiving the information is outweighed by the undue burden of providing that information. California American Water further objects to the extent this request is overly-broad and therefore unnecessarily burdensome. Subject to, but without waiving, those objections, California American Water responds as follows:

Tank	Item	Breakdown Item	Unit	Quantity	Unit Cost	Total Cost (Quantity x Unit Cost)
Rose Parade Tank	Clean and Paint Exterior:					
	Spot Repair and Topcoat	Surface prep, spot repair and topcoat	EA	1	$180,000.00	$180,000.00
		Testing	EA	1	$30,000.00	$30,000.00
		Labor + Equipment + Scaffolding	EA	1	$390,000.00	$390,000.00
					Total:	$600,000
	Containment	Containment Materials, air handling, dehumidification	EA	1	$25,000	$25,000
		Labor + Equipment	EA	1	$40,000	$40,000
		Permitting	EA	1	$10,000	$10,000
		Blasting and Disposal	EA	1	$25,000	$25,000
					Total:	$100,000
	Clean and Paint Interior:					
	SP 10, 3-Coat Epoxy System	SP 10, 3-Coat Epoxy	EA	1	$250,000	$250,000
		Labor + Equipment	EA	1	$450,000	$450,000
		Blasting and Disposal	EA	1	$250,000	$250,000
		Testing	EA	1	$50,000	$50,000
					Total:	$1,000,000

California-American Water Company

APPLICATION NO. A.25-07-003
DATA REQUEST RESPONSE

Response Provided By:	**J. Aman Gonzalez**
Title:	**Principal Engineer, Project Delivery**
Address:	**California American Water 40312 Greenwood Way Oakhurst**
Cal Adv Request:	**A2507003 Public Advocates DR JMI-08**
Company Number:	**Cal Adv JMI-08 Q002**
Date Received:	**September 8, 2025**
Date Response Provided:	**September 22, 2025**
Subject Area:	**Northern Tank Painting Costs**

DATA REQUEST:

2. Regarding the Hillview Area Tank Replacement Program (I15-670005) that was proposed in the 2022 rate case, Cal Am stated that it will replace tanks in the Hillview area for all tanks that were installed prior to 2017.[1] One of the tanks includes the 437 Reservoir.[2]

a) Please confirm if it is still Cal Am's intention to replace the 437 Reservoir.
b) If Cal Am is planning on replacing the 437 Reservoir, is it Cal Am's plan to build a comparable sized tank, larger tank, or multiple smaller tanks? What will be the volume of the new tank(s)?
c) If Cal Am is planning on replacing the 437 Reservoir, has any work been done on replacing the tank? If yes, please provide percentages of each work completed with supporting documents.
d) If Cal Am is planning on replacing the 437 Reservoir, when will the new tank(s) be in service?

CAL-AM'S RESPONSE

California American Water incorporates its general objections as if each is stated fully here. California American Water further objects to the extent this request is vague and ambiguous. Subject to, but without waiving, these objections, California American Water responds:

a) Yes, it is California American Water's intention to replace Tank 437 with two 250,000-gallon tanks.

[1] A.22-07-001, Direct Testimony of Ian C. Crooks at 230.
[2] A.22-07-001, Direct Testimony of Ian C. Crooks at 231.

b) See response (a). California American Water is planning to replace the tank with two 250,000-gallon tanks.
c) The only work completed to date is a survey of the site to determine what additional property will be needed to accommodate the two proposed tanks. See attached site plan, CAW Response Cal Adv JMI-08 Q002 Attachment 1.
d) An estimated schedule is as follows: additional property negotiation and purchase in 2025/2026, design in 2026, construction in 2027-2028, tanks in service 2028.

Attachment 2-2: Cal Am Response to Public Advocates Office Data Request JMI-02 (Tank Maintenance NOR Division) – Q.1.Attachment 11 Excerpt

TANK INDUSTRY CONSULTANTS

EVALUATION OF THE

1,800,000 GALLON STEEL GROUND STORAGE TANK

"ROSE PARADE TANK"
SACRAMENTO, CALIFORNIA

FOR

CALIFORNIA AMERICAN WATER

November 5, 2018

18.150.W1058.027

TIC
TANK
INDUSTRY
CONSULTANTS

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Houston, Texas
281 / 367-3511

November 21, 2018

SUBJECT:

