

CALIFORNIA COASTAL COMMISSION

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Th7a8a

**Appeal A-3-MRA-19-0034
(California American Water Co., Marina)
&
Coastal Permit 9-20-0603
(California American Water Co., Monterey Co.)**

NOVEMBER 17, 2022

**CORRESPONDENCE
Received Between 11/03/22 and 11/11/22
From Local Offices and Organizations**



November 7, 2022

Th7a & 8a

VIA EMAIL

Chair Brownsey and Honorable Commissioners
California Coastal Commission
445 Market Street, Suite 300
San Francisco, CA 94101

Re: November 17, 2022, Agenda Items Th7a & 8a: Tribal Monitor Incident in Staff Report for Monterey Peninsula Water Supply Project

Dear Chair Brownsey and Honorable Commissioners:

We have reviewed the November 4, 2022, Staff Report recommending approval (with conditions) of the Monterey Peninsula Water Supply Project (MPWSP). We are extremely appreciative of the careful analysis and thorough review conducted by staff, as reflected in the report. While we will be responding to the staff report separately, I am writing to you personally as the President of California American Water to address an incident from 2020 described in the Staff Report involving tribal monitors from the Ohlone/Costanoan-Esselen Nation. These tribal monitors were on-site at one of California American Water's construction projects in Pacific Grove in August 2020, and the incident described in the Staff Report is extremely concerning both to me personally and to California American Water as an organization. California American Water conducted a detailed internal investigation of this incident at the time and took immediate corrective action based on our core values and responsibility to ensure equitable behavior in the workplace. I am writing you to clarify the record as we believe the Staff Report does not fully describe the incident and California American Water's response.

One of California American Water's most important core principles is respect and dignity in the workplace, and our company is committed to a workplace in which all individuals are treated with mutual respect and dignity. We have zero tolerance for any type or form of discrimination and will not tolerate any form of discriminatory or harassing conduct towards any employee, vendor, customer, or other person in our workplace, or on our job sites. We regularly conduct training to ensure that our values are upheld, and promptly investigate any complaint concerning any violation of our policy.

California American Water first learned of the incident described in the staff report on August 20, 2020, when we were alerted to derogatory statements made by a contracted inspector (not a California American Water employee) that violated our policy. The next day, on August

21, 2020, a mandatory half-day stand-down meeting was held at the project site to discuss with workers, including contractors, our mandatory policy of cultural respect and sensitivity. At California American Water's invitation, Ohlone/Costanoan-Esselen Nation Chairwoman Louise Miranda-Ramirez participated in the site meeting, conducted sensitivity training, and discussed the importance of tribal monitoring for sensitive sites. Our engineering manager, Tim O'Halloran, personally met with Chairwoman Miranda-Ramirez at the site that day and informed her that the inspector involved in the incident had been removed from the project.

More recently, we have attempted to meet with Chairwoman Miranda-Ramirez and other members of the Ohlone/Costanoan-Esselen Nation to discuss the MPWSP. Since July 2022, California American Water representatives, including myself, Ian Crooks, our vice president of engineering, Chris Cook, director of operations for our Monterey District, and Tim O'Halloran, our engineering manager, have made at least eight separate attempts to reach Chairwoman Miranda-Ramirez by telephone and email, but have been unsuccessful. We will continue to try to arrange a meeting with Chairwoman Miranda-Ramirez to discuss the MPWSP and address any concerns she and other members of the Ohlone/Costanoan-Esselen Nation may have.

We hope this letter provides you with a better understanding of how seriously we take the important issues raised by Chairwoman Miranda-Ramirez, and the commitment of our company to ensure that all of our employees, vendors, customers, and all other persons in our workplace and on our job sites are treated with dignity and respect. We fully support the staff report's conditions concerning monitoring, sensitivity training, and training on identification of potential Tribal cultural resources, as specified in Special Condition 18.

Sincerely,



Kevin Tilden
California American Water Company

cc: Chairwoman Louise Miranda-Ramirez, Ohlone/Costanoan-Esselen Nation
Tom Luster, California Coastal Commission
Kate Huckelbridge, California Coastal Commission
Noaki Schwartz, California Coastal Commission
Kathryn Horning, California-American Water Company
DJ Moore, Latham & Watkins LLP

MONTEREY COUNTY

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November 10, 2022

Honorable Donne Brownsey, Chair
California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105

Re: Appeal No. A-3-MAR-19-0034 (Th7a) and Application No. 9-20-0603 (Th8a)

Dear Chair Brownsey and Commissioners:

I am writing to urge your denial of Appeal No. A-3-MAR-19-0034 and Application No. 9-20-0603 from California American Water Company as the Project is:

- 1) Inconsistent with the Coastal Act and the City of Marina Local Coastal Program provisions regarding the protection of ESHA.
- 2) Inconsistent with the Coastal Commission's Environmental Justice Policy.
- 3) Does not meet the conditions required under the Coastal Act to consider a Coastal-Dependent Override Provision.

Monterey County's Fourth Supervisorial District includes the cities of Marina, Seaside, Sand City, Del Rey Oaks, and a portion of Salinas. The district also encompasses all the former Fort Ord lands, and unincorporated community of East Garrison. Most residents in my district receive water service from either Marina Coast Water District or California American Water Company. The waters my constituents draw into their homes and businesses come from the Salinas Valley Groundwater Basin – Monterey Subbasin, 180/400 Foot Aquifer, Deep Aquifer, (the adjudicated) Seaside Groundwater Basin, (CDO impacted) Carmel River, Aquifer Storage and Recovery efforts, and Pure Water Monterey project. I highlight these facts to help you understand that **I represent a constituency that spans the many individuals who will be harmed in myriad ways should the Commission approve this Project.**

I recognize the tremendous political pressure that the Commission is under to approve water supply projects therefore am also recommending additional Conditions the Applicant/Permittee must be required to comply with if you decide to approve the Project. You will find those recommendations after the conclusion of letter, beginning on page 5.

Coastal Act and Local Coastal Program Inconsistency

The Coastal Act and City of Marina LCP are both in place to protect our coast and ocean for present and future generations. Page 76 of your report states very clearly that "the Project, as proposed, **does not conform** to the Coastal Act's ESHA policies." And, "the Project, as proposed, **does not conform** to

provisions of Habitat Protection policies in the City's LCLUP, including LCLUP Policies 25, 26, and 41 and those requiring that only uses dependent on habitat resources be allowed within primary habitat areas." This Project will harm my community and our region. The sheer number and complexity of conditions outlined to try and mitigate for impacts make that abundantly clear. I urge denial as the Project is inconsistent with the Coastal Act and Marina LCP.

Environmental Justice Policy Inconsistency

The Commission's 2019 adopted environmental justice policy is meant to guide and inform implementation of Section 30604(h) of the Coastal Act. The policy commits the Commission to using "its legal authority to ensure equitable access to clean, healthy, and accessible coastal environments for communities that have been disproportionately overburden by pollution or other national resources that have been subjected to permanent damage for the benefit of wealthier communities."

Your report states:

The city of Marina has a disproportionate amount of nearby industrial development that serves many areas in the region beyond Marina....Nearby Fort Ord is a contaminated site listed on the U.S. EPA's national priorities list. Marina is also home to the former CEMEX sand mining facility...which recently ceased sand mining operations pursuant to Coastal Commission Consent Order CCC-17-CD-02. The Project would directly impact coastal resources and residents in Marina since the proposed slant well field is located within City limits at a site that could otherwise be fully set aside for public access, passive recreation, and coastal resource protection.

Further, regarding the City of Seaside, your report highlights that:

Just under two thirds of its residents are people of color, nearly a third of individuals experience poverty, and most census tracts in the jurisdiction are low-income communities per AB 1550. Seaside is home to the largest population of African American residents in the Project area or the region....Over the years, other people of color and Latino populations have settled in Seaside as well, fostering a majority people of color coastal community. Seaside residents broadly indicate that they would be impacted by the Project's increased water rates.

Approval of this project would be an egregious act of environmental injustice against the "communities of concern" I represent. Marina has "been historically marginalized in the governmental review process" resulting in their being "disproportionately burdened by environmental hazards." **Special Conditions 16. Reporting of Environmental Justice Benefits** is lacking in its totality. The condition will do nothing to protect low-income residents in Seaside from being forced from their marginally affordable coastal homes as water rates for the few able to access the income assistance program would still increase by \$600 over five years, with no limit on what the increase might be following that timeframe. Additionally, residents in Marina would shoulder the burden of an additional industrial facility, yet receive no benefit from its operation, see the quality of their water decline, suffer from decreased coastal access, see the degradation of coastal habitat and negative impact upon species they have worked hard to protect. It is incumbent upon your Commission to deny this project for these reasons.

Failure to Meet Coastal-Dependent Override Provisions

I urge your denial of this project because the three-part test outlined in the Coastal Act Section 30260, which is incorporated into the City of Marina LCP, provides that the Commission *may* consider approving coastal-dependent industrial facility that is otherwise inconsistent with Coastal Act Chapter 3, has not been met.

Test 1: Are alternative locations infeasible or more environmentally damaging?

As was true in September 2020, and affirmed again by your staff, “Pure Water Expansion provides a feasible and less environmentally damaging alternative to Cal-Am’s Project”¹ in the near-term. And, the Commission, through its numerous special conditions such as those outlined below, also acknowledges that the Project is more environmentally damaging and infeasible. For example, **Special Condition 1. Other Permits and Approvals** demonstrates that the Project has failed to have obtain required permits for construction and operation of various components. But more importantly, it has not been able to establish legal rights to source waters required. The primary reason for this desalination project is to end Cal-Am's illegal diversions on the Carmel River and to reduce pumping in the Seaside Groundwater Basin as mandated in its adjudication decision. Approval of this permit would be a reenactment of the predatory practices the Applicant has demonstrated again and again, and which forced the State Water Resources Control Board (SWRCB) to issue its Cease-and-Desist Order (CDO). Or, **Special Condition 6. Permit Term** outlines a process by which the Applicant would be required to return to the Commission within 25 years or by 2050, whichever occurs first, to seek new permits to move its well field to an unknown location. Coastal erosion and sea level rise will impact this project in the near-term, negating its potential to qualify as the “long-term solution” to the regions water supply issues.

Test 2: Would denying the project adversely affect the public welfare?

Denying the project would not adversely affect the public welfare for all the reason outlined in your September 2020 Report. Cal-Am has now been subject to the terms of the CDO for nearly 1-year. During this time, it has been demonstrated that current demand from ratepayers can be met through conversation and implementation of current Aquifer Storage and Recovery and the base Pure Water Monterey projects. The Pure Water Monterey Expansion water purchase agreement is before the CPUC with a recommendation to approve, which will also increase water supply and meet near-term demands in an environmentally superior way. Denial of the project would protect low-income communities of concern in Seaside, and throughout the Cal-Am’s service area, from unnecessary economic burden that would otherwise force them to leave their homes in this coastal community. The City of Marina, and its low-income communities of color, would not suffer the environmental justice burdens being thrust upon them. Additionally, denial of the project will prevent further seawater intrusion of Marina Coast Water District wells, as well as draining of wetlands and vernal ponds within the City of Marina.

Test 3: Are the project impacts mitigated to the maximum extent feasible?

As the Project does not pass the first two tests, there truly is no need to conduct this third test. As your 2022 report outlines, the Special Conditions required to mitigate the Project would be numerous, with the severity of impacts to coastal resources, access, and underlying groundwaters unknown.

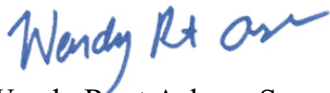
Conclusion

I, and the residents I represent, understand that new water supplies are needed if we want to thrive as a community. I understand that desalination will need to be a part of our local portfolio of solutions.

¹ P4

However, **this project is not what our community needs or wants.** We need a thoughtful **regional** approach. We need a desalination project that will serve the entire Monterey Peninsula, Seaside Basin, City of Marina, Castroville, and areas in the Salinas Valley Basin that are facing loss of their water supplies due to seawater intrusion. We need an approach led by public agencies that can manage costs and be held locally accountable to ensuring our coastal communities remain accessible to current and future residents, as well as visitors. We need the Coastal Commission to deny the Project because it is inconsistent with your policies. Your denial will enable us to move forward together, as region, so that the next time we come before you, it will be with a permit application widely supported because it leaves no community behind.

Thank you for your consideration,



Wendy Root Askew, Supervisor
Fourth District, County of Monterey

cc: Members, California Coastal Commission
Mr. John Ainsworth, Executive Director, CA Coastal Commission

MONTEREY COUNTY



BOARD OF SUPERVISORS

MARY L. ADAMS, SUPERVISOR – FIFTH DISTRICT

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November 10, 2022

Via e-mail: CalAmMonterey@coastal.ca.gov

Hon. Donne Brownsey, Chair and Commissioners
California Coastal Commission
455 Market Street,
Suite 300
San Francisco, CA 94105
Attn: Tom Luster

Re: Public Comment on November 17, 2022 Agenda Items Thursday 7a, Appeal No: A-3-MRA-19-0034 (City of Marina), and 8a, Application No. 9-20-0603 (California American Water Co., Monterey Co.)

Dear Chair Brownsey and Commissioners:

First, thank you for holding this public hearing in Monterey. For a project of this magnitude, providing this opportunity to maximize the ability for the public to provide you with their comments and input was the right thing to do.

As I have said in my previous comment letters on this application and appeal, access to safe, reliable and affordable water is the most important issue facing our county. As the District 5 Monterey County Supervisor, residents in my district will carry most of the costly burden of this project, so I am especially vested in the outcome of your decision. I remain deeply concerned about the unbearable expense Cal-Am's project will have on the ratepayers in my District.

Since you last considered this item, several things have taken place. The State Water Resources Control Board Cease and Desist Order has taken its full effect, with Cal-Am no longer withdrawing water beyond its legal water rights on the Carmel River. The Pure Water Monterey Project has become operational. The Pure Water Monterey Expansion project has moved through CEQA certification by Monterey One Water (MIW) and a Water Purchase Agreement is before the CPUC. This expansion may serve as a bridge to meet our requirements.

I continue to advocate for a publicly owned, regional desalination project instead of Cal-Am's project. Over the course of the last two years, it has become even more apparent there is a need to address seawater intrusion and declining groundwater levels in the 180/400 Foot Aquifer and Monterey Subbasins. There are significant needs beyond the water supply constraints within the California American Water service area for the Monterey Peninsula. Regrettably, Cal-Am's

project, as proposed, would negatively impact the Marina community without providing them any water supply or benefits. Implementation of a desalination project should not be done to their detriment.

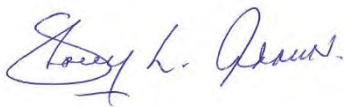
A thoughtful regional approach toward a project serving a larger area that includes the Monterey Peninsula and Seaside Basin, along with the City of Marina and other urbanized areas in the Salinas Valley Basin, is needed for a prudent long-range solution in Monterey County. Such a regional approach, led by public agencies, would also reduce the significant costs that Cal-Am's project would impose on the ratepayers in my district and throughout our county.

The staff report acknowledges a number of areas of uncertainty and issues that need to be addressed for Cal-Am's project to come to fruition, as noted in several special conditions that have to be met prior to issuance of this Coastal Development Permit. Of particular note, in Special Condition 1, is the need for an agreement with M1W for use of their outfall; final CPUC approval for Pure Water Monterey expansion; cost recovery for the reduced size project/Phase 1; legal determination on the pending case *City of Marina v. RMC Lonestar, et al.*, Monterey County Superior Court No. 20CV001387, stand out as critical unresolved issues. Similarly, Condition 12 identifies the need for a Groundwater Monitoring Plan with remedial measures to protect the City of Marina and Marina Coast Water District's groundwater, which is to be reviewed by an independent third party. It concerns me that resolution of these issues is being deferred to a later date and it is unclear what happens if adverse effects should occur.

Therefore, I encourage the Commissioners to consider the extent of these uncertainties and issues, and whether it is appropriate to approve the project based on these special conditions. I believe they are a reflection that the recommendation for approval of a CDP may not yet be timely. I encourage the Commission to consider continuing this item to a later date in 2023, and to reconsider this appeal and application **after** the completion of the CPUC's proceeding on supply and demand, as well as resolution of the City of Marina's pending litigation which could impact this Coastal Development Permit, rather than consider it now beforehand.

Thank you for your consideration of these comments and for the incredible amount of time, thought, and diligence you give all projects that come before you.

Sincerely,



Mary L. Adams, Chair
Monterey County Board of Supervisors
Fifth District

AMENDMENTS

Again, I appreciate the tremendous political pressure that the Commission is under to approve water supply projects. Below you will find my *comments*, **recommendations** for amendment, and/or additions to the Standard Conditions and proposed Special Conditions the Applicant/Permittee must be required to comply with if you move forward with a recommendation to approve the Project.

Standard Condition 4. Assignment - The permit may be assigned to any qualified ~~person~~ **Public Entity**, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

Special Condition 1. Other Permits and Approvals - **Activities outlined under “Section III. Special Conditions” may not commence until** “a final judgement or other final disposition of the entirety of the pending action entitled *City of Marina v. RMC Lonestar, et al.* Monterey County Superior Court No. 20CV001387” has been issued demonstrating the Applicant has 1) water rights AND 2) project would cause no harm to the aquifer that provides drinking water to the City of Marina and Marina Coast Water District ratepayers.

Special Condition 2. Project Phasing - Sub-condition D should be amended to require “Confirmation that the Applicant has submitted all required monitoring reports for the Phase I Project **with no adverse impacts identified.**” Additionally, phasing should be amended to not allow operation of Phase II until the following criteria have been met:

- Phase I has been in full operation for a minimum of ~~2~~ **five (5) years**; and
- “All required monitoring reports have been **timely** submitted...for a minimum ~~two-year~~ **three (3)-year** period to demonstrate that the Project’s Phase I has not caused significant adverse effect on local groundwater supplies for the City of Marina and Marina Coast Water District, wetlands and other coastal resources.”

Special Condition 6. Permit Term - Should the Applicant seek an extension of permit term, the required new coastal development permit application or amendment to an existing permit to remove, relocate, or rehabilitate these project elements or to modify this term of authorization, in addition to descriptions outlined in the staff report, must also require **a description of changed conditions, specifically water supplies made available to the public since the desalination plant serviced by the permitted slant wells became operational, with a justification of their continued need to meet local demand.** Additionally, should the Applicant fail to **timely** begin the process to extend the permit term, causing the “development to be in violation of terms and conditions of this coastal development permit,” **the operator, if a privately held entity, would be required to immediately cease operations of these project elements until such time an application is presented to, and deemed complete, by appropriate regulatory bodies.**

Special Condition 7. Pre-Construction Biological Surveys and Monitoring During Construction, Special Condition 8. Construction Impact Validation and Compensatory Mitigation Ratios for Habitat, and Special Condition 10. Habitat Mitigation and Monitoring Plan - Given that **the City of Marina** has an approved Local Coastal Program with strong ESHA and habitat protections outlined, it **must also be a recipient of any reports required by these conditions, with the ability to provide comment, prior to approval by the Executive Director.**

Special Condition 12. Monitoring and Remedial Measures to Project Groundwater - *It is inappropriate for the Applicant/Permittee to be responsible for developing, implementing, and reporting on a Groundwater Monitoring Plan* “intended to ensure the Project’s source water pumping does not adversely affect the aquifers that are the source of water to the City of Marina and the Marina Coast Water District.” Marina Coast Water District is the Groundwater Sustainability Agency responsible for causing the design and implementation of projects meant to protect the Monterey Sub-basin and create long-term sustainability. **The Applicant must fund the development, implementation, and reporting on this plan by the MCGSA or an independent third-party organization contracted by the Commission.**

Special Condition 12.iii - the term of monitoring frequency should be increased from “at least the first two years” to **“at least the first five years”** to ensure adequacy of data to evaluate impacts.

Special Condition 13. Wetlands and Vernal Ponds Adaptive Management Program - *A timeline is needed by which the Permittee must apply for an amendment to the CDP should the supplemental data collection required in Stage 1 trigger the requirement for the Permittee to develop a Wetland, Resiliency, Enhancement, Restoration, and Monitoring Plan.*

Special Condition 16. Reporting of Environmental Justice Benefits - *Is lacking in its totality. The condition will do nothing to protect low-income residents in Seaside from being forced from their marginally affordable coastal homes, as water rates for the few able to access the income assistance program.* **The Applicant shall redesign parameters for its low-income assistance program such that ratepayers may access the program, particular those who are renters and/or resident in multi-family dwellings. Upon approved redesign, the Permittee would then be required to submit reports as outlined in Special Condition 16 as outlined in the November 2022 Coastal Commission Report.**

Special Condition 17. Community Engagement and Public Access Plans and Implementation - *The Applicant has demonstrated an inability to engage in authentic and meaningful community engagement process that would result in an equitable public access and amenity plan.* **The Applicant must fund the development, implementation, and reporting on this plan by an independent third-party organization contracted by the Commission. The expense for all projects implemented under this plan are to be born by the Applicant and may not be passed on to ratepayers. Public Access and Amenity projects to benefit the City of Marina and its residents shall equal no less than \$25 million dollars or 1/10th of the total final Project installation expense, whichever is greater.**

Related to All Required Surveys, Monitoring, and/or Management Plans - *It is inappropriate for the Applicant/Permittee to be developing surveys and monitoring plans and then be given the responsibility for implementation, oversight, and reporting. I urge the Commission to amend all Special Conditions that include the development and implementation of monitoring programs to be funded by the Applicant but conducted and reported on by an independent third-party organization. The contracts for such activities should be entered into by the Coastal Commission or a PUBLIC AGENCY of its designation. The cost of plan development and implementation may not be passed onto the Cal-Am ratepayers.*

ADDITIONAL SPECIAL CONDITIONS

- 1) Transfer of all infrastructure and facilities associated with desalination activities to a Public Entity for ownership and operation upon completion of the Project. Monterey Peninsula residents and Cal-Am ratepayers have made it clear, through their overwhelming passage of Measure J in 2018, that private ownership of water and water infrastructure cannot be tolerated in our community.
- 2) Strengthen transparency and public access to information by requiring the posting of all information related to the Project, including Executive Director approval of required reports, etc. to a publicly accessible website funded by the Applicant, but managed by an independent third-party entity, as well as allowing for public comment on all requests for permit modifications, amendments, and required reports prior to acceptance or any administrative approval by the Executive Director.
- 3) The applicant must fully fund the legal costs incurred by the city of Marina and/or Marina Coast Water District to defend their water rights.



CITY OF MARINA

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November 11, 2022

Chair Donne Brownsey and Honorable Commissioners
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

**Re: Monterey Peninsula Water Supply Project
Appeal No. A-3-MRA-19-0034 and Application No. 9-20-0603
Commission Nov. 17, 2022 Meeting, Agenda Nos. 7 and 8**

Dear Chair Brownsey and Honorable Commissioners:

I have had the honor to serve as the Mayor of the City of Marina since 2008 and write you today regarding the Monterey Peninsula Water Supply Project (MPWSP or Project), which is on your November 17, 2022 meeting agenda. Although Marina's staff, expert and attorney team is putting together a comprehensive comment letter that will be delivered to all Commissioners early next week, I wanted to provide you with a letter summarizing the City's positions to accompany your meeting packet this week. For the reasons explained below, I strongly urge the Commission to *deny* both the appealed and the consolidated Coastal Development Permits sought for this Project.

I. Introduction

The MPWSP is a large industrial desalination project that would be constructed in, around and through the City of Marina, which is a culturally diverse, working-class community located on the coast in northern Monterey County. Although California-American Water Company (CalAm) characterizes the Project as an ocean desalination plant that would "draw seawater from beneath the ocean floor," it is actually a "groundwater basin" desalination project that would extract 17,300 acre feet of per year (afy) of fresh and brackish groundwater from the Salinas Valley Groundwater Basin (Basin) and export it to the affluent Monterey Peninsula communities to the south. Marina is completely dependent on affordable groundwater in this area for 100% of its drinking water.

II. It Is Premature For the Coastal Commission To Make A Decision On This Project.

At the outset, I believe that Coastal Commission consideration of this Project is premature and unwise because there are important ongoing agency and legal proceedings addressing (1) the need for the Project, (2) whether it has water rights, and (3) its appropriate size and scope, each of

which effectively prevents you from making an informed decision at this time. The California Public Utilities Commission (CPUC) is currently considering approval of a water purchase agreement for the Pure Water Monterey Expansion Project (which will deliver 2,250 afy of additional water to CalAm within two years) and is now beginning a second phase involving an updated analysis of CalAm's supply and demand (which could determine that the Project is not needed or is significantly too large, even at 4.8 mgd). The State Water Resources Control Board is currently considering important water rights and groundwater impact issues relating to the Project and will be issuing a report in 2023. In state court litigation filed by Marina, the Court has scheduled a trial on October 23, 2023 on the broader set of legal claims regarding CalAm's ability to extract and export groundwater from the CEMEX Property.

These are critically important, not minor, Project viability and impact issues. As Staff has recognized (2022 Staff Report at 8), this Project "is inconsistent with Coastal Act and LCP ESHA provisions" and "...these inconsistencies cannot be addressed by requiring mitigation or alternatives." Indeed, this Project involves an almost unprecedented range of severe groundwater, ESHA, environmental justice, public access, coastal hazard and vernal pond/wetland impacts. The issues now pending before the CPUC, State Water Board, and the Court involve feasibility questions that will determine whether, where and when the Project is needed, how large it will be, and what will be the size and scope of its coastal ecosystem impacts. The outcome of these other proceedings likely will substantially alter the Project and its impacts. At present, the Commission and its Staff are in the untenable position of trying to guess the outcome of all these fundamental questions. However, what is the rush -- how can the Commission make a considered decision when so much is changing regarding this Project?

This is not a "garden variety" coastal project and the Commission should ensure that it takes its time and has all the information it needs to get this right. CalAm is asking the Coastal Commission to exercise its discretion to adopt a Section 30260 "override" for the MPWSP. This is a rigorous determination requiring that three important criteria be met: (1) that alternatives are infeasible or more environmentally damaging; (2) that to not approve the MPWSP would adversely affect the public welfare; and (3) that adverse effects are mitigated to the maximum extent feasible. Further, under Section 30233, the Commission must determine that there is no feasible, less environmentally damaging alternative to the proposed MPWSP. The City of Marina and the entire Monterey Bay Area will have to live with your decision for the next 60 years, so it is critical that you have all the information you need before making a decision. The drought resilience of the PWM Expansion is underestimated by the Coastal Commission Staff Report and absolutely needs to be understood and fairly considered by the Commission before deciding the first of three tests for an override (see below).

The Commission must also proceed carefully because Staff produced comprehensive reports in October 2019 and August 2020 in which they firmly recommended that the Commission **deny** all CDPs for the Project. However, in the Staff Report issued only seven days ago, the Staff suddenly switched from these "Denial" recommendations to an "Approval with Conditions" recommendation. For context, here is just a sampling of the key findings recited by Staff to justify their **denial** recommendation in the 2020 Staff Report:

- The Project “involves the most significant environmental justice concerns the Commission has considered since it adopted an Environmental Justice Policy in 2019.” (Page 2.)
- “Staff recommends finding that the Project is inconsistent with relevant Coastal Act and LCP policies and that the Commission may not approve the Project despite those inconsistencies because the PWM Expansion is a feasible, less damaging alternative that will adequately provide water and protect the public welfare.” (Page 4.)
- “The proposed Project could result in up to about 35 acres of both temporary and permanent impacts to terrestrial ESHA during construction and operation, much of it to relatively rare coastal dune habitat.” (Page 5.)
- “Cal-Am’s discount to Castroville [under a return water agreement] would not offset impacts to the underserved communities of Marina, Seaside, and others throughout the service area. In fact, staff found that there were seven times as many individuals in Marina and in Cal-Am’s service area that would be burdened by the desalination facility as those in Castroville that would benefit (based on a federal low-income threshold). The Pure Water Expansion, with its water costs of one-third to one-half of Cal-Am’s proposed Project, would benefit the communities of concern by not causing adverse environmental impacts to the City of Marina and by reducing the cost burdens to Seaside and other underserved Cal-Am ratepayers, albeit without the benefits to Castroville.” (Page 9.)
- “The CEMEX site consists primarily of central foredune habitat, which is one of the most important, vulnerable, and geographically constrained environmentally sensitive habitat types in California. The California Natural Diversity Database (‘CNDDDB’) classifies it as ‘critically imperiled,’ [thus] qualifying it as ESHA.” (Page 34.)
- “The shoreline along the CEMEX site is within designated critical habitat for the species [Western snowy plover] and much of the site provides nesting, roosting, or foraging habitat. Nests are more common in the foredunes or on the beach, but also have been found inland of the foredune area where the well field would be located and where they may become more common as shores continue to erode and succumb to sea level rise.” (Page 36.)
- “The proposed Project also results in adverse coastal resource effects within the community of Marina that is already disproportionately burdened by many other industrial uses and would receive none of the project benefits. There is a long history of government institutions allowing unwanted industrial development to be concentrated in underserved communities of

color without their consent. Approving yet another would perpetuate this discriminatory land use practice in Marina.” (Page 101.)

- “[T]he Pure Water Monterey Expansion provides a feasible and less environmentally damaging alternative to Cal-Am’s proposed Project - that would protect the public welfare by providing adequate regional water supplies for the coming decades.” (Page 109.)
- “Cal-Am’s adverse effects on local and regional groundwater resources in the Salinas Valley Groundwater Basin appear to be greater than were evaluated during the previous monitoring and modeling efforts done to characterize these effects. Cal-Am’s extraction of groundwater would likely result in adverse impacts to up to several dozen acres of vernal ponds, and its proposed groundwater use remains subject to future review to determine whether Cal-Am can obtain the water rights necessary to extract this water while protecting other users. Its proposed use of groundwater from this site is also currently subject to litigation, and it appears likely that its return water obligations may be much greater than originally anticipated, which could affect the cost and feasibility of the Project. ... Based on the above, the Commission finds that denying the proposed Project would not adversely affect the public welfare.” (Page 152.)

The 2022 Staff Report fails to credibly explain this recommendation “flip/flop.” The Report cites three primary reasons: (1) that CalAm is now planning to “phase” the Project; (2) that the CPUC is currently considering approval of the PWM Expansion water and is undertaking a new demand/supply analysis to determine if desalination plant water is needed at all; and (3) that California is in the midst of a three-year drought. (2022 Report at 3-4.) Notably absent from this recitation of these supposed important new developments (all of which supposedly favor CalAm’s Project) is a balanced countervailing analysis of the new developments that compel that no action occur at present or which takes into account the public welfare of Marina and CalAm’s ratepayers.

However, none of these new developments provide any justification for a Project approval, with or without conditions. CalAm’s announced phasing plan (which lacks CPUC approval) does not change the fact that this is a 6.4 mgd Project with all of the impacts identified by the Commission, whether it is built in one or two increments. The existence of the CPUC proceeding regarding approval of the PWM Expansion water should mean that this Commission awaits the CPUC outcome, not that it approves the Project. And the current three-year drought does not change the supply/demand analysis which the CPUC is undertaking because the CPUC will take into account the cyclical nature of rainy and dry seasons. Further, if the Commission is to consider the PWM Expansion’s drought resilience, it should include in that analysis Monterey Peninsula Water Management District’s demonstration that operating reserve “surplus” water between 1600 AF in 2025 to 750 AF in 2050 (with a sharp increase after 2050 upwards to 1500 AF when in lieu water is no longer needed to recharge the Seaside Basin) will exist for extraction in dry years or for peak needs such as Car Week or other tourist events. The cost of a \$3 million new extraction

well to use this operating reserve is of course more affordable than a \$400 million desalination project.

In sum, if CalAm is determined to get a premature determination on the Project in its current posture, the only appropriate course of action is to deny the Coastal Development Permits.

III. The Project Is Expected To Have Devastating Impacts On Marina's Water Supply, Coastal Ecosystems, Social Fabric And Economic Health.

Turning to the merits of this Project, it has become clear that this Project is the wrong solution at the wrong time in the wrong location. Our comprehensive letter on these topics that you will receive next week will address the Project's impacts in great detail. However, I will briefly summarize here the key impacts in nine areas:

Vastly Superior Alternative: The Pure Water Monterey (PWM) Expansion will provide 2,250 afy of additional water for CalAm's service area and, with other supplies, will meet all of the District's water demands through 2050 according to experts for the Monterey Peninsula Water Management District (MPWMD) and Marina Coast Water District (MCWD). The PWM Expansion is a more immediate, affordable, and environmentally acceptable water supply solution than the MPWSP. The CPUC is in the final stages of considering a water purchase agreement for the PWM Expansion water, with a final decision expected soon. The original and expanded PWM projects also guard against drought by their capacity and the capability to inject treated water into the Seaside Basin for storage that creates reserve supplies available during even extended droughts.

Environmental Justice: The far-reaching environmental justice impacts of the Project on both Marina and CalAm's ratepayers have been well chronicled in the three Coastal Commission Staff Reports issued for this Project. One important feature of these impacts on Marina is that they cannot be "mitigated" away because of the community social and economic impacts that they cause. The 2022 Staff Report appears to implicitly criticize Marina for not agreeing to accept CalAm's offer of a payment to Marina of \$1 million to compensate for these environmental justice impacts. However, this offer reveals more about CalAm's complete lack of understanding of these issues than it does about Marina's supposed failure to negotiate with CalAm on these issues.

What is at stake here is Marina's future access to clean and affordable drinking water for its citizens, its equitable public access to its special coastal dune ecosystem and beaches, and the continued viability of Marina's vernal ponds and wetlands. A one-time payment of \$1 million does not begin to address the City's concerns. The best and most direct way to address these impacts is Project "avoidance" by not installing this industrial wellfield in these areas. Of course, since CalAm refuses to consider this obvious option so far, the Commission should deny the Coastal Development Permits on this basis alone. The Commission should not validate and facilitate CalAm's corporate failure to address these issues by going along with ineffective "conditions" that essentially "paper over" these environmental justice issues.

No city on the Monterey Peninsula would offer up harm to its coast for a \$1 million payment. Furthermore, Marina has spent over \$8 million to date learning about and sharing

information regarding the harms of this project to Marina's above- and below-ground assets such as beach access, ESHA, groundwater quality, and groundwater-dependent wetlands. These harms threaten the financial stability of the City of Marina. The City does not want beach visitors in our city to have to drive or walk by this industrial wellfield as a first impression of Marina's dunes and beaches any more than any city along beautiful Monterey Bay would want to endure such an unsightly "scar" so close to their beach and coastal trail destinations.

Groundwater Depletion: CalAm plans to install a slant well field within Marina to pump 17,300 acre-feet afy (approximately 5.6 *billion* gallons every year) of groundwater at the CEMEX site. These extractions will be approximately five times the total extractions of MCWD, Marina's water provider, in this Basin and clearly threaten the continuing viability of this affordable groundwater source. According to non-CalAm hydrogeologic experts, these extractions will substantially deplete fresh groundwater in the Basin, cause increased seawater intrusion, substantially lower groundwater levels in wells and at important local vernal ponds, and will interfere with MCWD's prior appropriative rights to pump groundwater for its Marina and Fort Ord customers. The consequences for Marina could be catastrophic.

Coastal Ecosystem Impacts: CalAm plans to install its industrial wellfield within a 39-acre easement area on the beaches and protected sand dunes in the City of Marina. The slant wells will have a life of only 25 years and will then need to be moved because of sea level rise and dune recession. The wellfield and associated pipelines and service facilities are expected to cause significant and permanent impacts to federally protected wildlife species such as the Western snowy plover, which nests in these particular areas, and on up to 35-50 acres of protected ESHA. And these extensive impacts are certainly not "fully mitigated" as required by Section 30260 of the Coastal Act.

Vernal Pond/Wetland Impacts: Seven sets of vernal ponds and wetlands, totaling about 25 acres, are located near the MPWSP industrial wellfield. These features are protected by the City of Marina under a 1994 Plan developed by Marina and the Coastal Commission. Recent scientific research has concluded that these vernal ponds constitute "groundwater dependent ecosystems" which are sustained by water levels in the Dune Sand Aquifer from which the MPWSP will extract groundwater. Experts believe that the 1-4 foot permanent drawdown in groundwater levels caused by the MPWSP (which varies depending on the pond's distance from the slant wells) will cause significant biological damage to these sensitive ecosystems.

No Water Rights: It is undisputed that the MPWSP currently lacks any overlying, appropriative or prescriptive water rights to extract groundwater from the Basin. Moreover, CalAm expressly did *not* obtain any groundwater extraction rights from CEMEX in the easement it received for the industrial wellfield on the CEMEX Property. Rather, CalAm hopes to use a new and legally unproven "salvaged water" legal theory to obtain such rights at a future time after the MPWSP begins operation. In addition, CalAm is barred by a 1996 Annexation Agreement with Marina, MCWD and others from extracting more than 500 afy of groundwater from the CEMEX Property or from exporting any CEMEX groundwater to users outside of the Basin (where CalAm's service area is located). These issues are currently being litigated by Marina,

MCWD and CalAm in a Monterey County Superior Court lawsuit and associated State Water Board proceeding.

Interference With Public Access: CalAm holds a 39-acre easement over an area stretching over the beach and sand dunes in Marina. It plans to install extensive wells, pipelines, structures and roads in this area. This is one of only three accessible beach access areas in the City of Marina. These MPWSP facilities will greatly impair, both temporarily and permanently, the public access of Marina's residents and visitors. CalAm has presented the Commission with a bare-bones and simplistic plan for public access which appears primarily geared to saving money and facilitating its Project roads and other facilities.

This is a unique access point to Marina's dunes and beaches that corresponds with the new development that is occurring in Marina. Marina has worked with a landscape architect to create a vision for how this access and dune area can be used to feature the special environmental values and history of this area. Marina will include in its comprehensive comment letter a copy of this vision and illustrate how CalAm's industrial wellfield plans will essentially undermine this goal. And, as explained below, the proposed special condition relating to this access and conservation use of the property is improperly being put into the hands of CalAm, rather than the City, which is the certified Coastal Act agency for this property.

Pipeline Problems: CalAm plans to use the existing outfall for the wastewater treatment plant, which traverses the CEMEX Property in Marina, to discharge the highly saline water from its desalination plant. To do so, CalAm must obtain coastal development permits from both the City of Marina and the Coastal Commission to install a new outfall liner that will protect the outfall from this saline discharge. However, contrary to CPUC instructions, CalAm has never applied for these permits and has not reached agreement with the Monterey One Water Board on an alternative course of action. Because these permits have not been sought and these expected coastal impacts have not been analyzed and quantified, the Coastal Commission should not approve these CDPs.

Sea Level Rise/Coastal Hazards: Sea level rise is a critical issue for vulnerable coastal cities like Marina and is a key consideration for coastal development permits issued by the City and the Coastal Commission. In its 2020 Staff Report, the Coastal Commission found that "[t]he Bay shoreline near Cal-Am's proposed well field has exhibited the highest annual erosion rates in the state..." The Report concludes that wave erosion and expected dune sand recession will limit the life of the proposed slant wells to only 20-25 years (for a project designed for a 60-year life), which will require closing and then reconstructing new wells and pipelines in another location. However, CalAm is barred from obtaining any new easements on the CEMEX Property and it has not identified a new site for the wellfield, which will almost certainly involve a whole new round of extensive ESHA impacts.

Summary: The 2022 Staff Report does not really dispute any of these central factual contentions regarding Project impacts. Instead, it takes a two-pronged approach. First, the Report purports to provide a set of "Special Conditions" to supposedly mitigate all of these impacts, as will be discussed in more detail below. Second, the Report improperly attempts to segment the Project as a device to avoid addressing all impacts. For example, when faced with the reality that

the wellfield and associated facilities (which will permanently and temporarily impact at least 35 acres of ESHA) will become unusable in 20-25 years due to sea level rise and dune recession, Staff recommends that a permit only be issued for 25 years, thereby attempting improperly to “punt” the important question of what ESHA and other impacts will be caused for the next 35 years of the Project life. Similarly, and based only on CalAm’s unilateral announcement that it wants to phase the Project (which has not been approved by the CPUC), the Report only examines and mitigates for the impacts of the “first phase” rather than the entire Project.

Third, based on essentially the same facts as existed in 2020, the Report inexplicably reaches polar opposite conclusions on the Section 30260 “override” tests. On the first “alternatives” test (where Staff concluded in 2020 that “the PWM expansion is a feasible less damaging alternative that will adequately provide water and protect the public welfare”), Staff now concludes that this PWM water will be insufficient for the next 20 years. This conclusion makes no sense since the PWM Expansion water appears on the verge of being approved by the CPUC and the CPUC’s new supply and demand analysis will not be done until early 2023. Likewise, on the “public welfare” prong of the override test, Staff now simply asserts that the public welfare favors the Project. These flip/flops are wholly unexplained and lack any credibility.

The same facts that led Staff on two prior occasions to recommend denial of Coastal Development Permits for the Project compel the same result here. No amount of segmenting, phasing or mitigating will change the fact that this is an ill-conceived and unnecessary Project that will force dramatic adverse water supply, coastal ecosystem and other impacts on a disadvantaged community that will not receive any Project benefits.

IV. The “Approval With Conditions” Approach Is Wholly Inappropriate And Fails To Comply With Coastal Act Requirements Here.

As explained above, the Commission should deny the permits outright and never reach the question of whether “Special Conditions” should be adopted in connection with an approval. And it is disturbing that the Commission expects the public to provide detailed comments on 20 special conditions, spanning 24 pages, that were daylighted for the first time only seven days ago. It is evident that these conditions were hurriedly put together and many of them appear to be very “developer friendly.” We will provide more detailed comments on these conditions in our comprehensive comments that will be circulated to the Commissioners early next week. However, in the meantime, the City has the following comments.

The City of Marina believes that the “approval with conditions” approach reflected in the Staff Report is the wrong fit for this situation. At this point, and in light of the ongoing agency and legal proceedings, it is unknown whether the Project is even needed, what size it would be, whether it will ever be able to obtain water rights, where CalAm will need to construct new slant wells in 20-25 years and what their impacts will be, and whether the feasible alternative PWM Expansion water will be approved. These are not the types of relatively minor impacts that can be “conditioned away” as part of an overall project approval. This large, sprawling and expensive Project will have serious and lasting repercussions on Marina, neighboring cities, and CalAm’s ratepayers for at least 60 years (the Project’s anticipated life) and approving it with conditions

avoids making the necessary and hard decisions and rigorous requirements specified by Coastal Act Section 30260 to obtain an override.

Many of the proposed “conditions” are wholly ineffective and suffer from three clear flaws. First, many of them elevate CalAm and essentially disenfranchise the City of Marina, whose residents are directly affected by the Project. CalAm decides what public access, ESHA mitigation, etc. is needed, gets it approved by the Coastal Commission, and then implements it. The disadvantaged community of Marina, which is the certified local coastal agency for the CEMEX property, is marginalized and ignored. Second, these measures do not mitigate to the level of “mitigation to the maximum extent feasible” (a much higher standard than the normal CEQA standards) for environmental impacts. Third, these measures fail to impose real mitigation -- rather they just “kick the can down the road” to a later time.

A few examples will suffice:

- The environmental justice measure that supposedly addresses the impacts to access for Marina’s disadvantaged community provides (1) that CalAm will prepare a community engagement plan after a few meetings with Marina’s residents, (2) that CalAm will then prepare a public access plan that the Commission Executive Director will approve, and (3) CalAm will then implement. This approach defies the fundamental approach of empowering disadvantaged communities. Rather than giving Marina and its residents the tools to determine their own public access needs and plan, this condition adopts an approach where the private corporation causing the impacts will formulate, control and implement the plan for Marina’s residents.
- Special Condition #10 perpetuates the overall pattern of injustice of the proposed Project by allowing CalAm to mitigate for ESHA it damages within the City of Marina anywhere between Monterey and the Salinas River. Thus, harm done in Marina results in benefits going outside Marina. What City would agree to this? Additionally, Condition 10 allows as an option, for CalAm to pay an “in lieu fee” of \$250,000 into a fund administered by the Commission for every acre of ESHA and Flandrian dunes that CalAm damages. Not only is the amount of this payment for unique and essentially irreplaceable dune habitat too low by any mitigation bank or other standards, but it again excludes the affected community from a central role in this process. Our terrestrial and ESHA experts will demonstrate the many fundamental flaws in Condition #10 in their report that will be part of the comprehensive comment letter we are sending next week.
- Special Condition #11 requires the slant wells to extend “at least 1,000 feet seaward of the proposed well head locations.” However, all of the new slant wells that will be installed are already designed to be 940 to 980 feet

seaward of their well head location (as shown in the Final EIR). Extending them 20 to 60 feet further is an insignificant requirement.