The subject of this report is the field evaluation of the 1,800,000 gallon steel ground storage tank in Sacramento, California. The tank was owned by California American Water and was known as the "Rose Parade Tank." The field evaluation was performed on November 5, 2018 by James A. Peyer, NACE Coating Inspector Level 3-Certified, Certificate No. 8543 and Curtis Dunlap of Tank Industry Consultants. The Owner's representative on the site at the time of the field evaluation was Sonny Harmon. The column and rafter supported, sphericon-knuckle roof tank was of welded steel construction. According to the tank nameplate, the tank was built in 2009 by CB&I Constructors, Inc., under contract number 37167109 and had a capacity of 1,800,000 gallons. The tank nameplate also stated that the tank diameter was 120 ft, the nominal shell height was 24 ft, and the top capacity level was 21 ft. Also as stated on the tank nameplate, the tank was designed using an alternative design basis which includes using higher allowable stresses and joint efficiencies. TIC performed a One-Year Anniversary Evaluation of the tank on December 13 and 14, 2010 although TIC did not provide detailed technical specifications or work-in-process project observations when the tank was constructed.

OBJECTIVE:

The purpose of this evaluation was to determine the condition of the tank interior, exterior, exposed foundation, and accessories. As the tank could not be drained for the field evaluation, the interior was evaluated by a remotely operated vehicle (ROV). Therefore, only the shell and floor surfaces visible by use of the ROV were observed. The surfaces above the high water line were evaluated by personnel in a raft. The purpose of this report is to present the findings of the evaluation to identify sanitary and safety deficiencies, and to make recommendations for recoating, repairing, corrosion protection, and maintenance. Budget estimates for the work, anticipated life of the coating and the structure, and the replacement cost of the tank are also included.

AUTHORIZATION:

This evaluation and report were authorized in the Task Order Number S1815 signed by Walter Sadler of California American Water and dated September 7, 2018.

EXECUTIVE SUMMARY:

The exterior coating system appeared to be providing good protection to the majority of the steel surfaces and should not need to be painted within the next 8 years. The interior coating system appeared to be in generally good condition and providing adequate corrosion protection. It is recommended the exterior and interior be reevaluated in 3 to 5 years, in accordance with AWWA recommendations, to determine a more precise recoating schedule.

Seismic Design Deficiencies: There were seismic design deficiencies observed on this tank:

- the inlet pipe did not appear to contain a flexible connection, and
- adequate freeboard is not provided if the tank is operated at the top of the overflow inlet.

ANSI/OSHA and Safety-Related Deficiencies: There were OSHA and safety-related deficiencies observed on this tank:

- the base of the exterior ladder safety cage was not flared (29 CFR 1910 Subpart D – Figure D-15), and
- the platform access from the exterior ladder was not equipped with a self-closing gate (29 CFR 1910.28(b)(3)(iv)).

It is recommended that safety deficiencies be corrected for compliance with OSHA and safety-related standards. If these deficiencies are not corrected, TIC recommends that no personnel, contractors, or services providers are allowed access to the tank without a detailed safety plan that mitigates the noted safety-related deficiencies.

AWWA and Operational Deficiencies: There were sanitary and operating deficiencies observed on this tank as well. These deficiencies included:

- the roof was equipped with only one manhole,
- the screening on the perimeter vents was partially obstructed, and
- the overflow inlet is such that the high water line is above the knuckle stiffener ends.

These deficiencies should be corrected.

The safety-related, sanitary, and operating deficiencies listed above are not intended to be a complete list of deficiencies on this tank. The Owner should refer to the complete report text and accompanying photographs for a complete account of all observed deficiencies.

This evaluation and the reporting of the condition of this tank do not warrant the original structural condition of the tank or any of the original design for seismic loadings. Likewise, recommendations for this tank do not include modifications which may be required for compliance with present structural codes.

PHOTOGRAPHS:

Color photographs were taken of the visible portions of the site, foundation, the tank interior and exterior and are included as a part of this report. The significant photographs are keyed to the observations. Photographs taken from the ROV video are included as a part of this report.

NOMENCLATURE:

The terms used in describing the various components of water tanks are unique to the industry. In fact, the terms vary from firm to firm and from person to person. In an attempt to define the terms used in this report, a sketch of the general type of tank covered is included at the end of the narrative portion of this report. Each horizontal row of steel plates on the tank is referred to as a "shell ring" or "ring." To aid in referencing the shell rings, the bottom ring is referred to as shell ring 1 and the top ring is shell ring 3. **Warning: Some appurtenances on this tank may be referred to as erection or rigging attachments, lugs, or brackets. This does not mean that they are safe for rigging. Each attachment for each tank should be evaluated on an individual basis by a structural engineer or an experienced rigger before being used. These devices may have been intended for only the original erectors and painters to use with specialized equipment**.

ADHESION TESTS:

All adhesion tests performed during this evaluation were done in general accordance with ASTM D3359. The results are reported herein using the ASTM scale. The ASTM scale is a relative scale to rate adhesion from 0 to 5 with 5 being the best. A table of adhesion test results classification is included with this report following the sketch of the tank.

HEAVY METALS TESTS:

Samples of the exterior and interior coating systems were not taken as doing so would damage the otherwise very good condition of the coatings.

ULTRASONIC THICKNESS MEASUREMENTS:

	(all readings were taken through coating)
Roof:	
Plates:	0.227 in. to 0.231 in.
Knuckle:	0.276 in. to 0.288 in.
Shell:	
Ring #3:	0.269 in. to 0.278 in.
Ring #2:	0.270 in. to 0.282 in.
Ring #1:	0.396 in. to 0.403 in., bottom
Bottom Plate Projection:	0.290 in. to 0.293 in.

OBSERVATIONS:

A. Foundation and Site

SITE:
Size: approx. 172 ft x 187 ft
Fence:
Type: cinder block
Height: 9 ft
Gate:
Location: northwest side of site
Width: 20 ft
Locked: yes

Adjacent Structures:
Type: ground storage tank
Direction: southeast
Distance: approx. 15 ft

Type: generator
Direction: west
Distance: approx. 17 ft

Type: pump house
Direction: south
Distance: approx. 33 ft

Nearest Overhead Power Lines: none

FOUNDATION:
Type: concrete ringwall
Projection Above Grade:
North: 0 in. to 5-1/2 in.
South: 5 in. to 8 in.
East: 3 in. to 6 in.
West: 3 in. to 6 in.
Grout: 1-1/4 in. to 1-1/2 in.
Sealant: none visible

1. **Site Location**: The tank was located at REDACTED in Sacramento, California. The site was located in a residential area with the nearest residences located to the north and west. No overhead power lines were located in near proximity to the site. (See photos 1-2)

2. **Site Conditions**: The tank site was covered with asphalt and was graded toward storm drains on the site. The tank site was enclosed by a cinder block fence. The fence was topped with a locked gate on the northwest side of the site. A ground storage tank was located to the southeast, and a pump house was located to the south. A generator, electrical equipment, and pumps were located to

the northwest. A pipe projected from below grade and discharged above a grade-covered drain basin on the southeast corner of the site. Pipe bollards were located on the site adjacent to a pipe penetrations in the shell. (See photos 1-5)

3. **Foundation**: The tank foundation appeared to be a concrete ringwall. Several thin cracks were located in the exposed surface of the foundation, and it appeared to be in nearly its original structural condition at the time of this field evaluation. The foundation did not exhibit the AWWA recommended 6 in. to 12 in. projection above grade in all areas. No coating was visible on the exposed concrete surfaces at the time of this field evaluation except for overspray from the tank coating. (See photos 6-7)

4. **Grout**: There was a pad of grout between the tank bottom plate and the concrete foundation. The grout appeared to be in fair overall condition with pop-outs and surficial voids noted. Vegetation had grown through voids in the grout. (See photos 7-9)

B. Exterior Surfaces

DESCRIPTION:
Construction: welded steel
Diameter: approx. 119 ft
Shell Height: approx. 20 ft 9 in.
Shell Rings: 3
Roof Type: column and rafter supported, sphericon-knuckle

NAMEPLATE:
Location: above shell manhole on southwest side of shell

AWWA D100-05
SECT. 14
CONTRACT NUMBER 37167109 NOMINAL DIAMETER 120.00
YEAR ERECTED 2009 SHELL HEIGHT FT. 24.00
NOMINAL CAPACITY 1.800 MG TOP CAPACITY FT 21.00
ROOF TYPE SUPPORTED DESIGN METAL TEMP 37F
SEISMIC DESIGN SUG 3, LLD DESIGN SPECIFIC GRAVITY 1.000

SHELL COURSE	MATERIAL	HEAT TREATMENT
RG. 1	A36	NONE
RG. 2	A36	NONE
RG. 3	A36	NONE

CB&I Constructors, Inc.