- Special Condition #13 displays all of the same problems. Under the 1994 Comprehensive Management Plan formulated by Marina and the Coastal Commission, the City of Marina has responsibility for protecting and enhancing the 25 acres of vernal ponds within its Coastal Act jurisdiction. Special Condition #13 prescribes a circuitous route of plans, monitoring and more plans necessitated because of the unnecessary rush to approve this Project. The Commission's independent hydrogeologist concluded that this Project is expected to cause 1-4 feet of groundwater level drawdown and Staff now concludes (2022 Report at 89) that "...groundwater levels...drawdown from the proposed pumping could adversely affect ... several dozen acres of vernal pools and wetlands...." It is alarming that Special Condition 13 repeats the overall pattern of injustice by allowing CalAm to monitor for impacts to wetlands with 2 years of monitoring immediately prior to project operations (presumably while tens of millions of dollars are spent during construction of the desal facility) and, if impacts occur to Marina's vernal pools and wetlands, then CalAm would be required to apply for a permit amendment with another plan for more monitoring and compensatory mitigation (pg. 90). This is a strong example of how disadvantaged communities' values and resources are sacrificed for industrial corporation demands.

In our comprehensive comment letter, we are including a report from Formation Environmental that explains all the deficiencies in this mitigation and which provides a more appropriate path forward here.,

There are many other deficiencies in the proposed conditions that render them ineffective in accomplishing their purposes or which are designed to put CalAm in the driver's seat to determine what is appropriate for Marina. These issues will be addressed in greater detail in our upcoming comprehensive comments.

V. Conclusion

In closing, desalination will be an important part of California's water future, but projects must make environmental and economic sense, and they must not harm vulnerable communities. CalAm's desalination project, with its industrial wellfield and associated pipelines located in a 39-acre easement area on the protected beaches and dunes of Marina, is unjust, unwarranted, unwanted and unaffordable for all. The Project is fatally inconsistent with the Commission's stated Environmental Justice Policy, which represents that "[t]he Commission will use its legal authority to ensure equitable access to clean, healthy, and accessible coastal environments for communities that have been disproportionately overburdened by pollution or with natural resources that have been subjected to permanent damage for the benefit of wealthier communities." I strongly urge the Commission to reject CalAm's deeply flawed desalination Project.

Chair Donne Brownsey and Honorable Commissioners

November 11, 2022

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CITY OF MARINA

By: _____

Layne P. Long
FOR BRUCE DELGADO

Bruce Carlos Delgado

Mayor of the City of Marina

cc: John Ainsworth
Tom Luster
Layne P. Long
Mayor Pro Tem Kathy Y. Biala
Council Member Lisa Berkley
Council Member David Burnett
Council Member Cristina Medina
Dirksen
Skip Spaulding

9366786



Salinas Basin Water Alliance

"Preserve and Protect Salinas Valley Water"

November 9, 2022

Mr. Tom Luster
California Coastal Commission
Energy and Ocean Resources Unit
445 Market Street, Suite 300
San Francisco, CA 94101

VIA: E-mail to tom.luster@coastal.ca.gov

RE: **In support of Coastal Development Permit Issuance Monterey Peninsula Water Supply Project, CSP Application No. 9-20-0603 California American Water, Monterey County**

Dear Mr. Luster

The Salinas Basin Water Alliance (Alliance) represents more than 80,000 irrigated acres in the Salinas Valley, advocating for sensible, sustainable, and community-oriented water solutions on behalf of farmers, landowners, and the residents of our valley.

The Alliance has observed the evolution of the Cal-Am project with great interest over the years, particularly in context of the Sustainable Groundwater Management Act (SGMA) and how Cal-Am's project might theoretically complement how that legislation is affecting the agriculture industry and our community in general. We are confident in the Hydrologic Working Group's conclusions that the project's brackish water extractions from the Salinas Valley groundwater basin will not prove detrimental to our groundwater supply. This is a key point for our industry, as any negative effect would hamper our own efforts to meet the 20-year groundwater sustainability plans that our community has embarked upon with the recent approval of Department of Water Resources.

The Alliance is also confident that issues of water rights have been successfully answered as well, as outlined by the Return Water Flow Settlement, complimented by the requisite monitoring and mitigation. Furthermore, we believe that these return flows would be best utilized by the Castroville Community Services District, with the ongoing potable water challenges its disadvantaged community is facing, and the Castroville Seawater Intrusion Project (CSIP) that oversees water deliveries to 12,000 acres of farmland in the Castroville area. Strengthening the water resources for these two needs will, in turn, free up water needed in other parts of the valley for various other SGMA concerns, such as the groundwater depression in the Eastside sub-basin, the sloping groundwater gradient in the Monterey sub-basin, in addition to accommodating continued pumping in the southern portions of the valley.

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Fontes Farms
General Farm Investment
Higashi Farms
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Lanini Family
Merrill Farms
Norcal Harvesting
Nunes Vegetables
Ocean Mist Farms
Panziera Ranches
Pedrazzi Farms
Queen Victoria Farms
R.C. Farms
Secondo Farms
Scattini Family LP
Springfield Farms
Sunberry Growers
Sunset Farms
Tanimura & Antle
The Tottino Group

November 9, 2022

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The Alliance has always believed that water supply should be approached prudently, with a balance of projects, supplies and sources that can accommodate changing weather patterns, droughts, and the persistent needs of both urban and ag. That said, we have grave concerns about the Monterey Peninsula placing complete reliance on a single source, such as the Pure Water Monterey Project (PWM). Observing the weather patterns of the last few years, we doubt the assertion that PWM is drought-proof in terms of being the sole drinking water supply for the Peninsula.

Please keep in mind that we have no objection to PWM itself, as recycling any and all effluent waters is certainly good stewardship; however we do not agree with the current intended application of that project. The Coastal Commission's stated policy is "to integrate the principles of environmental justice, equality and social equity in all aspects of the Commission's program and operations." We agree with this perspective and point out that the PWM expansion, employed as the provider of the Peninsula's drinking water supply, grossly imbalances the social equity of Monterey County by taking specific and precious water sources from the Salinas Valley, a largely blue-collar valley with many disadvantaged communities throughout. Why does the Peninsula seek to solve their water problems at our expense?

Regardless, we wish to be good neighbors with the Peninsula and we believe that the Cal-Am project fits into a complimentary vision of such a future, dovetailing with Salinas Valley needs, but not at the expense of our farming industry and valley towns.

The Alliance supports the Coastal Development Permit for the Monterey Peninsula Water Supply Project. We believe such a project will make our entire county more resilient to climate change and the unforeseen challenges of the future. Thank you for your time and consideration.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "George Fontes". The signature is fluid and cursive, with a large initial "G" and a stylized "F".

George Fontes

President, Salinas Basin Water Alliance

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November 11, 2022

Th7a & 8a**VIA EMAIL**

Chair Brownsey and Honorable Commissioners
California Coastal Commission
Energy and Ocean Resources Unit
455 Market Street, Suite 300
San Francisco, CA 94105

Re: November 17, 2022 Meeting Agenda Items Th7a & 8a: Monterey Peninsula
Water Supply Project, Coastal Development Permit Application No. 9-20-0603,
and Appeal No. A-3-MRA-19-0034

Dear Chair Brownsey and Honorable Commissioners:

On behalf of California-American Water Company (“Cal-Am”), we appreciate Coastal Commission staff’s efforts in preparing an extremely thorough Staff Report regarding Cal-Am’s proposed Monterey Peninsula Water Supply Project (“Project”), which the Commission will consider at its November 17, 2022 meeting. We are submitting this letter to express support for staff’s recommendation of approval of the Project with conditions, to clarify several items for the record, and to provide additional information in support of the Staff Report’s findings.

The Monterey Peninsula is facing a severe water supply crisis due to limited water supply options, continued seawater intrusion in local groundwater basins, and persistent drought conditions. Cal-Am has spent over two decades on efforts to provide the Peninsula with a long-term water supply, and this Project will ensure that the Peninsula’s water needs will be met in the future, regardless of these conditions. Notably, the Project will provide a critically-needed water supply for Cal-Am’s Monterey District service area in response to a State Water Resources Control Board Cease and Desist Order (“CDO”) requiring Cal-Am to eliminate unauthorized diversions from the Carmel River. Moreover, it will allow the CDO’s moratorium on new water service connections to be lifted, enabling the development of housing, including much needed affordable housing, throughout the Peninsula.

The Project has been significantly enhanced since it was last scheduled before the Commission in 2020. In response to feedback received from the community during Cal-Am’s extensive outreach efforts over the past several months, Cal-Am has proposed a phased Project with an initial facility capacity of 4.8 million gallons per day (“mgd”), which may be increased in the future if demand for a larger facility is demonstrated. This reduction in capacity would

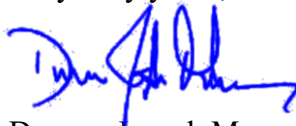
require only two new small pads containing four new source water slant wells on the CEMEX site in the City of Marina – two fewer pads and two fewer wells than previously proposed. These and related changes would reduce the Project’s potential impacts to ESHA by one-third, along with potential impacts to public access, groundwater, and other coastal resources.

Additionally, Cal-Am has proposed to enhance coastal access through \$1 million in funding for public access improvements in Marina, as well as implementation of a Public Access Plan across Cal-Am’s easement area on the CEMEX site. Finally, as a result of its outreach to ratepayers and the community, Cal-Am has proposed to present at least seven rate relief programs to the California Public Utilities Commission for approval, as well as a cap for its Customer Assistance Program customers on the average monthly rate increase attributable to the Project of no more than \$10 through the first five years of Project operations. With these first-of-their-kind low-income rate relief programs and measures, Cal-Am aims to ensure that water remains affordable – with a goal of zero cost increase for Customer Assistance Program customers related to Project construction and operations.

With the robust Mitigation Monitoring and Reporting Program imposed by the California Public Utilities Commission and the Staff Report’s twenty Special Conditions, any potential impacts to coastal resources are mitigated to the maximum extent feasible. Cal-Am supports the proposed Special Conditions with certain clarifications, as detailed in **Attachment A**. In addition, to ensure that the Commission has as robust a record as possible upon which to assess the Project, Cal-Am is providing a detailed response to the Staff Report and suggested clarifications as **Attachment B**.

We appreciate the Commission’s consideration of this critically important Project. We thank Commission staff again for its extensive analysis, and respectfully request that the Commission approve the Project at its November 17, 2022, meeting. Thank you for your consideration and we look forward to presenting the Project to you next week.

Very truly yours,



Duncan Joseph Moore
of LATHAM & WATKINS LLP

Attachments

cc: Kevin Tilden, California-American Water Company
Kathryn Horning, California-American Water Company
Ian Crooks, California-American Water Company
Tom Luster, California Coastal Commission
Kate Huckelbridge, California Coastal Commission

These Materials Have Been Provided to Coastal Commission Staff

ATTACHMENT A
APPLICANT PROPOSED CLARIFICATIONS TO SPECIAL CONDITIONS

1. Other Permits and Approvals. PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall submit documentation from the following entities of final approvals, permits, and determinations required for the proposed Project or documentation from those entities that no further permits or approvals are required:

Local –

- **Monterey One Water (“M1W”):** authorization for connection to, and use of, the M1W ocean outfall, including any approval required under the Coastal Act for any modifications to the ocean outfall.
- **Monterey County:** encroachment permit(s) for construction of Project pipelines within the coastal zone and within County jurisdiction.
- **Cities of Marina, Seaside, and Sand City:** encroachment permit(s) for construction and operation of Project pipelines within the coastal zone and within the jurisdiction of these entities.
- **Transportation Agency of Monterey County (“TAMC”):** approvals necessary for construction and operation of Project pipelines within TAMC rights-of-way.

State –

- **State Lands Commission:** lease(s) of state tidelands for continued use of the Project’s existing test well and of new proposed wells beneath state tidelands.
- **Central Coast Regional Water Quality Control Board:** a National Pollution Discharge Elimination System (“NPDES”) Permit allowing the discharge of effluent through the M1W outfall and approval to modify that outfall to allow the discharge.
- **California Public Utilities Commission (“CPUC”):** ~~final CPUC approval for construction of the Project, including but not limited to a final and binding CPUC~~ completion of the CPUC’s review ~~determination~~ in the pending proceeding (A.21-11-024) of water supply and demand estimates-for the Monterey Peninsula Water Supply Project (MPWSP) demonstrating that the MPWSP is still needed ~~that there is projected demand~~ for additional water supply beyond the Pure Water ~~Market~~ Monterey Project Expansion (i.e., the project that would increase the capacity of the previously CPUC-approved Pure Water ~~Market~~ Monterey project from 3,500 AFY to 5,750 AFY) by or before 2050, and authorizing the MPWSP to proceed.

Federal –

- **Monterey Bay National Marine Sanctuary:** authorization from the Sanctuary to allow discharges into Sanctuary waters and drilling and disturbance of submerged lands within the Sanctuary. This is to include any necessary Biological Opinions from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service or confirmation from the Sanctuary that those Opinions are not required.

Other –

- **Other landowners:** authorization from any other landowners within the coastal zone on whose property the Applicant would conduct Project-related construction activities.
- **Legal:** either a final judgment or other final disposition of the entirety-of the pending action entitled *City of Marina v. RMC Lonestar, et al.*, Monterey County Superior Court No. 20CV001387 (in which the trial court has referred various issues to the Administrative Hearings Office of the State Water Resources Control Board for determination), or Executive Director determination that, based on the State Water Resources Control Board's report on referral in the matter and the Superior Court's judgment or other disposition, it is reasonably likely that the Applicant will be able to obtain any necessary water rights. ~~Cal-Am~~ The Applicant shall provide proof of any such judgment or disposition to the Executive Director. This permit shall not be issued if any that judgment or disposition demonstrates that (1) the Applicant does not have, and cannot feasibly obtain, water rights (to the extent applicable) for the Project or (2) ~~Cal-Am's~~ the Pproject would cause harm to any aquifer that is a source of drinking water to the City of Marina or the Marina Coast Water District.

If any of these approvals or determinations result in changes to the proposed Project that are not evaluated in this CDP, the Applicant submit a complete application to amend this permit unless the Executive Director determines that an amendment is not necessary.

* * *

8. Construction Impact Validation and Compensatory Mitigation Ratios for Habitat. NO LESS THAN 90 DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION IN ANY SPECIFIED WORK AREA, the Permittee shall submit baseline surveys documenting, at a minimum: the physical extent and acreage of all habitats within proposed impact areas; each vegetation community's native species diversity, native species cover, invasive species cover, and the relative cover of dominant native vegetation species; and the vegetation community's age classes and/or size structure distributions. Surveys shall be conducted during the late spring/early summer season when most plant species are blooming and readily identifiable, unless otherwise proposed with clear justification, for review and approval by the Executive Director. Existing records and documentation shall be considered in conjunction with the new data to establish as comprehensive a baseline as possible. Any

sensitive species detections not previously documented in submitted materials shall be clearly reported, including with annotations identifying occurrences as new, and shall be additionally submitted to CDFW and/or USFWS, as appropriate, and to the California Natural Diversity Database (CNDDB). Photos shall be taken from designated points across the survey area, at spacings and perspectives sufficient to represent existing conditions and support impact evaluations. In addition, post-construction surveys, final impact assessments, and compensatory mitigation requirements shall follow as:

...

c. **Permanent Impacts.** All impacts failing to qualify as temporary for any of the above cited reasons shall be recognized as permanent and mitigated for, consistent with the following:

i. A minimum ratio of 3:1 for ESHA impacts, where this base ratio assumes compensation as habitat creation or substantial restoration. Alternatively, enhancement or preservation strategies may be proposed at no less than double or triple the base ratio, respectively. No net loss of dune habitat(s) shall be assured by provision of a minimum 1:1 as habitat creation for the total acreage where permanent development will be located (e.g., the slant well pads and access road infrastructure); any remaining balance may be addressed through the various mitigation strategies, with adjustments to the discounted ratio, as described above (e.g., 2:1 may be satisfied via creation or substantial restoration, or as 4:1 via enhancement, or as 6:1 via preservation).

ii. Outside the TAMC corridor, All habitat mitigation for permanent impacts, and the 0.5:1 fraction for long-term temporary, shall occur within areas that are or will be protected, ~~as~~ consistent with Special Condition 9.

iii. Mitigation requirements for particular species impacts, as may be required by other agencies, may be folded into those for ESHA but may not conflict with or otherwise replace the requirements of this permit, and alternatively, may necessitate additional acreage or other requirements.

* * *

10. **Habitat Mitigation and Monitoring Plan.** PRIOR TO PERMIT ISSUANCE, the Permittee shall submit two copies of a final Habitat Mitigation and Monitoring Plan (HMMP) prepared by a qualified restoration ecologist to the Executive Director for review and written approval. Impact acreages, which shall be the basis of compensatory mitigation requirements, are estimated in the materials submitted on October 24, 2022 and shall be finalized per Special Condition 8.

i. **Compensatory Mitigation Options.** Compensatory mitigation requirements for habitat impacts may be satisfied by any of the following three alternatives, or combination thereof, with the exception of the dune creation requirement to achieve no net loss of dune

acreage, which must be fulfilled on lands not yet protected and contribute significantly to the restoration of coastal dune processes:

i. **Protection and Improvement of Unprotected Lands.** Lands that presently support or would appropriately support dune [or other impacted coastal](#) habitat(s) following habitat improvement activities may be acquired or otherwise moved into protection from future development threats (e.g., conservation easement), for the purposes of habitat conservation. Such lands may be of singular or multiple nature, include sites of variable habitat condition, and involve acquisition, restoration or enhancement activities as part or all of the compensation due for habitat impacts and losses associated with the permitted project. Newly protected but unimproved lands will qualify as preservation whereas protected and improved lands may qualify for credit as restoration or enhancement, if approved by the Executive Director.

ii. **Improvement of Protected Lands.** Lands that presently support or would support dune [or other impacted coastal](#) habitat(s) following habitat improvement activities, and which occur on lands already protected for the purposes of habitat conservation, may be restored or enhanced with agreement and coordination with the landowner and Executive Director. In such case, the landowner may specify the acreage available and terms of agreement between the Permittee and landowner. Land already obligated to other regulatory requirements, including but not limited to prior Commission decisions, legal obligation, and Habitat Conservation Plans, shall not be considered available as compensation for this project unless the work would demonstrably exceed those obligations and provide mitigation determined by the Executive Director to be not otherwise available. The landowner shall be included in all discussions concerning site restoration priorities, goals and objectives, methods, maintenance, etc. The Executive Director shall review and approve any tentative agreement between the Permittee and landowner prior to execution, to ensure that all terms are consistent with the requirements of this and other Special Conditions.

iii. **In-Lieu Fees.** A fee of \$250,000 per acre of required restoration shall be assessed and paid into an interest-bearing account to be established and managed by a government or non-governmental organization as approved by the Executive Director, for the sole purpose of financing dune [or other impacted coastal](#) habitat protection, restoration, and related activities in the region not otherwise already provided for. If a suitable account to accept and administer in-lieu fee funds for dune [or other impacted coastal](#) habitat in the region does not already exist, the Permittee shall be responsible for facilitating the development and initiation of such an account, including through the provision of funds to establish the account. Any additional costs associated with administering the prescribed fees for habitat benefit shall be the responsibility of the Permittee. For each year between the time of Commission approval and the payment of any in-lieu fees, the cost per acre shall be adjusted by any increase in the consumer price index applicable to the Monterey region. All of the habitat-directed funds and any accrued interest shall be used as consistent with the above stated purposes, in consultation with the Executive Director. NO LESS THAN 90 DAYS PRIOR TO PERMIT ISSUANCE, if insufficient acreage has been secured by the Permittee for either protection or improvement, the balance shall be assessed as a non-refundable in-lieu fee per the terms above. Evidence of all fees having been received into an approved account shall be provided PRIOR TO PERMIT ISSUANCE.

Any and all lands that would be protected and/or improved shall occur within the coastal zone, in dune or other impacted coastal habitat(s) situated between the southern boundary of the Salinas River and northern boundary of the City of Monterey, and west of Highway 1. Any in-lieu fees that would be paid as compensation shall be applied to the protection and improvement of dune or other impacted coastal habitat(s) in this same geography. Any and all lands that would support compensatory mitigation requirements, including those that would be protected or improved using in-lieu fees, shall be subject to the requirements of **Special Condition 9** with the sole exception being for **temporary** impacts that would be restored on-site and in-kind within the TAMC corridor.

...

* * *

11. Groundwater Protection. The Applicant shall install the Project's slant wells to extend at least 1,000 feet seaward of the proposed well head locations ~~and shall screen the wells so they extract from the 180-Foot Aquifer~~ as far seaward as is feasible and without penetrating the 400-Foot Aquifer. Any proposed changes to this approved installation must be reported to the Executive Director for a determination as to whether those changes would require an amendment to this permit.

* * *

13. Wetlands and Vernal Pond Adaptive Management Program. PRIOR TO PERMIT ISSUANCE, the Applicant shall submit a Wetlands and Vernal Pond Adaptive Management Program, for review and approval by the Executive Director. The Applicant shall provide the funding necessary to allow the Executive Director to hire one or more independent third-party reviewers to evaluate the proposed Plan and to recommend any changes to the Plan necessary to ensure it is adequately protective of area wetlands and vernal ponds.

The Plan shall provide for the following:

~~k.a.~~ Data collection and monitoring during Project operations of wetlands and vernal ponds within, at a minimum, the ~~Project's less than 1-foot~~ drawdown ~~zone~~ contour for Phase I of the Project plus a buffer area extending a distance of at least 50% beyond the edge of the drawdown contour~~zone~~. The Program shall identify the wetland areas to be monitored within this ~~area zone~~. If data collection and monitoring is infeasible for certain wetlands or vernal ponds, the data collection and monitoring locations may be limited upon review and approval by the Executive Director. If there is evidence that wetland areas outside this specified monitoring area could be affected by pumping, these wetland areas should also be included in Program. The data collection shall occur annually for no less than two (2) years immediately prior to operations and the first five (5) years following commencement of operations. For vernal ponds and all other wetland types within the monitoring area, appropriate reference sites shall be required to the extent feasible, and monitoring parameters shall include, at a minimum: evaluation of wetland extent consistent with the Commission's regulations; depth of surface water; depth of saturation; depth to groundwater; characterization of other potential

hydrologic inputs; hydroperiods (including duration and timing); water temperature and salinity; characterization of vegetation communities and their relative extents and conditions (e.g., stressed, healthy); root zone depth; and surveys for rare or otherwise sensitive plant and wildlife species. Remote-sensing along with on-the-ground monitoring efforts shall be used. Wetland delineations shall be completed annually. The annual results ~~of Stage-1~~ shall be submitted to the Executive Director for review and approval by December 31 of each year. Subject to the Executive Director's review and approval, if at the end of the data collection period the results clearly demonstrate that there is no connection between the Project's pumping and the wetlands and/or vernal ponds within the Project's drawdown ~~Project~~ contour~~zone~~ and buffer area, the Permittee's requirements under the Wetland and Vernal Pond Adaptive Management Program will be satisfied.

If at any time during the five (5) years of supplemental data collection, the results ~~of Stage-1~~ suggest that there is a connection between the Project's pumping and the wetlands and/or vernal ponds within the Project's drawdown contour and buffer ~~area~~zones, the Permittee shall develop a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan (Plan) to address any, and all, prior and future impacts. The Permittee shall apply for and obtain the Commission's approval of the Plan in the form of an amendment to this permit.

* * *

14. No Future Shoreline Protective Device.

a) By acceptance of this permit, the Applicant agrees, on behalf of itself and all other successors and assigns, that no shoreline protective device(s) shall be constructed to protect the wellheads and related development approved pursuant to Coastal Development Permit No. A-3-MRA-19-0034 ~~9-20-0603~~ in the event that the development is threatened with damage or destruction from flooding, waves, erosion, storm conditions, sea level rise, or other natural hazards in the future. By acceptance of this permit, the Applicant acknowledges that the project is new construction for which there is no right to construct shoreline protective devices, and hereby waives, on behalf of itself and all successors and assigns, any rights to construct such devices that may exist under applicable law.

...

* * *

19. Energy Minimization and Greenhouse Gas Reduction. PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, the Applicant shall submit, for Executive Director review and approval, an Energy Minimization and Greenhouse Gas Reduction Plan that provides the following:

a. Identifies the expected annual amount of indirect greenhouse gas ("GHG") emissions resulting from the desalination facility's electricity use during its initial year of operations, with provisions to update these expected emissions during each subsequent year of operations. These amounts shall be based each year on the electricity supplier's most recent

emission factor for delivered electricity as reported to the California Air Resources Board (“CARB”) and/or Climate Action Registry (“CAR”) that identifies the tonnes of GHG emissions per megawatt of electricity generated.

b. For all remaining indirect GHG emissions resulting from facility operations, the Plan shall provide for the Applicant to submit an annual report for each year of facility operations that will identify all measures the Applicant will implement to ensure that the facility operates as “net carbon neutral” on an annual basis. These measures may include procurement of renewable energy from off-site sources within California, or carbon offsets or Renewable Energy Credits purchased through CARB or CAR or approved by a California Air Pollution Control District, with reductions achieved using these measures documented by these entities as being “real, permanent, quantifiable, verifiable, and enforceable,” pursuant to CARB regulations. Each annual report shall be submitted for Executive Director review and approval within 90 days of the electricity supplier’s annual documentation to CARB or CAR of its most recent emission factor for delivered electricity. The Applicant may purchase more than one year’s worth of offsets or credits, if deemed prudent, to use in subsequent years, but at no time shall the facility be operating with its annual amount of indirect GHG emissions greater than its purchased offsets or credits for a given year.

c. The Plan may also identify any on-site and project-related measures the Applicant implements to avoid or reduce the facility’s indirect GHG emissions – for example, installation of a roof-mounted solar photovoltaic system, use of a fuel cell system, etc. - and describe the amount of emissions avoided through these measures.

ATTACHMENT B
APPLICANT’S RESPONSE TO THE STAFF REPORT

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A. Project Description and Background (Staff Report, pp. 38-54)

California-American Water Company (“Cal-Am”) appreciates the Staff Report’s thorough evaluation of the Monterey Peninsula Water Supply Project (“Project”) and its potential impacts to coastal resources. Respectfully, Cal-Am proposes the following modifications and clarifications to the Staff Report’s description of the Project.

1. Project Description

To correct a typographical error, Cal-Am suggests revising the Staff Report globally as follows:

Page 38, Third Full Paragraph

As described by Cal-Am and in the proposed Project’s Final Environmental Impact Report/Environmental Impact Statement (“FEIR/FEIS/~~FEIS~~”) prepared by the California Public Utilities Commission ...

2. Outfall Modifications

Cal-Am suggests clarifying that it did not include the ocean outfall modification work in its coastal development permit (“CDP”) application because it is not the owner of the outfall, does not hold the existing CDP for the outfall, and does not currently have a legal interest in the outfall. Thus, Monterey One Water (“M1W”), as the ocean outfall owner and entity subject to an existing CDP for the outfall, would be required to seek a permit amendment from the Coastal Commission authorizing any outfall modification.

Page 42, Third Full Paragraph

Cal-Am did not include the outfall modification work in its CDP application, as it does not own the ocean outfall or hold the existing outfall CDP permit, and was relying on an agreement it was developing with M1W to identify which entity would fund the work, apply for needed permits, and install the liner.

3. Project Timing

The Staff Report is correct that Cal-Am anticipates that the desalination facility will have an operating life of about 60 years, but that the slant wells “would have maximum operational lives of 20 to 25 years, at which point Cal-Am anticipates rehabilitating or relocating the wells.” (Staff Report, pp. 43-44.) As discussed in Section E *infra*, while the operating life of the intake wells is conservatively estimated at 25 years, it remains speculative whether Cal-Am will need to relocate the wells laterally or further inland at the conclusion of the 25-year term. (See Cal-Am Notice of Incomplete (“NOI”) Application Response, pp. 7-8 (May 19, 2021).) It is possible that the wells could be replaced in the same location or operate longer than 25 years, depending on a number of factors including the condition of the wells and the amount of sea level rise and coastal erosion that has occurred. (See Cal-Am NOI Response, pp. 9-10 (Jan. 11, 2022).) Thus, Cal-Am respectfully requests the following clarification.

Page 43, Last Paragraph to Top of Page 44

Cal-Am anticipates that its desalination facility would have an **maximum** operating life of about 60 years (until about 2085), though its slant wells would have **expected maximum** operational lives of 20 to 25 years, at which point Cal-Am anticipates **evaluating both updated coastal hazard conditions and whether the wells need to be rehabilitated or relocated** ~~rehabilitating or relocating the wells~~ to continue supplying source water for its facility.

4. **Project Background**

In its description of the entities involved in the Monterey Peninsula's complex water management and delivery systems, the Staff Report states that it views the Pure Water Monterey ("PWM") Expansion project as a feasible alternative to Cal-Am's Project. As discussed in Section L *infra*, Cal-Am agrees with the Staff Report that, without the Project, the PWM Expansion would not provide sufficient water for the Monterey Peninsula in the long-term. (See also Staff Report, p. 148.) Thus, the Staff Report should not consider PWM Expansion as an "alternative" to the Project, but rather as a complementary water supply project that help Cal-Am meet its water supply needs both short- and long-term. As such, Cal-Am suggests revising the Staff Report as follows:

Page 45, Third Bullet Point

Monterey One Water ("M1W"): M1W is a regional, public agency primarily involved with collection, conveyance, and treatment of wastewater within its service area, which includes much of the region between Moss Landing to the north, Pacific Grove to the west, and Salinas to the east. For the purposes of these Findings, one of M1W's important roles is the management of the Pure Water project, which provides the foundation for the Pure Water Expansion that the Commission has identified as a **complement** ~~feasible alternative~~ to Cal-Am's proposed Project.

Further, Cal-Am suggests that the Staff Report add descriptions of the Monterey County Water Resources Agency ("MCWRA"), Seaside Groundwater Basin Watermaster, and Castroville Community Services District ("CCSD"), consistent with its August 25, 2020, Staff Report, as these entities play significant roles in the Peninsula's water management.

Page 45, Following Fourth Bullet Point

- **Monterey County Water Resources Agency ("MCWRA"):** **MCWRA manages, protects, stores, and conserves water resources in Monterey County. It operates a number of facilities in the area to store and convey various water supplies and is involved in flood control, managing seawater intrusion, and stream maintenance programs.**

- Seaside Groundwater Basin Watermaster: The Seaside Groundwater Basin Watermaster was created by the decision, as amended, entered in the case of *California American Water Company v. City of Seaside*, et al. Monterey County Superior Court, filed February 9, 2007, Case No. M66343 (the “Seaside Decision”). The Seaside Decision was made for the purposes of managing and protecting the Seaside Groundwater Basin for the benefit of the businesses, individuals, and public agencies that overlie or extract groundwater from the Seaside Groundwater Basin. The primary mission of the Seaside Groundwater Basin Watermaster is to protect the basin from overdraft and to ensure that the basin is not irreparably damaged by seawater intrusion. Cal-Am has rights to native groundwater in the Seaside Groundwater Basin. The Seaside Groundwater Basin also serves as the repository for reclaimed water from the Pure Water project, and the place of storage for Carmel River water diverted under the Aquifer Storage and Recovery program.
- Castroville Community Services District (“CCSD”): CCSD provides water and sewer service, along with storm water management, street maintenance, and other services to the community of Castroville in northern Monterey County. It relies primarily on water provided by wells withdrawing water from the Salinas Valley Groundwater Basin. The CCSD is outside of Cal-Am’s service area, but would be involved in Cal-Am’s proposed Project because it would receive potable water from Cal-Am based on a Return Water Agreement developed among Cal-Am and other entities within the Salinas Valley Groundwater Basin.

5. Recent History of Water Issues in Monterey Area

The Staff Report thoroughly describes the Monterey Peninsula’s long-standing difficulties and constraints with its water supplies. (See Staff Report, pp. 46-48.) To bolster the Staff Report’s discussion, Cal-Am proposes the following additional clarifying text about the Peninsula’s water supply history.

Page 47, First Full Paragraph

In 1998, state legislation directed the CPUC to develop a water supply plan for the Monterey Peninsula that did not include a dam.¹ In 2002, the CPUC completed its plan, known as “Plan B”, which included a 9,400 acre-foot per year desalination facility at Moss Landing and an Aquifer Storage and Recovery (“ASR”) system that would store about 1,300 acre-feet per year of Carmel River water in the Seaside Basin. Plan B served as the basis for a

¹ AB 1182 required the CPUC to consult with Cal-Am and a number of affected parties to prepare a contingency water supply plan that did not rely on a new dam.

2004 application by Cal-Am to the CPUC for the proposed Coastal Water Project, which included a desalination facility at the Moss Landing Power Plant with an open ocean water intake, transmission pipelines from Moss Landing to the Monterey Peninsula, a reservoir, pump stations, and ASR facilities. During the CPUC's review, ¹In 2009, the State Water Board issued a second cease and desist order with a deadline of December 31, 2016 for compliance, which the SWRCB subsequently extended to December 31, 2021, for the exceedances of diversions from the Carmel River.

Several concerns were raised about Coastal Water Project's proposed use of a power plant's open water intake and the resulting significant adverse effects on marine life, the distance of the facility from the service area, and the associated increased transmission costs, among others. These concerns led to the development of alternative water supply proposals, including one developed by regional stakeholders known as the "Regional Water Project, Phase I." This alternative, which was a joint project between MCWRA, MCWD, and Cal-Am, proposed moving the desalination facility closer to the Monterey Peninsula and using vertical and slant wells instead of an open water intake. In December 2010, the CPUC certified an Environmental Impact Report for this Regional Water Project, which included intake wells in substantially similar locations on the CEMEX site as Cal-Am's currently pending Project, and approved several agreements among stakeholders that established project partner responsibilities regarding construction, ownership, operations, maintenance, and payments. However, in 2012, the CPUC voted to end its review of the project due to several problems, including a dispute over whether project-related agreements, including the project's Water Purchase Agreement, were void due to a MCWRA Board Member's alleged conflict of interest. Ultimately, the California Court of Appeal found these agreements were void because the Board Member, who was also being paid as a consultant to advocate for these agreements, had a financial interest in the agreements when they were negotiated and entered into.²

In ~~2012~~ **2013**, Cal-Am and other stakeholders proposed the initial version of the currently proposed Project. In April 2013, Cal-Am filed an application with the CPUC for the MPWSP, which included the Project's slant wells that would be located at the CEMEX site, a desalination facility to be located about two miles inland adjacent to a regional wastewater treatment facility, pipelines, and the other related facilities needed to produce and deliver water to Cal-Am's service area on the Monterey Peninsula. The CPUC, in conjunction with the Monterey Bay National Marine Sanctuary, prepared a joint Environmental Impact Review/Environmental Impact Statement ("FEIR/FEIS/~~FEIS~~") to meet requirements of the California Environmental Quality Act and National

² California-American Water Co. v. Marina Coast Water Dist., (2016) 2 Cal. App. 5th 748, 764-66.

Environmental Policy Act. In September 2018, the CPUC certified the FEIR/FEIS/~~FEIS~~ and issued its Certificate of Public Convenience and Necessity for the proposed Project.³

6. Jurisdiction and Consolidated Permit Review

The Staff Report correctly notes that the California Public Utilities Commission (“CPUC”) is reviewing updated water supply and demand estimates for Cal-Am’s service territory through 2050. (Staff Report, p. 50.) However, it is currently unclear if the CPUC will order a Phase 3 in its pending proceeding (A.21-11-024) regarding the PWM Expansion Water Purchase Agreement and updated supply and demand estimates. (See *id.*, p. 51.) If a Phase 3 is ordered, it also is unknown what this phase of the proceeding would address. Thus, Cal-Am suggests that the Staff Report be revised to avoid speculation as to an unknown potential future process by another agency.

Page 51, First Bullet Point

- Cal-Am subsequently filed an application in 2021 with the CPUC to request CPUC approval of (1) an amended water purchase agreement for the Pure Water Expansion Project and cost recovery for certain facilities associated with the Expansion Project, and (2) updated supply and demand estimates for the Monterey Peninsula Water Supply Project ~~plan, and (3) cost recovery~~. The CPUC phased the proceeding as follows: (1) Phase 1 addresses whether CPUC approval of the Amended Water Purchase Agreement for the Pure Water Expansion project is reasonable, prudent, and in the public interest based on near-term supply and demand estimates (among other factors) and whether the ratemaking proposals for the Amended Water Purchase Agreement and related facilities are reasonable; and (2) Phase 2 addresses longer-term supply and demand estimates to evaluate any need for additional water supply beyond the Pure Water Expansion project. The CPUC also indicated that a third phase may be warranted. but the CPUC has not yet specified the issues for that third phase. ~~It seems likely, however, that if there is a third phase, the CPUC would consider, among other things, the timing and size of the proposed desalination Project.~~

7. Other Agency Approvals & Consultations

Consistent with Cal-Am’s proposed revisions to Special Condition 1 in Attachment A, Cal-Am suggests that the Staff Report’s discussion of the Project’s required permits and

³ CPUC No. A-12-04-019, Decision Approving a Modified Monterey Peninsula Water Supply Project, Adopting Settlement Agreements, Issuing Certificate of Public Convenience and Necessity and Certifying Combined Environmental Report, Decision, September 13, 2018, as modified and affirmed in D. 19-01051 (February 5, 2019).

approvals be clarified as set forth below. In addition, the Monterey Bay National Marine Sanctuary has not yet issued the Record of Decision on the Project, and therefore Cal-Am proposes a clarifying edit to that discussion.

Page 53, First and Fifth Bullet Points

- **Monterey One Water:** Cal-Am will need to obtain authorization from M1W for connection to, and use of, the agency's ocean outfall, and, if required, M1W will need to obtain authorization under the Coastal Act for modifications to the ocean outfall.

...

- **California Public Utilities Commission:** As discussed above, the CPUC has issued a certificate of public convenience and necessity for the 6.4 mgd version of the Project, and is conducting a proceeding concerning supply and demand that ~~will~~ may affect future phasing of the Project ~~whether the CPUC will approve the Cal-Am's Project, including its size and timing.~~

Page 54, Third Bullet Point

- **Monterey Bay National Marine Sanctuary:** The Sanctuary has not yet issued a Record of Decision for its Final Environmental Impact Statement, ~~though~~ Cal-Am will also be subject to authorization from the Sanctuary to allow discharges into Sanctuary waters and drilling and disturbance of submerged lands within the Sanctuary.⁴ The Sanctuary's consideration will likely involve review by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to ensure protection of species that may be affected by the Project.

B. Environmentally Sensitive Habitat Areas (Staff Report, pp. 55-76)

Cal-Am agrees with the Staff Report's conclusion that the Final EIR/EIS' mitigation measures and the proposed Special Conditions will ensure that impacts to ESHA are avoided, minimized, and mitigated to the maximum extent feasible. (Staff Report, 74.) In addition, Cal-Am agrees with the Staff Report's conclusion that the Commission may approve the Project notwithstanding potential inconsistencies with the habitat protection policies in Marina's Local Coastal Program ("LCP") and the Coastal Act under Coastal Act Section 30260. (Staff Report, 76.) As discussed in further detail in Section M, the Project satisfies the three-part test for approval of coastal-dependent industrial facilities where there may be Coastal Act inconsistencies, and therefore the Commission may approve the Project.

⁴ The Sanctuary also served as lead agency under the National Environmental Policy Act ("NEPA") for the project's Environmental Impact Statement.

While Cal-Am supports Staff's conclusions and analysis regarding ESHA, Cal-Am requests the below clarifications to the Staff Report related to: 1) conditions at the CEMEX site; 2) recent reductions to the Project's footprint and potential ESHA impacts; 3) mitigation in the TAMC corridor; and 4) impacts from the outfall clamp replacement and outfall liner. In addition, included at **Attachment A**, Cal-Am is also requesting minor clarifying changes to Special Conditions 8 and 10. Those clarifying changes relate to mitigation in the TAMC corridor as well as a clarification that the Project's mitigation activities would occur in areas of dune as well as other impacted coastal habitats.

1. **CEMEX Site Condition**

As part of recent updates to the Habitat Mitigation and Monitoring Plan work, AECOM prepared updated maps showing the extent of iceplant coverage on the CEMEX site based on aerial imaging. This updated mapping was submitted to Commission Staff on October 10, 2022 and is included at **Exhibit 1**. The updated mapping and associated documentation shows that, outside of areas subject to the CEMEX Settlement Agreement, there are 88.73 acres on the CEMEX site that contain 50 percent or more iceplant coverage. To reflect that there remains significant iceplant coverage on the CEMEX site, Cal-Am requests the following addition to the Staff Report:

Page 63, End of Second Paragraph

Ongoing sand mining and processing operations appear to have contributed to invasive vegetative species dominating several areas within the CEMEX site, particularly iceplant (*Carpobrotus* spp.). In some areas, a thick cover of iceplant has helped prevent establishment or re-establishment of native species; however, as disturbance is removed and reclamation and restoration activities proceed in certain areas of the CEMEX site under the terms of the CEMEX settlement agreement, the cover of invasives is declining, and the cover of natives due to restoration and native seedbank release is reportedly increasing. **Nevertheless, in areas outside of those subject to the CEMEX settlement agreement, based on recent survey data submitted by CalAm, there remains over 85 acres at the CEMEX site with 50 percent or more iceplant coverage.**

2. **Reductions to Project Footprint and Potential ESHA Impacts**

As acknowledged in the Staff Report, recent modifications to the Project would result in a number of reductions to potential ESHA impacts. These reductions to potential impacts would occur on the CEMEX site and along the Project's pipeline route outside of the CEMEX site. On October 24, 2022, Cal-Am submitted documentation included at **Exhibit 2** identifying that modifications associated with the well pads, access route, and pipeline alignment would reduce potential ESHA impacts by up to 9.96 acres, which reflects a reduction of 1.31 acres at the CEMEX site and 8.64 acres along the pipeline route outside of the CEMEX site. These reductions would result in a permanent above-ground footprint at the CEMEX site of 1.94 acres. To reflect these reductions, Cal-Am requests the following clarifications to the Staff Report.

Page 64, Fourth Paragraph

Within this 30-acre easement, the Project would disturb about nine acres during construction of up to five separate well pads, an access road, and part of the Source Water Pipeline, which would continue inland along the easement. The proposed phased Project would reduce this somewhat, due to a reduction in the number of initially planned well pads and a shorter access road. Cal-Am also recently determined it could reduce impacts along the pipeline route **within CEMEX** by routing the pipeline within the road rather than adjacent to it within ESHA

. . .

Additionally, the expected need to conduct maintenance at the well sites every few years would result in ongoing impacts to about six of these acres, which could lead to ongoing disturbance during the expected recovery periods. The proposed phased Project would reduce this area to approximately 1.9 acres.

Page 68, Last Paragraph

The actual area of direct and indirect impact would likely be less than described above. This impact estimate is reduced from the 2020 estimate. In October 2022, in response to questions by Commission staff, Cal-Am determined that it could reduce surface impacts to ESHA outside of the CEMEX site by up to about 8.6 acres by installing pipelines in some areas using tunneling techniques instead of trenching and routing the pipeline within the road rather than adjacent to it in certain locations.

3. TAMC Corridor Impacts

The Staff Report identifies that temporary impacts may be mitigated in the TAMC right-of-way corridor in-place and in-kind. (Staff Report, p. 72.) The Staff Report also explains that for an impact to be classified as temporary it cannot include areas of significant ground disturbance (e.g. trenching) and the habitat must be recovered in 12 months. (*Id.*, p. 71.) Accordingly, as part of the Project there may be impacts that are associated with temporary construction activities that will be required to be mitigated as permanent impacts. Based on direction from Commission staff, Cal-Am has proposed that permanent impacts occurring from temporary construction activities along the TAMC corridor be mitigated, in part, within the TAMC corridor. Accordingly, Cal-Am is requesting clarification that mitigation activities may occur along the TAMC corridor for such temporary construction activities that are considered permanent impacts, though Cal-Am acknowledges that additional off-site mitigation would be required to comply with the Commission's established mitigation ratios. Cal-Am is requesting similar clarifying changes to Special Conditions 8 and 10 at Attachment A.