ANCHOR BOLTS:
Number: 40
Size: 1-1/4 in. diameter
Chairs:
Height: 12 in.
Width: 5 in. (i/s - i/s)
Top Plate Dimensions: 5-1/4 in. x 8-1/2 in. x 1/2 in. thick
Side Plate Dimensions: 1 in. to 4-3/4 in. x 11-1/2 in. x 1/2 in. thick

BOTTOM PLATE PROJECTION: 1-1/4 in. to 1-1/2 in. from shell

SHELL MANHOLES:
- Number: 2
- Locations: northwest and southeast sides of shell ring #1
- Type: single-crab
- Size: 30 in. diameter
- Neck: 8 in. projection from shell x 1 in. thick
- Bolt: 3/4 in. diameter x 11 in. thick
- Cover Plate:
  - Size: approx. 32-1/2 in. x 0.408 in. thick
  - Hinged: yes, interior

INLET PIPE:
- Size: 12 in. diameter
- Brackets:
  - Size: 17 in. to 36 in. x 23-3/4 in. projection x 1/4 in., A-frame
  - U-Bolts: 3/4 in. diameter
  - Spacing: approx. 80-1/4 in.

OVERFLOW PIPE:
- Size: 12 in. diameter
- Visible Air Break: 34 in.
- Elastomeric Check Valve: yes
- Brackets:
  - Size: 10 in. to 40 in. x 33-1/2 in. projection x 1/4 in., A-frame
  - Spacing: approx. 23-1/4 in.
- Drain Basin: 4 ft x 8 ft x 6 ft 2 in., deep

EXTERIOR LADDER:
- Number of Rungs: 24
- Distance From Ground to Lowest Rung: 19 in.
- Width: 24 in.
- Side Rails: 2 in. x 3/8 in., flat bar
- Rung Size: 1 in. diameter
- Spacing: 12 in. on center
- Toe Room: 8-3/4 in.

Brackets:
Construction: welded
Size: 2 in. x 3/8 in., flat bar x 8 in. long
Spacing: approx. 6 ft
Safe-Climbing Device: notched-tubular rail
Safety Cage:
Depth: 32-1/4 in.
Width: 34-1/2 in.
Vertical Bars:
Size: 2 in. x 1/4 in., flat bar
Spacing: 9-3/4 in.
Horizontal Bars:
Size: 2 in. x 1/4 in., flat bar
Spacing: 47 in.
Vandal Deterrent:
Type: hinged door at base of safety cage
Frame: 7 ft long
Locked: yes

PLATFORM:
Size: 36 in. x 40 in.
Handrail:
Height: 42 in.
Size: 1-5/8 in. diameter
Uprights: 1-5/8 in. diameter
Mid-Rail: 1-5/8 in. diameter
Toe Bar: 5 in. tall
Access Opening Self-Closing Gate: no

ROOF SAFETY RAILING:
Handrail:
Height: 42 in.
Size: 1-5/8 in. diameter
Uprights: 1-5/8 in. diameter
Mid-Rail: 1-5/8 in. diameter
Toe Bar: 4 in. x 1/4 in., flat bar
Access Opening:
Width: 35 in.
Self-Closing Gate: yes

ROOF OPENINGS:

Manhole:

Size: 48 in. square
Type: hinged, Bilco-hatch
Curb: 7 in.
Welded: exterior only
Cover:
Size: 51-3/4 in. x 53 in.
Gasket: yes
Locked: yes

Roof Vents:

Perimeter Vents:

Number: 4
Type: dome cover
Neck Height: 8 in.
Neck Diameter: 12 in.
Screen:
Orientation: horizontal
Type: perforated plate and fine mesh
Cover: 31 in. diameter

Center Vent:

Type: mechanical vent
Neck Height: 16 in.
Neck Diameter: 36 in.
Cover: 40 in. diameter

EXTERIOR COATING AND METAL CONDITION:

	Coating Thickness		Approx. % Failure to		Adhesion	Metal Loss	
	Range	Typical	Underlying Coating	Rust		Typical	Deepest
Shell	8.5 mils to 15.5 mils	12 mils	Neg.	Neg.	-	Neg.	Neg.
Roof	14 mils to 26.5 mils	18.5 mils	Neg.	Neg.	4 T	Neg.	Neg.

Key to Table

Adhesion 5 (very good)
4 (good)
3 (fair)
2 (poor)
1 (very poor)
0 (very poor)

T = Topcoat to Underlying Coating

S = Primer to Steel

Neg. = negligible

1. **Exterior Coating Condition**: The coating on the exterior of the tank appeared to be in very good condition and providing adequate protection from corrosion to most of the underlying steel. The exterior coating had good adhesion to the underlying coating.

2. **Bottom Plate**: The tank bottom plate extension appeared to be in nearly its original condition at the time of the field evaluation. Isolated spots of minor corrosion were observed on the bottom plate projection. (See photos 7-8)

3. **Anchor Bolts and Chairs**: The tank was equipped with 40 anchor bolts and chairs. No significant corrosion was observed on the anchor bolts or chairs. (See photo 10)

4. **Shell Condition**: The contour of the tank shell was good with no significant discontinuities observed at the time of this field evaluation. The coating appeared to be in very good overall condition with significant coating failure or corrosion noted. Minor mildew was located in a few isolated areas. The shell coating had chalked slightly. A tank nameplate was attached to a bracket located on the southeast side of shell ring #1 above the shell manhole. Equipment was attached to a pipe penetration on the southwest side of the shell. The equipment had a valve. A conduit was attached to a coupling penetration adjacent to this equipment. An electrical cabinet was located on the lower north shell, and three conduits extended along brackets from the cabinet to near the center of the roof. Another conduit on the east side of the shell extended up brackets to an antenna located on the roof knuckle. The cathodic protection cabinet was located on the shell adjacent to the shell ladder. The cabinet housed a manually controlled rectifier. (See photos 11-12, 18, 20-24, 28-30)

5. **Water Level Indicating Device**: A target gage was located on the northwest side of the shell, and equipment for the device penetrated the roof. The gage was bolted to brackets which were welded to the shell. The bracket nuts and bolts were rusty. However, two cables were broken which prevented the gage from operating properly. (See photos 25-27)

6. **Shell Manholes**: The tank was equipped with two single-crab circular manholes located on the northwest and southeast sides of the tank. The shell plate around the manholes was not equipped with a reinforcing plate. The manhole covers were equipped with hinged support arms located on the interior of the tank. Confined Space warning signs were posted on the shell above each manhole although the sign above the northeast manhole was significantly faded. (See photos 11, 13)

7. **Inlet Pipe: There was a seismic design deficiency: the inlet pipe did not appear to contain a flexible connection.** The inlet pipe extended from below grade and penetrated the upper shell. The pipe branched near its center, and the branch extended up to an air relief valve which projected above the tank roof. The pipe was U-bolted to A-frame steel brackets which appeared to be in their original structural condition at the time of this field evaluation. (See photos 19, 39)

8. **Overflow Pipe:** The overflow pipe exited through the top shell ring and extended down the shell before discharging above a grate-covered drain basin. The overflow pipe was equipped with an elastomeric check valve to prevent the ingress of insects into the tank. The pipe was equipped with welded A-frame steel brackets which appeared to be in their original structural condition at the time of this field evaluation. Another pipe extended from below grade and discharged above the same drain basin. (See photos 14-17)

9. **Exterior Shell Ladder: There was a safety and ANSI/OSHA deficiency noted: the base of the ladder safety cage was not flared.** A ladder provided access from near grade to the roof. The ladder was equipped with a notched-tubular safe-climbing device. The ladder was also equipped with a safety cage constructed of flat bar members. The exterior ladder was welded to brackets which were welded to the shell. The exterior ladder and brackets appeared to be in nearly their original

structural condition at the time of this field evaluation. A hinged door vandal deterrent was located at the base of the safety cage. The vandal deterrent was locked prior to and after the field evaluation. (See photos 31-32)

10. **Platform: There was a safety and ANSI/OSHA deficiency noted: the platform access from the exterior ladder was not equipped with a self-closing gate.** A grate-floor platform was located at the top of the exterior ladder at the roof access. The platform safety railing was constructed from welded pipe members. The coating on the platform was in good condition with no significant corrosion. The access opening to the exterior ladder was not equipped with a self-closing gate although the access to the roof was equipped with a self-closing gate. (See photo 33)

11. **Roof Safety Railing:** The roof was equipped with a safety railing at the roof access adjacent to the roof manhole. The safety railing was constructed from welded handrail, upright, and mid-rail pipe members with a flat bar bolted toe bar. The coating on the safety railing was in good condition with no significant corrosion. The access opening to the platform was equipped with a self-closing gate. (See photos 33-34)

12. **Roof Condition:** The contour of the roof was irregular as evidence of trapped water was found near the roof manhole. The roof coating was in very good condition with no significant areas of corrosion noted. The roof coating had good adhesion to the underlying coating. Mildew was located in a few areas on the roof knuckle. An antenna was located on the east side of the roof knuckle. Three conduits extended across the roof to the center vent. A winch was located near the perimeter of the roof adjacent to the roof manhole, and lugs were located on the roof around the center vent. Two flanged and bolted pipe projections were located near the center of the roof. A conduit extended to each of these. Unused rectangular brackets were located on the roof perimeter. Sixteen cathodic protection anode hand holes and cover plates were located in the roof plates. None of the cover plates were misaligned or improperly positioned at the time of the field evaluation. **The winch and lugs should not be used for rigging purposes.** (See photos 38, 40-45, 50-51)