Page 72, End of First Paragraph

Outside of the TAMC right-of-way corridor, **a**All mitigation for permanent impacts, and the added 0.5:1 fraction for long-term temporary impacts would be required to occur within areas that are or would be protected in perpetuity, and as consistent with Special Condition 9. For temporary impact mitigation, habitat would be addressed in-place and in-kind. Although some of these areas within the TAMC right-of-way corridor could remain susceptible to future development efforts, mitigation located in these areas could be assessed as part of future CDPs in those areas.

Page 72, Last Paragraph to first paragraph of 73

This spatial focus ensures that comparable ecosystems under the Commission's jurisdiction would benefit directly from mitigation efforts. Special Condition 10 also ensures that any and all lands used for mitigation, apart from where **temporary** impacts would be mitigated in-place and in-kind within the TAMC corridor, would be protected in perpetuity.

4. Outfall Clamp Replacement and Outfall Liner

In describing the potential ESHA impacts associated with the outfall clamp replacement and outfall liner, the Staff Report notes that these activities would not conform to Coastal Act Section 30240 or applicable LCP policies. (See Staff Report, pp. 75-76.) Cal-Am suggests that the Staff Report be revised to clarify that the Final EIR/EIS concluded that impacts to terrestrial biological resources, including ESHA, would be less than significant with the implementation of mitigation, as set forth below.

Page 75, First Full Paragraph

. . . As described in the FEIR/FEIS, the installation work would likely require heavy equipment on the beach and foredune area, excavation of some amount of beach and dune habitat, installation of temporary fencing to protect the work area, and other activities that would result in temporary noise, disturbance, and occupancy of this critical habitat area for a six- to eight-week period during a critical time period for the species. The activities could disturb approximately a half-acre between the dunes and the beach. The FEIR/FEIS concluded that although activities associated with the clamp replacement could temporarily impact ESHA, impacts would be mitigated to a less than significant level through the implementation of mitigation measures identified in the FEIR/FEIS. However, **s**uch activities in dune habitat would be considered permanent due to their ground-disturbing nature and would not conform to Coastal Act Section 30240 (if the work is done in the Commission's retained jurisdiction) or LCP provisions that mirror that Section (for any work in the City's permitting jurisdiction) because it would be non-resource-dependent activity occurring in ESHA. For portions that would occur on the beach, Coastal

Act Section 30230 would instead apply, requiring the protection of biological productivity and species of special biological significance, such as the plover.

Page 76, First Full Paragraph

The preliminary analysis provided in the FEIR/FEIS anticipates that part of the liner installation would be done from the beach (and at or near the boundary between the City of Marina's LCP jurisdiction and the Commission's retained jurisdiction). Draft information provided by Cal-Am shows that work could require digging access pits at two sites along the outfall route within the City of Marina that consist of ESHA. As with the clamp replacement, work is proposed to occur during the treatment facility's low flow period in the summer, when most of its discharge is treated and used for agricultural irrigation. The excavation pit at each access point would be located directly above the outfall pipe and would not exceed a size of 12 feet by 25 feet. Soils would be stockpiled within the existing outfall right-of-way, and topsoil would be stored in a separate pile for use in restoration following installation. Because the work would again need to occur during low-flow times for the wastewater plant, this too would need to happen in late summer, during Western snowy plover breeding and nesting, and potentially within the plover's critical habitat area on the beach. The installation work would likely require heavy equipment on the beach and foredune area, excavation of some amount of beach and dune habitat, installation of temporary fencing to protect the work area, and other activities that would result in noise, disturbance, and occupancy of this critical habitat area during a critical time period for the species. Similar to ESHA impacts described above, [the FEIR/FEIS concluded that implementation of mitigation measures would avoid or reduce potential impacts associated with the installation of the outfall liner.](#) [However,](#) these activities would not conform to Coastal Act Section 30240 or LCP provisions that mirror that Section for the dune portion because they would be non-resource-dependent activity that would occur in ESHA. And again, for portions that would occur on the beach, Coastal Act Section 30230 would apply.

C. Groundwater Resources (Staff Report, pp. 77-84)

The Staff Report correctly acknowledges that "the Project's potential impacts to area groundwater have been extensively analyzed in connection with the CEQA review relating the Project, operation of the slant test well at the former CEMEX site, by the Commission's independent hydrology expert, and other analyses." (Staff Report, p. 78.) Extensive studies on groundwater conditions in the Salinas Valley and Monterey Groundwater Basins demonstrate the Project will not have a significant impact on regional groundwater levels or adverse impacts to groundwater users. (See, e.g., Final EIR/EIS, Ch. 4.4; MPWSP Modeling History and Results, submitted to Coastal Commission Staff on Sept. 26, 2022 [summarizing fifteen years of groundwater modeling efforts and conclusions].)

Moreover, although the CPUC’s Final EIR/EIS determined that the Project would result in less-than-significant groundwater impacts under the California Environmental Quality Act (“CEQA”), Cal-Am proposed, and the CPUC adopted, a measure requiring Cal-Am to fund an expansion of the Monterey County Water Resource Agency’s existing regional groundwater monitoring program to ensure that local active groundwater wells would not be harmed due to Project operations. (Final EIR/EIS, pp. 4.4-88 to 4.4-89 [Applicant Proposed Measure 4.4-3].) We respectfully disagree with the statement in the Staff Report that “some degree of uncertainty remains” (Staff Report, p. 78), Cal-Am supports additional protective measures to ensure there is no depletion of groundwater consistent with Coastal Act section 30231, as clarified in the proposed Staff Report revisions below.

Page 84, Second Full Paragraph

. . . To provide further protection for groundwater users in the Basin pursuant to Coastal Act Section 30231, Special Condition 12 requires Cal-Am to submit a monitoring and reporting plan, which is to be reviewed by an independent third-party to be funded by Cal-Am, that identifies monitoring measures that Cal-Am will implement to provide an “early warning” of any potential depletion of groundwater supplies ~~impacts to other users~~ resulting from Cal-Am’s water extractions and goes beyond the requirements of Applicant Proposed Measure 4.4-3 in the Final EIR/EIS. This is intended to identify precursors to any potential effects Cal-Am’s pumping may have on nearby freshwater sources, and on any increasing seawater intrusion that may affect other uses, and to avoid other similar concerns through the implementation of additional analysis and any necessary remedial action long before any potential harm could occur.

1. No Adverse Impacts to Marina Coast Water District’s (“MCWD”) Municipal Supply Wells

As the Staff Report recognizes, “[n]either the CPUC in certifying the FEIR/FEIS nor the Commission’s independent hydrogeologist (as part of the Commission’s review in 2020) found evidence concluding that” impacts to MCWD water supply wells would occur. (Staff Report, p. 77.) It bears emphasizing that the Project will withdraw seawater and brackish groundwater from the water-bearing sediments of the Dune Sand and 180-Foot Equivalent Aquifers along the coast, which are hydraulically connected to the Pacific Ocean. (Final EIR/EIS, pp. 3-7, 4.4-16.) In contrast, MCWD’s production wells are screened in the 400-Foot and Deeper Aquifers. (*Id.*, p. 4.4-75.) Indeed, *the EIR/EIS, the HWG, State Water Resources Control Board, and the Commission’s independent hydrogeologist all agree that groundwater impacts to MCWD’s production wells are not reasonably foreseeable*. (Staff Report, p. 77; Final EIR/EIS, p. 4.4-75; Letter from Eileen Sobeck, State Water Resources Control Board, to John Ainsworth, Coastal Commission (May 8, 2020); HWG, North Marina Groundwater Model Technical Memorandum, submitted to Commission Staff Sept. 26, 2022 (“2022 HWG Report”), p. 23 [2022 modeling “indicate[s] that MCWD wells are well outside the area affected by Project pumping” and “there are no anticipated changes to groundwater salinity from Project pumping because the MCWD wells remain beyond the extent of the seawater intrusion front”].)

2. Adequacy of Airborne Electromagnetic (“AEM”) Data and Survey

The Staff Report notes that the City of Marina and MCWD rely on AEM data to challenge the conclusions of the Final EIR/EIS and suggests that the AEM data leaves some uncertainty as to the accuracy of previously performed modeling. (Staff Report, p. 80.) As a result, the Staff Report suggests that incorporating AEM data into Cal-Am’s groundwater modeling and monitoring efforts as part of Special Condition 12 may be appropriate. (*Id.*, p. 31.) We understand that the Department of Water Resources (“DWR”) is in the process of collecting new AEM data in the region, which could be used in implementing Special Condition 12. To that end, Cal-Am respectfully suggests that Special Condition 12 be clarified to reflect the incorporation of AEM data from state or federal agencies that may be collected in the future.

3. Ocean Water Percentage (“OWP”) Based on July 2022 Modeling

In characterizing the conclusions of modeling performed by the HWG in July 2022, the Staff Report states that the HWG “determined that the range of non-seawater extracted under some conditions could be substantially greater [than previously estimated] – up to about 20%.” (Staff Report, p. 83.) Respectfully, the Staff Report should be revised to include important context for that determination, which is dependent on an extremely improbable 50% reduction in inland groundwater pumping in the future. (See 2022 HWG Report, pp. 20, 25.) Because a reduction of inland groundwater pumping by even 30% is a “highly unlikely scenario,” a 50% reduction even more unlikely. (See MPWSP Modeling History and Results, p. 8 (Sept. 26, 2022) [noting that “[e]ven if agricultural pumping in the SVGB could be reduced by 30% by 2019, which is a highly unlikely scenario, average OWP in the MPWSP slant wells is predicted to be approximately 91%.”].) Ultimately, the HWG determined that “[a]verage predicted OWP in slant wells during the 100-year model simulation period is predicted to range *between 94% and 100% with an average of 99%.*” (2022 HWG Report, p. 23 [emphasis added].) “These results compare well with the modeling results presented in the EIR,” and “*changes made to the [model] in response to suggestions by [the Commission’s independent hydrogeologist] did not produce a substantially different result than previous modelling predictions.*” (*Ibid.* [emphasis added].) As such, Cal-Am proposes the following revision to page 83 of the Staff Report:

Page 83, Middle of Second Full Paragraph

In July 2022, Cal-Am provided an updated analysis by the HWG that described results of the HWG’s implementation of the scope of work that Weiss had previously proposed in the June 2020 review. This more detailed evaluation included additional modeling with several changed parameters as suggested by Weiss and determined that the range of non-seawater extracted ~~under some conditions~~ could be substantially greater – up to about 20% – under the unlikely scenario that inland agricultural groundwater pumping is reduced by 50%. For reasonably expected scenarios, the HWG determined that average predicted seawater percentage would range between 94-100%, with an average of 99%. As noted above, the modeling done during Cal-Am’s CEQA review concluded that Cal-Am’s water withdrawal would reach a steady state of 96-99%.

Based on the assumption that the OWP would exceed the range studied in the Final EIR/EIS, the Staff Report suggests that Cal-Am ratepayers may need to subsidize discounted water provided by Cal-Am to Castroville pursuant to the Return Water Agreement. (Staff Report, pp. 77, 83-84.) To clarify the record, Cal-Am provides the following information about its Return Water Agreement obligations.

In the Return Water Agreement, Cal-Am and other parties agreed to – and the CPUC approved – an expected return water obligation of approximately 700 acre-feet-per-year (“AFY”) at a cost of \$110 per acre-foot. (See CPUC Decision D.18-09-017, p. 109.) If Castroville wants to purchase additional desalinated water from Cal-Am, then Cal-Am will make additional water available to Castroville for purchase at a cost of \$580 per acre-foot. (*Ibid.*) The Return Water Agreement also requires that Cal-Am make the surplus available for delivery to the Castroville Seawater Intrusion Project (“CSIP”). (*Ibid.*) Castroville’s and CSIP’s water costs represent their avoided costs to produce groundwater from the SVGB to meet customer demands. (See *id.*, Appx. H.)⁵

To limit liability and costs to Cal-Am’s ratepayers, the CPUC allocated the costs and risks associated with any higher than anticipated Return Water obligations to Cal-Am and its shareholders, not on ratepayers. (CPUC Decision D.18-09-017, p. 111.) The CPUC determined that the return water percentages included in the EIR/EIS are reasonable, and any percentages above those are presumed “unreasonable.” (See *id.*, pp. 151-152.) Cal-Am ratepayers therefore would not bear the costs for meeting return water obligations that are “unreasonable.” (*Ibid.*) Thus, the CPUC will conduct a reasonableness review following Project start-up that “will include an assessment of the facilities used and usefulness as well as to what extent the MPWSP is able to produce water for use by Cal-Am customers, as opposed to meeting the return water obligation.” (*Ibid.*) Further, the CPUC is requiring Cal-Am to “track all MPWSP expenses in a memorandum account that will be subject to reporting requirements and submission of a Tier 2 advice letter process when the project is completed” so that the CPUC can continue to assess whether the Project “is used and useful as well as [to] ensure that the water produced is delivered for use by Cal-Am customers as opposed to a disproportionate portion of the water going to meet the return water obligation.” (*Id.*, p. 138.) As a result, the CPUC has specific mechanisms in place to ensure that Cal-Am ratepayers are receiving the water they need and not subsidizing Cal-Am’s return water obligations.

Cal-Am respectfully proposes the following modifications to the Staff Report to clarify its Return Water Agreement obligations:

Page 83, Third Paragraph to Top of Page 84

This increased return water requirement could also affect Project feasibility and cost, as described in Section IV.I – Environmental Justice and Section IV.O – Assessment of Alternatives. Essentially, because any higher return water

⁵ If Castroville had not agreed to buy the return water at its avoided cost rate, Cal-Am would be required to find an alternative outlet for this water, such as abandoning the water or injecting desalinated product water into the Salinas Valley Groundwater Basin, which would come with its own additional costs.

volumes could result in additional costs to Cal-Am that it might seek to recover through additional cost recovery requests to the CPUC, the increased need to return water could substantially increase the costs to members of disadvantaged communities and to all Cal-Am ratepayers. However, Cal-Am is prohibited from passing such additional costs onto ratepayers unless the CPUC were to modify its decision approving the Project.

D. Wetlands and Vernal Ponds (Staff Report, pp. 85-90)

Cal-Am agrees with the Staff Report's conclusion that with the implementation of Special Condition 13 the Project is consistent with relevant Coastal Act and LCP provisions. (Staff Report, p. 90.)

Since 2020, Geoscience Support Services, Inc. (Geoscience) and AECOM have performed analyses of the Project's potential impacts to wetlands and vernal ponds. These analyses have demonstrated that wetlands and vernal ponds are unlikely to be impacted by the Project. This conclusion is consistent with the Final EIR/EIS for the Project. (See Final EIR/EIS, pp. 8.5-688, 8.5-702.) Specifically, Geoscience and AECOM prepared the following reports that were previously submitted to Commission Staff:

- AECOM and Geoscience, 2020. Understanding the Influence of Subsurface Aquifer Drawdown Upon Surface Waters and Wetlands for the Proposed Monterey Peninsula Water Supply Project (the "2020 Pond Memo", attached hereto as **Exhibit 3**) and previously submitted to Commission Staff on August 18, 2020.
 - This analysis provided a detailed assessment of the vernal ponds within the Project's drawdown area and concluded: 1) that the vernal ponds are likely not groundwater dependent; or 2) if they are groundwater dependent they are supported from a perched source, the Fort Ord Perched "A" Aquifer, which is not hydraulically connected to the Dune Sand Aquifer from which the Project would draw water.
 - To reach its conclusion AECOM and Geoscience evaluated existing monitoring wells, conducted water quality sampling, researched surface water conditions, examined historical aerial imagery, and reviewed previously prepared analyses regarding the ponds.
- Geoscience, 2020. Preliminary Summary of the Results of Evaluation of Hydrogeologic Conditions – Armstrong Ranch Ponds within the Caltrans Right-of-Way (attached hereto as **Exhibit 4** and previously submitted to Commission Staff on November 5, 2020).
 - Following submittal of the 2020 Pond Memo to Commission Staff, Geoscience obtained permission from the California Department of Transportation (Caltrans) to install piezometers for the collection of site-specific lithologic and groundwater data from the Armstrong Ranch Ponds, which are the ponds located closest to the Project's proposed slant wells at the CEMEX site.

- Preliminary results, including one month of groundwater level data and field water quality data, were provided to Commission Staff in November 2020. Although only one month of data was reported, the lithologic, water quality, and hydraulic conditions documented showed a clear separation between the Dune Sand Aquifer (from which the Project would pump water) and a shallow perched groundwater system. Thus, it was concluded that the Armstrong Ranch Ponds are not connected to the Dune Sand Aquifer and that the vegetation within the these vernal ponds is not supported by the Dune Sand Aquifer.
- Geoscience, 2021. Evaluation of Hydrogeologic Conditions – Armstrong Ranch Ponds within the Caltrans Right-of-Way, Near the City of Marina, California (attached hereto as **Exhibit 5** and previously submitted to Commission Staff on May 19, 2021).
 - In May 2021, Geoscience finalized a report that included eight months of groundwater level and groundwater quality data from the shallow piezometers that were installed in early October 2020 at the Armstrong Ranch Ponds.
 - The data showed seasonal trends for the Armstrong Ranch Ponds shallow perched system that are distinct from the Dune Sand Aquifer for both water level and water quality. The overall trend in water levels observed is that during rainy seasons, water levels in the shallow perched system increase immediately with surface water percolation from rainfall and local runoff. The data showed that groundwater levels in the Dune Sand Aquifer, which is present below a restrictive layer, do not respond immediately to rainfall and follow a much different seasonal trend, indicating that the two systems are separate and operate independently of each other.
- Geoscience, 2022. Results of Test Well Pumping in the Dune Sand Aquifer Armstrong Ranch ponds within the Caltrans Right-Of-Way, Near the City of Marina, California (the “2022 Pond Memo” attached hereto within **Exhibit 6** and previously submitted to Commission Staff on August 5, 2022).
 - In July 2022, Geoscience finalized the 2022 Pond Memo, which included 15-months of data collection. As part of the 2022 Pond Memo, Geoscience collected 17 soil core samples, constructed a new test well, installed a new piezometer, conducted pumping tests to simulate potential drawdown in the Dune Sand Aquifer that would occur as a result of the Project, and evaluated surface water sources (i.e., stormwater runoff) to identify vegetation water requirements and available water to the Armstrong Ranch Ponds.
 - Based on the data collected as part of the 2022 Pond Memo Geoscience determined that: 1) drawdown within the Dune Sand Aquifer as a result of the pumping tests did not affect groundwater levels in the shallow perched groundwater system; 2) water quality within both systems is distinctly different; 3) there is sufficient surface water to meet the demand of Armstrong Ranch Pond

vegetation; and 4) rooting depths of pond vegetation are not found within the Dune Sand Aquifer.

- Based on these findings, Geoscience concluded, consistent with prior analyses, that the Dune Sand Aquifer and Armstrong Ranch Pond's shallow perched groundwater system represent two separate and distinct systems that are separated by a restrictive layer and that act independently from one another. Therefore, Geoscience concluded that the Armstrong Ranch Ponds would not be affected by operation of CalAm's proposed slant wells.
- AECOM, 2022. Armstrong Ranch Ponds Vegetation Rooting Depth Study Technical Memorandum (attached hereto within **Exhibit 6** and previously submitted to Commission Staff on August 5, 2022).
 - AECOM prepared a vegetation rooting depth study for the Armstrong Ranch Ponds that was prepared in connection with the 2022 Pond Memo. The rooting depth study was prepared to determine the root depth for various plants to evaluate the relationship of pond vegetation to the shallow perched groundwater system and the underlying Dune Sand Aquifer.
 - Based on the soil sample data, AECOM concluded that pond vegetation relies on the shallow perched groundwater system, and not the deeper Dune Sand Aquifer. Accordingly, AECOM concluded that operation of the Project's slant wells would not affect existing pond vegetation because operation of the slant wells would not affect the shallow perched groundwater system and/or surface water in the ponds.
- AECOM, 2022. Armstrong Ranch Pond Investigation – Technical Summary Memorandum (attached hereto within **Exhibit 6** and previously submitted to Commission Staff on August 5, 2022)
 - The Technical Summary memorandum summarized the results of all the Geoscience and AECOM work related to wetlands and vernal ponds.

In addition to the work that Geoscience and AECOM performed, Cal-Am also retained Balance Hydrologics, Inc. (Balance) a hydrologic consulting firm that specializes in analyzing streams, wetlands, ponds, and other natural water features to monitor surface water and groundwater levels at five vernal ponds within Marina. Balance proposed to monitor the ponds with surface water level monitoring equipment and piezometers. Balance began its efforts to obtain the required approvals in December 2020. As detailed in Balance's November 10, 2022 memorandum, *Efforts to Conduct Vernal Pond Monitoring in the City of Marina* (attached hereto as **Exhibit 7**), despite nearly two years of efforts, Marina has yet to approve any monitoring activities at the ponds and has failed to grant site access so that Balance could further refine the scope of the proposed monitoring. Nevertheless, and as noted above, Geoscience and AECOM prepared a robust analysis of the Armstrong Ranch Ponds, which are the closest ponds to the Project's slant well, and concluded that the Armstrong Ranch Ponds would not be affected by operation of CalAm's proposed slant wells.

To reflect that the record includes the prior Geoscience and AECOM analyses, Cal-Am requests the below clarifications to the Staff Report:

Pages 88-89, End of Paragraph that Begins on 88 and Ends on 89

. . . The City then provided a July 2020 report updating the 1994 CVCMP with a current assessment of hydrologic conditions and biological resources at six of the seven vernal ponds within or adjacent to its jurisdiction. While the report did identify some limited changes to the ponds including new pockets of wetland vegetation supported by freshwater runoff and expanded willows, it also concluded that all six areas revisited have remained approximately as described in the original 1994 CVCMP. Importantly, it also determined that they should all be considered GDEs on the basis of a suite of ecological indicators accounting for source water quality, growth patterns, and vegetation condition in summer months, and that as GDEs, these sensitive habitats would be vulnerable to any significant changes in groundwater levels.

In response to these reports, Cal-Am submitted a series of analyses prepared by AECOM and Geoscience Support Services, Inc.⁶ The AECOM and Geoscience analyses included a desktop analysis, literature review, review of historical aerial photographs, review of surrounding land uses, physical investigations including groundwater measurements, pump testing, soil samples, and root depth/density analysis.

Based on the data collected, AECOM and Geoscience concluded that the operation of the Project would not adversely affect the Armstrong Ranch Ponds and associated vegetation. Specifically, the AECOM and Geoscience analyses determined that the Armstrong Ranch Ponds are hydraulically separated and act independently of the Dune Sand Aquifer because of a restrictive layer that separates the Dune Sand Aquifer and a shallow perched groundwater system that is located above the Dune Sand Aquifer beneath the Armstrong Ranch Ponds. Because of the separation between the two systems, the AECOM and Geoscience analyses concluded that the Armstrong Ranch Ponds and related vegetation do not rely on groundwater from the Dune Sand Aquifer and instead rely on surface water and groundwater from the shallow perched groundwater system that is primarily supplied by rain and surface water runoff. This conclusion was supported by groundwater level monitoring, differences in the water quality

⁶ AECOM, 2022. Armstrong Ranch Ponds Vegetation Rooting Depth Study Technical Memorandum; AECOM, 2022. Armstrong Ranch Pond Investigation – Technical Summary Memorandum; Geoscience Support Services, Inc, 2022. Results of Test Well Pumping in the Dune Sand Aquifer Armstrong Ranch ponds within the Caltrans Right-Of-Way, Near the City of Marina, California; Geoscience, 2020. Preliminary Summary of the Results of Evaluation of Hydrogeologic Conditions – Armstrong Ranch Ponds within the Caltrans Right-of-Way; and Geoscience, 2021. Evaluation of Hydrogeologic Conditions – Armstrong Ranch Ponds within the Caltrans Right-of-Way, Near the City of Marina, California.

between the ponds and the Dune Sand Aquifer, data on available surface water, and soil samples. As a result, Geoscience and AECOM concluded that the Armstrong Ranch Ponds would not be affected by the operation of the Project since the slant wells would not draw water from the shallow perched system.

Effects of drawdowns

These recent analyses submitted by the City, although not comprehensive, suggest that changes in groundwater levels associated with drawdown from the proposed pumping could adversely affect the functions and values at up to several dozen acres of these vernal ponds and wetlands, primarily at the Armstrong Ranch Ponds, and possibly at other nearby wetlands. Because the City's analyses are refuted by technical analyses submitted by Cal-Am and its consultants, it is difficult to precisely determine the specific nature and magnitude of expected effects, if any, as they would vary by vegetation and wildlife species, by temporal changes in precipitation and natural variation in groundwater levels, by the location in the landscape of the wetland features, and various other factors and could not be definitively identified until after Project operations.

Page 89, Middle of Last Paragraph

However, if a connection was determined to exist, Cal-Am would move into a second phase, where it would develop a second plan that would evaluate and mitigate impacts, and potentially bring that plan back to the Commission for consideration to ensure that the Project remains consistent with Coastal Act Section 30231 and LCP Habitat Protection Policies.

Page 90, First Paragraph

To ensure the Project remains consistent with Coastal Act Section 30231 and LCP Habitat Protection Policies ~~avoids causing impacts to these areas,~~ Special Condition 13 requires Cal-Am to develop a robust adaptive management program that would study ~~to detect any potential impacts the Project may have on~~ the Project's expected drawdown area plus a buffer area extending a minimum of 50% of the distance from the pumping area to the edge of the drawdown zone to account for uncertainty in the zone of potential influence. The program would require a minimum of two years of monitoring immediately prior to Project operations, to provide some level of baseline to compare against, as well as identification and monitoring of reference sites appropriate for the different wetland types within the monitoring area. Monitoring parameters would address wetland geometry (i.e., horizontal extent as well as depths of surface water, saturation), characterization of hydrologic sources (i.e., groundwater and surface inputs), variability in water quality and hydroperiods, vegetation communities, and sensitive plant and animal species habitat and use. Remote-sensing methods

would be used along with on-the-ground sampling efforts, and reports would be provided annually. Cal-Am would be required to provide for a third-party review, which would be selected by the Executive Director in consultation with the City of Marina, to aid in interpreting complex monitoring results. Should the results of this Stage 1 effort suggest that there is a connection between the Project's pumping and vernal ponds or other wetlands, Cal-Am would be required to return to the Commission for a permit amendment with a plan to continue monitoring and provide compensatory mitigation for any observed or future impacts [to ensure that the Project remains consistent with Coastal Act Section 30231 and LCP Habitat Protection Policies.](#)

While the AECOM and Geoscience analyses conclude that the Project would not adversely affect any vernal ponds, Cal-Am proposed a robust adaptive management program to ensure that there would be no adverse effects to wetlands and/or vernal ponds associated with the Project, this program is reflected in Special Condition 13. To add clarity to Special Condition 13, Cal-Am has proposed modifications to Special Condition 13 at **Attachment A**. The modifications would clarify: 1) the area that would be studied as part of the data collection and monitoring; and 2) a process for limiting the study area if data collection and monitoring is infeasible in certain locations. Inclusion of this monitoring measure ensures that the Project will be consistent with Coastal Act Section 30231 and the LCP Habitat Protection Policies requiring that “[p]rimary habitat areas [will] be protected and preserved against any significant disruption of habitat values,” and that the Project will ensure the maintenance of the biological productivity and the quality of coastal wetlands.

E. Coastal Hazards (Staff Report, pp. 91-98)

The Staff Report concludes that with the implementation of Special Conditions 6, 14, and 15, “the Project would conform to relevant Coastal Act and LCP provisions regarding coastal hazards and the avoidance of risk from those hazards.” (Staff Report, p. 98.) Cal-Am agrees that the slant wells will be safe from coastal hazards within the 25-year permit term, and likely will be for much longer.

1. Life of the Slant Wells

The Staff Report states that “Cal-Am expects that its wells would operate for no more than 20 to 25 years and then need to be rehabilitated or relocated, which would presumably result in them avoiding coastal hazards related to erosion during the term of this permit.” (Staff Report, p. 95; see also *id.*, p. 97.) To clarify, while the operating life of the wells has been conservatively estimated at 25 years, it remains speculative whether Cal-Am will need to relocate the Project’s intake wells laterally or further inland beyond the 25-year term. (See Cal-Am NOI Response, pp. 7-8 (May 19, 2021).) It is possible that the Project’s wells could be replaced in the same location or operate longer than 25 years, depending on a number of factors including the condition of the wells and the amount of sea level rise and coastal erosion that has occurred. (See Cal-Am NOI Response, pp. 9-10 (Jan. 11, 2022).) Thus, Cal-Am requests the clarifications below.

Page 95, Beginning of Second Paragraph

~~Cal-Am expects that its wells would operate for no more than 20 to 25 years and then need~~ Cal-Am has indicated that its conservative estimate for the operating life of the wells is 25 years, at which point the wells may need to be rehabilitated or relocated, which would presumably result in them avoiding coastal hazards related to erosion during the term of this permit. This would allow for conformity with the LCP's coastal hazards provision related to the expected economic life of the development. Special Condition 6 is based on the conservative assumption that the wells have a 25-year operating life ~~Cal-Am's characterization that the wells have an approximately 20- to 25-year economic life~~ and limits the term of this permit for 25 years after installation or until January 1, 2050. This latter date is in recognition of the increased uncertainty about our current projections of sea level rise and climate change after 2050. Special Condition 6 also requires Cal-Am to apply for a new or amended CDP to remove or relocate the wells at least two years before the end of this permit term.

Page 97, Middle of First Paragraph

However, as noted above, after 25 years, the wells may need to be rehabilitated or relocated, depending on certain factors, including updated analysis of potential coastal hazards. ~~Cal-Am has estimated that the wells would operate for about 25 years but would then need to be relocated further inland.~~ Importantly, and as noted above, Cal-Am does not have legal interest in property further inland, so it has no locations available yet to site the wells after this expected initial 25 years of operations. The above-referenced Special Condition 6 addresses concerns about the hazards beyond this period. ~~This expected operating life of 20-25 years~~ The 25-year permit term allows for conformity to the above-referenced LCP requirement that development include setbacks adequate to protect it during its expected operating life, but as noted above, this limited operating life raises concerns about whether Cal-Am would be able to operate its desalination facility for only 20-25 years instead of its proposed 60-year operating life (this is discussed further in Section IV.O – Assessment of Alternatives).

2. AECOM's Coastal Erosion Analysis

While Cal-Am agrees with the Staff Report's conclusion that "the Project would conform to the Coastal Act and the LCP provisions regarding coastal hazards and risk avoidance," (Staff Report, p. 98), Cal-Am highlights additional evidence to support this conclusion. In its analysis, the Staff Report states that based on the technical memorandum prepared by the Commission's coastal engineer, "the test well site and other well sites would likely be safe from erosion through 2040, the test well site could be at risk by 2060, and that both the test well site and other well sites would likely be at risk by 2120." (*Id.*, p. 94.) However, the Commission's technical memorandum did not account for any reduction in coastal erosion from the end of sand mining at the CEMEX site.

When factoring in a reasonable reduction in coastal erosion due to the fact that large amounts of sand will no longer be exported from the site, as provided in an October 2, 2019 technical memorandum prepared by AECOM, the well field is projected to be safe under the extreme risk aversion scenario and 500-year storm event until near the 2120 planning horizon.

The Staff Report acknowledges that Cal-Am's coastal erosion analysis is exceedingly conservative, explaining that Cal-Am's analysis assumes the "extreme risk aversion scenarios for the years 2040, 2060, and 2120," "includes the high GHG emissions scenario for each to provide a more conservative assessment of expected effects," and "also considers the effects of both a 100-year and 500-year storm event on site erosion to provide additional conservatism." (Staff Report, p. 94.) These conservative assumptions go beyond the most extreme scenarios proposed by the Commission's most recent sea-level rise guidance.

Accordingly, Cal-Am requests the below clarifications to the Staff Report to reflect this additional evidence.

Page 92, Last Paragraph

CEMEX's removal of more than 100,000 cubic yards of sand annually from the nearshore area served to reduce the sand supply along the shoreline, thereby exacerbating the ongoing natural erosive processes. ~~As detailed below, although the sand mining operations have ended, the shoreline is expected to continue having a relatively high erosion rate.~~ However, the sand mining operations ceased at the end of 2020.

Page 94, End of First Paragraph

For each of the several scenarios, the memorandum separately describes the expected effects on the test slant well, which Cal-Am proposes to convert to a long-term well for the Project and is located about 600 feet from the current shoreline, and on the rest of the well heads that would be constructed about 800 feet from the current shoreline. Using the extreme risk aversion scenario and the 500-year storm event, the most conservative approaches in the analysis, the memorandum concluded that the slant wells (including the test slant well) would not be at risk from coastal erosion until near the 2120 planning horizon.

3. Consistency with Recent Sea Level Rise Guidance

The Staff Report also states that California has developed a new principle calling for permitting agencies, such as the Commission, to consider an increase in sea level of 3.5 feet by 2050. (Staff Report, p. 94.) But as the Executive Director stated in the May 22, 2020, letter endorsing this new principle, this is not a new sea level rise projection and is, in general, accounted for by utilizing and implementing the projections and recommendations in the Commission's Sea Level Rise Policy Guidance, which was used by AECOM and Commission staff to evaluate the Project's potential impacts. Additionally, AECOM provided a supplemental

technical analysis specifically confirming that no adverse impacts to the test slant well or the proposed slant well field would occur based on 3.5 feet of sea level rise by 2050. (See AECOM, Letter to Commission, Exhibit 4 (Aug. 13, 2020), p. 1.) Thus, Cal-Am proposes the clarifications to the Staff Report below.

Page 94, Last Paragraph

Since then, however, California has developed a new principle calling for permitting agencies to consider, for planning purposes, an increase in sea level of 3.5 feet by 2050. Compared to the Commission's above-referenced current sea level rise guidance, this would result in expected sea level rise projections occurring several years sooner than previously anticipated. For example, instead of reaching the above-referenced 31- to 46-inch range of increase by 2060, it would be expected by about 2045 to 2050. Commission staff requested Cal-Am provide additional analysis showing the expected site conditions under this most recent state guidance. ~~Essentially, using these projections, the well field could be at risk by 2045 to 2050 instead of 2060.~~ Cal-Am provided a supplemental technical analysis prepared by AECOM in August 2020 concluding that no adverse impacts to the test slant well or the proposed slant well field would occur based on 3.5 feet of sea level rise at 2050.

Page 95, First Paragraph

With the test well site at risk from these expected long-term erosion scenarios, the Project could include development in an area subject to wave erosion during the next 50 years. This presents some tension with LUP and IP policies that generally require setbacks adequate to protect new development for "the economic life of the proposed Project (at least 50 years)." The LUP has an exception to this policy allowing construction of shoreline protection structures when necessary to serve a coastal-dependent industry, which might apply to the test well portion of this project. However, Cal-Am is not proposing any such structures, and the LCP's standards for approving such structures require several analyses not included as part of the proposed project, including an assessment of alternatives to any such protective structure and review of any proposed protective structure through an Environmental Impact Report. Without an adequate setback to allow for 50 years of protection, and without these analyses being completed, the Project's well field component could be inconsistent with LCP policies related to coastal erosion unless there is a requirement to remove the test well when it becomes threatened. However, Mitigation Measure 4.2-10 in the FEIR/EIS requires Cal-Am to monitor and remove the slant wells five years prior to any anticipated exposure. Thus, the Project is consistent with LCP policies related to coastal erosion because there is a requirement to remove the slant wells when they become threatened.

F. Environmental Justice (Staff Report, pp. 99-115)

1. Procedural Concerns

As the Staff Report correctly notes, Cal-Am has conducted community workshops and outreach with communities that would be impacted by the Project during the summer and fall of 2022. (Staff Report, p. 106.) In addition to those outreach efforts discussed in the Staff Report, Cal-Am has conducted additional community workshops, meetings, and outreach that should be reflected in the Staff Report—such as an additional community workshop in Marina, local government presentations in Marina, Seaside, Sand City, Pacific Grove, and with the Salinas Valley Groundwater Basin Groundwater Sustainability Agency, and targeted outreach to community organizations across the Peninsula. A summary of all community outreach conducted by Cal-Am as of November 3, 2022, is attached hereto as **Exhibit 8**.

Additionally, the Staff Report indicates that Marina and Seaside residents expressed frustration about meetings being “last-minute” and “advertised only days in advance.” (Staff Report, p. 106.) Cal-Am believes that it gave proper advance notice of each of its community workshops, and to augment the Commission’s record, Cal-Am has prepared a summary of its advertisement methods and the notice given for its community workshops, attached hereto as **Exhibit 9**.

2. Substantive Concerns

a. *Cost of Water*

The Staff Report also raises substantive environmental justice concerns about the Project, including issues related to increased cost of water. (Staff Report, pp. 107-110.) Cal-Am would like to emphasize that although the monthly rate increase due to the Project is anticipated to be approximately \$47 to \$50 for the average single-family household, the Coastal Commission’s environmental justice analysis should be focused on the impacts to low-income ratepayers and ratepayers in disadvantaged communities. As an initial matter, Cal-Am has proposed seven different low-income rate relief measures targeted at making the cost of water more affordable for Cal-Am’s low-income ratepayers enrolled in its Customer Assistance Program (“CAP”), in addition to a \$500,000 additional contribution to the United Way Monterey’s Hardship Benefit Program. The goal of these programs is to ensure that the cost of desalinated water results in no increase in those customers’ bills. Nevertheless, recognizing that the CPUC must approve Cal-Am’s proposed rate-relief programs, Cal-Am is committed to and supports Special Condition 16, which limits the monthly rate increase to no more than \$10 through the first five years of Project operation as a stop-gap measure until the CPUC has had the opportunity to consider and approve one or more of Cal-Am’s proposed programs. (See Letter from Cal-Am to Coastal Commission Staff re: Rate Impacts (Oct. 27, 2022); Staff Report, p. 34.)

As the Staff Report correctly notes, Cal-Am has essentially doubled enrollment in the CAP for its Monterey service area since 2020—from 5% to 10%. (See Staff Report, p. 108.) While Cal-Am understands the Staff Report’s concerns that CAP enrollment levels “are still low” (*ibid.*), Cal-Am would like to clarify for the record the existing efforts made to publicize

this program. Cal-Am regularly communicates about its CAP program through its website, bills, social media, mail and email, as well as actively promoting the program at community events and presentations. Additionally, the CAP is promoted to all new residential customers when they establish their accounts with Cal-Am. Cal-Am also engages with the Pacific Gas & Electric Company to share enrollment data on a quarterly basis. Nonetheless, Cal-Am fully supports Special Condition 16, which requires Cal-Am to submit an annual report that describes measures it has taken to increase enrollment in the CAP.

Additionally, the Staff Report raises concerns about the Project’s potential negative impacts on the cost of living in the Monterey Peninsula. (Staff Report, p. 109.) However, the Project will create a new reliable water supply for the Monterey Peninsula that will allow the current building moratorium to be lifted and enable the development of needed affordable housing identified under the Regional Housing Needs Assessment (“RHNA”), as described in greater detail in Section L *infra*. As discussed therein, the Project is expected to positively, rather than negatively, impact the availability of affordable housing in the Monterey Peninsula.

b. *Return Water Agreement with Castroville Community Services District*

The Staff Report presents concerns that recent groundwater modeling indicates that there may be a need for higher water return that anticipated under the CPUC-approved Return Water Agreement with the CCSD, concluding that Cal-Am customers could potentially be required to subsidize Castroville’s water in the future. (Staff Report, pp. 111-112.) However, as explained in Section C *supra*, pursuant to the Return Water Agreement, Cal-Am—not ratepayers—would absorb any costs associated with Cal-Am’s return water obligations if the Project extracts more non-seawater than the Final EIR/EIS estimates. (See CPUC Decision D.18-09-017, p. 192.) While the Staff Report correctly notes that the CPUC has the authority to “revisit the issue, and Cal-Am’s rates, in the future as necessary” (Staff Report, pp. 111-112), the CPUC already has expressly allocated the risks of the Return Water Agreement to Cal-Am to avoid imposing additional cost burdens on ratepayers. It is wholly speculative and unsupported to suggest that the CPUC would reverse this specific determination.

c. *Cumulative Environmental Impacts*

Cal-Am understands the Staff Report’s and Marina residents’ concerns about the location of the Project’s slant wells. (Staff Report, pp. 112-113.) However, the Project’s slant wells would result in a *de minimis* fenced aboveground impact within Marina of only 0.17 acres of the approximately 400-acre CEMEX site. Further, Cal-Am supports Special Condition 17, which requires Cal-Am to develop and implement a Public Access and Amenities Plan to provide new opportunities for public beach access. See Section J *infra* for additional discussion regarding public access. In addition, Special Condition 8, which requires that Cal-Am provide habitat mitigation, ensures no net loss of dune habitat as a result of the construction and operation of the slant wells in Marina. See Section B *supra* for additional discussion regarding ESHA.

3. Proposed Modifications to Staff Report

Overall, Cal-Am has undertaken significant efforts to ensure that the Project is minimally impactful on environmental justice communities in the Monterey Peninsula, consistent with Coastal Act Section 30604(h) and the Commission's Environmental Justice Policy. In addition to the Staff Report's thorough evaluation of the Project's potential environmental justice considerations, Cal-Am proposes the following clarifications to the Staff Report.

Page 107, Last Paragraph

1) Water costs: One of the primary concerns staff heard is the disproportionate burden that low-income ratepayers in Cal-Am's service would experience due to increasing water rates from the construction and operation of the Project. Affordable water is critical for people on limited incomes and is a critical component in the state's Human Right to Water strategy that identifies access to safe, clean, and affordable drinking water as a public health imperative. According to Cal-Am, the average single family customer in the Monterey service area will have a monthly rate increase of approximately \$47 to \$50 due to Project construction and operation costs once the Project is put into service, although, as discussed below, low-income customers' monthly rate increase for any costs associated with the Project's desalination facilities, which includes the source water wells, desalination treatment facility, and desalination conveyance pipelines, will be capped at \$10 for a period of at least five years after start of water deliveries to provide sufficient time for the CPUC to act on one or more of Cal-Am's proposed rate relief programs pursuant to Special Condition 16. This cost increase will occur in addition to any other general rate case increases or surcharges that Cal-Am already has applied for or received approval from the CPUC.

Page 111, Middle Paragraph

However, as noted above, the City of Marina claims that recent groundwater modeling shows that the amount of water Cal-Am may need to return to the Basin could be substantially higher than anticipated in the Return Water Agreement. Instead of a relatively steady rate of up to about 700 acre-feet per year, Cal-Am may need to return up to two or three times that amount during years with higher recharge to the Basin. This could represent about a third of its desalination facility's overall production volume and would likely result in substantially higher costs for Cal-Am ~~or its customers~~ to subsidize unless the CPUC modifies its prior decision approving the Project. ~~If Cal-Am was to obtain CPUC approval of additional rate recovery for these increased expenses it would represent an even greater burden on all of Cal-Am's ratepayers and especially members of communities of concern.~~

Page 112, Second Paragraph

In summary, Castroville residents would get a discounted rate on the desalinated water, providing an important benefit for the community experiencing a water crisis. ~~The discount, however, could result in higher rates for Cal-Am ratepayers, including low-income ratepayers throughout the service area.~~

Page 112, Third Paragraph

3) Cumulative Environmental Impacts

The Project will result in environmental impacts in the City of Marina's coastal zone that ~~will~~ could increase the overall cumulative environmental burdens in the area. The City of Marina and many of its residents believe the Project will create environmental burdens for their community but provide no benefits. The Project's slant wells will be placed within the shuttered CEMEX sand mining property in Marina's coastal zone and would affect several acres of beach and dune habitat that currently supports a variety of rare or sensitive plant and animal species. However, as required by Special Condition 8, Cal-Am will provide mitigation to ensure no net loss of dune habitat as a result of the construction and operation of the slant wells. Marina is already located near several industrial uses both within and outside of the coastal zone. According to CalEnviroScreen data, Marina ranks highly compared to other tracts in the state for groundwater threats, impaired water, solid waste, pesticides, and cleanup site (see Table 3 below and Exhibit 9). Within the coastal zone, industrial uses include the former CEMEX sand mining site. Some community members are concerned that access to the site would be partially lost due to limitations Cal-Am may impose around its well field (Section IV.M of these Findings provides a review of the Project's effects on public access). Although Marina has about four miles of shoreline, it currently has just two points of public access along that stretch of coast, neither of which would be impacted by the Project. Additionally, Cal-Am will develop a Community Engagement Plan pursuant to Special Condition 17, which requires Cal-Am to engage with Marina community members to identify public access priorities and projects. Once these priorities have been identified, Cal-Am will develop a revised Public Access and Amenities Plan. With Special Condition 17, ~~While~~ the Project's adverse effects on public access ~~will are likely to~~ be relatively limited; ~~they would affect Marina residents' ability to fully access this section of the coast.~~ Further, aAs part of the proposed benefits package, Cal-Am offered to provide access around its Project, but Marina officials said it preferred a cohesive network of trails, which they believed would be more achievable through restoration and access requirements under the 2017 Settlement Agreements to which CEMEX, the Coastal Commission, the City of Marina and the State Lands Commission are collectively signatories.

G. Tribal Consultation (Staff Report, pp. 116-118)

Cal-Am appreciates the extensive tribal consultation that Commission staff has performed as part of its review of Cal-Am's CDP application and the appeal.

Cal-Am remains deeply concerned by an unfortunate incident described in the Staff Report between tribal representatives and a contracted inspector (not a Cal-Am employee) for a wholly separate project in 2020. Indeed, Cal-Am's President sent a separate letter to the Commission on November 7, 2022 addressing this incident. (See Staff Report, pp. 117-118.) Cal-Am is committed to respect and dignity in the workplace and does not tolerate any form of discriminatory or harassing conduct. The day after the incident, a mandatory stand-down meeting was held at the project site to discuss Cal-Am's policy of cultural respect and sensitivity. At Cal-Am's request, Chairwoman Louise Miranda-Ramirez of the Ohlone/Costanoan-Esselen Nation participated in the site meeting, conducted sensitivity training, and discussed the importance of tribal monitoring for sensitive sites. In addition, Cal-Am recently has repeatedly attempted to contact Chairwoman Miranda-Ramirez to discuss the Project and any concerns she or other members of the Ohlone/Costanoan-Esselen Nation may have. Thus, Cal-Am requests that the Staff Report's discussion of tribal consultation be supplemented with additional information regarding its response to this troubling incident. Proposed revisions to the Staff Report are provided below.

Page 117, First Full Paragraph

Chairwoman Miranda Ramirez said she is opposed to the Project and has deep concerns about Cal-Am due to an earlier experience with the company in 2020, when an archaeologist and two OCEN tribal monitors, Alexandria Casares and Michael Sandoval, were on-site during one of Cal-Am's construction projects in Pacific Grove. The Chairwoman said a Cal-Am supervisor announced to workers that they could not resume their work until "the Indian returns from the bathroom." The monitors immediately contacted the Chairwoman, who reached out to the City of Pacific Grove and requested an emergency meeting with Cal-Am about the remarks and offered free cultural sensitivity training. She stated that she did not hear back from Cal-Am until October 2022, when she received two phone calls and two emails from company representatives including the president and vice president of the company. In an October 25, 2022 email, a Cal-Am employee referenced the earlier incident, let the Chairwoman know that the Project would be coming before the Coastal Commission and asked if she would be open to discussing cultural training for all Cal-Am Project managers and contractors working on the project. The Chairwoman was offended. "They don't respect Native people, they didn't care about the process when we offered them a process," she said. "Now that they have a project, they want me (OCEN) on their side." **Cal-Am has explained that the individual who made the statement at issue was a contractor, not a Cal-Am employee, who was immediately removed from the project. Cal-Am further explained that they accepted the Chairwoman's offer of cultural sensitivity training at the project site, which the Chairwoman conducted during a half-day work**

stand-down the day following the incident. According to correspondence submitted by Cal-Am, since July 2022, Cal-Am representatives have made at least eight separate attempts to reach the Chairwoman to discuss her concerns.

H. Marine Life and Coastal Waters (Staff Report, pp. 119-124)

Cal-Am agrees with the Staff Report's conclusion that the Project is consistent with Coastal Act policies regarding protection of marine life and coastal waters. (Staff Report, p. 124.) In addition to the analysis already included in the Staff Report, Cal-Am suggests that the Staff Report's discussion of the Project's potential impacts to marine life and coastal waters be augmented and clarified to reflect the requirements of mitigation measures imposed by the CPUC to ensure the Project complies with the California Ocean Plan.

Page 122, Second Paragraph

To ensure the Project is consistent ~~achieve consistency~~ with the Ocean Plan, the CPUC imposed Mitigation Measures 4.3-4 and 4.3-5. Mitigation Measure 4.3-4 requires Cal-Am to implement a monitoring and reporting program that will ensure that operational discharges from the Project are in compliance with applicable Ocean Plan water quality objectives and salinity standards. As a further precaution, Mitigation Measure 4.3-5 prevents Cal-Am from discharging brine into coastal waters until it can demonstrate that it has implemented ~~Cal-Am may need to modify its Project to include~~ outfall modifications, operational changes, or other measures to ensure compliance with Ocean Plan water quality objectives.

Further, Cal-Am requests that the Staff Report be revised to clarify that potential retrofits to the outfall necessary to implement Mitigation Measure 4.3-5 would be addressed through a separate CDP application to be submitted by M1W – the owner of the outfall.

Page 123, Top of Page

Some of these potential changes are internal to the treatment process, but others, such as potential outfall modification, could result in additional development. Special Condition 1 requires Cal-Am to submit the Regional Board's final determination prior to issuance of this CDP. If the Regional Board requires Cal-Am to make any significant structural or operational changes, or identifies impacts requiring mitigation not evaluated under this review, Special Condition 1 also requires Cal-Am to obtain authorization through a CDP amendment prior to issuance of the CDP. Development required to implement any potential outfall modification will be addressed through a separate process initiated by M1W, as owner of the ocean outfall.

I. Energy Consumption and Climate Change (Staff Report, pp. 125-128)

The Staff Report concludes that the Project appropriately minimizes energy consumption and is consistent with the LCP and Coastal Act policies regarding energy consumption and climate change. (Staff Report, p. 128.) Cal-Am agrees with Commission Staff's determinations.

However, to clarify the record, the 4.8 million gallons per day ("mgd") first phase of the Project would further reduce emissions and energy use from what was evaluated in the Final EIR/EIS for the 9.6 mgd and 6.4 mgd versions of the Project. As such, Cal-Am suggests the following modification.

Page 127, First Paragraph

Regarding Project operations, the full-scale 9.6 mgd Project originally considered by the CPUC would be expected to use approximately 63,000 megawatt-hours of electricity per year, which would be an increase of almost 52,000 megawatt-hours per year over Cal-Am's existing baseline electrical use for its water portfolio (based on the 2015 baseline used in the FEIR/FEIS). The 6.4 mgd Project approved by the CPUC would be expected to use approximately 38,000 megawatt-hours of electricity per year, which would be an increase of 27,000 megawatt-hours per year over Cal-Am's existing baseline electrical use for its water portfolio. According to Cal-Am, t~~he~~ Phase 1 Project would use an even smaller, but-unquantified amount of approximately 28,500 megawatt-hours of electricity per year.

Further, as correctly noted in the Staff Report, the Project would reduce the carbon footprint of the Project's electricity consumption to zero with the incorporation of Mitigation Measure 4.11-1 from the CPUC's Final EIR/EIS and Special Condition 19. (Staff Report, pp. 127-128.) Specifically, Mitigation Measure 4.11-1 provides the following loading order: 1) obtain renewable energy from on-site solar panels and/or the adjacent landfill-gas-to-energy facility; 2) purchase renewable energy from off-site sources within California such as PG&E or Monterey Bay Community Power; 3) procure and retire Renewable Energy Certificates for projects or activities in California; and 4) procure and retire Carbon Offsets. Consistent with Mitigation Measure 4.11-1, Special Condition 19 requires Cal-Am to identify and implement measures to avoid and reduce operational emissions and offset any remaining emissions. (See Staff Report, p. 128.)⁷ To that end, Cal-Am is exploring on-site measures, such as solar power, and has confirmed with Central Coast Community Energy – the community choice electricity aggregator that serves the Monterey region - that the company has and will have sufficient renewable energy in its portfolio to provide 100% of the power the Project will require once the Project comes online. (See Letter from Central Coast Community Energy to Cal-Am (Nov. 8, 2022), attached as Exhibit 10.) To address this information, Cal-Am proposes the below modifications to the Staff Report.

⁷ Further, as set forth in Attachment A, Cal-Am has proposed a clarification to Special Condition 19 to allow Cal-Am to procure renewable energy from off-site sources, consistent with Mitigation Measure 4.11-1.

Page 128, First Paragraph

In addition, the FEIR/FEIS and Project design include other measures to address energy usage. For example, piping system materials and sizing would be designed to limit pressure losses and reduce pumping and energy requirements, and electrical and treatment equipment would include variable frequency drives to reduce the operating speed of pumps to match the pump discharge pressure requirements and reduce energy usage. **Moreover, Central Coast Community Energy has confirmed that it has and will have sufficient renewable energy in its portfolio to provide 100% of the power that the Project will require once the Project comes online.**⁸ To further ensure that the Project meets the “net zero” standard, Special Condition 19 requires Cal-Am to submit an Energy Minimization and Greenhouse Gas Reduction Plan that specifies measures it will implement to avoid and reduce operational emissions, and to offset any remaining emissions. With the design and mitigation measures incorporated in the FEIR/FEIS/~~EIS~~ and the Project and with Special Condition 19 included, the Project would minimize energy consumption, consistent with the LCP and Coastal Act requirements.

J. Public Access and Recreation (Staff Report, pp. 129-132)

Cal-Am agrees with the Staff Report’s conclusion that the Project is consistent with Coastal Act and LCP public access and recreation policies with the implementation of special conditions. (Staff Report, p. 132.)

1. Public Access and Recreation During Construction

Cal-Am agrees with the Staff Report’s conclusion that Project construction would be consistent with the LCP and Coastal Act policies and that coastal access at the CEMEX site is only currently available as lateral access along the beach. (Staff Report, p. 130.)

The Staff Report notes that the replacement of some clamps on the nearshore area of the outfall line has the potential to result in effects on public access during construction. (Staff Report, p. 131.) We note that during the six to eight weeks of construction for replacement of the clamps, lateral beach access would remain open with the potential exception of extreme high tide events. The Final EIR/EIS evaluated the potential impacts associated with clamp replacement and carefully crafted a mitigation measure to ensure that impacts from clamp replacement would be less than significant. (See Final EIR/EIS, pp. 4.13-28 to 4.13-29 [Mitigation Measure 4.13-5a].)

Specifically, Mitigation Measure 4.13-5a requires that all construction materials during daylight hours would be stored beyond the reach of tidal waters, and all construction materials and equipment would be removed in their entirety from the beach area by sunset each day that

⁸ **Letter from Central Coast Community Energy to Ian Crooks, California-American Water Company (Nov. 2022).**

work occurs. (*Ibid.*) The mitigation measure also provides that any larger materials too difficult to move on a daily basis could remain on the beach area if placed beyond the reach of tidal waters, if approved by the Commission subject to a contingency plan for moving materials in the event of a tidal surge.⁹ Cal-Am would also be required to restore all accessways affected by construction activities to their pre-construction condition or better within three days of completion of construction. (*Ibid.*) In addition, the Final EIR/EIS notes that additional measures would apply to ensure that the secondary impacts from the clamp replacement are less than significant. (See *id.*, pp. 4.13-31 to 4.13-33 [describing potential impacts to land use and recreation resulting from clamp replacement and the applicable mitigation measures].) With these measures, the Final EIR/EIS concluded that potential public access impacts associated with replacement of the clamps would be temporary and less than significant. (See *id.*, pp. 4.13-30, 4.13-31.)

2. Public Access and Recreation During Operations

Cal-Am agrees with the Staff Report's statement that "[p]roject operations ... would not cause public access or recreation impacts compared to currently existing conditions." (Staff Report, p. 131.)

The Staff Report also notes that the "Project could result in adverse effects to public access and recreation, depending on the eventual restoration and access plan that emerges from implementation of the CEMEX Settlement Agreement." (*Id.* at p. 131.)¹⁰ We note that regardless of whether the Project's public access impacts are evaluated against existing conditions or a potential future condition—the Project's impact on public access is *de minimis*.

The Staff Report states that the Project would "fence off a quarter-acre around the wellheads and some other equipment, occupy another quarter-acre for a period of nine to 18 weeks each year for maintenance, and result in use of vehicles and other equipment over an approximately six-acre area over time." (Staff Report, p. 132; see Final EIR/EIS, pp. 3-59, 4.8-33.) While the Final EIR/EIS indicated that the disturbed area from well construction and ongoing maintenance would be 6 acres over the Project's lifetime (i.e., the cumulative effects of maintenance), this area has been significantly reduced to 1.9 acres as a result of reductions to the number of wellheads and size of the access road. (See Letter from Latham & Watkins to Tom Luster re: Habitat Mitigation and Monitoring Plan Project Footprint Updates (Oct. 24, 2022).) These changes have also resulted in the reduction of the fenced off area to approximately 0.17 acre. For context, the 0.17 acre footprint would occupy approximately 0.04 percent of the 400+ acre CEMEX site.

Based on the reductions to the Project's footprint, we request the following clarifications to the Staff Report:

⁹ This requirement has been incorporated into Special Condition 10.

¹⁰ Note, under *Neighbors for Smart Rail v. Exposition Metro Line Construction Auth.* (2013) 57 Cal.4th 439, 447 and CEQA Guidelines § 15125, the baseline to evaluate impacts is existing conditions.

Pages 131-132, Third Full Paragraph

Cal-Am has a 30-acre permanent easement within the CEMEX site and its well field would include fencing to protect about a quarter-acre of the several well heads and associated equipment. Cal-Am's ongoing maintenance of the well field would result in access and use of heavy equipment and vehicles over an area of up to about six acres over the Project's lifetime, though not all of that acreage would be used at once. The proposed phased Project would reduce this area somewhat, due to a reduction in the number of initially planned well pads and a shorter access road. Specifically, the fenced area has been reduced to approximately 0.17 acre and the area for potential ongoing maintenance has been reduced to 1.9 acres.

Pages 131-132

However, the Project would, at a minimum, fence off ~~0.17 a quarter~~-acre around the wellheads and some other equipment, occupy another quarter-acre for a period of nine to 18 weeks ~~every five each~~ years for maintenance, and result in use of vehicles and other equipment over an approximately ~~1.9 six~~-acre area over time.

However, allowing an industrial use to occupy and use up to ~~nearly two six~~ acres of prime coastal land . . .

We also note that while the Settlement Agreement requires CEMEX to transfer title in the property to a purchaser to either manage for conservation uses, or use the property for other allowable activities, the Settlement Agreement does not require the purchaser to use and manage the property for a specific level of public accessibility. In addition, as noted in the Staff Report, the Settlement Agreement, which was approved by the Commission, explicitly provides that uses consistent with Cal-Am's existing 30-acre permanent easement are permitted. (Staff Report, p. 132; see also Settlement Agreement, §§ 6.2.D.1, 23.2.) Therefore, even compared to a future condition, it is speculative that the Project would result in a loss to public access and recreation during operations.

Nevertheless, to address comments received on the Project, Cal-Am has offered to provide \$1 million to fund public access amenities as addressed by Special Condition 17, which would enhance public access in the Project area. Accordingly, Cal-Am agrees with Staff that, with implementation of Special Condition 17, the Project would reduce potential public access limitations in a manner consistent with public access and recreation provisions of the Coastal Act and LCP.

K. Visual Resources (Staff Report, pp. 133-134)

Cal-Am agrees with the Staff Report's conclusion that Project components within the Coastal Zone would be largely hidden from public view, and that ongoing Project maintenance would be limited and would not conflict with the LCP's policies regarding visual resources.

(Staff Report, pp. 133-134.) Cal-Am further agrees that, with Special Conditions 3 and 20, any potential impacts to visual resources would be mitigated to the maximum extent feasible. (*Id.*, p. 134.)

L. Assessment of Alternatives (Staff Report, pp. 135-148)

Cal-Am also agrees with the Staff Report’s conclusion that the PWM Expansion “alone is not sufficient to address longer term supply and demand.” (Staff Report, p. 148.) Likewise, the Staff Report correctly determines that a “no action” alternative is not a feasible approach to long-term water supply planning. (*Id.*) To assist the Commission in its assessment of alternatives and the need for the Project, this section offers additional information and clarification to the Staff Report that the Commission should consider in its evaluation of the Project.¹¹

1. The PWM Expansion is Not a Feasible Alternative to the Project

a. *PWM Expansion was Designed as a Back-Up to the Project*

Cal-Am agrees with Staff that without the Project, the PWM Expansion is incapable of providing a sufficient new source of water for the Monterey Peninsula in the long-term. (Staff Report, p. 148.) It is for this reason, however, that the Commission should not consider the PWM Expansion as an “alternative” to the Project, but rather as a complimentary water supply project that can help Cal-Am meet the water deficit that is projected to occur in the coming years. In other words, the PWM Expansion should not be considered an alternative to the Project because it is not capable of meeting the Monterey Peninsula’s long-term water needs.

Indeed, the PWM Project and PWM Expansion were never designed nor intended to serve as a stand-alone alternative to the Project. As the CPUC explained when it approved the Project, the PWM Expansion would satisfy the basic purposes of the Project “***only in conjunction with construction of a desalination plant of some size within five to fifteen years,***” and would only delay the necessary implementation of a desalination project of the same size. (CPUC Decision D.18-09-017, Appx. C, p. C-71 [emphasis added].) Likewise, the PWM Expansion Supplemental Environmental Impact Report (“SEIR”) made clear that the PWM Expansion was only a “back-up” to the Project. M1W described the PWM Expansion “only as a back-up plan for, and not as an alternative to, CalAm’s MPWSP desalination project” and “only to have a ready-to-go alternative plan in place in the event that the CalAm desalination project is delayed beyond the Cease and Desist Order deadline of December 31, [2021].” (PWM Expansion Draft SEIR, p. 2-1, fn. 1.) In addition, the PWM Expansion Final SEIR explained that “[t]he Proposed Modifications to the PWM/GWR Project are intended to serve as a back-up mechanism to deliver additional water in the event that the CalAm MPWSP desalination project is delayed such that the desalination project would not be able to provide water as quickly as the

¹¹ At the outset, Cal-Am notes that it submitted two detailed memoranda to the Commission on September 20, 2022 and October 5, 2022, pertaining to water supply and demand issues on the Monterey Peninsula. These memoranda are referred to in this response as the “Cal-Am Supply and Demand Memo” and the “Cal-Am Supplemental Supply and Demand Memo,” respectively. Both memoranda also included numerous exhibits, including testimony and other data from the ongoing CPUC proceeding regarding the PWM Expansion project and updated supply and demand estimates for the Project.

Proposed Modifications,” and that “[t]he CalAm MPWSP desalination project is not a feasible alternative to the Proposed Modifications because the Modifications will only go forward in the event the desalination project cannot be timely constructed and implemented.” (PWM Expansion Final SEIR, p. 3-24.) Accordingly, Cal-Am respectfully requests the Commission consider the PWM Expansion not as an alternative to the Project, but as a complimentary project that can help ensure that Cal-Am has a long-term water supply available for its Monterey District customers.

b. *The Sufficiency of PWM Expansion’s Source Waters Is Not Certain*

The Staff Report concludes that the PWM Expansion is a feasible, albeit insufficient, alternative to the Project. (Staff Report, p. 148.) As part of its feasibility analysis, the Staff Report notes that “[a]lthough actual water yields from the two Pure Water projects are not yet available because the Pure Water Expansion is not yet in production, ***MIW has identified sufficient source waters to accommodate both projects.***” (*Id.* at p. 140 [emphasis added].)

While Cal-Am supports the PWM Expansion and is seeking the CPUC’s approval of the Amended and Restated Water Purchase Agreement, Cal-Am notes that several public agencies have expressed concerns that there is uncertainty surrounding the PWM Expansion’s ability to reliably produce its designed 2,250 AFY output, particularly in drought conditions. For instance, on September 7, 2022, MCWRA submitted an independent analysis of the PWM Expansion to the CPUC in which MCWRA determined there is only 1,688 AFY of source water available for the PWM Expansion, which is only enough for the PWM Expansion to produce ***1,367 AFY***.¹²

More recently, on October 25, 2022, the State Water Resources Control Board (“SWRCB”) sent a letter to the Commission stating that the “Pure Water Monterey expansion project may constitute an important component of a permanent replacement water supply, if it is developed and demonstrated to be a reliable, drought-resilient water source,” but “based on regional housing needs, ***source reliability***, and the effects of aridification on California’s water supplies, the State Water Board believes it is prudent for Cal-Am to pursue additional sources of water that are sustainable.” The letter urged this Commission “to consider the proposed desalination facility as a potentially vital municipal water supply.”

In addition, on October 21, 2022, the General Manager of Castroville CSD submitted a letter to the Commission expressing that agency’s concerns regarding adequate supplies for the PWM Expansion. The letter stated that actual wastewater flows that supply the PWM Project

¹² This was not the first time that MCWRA expressed concerns about PWM Expansion’s source water availability. On January 31, 2020, MCWRA submitted comments to M1W on the PWM Expansion Draft SEIR, focused largely on the claim “that there are potential inaccuracies in the amount of water available [to the PWM Expansion] as described in the DSEIR.” MCWRA submitted another letter to M1W on April 20, 2020, expressing “concerns regarding the availability of water for the [PWM Expansion], now and in the future,” and explaining that were “too many unanswered questions regarding the availability and rights to source waters, future operations, and the resulting adverse impacts for MCWRA and its stakeholders.” Finally, on September 11, 2020, MCWRA submitted a letter to the Commission stating concerns that the PWM Expansion’s “new source waters have not been quantified sufficiently for MCWRA to agree that there is an adequate amount of treated wastewater to meet current contractual obligations, as well as additional demand.”

and PWM Expansion were much less than projected and that local reservoirs are empty and surface water ditches, including the Reclamation Ditch that is proposed as a significant source for the PWM Expansion, “are dry ditches.”¹³

In light of the uncertainties regarding the PWM Expansion’s source waters raised by multiple public agencies, Cal-Am respectfully requests that the Commission revise the following language in the Staff Report:

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The Amended Water Purchase Agreement would allow Cal-Am to purchase 2,250 afy of water from the Pure Water Expansion project in addition to the 3,500 afy it is currently approved to purchase from the baseline Pure Water project for a total of 5,750 afy. Certain parties have questioned whether the two Pure Water projects will actually yield a supply of 5,750 afy. Although actual water yields from the two Pure Water projects are not yet available because the Pure Water Expansion is not yet in production, M1W has ~~identified~~ asserted that there are sufficient source waters to accommodate both projects. However, other public agencies have provided analysis demonstrating that there is some uncertainty as to whether the Pure Water Expansion has sufficient source waters to produce its designed 2,250 AFY, particularly in drought years.

2. PWM Expansion Alone Cannot Meet Long-Term Water Demand

Cal-Am has carefully analyzed projected long-term water supply and demand for the Monterey Peninsula as part of the CPUC’s current proceeding (A.21-11-024). The results of Cal-Am’s analysis is largely consistent with Staff’s conclusion that “additional water supply beyond the Pure Water Expansion is likely necessary at some point within the next twenty years,” to meet the Monterey Peninsula’s increasing demands and, “[t]hus, the addition of the Pure Water Expansion project alone is not sufficient to address longer term supply and demand.” (Staff Report, p. 148.) Cal-Am’s most recent supply and demand projections demonstrate that by 2050, demand in Cal-Am’s Monterey Main service area will reach approximately 14,590 AFY. (Cal-Am Supply and Demand Memo, p. 1.) However, Cal-Am has projected that with the PWM Expansion, but without the Project, there will be a *5,190 to 5,400 AFY* deficit under normal water-year conditions and a *5,930 to 7,620 AFY* deficit under multiple drought-year conditions by 2050. (Cal-Am Supplemental Supply and Demand Memo, pp. 1-2.) Thus, the additional water supply provided by the Project remains necessary to make-up this shortfall and ensure a reliable water supply for Cal-Am’s service area.

While Cal-Am agrees with Staff’s ultimate conclusion that additional water—above what the PWM Expansion can provide—is needed in the future for the Monterey Peninsula, the

¹³ In addition, the Salinas Valley Water Alliance, which represents farmers and landowners in the Salinas Valley, submitted comments to the CPUC and expressed concerns about how the PWM Expansion may impact the Castroville Seawater Intrusion Project. The Salinas Valley Water Alliance noted that the Pure Water Expansion project may deprive CSIP of its source waters and exacerbate saltwater intrusion in Castroville and surrounding areas. (November 9, 2022 Salinas Basin Water Alliance Letter to CPUC, attached as Exhibit 13.)

following provides additional evidence about Project need. First, the Project is needed to meet additional demand for protective water levels in the Seaside Basin. Second, the Project is needed so SWRCB may lift the moratorium on new service connections. Third, Cal-Am highlights some inconsistencies between Cal Advocates' and Cal-Am's supply and demand projections.

a. *The Project Can Meet Additional Demand Needed to Maintain Protective Groundwater Levels*

When considering whether the PWM Expansion will provide sufficient amounts of water to allow Cal-Am's water portfolio to meet expected demands, Cal-Am also urges the Commission to consider the amount of water needed to reach and maintain protective groundwater elevations in the Seaside Groundwater Basin. The Seaside Basin is one of Monterey's most substantial and important water sources, and is Cal-Am's most critical supply source. The Seaside Basin is the storage basin for all water from the PWM Project (and, in the future from the PWM Expansion), as well as for Carmel River Aquifer Storage and Recovery ("ASR") diversions, and is the source for Cal-Am's native Seaside Basin groundwater supplies. (Cal-Am Supplemental Supply and Demand Memo, p. 9.) If the Seaside Basin suffers seawater intrusion, water stored in the Seaside Basin would be contaminated and the basin could no longer be used for storage. Because the Seaside Basin is such a critical resource, and because seawater intrusion in the Seaside Basin would be catastrophic, it is important that the amount of water needed to be injected into the basin to protect it from seawater intrusion is accounted for in the Peninsula's water demand projections.

As discussed in an October 14, 2022, letter to the Commission from the Seaside Groundwater Basin Watermaster, the amount of replenishment water that will be needed to protect the basin from seawater intrusion varies. (October 14, 2022 Seaside Basin Watermaster Letter to the CCC.) In the Watermaster's letter, the Watermaster summarizes a recent replenishment analysis they commissioned, which concluded that under the "best case" scenario 1,000 AFY of water would need to be injected into the Seaside Basin every year to replenish it and raise groundwater levels high enough to prevent seawater intrusion from occurring. (*Ibid.*) However, under a "conservative" scenario the amount needed would be 3,600 AFY every year. (*Ibid.*) The Watermaster's letter states that unless these quantities of water are added annually, "the Seaside Basin will be at risk of seawater intrusion, and that risk will increase each year that groundwater levels continue to fall and remain below sea level." (*Ibid.*) Based on this range of replenishment water demand (1,000 to 3,600 AFY), the Watermaster asserts that the PWM Expansion project will not be able to meet this demand, and the only source of available replenishment water will be from desalination. (*Ibid.*)

Further, a September 1, 2022, technical memorandum prepared by the Watermaster's consultant, Montgomery & Associates, includes a higher range of replenishment water that would be needed to achieve protective groundwater elevations in the Seaside Basin. (**Exhibit 11**, Montgomery & Associates, Executive Summary of Replenishment Modeling & Analysis of Alternate Supply & Demand Assumptions (September 1, 2022), p. 11.) The technical memorandum states that "[a]n annual average replenishment rate of 3,700 AFY, ranging from 2,200 to 4,700 AFY is needed" to achieve protective groundwater elevations in the Seaside Basin. (*Ibid.*) Based on this range, it is possible that in any given year between 1,000 and 4,700

AFY will be needed to supply replenishment water for the Seaside Basin to avoid seawater intrusion. This is a substantial amount of water and only Cal-Am's Project will be able to provide any meaningful percentage of it to maintain protective water levels. The Seaside Basin's situation is an additional reason why the Monterey Peninsula must have additional reliable, drought proof water supply options. The Commission should factor these issues into its supply and demand considerations.

Cal-Am proposes additions to the Staff Report to clarify that there will be additional demands due to the need for Seaside Basin replenishment.

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The Commission finds that use of a 10% buffer is reasonable, particularly because the Pure Water Expansion does not yet have actual production data to rely on, and Cal Advocates' estimate assumes that the Pure Water Expansion will supply its full production of 2,250 afy. Moreover, drought conditions have become increasingly more severe, which is another significant factor in the analysis. The three-year period ending August 2022 was recorded as the driest three-year period in California since records began in 1895. [Additional water may also be needed to replenish the Seaside Groundwater Basin in order to prevent seawater intrusion into that basin, a demand that has not yet been factored into the demand analysis.](#)

- b. *The Project is Needed to End the Moratorium on New or Expanded Service Connections*

Cal-Am notes that the Staff Report does not fully consider the backlog of housing demand due to the State Water Resources Control Board's current moratorium on new service connections in Cal-Am's Monterey service area. When considering whether the PWM Expansion will provide sufficient amounts of water to allow Cal-Am's water portfolio to meet expected demands, Cal-Am encourages the Commission to consider the pent-up housing demand resulting from the moratorium imposed by the SWRCB's Cease and Desist Order ("CDO"). The CDO remains in effect until a permanent supply of water is substituted for the water illegally diverted from the Carmel River, and the SWRCB recently denied MPWMD's request to lift or modify the CDO. (October 25, 2022 SWRCB Letter to CCC, p. 2.) Once the Project is constructed and becomes operational, a new drought-resilient water supply will be available, the moratorium on new service connections can be lifted, and additional water demand will be required for much-needed pent-up regional housing developments, including affordable housing developments. (Cal-Am Supplemental Supply and Demand Memo, pp. 6,16.)

Currently, multiple housing projects, including affordable housing projects, are being delayed because the projects are unable to obtain water due to the moratorium on new service connections. (See, e.g., **Exhibit 12**, March 17, 2022 City of Monterey Letter to the SWRCB.) For example, the Garden Road project in the City of Monterey had to be significantly downsized due to the moratorium. (*Ibid.*) That project proposes 405 new housing units, at least 81 of which are affordable housing units. Based on the applications received by the city to develop the

project, the number of units had to be reduced to 180 because of a lack of available water supplies due to the moratorium. (*Ibid.*) Another example is the Ascent project in the City of Seaside. The City of Seaside has unsuccessfully worked to get the Ascent project approved and constructed due to a lack of water as a result of the moratorium. This project represents another 106 units, including 14 to 16 affordable housing units that currently cannot be developed due to the moratorium. Once the CDO is lifted, multiple housing developments will be ready to start construction and the Peninsula's water supplies will need to meet the pent-up demand.

In CCSD's October 21, 2022, letter to the Commission, CCSD also stated that long-term water restrictions have resulted in an affordable housing shortage. (CCSD Letter re Support for the Monterey Peninsula Water Supply Project (Oct. 21, 2022).) As a result, Castroville has taken on a large number of affected families who could not find affordable housing on the Peninsula, and in Castroville you can often find two to three families sharing a two-bedroom home. (*Ibid.*) There is an urgent need to develop more affordable housing and the Commission should consider the water demand associated with that development.

Cal-Am proposes additions to the Staff Report to clarify that the Project is necessary to lift the CDO and its moratorium on new or expanded service connections.

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The Commission recognizes the need for long-range planning to address water supply constraints, particularly in this region which has experienced longstanding water shortages. The Commission also recognizes the need to end the moratorium on new or expanded service connections as a result of the SWRCB CDO, which has been in place since 2009 and has prevented the development of housing (including affordable housing) in the region. At the same time, in light of the override provisions of Section 30233 and 30260, the Commission also recognizes that other water solutions with fewer environmental impacts than the proposed desalination facility may potentially emerge as feasible alternatives, particularly as the timeframe for construction of the desalination facility becomes longer.

c. *California Public Advocates Overestimates Supplies and Underestimates Demand*

The Staff Report appears to give substantial weight to the Cal Advocates' supply and demand estimates and conclusion that there will be a demand for the additional supply in 2040. (Staff Report, p. 144.) Cal-Am advises that the Commission should consider some limitations with Cal Advocates' analysis. While Cal-Am agrees with Cal Advocates' conclusion that the Project is needed to address future demand on the Peninsula, Cal-Am also believes that Cal Advocates' supply and demand estimates underestimate the expected demand between 2025 and 2050, and overestimate Cal-Am's available supplies during that same period.

Cal Advocates' projections for Total Residential and Non-Residential demand, Tourism demand, and Legal Lots of Record demand are all either too low, incorrectly omitted, or are missing important components. For example, Cal Advocates' projections for Total Residential and Non-Residential demand are too low. It is unclear how Cal Advocates arrived at its lower demand projections, but Cal-Am urges the Commission to reference Cal-Am's residential and non-residential demand projections as they are based on the most recent historical demand data and updated growth projections provided by the Association of Monterey Bay Area Governments ("AMBAG").

To estimate Cal-Am's residential and non-residential demand through 2050, Cal-Am used the demand projections from Cal-Am's 2020 UWMP for its Monterey Main service area and then updated those projections using Cal-Am's average historical demands from 2017 to 2021 as a starting point. (Cal-Am Supplemental Supply and Demand Memo, p. 5.) Then, Cal-Am projected future demand through 2050 using projected growth rates from AMBAG's Regional Growth Forecast. (*Ibid.*) This allowed Cal-Am to utilize the most recent demand data available and then extrapolate that demand through 2050 by using growth factors that will affect Cal-Am's demand in the future, including population and employment growth. While projecting future demand is based on many variables that may change over time, Cal-Am believes this is the most reasonable way to project future demand for this proceeding, and has consistently asserted that estimating demand in this manner is consistent with California law governing water utilities, such as the California Waterworks Standards. (See, e.g., Crooks Phase 2 Direct Testimony [Attachment A to Cal-Am Supply and Demand Memo.]

Cal Advocates also incorrectly omits the demand required to supply additional water for tourism bounce-back. As discussed in Ian Crooks' testimony to the CPUC, and in Cal-Am's Supplemental Supply and Demand Memo, 500 AFY is the most appropriate demand estimate for the tourism bounce-back. This demand estimate is appropriate because evidence from the tourism industry in the Monterey region suggests that it is still depressed due to a variety of factors, including, but not limited to, the Great Recession, the inability to renovate or build new hotels, shops, and restaurants due to the CDO, and the COVID-19 pandemic. (Crooks Phase 2 Rebuttal Testimony, p. 27 [Exhibit A to Cal-Am Supplemental Supply and Demand Memo.]) Based on these factors, it is reasonable and appropriate to assume that tourism growth will continue in the region, and as that growth occurs water demand for the tourism industry will also grow.

Cal-Am's assumptions regarding tourism bounce-back demand are confirmed by tourism industry representatives. For example, in a September 14, 2022, letter to the CPUC, the Monterey County Hospitality Association ("MCHA") explained that even though the tourism industry briefly returned to near normal occupancy rates prior to the COVID-19 pandemic, as of July 2022, the occupancy rate for the Monterey region was just 69.7 percent, compared to 74 percent in 2019. (September 14, 2022 MCHA Letter to the CPUC, p. 3 [Attachment E to Exhibit A of Cal-Am Supplemental Supply and Demand Memo.]) MCHA also explained that many existing hotels and tourism properties in the region plan to remodel, and such remodeling will result in increased water usage due to higher capacities and occupancies. (*Ibid.*) Lastly, MCHA pointed out that the Monterey tourism sector is still facing challenges due to a slow return to travel in the aftermath of COVID-19, and that business, meeting, group and convention visitors

are at about 60 percent of what they were in 2019. (*Ibid.*) Based on these considerations, Cal-Am urges the Commission to consider that there will be further growth in the tourism industry, and that 500 AFY is the most reasonable demand projection for the tourism bounce-back.

Further, Cal Advocates' demand analysis did not include the single-family residential and multi-family residential components of the legal lots of record demand in its demand projections, which leads to a projected total legal lots of record demand that is too low. In Cal Advocates' testimony to the CPUC, they argue that Cal-Am should not include the single-family residential and multi-family residential legal lots of record demands because those demands are already accounted for within the demand for RHNA. (CPUC Application 21-11-024, Public Advocates Office Report and Recommendations Phase 2, p. 14.) However, as Cal-Am explained in its testimony, and in its Supplemental Supply and Demand Memo, all components of the legal lots of record demand, including the single-family residential and multi-family residential components, should be counted separately, within legal lots of record, because it is unclear how many RHNA housing units will be built on legal lots of record, if any. (Cal-Am Supplemental Supply and Demand Memo, pp. 5-7; Crooks Phase 2 Rebuttal Testimony, pp. 10-13 [Exhibit A to Cal-Am Supplemental Supply and Demand Memo.]) Because it is possible that the RHNA demand is completely separate from all the legal lots of record demand, Cal-Am must plan to provide the full 1,180 AFY of water to supply the future development of the legal lots of record. (Cal-Am Supplemental Supply and Demand Memo, pp. 5-7; Crooks Phase 2 Rebuttal Testimony, pp. 10-13 [Exhibit A to Cal-Am Supplemental Supply and Demand Memo.])

Once a new permanent water supply source sufficient to meet long-term demand becomes available and the moratorium on new service connections is lifted, the backlog of development projects on the vacant legal lots of record within Cal-Am's service area will start to be approved and Cal-Am will be required to provide water to those development projects. (Cal-Am Supplemental Supply and Demand Memo, pp. 6-7.) Such development includes new construction of single-family and multi-family housing developments. Because these legal lots of record represent a source of water demand that is not currently being serviced by Cal-Am, the demand for these legal lots of record must be factored into the total future water demand for the Monterey Peninsula. (Crooks Phase 2 Direct Testimony, p. 17 [Exhibit A to Cal-Am Supplemental Supply and Demand Memo.]) As noted in CPUC's Decision 18-09-017, MPWMD testified, and Cal-Am agrees, that the failure to provide water to these legal lots of record would infringe on property rights and would perpetuate a state of "water poverty" in our communities. (*Ibid.* [citing CPUC D.18-09-017, pp. 62-63].) Accordingly, planning for sufficient water for these legal lots of record is essential. To do so, demand estimates must not omit the single-family and multi-family residential components of the legal lots of record demand, as Cal Advocates has done.

The Staff Report also discusses Cal Advocates' estimates of Cal-Am's available water supply for the Monterey Peninsula between 2025 and 2050. (Staff Report, p. 146.) Cal-Am largely agrees with Cal Advocates' analysis with the exception of two supplies—ASR and "Table 13" water.

First, with respect to ASR, that system is a joint program between Cal-Am and MPWMD that allows excess Carmel River flows that meet specified thresholds through December and

May to be diverted and injected in the Seaside Basin for future use. In other words, the amount of water ASR can provide is dependent on how much excess Carmel River flows are available. Because this source is highly variable, Cal-Am retained expert water supply consultants Paul Findley and Sarp Sekeroglu (“Findley and Sekeroglu”) to analyze the reliability of this source as part of Cal-Am’s water supply portfolio. (Paul Findley and Sarp Sekeroglu, “ASR Availability and Reliability Analysis Technical Memorandum” (July 15, 2022) [Attachment K to Attachment A of Cal-Am Supply and Demand Memo.]) Findley and Sekeroglu examined Carmel River flows over the last 59 years and “simulated” how much water could have been injected for later use as part of ASR. (*Id.* at Table 3.) Across this 59-year period, Findley and Sekeroglu concluded that simulated ASR injection average 1,210 AFY. (*Ibid.*) This is the figure Cal Advocates used as a projection for future ASR injection. (CPUC Application 21-11-024, Public Advocates Office Report and Recommendations Phase 2, p. 9.) The problem with this projection is that the 59-year average does not reflect Findley and Sekeroglu’s observation that “Carmel River flows are trending downwards, and this has a significant effect on simulated ASR injection.” (Paul Findley and Sarp Sekeroglu, “ASR Availability and Reliability Analysis Technical Memorandum” (July 15, 2022), p. 7 [Attachment K to Attachment A of Cal-Am Supply and Demand Memo.]) For example, ASR diversions in 2020 and 2021, both drought years, were less than 100 AFY, and over the entire period ASR has actually been operating, diversions have averaged only 559 AFY. (*Id.* at p. 35.) Ultimately, Findley and Sekeroglu were able to calculate that the probability that a five-year ASR injection average will be less than 470 AFY is approximately 10 percent. In other words, with ninety percent reliability, Cal-Am can expect that the five-year ASR injection will exceed 470 AFY. (*Id.* at p. 11.) Accordingly, 470 AFY is an appropriate figure assumed for ASR injections for water planning purposes—not 1,210 AFY, as assumed by Cal Advocates.

Second, Table 13 water refers to Carmel River water that Cal-Am is entitled to under another SWRCB permit, which only can be used if certain flow thresholds are met between December 1 and May 31, and is capped at an annual diversion of 1,488 AF. The availability of this water varies widely, and from 2013 to 2021, Cal-Am was able to acquire anywhere from 0 to 641 AFY from this source. (Crooks Phase 2 Direct Testimony, p. 38 [Attachment A to Cal-Am Supply and Demand Memo.]) Cal Advocates projected that 189 AFY of water is available from this source by calculating the average amount of Cal-Am’s Table 13 water from 2013 to 2021. (CPUC Application 21-11-024, Public Advocates Office Report and Recommendations Phase 2, p. 8.) The problem with this approach is that using an average of Table 13 across an extended time period creates a false impression that this water source is stable and can be relied upon, when it is anything but certain. For example, in three of the last eight years there has been less than 30 AFY of Table 13 water (2014, 2015, and 2021). (Crooks Phase 2 Rebuttal Testimony, p. 34 [Exhibit A to Cal-Am Supplemental Supply and Demand Memo.]) Because Table 13 water is dependent on seasonal flows and is vulnerable to drought conditions and climate changes, there are years where this water is available only in negligible amounts because Carmel River flows must remain above specified levels to protect fisheries, wildlife, and other instream uses. The result is a source that is not dependable year-to-year. (Crooks Phase 2 Direct Testimony, p. 38 [Attachment A to Cal-Am Supply and Demand Memo.]) For this reason, Cal-Am believes it is irresponsible for future water planning purposes to include Table 13 water in Cal-Am’s water supply portfolio.

In sum, based on the analysis above and as provided by Cal-Am in its written testimony before the CPUC, we urge the Commission to not rely fully on Cal Advocates' supply and demand analysis for purposes of evaluating the Project. As such, Cal-Am suggests modifying the Staff Report as follows:

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Commission staff does not endorse or otherwise suggest that the California Public Advocates' supply and demand analysis is more accurate than other supply and demand projections presented to the CPUC.

However, eEven with the thoroughness of the California Public Advocates' analysis, any need for additional water supply beyond the Pure Water Expansion may occur earlier or later than 2040. Moreover, the CPUC will be adjudicating if and when a desalination facility is needed for the region. **Detailed supply and demand projections from all interested parties have been submitted to the CPUC in the pending proceeding. The CPUC is currently reviewing that evidence, and is the appropriate body to determine the projected need for the Project. Moreover, the CPUC must make its need determination prior to issuance of this CDP pursuant to Special Condition 1.** The CPUC is expected to reach a decision on longer term supply and demand estimates in 2023, which will help determine how much water is needed, and when, and which projects Cal-Am would be expected to rely on to provide sufficient water for its ratepayers.

d. *Conservation Alone is Not Sufficient to Address Demand*

Cal-Am understands that many conservation measures are in place on the Peninsula, including conservation measures implemented by Cal-Am. However, conservation alone is not sufficient to address Cal-Am's demand. Between 2017 and 2021, Cal-Am's existing, voluntary conservation measures resulted in an average reduction in demand of only 87.4 AFY. (Cal-Am Supply and Demand Memo, p. 16.) While conservation measures are important, considering that Cal-Am projects a 5,930 to 7,620 AFY supply deficit without the Project, even if Cal-Am's conservation efforts were quadrupled, the additional annual savings would hardly make a dent in this deficit. Additionally, it would be unfair to Cal-Am's existing customers to add new water supply sources without allowing existing customers to marginally relax extreme conservation behaviors and enjoy an adequate and reliable water supply. The Project is the only water supply project that will provide an additional reliable water supply source that will allow customers to ease some conservation behaviors and enjoy a reasonable amount of additional water use.