13. **Roof Manhole: There was a safety-related and AWWA deficiency noted: the roof was equipped with only one manhole**. The roof was equipped with one hinged, Bilco-type cover manhole. The roof manhole was locked prior to and after this evaluation. The roof manhole was welded on the exterior only. (See photos 34-37)

14. **Roof Vents: There was an operational deficiency noted: the perimeter vent screening was partially obstructed.** The roof was equipped with a mechanical vent near the center, and four dome cover vents near the perimeter. The perimeter vents were equipped with perforated plate and fine mesh screening. However, the screening was partially obstructed. (See photos 46-51)

C. Interior Surfaces

ROOF SUPPORT SYSTEM:
- Main Rafters:
  - Number: 56
  - Size: 10 in. x 4 in., I-Beams
- Secondary Rafters:
  - Number: 28
  - Size: 10 in. x 4 in., I-Beams
- Center Hub:
  - Type: 4 circular plates
  - Sizes: approx. 16 in., 48 in., 52 in., and 60 in. diameter
- Center Column:
  - Type: two I-beams intermittently welded together to form a T-shape
  - I-Beam Size: 16 in. x 5 in.
- Outer Columns:
  - Number: 7
  - Type: 6 in. diameter pipe
- Knuckle Stiffeners:
  - Size: 6 in. x 2 in., channel
  - Attachment Clips: 4 in. x 3/8 in., flat bar

INTERIOR LADDER:
- Width: 24 in.
- Rung Size: 1 in. diameter
- Spacing: 12 in. on center
- Side Rails: 2 in. x 3/8 in., flat bar
- Toe Room: 60-1/2 in.
- Head Clearance: 41-3/4 in.
- Brackets:
  - Construction: bolted together and welded to shell
  - Size: 2 in. x 3/8 in., flat bar and 3 in. x 3 in. x 1/4 in., angle
  - Spacing: 8 ft
- Safe-Climbing Device: notched-tubular rail

CATHODIC PROTECTION:
- Anodes:
  - Number: 16
  - Type: suspended
- Manufacturer: Corrpro
- Model Number: Sacrificial Anode 1
- Serial Number: C-082538
- Reference Electrode: adjacent to lower part of interior ladder

OVERFLOW:

Inlet Type: funnel

Location: 2 in. above the roof knuckle-to-shell connection

INTERIOR COATING AND METAL CONDITION:

	Coating Thickness		% Failure to		Metal Loss	
	Range	Typical	Primer	Rust	Typical	Deepest
Roof Rafters	12 mils to 18 mils	-	Negligible	Negligible	Negligible	Negligible
Roof Plates	15 mils to 20.5 mils	-	Negligible	Negligible	Negligible	Negligible
Shell	13.5 mils to 20 mils	17 mils	Negligible	Negligible	Negligible	Negligible

1. **Interior Coating Condition**: The tank was not drained for the field evaluation, and the interior surfaces below the water level were evaluated by an ROV. The evaluation of the floor was significantly limited by the presence of silt. The coating on the interior surfaces of the tank appeared to be in good condition and providing adequate protection from corrosion to most of the underlying steel. Adhesion tests were not taken on the interior surfaces as doing so would damage the otherwise very good condition of the coating.

2. **Roof Condition**: The coating on the roof plates appeared to be in good overall condition. Rust staining was located along the roof knuckle-to-roof plate seam and near the center of the roof. The interior roof support structure consisted of a center column, one circle of outer columns, purlins, an inner and outer set of roof rafters, and circumferential girders. The inner ends of the roof rafters were bolted to the center hub which was located at the top of the center column. The outer columns supported the circumferential girders on which the intermediate ends of the radial roof rafters rested. The outer ends of the secondary rafters were welded to knuckle stiffeners which were welded to steel clips which were welded to the shell. Rust staining was observed at these connections. Isolated spots of minor corrosion were observed on the rafters. Wiring for a cathodic protection system was located in the roof of the tank. Sensor equipment was also suspended from the roof. The column bases were equipped with angle guide clips. (See photos 53-68, 90-93)