Considering that Cal-Am's conservation measures significantly affect Cal-Am's existing customers' water use behaviors, and because Cal-Am's conservation measures have had a minimal effect on Cal-Am's demand, Cal-Am respectfully requests that the Commission make an addition to its findings to acknowledge the fact that Cal-Am has implemented conservation measures that have resulted in minimal impacts to overall demand. And, as such, the Project is needed to allow customers to ease some conservation behaviors and enjoy a reasonable amount of additional water use:

In addition to the demand considerations discussed above, Commission staff acknowledge that many water conservation measures are in place on the Peninsula, including water conservation measures implemented by Cal-Am. However, conservation measures have not had a significant impact on lowering demand on the Peninsula. For example, between 2017 and 2021, Cal-Am’s existing, voluntary conservation measures resulted in an average reduction in demand of only 87.4 AFY. While conservation measures are important, and should remain in place even as new water supply projects come online, Cal-Am’s customers should also be able to marginally relax extreme conservation behaviors and enjoy an adequate and reliable water supply. The Project is the only water supply project that will provide an additional reliable water supply source that will allow customers to ease some conservation behaviors and beneficially use a reasonable amount of additional water use in the long-term.

3. PWM Expansion Cannot Meet 2030 Demand Without the Project

Cal-Am has proposed to construct the first phase of the Project by 2030 in order to meet anticipated near-term demand. In testimony provided to the CPUC, Cal-Am provided a summary of the water supplies available to Cal-Am in a normal water year. (Crooks Phase 2 Direct Testimony, p. 101 [Exhibit A to Cal-Am Supply and Demand Memo.]) Those projections are presented in Table 1 below. As shown in Table 1, when Cal-Am’s total supplies are reduced to account for MCWRA’s independent analysis of the PWM Expansion, Cal-Am may only reasonably assume to have 9,581 AFY of total supplies available in a normal year.

TABLE 1: TOTAL CAL-AM SUPPLIES (NORMAL YEAR)

Cal-Am Supplies (AFY)	Cal-Am Projection to CPUC	Cal-Am Projection with MCRWA Projection
Carmel River Aquifer	3,376	3,376
Seaside Groundwater Basin	774	774
Sand City Desalination	94	94
ASR	470	470
Pure Water Monterey	3,500	3,500
PWM Expansion	2,001 to 2,234	1,367
Total Supplies	10,215 to 10,448	9,581

As Cal-Am estimates its current system demand to be approximately 9,658 AFY, 9,581 AFY of supplies is not sufficient to meet current and projected demand levels. (Crooks Phase 2 Direct Testimony, p. 9 [Exhibit A to Cal-Am Supply and Demand Memo.]) Based on Cal-Am’s available water supplies, as modified by MCWRA’s analysis of the PWM Expansion, a significant supply deficit will happen by 2030 even under a normal water year. Cal-Am’s testimony to the CPUC projects that by 2030, demand in a normal year will reach 11,900 AFY.

(Crooks Phase 2 Direct Testimony, p. 24, Table 5 [Exhibit A to Cal-Am Supply and Demand Memo.]) Accordingly, without the Project, Cal-Am projects a supply deficit of approximately 2,319 AFY by 2030 in a normal water year.

Regardless of MCWRA's analysis of the PWM Expansion, Cal-Am's 2020 UWMP shows that in a single drought year, without desalination, the Peninsula will have a 3,800 AF supply deficit in 2030 and a 4,391 AF supply deficit in 2035. (Cal-Am Supplemental Supply and Demand Memo, p. 16.) In the second year of a drought, without desalination, the Peninsula will have a 4,914 AF supply deficit in 2030 and a 5,505 AF supply deficit in 2035. (*Ibid.*) Considering the increasing likelihood of prolonged drought conditions due to climate change, Cal-Am will require at least 4,000 AFY of supply by 2030.

The Project will produce approximately 4,700 AFY and alleviate near-term demand and any uncertainty associated with the PWM Expansion. Therefore, the Commission has adequate evidence to support its determination that the Project is needed to protect the public welfare by providing adequate regional water supplies. Based on the projected supply deficits discussed above, Cal-Am respectfully requests that the Commission revise the following language on page 145 of the Staff Report in its ultimate findings:

Page 145, First Paragraph

Determining the amount of water needed for current and future demands generally involves three main steps: 1) identify existing water use and available supplies; 2) identify the expected rates of growth; and 3) identify any additional sources of water needed to serve that growth. Commission staff has reviewed longer-term estimates presented in the Phase 2 CPUC proceeding and believes that there is a basis for demand of additional sources of water supply beyond the Pure Water Expansion at some time by 2050. The Cal Advocates analysis, in particular, which is prepared by an independent entity representing the interests of water customers, provides a detailed and comprehensive analysis that demonstrates a demand for such additional water sources by 2040 (see Exhibit 11). Other public agencies have provided analysis demonstrating that the ability of the Pure Water Expansion to be able to produce its fully designed output of 2,250 AFY may be uncertain due to source water limitations. Based on this analysis, and also considering Cal-Am's supply and demand projections from the related CPUC proceedings, there is also evidence that additional sources of water supply beyond the Pure Water Expansion could be needed as early as 2030. The two tables below from Cal Advocates compare the demand and supply estimates of Cal Advocates and those proposed by Cal-Am.

* * *

Cal-Am understands that estimating future water demand necessarily entails the use of assumptions about water demand factors that cannot be predicted with absolute certainty. (Staff Report, p. 148.) However, as Staff correctly noted, Cal-Am's phased approach alleviates this

uncertainty, creates reliability, and promotes longer-term planning by authorizing a smaller desalination facility to start, and providing for the option to permit the full-scale construction only if warranted based on conditions demonstrated in the future, including adequate demand to justify the full-scale project.

M. Coastal-Dependent Industrial Facility Override (Staff Report, pp. 149-154)

Cal-Am agrees with the Staff Report's determinations that Coastal Act section 30260 applies to the Project, has been incorporated into Marina's LCP, that the Commission may conduct a section 30260 analysis in considering the Project, and that the Project is a coastal-dependent industrial facility. (Staff Report, pp. 151-152.) Cal-Am also agrees with the Staff Report's recommendation that the Project meets the three tests of section 30260 and the parallel LCP policies. (*Id.*, pp. 151-54.) In support of the Staff Report's determination, Cal-Am suggests the below additions to its override analysis.

1. Test 1 – Alternative Locations are Infeasible or More Environmentally Damaging and Development is Limited to Already-Disturbed Areas

The Staff Report appropriately concludes that PWM Expansion is likely not adequate to meet supply needs in the longer term. (Staff Report, p. 152.) In addition to this analysis, Cal-Am recommends that the Staff Report also address the alternatives analysis conducted in Final EIR/EIS that demonstrates why the location of the slant wells on CEMEX is the least environmentally damaging location. To that end, Cal-Am proposes the following insert to the Test 1 section. (*Id.*, pp. 152-153.)

Page 152, Beginning with First Full Paragraph of Test 1

The first test of Coastal Act Section 30260 allows the Commission to approve a project that is otherwise inconsistent with Coastal Act policies, or in this case, if it is additionally inconsistent with LCP policies, if it finds that "alternative locations are infeasible or more environmentally damaging." As noted above, the Commission is also considering this question in the context of Coastal Act Section 30233's provision allowing fill in coastal waters only "where there is no feasible less environmentally damaging alternative."

As part of the proposed Project's CEQA review, the FEIR/FEIS evaluated alternative locations to the proposed Project.¹⁴ For instance, the FEIR/FEIS analyzed two alternative locations for the slant wells, which involved the construction of intake systems at a site on Potrero Road and a site at Moss Landing. The FEIR/FEIS concluded that siting intake systems at either Potrero Road or the Moss Landing site would not "offer an overall environmental advantage over the proposed project," and would increase impacts compared to the CEMEX site. As such, the FEIR/FEIS identified the proposed Project, with slant wells located at the CEMEX site, as the

¹⁴ See FEIR/FEIS, §§ 5.4 to 5.6.

environmentally superior alternative. The FEIR/FEIS concluded that the Project's proposed location offers environmental advantages to alternative sites, such as use of an existing outfall, no construction on the seafloor, avoiding impingement and entrainment of an open water intake, and less than significant impacts to groundwater resources, surface water resources and marine biological resources. These findings and conclusions were incorporated into the CPUC's final decision regarding the proposed Project.

2. Test 2 – To not permit the development would adversely affect public welfare

In its discussion of Test 2, the Staff Report acknowledges Cal-Am's need to obtain a new water supply and the importance of long-term planning in light of the water supply crisis. The Staff Report also notes that the Project includes several components meant to address public welfare concerns. In addition to these reasons, Cal-Am believes it is important to highlight the moratorium under the State Water Resources Control Board's Cease and Desist Order ("CDO"), the CPUC's determination that the Project would support economic growth, and the other benefits that would be provided by the Project to the Salinas Valley Groundwater Basin ("SVGB") and the Peninsula as a whole. Cal-Am therefore proposes the following additions to this section in the Staff Report. (Staff Report, pp. 153-154.)

Page 153, Beginning with Second Full Paragraph Under Test 2

The Commission acknowledges the need for Cal-Am to obtain a new water supply and the importance of long-term planning in light of the decades-long water supply crisis affecting the Monterey Peninsula region. As noted above, Cal-Am and other entities in the area have been seeking a water supply since about 1995 to replace that obtained from the Carmel River in response to the requirements of a cease-and-desist order from the State Water Board to reduce its water withdrawals from the Carmel River by December 2021 so as to eliminate Cal-Am's water extractions above its legal rights to that water and to benefit the Carmel River watershed, particularly the federally-listed Central Coast steelhead. Without a reliable water supply, part of the Region has been under a moratorium on new water connections since 2010, making it difficult to plan adequately for housing and other community needs. The Pure Water and Pure Water Expansion projects will help to address water supply demand in the short term, but additional supplies will be needed to address the long-term demand.

Importantly, the cease-and desist order imposes a moratorium on new service connections and certain increases in use until Cal-Am has obtained permanent reliable water supplies. Cal-Am has proposed a facility sized to meet expected long-term water supply and demand projections for its service area. Without the proposed Project, a deficit between available water supplies and total demand will result and worsen over time, particularly during drought periods. The CPUC's FEIR/FEIS explained that

a prolonged deficit could lead to prohibitions on all or specified non-essential water uses.¹⁵ The FEIR/FEIS also indicated that failure to approve the proposed Project could lead to severe rationing and restrictions on water usage, including restrictions on watering and irrigating and requirements for specific reductions in residential water use.¹⁶

The moratorium and water supply deficit prevent the development of essential affordable housing in the region and the attainment of State housing goals. The proposed Project could provide sufficient water for the State Water Board to lift the moratorium, giving jurisdictions on the Monterey Peninsula to the opportunity to meet their housing goals, including those dictated by the Regional Needs Housing Assessment (“RHNA”) for the Monterey Bay Area. Section 30604(g) of the Coastal Act states that “it is important for the commission to encourage the . . . provision of new affordable housing opportunities for persons of low and moderate income in the coastal zone.” Thus, approving the Project would could allow barriers to affordable housing development to be lifted, which would be consistent with this provision in the Coastal Act.

The Project also could supply water that would help maintain protective water levels in the Seaside Groundwater Basin, another important water supply source to the Peninsula. The Seaside Basin is the source for Cal-Am’s native Seaside Basin groundwater supplies, and provides groundwater storage for ASR and the Pure Water Project. Cal-Am is currently obligated to replenish approximately 700 AFY of water to the Seaside Basin over a 25-year period. The Seaside Basin Watermaster also has identified to the Commission that under the “best case” scenario an additional 1,000 AFY of water would need to be injected into the Seaside Basin every year to replenish it and raise groundwater levels high enough to prevent seawater intrusion and irreversible loss of basin storage. According to the Watermaster, under a “conservative” scenario the amount needed would be 3,600 AFY.¹⁷ If Seaside Basin storage is lost or reduced as a result of seawater intrusion, other existing water supplies – including ASR and Pure Water – would be in jeopardy.

Cal-Am’s proposed Project also includes several components meant in part to address public welfare concerns. First, Cal-Am selected a site where it could obtain its source water using subsurface intakes, which is the state’s preferred method for seawater desalination facilities, due to their limited or non-existent adverse effects on marine life. It also selected a site that, at the time, was already being used by a coastal-dependent industrial facility – the CEMEX sand

¹⁵ FEIR/FEIS, pp. 5.4-10 to 5.4-11.

¹⁶ FEIR/FEIS, pp. 5.4-10 to 5.4-11.

¹⁷ Seaside Basin Watermaster October 14, 2022, Letter to the Commission, p. 2.

mining operation – rather than a completely undeveloped coastal location where it may have caused additional adverse effects. Although CEMEX has recently ceased operations and the site will be largely set aside for habitat restoration, public access, and coastal educational opportunities (subject to Cal-Am’s existing easement rights on a portion of that property), the Project, as conditioned, will be constructed and operated in a manner that minimizes impacts to surrounding coastal resources and uses. Additionally, Cal-Am proposed to implement the Project in two phases, in part, to address concerns raised by the public about potential impacts to groundwater and wetland resources. Monitoring during the first phase will demonstrate whether the Project is resulting in adverse effects to local groundwater supplies and nearby wetlands and will inform the decision about whether and how to proceed with the full-scale facility. This approach is more protective of coastal resources and the public welfare than the originally proposed full scale facility. Finally, as described in Section IV.I – Environmental Justice, Cal-Am has proposed a series of measures designed to benefit the underserved communities that would be disproportionately burdened by the Project, including programs designed to minimize additional costs to low-income ratepayers and a package of benefits for the residents of Marina. These benefits include increased groundwater monitoring, property tax revenues, funding for improved public access, public facilities and recreational opportunities and restoration for the City. ~~Although t~~These benefits were largely rejected by the City and thus, environmental justice issues remain unresolved. Special Conditions 16 and 17 provide additional measures to address environmental justice concerns.

The Commission concludes that the desalination Project is necessary to meet longer term supply and demand needs, both to secure a reliable source of water and to help the region undertake long-term planning that is dependent on water supply needs. Thus, a denial of the Project would adversely affect the public welfare. Further, Cal-Am has incorporated several project elements designed to minimize impacts to the public. The Commission also recognizes that despite the benefits of the Project to the region, certain communities face disproportionate burdens from the Project. Cal-Am’s proposed measures to offset costs to low-income ratepayers and community benefits for the City of Marina provide some measures to address impacts, ~~but environmental justice issues related to the Project are not fully resolved.~~ With Special Conditions 16 and 17, the Project’s environmental justice issues are sufficiently resolved such that, on balance, a denial of the Project would adversely affect the public welfare.

3. Test 3 – Adverse environmental effects are mitigated to the maximum extent feasible

In reaching its determination that the Project meets the third test of Section 30260, the Staff Report correctly notes that the array of Special Conditions imposed by the Commission will ensure that adverse environmental effects are mitigated to the maximum extent feasible. (Staff

Report, p. 154.) However, it also may be helpful for the Staff Report to explain in more detail the mitigation measures from the Final EIR/EIS that the CPUC has already imposed on the Project, which ensure the Project's impacts are mitigated to the maximum extent feasible. Cal-Am therefore proposes the revision and addition below.

Page 154, Paragraph Under Test 3

The third test of Section 30260 and of the LCLUP's Habitat Protection Policy 1 require that the Project's adverse environmental effects be **fully** mitigated to the maximum extent feasible. As noted in the Findings above, the Commission is imposing an array of Special Conditions requiring that Cal-Am implement substantial mitigation measures to address a range of expected or potential impacts to coastal resources to the extent feasible – from extensive requirements for habitat restoration to address the Project's impacts to sensitive resources to comprehensive design changes and monitoring to ensure groundwater sources are protected. In addition, the CPUC has imposed a robust MMRP as part of its process in certifying the FEIR/FEIS, which includes a number of mitigation measures designed to avoid or reduce potential environmental impacts. The CPUC's MMRP, combined with the Special Conditions and Cal-Am's proposed ratepayer programs, will ensure that any adverse environmental effects to coastal resources are mitigated to the maximum extent feasible. With the above-referenced Special Conditions, the Commission therefore finds that Cal-Am's Project meets the third test of Section 30260.

N. Appendix A – Substantive File List

In addition to the items listed in the Staff Report's Substantive File List, Cal-Am respectfully requests that Appendix A be augmented to include the following documents:

Pages 156-157

Coastal Development Permit Application No. 9-20-0603 and all related submittals.

AECOM, Updated Coastal Erosion Hazard Analysis for CalAm Monterey Peninsula Water Supply Project, October 2, 2019.

AECOM, Habitat Mitigation and Monitoring Plan Monterey Peninsula Water Supply Project Part One – Coastal Zone, June 2020.

AECOM, Response to CCC Comments on MPWSP Slant Well Drilling Spoils Spreading, June 19, 2020.

AECOM, Response to Coastal Commission Comments on Inland Dune Migration, Profile Shifts, and Wind-Blown Sand as a Coastal Hazard at Cal-

Am's Proposed Wellhead Sites in the City of Marina's Coastal Zone, June 23, 2020.

AECOM, Supplement: Updated Coastal Erosion Hazard Analysis for CalAm Monterey Water Supply Project, August 11, 2020.

AECOM, Monterey Peninsula Water Supply Project; CEMEX North Dunes – Agricultural Runoff Drainage System Observations and Options, August 19, 2020.

AECOM, Habitat Mitigation and Monitoring Plan Monterey Peninsula Water Supply Project Part One – Coastal Zone, November 2020.

AECOM, Armstrong Ranch Ponds Vegetation Rooting Depth Study Technical Memorandum, March 31, 2022

AECOM, Armstrong Ranch Pond Investigation – Technical Summary Memorandum, July 28, 2022

AECOM, Updated Environmentally Sensitive Habitat Area (ESHA) Impacts and Mitigation Approach – Monterey Peninsula Water Supply Project – CDP Application No. 9-20-0603, September 20, 2022.

Alta Planning + Design, Public Access Plan Monterey Peninsula Water Supply Project, November 2021.

Balance Hydrologics, Inc., Balance's Efforts to Conduct Vernal Pond Monitoring in the City of Marina, November 10, 2022

California American Water, *Coastal Development Permit Application for Monterey Peninsula Water Supply Project, July 31, 2019*, with attachments and responses to Commission staff requests for additional information.

California American Water, *Monterey Peninsula Water Supply Project Hydrogeologic Working Group – Hydrogeologic Investigation Technical Report*, November 6, 2017.

California American Water, *Monterey Peninsula Water Supply Project Hydrogeologic Investigation Technical Memorandum, Summary of Results – Exploratory Boreholes*, July 8, 2014.

California American Water, *Reply Comments Regarding Hydrogeologic Study and Technical Report*, CPUC Application 12-04-019, January 4, 2018.

California American Water, *Application for California Public Utilities Commission Rate Case A1907004*, July 1, 2019.

California American Water Letter to Monterey Peninsula Water Management District, *California-American Water Company's Response to Monterey Peninsula Water Management District's September 2019 Supply and Demand Analysis*, October 15, 2019.

California American Water, *Comments Regarding Pure Water Monterey Expansion Draft Supplemental Environmental Impact Report*, January 20, 2020.

California American Water, *Responses to October 28, 2019 Staff Report for the Monterey Peninsula Water Supply Project, Coastal Development Permit Application No. 9-19-0918, and Appeal No. A-3-MRA-19-0034*, June 30, 2020 (including Exhibits).

California American Water, *4th Quarterly Report to State Water Resources Control Board for the 2018-2019 Water Year Addressing Operations for the Period of July 1, 2019 to September 30, 2019*, July 29, 2020.

California American Water Letter to Commission, *Monterey Peninsula Water Supply Project, CDP Application No. 9-19-0918 and Appeal No. A-3-MRA-19-0034 – Supplemental Technical Reports*, August 13, 2020.

California American Water, *Water Balance Assessment*, September 20, 2022.

California American Water, *Updated Water Balance Assessment*, October 6, 2022.

California American Water, *Monterey Peninsula Water Supply Project CDP Application No. 9-20-0603; Habitat Mitigation and Monitoring Plan Updates*, October 10, 2022.

California American Water, *Monterey Peninsula Water Supply Project, CDP Application No. 9-20-0603; Habitat Mitigation and Monitoring Plan Project Footprint Updates*, October 24, 2022.

California American Water Letter to Commission, *November 17, 2022, Agenda Items Th7a & 8a: Tribal Monitor Incident in Staff Report for Monterey Peninsula Water Supply Project*, November 7, 2022.

California American Water, Summary of Monterey Peninsula Water Supply Project Community Outreach Conducted as of November 3, 2022, November 11, 2022.

California American Water, Summary of Advertisement Methods and Notice for Community Workshops, November 11, 2022.

California Department of Water Resources, California's Most Significant Droughts: Comparing Historical and Recent Conditions, January 2020.

California Public Utilities Commission No. A-12-04-019, Decision Approving a Modified Monterey Peninsula Water Supply Project, Adopting Settlement Agreements, Issuing Certificate of Public Convenience and Necessity and Certifying Combined Environmental Report, Decision, September 13, 2018, as modified and affirmed (February 5, 2019).

California Public Utilities Commission No. A-21-11-024, Application of Cal-Am To Obtain Approval of Amended and Restated Water Purchase Agreement for Pure Water Monterey Groundwater Replenishment Project, Update Supply and Demand Estimates for MPWSP, and Cost Recovery, filed November 29, 2021.

California Public Utilities Commission, *Final Decision 18-09-017 with appendices*, September 13, 2018.

California Public Utilities Commission, Monterey Bay National Marine Sanctuary, *Final Environmental Impact Report / Final Environmental Impact Statement*, March 2018.

City of Marina, file for California American Water coastal development permit application 2018- 01.

Coalition of Peninsula Businesses Letter to Monterey Peninsula water Management District, September 24, 2019.

California Coastal Commission, Consent Settlement Agreement and Cease and Desist Order CCC-17-CD-02, July 13, 2017.

Central Coast Community Energy, Letter to California American Water Company, November 2022.

County of Monterey, *Integrated Coastal Groundwater Monitoring Program and Plan*, May 2019.

Geoscience and AECOM, Understanding the Influence of Subsurface Aquifer Drawdown Upon Surface Waters and Wetlands for the Proposed

Monterey Peninsula Water Supply Project Technical Memorandum, August 18, 2020.

Geoscience Support Services, Inc, Preliminary Summary of the Results of Evaluation of Hydrogeologic Conditions – Armstrong Ranch Ponds within the Caltrans Right-of-Way, 2020

Geoscience Support Services, Inc, Evaluation of Hydrogeologic Conditions – Armstrong Ranch Ponds within the Caltrans Right-of-Way, Near the City of Marina, California, May 12, 2021

Geoscience Support Services, Inc, Results of Test Well Pumping in the Dune Sand Aquifer Armstrong Ranch ponds within the Caltrans Right-Of-Way, Near the City of Marina, California, July 7, 2022

Hazen & Sawyer, Peer Review of Supply and Demand for Water on the Monterey Peninsula, January 22, 2020.

Hazen & Sawyer, Peer Review of Supply and Demand for Water on the Monterey Peninsula, August 11, 2020.

Hazen & Sawyer, Peer Review of August 20, 2020 Letter from M1W to CCC, August 23, 2020.

Hazen & Sawyer, Peer Review of CCC Staff Report, Lon House Report and MCWD Media Statement, September 11, 2020.

Hydrogeologic Working Group, Comments on Technical Appendices/Attachments to Letters Submitted by MCWD and City of Marina, August 15, 2018.

Hydrogeologic Working Group, Comments on Technical Presentations and Letters/Memorandum Prepared by HGC, EKI, and MCWD, January 25, 2019.

Hydrogeologic Working Group, Responses to Dr. Knight Letter Addressed to HWG, March 6, 2019.

Hydrogeologic Working Group, Comments on Remy Moose Manley Letter Attachments Prepared by HGC, EKI, and AGF, April 12, 2019.

Hydrogeologic Working Group, Comments on AGF Final Report on the 2019 AEM Survey, June 26, 2020.

Hydrogeologic Working Group, North Marina Groundwater Model Technical Memorandum, August 23, 2022.

Knight, R. et. al, *Preliminary Findings of AEM Study*, June 16, 2017.

Knight, R., et al., Interpretation of Hydrostratigraphy and Water Quality from AEM Data Collected in the Northern Salinas Valley, CA, Geo Frameworks (March 2018).

Knight R., et al., Gottschalk et al., Using an Airborne Electromagnetic Method to Map Saltwater Intrusion in the Northern Salinas Valley, CA, 85 GEOPHYSICS B119-131 (July 2020).

Marina Coast Water District and City of Marina, technical appendices/ attachments to submittals to CPUC pursuant to California American Water application A-12-04-019 to California Public Utilities Commission, April 19, 2018.

[Monterey County Water Resources Agency Letter to the California Public Utilities Commission, September 27, 2022.](#)

[Monterey One Water, Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, November 2019.](#)

Monterey One Water, Final Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, April 2020.

[Monterey One Water Recycled Water Committee, *Pure Water Monterey: Injection Facilities Status Presentation*, June 18, 2020.](#)

[Monterey One Water, Recording of Board of Directors Meeting, August 31, 2020.](#)

[Monterey Peninsula Water Management District, Board of Directors Final Meeting Minutes, July 31, 2020.](#)

[Pebble Beach Company Letter to Commission, *Appeal No. A-3-MRA-19-0034; Approve Cal-Am Desal Project Permit*, September 10, 2020.](#)

[Pebble Beach Company, *Final Environmental Impact Report, Appendix H – Water Supply and Demand Information for Analysis*, April 2012.](#)

[Seaside Basin Watermaster Letter to Commission, October 4, 2019.](#)

[Seaside Basin Watermaster Letter to Commission, October 14, 2022.](#)

State Mining and Geology Board, Resolution #92-12, Resolution Approving Reclamation Plan for RMC Lonestar's Lapis Sand Plant, June 15, 1992.

State Water Resources Control Board, Order WR 2009-0060.

State Water Resources Control Board, Order WR 2016-0016.

United States Geological Survey, 2012-2015 California Drought: Historical Perspective.

Weiss, Independent Hydrogeological Review of Recent Data and Studies Related to California American Water's Proposed Monterey Regional Water Supply Project, November 1, 2019

Weiss, Independent Evaluation, Modification, and Use of the North Marina Groundwater Model to Estimate Potential Aquifer Impacts, July 10, 2020

To: CalAmMonterey@coastal.ca.gov
From: Citizens for Just Water
Date: November 11, 2022
Subject: Deny CalAm Desalination Project Permit



Dear Chair Brownsey, CA Coastal Commissioners, Executive Director John Ainsworth, Tom Luster, and Noaki Schwartz:

Citizens for Just Water (Just Water) has been involved in the CalAm project since 2016 when a small group of Marina citizens applied to the CPUC to become a party to the proceeding. Without legal counsel or funds of any kind or expertise in the proceedings of the CPUC, we were able to successfully be granted party status, despite CalAm submitting a protest against us that included 8 signers; fortunately an administrative law judge ruled in our favor. That was our humble beginning.

Since that time, Just Water has been the strong voice of the citizens of Marina before the CPUC and before the CCC. We have been responsible for public education, holding 10 free forums at the Marina Public library (the most recent was held on Oct. 27, 2022). There has been a complete absence of any CalAm outreach to our community in the last ten years, except in these last two months. Just Water has continually updated our citizenry, rallied speakers time and time again, including the diverse members of our city over this long struggle with CalAm.

We wish to highlight some key areas regarding the CalAm project:

- a) The recent CalAm Community Meetings
- b) Condition 1: Water Rights
- c) The impact of Conditions upon Marina
- d) The issue of a feasible "drought proof" alternative to CalAm's Desal project

a) The recent CalAm Community Meetings

Although completely avoiding the city of Marina for outreach and education during the long planning stages of the desal project, CalAm has recently been told that community outreach is necessary for a CDP. Suddenly, in the last two months, they have staged several community meetings that have not been in Marina proper except the last two. The venues had short notices, incorrect times, difficult locations without signage, no parking permits planned in advance. All but one has been poorly attended with the exception of Just Water and Public Water Now members and reps from MCWD and MPWMD who showed up to assess the venues.



The one packed venue at CSUMB in Seaside, resulted in 100 attendees who were protesting the desal project, though CalAm posted photos of this meeting on their website to infer their successful community outreach (see below). It was anything but this! We protested the venue outside, filled the room, asked pointed questions that were not answered. Marina, as the community to be most harmed, was ignored by the corporation who would compromise Marina's water, beaches, and wildlife. Why did CalAm choose to ignore us? The answer to this points to the basic wrongness of this project by their choosing to keep us in the dark. A thief does not include dialogue with, nor educates the victim of its plans.

The truth behind CalAm's propaganda photos...

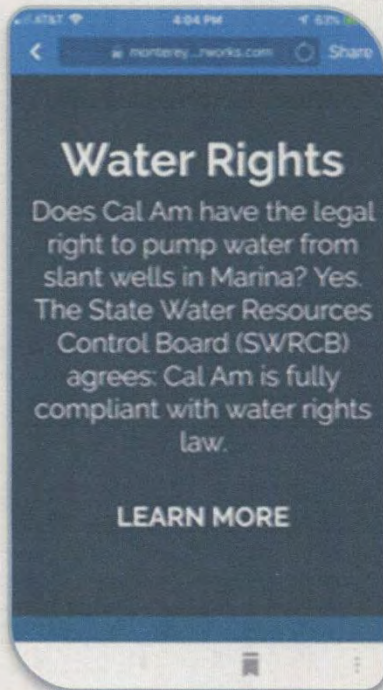


On their website, CalAm is displaying photos of the Community Forum at CSUMB (in Seaside) on 08/09/2022. This was their only community meeting with more than a few attendees. Almost all attendees at CSUMB were supporters of Citizens for Just Water and Public Water Now.

They were there to OPPOSE CalAm's desal project!

b) Condition 1: Water Rights

Marina citizens have long questioned the lack of any documentation of water rights of CalAm in our jurisdiction. CalAm advertised their false stance of having water rights in this typical PR piece communicating this position:



What State Water Board actually said:

"In order for CalAm to possess appropriative rights to the brackish water under a "developed water" legal basis, whereby the project essentially creates a new water source, CalAm would need to be able to demonstrate that its extraction and beneficial use of the water source would not injure or harm other legal users of water. There is no permit for appropriative groundwater rights; the project would have to be implemented by CalAm in a manner that meets the requirements for an appropriative groundwater right, including establishing that the project water source is surplus to the needs of groundwater users in the Salinas Valley Groundwater Basin and that operating the project will not injure other lawful users of water."

Remember that the Department of Water Resources (DWR) identified our 180/400 foot aquifers as one of CA's 21 critically overdrafted basins. There is no "surplus" water in our region

It would seem to us that Condition 1 of Water Rights must be resolved definitively before any other conditions are considered. All other conditions are legitimate or viable **only if** Condition 1 is met. To put any parameters on any of the other conditions, gives them substantiation which is premature and inappropriate until basic water rights is demonstrated.

Critically Overdrafted Basins (1/2016)

Basin Number	Basin/Subbasin Name
3-02	Pajaro Valley
3-13	Cuyama Valley
4-4.02	Oxnard
4-06	Pleasant Valley
5-22.01	Eastern San Joaquin
5-22.05	Chowchilla
5-22.06	Madera
5-22.08	Kings
5-22.11	Kaweah
5-22.12	Tulare Lake
5-22.13	Tule
5-22.14	Kern County
3-01	Soquel Valley
3-08	Los Osos
3-4.01	180/400-Foot Aquifer
3-4.06	Paso Robles
5-22.04	Merced
5-22.07	Delta-Mendota
5-22.09	Westside
7-24	Borrego Valley
6-54	Indian Wells Valley
Total number of Basins/subbasins – 21	

c) The impact of Conditions upon Marina

This CalAm project has taken at least ten years to come to this point where 24,000 ratepayers on the Peninsula and virtually every resident of 23,000 in Marina are against this project for a whole host of serious concerns. Having 20 conditions on an approval should be yet another sign that this project is deeply flawed and should not be approved. The issue of Environmental Justice has been stated as "unresolved" in the current staff report yet several times it has been noted that "The Project raises the most significant environmental justice issues the Commission has had to address since the 2019 adoption of the Commission's environmental justice policy." At every turn, prior to now, the Coastal Commission has vetted this issue to support this conclusion. We fear that the most classic case of EJ, will still be approved, leaving us to question what power and authority does any EJ policy have? That an outside for-profit corporation without any current groundwater rights can intrude upon a disadvantaged, neighboring community of color to help themselves to the water in a well-functioning public agency's established district, ruin their beaches and permanently impact ESHA... if this scenario is deemed acceptable, then truly there is no such thing as EJ.

d) The issue of a feasible "drought proof" alternative to CalAm's Desal project

It was rather shocking to read the turnabout conclusion of the recent staff report from 2020 to today. In 2020, staff concluded that "There is a feasible, less environmentally damaging alternative to proposed Project that could be located in a different location."

Now in the staff report of 2022, the Pure Water Monterey Expansion has been deemed insufficient to meet long term needs within the next twenty years. Really? M1W and MPRWD completely disagree based on careful studies of production capabilities and accurate supply and demand numbers showing that Expansion Project IS viable and sufficient for at least 25 years. The documents by public agencies who serve their constituents without financial profit incentives must be given credence and credibility.

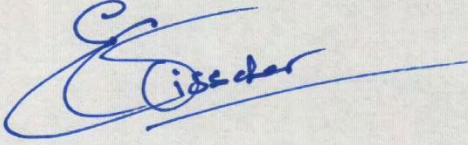
We wish to note that in its promotion of their desal project, CalAm has used the fear of drought to say that only its project is "drought proof". Please read the well-done reports of both M1W and MPWMD to see that recycled water Pure Water Monterey project is sustainable and is also "drought proof" and meets the water needs of the Peninsula for decades to come! Even in the worst drought years, PWM has managed to inject water into the Seaside Basin such that extraction for consumer use still leaves plenty of water in reserve. The PWM project is predicted to accumulate thousands of acre feet of stored water in the Seaside Basin over time... certainly over the 25 year's lifetime operation of the CalAm desal project!

Furthermore, according to MCWD, there is the ability to produce other sources of water for the region, including more appropriately placed desal, expansion of recycled water beyond the current PWM Expansion project, capturing river run-off, brackish water inland desalination, etc. We should not think of ourselves as being beholden to CalAm's harmful and unaffordable desalinated water. This desalinated water will bring enormous profits to CalAm but the region has the ability to think beyond only their project. Any regional project would never exclude a major stakeholder from the benefits of the new water source (Marina gets no treated water from CalAm unless we purchase the water!), nor would a regional project lay all the harms and risks on one stakeholder without their approval (CalAm has disregarded the needs of Marina completely and we have been only a recent afterthought because of our opposition).

Just Water thanks you for reading our document and hope that we will be celebrating with you on November 17 that environmental justice still means something here and across our state.

On behalf of all the residents of Marina, thank you again!

Sincerely,

A handwritten signature in blue ink, appearing to read "Liesbeth Visscher", with a large, stylized initial "L" and a long horizontal flourish extending to the right.

Liesbeth Visscher
Chair, Citizens for Just Water
Marina, CA

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

September 30, 2022

Agenda ID #21009
Ratesetting

TO PARTIES OF RECORD IN APPLICATION 21-11-024:

This is the proposed decision of Administrative Law Judge Zita Kline. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's November 3, 2022 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties to the proceeding may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, *ex parte* communications are prohibited pursuant to Rule 8.2(c)(4).

/s/ ANNE E. SIMON
Anne E. Simon
Chief Administrative Law Judge

AES:sgu

Attachment

ALJ/ZK1/sgu
1)

PROPOSED DECISION Agenda ID #21009 (Rev.

Ratesetting
11/3/2022 Item #22

Decision **PROPOSED DECISION OF ALJ KLINE** (Mailed 9/30/2022)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of California-American
Water Company (U210W) to Obtain
Approval of the Amended and
Restated Water Purchase Agreement
for the Pure Water Monterey
Groundwater Replenishment Project,
Update Supply and Demand Estimates
for the Monterey Peninsula Water
Supply Project, and Cost Recovery.

Application 21-11-024

**DECISION AUTHORIZING CALIFORNIA-AMERICAN WATER COMPANY TO
ENTER INTO THE PURE WATER MONTEREY GROUNDWATER
REPLENISHMENT EXPANSION PROJECT, AND AUTHORIZING THE
CONSTRUCTION OF ~~THREE~~FOUR COMPANY-RELATED FACILITIES AND
ASSOCIATED RATEMAKING TREATMENT**

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DECISION AUTHORIZING CALIFORNIA-AMERICAN WATER COMPANY TO ENTER INTO THE AMENDED AND RESTATED WATER PURCHASE AGREEMENT FOR THE PURE WATER MONTEREY GROUNDWATER REPLENISHMENT EXPANSION PROJECT, AND AUTHORIZING CONSTRUCTION OF ~~THREE~~FOUR COMPANY-RELATED FACILITIES AND ASSOCIATED RATEMAKING TREATMENT

Summary

This decision supports the proposed expansion to the Pure Water Monterey Groundwater Replenishment Project (PWM Expansion Project) as a near-term source of water for California-American Water Company's (Cal-Am's) customers on the Monterey Peninsula.

This decision authorizes Cal-Am to enter into the Amended and Restated Water Purchase Agreement with the Monterey Peninsula Water Management District and Monterey One Water for the PWM Expansion Project. Cal-Am is also authorized to construct ~~three~~four Company-related facilities up to the following cost caps: (1) \$16,723,704 for extraction wells EW-1 and EW-2, and the chemical treatment facility; (2) \$30,220,960 for extraction wells EW-3, EW-4, and associated piping; (~~23~~) \$6,475,243 for the Carmel Valley Pump Station; and (~~34~~) \$8,264,655 for the General Jim Moore Parallel Pipeline. Cal-Am is authorized to seek rate recovery for Company-related facilities costs up to the cost cap using a Tier 2 Advice Letter and is authorized to request cost recovery for costs incurred above the cost caps through its next applicable general rate case filing.

This proceeding remains open to consider updated water supply and demand estimates for the Monterey Peninsula Water Supply Project ~~and the budget for the Company-related facility consisting of extraction wells EW-1 and EW-2, and the associated chemical treatment facility (EW-1/EW-2 facility). As part of Phase 2 of this proceeding,~~ Cal-Am ~~shall~~must file a "Response to

Inquiry” providing additional information discussing the extent of mercury above maximum contamination levels in the vicinity of aquifer storage and recovery well ASR-4, the potential for mercury to impact extracted water from the EW-1/EW-2 facility, ~~and~~ any proposed remedial action necessary to address the mercury contamination, and the potential cost impacts from mercury treatment as a Tier 3 advice letter to the Commission’s Water Division within 30 days of the issuance date of this decision.

1. Factual Background

California American Water Company (Cal-Am or Company) has been looking to provide alternative sources of water to its customers on the Monterey Peninsula since 1995, when the State Water Resources Control Board (SWRCB) issued a cease and desist order requiring Cal-Am to stop the unlawful diversion of 10,730 acre-feet per year (AFY) of water from the Carmel River.¹ In 2009, the SWRCB issued a second cease and desist order with a firm December 31, 2016 deadline for compliance,² which the SWRCB subsequently extended to December 31, 2021.³

The instant application (Application (A.) 21-11-024) relates to two water supply projects contemplated by Cal-Am and approved by the Commission to address water supply issues on the Monterey Peninsula since 1996, including: (1) the Regional Desalination Project, discussed in Section 1.1; and (2) the Monterey Peninsula Water Supply Project (MPWSP), discussed in Section 1.2.

1.1. Regional Desalination Project

¹ SWRCB Order WR 95-10 (Jul. 5, 1995).

² SWRCB Order WR 2009-0060.

³ SWRCB Order WR 2016-0016.

In Decision (D.) 10-12-016, the Commission authorized the Regional Desalination Project, the key components of which included: (1) a 10 million gallons per day (mgd) desalination plant owned, operated, and maintained by the Marina Coast Water District (MCWD); (2) six source water wells owned, constructed, operated, and maintained by the Monterey ~~Regional~~County Water ~~Pollution Control~~Resources Agency ~~(now operating as Monterey One Water (M1W))~~; and (3) an outfall for the return of brine to the sea which would be owned, operated, and maintained by the Monterey Regional Water Pollution Control Authority (now operating as Monterey ~~Peninsula~~One Water ~~Management District (MPWMD~~M1W)).⁴ A groundwater replenishment project was considered but not adopted at that time.⁵

Cal-Am facilities approved as part of the Regional Desalination Project included “three large diameter conveyance pipelines (the Transfer Pipeline, the Seaside Pipeline, and the Monterey Pipeline, which also includes the Valley Greens Pump Station), two distribution storage reservoirs (the Terminal Reservoirs), and aquifer storage and recovery facilities.”⁶ Construction of these new aspects of the Regional Desalination Project facilities was anticipated to begin in the fourth quarter of 2010 and be completed by the summer of 2014.⁷

In 2012, the Commission revisited the Regional Desalination Project and determined that Cal-Am’s withdrawal from that project was justified given the

⁴ D.10-12-016 at 58; Application at 3.

⁵ The Seaside Groundwater Basin Replenishment Project proposed reverse osmosis treatment of recycled water from the M1W treatment plant at an Advanced Water Treatment Plant, for subsequent injection of treated water for groundwater recharge. (D.10-12-016 at 43.)

⁶ D.10-12-016 at 129, 205 (Ordering Paragraph (OP) 7).

⁷ *Id.* at 129.

insurmountable problems that were fatal to that project and acknowledged that “we see no alternative but to move forward with ... the Monterey Peninsula Water Supply Project” instead to ensure reasonable water supply source for the region.⁸

1.2. MPWSP

In 2012, Cal-Am filed an application⁹ seeking approval for the MPWSP to meet the water supply needs of the Monterey Peninsula customers by 2016 from three sources: (1) aquifer storage and recovery (ASR);¹⁰ (2) groundwater replenishment; and (3) a desalination plant. Cal-Am also proposed an alternative of either a 9.6 mgd desalination plant or a 6.4 mgd desalination plant paired with groundwater replenishment. The Commission ultimately approved a modified MPWSP and adopted the latter alternative (6.4 mgd desalination plant paired with a groundwater replenishment component) in D.18-09-017.

1.2.1. Groundwater Replenishment

The instant application involves the groundwater replenishment component of the MPWSP, which consists of two related projects: (1) the Pure Water Monterey Groundwater Replenishment Project (PWM Project), previously approved in D.16-09-021 and discussed in Section 1.2.1.1 and (2) 2,250 AFY expansion of the PWM Project (PWM Expansion Project), proposed in A.12-04-019 and the instant application and described in Section 1.2.1.2.

1.2.1.1. PWM Project

⁸ D.12-07-008 at 19.

⁹ A.12-04-019.

¹⁰ The Monterey ASR project involves the injection of excess Carmel River water into the Seaside Groundwater Basin for later extraction and use. Future water sources for ASR may include the PWM Project, PWM Expansion Project, and a desalination plant.

In 2016, the Commission approved the groundwater replenishment component of the MPWSP called the PWM Project.^{11,12} The PWM Project is a water supply project operated by M1W, which provides: (1) purified recycled water for recharge of a groundwater basin that serves as a drinking water supply; (2) purified recycled water for urban landscape irrigation within the MCWD service area; and (3) recycled water to augment the existing Castroville Seawater Intrusion Project's agricultural irrigation supply.¹³ It "also includes a drought reserve component to support use of the new supply for crop irrigation during dry years."¹⁴ M1W operates the wastewater treatment plant and sells the treated groundwater to [Monterey Peninsula Water Management District \(MPWMD\)](#). MPWMD, in turn, sells the treated water to municipal and public utilities, including Cal-Am.

Under the Water Purchase Agreement (Original WPA) authorized by the Commission in 2016, M1W and MPWMD were contracted to supply 3,500 AFY of treated water to Cal-Am for a term of 30 years, at a first-year price of \$1,720/acre-feet (AF).¹⁵ The PWM Project was expected to begin operation in 2018.¹⁶ It began operation on February 7, 2020, delivering 990 AF in 2020 at a cost of \$ 2,442/AF¹⁷ with expectation to deliver 3,500 AF in 2021.¹⁸ Though the water

¹¹ D.16-09-021.

¹² While this project is referred to by parties in this proceeding as the PWM Project, it is also referred to as "GWR" in prior Commission decisions. (D.16-09-021; D.18-09-017.)

¹³ Application, Appendix D at 1.

¹⁴ *Ibid.*

¹⁵ D.16-09-021.

¹⁶ *Id.* at 21.

¹⁷ Cal-Am AL 1298 at 2.

¹⁸ D.22-03-038 at 4.

deliveries during 2021 reached 300 AF/month at a cost of \$2,808,¹⁹ one of the wells used for groundwater extraction, ASR-1, became inactive in September 2021, as discussed further in Section 6.7.1.

1.2.1.2. PWM Expansion Project

In 2018, the Commission initially considered the proposal to expand the PWM Project, which was expected to provide an additional 2,250 AFY of purified recycled water for injection into the Seaside Groundwater Basin and subsequent extraction of the same quantity to Cal-Am's existing potable water supplies, but deferred approval of the project because: (1) at that time, the PWM Project was not yet a proven technology; and (2) it did not meet groundwater peak annual flow or peak day flow requirements for Cal-Am's water supply needs.²⁰

However, the Commission directed Cal-Am to study and report on the feasibility of the PWM Expansion Project and potential for entering into a related water purchase agreement by filing a Tier 2 Advice Letter within 180 days of the issuance of D.18-09-017.²¹ Also, in the event that the 6.4 mgd desalination plant was not expected to be completed by December 31, 2021, the Commission allowed Cal-Am to file an application for approval of a water purchase agreement for an expansion to the PWM Project, for up to 2,250 AFY, through an application which included the following: (1) sources of supply water; (2) development costs; (3) prices for sales of the developed water; (4) contractual details; (5) environmental effects; (6) potential to obtain necessary permits; (7) water quality; (8) sources of funding; (9) possible related facilities; and (10) other

¹⁹ Cal-Am AL 1336 at 2.

²⁰ D.18-09-017 at 211 (FOFs 18,19).

²¹ *Id.* at OP 37.

information necessary and relevant for the Commission to make an informed, just and reasonable decision, including details as to supply and production, including not only during average rainfall years but also during a multi-year drought and the timing of expanded production.²²

In 2019, Cal-Am submitted AL 1231 as ordered in D.18-09-017 and reported that “the potential PWM expansion [was] still being developed and was not yet at a point where [Cal-Am] could determine whether it should be used.”²³ Cal-Am also stated that the authorized MPWSP desalination plant was proceeding according to schedule at that time and Cal-Am believed the desalination plant was expected to come online prior to December 31, 2021.²⁴

Meanwhile, for several years, M1W worked to prepare the environmental document for the PWM Expansion Project, and on April 26, 2021, the ~~MPWMD~~M1W certified the Supplemental Environmental Impact Report (SEIR) for the PWM Expansion Project.

On May 4, 2021, MPWMD filed a complaint before the Commission against Cal-Am, Case (C.) 21-05-005, alleging Cal-Am failed to ensure an adequate water supply to its customers on the Monterey Peninsula and requesting a Commission order requiring Cal-Am to enter into a water purchase agreement for the PWM Expansion Project.²⁵ M1W, MPWMD, and

²² *Id.* at 42-43.

²³ Cal-Am AL 1231 at 2.

²⁴ *Ibid.*

²⁵ C.21-05-005.

Cal-Am eventually agreed on the terms for a water purchase agreement for the PWM Expansion Project on September 22, 2021.²⁶

By ruling, dated October 26, 2021, the assigned Administrative Law Judge (ALJ) in C.21-05-005 ordered Cal-Am to file an application for Commission consideration of the WPA within 30 days of the date of the ruling.²⁷ On November 29, 2021, Cal-Am filed the instant application for, among other things, approval of the Amended and Restated WPA for the PWM Project expansion (Amended WPA). On March 3, 2022, C.21-05-005 was dismissed as moot.²⁸

1.2.2. Desalination Plant and Remaining Cal-Am Facilities

In 2018, the Commission authorized construction of a 6.4 mgd desalination plant²⁹ and the “Remaining Cal-Am Only Facilities.”³⁰ The Commission found that the desalination plant (expected to produce 6,250 AFY in non-drought years and 7,167 AFY in drought years) would meet Cal-Am’s need for an additional 4,956 AFY of water from an alternative water source by December 31, 2021, which would in turn allow Cal-Am to comply with SWRCB Order WR 2016-0016.³¹ At the time of the Commission’s authorization, the desalination plant was expected to be completed by December 31, 2021. The Commission also

²⁶ A.21-11-024 Application at Attachment A.

²⁷ D.22-03-038 at 8.

²⁸ D.22-03-038.

²⁹ The desalination portion of the project is made up of slant wells, source water pipelines, the desalination plant, product water pipelines, brine disposal facilities, ASR Wells, and related appurtenant facilities. (D.18-09-017 at 99.)

³⁰ “Remaining Cal-Am Only Facilities” consist of the Aquifer Storage and Recovery (ASR) Pipeline, the ASR Recirculation and Backflush Pipelines, and the Valley Greens Pump Station.

³¹ D.18-09-017 at 187.

indicated an intent to require Cal-Am to submit a separate application or to issue an Order Instituting Investigation (OII) to determine the reasonableness of Cal-Am's expenditures, if the desalination plant was not constructed in a timely manner or failed to operate appropriately.³² To date, the 6.4 mgd desalination plant has not been constructed.

2. Procedural Background

On November 29, 2021, Cal-Am filed this instant application, A.21-11-024 (Application), requesting: (1) authority for Cal-Am to enter the Amended WPA, included in Appendix A, and (2) authorization to construct, and associated rate recovery, for four Company-related facilities Cal-Am considers necessary to bring water purchased under the Amended WPA to Cal-Am's customers, and (3) updated supply and demand estimates for the MPWSP (Application). The four company-related facilities requested by the Application are (a) extraction wells EW-1 and EW-2, and a water treatment facility (EW-1/EW-2 facility); (b) extraction wells EW-3 and EW-4 and associated piping (EW-3/EW-4 facility); (c) the Carmel Valley Pump Station; and (d) the General Jim Moore Parallel Pipeline.

Under the Amended WPA for the PWM Expansion Project, Cal-Am stated that the amount of water it would purchase increases by 2,250 AFY, from 3,500 AFY to 5,750, and the total peak pumping capacity would also increase from 5.0 mgd to 7.6 mgd, as shown in Appendix B of this decision.³³

Four parties filed timely protests or responses to the Application. On January 3, 2022, Public Advocates Office of the California Public Utilities Commission (Cal Advocates) filed a protest to the Application while responses

³² *Id.* at 211 (OP 35).

³³ Cal-Am Exhibit CAW-01 at 4.

were filed by City of Marina, M1W, and MCWD. Cal-Am filed a reply to the responses and protests to its Application on January 13, 2022.

Coalition of Peninsula Business (CPB), MPWMD, and Landwatch Monterey County (Landwatch) filed motions for party status on December 29, 2021, January 3, 2022, and January 14, 2022, respectively. CPB and MPWMD were granted party status by assigned ALJ ruling on January 14, 2022, and January 21, 2022, respectively.

A prehearing conference (PHC) was held on January 25, 2022, during which Public Water Now (PWN) made an oral motion for party status. Landwatch and PWN were granted party status at the PHC. The assigned Commissioner issued a scoping memo on February 9, 2022.

Cal Advocates, City of Marina, MCWD, M1W, MPWMD, and PWN served intervenor testimony on March 11, 2022. Cal-Am also served supplemental testimony on water supply and demand estimates for its Monterey Peninsula customers to support the Amended WPA on March 11, 2022.

MCWD and MPWMD served supplemental testimony on April 1, 2022. Cal-Am also served rebuttal testimony on intervenor testimony on April 1, 2022. Cal-Am served rebuttal testimony on intervenor's supplemental testimony on April 8, 2022.

The parties filed a joint case management statement on April 14, 2022, indicating an evidentiary hearing was needed. An evidentiary hearing was held on May 3, 2022, and all testimony previously served in this proceeding was marked, identified, and received into evidence. Immediately following the evidentiary hearing, the assigned ALJ issued a ruling directing the service and filing of a motion to admit two additional exhibits into evidence. Cal-Am served

and filed a motion to admit two exhibits into the evidentiary record on May 6, 2022. Cal Advocates and MCWD filed responses to Cal-Am's motion to admit the two exhibits on May 13, 2022. Cal-Am filed a reply thereto on May 18, 2022. The assigned ALJ granted Cal-Am's motion to admit two additional exhibits into the evidentiary record by ruling, dated June 7, 2022.

Cal-Am, M1W, MPWMD, City of Marina, MCWD, and Cal Advocates filed opening briefs on May 31, 2022. Landwatch also filed a joinder in the opening brief of MPWMD, indicating its joinder in Section I, II, and III.A of the opening brief of MPWMD on May 31, 2022. Cal-Am, M1W, MPWMD, City of Marina, MCWD, Cal Advocates, and PWN filed reply briefs on June 20, 2022.

On June 20, 2022, Cal-Am filed a motion to strike portions of MPWMD's opening brief. On June 23, 2022, Cal-Am filed a motion to strike portions of MPWMD's reply brief. On June 27, Cal-Am filed a motion to file a corrected opening brief.

On June 30, 2022, Cal-Am's motion to file a corrected opening brief was denied by ALJ ruling. On July 5, 2022, MPWMD filed a joint response to Cal-Am's motions to strike its opening and reply briefs. On July 18, 2022, Cal-Am's motions to strike portions of MPWMD's opening and reply briefs were granted by ruling. On July 27, 2022, MPWMD filed its corrected opening and reply briefs. The Phase 1 of the instant proceeding was submitted on July 27, 2022.

3. Jurisdiction

Cal-Am is a public utility subject to the Commission's jurisdiction as a corporation that owns, controls, operates, and manages a water system within California pursuant to Public Utilities Code (Pub. Util. Code) Section 2701. The Commission has the authority to review the Amended WPA, the Cal-Am related

facilities which are components of the PWM Expansion Project and the related rate recovery issue in this application pursuant to Pub. Util. Code § 451, to ensure that Cal-Am is “maintaining such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities . . . as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public” as well as ensure that the terms of the Amended WPA are just, reasonable and in the public interest.

4. Issues Before the Commission

The issues addressed in this Phase 1 decision are:

1. Whether Commission approvals of the Amended and Restated Water Purchase Agreement and the Company-related facilities are reasonable, prudent, and in the public interest, considering the following: (1) sources of supply water, (2) development costs, (3) prices for sales of the developed water, (4) contractual details, (5) environmental effects, (6) potential to obtain necessary permits, (7) water quality, (8) sources of funding, (9) possible related facilities (*e.g.*, additional pipelines or pump stations), and (10) any other information relevant and necessary for the Commission to make an informed, just and reasonable decision including details as to supply and production including not only during average rainfall years but also during a multi-year drought and the timing of expanded production;
2. Whether the ratemaking proposals for the Amended and Restated Water Purchase Agreement and the Company-related facilities, are reasonable; and
3. Whether Cal-Am’s water supply and demand estimates support approval of the Amended and Restated Water Purchase Agreement.

In the Phase 2 of this proceeding, we will address the outstanding issues, including the review and approval of updated water supply and demand estimates for the MPWSP.

**5. Need for Additional Water Supply
Source for Cal-Am's Customers on
the Monterey Peninsula**

In D.18-09-017, the Commission stated that an application for approval of the Amended WPA:

... will be considered only to the extent the desalination plant authorized in this decision (*i.e.*, 6.4 million gallons per day) is delayed to the point that sufficient source water capacity is more likely than not to be unavailable after the December 31, 2021, deadline set by the [SWRCB] in its amended [cease and desist order].³⁴

It is undisputed that the desalination plant was not built by December 31, 2021. Approval of the Coastal Development Permit (CDP) needed for construction of the desalination plant is still pending before the California Coastal Commission (CCC). Besides the CCC's CDP permit, permitting for the desalination plant outfall needs to be secured before the desalination plant can operate. There has been evidence presented in this proceeding that M1W has not agreed to a design for the outfall and declines to conduct the necessary environmental review for the outfall, or to apply for the necessary permits needed for the outfall until the Commission approved the Amended WPA at issue in this application.³⁵ Likewise, it seems that "the City of Marina has not

³⁴ D.18-09-017 at 44.

³⁵ MPWMD Exhibit MPWMD-01, Attach. A at 1-2 (Cal. Coastal Com. Letter, Notice of Incomplete Application Np. 9-20-0603 – Cal-Am, dated February 8, 2022).

given at least preliminary approval for liner work that appears to require a CDP from the City.”³⁶

Furthermore, Cal-Am has not obtained new land use leases needed to construct and operate the MPWSP slant wells within the jurisdiction of the State Lands Commission and has not received three federal agency authorizations required for drilling and seawater transportation related to the MPSP.³⁷ The 6.4. mgd desalination plant is also at issue in pending litigation.³⁸ Therefore, with the lengthy delay to date, ~~without evidence of any progress toward securing of the needed~~the continued need to secure of necessary permits, and ~~with all of the surrounding permitting~~active litigation challenges presenting uncertainties regarding the 6.4 mgd desalination plant, we find that there will continue to be delay in constructing the 6.4 mgd desalination plant.

There is also significant opposition to the desalination plant from community members that cannot be ignored. PWN, a non-profit with over 4,000 members who are Cal-Am customers, sponsored and helped pass ballot Measure J, to build a community-owned water system under the management of MPWMD.³⁷³⁹ PWN opposes construction of the desalination plant and advocates strongly for the PWM Expansion Project instead.³⁸⁴⁰ PWN also provided a letter from 28 Monterey County elected leaders who oppose the desalination project in

³⁶ *Id.*, Attach. A at 2.

³⁷ MPWMD Exhibit MPWMD-01 at 6; MPWMD Exhibit MPWMD-02 at 3; City of Marina Reply Brief at 6-7.

³⁸ See e.g. City of Marina v. Lonestar (Case No. 20CV001387); City of Marina Reply Brief at 9.

³⁷³⁹ PWN Exhibit PWN-01 at 3.

³⁸⁴⁰ *Id.* at 3-10.

favor of the PWM Expansion Project.³⁹⁴¹ The City of Marina, where the 6.4 mgd desalination plant is sited, also strongly opposes construction of the desalination plant due to environmental justice concerns and what they see as the relative merits of the PWM Expansion Project compared to the desalination plant.⁴⁰⁴² Therefore, lack of community support for the desalination plant also makes it likely that the desalination plant will continue to experience permitting challenges and construction delays. Given delays caused by permitting, litigation challenges, and lack of community support for the desalination plant, it is reasonable to consider the PWM Expansion Project, instead, as an alternative source of water for the Monterey Peninsula to reduce Cal-Am's need to divert water from the Carmel River.

All parties agree that the PWM Expansion Project is urgently needed to meet current system demands.⁴¹⁴³ Cal-Am provided near-term water supply and demand estimates showing that the current, average five-year production supply is inadequate to meet the five-year average customer demand without an additional source of water such as the PWM Expansion Project.⁴²⁴⁴ MCWD and MPWMD also provided testimony supporting a near-term need for water need that would be met with the PWM Expansion Project.

We have considered the matter and find that short-term supply and demand estimates for water on Cal-Am's Monterey Main System support approval of the Amended WPA and the Company-related facilities associated

³⁹⁴¹ PWN Exhibit PWN-01, Attach. 3 at 1-3.

⁴⁰⁴² City of Marina Opening Brief.

⁴¹⁴³ Cal-Am Exhibit CAW-03 at 2.

⁴²⁴⁴ *Id.* at 2-5.

with the PWM Expansion Project. We do not adopt short-term supply and demand estimates in this Phase 1 decision; however, during the Phase 2 of this proceeding, we will consider updated water supply and demand estimates for the MPWSP, ~~which will also apply to the Amended WPA.~~

6. Authorization to Enter into the Amended and Restated Water Purchase Agreement and to Construct Three Company-Related Facilities

This decision considers the conditions for approval of the Amended WPA using the factors outlined in D.18-09-017, as discussed in Sections 6.1 to 6.9, below, and finds the terms of the Amended WPA and authorization of three of the four proposed Company-related facilities, reasonable, prudent, and in the public interest.

As discussed below, Cal-Am is authorized to enter into the Amended WPA and construct three of the four Company-related facilities, as part of the PWM Expansion Project.

6.1. Sources of Supply Water

We first review the sources of supply water available for the PWM Expansion Project to determine whether it is reasonable to project that M1W will be able to produce the additional 2,250 AFY of treated water required under the Amended WPA. M1W and MPWMD state that they require 3,081 AFY of supply water to produce the additional 2,250 AFY required for the PWM Expansion Project, for a total of 7,874 AFY of wastewater to produce 5,750 AFY of treated water for both the PWM Project and the PWM Expansion Project.⁴³⁴⁵

⁴³⁴⁵ Cal-Am Exhibit CAW-01, Attach. A at 2.

The final SEIR for the PWM Expansion Project adopts the Source Water Operational Plan Technical Memorandum prepared by M1W, which calculates the total source water available for M1W⁴⁴⁴⁶ on a typical year at 11,104 AFY.⁴⁵⁴⁷

M1W identified four categories of source water supply for the PWM Expansion Project: (1) municipal wastewater; (2) surface water diversions; (3) agricultural wash water; and (4) urban stormwater runoff.

Municipal wastewater sources from within and outside M1W's service area include: (1) secondary effluent not used for meeting MCWD and Salinas Valley Reclamation Plant (SVRP)/Castroville Seawater Intrusion Project demands; (2) SVRP Backwash; (3) Boronda; (4) Farmworker Housing; (5) Sump #1 and Sump #2; (6) approved PWM Base project Advanced Water Purification Facility (AWPF) backwashes; (7) approved PWM Project expansion AWPF backwashes; and (8) M1W's Amended and Restated Water Recycling Agreement summer water.⁴⁶⁴⁸ Surface water diversion sources consist of the Reclamation Ditch and Blanco Drain.⁴⁷⁴⁹ Agricultural wash water consists of the City of Salinas' industrial wastewater system wash water.⁴⁸⁵⁰ Urban stormwater runoff consists of the runoff from the City of Salinas' stormwater system.⁴⁹⁵¹

Cal-Am questions the identified source waters' availability to meet the additional 2,250 AFY of source water supply, noting that uncertainty remains as

⁴⁴⁴⁶ The source waters in Mr. Stoldt's calculations did not include AWW, SRDF, or the Salinas IWTF Pond.

⁴⁵⁴⁷ MPWMD Exhibit MPWMD-01 at 9; M1W Exhibit M1W-01 Attach. A (Final SEIR, Chapter 3 at 3-16 to 3-21), Attach. B (Source Water Operational Plan Technical Memorandum) at 13.

⁴⁶⁴⁸ Cal-Am Exhibit CAW-01, Attach. A at 2.

⁴⁷⁴⁹ *Ibid.*

⁴⁸⁵⁰ *Ibid.*

⁴⁹⁵¹ *Ibid.*

to whether certain sources of supply water identified by M1W are sufficient, resilient, and reliable enough to supply the PWM Expansion Project.⁵⁰⁵² Cal-Am cites to its peer review analysis of water supply sources⁵¹⁵³ as part of its Urban Water Management Plan for the Monterey County District, which found that the PWM Expansion Project would not produce the additional 2,250 AFY in both normal and dry years.⁵²⁵⁴ Cal-Am also points to prior disputes between the M1W and the City of Salinas as evidence of the uncertainty affecting M1W's and MPWMD's water supply sources.⁵³⁵⁵ However, Cal-Am still supports the Amended WPA and the PWM Expansion Project despite these concerns, viewing the terms of the Amended WPA as providing sufficient protection for ratepayers in the event of PWM Expansion Project underperformance.⁵⁴⁵⁶

M1W argues that the concerns raised by Cal-Am are concerns previously raised and completely addressed during the SEIR review process, including the report prepared by Hazen and Sawyer.⁵⁵⁵⁷ MPWMD agrees that sufficient supply water is available to meet the demands of the PWM Expansion Project.⁵⁶⁵⁸

Upon review, we find that the parties provided sufficient evidence to support a finding that the total source water in a typical year is 11,104 AFY, which will be adequate to meet the 7,874 AFY of supply water needed to support

⁵⁰⁵² Cal-Am Phase 1 Reply Brief at 29.

⁵¹⁵³ M1W's water supply sources were analyzed by Hazen and Sawyer, a national consulting engineering firm.

⁵²⁵⁴ Cal-Am Exhibit CAW-01 at 7; Cal-Am Phase 1 Reply Brief at 29.

⁵³⁵⁵ Cal-Am Phase 1 Reply Brief at 29.

⁵⁴⁵⁶ *Id.* at 30.

⁵⁵⁵⁷ M1W Phase 1 Opening Brief at 7.

⁵⁶⁵⁸ MPWMD Phase 1 Opening Brief at 4.

the PWM Expansion Project.⁵⁷⁵⁹ The concerns raised by Cal-Am are addressed by M1W and MPWMD as part of the SEIR. Accordingly, we find the identified source waters sufficient to support Commission authorizations for Cal-Am to enter into the Amended WPA and construct the authorized Company-related facilities, as part of the PWM Expansion Project.

6.2. Development Costs

We review the total estimated development costs of M1W's and MPWMD's facilities to determine whether those costs, which will be passed on to ratepayers through the sale-price of water, support Commission authorization for Cal-Am to enter into the Amended WPA. Development costs for M1W's and MPWMD's PWM Expansion Project related facilities total \$49.2 million, which includes the cost of additional water treatment facilities to increase M1W's capacity for producing treated water, along with additional injection wells.⁵⁸⁶⁰ Approximately 44.9 percent (%) of the development costs for ~~the PWM Expansion Project~~M1W's new treatment facilities are allocated to M1W and 45.1% are allocated to MCWD through a separate agreement.⁶¹ In exchange, MCWD receives an entitlement of 827 AFY from the ~~PWM Expansion Project~~new treatment facilities upon the ~~project~~new water treatment plant's operation.⁵⁹⁶²

⁵⁷⁵⁹ Cal-Am Exhibit CAW-01, Attach. A; M1W Exhibit M1W-01 at 6-10, Attach. A to E; and MPWMD Exhibit MPWMD-01 at 8-10.

⁵⁸⁶⁰ Cal-Am Exhibit CAW-01 at 9.

⁶¹ Cal-Am CAW-01 at Attach. A (M1W and MPWMD Joint Response Letter) at 4, Attach. A (Amended and Restated Water Recycling Agreement Between Monterey Regional Water Pollution Control Agency and Monterey County Water Resources Agency at 11, 25.)

⁵⁹⁻⁶² Cal-Am Exhibit CAW-01 at Attach. A (M1W and MPWMD Joint Response Letter), Attach. A (Pure Water Delivery and Supply Project Agreement between Monterey Regional Water Pollution Control Agency and MCWD). MCWD is a county water district that owns the Fort Ord water and sewer facilities.⁹ The Fort Ord Reuse Authority (FORA) transferred ownership of all existing Fort Order water and sewer facilities under the 1998 Water/Wastewater facilities

No parties contested or commented on M1W's or MPWMD's estimated development costs. We have reviewed those costs and find that they are reasonable and support Commission authorization for Cal-Am to enter into the Amended WPA.

The estimated development costs identified as part of the Amended WPA do not include the cost of building Company-related facilities to be owned and operated by Cal-Am, for which Cal-Am requests a revenue requirement of \$81.065 million. Those Company-related facilities are discussed separately in Sections 6.9 and 7.

6.3. Prices for Sales of Treated Water

We now review the estimated price for the sale of treated water to determine whether it is reasonable. M1W's and MPWMD's estimated cost of purchased water is \$3,429/ AF in the 2024/2025 fiscal year.⁶⁰⁶³ This is higher than the current price of water under the Original WPA, which is \$2,808/ AF for the 2022/2023 fiscal year.⁶¹⁶⁴ The annual cost of water under the Amended WPA is expected to escalate by 6% or more each year in the near-term.⁶²⁶⁵

PWN states that, while the cost of water resulting from the PWM Expansion Project is high, PWN still opines it is reasonable, because the project is

Agreement. MCWD is responsible for procuring an additional 2,400 AFY of water for the Fort Ord Base Area under the Fort Ord Base Reuse Plan (BRP). In 2002, MCWD initiated the Regional Urban Water Augmentation Project (RUWAP) to develop resources to supply the additional 2,400 ACY needed under the BRP. ~~The PWM Project~~ M1W's water treatment facilities, the existing and ~~PWM Project~~ the expansion, combined, are expected to provide up to 1,427 AFY for MCWD under the RUWAP.

⁶⁰⁶³ Cal-Am, Exhibit CAW-01, Attach. A (Joint Response Letter), Attach. C (Pure Water FY 21-22 to FY 24-25 Cost of Water Estimate).

⁶¹⁶⁴ Cal-Am, Exhibit CAW-01 at 9.

⁶²⁶⁵ *Id.* at 10.

publicly owned, has no shareholder profit, can receive public financing, and may receive grants that lower the project costs.⁶³⁶⁶ The City of Marina points out that the price of water for the PWM Expansion Project costs less than the 6.4 mgd desalination plant, estimated at \$6,100/AF.⁶⁴⁶⁷ No other parties objected to or otherwise disputed the estimated prices for the sale of treated water under the Amended WPA.

Upon review, we find Cal-Am met its obligation to provide the estimated price of treated water pursuant to D.18-09-017 and find the price supports Commission authorizations for Cal-Am to enter into the Amended WPA and to build the authorized Company-related facilities, as part of the PWM Expansion Project.

6.4. Contractual Details

We review the terms of the Amended WPA to determine whether they are reasonable, prudent, and in the public interest. The Amended WPA increases Cal-Am's treated water allotment from 3,500 AFY to 5,750 AFY over a 30-year term, upon operation of the PWM Expansion Project.⁶⁵⁶⁸ Under the Amended WPA, Cal-Am also has an option to extend the agreement for up to 10 additional years.⁶⁶⁶⁹

The Amended WPA also provides for a performance guarantee in the event the PWM Expansion Project fails to deliver ~~5,570~~5,750 AFY of water. MPWMD will owe Cal-Am a shortfall of water, which it can use to offset the cost

⁶³⁶⁶ PWN Exhibit PWN-01 at 10.

⁶⁴⁶⁷ City of Marina Exhibit MARINA-01 at 9, *citing* CCC Staff Report (dated August 2020), Append. B at 12.

⁶⁵⁶⁸ Cal-Am Exhibit CAW-01 at 10.

⁶⁶⁶⁹ *Ibid.*

of drawing replacement water from the Seaside Basin.⁶⁷⁷⁰ Cal-Am also has a right to terminate the Amended WPA in the event M1W and MPWMD fail to deliver the additional water by February 1, 2026, or if the MPWMD fails to meet performance guarantees.⁶⁸⁷¹

In addition, the Amended WPA extends the process for determining the rate of payment by Cal-Am to MPWMD under the Original WPA.⁶⁹⁷² Specifically, Operative Provision Number (No.) 16 is extended under the Amended WPA and allows Cal-Am to pay only for: (1) the cost of water it receives and can use, (2) water based on the actual cost of water, and (3) its proportionate costs.⁷⁰⁷³

Finally, the Amended WPA extends budgeting provisions approved in Operative Provision No. 15 and ratemaking provisions in General Provision No. 18 of the Original WPA, as discussed in Sections 6.4.1 to 6.4.2, below. No parties raised any concerns or objections to any of the terms of the Amended WPA.

Upon consideration, we find the Amended WPA terms reasonable and provide further detail and direction for Cal-Am in Sections 6.4.1 to 6.4.2, below.

6.4.1. Operative Provision No. 15 – Annual Budget Review

Operative Provision No. 15 provides for the annual budgeting process by the PWM public agencies (MPWMD and M1W), requiring them to estimate both fixed project costs as well as project operation and maintenance (O&M) expenses by no later than May 1st of each year, and requiring the budget to be available

⁶⁷⁷⁰ Ibid.

⁶⁸⁷¹ Ibid.

⁶⁹⁷² Cal-Am Exhibit CAW-02 at 12.

⁷⁰⁷³ Application, Attach. A at 13-14 (Section 16); Cal-Am Exhibit CAW-02 at 12-13.

for review at least 15 days prior to adoption by MPWMD's or M1W's respective boards.⁷¹⁷⁴ No parties opposed adoption of Operative Provision No. 15.

In D.16-09-021, the Commission also required Cal-Am to participate in the ratemaking proceedings required by Operative Provision No. 15. Cal-Am states that it provided the required comments on budgets prepared by MWPMD and M1W under the Original WPA pursuant to D.16-09-021 and recommends the Commission continue to require Cal-Am to participate in MPWMD's and M1W's budgeting process for the duration of the Amended WPA.⁷²⁷⁵

No parties opposed or otherwise objected to Cal-Am's proposal. Upon consideration, the Commission agrees with Cal-Am and extends the same budget proceeding participation requirements for the PWM Project to Cal-Am for the duration of the Amended WPA.⁷³⁷⁶ Cal-Am will file and serve written comments on the M1W's and MPWMD's budget proposal in each applicable MPWMD and M1W rate proceeding. The written comments must state any and all concerns Cal-Am has with MPWMD's or M1W's proposals and provide alternative recommendations, as appropriate. If Cal-Am has no concerns, the written comments must state that it has no concerns. At the time Cal-Am files and serves its comments on MPWMD or M1W, it will simultaneously serve an electronic copy of the comments on the Commission's Director of the Water Division and on the service list for this proceeding.

6.4.2. General Provision No. 18 – Rate Recovery for Treated Water

⁷¹⁷⁴ Cal-Am Exhibit CAW-02 at 12.

⁷²⁷⁵ *Ibid.*

⁷³⁷⁶ D.16-09-021 at 54 (OP 2).

General Provision No. 18 of the Amended WPA extends the rate recovery process under the Original WPA. Rate recovery will consist of six different provisions as follows: (1) defines all costs Cal-Am pays to MPWMD for water as purchased water costs, which Cal-Am records in the Modified Cost Balancing Account (MCBA) and recovers from its customers as pass-through costs; (2) requires MPWMD to provide written notice of the Company Water Rate to Cal-Am between May 1st and June 1st of every year, or every time MPWMD changes the upcoming fiscal year purchased water cost; (3) requires Cal-Am to file a Tier 1 advice letter for rate recovery within 60 days following receipt of MPWMD's written notice for the Company Water Rate; (4) it requires approval of rate recovery for changes to the Company Water Rate to be requested as a Tier 1 advice letter; (5) does not obligate Cal-Am to pay MPWMD for purchased water costs until the Commission approves payment recovery in rates; and (6) provides access to the books and records of the MPWMD and M1W to review the accuracy and reasonableness of all costs related to the Company Water Rate.⁷⁴⁷⁷ Cal-Am notes that the Commission directed Cal-Am, and other water companies, to eliminate the MCBA in its next general rate case (GRC). Cal-Am plans to make this change in its ~~2021~~2022 GRC application, and may request an Incremental Cost Balancing Account as an alternative balancing account to record the costs currently recorded in the MCBA.⁷⁵⁷⁸

Upon review, we agree that the rate recovery process in the Original WPA is appropriately extended to the Amended WPA. We also agree that Cal-Am

⁷⁴⁷⁷ Id. at 13.

⁷⁵⁷⁸ Id. at 13-14.

appropriately plans to replace the MCBA with another balancing account through the GRC process.

6.5. Environmental Effects

The PWM Expansion Project, which includes proposed construction of Cal-Am's facilities, including water extraction wells, treatment facilities, and conveyance piping, constitutes a "project" for purposes of environmental review under the California Environmental Quality Act of 1970 (CEQA), as amended, Public Resources Code Section 21000, *et seq.*⁷⁶⁷⁹ CEQA applies to discretionary projects to be carried out or approved by public agencies.⁷⁷⁸⁰ A basic purpose of CEQA is to inform governmental decision-makers and the public about potential, significant environmental effects of the proposed activities.

Under CEQA, the lead agency is either the public agency that carries out the project,⁷⁸⁸¹ or the one with the greatest responsibility for supervising or approving the project as a whole.⁷⁹⁸²

Here, M1W is the lead agency for the PWM Expansion Project because the project is located in the M1W service area and M1W is undertaking the construction of the majority of the project, in partnership and with funding from MPWMD and Cal-Am. The Commission is a responsible agency because it has authority to authorize construction and ratemaking treatment for Cal Am's facilities, including water extraction wells, treatment facilities, and conveyance piping.

⁷⁶⁷⁹ On July 16, 2018, the Board of Supervisors approved a Categorical Exclusion (CE) under the National Environmental Policy Act. (Application at 2.)

⁷⁷⁸⁰ Public Resources Code Section 21000 *et seq.*

⁷⁸⁸¹ CEQA Guidelines (Title 14 of the California Code of Regulations), § 15051(a).

⁷⁹⁸² CEQA Guidelines (Title 14 of the California Code of Regulations), § 15051(b).

As a responsible agency under CEQA, the Commission must also consider the lead agency's environmental documents and findings before acting on or approving the Company-related facilities, which are components of the PWM Expansion Project.⁸⁰⁸³

M1W prepared the SEIR for the PWM Expansion Project in 2021 which identified a number of environmental effects from the PWM Expansion Project.⁸¹⁸⁴ In Resolution 2021-05, the M1W Board adopted the mitigation measures over which it had control. However, the M1W Board recognized that it could not fully implement all of the mitigation measures set forth in the SEIR, because it did not have control over the proposed Cal-Am facilities, including water extraction wells, treatment facilities, and conveyance piping.⁸²⁸⁵

The SEIR also found that both: (1) the impact of construction noise and (2) secondary effects of growth inducement either would or could remain significant following mitigation measures described in the SEIR.⁸³⁸⁶

The SEIR evaluated alternatives, including a no project alternative, and adopted a statement of overriding consideration finding that the benefits of the PWM Expansion Project outweighed the significant adverse environmental effects that are not mitigated to less than significant levels.⁸⁴⁸⁷ The SEIR for the PWM Expansion Project was adopted by the M1W Board in Resolution 2021-05.⁸⁵⁸⁸

⁸⁰⁸³ CEQA Guidelines, §§ 15050(b) and 15096.

⁸¹⁸⁴ Application, Attach. C, Exhibit A.

⁸²⁸⁵ *Id.* at 10.

⁸³⁸⁶ *Id.* at 9-10.

⁸⁴⁸⁷ *Id.* at 11-15.

⁸⁵⁸⁸ *Ibid.*

As a responsible agency, the Commission must consider the environmental effects identified in the SEIR relating to the portion of the project that is before the Commission for approval.⁸⁶⁸⁹ That means the Commission must consider the environmental consequences of those Company-related facilities, which are components of the PWM Expansion Project.

The Commission has authority to mitigate or avoid only the direct and indirect environmental effects of those parts of the project which it is called on to carry out or approve.⁸⁷⁹⁰ The Commission must adopt any mitigation measures within the Commission's jurisdiction that avoid or mitigate the part of the project the Commission approves,⁸⁸⁹¹ unless the changes or alterations are infeasible for specific economic, legal, social, technological, or other considerations.⁸⁹⁹² The Commission must balance any unavoidable impacts against specific economic, legal, social, technical, or other benefits.⁹⁰⁹³ Finally, the Commission must file a Notice of Determination with the CEQA Clearinghouse certifying that the Commission has considered the environmental document.⁹¹⁹⁴

The M1W Board stated that "[Cal-Am] has confirmed that it would implement all of the mitigation measures that the SEIR identifies for the [Cal-Am] facilities" and that "these mitigation measures are within the

⁸⁶⁸⁹ 14 Cal. Code Regs. § 15096(f).

⁸⁷⁹⁰ 14 Cal. Code Regs. §§ 15042 and 15096(g).

⁸⁸⁹¹ 14 Cal. Code Regs. §§ 15091(a)(2) and 15096(g)(1).

⁸⁹⁹² 14 Cal. Code Regs. § 15096(g)(2).

⁹⁰⁹³ 14 Cal. Code Regs. § 15096(h).

⁹¹⁹⁴ 14 Cal. Code Regs. § 15096(i).

jurisdiction of other public agencies issuing regulatory approvals for [Cal-Am] and should be approved by those other agencies.”⁹²⁹⁵

The Commission reviewed and considered M1W’s SEIR for the PWM Expansion Project, which includes proposed construction of Cal Am’s facilities, including water extraction wells, treatment facilities, and conveyance piping, and adopts the following mitigation measures associated with the construction of those Company-related facilities as detailed in the mitigation monitoring and report, attached to this decision as Appendix C: AE-2, AE-3, AE-4, AQ-1, BT-1a to BT-1d, BT-1f, BT-1h to BT-1k, BT-1m, BT-4, CR-2b, CR-2c, EN-1, NV-1a, NV-1c, NV-1e, NV-1f, NV-2, PS-3, TR-2, TR-3, and TR-4.

CEQA Guidelines Section 15093 requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project.

Here, we find that there is compelling public health and safety need to meet the projected regional water supply demand; therefore, the Commission also adopts the statement of overriding considerations for the PWM Expansion Project and approves it. The Commission’s Energy Division will file a Notice of Determination with the CEQA clearinghouse stating that the Commission considered the environmental documents related to the PWM Expansion Project.

6.6. Necessary Permits

The PWM Expansion Project requires M1W to obtain a number of permits from federal, state, and local agencies. First, M1W must obtain permits related to

⁹²⁹⁵ Ibid.

water quality requirements. M1W must update the PWM Project Biological Opinion from the United States Fish and Wildlife Service under the Endangered Species Act. M1W reports that it submitted a Biological Assessment to reinstate the consultation for the modifications needed to the Biological Opinion.⁹³⁹⁶

M1W also needs to obtain regulatory approval for increased injection of recycled water into the Seaside Basin from the SWRQCB, Division of Drinking Water (DDW) and the Central Coast Regional Water Quality Control Board (RWQCB). Specifically, M1W needs to submit a revised Engineering Report to show that its injection plans meet the log removal requirements for pathogenic microorganism control. The Engineering Report would first be approved by DDW and then adopted by the RWQCB.

In addition, M1W must submit a Report of Wastewater Discharge to the RWQCB to amend their current operating Waste Discharge Requirements/Water Recycling Requirements permit. Furthermore, M1W needs to update its National Pollutant Discharge Elimination System permit with the RWQCB to the ocean. The Office of National Marine Sanctuaries/Monterey Bay National Marine Sanctuary must also authorize the permit as complying with the Sanctuary Guidelines. Finally, ~~M1W~~MPWMD and the Watermaster must amend ~~its~~the Seaside Groundwater Basin Watermaster Storage Permit.

M1W also needs to obtain several permits from municipalities and local agencies. M1W must obtain a grading and ordinance permit from the City of Seaside, potentially amend its County User Permit from Monterey County, obtain an encroachment permit from the City of Seaside, and obtain a well drilling permit from the Monterey County Health Department.

⁹³⁹⁶ Cal-Am Exhibit CAW-01 at 11.

Similarly, Cal-Am's Company-related facilities, which are part of the PWM Expansion Project, also require several permits, as summarized in Appendix D.

No parties disputed or objected to M1W, MPWMD, or Cal-Am's requirements to obtain the necessary permits enumerated herein. We have considered the matter and find that the permits listed herein contain a true and accurate summary of permits necessary for operation of the PWM Expansion Project. Permitting related to water quality has been an issue for the PWM Project, and we discuss this further in Section 6.7.

6.7. Water Quality

To be deemed potable, source water requires treatment for virus and microbe reduction pursuant to California Code of Regulations (CCR) Title 22 Section 60320.208. The source water must achieve at least 12-log enteric virus reduction, 10-log *Giardia* cyst reduction, and 10-log *Cryptosporidium* oocyst reduction for projects with groundwater recharge with recycled water.⁹⁴⁹⁷ Three separate treatment processes are required in the treatment train, and each separate process is credited with no more than a 6-log reduction, and at least three processes must have at least a 1-log reduction. For virus treatment, each month the recycled water is retained underground, the process is credited a 1-log virus reduction if verified by an added tracer study.

M1W plans to treat the 2,250 AFY additional source water for *Giardia* and *Cryptosporidium* using its current treatment train process at the AWPF, using membrane filtration, reverse osmosis, and advanced oxidation. This process is

⁹⁴⁹⁷ Id. at 14.

already certified to achieve a 12.9 to 13.2-log reduction in Giardia and Cryptosporidium, which meets the 10-log reduction requirement.⁹⁵⁹⁸

M1W also plans to remove viruses at the AWPf using reverse osmosis and advanced oxidation, which is certified to achieve an 8.9 to 9.2-log reduction in enteric virus.⁹⁶⁹⁹ M1W's modeling studies showed that the shortest simulated travel time from the PWM injection well (DIW-1) to the nearest drinking water well (Paralta) was 3.3 months, which would create an additional 2.2 log reduction based on a 0.67-log reduction per month based on intrinsic tracer study results, pursuant to CCR Title 22.⁹⁷¹⁰⁰ M1W requested approval of an additional virus log reduction based on chloramine treatment prior to injection and was anticipating DDW approval in December 2021.⁹⁸¹⁰¹

6.7.1. Concerns with Water Quality ~~and Deferring Approval of the EW-1/EW-2 Facility~~

Water quality has been a concern for the PWM Project and may pose a risk for the PWM Expansion Project. Currently, the PWM Project is no longer delivering treated water to well ASR-1 due to the PWM Project's failure to achieve the required 12-log virus reduction required for treated water. In October 2020, MPWMD conducted an intrinsic tracer study of underground travel times for water from M1W's injection wells to well ASR-1, and found that the underground travel time for treated water was much shorter than its 2019 modeling predicted.⁹⁹¹⁰² MPWMD notified M1W of the results of its tracer study

⁹⁵⁹⁸ Ibid.

⁹⁶⁹⁹ Ibid.

⁹⁷¹⁰⁰ Id. at 15.

⁹⁸¹⁰¹ Ibid.

⁹⁹¹⁰² Cal-Am Exhibit CAW-04, Attach. 4 at 1.

in May 2021.¹⁰⁰¹⁰³ On July 9, 2021, M1W provided written notice to the DDW of its intrinsic tracer study.¹⁰¹¹⁰⁴ The California State Water Resources Control Board, DDW determined that the underground travel time for treated water was too short to qualify for a log reduction for virus pursuant to CCR title 22, Article 5.2, Sections 60320.224(a) and (b).¹⁰²¹⁰⁵

By letter, dated September 14, 2021, DDW ordered Cal-Am to discontinue use of ASR-1 for groundwater extraction and put a hold on permit review of ASR-2 for groundwater extraction purposes.¹⁰³¹⁰⁶ The DDW letter also indicated that “the water that reached the Santa Margarita ASR Well 01 during the 2020 extraction period potentially did not meet the 12-log virus reduction required by CCR, Title 22, Article 5.2, Section 60320.208(a).”¹⁰⁴¹⁰⁷

M1W, MPWMD, and Cal-Am explored extraction from ASR Wells ASR-3 and ASR-4, both located at Seaside Middle School, as an alternative way to meet the underground retention time requirement. Cal-Am applied for a permit amendment to use well ASR-4 for extraction purposes.¹⁰⁵¹⁰⁸ However, mercury at concentrations above the maximum contamination level was detected in groundwater samples extracted from well ASR-4,¹⁰⁶¹⁰⁹ and DDW indicated that

¹⁰⁰¹⁰³ *Id.*, Attach. 5 at 1.

¹⁰¹¹⁰⁴ *Id.*, Attach. 4 at 1.