3. **Shell Condition**: The coating on the shell interior appeared to be in very good overall condition. One isolated area of blistered coating was found on the lower shell. Rust staining had streaked down from the roof plate-to-knuckle seam onto the upper shell surfaces in a few isolated areas. Two welded steel horizontal stiffeners were located on the shell on either side of the overflow inlet each measuring 3 in. x 1/4 in., flat bar x 102 in. long. Another welded steel horizontal stiffener was located approximately 7 ft below the top of the shell. A coupling opening was located in the lower shell. (See photos 75, 80-85)

4. **Water Level Indicating Device**: A float with one guide wire for the water level indicating device were located on the inside of the tank. The device was not operating properly as only one of the three guide wires was attached to the float. (See photos 76-77, 89)

5. **Interior Ladder:** The ladder could not be checked for OSHA compliance or structural adequacy during the ROV evaluation. A ladder provided access from the roof manhole to the floor. The ladder was equipped with a notched-tubular rail safe-climbing device. The interior ladder was bolted to brackets which were constructed of bolted flat bar and angle segments. The brackets were

welded to the shell. There were cracked coating and corrosion on the top set of brackets. The interior ladder appeared to be in nearly their original structural condition at the time of this field evaluation. (See photos 69-72, 78-79, 86)

6. **Overflow Pipe**: **There were seismic design and operational deficiencies: (1) adequate freeboard is not provided if the tank is operated at the top of the overflow inlet, and (2) the overflow inlet is such that the high water line is above the knuckle stiffener ends.** The overflow pipe was equipped with a funnel-type inlet. The location of the overflow inlet was such that the top capacity level was above the shell-to-roof knuckle connection and above the ends of the knuckle stiffeners. Calculations indicated 2.98 ft of freeboard should be provided. As the high water line is above the top of the shell, adequate freeboard would not be provided unless the tank fabricator can provide design details that verify the roof knuckle is adequate to withstand loads associated with sloshing water during a seismic event. (See photo 75)

7. **Bottom Plate Condition**: The visible coating on the tank bottom appeared to be in good overall condition. No significant corrosion was found on the floor. Silt was located on the floor. (See photos 87-88)

8. **Interior Piping**: The inlet pipe projected from the upper shell and elbowed upward. A flexible conduit penetrated the lower shell and extended up brackets along the shell before ending in a nozzle adjacent to the inlet pipe. A pipe was flush with the tank floor and was equipped with an anti-vortex assembly. Blistered coating was noted on the anti-vortex assembly. Another pipe opening was flush with the floor. This pipe opening was not equipped with a mud guard or protective cover. (See photos 70, 73-74, 79, 94-98)

9. **Cathodic Protection**: The tank was equipped with a cathodic protection system consisting of anodes suspended from the roof. The wiring appeared to be intact. It appeared as though the cathodic protection system was operating properly as no significant corrosion was observed below the high water line. The reference electrode was adjacent to the lower part of the ladder. (See photos 56-57, 70, 78-79)

RECOMMENDATIONS:

A. Foundation and Site

1. **Site Maintenance**: The Contractor should use appropriate precautions for work around the site generator and pumps.

2. **Foundation**: If the foundation should deteriorate prior to performing other tank rehabilitation operations, any unsound concrete should be chipped to sound material and the concrete should be brush-off blasted. Any deteriorated areas or voids found should have a bonding agent and a vinyl emollient modified concrete patching mortar applied to build up the surface to its original contour. (This repair did not appear to be necessary at the time of this evaluation.) The concrete should then be painted with a concrete sealer.

3. **Grout Maintenance**: All loose grout should be chipped away to solid material when the tank is empty. Any shim plates which can be easily removed should be taken out. Any voids in the

grout should be filled with a nonshrinking, nonstaining, structural grout material. The grout should be placed as far back under the bottom plate as possible and squared off vertically with the edge of the bottom plate. Any gap between the steel bottom plate and the grout should be filled with a flexible sealant. The vegetation growing through the voids in the grout should be removed and should not be allowed to encroach on the foundation or steel in the future.

4. **Site Piping**: The inlet pipe should be equipped with flexible connections.

B. Exterior Surfaces

1. **Life of the Exterior Coating**: The exterior coating system appeared to be providing good protection to the majority of the steel surfaces. Tank Industry Consultants believes that the exterior of the tank should not need to be painted within the next 8 years from a corrosion standpoint. However the exterior should be reevaluated in 3 to 5 years, in accordance with AWWA recommendations, to determine a more precise recoating schedule. Due to the good adhesion of the existing exterior coating, spot cleaning and topcoating may be a viable option. The exterior coating system should be evaluated immediately prior to preparing specifications to determine if the coating adhesion is still adequate to accept a topcoat.