¹⁰²¹⁰⁵ *Ibid.*

¹⁰³¹⁰⁶ *Id.*, Attach. 4 at 1-2.

¹⁰⁴¹⁰⁷ *Ibid.*

¹⁰⁵¹⁰⁸ Previously, well ASR-4 was permitted to water injection.

¹⁰⁶¹⁰⁹ Mercury samples collected from ASR-4 on June 16, 2021 and July 6, 2021 had mercury results of 4.3 ug/L and 6.1 ug/L, respectively. The MCL for mercury is 2 ug/L. Cal-Am Exhibit CAW-04, Attach. 6 at 1.

well ASR-4 could not be used as a drinking water supply source until Cal-Am proposed a system to reduce the mercury concentration in the well.¹⁰⁷¹¹⁰

The presence of mercury at ASR-4 is of concern for the PWM Expansion Project because the proposed EW-1/EW-2 facility is also located at the Seaside Middle School. As the primary extraction site for the PWM Expansion Project, Cal-Am must demonstrate that mercury contamination in groundwater at the Seaside Middle School will not impact PWM Expansion Project wells EW-1 or EW-2, since Cal-Am's current budget contemplates disinfection but not treatment of extracted groundwater for mercury.

Therefore, our approval of Cal-Am's authority to construct and approval of the budget cost cap for the EW-1/EW-2 facility are deferred to Phase 2 of this proceeding in order to consider additional information regarding the extent of mercury above maximum contamination levels in the vicinity of ASR-4, the potential for mercury to impact extracted water at the EW-1/EW-2 facility, ~~and~~ any proposed remedial action necessary to treat mercury in extracted water, which Cal-Am must provide by filing a "Response to Inquiry" within 30 days of the issuance date of this decision. ~~This will not delay completion of the PWM Expansion Project, as Cal-Am's planning and design, and the potential cost impacts from any anticipated mercury treatment as a Tier 3 advice letter to the Commission's Water Division within 30 days of the issuance date of this decision. Water Division is directed to increase the cost cap herein authorized for the EW-1/EW-2 facility is already underway, as reasonable, to address additional remediation measures.~~

¹⁰⁷¹¹⁰ Cal-Am Exhibit CAW-04, Attach. 6 at 1-2.

Returning to our discussion of groundwater concerns at well ASR-1, M1W, MPWMD, and Cal-Am also explored the idea of increasing groundwater extraction by reducing M1W's injection rates, to increase the underground retention time, but ultimately could not come to an agreement on this alternative.¹⁰⁸¹¹¹

With the current inability to use the ASR-1 well for groundwater extraction, Cal-Am is proposing to use extraction wells EW-3 and EW-4⁷, ~~originally designed for PWM Expansion Project redundancy~~, as the primary extraction source for the PWM Project water, replacing ASR-1. Assuming there are no further problems with contaminants or underground retention times at the EW-3/EW-4 facility, the water quality issues in the PWM Project create additional need for the PWM Expansion Project but also highlight the risk to ratepayers that their investment will not yield the expected benefits of a new supplemental water source.

6.8. Sources of Funding

We review the sources of funding for reasonableness. M1W and MPWMD's total estimated cost for the PWM Expansion Project is \$49.171 million. M1W and MPWMD assume that about half of the funding will come as a loan from the Clean Water State Revolving Fund (SRF) and half will come from a loan from the Water Infrastructure Finance and Innovation Act (WIFIA) program.¹⁰⁹¹¹² MW1 and MPWMD expect that the annual debt of \$2.1 million to service the loan would be paid by the sale of treated water to Cal-Am.¹¹⁰¹¹³

¹⁰⁸¹¹¹ Cal-Am Exhibits CAW-10, 11.

¹⁰⁹¹¹² Cal-Am Exhibit CAW-01, Attachment A at 10.

¹¹⁰¹¹³ *Ibid.*

M1W also intends to pursue grants from: (1) United States Bureau of Reclamation Water Smart/Title XVI grant funding; (2) SWRCB Water Recycling Program (Propositions 1, 13, and/or 68); and (3) Department of Water Resources, Integrated Regional Water Management Program and Urban Multi-Benefit Drought grants. ¹¹⁴114

In the event MW1 is unable to secure a loan from the SRF, it intends to finance its portion of the full balance using a WIFIA loan, less any amounts received through grants. In the alternative, M1W will access the capital markets with public financing to fund the PWM Expansion Project. ¹¹⁵115

No parties disputed the reasonableness of M1W's and MPWMD's proposed sources of funding for the PWM Expansion Project. Upon review, we find the proposed sources of funding reasonable and support Commission authorization for Cal-Am to construct the authorized Company-related facilities noted below (see Section 6.9) and to enter into the Amended WPA.

**6.9. Company-Related Facilities –
Description, Construction Schedule,
and Forecast Costs**

Cal-Am seeks authorization to construct the following Company-related facilities, as part of the PWM Expansion Project, and proposes related ratemaking treatment: (1) EW-1, EW-2, and water treatment facilities; (2) EW-3, EW-4, and associated piping; (3) the Carmel Valley Pump Station; and (4) the General Jim Moore Parallel Pipeline. All parties agree that these Company-related facilities are necessary to support the PWM Expansion Project. This decision authorizes Cal-Am to construct the proposed Company-related

¹¹⁴114 *ibid.*

¹¹⁵115 *Id.*, Attachment A at 10.

facilities (described in Sections 6.9.2, 6.9.3, and 6.9.4 below). This decision does not authorize the EW-1/EW-2 facility described in Section 6.7.1. These Company-related facilities are shown in Appendix E of this decision, Figure 1 and described in Sections 6.9.1 through 6.9.4, below.

6.9.1. EW-1, EW-2, and Chemical Treatment Facility

Cal-Am proposes to construct four extraction wells related to the PWM Expansion Project (EW-1 through EW-4). EW-1 and EW-2 are located in an easement on a portion of the Monterey Peninsula Unified School District property at Seaside Middle School,¹¹³¹¹⁶ which Cal-Am plans to use as the new, primary extraction point for PWM Expansion Project treated water. EW-1 and EW-2 are both in the permitting and design phase, with construction expected to start in the second quarter of 2023, and operation expected by the end of the third quarter of 2024.¹¹⁴¹¹⁷

A chemical treatment facility located at EW-1 and EW-2 will disinfect PWM Expansion Project water prior to delivery of treated water to Cal-Am's distribution pipeline for delivery to customers. Additional piping is proposed to connect EW-1, EW-2, and the chemical treatment facility to Cal-Am's main transmission piping.

6.9.2. EW-3, EW-4, and Associated Piping

Cal-Am also proposes to construct extraction wells EW-3 and EW-4 and associated piping on United States Army Land northeast of the EW-1/EW-2 site.¹¹⁵¹¹⁸ EW-3 and EW-4 are both in the permitting and design phase, with

¹¹³¹¹⁶ *Id.* at 21.

¹¹⁴¹¹⁷ Cal-Am Exhibit CAW-12 at 1.

¹¹⁵¹¹⁸ Cal-Am Exhibit CAW-01 at 22.

construction expected to start in the fourth quarter of 2022 and operation expected by the end of the first quarter of 2025.¹¹⁶¹¹⁹ Wells EW-3 and EW-4 are located in the same place as two wells previously approved for ASR wells ASR-5 and ASR-6, which were approved in D.10-12-016 and D.18-09-017 but never built.

Cal-Am states that these two new wells are necessary to replace the loss of ASR-1 for groundwater extraction, increase the capacity of groundwater extraction for the PWM Expansion Project, increase reliability of groundwater extraction, and free up existing ASR wells (ASR-1 to ASR-4) for simultaneous injection of Carmel River water during the wet season.¹¹⁷¹²⁰ Along with wells EW-1 and EW-2, these wells are intended to help Cal-Am increase the peak pumping capacity of PWM Project ~~from 5.0 mgd to 7.6 mgd~~, in order to meet expected peak customer demand.¹¹⁸¹²¹

6.9.3. Carmel Valley Pump Station

The Carmel Valley Pump Station is a pump station designed to pump water from the Forest Lake reservoirs to the Upper Carmel Valley. It was first proposed by Cal-Am as the Valley Greens Pump Station for Phase 1 of the Regional Desalination Project, but it was never built.

The Valley Greens Pump Station was also approved as part of the “Remaining Cal-Am only facilities” for the MPWSP in D.18-09-017.¹¹⁹¹²² Cal-Am subsequently changed the location of the Valley Greens Pump Station¹²⁰¹²³ and

¹¹⁶¹¹⁹ *Ibid.*

¹¹⁷¹²⁰ Cal-Am Phase 1 Opening Brief at 17-18.

¹¹⁸¹²¹ Cal-Am Exhibit CAW-01 at 4.

¹¹⁹¹²² D.18-09-017 at 99.

¹²⁰¹²³ The original Valley Green Pump Station would have been constructed near the intersection of Carmel Valley ~~Drive~~Road and Valley Greens Drive. (D.10-12-016 at 67.)

relabeled the pump station as the Carmel Valley Pump Station to better reflect its purpose, which is to provide water to the Upper Carmel Valley.¹²¹¹²⁴ Cal-Am anticipated the Carmel Valley Pump Station would be completed in July 2022.

6.9.4. General Jim Moore Parallel Pipeline

Cal-Am seeks authorization to construct a 36-inch diameter pipeline designed to carry water from Extraction Wells EW-3 and EW-4 to the connection with the Monterey Pipeline at the Hilby Pump Station, as shown in Appendix E, Figure 1.¹²²¹²⁵ The total length of the pipeline is 12,600 feet, 7,000 feet of which is considered the Parallel Pipeline and 5,600 feet of which is considered the Transfer Pipeline.¹²³¹²⁶

This pipeline is intended to supplement the existing pipeline along General Jim Moore Boulevard, allowing for the simultaneous injection and extraction of water from the Seaside Basin.¹²⁴¹²⁷

In this application, Cal-Am requests recovery of a 7,000-foot section of the General Jim Moore Parallel Pipeline and a 1,100-foot section of pipeline Transfer Pipeline, with an expected in-service date of July 2022.¹²⁵¹²⁸ The Transfer Pipeline was originally approved for the Regional Desalination Project to convey desalinated water to the Monterey Peninsula, beginning at the desalination plant in the City of Marina and ending in the City of Seaside, near the intersection of Auto Center Parkway and Del Monte Boulevard. The 1,100-foot section of the Transfer Pipeline extends between ASR wells ASR-1/ASR-2 and ASR-3/ASR-4.

¹²¹¹²⁴ RT 48:2-18.

¹²²¹²⁵ Exhibit PAO-1 at 1-9.

¹²³¹²⁶ *Ibid.*

¹²⁴¹²⁷ *Ibid.*

¹²⁵¹²⁸ RT 38:19 - 39:2.

The cost for the remaining portion of the Transfer Pipeline (also referred to as the “ASR Pipeline” in Appendix E, Figure 1), and extending from wells ASR-3/ASR-4 to EW-3/EW-4, is incorporated into the budgets for the EW-1/EW-2 and EW-3/EW-4 facilities.

6.10. Broader Principles

To the extent they are not considered in the criteria discussed in preceding Sections 6.1 through 6.9, we must also consider broader principles, including whether Commission support for the PWM Expansion Project, through approval of the Amended WPA and the Company-related facilities, would be just, reasonable, and in the public interest. As discussed below, we find that support for the PWM Expansion Project satisfies those principles.

Support for the PWM Expansion Project is consistent with the SWRCB’s policy of promoting recycled water projects to diversify community water supplies and mitigate the impacts of climate change. The PWM Expansion Project also has numerous environmental benefits, such as the “reduction of pumping from the Salinas Groundwater Basin, reduction of runoff into the Monterey Bay, reduction of pollutant loads to the lower Salinas watershed, and help combat seawater intrusion into local groundwater aquifers.”¹²⁶¹²⁹

The PWM Expansion Project benefits Cal-Am customers because it provides an additional potable water supply to address near-term water supply issues on the Monterey Peninsula. By providing an additional water supply, the PWM Expansion Project helps relieve Cal-Am’s reliance on the Carmel River, thereby helping Cal-Am comply with the SWRCB’s cease and desist order. In the event the PWM Expansion Project fails to operate as expected, the Amended

¹²⁶¹²⁹ City of Marina Phase 1 Opening Brief at 13; M1W Exhibit M1W-01 at 2.

WPA contains sufficient performance guarantees to protect ratepayers. It also offers Cal-Am's customers treated water at a reasonable rate.

Without the PWM Expansion Project, Cal-Am's customers may face further water restrictions, such as rationing, in the near-term. On the basis of all these factors, we support the PWM Expansion Project, and authorize Cal-Am to enter into the Amended WPA and construct these three Company-related facilities, as just, reasonable, and in the public interest.

7. Ratemaking Treatment for Company-Related Facilities

Cal-Am proposes the Commission adopt a cost-cap for each Company-related facility, which is based on a revenue requirement Cal-Am developed for each facility based on the following: (1) construction work in progress (CWIP) balances, (2) plant additions, (3) in-service dates, and (4) other revenue requirement components (depreciation rates, ad valorem, uncollectibles, income tax rates, rate of return, and allowance for funds used during construction (AFUDC)).¹²⁷¹³⁰ The total estimated cost for the four Company-related facilities is \$81.065 million, as summarized in Table 1, below.¹²⁸¹³¹

Table 1. Summary of Company-Related Facilities Costs

Estimated Cost	Carmel Valley Pump Station	Parallel Pipeline	EW-1 and EW-2, Water Treatment	EW-3 and EW-4	Total Estimated Cost
Actuals to Date	\$5,053,540	\$6,912,779	\$6,231,231	\$13,780,522	\$31,978,072

¹²⁷¹³⁰ Cal-Am Exhibit CAW-02 at 20.

¹²⁸¹³¹ Cal-Am Exhibit CAW-01 at 26.

Estimated Remaining Costs	\$1,421,703	\$4,017,000	\$16,410,500	\$27,237,750	\$49,086,953
Total Cost Estimate	\$6,475,243	\$10,929,779	\$22,641,731	\$41,018,272	\$81,065,025

As detailed in Attachment F, the budgets for each Company-related facility are segregated into three categories: (1) a percentage allocation of common actuals for the Regional Desalination Project and the MPWSP from January 2011 to October 2021; (2) direct project actuals from January 2011 through October 2021; and (3) estimated remaining costs to complete the facility from November 2021 through the operation date.

Cal-Am asks that costs up to the cost cap for each project be deemed reasonable. Cal-Am proposes to use a subaccount of the MPWSP Phase 1 Project Costs Memorandum Account to track the costs of: (1) the four Company-related facilities discussed in Section 6.9.1 to 6.9.4, including the AFUDC; (2) a pro-rated portion of the engineering and environmental costs; and (3) any portion of costs for Company-related facilities placed in service prior to the Commission approval herein. ¹²⁹132

Cal-Am proposes to provide written notice to the Commission's Water Division within 30 days of the operation of each of the four Company-related facilities. ¹³⁰133 Cal-Am also requests approval to file Tier 2 Advice Letters, within 60 days of the written notice, to place the Company-related facilities projects into rates once they are used and useful, with one Tier 2 Advice Letter filed for each project. Each Tier 2 Advice Letter would address the following: (1) facilities that are used and useful; (2) whether the costs are reasonable; and (3) whether the

¹²⁹132 *Id.* at 15-16.

¹³⁰133 *Id.* at 17.

facilities are appropriately sized.¹³¹¹³⁴ Cal-Am proposes the Commission authorize recovery up to the cost cap approved in this application as reasonable.¹³²¹³⁵ Cal-Am further proposes to recover all costs exceeding the authorized cost caps of the four Company-related facilities through a single Tier 3 Advice Letter filed with the Commission's Water Division upon the conclusion of the Company-related facilities' construction.¹³³¹³⁶

By placing the cost recovery for the four Company-related facilities into rates upon the project's operation, Cal-Am estimates the total impact on ratepayer costs from Company-related facilities and the cost for purchased water could be amortized incrementally, as summarized in Table 2, below.¹³⁴¹³⁷

Table 2. Proposed Revenue Increase Related to the PWM Project expansion

Monterey-Proposed Revenue Increase									
	Jan 2023 ¹³⁵¹³⁸		July 2024 ¹³⁶¹³⁹		Jan 2025 ¹³⁷¹⁴⁰		Sept 2025 ¹³⁸¹⁴¹		
Customer Class	\$ Increase	% Increase	\$ Increase	% Increase	\$ Increase	% Increase	\$ Increase	% Increase	Total \$ Increase
Residential	1,740,870	4.55%	4,590,103	11.48%	2,577,151	5.78%	4,991,359	10.58%	13,899,484
Multi-Residential	282,690	4.65%	1,106,026	17.38%	418,625	5.60%	810,527	10.27%	2,617,869
Commercial	840,560	4.29%	2,356,875	11.54%	1,244,144	5.46%	2,409,754	10.03%	6,851,334
Industrial	4,204	4.35%	11,634	11.53%	6,222	5.53%	12,051	10.15%	34,111

¹³¹¹³⁴ Ibid.

¹³²¹³⁵ Ibid.

¹³³¹³⁶ Id. at 18.

¹³⁴¹³⁷ Application, Attach. B at 45.

¹³⁵¹³⁸ Includes revenue requirement increases for the Parallel Pipeline and Carmel Valley Pump Station (Approximately January 2023).

¹³⁶¹³⁹ Includes increase in purchased water surcharge (Approximately July 2024).

¹³⁷¹⁴⁰ Includes revenue requirement increases for Extraction Well 1&2 and Chemical Treatment Facility (Approximately January 2025).

¹³⁸¹⁴¹ Includes revenue requirement increases for Extraction Wells 3&4 (Approximately September 2025).

Public Authority	165,333	4.43%	406,400	10.42%	244,721	5.68%	473,994	10.41%	1,290,448
Sale for Resale	972	9.17%	2,592	22.39%	1,439	10.16%	2,787	17.86%	7,791
Construction	13,218	5.57%	11,736	4.68%	19,543	7.45%	37,928	13.46%	82,425
	3,047,848		8,485,367		4,511,846		8,738,401		24,783,461

Cal-Am states that the Tier 2 advice letter and cost cap framework helps smooth out customer rate impacts and moderates the impact of the AFUDC.¹³⁹¹⁴² Cal-Am proposes to track incremental O&M costs incurred between GRCs in the MPWSP O&M Memorandum Account and seek recovery as part of a subsequent GRC.¹⁴⁰¹⁴³

Parties either agree or do not object to the proposed recording of costs in a subaccount of the MPWSP Phase 1 Costs Memorandum Account, the use of cost caps for Company-related facilities, and the use of a Tier 2 Advice Letter process for rate recovery up to the cost cap.

Upon review, we also find reasonable Cal-Am's proposal to use a subaccount of the MPWSP to record Company-related facilities costs, to adopt a cost cap mechanism, and to use a Tier 2 Advice Letter for cost recovery of costs up to the cost cap. Cal-Am must submit a Tier 1 advice letter to the Commission's Water Division within 30 days of the date of issuance of this decision requesting to establish the PWM Expansion Project Costs Memorandum Account as a subaccount of the MPWSP Phase 1 Costs Memorandum Account for the purpose of tracking PWM Expansion Project costs. Cal-Am will make a one-time transfer of its allocated common actuals and direct common actuals to the PWM Expansion Project Costs Memorandum Account, consistent with the

¹³⁹¹⁴² Cal-Am Exhibit CAW-02 at 20.

¹⁴⁰¹⁴³ *Id.* at 19.

amount found reasonable for cost recovery of Company-related facilities in Section 7.2.2.

Parties, however, dispute Cal-Am's proposed revenue requirement for the Company-related facilities and the mechanism to recover costs above the approved cost cap.

This decision finds that: (1) the Company-related facilities will be deemed used and useful upon operation unless the facilities do not operate as intended, as discussed in Section 7.1; (2) cost caps for Company-related facilities should be adjusted to include only those costs attributable to the PWM Project expansion, as discussed in Section 7.2; (3) the AFUDC should be set at the weighted-average-cost-of-debt, as discussed in Section 7.3; (4) the AFUDC should not be applied to labor overhead costs, as discussed in Section 7.4; and (5) costs above the cost cap can be proposed for recovery through Cal-Am's next general rate case, as discussed in Section 7.5.

**7.1. Used and Useful Determination and Rate Base
Adjustment Issues for the Parallel Pipeline,
1,100-foot section of the Transfer Pipeline,
and the ~~Central~~[Carmel](#) Valley Pump Station**

Cal Advocates and Cal-Am dispute when and what portion of the Carmel Valley Pump Station, the Transfer Pipeline, and the 1,100-foot Transfer Pipeline will be deemed used and useful for the purpose of placing these facilities into rate base. This decision anticipates the ~~Central~~[Carmel](#) Valley Pump Station, the Parallel Pipeline, and the 1,100-foot section of the Transfer Pipeline will be used and useful upon operation. The parties' positions related to a determination of when the Company-related facilities should be deemed used and useful and as well as the need for rate base adjustments are summarized in Section 7.1.1 and discussed in Section 7.1.2.

7.1.1. Parties' Positions

Cal Advocates urges the Commission to reduce recovery of Cal-Am's revenue requirement for the Carmel Valley Pump Station and the Parallel Pipeline by 30% until such time as the 6.4 mgd desalination plant is completed. Cal Advocates reasons that these facilities were designed to carry approximately 30% of their water capacity from the desalination plant. As such, Cal Advocates argues that 30% of these facilities will not be used and useful until the 6.4 mgd desalination plant is completed. Cal Advocates, therefore, proposes the Commission reduce Cal-Am's revenue requirement recovery for the Carmel Valley Pump Station by 30%, which is a \$1,942,573 reduction.¹⁴¹¹⁴⁴ Similarly, it recommends a 30% revenue requirement reduction for the Parallel Pipeline, which is a \$2,899,104 reduction, based on the same argument.

In addition, Cal Advocates recommends the Commission remove the revenue requirement associated with a 1,100-foot portion of the 36-inch Transfer Pipeline from the revenue requirement requested for the Parallel Pipeline, arguing that the Transfer Pipeline will not be used and useful until the desalination plant is completed. Cal Advocates argues the Commission should reduce the cost recovery for the Transfer Pipeline by using the average cost of \$1,151 per foot of pipeline, for a total revenue requirement reduction of \$1,266,100.

Cal-Am opposes Cal Advocates' proposed 30% revenue requirement reduction because: (1) it misapplies the "used and useful" principle; (2) it would greatly increase the AFUDC cost for customers; and (3) the Commission has

¹⁴¹¹⁴⁴ Cal Advocates Phase 1 Opening Brief at 9.

previously rejected this approach to ratemaking.¹⁴²¹⁴⁵ First, Cal-Am argues that the “used and useful” principle “requires that utility property be actually in use and providing service in order to be included in rate base.”¹⁴³¹⁴⁶ Cal-Am sees Cal Advocates’ request to deny a portion of the costs of its Company-related facilities as diverging from the used and useful principle, arguing that it would set a “very unfortunate precedent and would likely produce great uncertainty and controversy in the review of future projects.”¹⁴⁴¹⁴⁷ Cal-Am also argues that the Carmel Valley Pump Station’s usefulness is independent of the desalination plant because the pump station is needed “to reverse the flow of water in the summer months and draw water from the Forest Lake Tanks in Pebble Beach to deliver native Seaside Basin groundwater, and water from the PWM [P]roject, the PWM [Expansion] Project [], and ASR stored in the Seaside Groundwater Basin to customers in Upper Carmel Valley.”¹⁴⁵¹⁴⁸

Second, Cal-Am argues that the AFUDC would be greatly increased if Cal-Am were to continue to accrue AFUDC on 30% of the ~~Central~~Carmel Valley Pump Station and the Parallel Pipeline until such time as the desalination plant was in service, rather than recovering its revenue requirement upon operation of both projects.¹⁴⁶¹⁴⁹ Finally, Cal-Am points out that Cal Advocates made a similar argument to reduce recovery of the Monterey Pipeline and Monterey Pump

¹⁴²¹⁴⁵ Cal-Am Phase 1 Opening Brief at 26.

¹⁴³¹⁴⁶ *Id.* at 26, *citing* D.84-09-089 at 71-72.

¹⁴⁴¹⁴⁷ Cal-Am Phase 1 Opening Brief at 27.

¹⁴⁵¹⁴⁸ *Id.* at 20.

¹⁴⁶¹⁴⁹ *Id.* at 27.

Station in Resolution W-5200, to argue that there is precedent for rejecting Cal Advocates' 30% revenue requirement reduction request.¹⁴⁷¹⁵⁰

Cal-Am also opposes Cal Advocates' proposal to defer rate recovery for the 1,100-foot section of the Transfer Pipeline, arguing Cal Advocates cannot rely on the settlement terms adopted in D.10-12-016, which excludes the Transfer Pipeline from rate recovery until the desalination plant is built, because the settlement terms adopted in D.10-12-016 are not precedential or binding in this proceeding.¹⁴⁸¹⁵¹ Also, Cal-Am argues that the Transfer Pipeline facilities have evolved since the Commission approved the Regional Desalination Project in 2010, and this portion of the Transfer Pipeline is "now necessary to deliver water supplies from the PWM Project, PWM Project expansion, ASR and native Seaside Basin water rights from the Seaside Groundwater Basin via the extraction wells" independent of the construction of the MPWSP desalination facilities.¹⁴⁹¹⁵²

7.1.2. Discussion

When reviewing Cal Advocates' 30% rate reduction request, we first consider the question of when the ~~Central~~Carmel Valley Pump Station, the Parallel Pipeline, and the Transfer Pipeline will be considered used and useful, and then determine whether a rate base adjustment is warranted.

Facilities can be added into rate base once they are used and useful, which occurs when the facility is actually in use and providing service.¹⁵⁰¹⁵³ The entirety of a facility is typically considered used and useful. However, a rate

¹⁴⁷¹⁵⁰ Id. at 27-28.

¹⁴⁸¹⁵¹ Id. at 28-29.

¹⁴⁹¹⁵² Id. at 29-30.

¹⁵⁰¹⁵³ D.84-09-089.

base offset may be considered when facilities are overbuilt for their intended purpose.¹⁵¹¹⁵⁴ A saturation adjustment is a type of rate base offset whereby the excess portions of an overbuilt utility plant or facility, financed or installed with equity capital, is excluded from rate base in determining the rates a utility can charge for service.¹⁵²¹⁵⁵

The Commission has adjusted the rate base for overbuilt water system extensions which are installed in large tracts that have not subsequently been fully developed.¹⁵³¹⁵⁶ The adjustment for water extensions in tracts proposed for new developments is based on a single, fixed percentage of the development (e.g., a 40% saturation adjustment on water extension piping based on development of 60% of the lots in the water extension area.)¹⁵⁴¹⁵⁷ A saturation adjustment may also be appropriate when utility plant facilities only serve a portion of demand, in which case the cost of a suitable smaller facility is determined and the difference in cost between the actual facility and the suitable smaller facility is excluded from rate base.¹⁵⁵¹⁵⁸

As an initial matter, we first consider when the ~~Central~~Carmel Valley Pump Station, the 1,100-foot section of the Transfer Pipeline, and the Parallel Pipeline will be used and useful, and find that they will be useful upon

¹⁵¹¹⁵⁴ Commission, Division of Water and Audits, Standard Practice for Processing Rate Offsets and Establishing and Amortizing Memorandum Accounts (Standard Practice U-27-W) (April 16, 2014).

¹⁵²¹⁵⁵ Commission, Water Branch, Standard Practice for Preparing Results of Operation Results for General Rate Increase Requests of Water Utilities Other than Major Companies (Standard Practice U-3-SM) (April 2006).

¹⁵³¹⁵⁶ *Ibid.*

¹⁵⁴¹⁵⁷ *Ibid.*

¹⁵⁵¹⁵⁸ *Ibid.*

operation. The first iteration of the ~~Central~~Carmel Valley Pump Station (previously called the Valley Greens Pump Station) and the Transfer Pipeline were within a set of infrastructure called “Cal-Am facilities” which were first approved for the Regional Desalination Project in D.10-12-016.

In considering which aspects of the Regional Desalination Project should be considered used and useful, D.10-12-016 recognized a distinction between infrastructure designed to resolve the

two operational limitations of Cal-Am’s existing distribution system: 1) the facilities that will allow Cal-Am to maintain adequate water levels in the Forest Lake tanks during maximum day demand and 2) the facilities that will allow Cal-Am to move water from the Seaside area to the rest of the Monterey Peninsula.

from infrastructure designed solely to convey desalinated water from the delivery point to Cal-Am’s distribution system. For the former, including “conveyance, pumping, and reservoir facilities,” D.10-12-016 designated these facilities as used and useful for ratemaking purposes, even if the Regional Desalination Project (*i.e.* the desalination plant) was delayed for some reason.¹⁵⁶¹⁵⁹ For the latter, specifically the Transfer Pipeline, D.10-12-016 stated that this infrastructure would not be deemed used and useful until the Regional Desalination Project (*i.e.* the desalination plant) was completed.¹⁵⁷¹⁶⁰

While we are not bound by the settlement terms in D.10-12-016, we find the reasoning instructive in reviewing the Company-related facilities at issue here. We agree with Cal-Am that the Carmel Valley Pump Station’s intended purpose of pumping water into the Upper Carmel Valley during the summer

¹⁵⁶¹⁵⁹ D.10-12-016 at 61.

¹⁵⁷¹⁶⁰ *Ibid.*

months makes it useful independent of the operation of the desalination plant. Consistent with D.10-12-016's logic, we find the Carmel Valley Pump Station used and useful when it is in service because we recognize it as infrastructure designed to resolve the operational limitations of Cal-Am's distribution system, allowing Cal-Am to move water from the Seaside Area to the rest of the Monterey Peninsula.

We similarly find the Parallel Pipeline and the 1,100-foot section of the Transfer Pipeline to be used and useful when it is in service as part of the "conveyance facilities" that allow Cal-Am to convey water pumped from the Seaside Basin to the rest of the Monterey Peninsula. In approving recovery of a revenue requirement for the 1,100-foot section of the Transfer Pipeline with recovery for the Parallel Pipeline, we find that this section of Transfer Pipeline will no longer be eligible for recovery upon completion of the 6.4 mgd desalination plant as part of the Transfer Pipeline.

Since the projected operation date of these facilities is July 2022, we expect that these facilities will be built prior to issuance of this decision. We also expect that the budgets proposed for these facilities are close to the actual recorded costs

Cal-Am will request in a Tier 2 Advice Letter filing for revenue recovery. Cal-Am's Tier 2 Advice Letter filing will provide the following: (1) description of the facilities that are used and useful, (2) whether the costs are reasonable, and (3) whether the facilities are appropriately sized. If the Carmel Valley Pump Station, the Parallel Pipeline, and the 1,100-foot section of Transfer Pipeline are not put into use as expected, Cal-Am must provide the cost of a suitable, smaller facility as well as the difference in cost between the actual facility and the suitable smaller facility such that the Commission may apply a saturation adjustment, as appropriate. In its approval, the Water Division staff is authorized to approve the

requested cost recovery, or reduce the allowed cost recovery to only that amount that satisfies the three costs factors.

7.2. Addressing the Reasonableness of Company-Related Facilities

The parties dispute the reasonableness of Cal-Am's proposed revenue requirement under the cost cap for each Company-related facility. This decision finds that Cal-Am's cost cap should be reduced to exclude costs not clearly attributable to the PWM Expansion Project. The parties' positions are summarized in Section 7.2.1 and discussed in Section 7.2.2.

7.2.1. Parties' Positions

According to Cal Advocates, Cal-Am's "actuals to date," "Indirect Overhead," "M1W," "Estimated Remaining Costs" cost categories for the extraction well facilities do not support a reasonableness and prudence finding, and should be excluded from the proposed budget.¹⁵⁸¹⁶¹ Cal Advocates recommends the Commission reduce the cost cap for the EW-1, EW-2, and the water treatment facility from \$22,641,731 to \$11,336,000 and reduce the cost cap for the EW-3, EW-4, and the associated piping facility from \$41,018,272 to \$18,842,00.¹⁵⁹¹⁶² Cal Advocates states that its proposed cost caps are reasonable because they are based on Cal-Am's previously proposed costs for ASR-5 and ASR-6.¹⁶⁰¹⁶³ Cal Advocates also urges the Commission to consider the Commission's recent authorization of \$1.9 million for Cal-Am's Lower Carmel Valley well project -- which included engineering, permitting, design, and construction -- to suggest that Cal-Am's proposed costs for the Company-related

¹⁵⁸¹⁶¹ Cal Advocates Phase 1 Opening Brief at 11.

¹⁵⁹¹⁶² *Id.* at 9-10.

¹⁶⁰¹⁶³ *Id.* at 10.

facilities here are excessive.¹⁶¹¹⁶⁴ Cal Advocates reasons that the Commission can approve the lower rate cap, and allow Cal-Am to seek recovery of any additional costs through an applicable GRC proceeding, where the reasonableness of cost recovery above the cost caps can be reviewed.¹⁶²¹⁶⁵

MPWMD supports Cal Advocates' proposed revenue reductions.¹⁶³¹⁶⁶ MPWMD is concerned that allocation of the common costs for the Company-related facilities include MPWSP sunk costs as opposed to costs entirely related to the PWM Expansion Project.¹⁶⁴¹⁶⁷ MPWMD points out that the Parallel Pipeline and extraction wells EW-1 and EW-2 were not part of the MPWSP but have been allocated costs beginning as early as January 2011.¹⁶⁵¹⁶⁸ MPWMD also speculates that the cost of extraction wells EW-3 and EW-4 may be twice as much as wells EW-1/EW-2 because this well site was the former site of wells ASR-5/ ASR-6, which was part of the MPWSP.¹⁶⁶¹⁶⁹ Finally, MPWMD points out that Cal-Am allocated significant costs to all four facilities on several dates (September 2015, January 2018, August 2020, etc.) without sufficient information to identify whether the allocations were appropriate.¹⁶⁷¹⁷⁰

PWN supports Cal Advocates' proposed cost caps, arguing Cal-Am's \$81,065,025 infrastructure cost estimate is excessive.¹⁶⁸¹⁷¹ PWN suggests that the

¹⁶¹¹⁶⁴ *Ibid.*

¹⁶²¹⁶⁵ *Ibid.*

¹⁶³¹⁶⁶ MPWMD Phase 1 Opening Brief at 17.

¹⁶⁴¹⁶⁷ MPWMD Exhibit MPWMD-01 at 17.

¹⁶⁵¹⁶⁸ *Ibid.*

¹⁶⁶¹⁶⁹ *Ibid.*

¹⁶⁷¹⁷⁰ *Ibid.*

¹⁶⁸¹⁷¹ PWN Phase 1 Reply Brief at 1-2.

Parallel Pipeline could have been built any time after 1995, which would have made the cost cheaper for ratepayers.¹⁶⁹¹⁷² M1W and MCWD take no position on Cal-Am's proposed budget and request for a cost cap.¹⁷⁰¹⁷³

7.2.2. Discussion

In considering the reasonableness of the Company-related facilities costs, we return to the used and useful principle, which requires ratepayers to bear only the reasonable costs of those projects which provide direct and ongoing benefits or are used and useful in providing adequate and reasonable service to the ratepayers.¹⁷¹¹⁷⁴ Projects which never reach fruition, by definition, fail to be used and useful to ratepayers.¹⁷²¹⁷⁵

The cost cap for all four Company-related facilities includes costs starting as early as 2011.¹⁷³¹⁷⁶ Early 2011 through summer of 2014 corresponds to the period when Cal-Am initially planned to complete Phase 1 of its Regional Desalination Project, though ~~it abandoned its efforts at~~ Cal-Am later withdrew its petition for clarification of D.10-12-016 and filed a new application, A.12-04-019, seeking approval of the MPWSP, which included a desalination plant ~~in~~ 2012 among other components. From 2012 to the present day, Cal-Am ~~also~~ pursued the MPWSP, some elements of which are still ongoing.

As MPWMD correctly points out and Cal-Am acknowledges, the Parallel Pipeline was not contemplated as part of either the Regional Desalination Project or the MPWSP. Therefore, we see no basis for allocating 12% of common actuals

¹⁶⁹¹⁷² Ibid.

¹⁷⁰¹⁷³ M1W Phase 1 Opening Brief at 15; MCWD Phase 1 Opening Brief at 5.

¹⁷¹¹⁷⁴ D.84-09-089.

¹⁷²¹⁷⁵ Ibid.

¹⁷³¹⁷⁶ Cal-Am Exhibit CAW-02, Attach. 3.

through October 2021 to the Parallel Pipeline and reduce the cost cap by \$2,665,124, from \$10,930,000 to \$8,264,655.

Turning to the two extraction well facilities, we first note that the PWM Expansion Project, including all four extraction wells, was rejected by the Commission in D.18-09-017, and excluded from the MPWSP prior to this application.¹⁷⁴¹⁷⁷ As discussed in Section 6.5, the environmental review for the PWM Expansion Project was conducted and resulted in a SEIR; this was after the EIR was adopted for the MPWSP, distinguishing environmental review costs from MPWSP common actuals.

Therefore, we agree with MPWMD and Cal Advocates that budgeting for the extraction well facilities should be separated from MPWSP common costs. As the EW-1/EW-2 facility was not part of the MPWSP, we see no basis for allocating 28% of common actuals through October 2021 to the EW-1/EW-2 facility. ~~However, we defer adopting and adopt a cost cap for the EW-1/EW-2 facility until we have additional information on the extent of mercury above maximum contaminant levels in the vicinity of these wells, as discussed in Section 6.7.1 of \$16,723,704.~~

Turning to the EW-3/EW-4 facility, we note that wells EW-3 and EW-4 are sited in the same location as wells ASR-5 and ASR-6, which were approved for the ASR project as part of the MPWSP. Cal-Am argues that ASR-5 and ASR-6 are the same wells as extraction wells EW-3 and EW-4.¹⁷⁸ However, since wells ASR-5 and ASR-6 were considered and approved as part of the ASR project while wells EW-3 and EW-4 were rejected by the Commission as part of the

¹⁷⁴¹⁷⁷ D.18-09-017.

¹⁷⁸ Cal-Am Opening Comments on the Proposed Decision at 8.

PWM Expansion Project in D.18-09-017, we reject Cal-Am's argument because it could not reasonably have assumed to be simultaneously incurring the same costs for both an approved and a rejected project at the same time on the same two wells. Since ASR-5 and ASR-6 were never built, ratepayers never received the benefit of their use as part of the ASR program and should not bear costs related to their design, planning, and environmental review. Also, the EW-3/EW-4 facility is still in the permitting and design phase, and the adopted budget should reflect this early stage of project development. Accordingly, we find it appropriate to exclude the 51% of common actuals for the MPWSP through 2021 allocated to the EW-3/EW-4 facility, reducing the cost cap by \$10,797,064, from \$41,018,000 to \$30,220,960, as reasonable.

Finally, we approve the proposed cost cap for the Carmel Valley Pump Station as proposed by Cal-Am. The Carmel Valley Pump Station was first approved as the Valley Greens Pump Station as part of the Regional Desalination Project and later as part of the Remaining Cal-Am Only Facilities in the MPWSP. While the name and location of the Valley Greens Pump Station have changed, the purpose of this pump station remains the same (*i.e.*, to pump water to part of the Monterey System affected by the SWRCB cease and desist order). Accordingly, we approve the cost cap of \$6,475,243 for the Carmel Valley Pump Station as reasonable.

7.3. Setting the AFUDC Rate at the Actual Weighted-Average-Cost-of-Debt

Cal-Am calculates a total AFUDC of approximately \$7,741,935 based on its estimated revenue requirement for the four Company-related facilities.¹⁷⁵¹⁷⁹

¹⁷⁵¹⁷⁹ Cal Advocates Exhibit Cal Adv-01 at 10, fn. 43.

Cal-Am proposes to accrue AFUDC at the rate of its actual cost to fund construction, applying the actual cost to the net average monthly investment carried in the MPWSP Phase 1 Project Costs Memorandum Account.¹⁷⁶¹⁸⁰ This includes \$7.4 million¹⁷⁷¹⁸¹ of short-term debt used to fund Cal-Am's MPWSP costs prior to October 2021.¹⁷⁸¹⁸² Cal-Am's actual cost of debt prior to October 2021 is reflected in its 7.61% rate of return, which consists of short-term and long-term debt and equity. Cal-Am's rate of return in 2022 and later years will be based on the rate of return adopted in the 2021 cost of capital proceeding (A.21-05-001).

This decision adopts the actual weighted-average-cost-of-debt incurred by Cal-Am as the AFUDC rate. The parties' dispute regarding the appropriate AFUDC rate is summarized in Section 7.3.1 and discussed in Section 7.3.2.

7.3.1. Parties' Positions

Cal Advocates argues that the Commission should authorize an AFUDC interest rate of 1.16%, rather than Cal-Am's full rate of rate of return.¹⁷⁹¹⁸³ Cal Advocates contends the short-term borrowing rate is appropriate because AWWCC is financing the CWIP at an average short-term borrowing rate of 1.16%.¹⁸⁰¹⁸⁴ Cal Advocates contends that ratepayers should not have to pay over six times the actual cost of Cal-Am's short-term borrowing costs, noting that this

¹⁷⁶¹⁸⁰ Cal-Am Exhibit CAW-02 at 19.

¹⁷⁷¹⁸¹ Under the terms of the comprehensive settlement term adopted in D.18-09-017, American Water Works Capital Corp (AWWCC), a subsidiary of American Water Works Company, Inc. (which is the parent company of Cal-Am), would finance \$20 million in MPWSP funds using short-term debt, with \$12.6 million allocated to desalination costs and \$7.4 million allocated to other project costs. Cal-Am used the short-term financing prior to October 2021. (D.18-09-017 at 143 fn. 388, 195 (COL #19).)

¹⁷⁸¹⁸² Cal-Am Exhibit CAW-02 at 23.

¹⁷⁹¹⁸³ Cal Advocates Phase 1 Opening Brief at 13-14.

¹⁸⁰¹⁸⁴ Cal Advocates Exhibit PAO-01 at 8-9.

interest rate increase is profit that will compound when the interest is included as rate base upon the operation of the Company-related facilities.¹⁸¹¹⁸⁵ Cal Advocates urges the Commission to adopt the short-term borrowing rate of ~~1.1.6~~^{1.16}%, acting as a substitute for competition and preventing Cal-Am from collecting a rate of return which would “would not be tolerated in a competitive environment.”¹⁸²¹⁸⁶ MPWMD supports Cal Advocates’ proposed AFUDC interest rate reduction.¹⁸³¹⁸⁷

Cal-Am opposes Cal Advocates’ AFUDC interest rate reduction proposal, arguing that it has been funding construction with short-term debt, long-term debt, and equity.¹⁸⁴¹⁸⁸ Cal-Am states that it would have to restate its AFUDC from the beginning of 2011 if the Commission were to adopt Cal Advocates’ recommendation.¹⁸⁵¹⁸⁹

7.3.2. Discussion

AFUDC is typically determined on a project-by-project basis. The Commission considers three risk factors when determining the AFUDC of a project: (1) the capital-intensive nature of the project, (2) the length of time for construction, and (3) permitting needs.¹⁸⁶¹⁹⁰ The Commission historically viewed short-term projects (usually completed in less than a year) or projects with a high certainty of completion as low-risk, often allowing for AFUDC at less than the utility’s authorized rate of return. The Commission also considered the

¹⁸¹¹⁸⁵ *Id.* at 9.

¹⁸²¹⁸⁶ Cal Advocates Phase 1 Opening Brief at 14.

¹⁸³¹⁸⁷ MPWMD Phase 1 Opening Brief at 17.

¹⁸⁴¹⁸⁸ Cal-Am Phase 1 Opening Brief at 34.

¹⁸⁵¹⁸⁹ Cal-Am Phase 1 Reply Brief at 22.