2. **Coating Testing**: Prior to preparation of specifications for the cleaning and coating of the exterior of the tank, samples of the exterior coating system should be subjected to laboratory analysis to test for ingredients which may at that time be subject to regulations concerning their handling and disposal.

3. **Cleaning**: When the exterior is to be cleaned, all varieties of containment should be investigated. Containment of the wind-blown debris will be required, and containment of paint droplets will be required due to the proximity of the adjacent residences.

4. **Recommended Coating System**:

   a. **Spot Clean and Topcoat**: If the exterior is to be repainted within the next few years, then spot cleaning and topcoating the tank appears to be the recommended option. The typical life of a spot cleaned and topcoated system is approximately 7 to 8 years, but is highly dependent on previous surface preparation and the condition of the underlying coating system.

   b. **Coating Application**: The entire exterior surfaces of the tank should be high-pressure washed to remove chalked coating, mildew, and contaminants. After washing, the damaged and rusted areas should be spot cleaned to the equivalent of an SSPC-SP 6, Commercial Blast Cleaning, or SSPC-SP 11, Power Tool Cleaning to Bare Metal. All areas of excessive coating thickness and runs in the coating should be cleaned to the equivalent of an SSPC-SP 7, Brush-Off Blast Cleaning, to remove the excessive mils. The spot cleaned areas should receive a spot prime coat compatible with the present coating system. The entire exterior surfaces should then be intermediate coated and topcoated with a compatible coating system.

5. **Effective Service Life**: Tank Industry Consultants defines the life of a coating as the amount of time before repainting becomes necessary due to coating failure and corrosion. During the coating life the Owner should expect the coating to lose its gloss, start to chalk, show signs of

weathering, and possibly some rust staining. Future touch-up may be required on isolated coating failures. If aesthetics are a concern, the Owner may have to topcoat the repainted tank prior to the end of the expected service life. However, future topcoating would be less expensive than complete cleaning and recoating and could delay the next complete cleaning and repainting for many years.

6. **Other Systems**: With air emission volatile organic compounds (VOC) restrictions being put in place around the nation, alternative coating systems may become available which would be viable options for this tank. The Owner should review the available systems prior to preparing specifications for the recoating project.

7. **Coating Curing**: It would be more economical to paint the tank exterior at the same time the interior is painted, since the tank should be drained while the exterior is painted, and the applied coatings cure. This will also reduce mobilization and observation costs.

8. **Rehabilitation Schedule**: To obtain the lowest possible prices for the work outlined in the recommendations, the Owner should have the specifications prepared and the work bid in the [early fall, with the work scheduled to start in early winter.

9. **Grinding and Bracket Removal**: Any unused brackets or erection lugs should be removed prior to the exterior repainting. Any weld burrs, weld spatter, or erection scars should be ground off the exterior and interior to provide a smooth surface for the application of the coating.

10. **Anchor Bolts**: After abrasive blast cleaning, the anchor bolts, chairs, and nuts should be examined for deterioration. If deterioration is found and the anchor bolts are mild steel, the deteriorated areas of the anchor bolts should be repair welded as necessary.

11. **Level Indicating Device**: If the Owner wishes to use the target gage in the future, the broken cables should be replaced. If not, the target gage and all associated couplings, brackets, and components should be removed from the tank. Patch plates should be welded over the openings created by the indicating device removal. The patch plates should be completely seal welded on both the interior and exterior surfaces.

12. **Nameplate**: The tank nameplate should be removed for the cleaning and coating of the tank. The nameplate should be cleaned and reattached to the tank using the existing bracket which allows for the steel behind it to be properly cleaned and painted.

13. **Warning Sign**: The faded warning sign above the northeast manhole should be replaced with a new one.

14. **Electrical Apparatus**: All unused electrical conduit, antennas, fixtures, electrical metering equipment, cathodic protection apparatus, and control cabinets should be removed from the tank and tank site. All required equipment should be repaired and maintained in accordance with the National Electric Code (NEC).

15. **Existing Shell Manholes**: At the time of recoating and repairs, the gaskets for the shell manholes should be replaced, and the hinged support arms relocated to the exterior of the tank.

16. **Additional Shell Manholes**: Tank Industry Consultants interprets OSHA standards as defining a water storage tank as a confined space, and as such, a sufficient means of emergency egress