¹⁸⁶¹⁹⁰ D.08-05-036.

completion of permitting, such as the environmental review process, as lowering project risk.¹⁸⁷¹⁹¹

The Commission views long-term, capital-intensive, or projects needing environmental review as higher risk, and has historically authorized an AFUDC rate at the utility's rate of return to reflect the risks or actual projected costs of the project. If it can be shown that actual carrying costs are less than the authorized rate of return, (i.e., closer to the cost of debt), the Commission has, at times, adjusted the AFUDC to the cost of debt.^{188192,189193} For example, in D.03-09-022, the Commission authorized an AFUDC of a project, determining that:

[it] remains unclear at this time when (or whether) any plant construction will commence. Therefore, allowing these preliminary costs to earn the utility's authorized rate of return now carries with it a significant risk that the ratepayers may never receive the benefits of these expenditures.¹⁹⁰¹⁹⁴

We have reviewed the PWM Expansion Project and find that length of the project, the capital-intensive nature of the project, and the multitude of pending environmental permits warrant use of an AFUDC rate at the weighted average cost-of-debt Cal-Am incurred. The PWM Expansion Project is expected to take an additional two to three years to complete, exceeding the one year average for short-term projects. The PWM Expansion Project is also capital intensive, necessitating an estimated \$49,086,577 million in additional funding to construct or complete four extraction wells, a chemical treatment facility, a pump station, a 36-inch pipeline, and associated piping. Finally, water quality permits have

¹⁸⁷¹⁹¹ Id. at 17.

¹⁸⁸¹⁹² See D.08-05-036 at 13.

¹⁸⁹¹⁹³ Id. at 16.

¹⁹⁰¹⁹⁴ D.03-09-022 at 22.

proven to be a significant risk to the success of the PWM Project and may continue to pose risks to the operation of the PWM Expansion Project. However, we do not include the equity component of Cal-Am's request in order to further incentivize timely completion of the PWM Expansion Project. Granting recovery at the weighted-average-cost-of-debt strikes a balance between Cal-Am's assumed risk for the project and ratepayer protections in the event that construction is unduly delayed. Accordingly, we authorize an AFUDC at the weighted average cost of-debt Cal-Am incurred over the course of the PWM Expansion Project for the EW-1/EW-2 facility, the EW-3/EW-4 facility, and the Parallel Pipeline.

Since we allow recovery for the Carmel Valley Pump Station since 2011, for costs incurred under its previous iteration as the Valley Green Pump Station, in D.18-09-017 and D.10-12-016, we will also allow AFUDC recovery for the Carmel Valley Pump Station at the previously authorized AFUDC rate. From the effective date of D.10-12-016 to the effective date of D.18-09-017 for the Carmel Valley Pump Station is authorized an AFUDC rate of four percent which Cal-Am may true-up to reflect actual carrying costs.¹⁹⁵ From the effective date of D.18-09-017 to the present, Cal-Am may recover the AFUDC rate at the actual cost of funds used to fund the project.¹⁹⁶

7.4. Removing Labor Overhead from the AFUDC

Cal-Am includes \$165,431 in labor overhead costs when calculating the AFUDC for the Company-related facilities.¹⁹⁴¹⁹⁷ Cal Advocates opposes

¹⁹⁵ D.10-12-016 at 145, 190-191 (FOFs 203,206, 207).

¹⁹⁶ D.18-09-017 at 144-145, 186 (FOF 150).

¹⁹⁴¹⁹⁷ Labor Overhead costs include \$81,236 in labor overhead for "Allocated Common Actuals through October 2021" and \$84,195 in labor overhead for "Direct Project Actuals through

including the labor overhead costs when calculating AFUDC, arguing that internal labor overhead is already allocated in Cal-Am's GRC.¹⁹²¹⁹⁸ According to Cal Advocates, allowing Cal-Am to recover financing costs for internal labor overhead would result in double recovery.¹⁹³¹⁹⁹

We have reviewed the record related to AFUDC calculations and agree with Cal Advocates' arguments. Labor overhead is already included in the rates approved through Cal-Am's GRC and should not accrue AFUDC. Cal-Am must remove labor overhead costs when calculating the AFUDC for Company-related facilities.

7.5. Recovery of Costs above the Cost Cap

Parties generally support or do not object to Cal-Am's tracking and cost recovery mechanism with the exception of Cal Advocates. Cal Advocates recommends that Cal-Am be allowed to seek cost recovery for amounts exceeding the cost caps for the Company-related facilities in Cal-Am's next GRC, rather than through a consolidated Tier 3 advice letter. Cal-Am opposes Cal Advocates' proposal, arguing that review in the next GRC would delay recovery of costs by years.¹⁹⁴²⁰⁰

After considering the matter, we find it prudent to allow Cal-Am to recover costs above the cost cap through its next applicable GRC proceeding. The GRC will allow for adequate record development to review these additional costs. As discussed in Section 1.2.1, Cal-Am may also file an application or the

through October 2021" and \$84,195 in labor overhead for "Direct Project Actuals through October 2021." (Cal-Am Exhibit CAW-2 at 23-24 ("Attachment 3-6 AFUDC").)

¹⁹²¹⁹⁸ Cal Advocates Phase 1 Opening Brief at 15.

¹⁹³¹⁹⁹ *Id.* at 15.

¹⁹⁴²⁰⁰ Cal-Am Phase 1 Opening Brief at 18.

Commission may issue an OII to determine the reasonableness of Cal-Am's expenditures for common actuals for the MPWSP in the event the desalination plant is not constructed in a timely manner or fails to operate appropriately.

8. Public Comments

Pursuant to Rule 1.18(a) of the Commission's Rules of Practice and Procedure,¹⁹⁵²⁰¹ all written public comments submitted in a proceeding that are received prior to the submission of the record will be entered into the administrative record of that proceeding. Pursuant to Rule 1.18(b), relevant written comments submitted in a proceeding will be summarized in the final decision issued in the proceeding.

Prior to the submission of the record in Phase 1 of this proceeding on July 27, 2022, 16 public comments were received and are available for review in the public comments tab of the docket card for this proceeding. The public comments all appear to be submitted by customers in Cal-Am's service area. The public comments uniformly oppose further rate increases proposed in this application, and many customers mention that they already pay the highest water rates in the nation.

No parties to this proceeding responded to, or cited, any public comment in their filings in this proceeding, as allowed by Rule 1.18(b). As the public comments were general and consistent with public comments routinely submitted in utility applications requesting rate increases, no further party comment was requested in the course of Phase 1 of this proceeding pursuant to Rule 1.18(d).

¹⁹⁵²⁰¹ All references to "Rule" or "Rules" shall refer to the Commission's Rules of Practice and Procedure.

9. Comments on Proposed Decision

The proposed decision of ALJ Zita Kline in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed ~~on (date), and reply comments were filed on~~ by Cal-Am, MPWMD, M1W, MCWD, City of Marina, and Cal Advocates on October 25, 2022. Reply comments were filed by Cal-Am, M1W, MPWMD, MCWD, City of Marina, Cal Advocates, and PWN on October 25, 2022.

Revisions to the proposed decision made in response to party comments are discussed below and incorporated throughout the decision. Party positions which merely restate arguments made during the course of the proceeding are not addressed further.

9.1. Authorization to Construct the EW-1/EW-2 Facility

The proposed decision initially deferred authorization to construct or approval of a budget cap for the EW-1/EW-2 facility to Phase 2 of this proceeding.

In comments, MPWMD states its view that the treatment of mercury above MCLs is a "normal occurrence" and considers the Commission's review in Phase 2 of this proceeding as an "unfortunate delay."²⁰² MPWMD recommends the Commission approve the EW-1/EW-2 facility in this decision and "order Cal-Am to respond within 30 days with any abatement actions taken since September 2021 to address mercury treatment at the Seaside Middle School locations should

²⁰² MPWMD Opening Comments on the Proposed Decision at 3.

they be needed.”²⁰³ MPWMD views the “Response to Inquiry” ordered in the proposed decision as outside the scope of the proceeding identified in Phase 1 and outside the scope of Phase 2 issues.²⁰⁴

City of Marina views the Commission’s further review of water quality issues in Phase 2 as “undermining the Proposed Decision’s approval of the Amended WPA” and recommends the Commission review water quality issues, authorize construction of the EW-1/EW-2 facility, and adjust the cost cap for the EW-1/EW-2 facility through a Tier 2 advice letter filed within 60-days of a final Phase 1 decision.²⁰⁵

MCWD recommends the Commission review any water quality concerns using an advice letter process, which MCWD believes would be more expeditious than including review in Phase 2 of this proceeding.²⁰⁶ MCWD believes that, since the Commission’s Water Division “monitors water quality and operations matters,” that the Water Division should address water quality concerns through either a Tier 2 or a Tier 3 advice letter process.²⁰⁷

M1W supports the City of Marina’s proposal to review mercury concerns through the advice letter process.²⁰⁸ PWN agrees that mercury issues can be dealt with through an advice letter process.²⁰⁹

²⁰³ *Ibid.*

²⁰⁴ *Id.* at 2.

²⁰⁵ City of Marina Opening Comments on the Proposed Decision at 9-12.

²⁰⁶ MCWD Opening Comments on the Proposed Decision at 4-5.

²⁰⁷ *Id.* at 5.

²⁰⁸ M1W Opening Comments on the Proposed Decision at 4.

²⁰⁹ PWN Reply Comments on the Proposed Decision at 1.

Cal-Am states that, while a deferral on the EW-1/EW-2 facility is not necessary, it is prepared to file the “Response to Inquiry” ordered in the proposed decision.²¹⁰ However, review of the EW-1/EW-2 facility water quality issues through an advice letter process is amenable to Cal-Am because it would allow Cal-Am to move forward with construction of the facilities sooner.²¹¹

Cal Advocates does not oppose further consideration of water quality issues in Phase 2 of this proceeding, but requests the Commission provide parties with at least 15 days to provide comments on the “Response to Inquiry.”²¹²

We have reviewed the parties’ comments and agree that water quality issues at the EW-1/EW-2 can be assessed through a Tier 3 advice letter, and amend the decision accordingly.

9.2. Claims of Retroactive Reduction of Cal-Am’s AFUDC

The proposed decision initially sets the AFUDC for all company-related facilities at the same rate, which is the weighted-average-cost of debt.

Cal-Am argues that the proposed decision errs in adopting a retroactive reduction in the AFUDC for the Company-related facilities by limiting the AFUDC accrual to the weighted-average-cost of debt. Cal-Am asserts that it properly accrued AFUDC for the Company-related facilities with a mixture of short-term debt, long-term debt, and equity in compliance with D.16-09-021 and D.18-09-017.²¹³ According to Cal-Am, neither the caselaw cited nor the record evidence support the proposed decision’s adoption of the weighted-average-cost

²¹⁰ Cal-Am Reply Comments on the Proposed Decision at 3.

²¹¹ Id. at 3.

²¹² Cal Advocates Opening Comments on the Proposed Decision at 1-2.

²¹³ Cal-Am Opening Comments on the Proposed Decision at 3.

of debt over Cal-Am's proposed AFUDC rate.²¹⁴ Cal-Am estimates the proposed decision's adopted AFUDC rate lowers Cal-Am's recovery by \$7 to \$9 million if the AFUDC rate is intended to apply to the desalination plant costs as well.²¹⁵ Cal-Am argues that such a substantial capital structure adjustment needs to be recognized in the current cost-of-capital proceeding (A.21-05-001), particularly with respect to the impact on return on equity.²¹⁶

Cal-Advocates disagrees with Cal-Am's assertion, arguing that the proposed decision does not violate the prohibition on retroactive ratemaking because the AFUDC is typically determined on a project-by-project basis and the Commission did not establish an AFUDC for the PWM Expansion Project in any prior proceeding.²¹⁷ Cal Advocates argues that the proposed decision aligns well with the cost of capital proceeding, which sets the rate of return on rate base during the years 2022-2024.²¹⁸ All project costs, including AFUDC, will be included in rate base once they become used and useful, earning Cal-Am's full rate of return.²¹⁹ This is also consistent with Pub. Util. Code Section 451, which requires rates to be just and reasonable.²²⁰

We reviewed the parties' comments and considered the merit of Cal-Am's claims that the AFUDC for any of the Company-related facilities was determined in prior Commission decisions. D.16-09-021 adopted an AFUDC for the original

²¹⁴ *Id.* at 4-5.

²¹⁵ *Id.* at 3.

²¹⁶ Cal-Am Opening Comments on the Proposed Decision at 3.

²¹⁷ Cal Advocates Reply Comments on the Proposed Decision at 2.

²¹⁸ *Id.* at 2-3.

²¹⁹ *Ibid.*

²²⁰ *Id.* at 3.

PWM Project but did not contemplate the AFUDC for any of the Company-related facilities for the PWM Expansion Project herein. Therefore, D.16-09-021 is not controlling and does not implicate any retroactive ratemaking concerns. With regard to D.18-09-017, this decision considered and rejected authorization of the PWM Expansion project. Therefore, we agree with Cal-Advocates that the Commission did not approve or establish an AFUDC for the PWM Expansion project in any prior proceeding.

However, the proposed decision allows Cal-Am to include post-construction authorization of the Carmel Valley Pump Station as part of the Company-related facilities reviewed in this proceeding. The proposed decision recognizes the Carmel Valley Pump Station as serving a substantially similar purpose as the Valley Greens Pump Station, for which D.18-09-017 allowed an AFUDC rate recovery at the actual cost of funds used to fund the project.²²¹ Therefore, the proposed decision is amended to allow AFUDC recovery for the Carmel Valley Pump Station costs at the rate allowed for in D.18-09-017, from the effective date of that decision to the present. The proposed decision also recognizes that the Valley Greens Pump Station was approved by the Commission in D.10-12-016 and authorizes an AFUDC recovery at the rate authorized in this decision, which is an initial rate of four percent that Cal-Am may true-up to reflect actual carrying costs, from the effective date of D.10-12-016 to the effective date of D.18-09-017.²²²

9.3. Status of the MPWSP

²²¹ D.18-09-017 at 144-145, 186 (FOF 150).

²²² D.10-12-016 at 145, 190-191 (FOFs 203, 206-207).

The proposed decision details several permitting delays and community opposition to the 6.4 mgd desalination plant. However, City of Marina recommends the decision include all of the additional permitting and legal challenges that must be overcome for Cal-Am to build the 6.4 mgd desalination plant.²²³ MPWMD supports City of Marina's characterization of the many additional hurdles to construction of the 6.4 mgd desalination identified by City of Marina.²²⁴

Cal-Am states that the CCC's CDP permit is the most significant permit required for construction of the desalination plant before construction can commence on the slant intake wells.²²⁵ Cal-Am notes the changed circumstances of the 6.4 mgd desalination plant, with CCC finding that Cal-Am's application is complete and scheduling a hearing in November 2022 as well as what Cal-Am alleges is a recent agreement between CAW and M1W on the design of the slip liner, which will need to be approved by the CCC.²²⁶ Cal-Am argues that the 6.4 mgd desalination plant continues to move forward with the project, recently stating an intent to pursue a smaller 4.8 mgd.²²⁷ Cal-Am urges the Commission to reject City of Marina's recommendations to make findings regarding the MPWSP that are already, or will soon be, outdated.²²⁸

Upon review, we agree with City of Marina that the proposed decision does not include an exhaustive list of all permitting issues and potential litigation

²²³ City of Marina Opening Comments on the Proposed Decision at 5-7.

²²⁴ MPWMD Reply Comments on the Proposed Decision at 2.

²²⁵ Cal-Am Reply Comments on the Proposed Decision at 3-4.

²²⁶ *Ibid.*

²²⁷ *Id.* at 4.

²²⁸ *Ibid.*

which could delay the construction of the MPWSP. We also agree with Cal-Am that making specific findings to the status of all pending permits, litigation, and other obstacles to the construction of the MPWSP will result in an update that may soon be outdated. We add additional but non-exhaustive issues brought by City of Marina and MPWMD to better reflect a more accurate portrayal of the current challenges to construction of the 6.4 mgd desalination plant while recognizing that Cal-Am may remedy some or all of them in the near or long-term.

9.4. Parties' Request to Adopt Water Demand Estimate

The proposed decision does not adopt water supply and demand estimates but finds the Phase 1 record sufficient to support a near-term need for PWM Expansion Project. In comments, MCWD recommends the Commission adopt Cal-Am's 5-year water demand estimate of 9,231 AFY as a finding of fact in this Phase 1 decision.²²⁹ Similarly, City of Marina, recommends the Commission adopt a decision which includes a water demand for Cal-Am's Monterey Peninsula customers of no more than 9,231 AFY.²³⁰ Relatedly, MPWMD objects to Cal-Am's references to a water demand of 14,000 AFY in opening comments.²³¹ Cal-Am opposes MCWD, City of Marina, and MPWMD's proposal to adopt a water demand estimate in Phase 1 of this decision as premature.²³²

²²⁹ MCWD Opening Comments on the Proposed Decision at 5.

²³⁰ City of Marina Opening Comments on the Proposed Decision at 9.

²³¹ MPWMD Reply Comments on the Proposed Decision at 2.

²³² Cal-Am Reply Comments on the Proposed Decision at 4-5.

After review of the parties' comments and reply comments, we agree with Cal-Am any estimates of water supply and demand are properly adopted in Phase 2 of this proceeding.

9.5. Parties' Characterization of the PWM Expansion Project as an Alternative to the Desalination Plant

In opening comments, City of Marina characterizes the proposed decision's approval of the Amended WPA as for "an alternative water supply to the much-delayed and still not permitted [MPSWP]." ²³³ Cal-Am opposes City of Marina's characterization of the PWM Expansion Project as an "alternative water supply" to the MPWSP, considering the PWM Expansion Project as a source of supplemental water to Cal-Am while not alleviating the need for the MPWSP. ²³⁴

We have reviewed the parties' comments and make no changes to the decision. The term "alternative source of water," as used in this decision, considers all new sources of water as alternatives to Cal-Am's diversion of water from the Carmel River. As stated in the factual background of the proposed decision:

California American Water Company (Cal-Am or Company) has been looking to provide alternative sources of water to its customers on the Monterey Peninsula since 1995, when the State Water Resources Control Board (SWRCB) issued a cease and desist order requiring Cal-Am to stop the unlawful diversion of 10,730 acre-feet per year (AFY) of water from the Carmel River. ²³⁵

²³³ City of Marina Opening Comments on the Proposed Decision at 2,4.

²³⁴ Cal-Am Reply Comments on the Proposed Decision at 3-4.

²³⁵ SWRCB Order WR 95-10 (Jul. 5, 1995).

There is no discussion of the PWM Expansion Project as an alternative to the MPWSP and none should be inferred from this decision, which is limited to Phase 1 issues.

9.6. The Purpose of the Carmel Valley Pump Station

In comments, MPWMD states that the proposed decision's characterization of the purpose of the Carmel Valley Pump Station as unchanged from the purpose of the Valley Greens Pump Station is in error. According to MPWMD, the purpose of the Carmel Valley Pump Station differs from the Valley Greens Pump Station because the Carmel Valley Pump Station no longer functions to move excess winter flows from the Carmel River out of the valley for injection into the Seaside Basin as part of the ASR.²³⁶

Cal-Am opposes MPWMD's characterization of the Valley Greens Pump Station as having a different purpose of than the Carmel Valley Pump Station and supports the proposed decision's description.²³⁷ Cal-Am indicates that the only description of the Valley Greens Pump Station in either D.10-12-016 or D.18-09-017 is D.10-12-016's reference to the settlement agreement adopted in the proceeding, which state:

This booster station will pump water to the Segunda Tanks (Numbers 1 and 2), to help provide operational flexibility in maintaining storage levels in the Forest Lake Tanks, while also allowing the transfer of treated water from Begonia Iron Removal Plant to Seaside for ASR injection and for meeting system demands.²³⁸

²³⁶ MPWMD Opening Comments on the Proposed Decision at 3-4.

²³⁷ Cal-Am Reply Comments on the Proposed Decision at 5.

²³⁸ Id. at 5.

We have reviewed these comments and determined that no change is necessary to the proposed decision.

9.7. Use of a Saturation Adjustment

Cal-Am objects to the proposed decision's contemplation of the use of a saturation adjustment as contrary to the Commission's practice of applying such adjustments only to circumstances involving new developments and facilities that are not used and useful, asserting those circumstances are not applicable here.²³⁹ Cal-Am objects to the proposed decision's language proposing to apply a saturation adjustment in the event Company-related facilities "are not put into use as expected" as inappropriate, misleading, and a confusing addition to the Tier 2 advice letter review process.²⁴⁰

We have considered Cal-Am's comments and find that the potential for application of a saturation adjustment is consistent with Commission past practice here, where Cal-Am has requested recovery based on facilities approved with different names for different projects, sometime multiple different projects, which were never built. The Commission has taken great care to conduct a review of Cal-Am's projects related to water supply issues on the Monterey Peninsula since 2010 in an attempt to match past projects with the purposes of Cal-Am's proposed facilities for the PWM Expansion Project, finding connections where those were reasonable. The proposed decision defines the purpose of the proposed Company-related facilities for the PWM Expansion clearly and cost recovery should present no confusion if Cal-Am builds the four approved

²³⁹ Cal-Am Opening Comments on the Proposed Decision at 12.

²⁴⁰ Id. at 13.

facilities and requests recovery on its proposed timeline for the PWM Expansion Project.

9.8. Other Technical and Factual Errors

This section addresses parties' comments regarding various perceived technical and factual errors in the proposed decision. First, Cal Advocates, M1W, MPWMD, City of Marina, and MCWD join in pointing out a list of minor factual and technical errors in opening comments.²⁴¹ Cal-Am and PWN do not take a position on these proposed corrections.²⁴² We find these recommendations reasonable and incorporate them in the final decision.

Second, M1W, MPWMD, and MCWD request that statements related to MCWD's separate agreement with M1W and MCWD for water provided from the PWM Expansion Project be removed from Section 6.2 of the proposed decision. According to these parties, the proposed decision implies that MCWD is a party to the Amended WPA. Upon review, it appears that MCWD, M1W, and MPWMD equate the Amended WPA with the PWM Expansion Project. Therefore, the decision is amended to clarify that MCWD receives an entitlement from M1W's AWTF through a separate agreement and not from the Amended WPA or the PWM Expansion Project. This correction explains M1W's development costs more accurately and is relevant to the ultimate cost recovery M1W will seek from Cal-Am's ratepayers through its cost of water sold through the Amended WPA.

²⁴¹ Cal Advocates Opening Comments on the Proposed Decision at 3-6; M1W Opening Comments on the Proposed Decision at 7; City of Marina at 12-13; MCWD Opening Comments on the Proposed Decision at 8-11; MPWMD Opening Comments at 2.

²⁴² Cal-Am Reply Comments on the Proposed Decision; PWN Reply Comments on the Proposed Decision.

Third, Cal Advocates advises the Commission to modify the proposed decision's characterization of Cal-Am's actual rate of return to remove the equity component.²⁴³ Cal-Am states that both the proposed decision's and Cal Advocates' characterizations are in error and suggests two alternative ways to characterize Cal-Am's rate of return.²⁴⁴ We adopt Cal-Am's suggestions for FOF 66 to remove the reference to short-term debt.

Fourth, Cal-Am proposes to change FOF 12 to clarify that Phase 2 of this proceeding will consider the sufficiency of source water for long-term water supply planning purposes to prevent prejudging of Phase 2 issues.²⁴⁵ M1W opposes Cal-Am's proposal to modify FOF as an attempt to relitigate Phase 1 issues, which include a review of source waters.²⁴⁶ Upon review, the Commission finds Cal-Am's arguments persuasive and modifies FOF 12 to clarify that the Commission's review of source waters for the purpose of reviewing the Amended WPA is separate from its consideration of source waters for long-term planning purposes.

Fifth, Cal-Am proposes to modify the language of FOF 4, to state that Cal-Am and M1W have agreed to the design of the slip liner and the design is 95% complete.²⁴⁷ M1W opposes Cal-Am's proposed language, arguing that the current language of FOF 4 in the proposed decision is correct.²⁴⁸ Upon review,

²⁴³ Cal Advocates Opening Comments on the Proposed Decision at 2-3, App. A.

²⁴⁴ Cal-Am Reply Comments on the Proposed Decision at 1-2.

²⁴⁵ Cal-Am Opening Comments on the Proposed Decision at 15.

²⁴⁶ M1W Reply Comments on the Proposed Decision at 2-3.

²⁴⁷ Cal-Am Opening Comments on the Proposed Decision at 14-16.

²⁴⁸ M1W Reply Comments on the Proposed Decision at 3-4.

we find the rationale behind M1W's opposition to the Cal-Am's proposed language persuasive and keep the language of FOF 4 unchanged.

Sixth, Cal-Am proposes to eliminate FOF 5, which finds that City of Marina has not approved a CPD for a needed liner for discharge of effluent.²⁴⁹ City of Marina opposes Cal-Am's suggested deletion as wrong as a matter of fact and law.²⁵⁰ Upon review, we do not change FOF 5.

Seventh, Cal-Am objects to the proposed decision's statement that Cal-Am "abandoned its efforts at a desalination plant in 2012" as inaccurate.²⁵¹ Cal-Am goes on to more fully describe the circumstances of the withdrawal of its petition for clarification of the Regional Desalination Project and its filing of Application 12-04-019, seeking approval of the MPWSP.²⁵² We find Cal-Am's request to modify the language related to this phrasing reasonable and modify the decision accordingly.

Eighth, the City of Marina request the proposed decision's language linking the updated supply and demand estimates for the MPWSP to the Amended WPA is confusing and may undermine the decision's approval of the Amended WPA.²⁵³ We agree with City of Marina's recommendation and revise the decision accordingly.

²⁴⁹ Cal-Am Opening Comments on the Proposed Decision at 15-16.

²⁵⁰ City of Marina Reply Comments on the Proposed Decision at 5.

²⁵¹ Cal-Am Opening Comments on the Proposed Decision at 14; Proposed Decision at 53,68 (FOF 56).

²⁵² Cal-Am Opening Comments on the Proposed Decision at 14.

²⁵³ City of Marina Opening Comments on the Proposed Decision at 9.

10. Assignment of Proceeding

Darcie L. Houck is the assigned Commissioner and Zita Kline is the assigned ALJ and Presiding Officer in this proceeding.

Findings of Fact

1. The previously authorized 6.4 mgd desalination plant, for which the Commission issued a CPCN in D.18-09-017, was not built by December 31, 2021.
2. A CDP is needed from the CCC as well as the City of Marina prior to construction of the 6.4 mgd desalination plant.
3. By letter dated February 8, 2022, the CCC continues to find the CDP for the 6.4 mgd desalination plant incomplete because it requires additional information on the outfall for discharge of effluent from the 6.4 mgd desalination plan, which is owned and operated by M1W.
4. M1W does not agree to a design for the outfall of the 6.4 mgd desalination plant and declines to conduct the necessary environmental review for the outfall or apply for the necessary permits needed for the outfall until the Commission approves the Amended WPA.
5. The City of Marina has not approved a CDP needed for liner work on the outfall for discharge of effluent needed for construction of the 6.4 mgd desalination plant.
6. The currently projected average five-year production supply is inadequate to meet the five-year average customer demand of the Cal Am customers on the Monterey Peninsula without an additional source of water.
7. In D.18-09-017, the Commission indicated that in the event that the 6.4 mgd desalination plant was not expected to be completed by December 31, 2021, the Commission allowed Cal-Am to submit an application for approval of a WPA for the PWM Expansion Project, for up to 2,250 AFY, through an

application which included the following: (1) sources of supply water; (2) development costs; (3) prices for sales of the developed water; (4) contractual details; (5) environmental effects; (6) potential to obtain necessary permits; (7) water quality; (8) sources of funding; (9) possible related facilities; and (10) other information necessary and relevant for the Commission to make an informed, just and reasonable decision, including details as to supply and production, including not only during average rainfall years but also during a multi-year drought and the timing of expanded production.

8. Under the Original WPA, M1W was contracted to provide 3,500 AFY of water.

9. The PWM Expansion Project ~~is expected to produce~~requires 3,081 AFY of water to provide an additional 2,250 AFY of purified recycled water.

10. M1W requires a total of 7,874 AFY to generate the ~~5,570~~5,750 AFY of purified recycled water contracted under the Amended WPA.

11. M1W's total available source water for production of purified recycled water under the Amended WPA is 11,104 AFY.

12. The sources of supply water identified by M1W and the MPWMD will be sufficient to meet the ~~5,570~~5,750 AFY of purified recycled water contracted under the Amended WPA. The Commission will make a separate determination regarding the sufficiency of these sources for long-term water supply planning purposes for the MPWSP in Phase 2 of this proceeding.

13. The PWM Expansion Project requires M1W and MPWMD to construct new and expanded facilities, including improvements at the existing Advanced Water Purification Facility to increase peak capacity; additional product water conveyance facilities; additional injection well facilities; additional monitoring

wells, including the relocation of a previously approved monitoring well; and new potable water extraction and delivery facilities consisting of four new extraction wells, conveyance pipelines, and treatment facilities.

14. The PWM Expansion Project includes construction of the following Cal-Am Company-related facilities: (a) EW-1, EW-2, and water treatment facilities; (b) EW-3, EW-4, and associated piping; (c) the Carmel Valley Pump Station; and (d) the General Jim Moore Parallel Pipeline.

15. M1W's and MPWMD's total combined estimated development costs for facilities necessary to increase production of purified recycled water under the Amended WPA is \$49.2 million.

16. M1W's and MPWMD's estimated cost of purchased water is \$3,429/ AF for the 2024/2025 fiscal year.

17. The annual cost of water under the Amended WPA is expected to escalate by 6% or more each year in the near-term.

18. The Amended WPA increases Cal-Am's treated water allotment from 3,500 to 5,750 AFY over a 30-year term, upon operation of the PWM Expansion Project.

19. Under the Amended WPA, Cal-Am has an option to extend the agreement for up to 10 years.

20. The Amended WPA provides for performance guarantees in the event that the PWM Expansion Project fails to deliver ~~5,570~~[5,750](#) AFY of water, allowing MPWMD to owe Cal-Am a shortfall of water, which it can use to offset the cost of drawing replacement water from the Seaside Basin.

21. The terms of the Amended WPA give Cal-Am a right to terminate the Amended WPA in the event M1W and MPWMD fail to deliver the additional

~~5,570~~5,750 AFY of water by February 1, 2026, or if the MPWMD fails to meet performance guarantees.

22. Operative Provision Number No. 16 is extended under the Amended WPA to allow Cal-Am to pay only: (1) the cost of water it receives and can use, (2) to pay for water based on the actual cost of water and (3) to pay only its proportionate costs.

23. The Amended WPA also extends budgeting provisions approved in Operative Provision No. 15 and ratemaking provisions in General Provision No. 18 of the Original WPA.

24. The PWM Expansion Project, which includes proposed construction of Cal Am's facilities, including water extraction wells, treatment facilities, and conveyance piping, constitutes a "project" for purposes of environmental review under the California Environmental Quality Act of 1970 (CEQA), as amended, Public Resources Code Section 21000, *et seq.*

25. M1W is the lead agency under CEQA for the PWM Expansion Project because the project is located in the M1W service area and M1W is undertaking the construction of the project, in partnership and with funding from MPWMD and Cal-Am.

26. The Commission is a responsible agency under CEQA.

27. The Commission reviewed and considered the environmental compliance documents filed by the parties, including the SEIR.

28. M1W issued an SEIR for the PWM Expansion Project in 2021 which identified a number of environmental effects of the project and identified mitigation measures for most effects.

29. The mitigation measures associated with the construction of Cal-Am's facilities are detailed in the following sections of the attached Appendix C, SEIR's mitigation and monitoring plan: AE-2, AE-3, AE-4, AQ-1, BT-1a to BT-1d, BT-1f, BT-1h to BT-1k, BT-1m, BT-4, CR-2b, CR-2c, EN-1, NV-1a, NV-1c, NV-1e, NV-1f, NV-2, PS-3, TR-2, TR-3, and TR-4.

30. The SEIR identified that the impact of construction noise and the secondary effects of growth inducement either would or could remain significant following mitigation measures described in the SEIR.

31. The SEIR evaluated alternatives, including a no project alternative, and adopted a statement of overriding consideration finding that the benefits of the PWM Expansion Project outweighed the significant adverse environmental effects that are not mitigated to less than significant levels.

32. M1W and Cal-Am must obtain a number of state and local permits to construct and operate facilities necessary to provide 2,250 AFY of additional purified treated water under the Amended WPA, as enumerated in Section 6.6 of this decision and the attached Appendix D.

33. To be deemed potable, wastewater requires treatment for virus and microbe reduction pursuant to CCR title 22 Section 60320.208.

34. The underground retention time between the M1W injection wells and ASR-1 is insufficient to meet the requirements of CCR Title 22, Article 5.2, Section 60320.208(a).

35. Water samples collected from well ASR-4 on June 16, 2021, and July 6, 2021, contained concentrations of mercury above the maximum contamination level set by SWRCB.

36. M1W and MPWMD require the Amended WPA to secure financing for the PWM Expansion Project.

37. MW1 and MPWMD expect the annual debt of \$2.1 million to service the loan would be paid by the sale of treated water to Cal-Am.

38. EW-1 and EW-2 are proposed extraction wells, located in an easement on a portion of the Monterey Peninsula Unified School District property at Seaside Middle School.

39. Cal-Am plans to use wells EW-1 and EW-2 as the new, primary extraction point for PWM Expansion Project treated water.

40. EW-1 and EW-2 are both in the permitting and design phase, with construction expected to start in the second quarter of 2023, and operation expected by the end of the third quarter of 2024.

41. EW-3 and EW-4 are located on U.S. Army land, in the same location as ASR wells ASR-5 and ASR-6.

~~42. — EW 3 and EW 4 were originally designed to provide redundancy for EW 1 and EW 2 for the PWM Expansion Project.~~

42. ~~43.~~ With the loss of ASR-1 for groundwater extraction in September 2021, wells EW-3 and EW-4 could be used to replace ASR-1 as a groundwater extraction point for the PWM Project, increase reliability of groundwater extraction, and free up existing ASR wells (ASR-1 to ASR-4) for simultaneous injection of Carmel River water during the wet season.

43. ~~44.~~ EW-3 and EW-4 are both in the permitting and design phase, with construction expected to start in the fourth quarter of 2022 and operation expected by the end of the first quarter of 2025.

44. ~~45.~~ The purpose of the Carmel Valley Pump Station is to pump water from the Forest Lake reservoirs to the Upper Carmel Valley.

45. ~~46.~~ The Carmel Valley Pump Station was first proposed by Cal-Am as the Valley Greens Pump Station for a public-private partnership called the Regional Desalination Project.

46. ~~47.~~ The Parallel Pipeline is a 7,000-foot pipeline measuring 36-inches in diameter.

47. ~~48.~~ The Parallel Pipeline was designed to carry water from the ASR-1/ASR-2 facility to the Hilby Pump Station.

48. ~~49.~~ A 1,100-foot section of the Transfer Pipeline is included in Cal-Am's recovery request for the Parallel Pipeline.

49. ~~50.~~ The 1,100-foot section of the Transfer Pipeline connects the ASR-1/ASR-2 facility with the ASR-3/ASR-4 facility.

50. ~~51.~~ Cal-Am records the costs of the MPWSP in the MPWSP Phase 1 Project Costs Memorandum Account.

51. ~~52.~~ The PWM Expansion Project will help reduce pumping from the Salinas Groundwater Basin, reduce runoff into the Monterey Bay, reduce pollutant loads to the lower Salinas watershed, and help combat seawater intrusion into local groundwater aquifers.

52. ~~53.~~ The PWM Expansion Project helps relieve Cal-Am's reliance on the Carmel River, thereby helping Cal-Am comply with the SWRCB's cease and desist order.

53. ~~54.~~ The Company-related facilities will be used and useful when they are in use and providing service (*i.e.* operational).

54. ~~55.~~ The cost cap for all four Company-related facilities includes costs starting as early as 2011.

55. ~~56.~~ Early 2011 through summer of 2014 corresponds to the period when Cal-Am initially planned to complete Phase 1 of its Regional Desalination Project, ~~though it abandoned its efforts at a desalination plant in 2012.~~

56. ~~57.~~ From 2012 to the present day, Cal-Am pursued the MPWSP, some elements of which are still ongoing.

57. ~~58.~~ The Parallel Pipeline was not contemplated as part of either the Regional Desalination Project or the MPWSP.

58. ~~59.~~ There is no basis for allocating 12% of common actuals through October 2021 to the Parallel Pipeline.

59. ~~60.~~ The PWM Expansion Project, including all four extraction wells, was rejected by the Commission in D.18-09-017, and excluded from the MPWSP prior to this application.

60. ~~61.~~ The environmental review for the PWM Expansion Project SEIR and the rest of the MPWSP were conducted separately.

61. ~~62.~~ There is no basis for allocating 28% of common actuals through October 2021 to the EW-1/EW-2 facility.

62. ~~63.~~ Wells EW-3 and EW-4 are sited in the same location as wells ASR-5 and ASR-6, which were approved for the ASR project as part of the MPWSP but never built.

63. ~~64.~~ Common actuals for the MPWSP through 2021 allocated to wells ASR-5 and ASR-6 did not provide a benefit for ratepayers because they were never built.

64. ~~65.~~ The current purpose of the Carmel Valley Pump Station remains the same as its original purpose, as approved in the Regional Desalination Project and the MPWSP, *i.e.*, to pump water to ~~part~~parts of the Monterey System affected by the SWRCB cease and desist order.

65. ~~66.~~ Cal-Am's actual ~~cost of debt consists of short term and~~financing costs consist of long-term debt and equity.

66. ~~67.~~ The PWM Expansion Project is expected to take an additional two to three years to complete.

67. ~~68.~~ The PWM Expansion Project is capital intensive.

68. ~~69.~~ Water quality permits have proven to be a significant risk to the success of the PWM Project and may continue to pose risks to the operation of the PWM Expansion Project.

69. The Commission authorized AFUDC rates for the Valley Greens Pump Station in D.10-12-016 and D.18-09-017.

70. Cal-Am included \$165,431 in labor overhead costs when calculating the AFUDC for the Company-related facilities.

71. Labor overhead is already included in the rates approved through Cal-Am's GRC.

72. Labor overhead approved in general rate cases does not accrue AFUDC.

73. Review of costs in Cal-Am's next applicable general rate case will allow for adequate record development for the Commission to evaluate costs for the Company-related facilities which are above the adopted cost cap.

Conclusions of Law

1. Because the 6.4 mgd desalination plant was not built by December 31, 2021, and sufficient water capacity is unlikely to be available to meet the near-term need for water for Cal-Am's customers on the Monterey Peninsula, it

is necessary for the Commission to consider the PWM Expansion Project and the Amended WPA for the PWM Expansion Project as an alternative source of water for Cal-Am's customers on the Monterey Peninsula.

2. The PWM Expansion Project, including the Cal-Am Company-related facilities, and the Amended WPA are reasonable, prudent, and in the public interest and should be approved.

3. The ratemaking proposals for the Amended WPA, and related facilities, are reasonable.

4. Cal-Am's water supply and demand estimates support approval of the Amended WPA.

5. Cal-Am should be authorized to construct and operate the following Company-related facilities, as part of the PWM Expansion Project: (1) extraction wells EW-3 and EW-4, and related piping, (2) the General Jim Moore Parallel Pipeline and the 1,100-foot section of the Transfer Pipeline; and (3) the Carmel Valley Pump Station.

6. M1W's and MPWMD's estimated costs for the development of facilities necessary to increase production of purified recycled water under the Amended WPA are reasonable.

7. M1W's and MPWMD's estimated costs for purified recycled water under the Amended WPA are reasonable.

8. The SEIR for the PWM Expansion Project prepared by the lead agency, as required by CEQA, is adequate for our decision-making purposes.

9. The Commission should approve and adopt the mitigation measures associated with the construction of Cal-Am's facilities which are detailed in the following sections of the attached Appendix C, SEIR's mitigation and monitoring

plan: AE-2, AE-3, AE-4, AQ-1, BT-1a to BT-1d, BT-1f, BT-1h to BT-1k, BT-1m, BT-4, CR-2b, CR-2c, EN-1, NV-1a, NV-1c, NV-1e, NV-1f, NV-2, PS-3, TR-2, TR-3, and TR-4.

10. There is compelling public health and safety need to meet the projected regional water supply demand; therefore, the Commission should adopt the statement of overriding considerations for the PWM Expansion Project, including the Company-related facilities.

11. The necessary water supply resulting from construction of the PWM Expansion Project merits approval of the Amended WPA as well as the PWM Expansion Project, including the Company-related facilities, notwithstanding the significant and unavoidable adverse impact of construction noise and the secondary effects of growth inducement.

12. Water quality requirements necessary to provide purified treated water under the Amended WPA should be monitored closely by M1W, MPWMD, and Cal-Am.

13. The sources of funding for the construction of M1W's and MPWMD's facilities are reasonable.

14. The purchase of treated water under the Amended WPA is just, reasonable, and in the public interest.

15. The Company-related facilities will be used and useful when they start to provide service.

16. A cost cap of \$16,723,704 for the EW-1/EW-2 facility is reasonable.

17. ~~16.~~ A cost cap of \$30,220,960 for the EW-3/EW-4 facility is reasonable.

18. ~~17.~~ A cost cap of \$8,264,655 for the Parallel Pipeline facility is reasonable.

19. ~~18.~~ A cost cap of \$6,475,000 for the ~~Central~~Carmel Valley Pump Station facility is reasonable.

20. ~~19.~~ The labor overhead should be removed from AFUDC calculations.

21. ~~20.~~ The weighted-average-cost-of-debt should be used to calculate the AFUDC for the EW-1/EW-2 facility, the EW-3/EW-3 facility, and the Parallel Pipeline.

22. The AFUDC rate for the Carmel Valley Pump Station should be authorized at the rate approved in D.10-012-016, from the effective date of this decision to the effective date of D.18-09-017.

23. The weighted average cost for the Carmel Valley Pump Station should be authorized at the AFUDC rate authorized in D.18-09-017 from the effective date of this decision to the present.

24. ~~21.~~ Cal-Am should record costs for the PWM Expansion Project in a subaccount of the MPWSP Phase 1 Project Costs Memorandum Account called the "PWM Expansion Project Costs Memorandum Account."

25. ~~22.~~ Cal-Am should seek recovery of costs above the cost caps for the Company-related facilities through the next applicable GRC.

26. ~~23.~~ The reasonableness of costs for common actuals for the MPWSP not approved in this application should be considered in an application filed by Cal-Am or reviewed through a Commission Order Instituting Investigation in the event the desalination plant is not implemented in a timely manner or fails to operate appropriately.

27. ~~24.~~ All rulings and orders issued to date by the assigned Commissioner and the assigned ALJ should be affirmed.

28. ~~25.~~ All pending motions relating to issues in Phase 1 of this proceeding, not expressly addressed by the assigned ALJ or assigned Commissioner should be deemed denied.

29. ~~26.~~ This proceeding should remain open to consider Phase 2 issues.

O R D E R

IT IS ORDERED that:

1. California-American Water Company is authorized to enter into the Amended and Restated Water Purchase Agreement, attached to this decision as Appendix A.
2. California-American Water Company (Cal-Am) shall actively participate in each Monterey One Water (M1W) and Monterey Peninsula Water Management District (MPWMD), or their successor entities, rate proceedings involving the Amended and Restated Water Purchase Agreement (Amended WPA), attached to this decision as Appendix A. Cal-Am shall serve and file its written comments to the M1W or MPWMD proposal in the applicable rate proceeding(s). Cal-Am's written comments shall identify any and all concerns of Cal-Am with M1W's and MPWMD's proposals and provide alternative recommendations, if appropriate. If Cal-Am has no concerns, Cal-Am, in its written comments, shall state that it has no concerns. At the time Cal-Am serves and files its comments on the service list of the rate proceeding at issue, including M1W or MPWMD, Cal-Am shall simultaneously serve an electronic copy of the comments on the Commission's Director of Water Division and the service list of this proceeding.
3. California-American Water Company is authorized to construct and operate the following Company-related facilities: (1) extraction wells EW-1 and

EW-2, and the chemical treatment facility; (2) extraction wells EW-3 and EW-4, and related piping; (23) the General Jim Moore Parallel Pipeline and the 1,100-foot section of the Transfer Pipeline; and (34) the Carmel Valley Pump Station.

~~4. — The Commission’s review of extraction wells EW-1 and EW-2 and the associated chemical treatment facility is deferred to Phase 2 of this proceeding.~~

4. ~~5.~~ California-American Water Company must file a “Response to Inquiry” within 30 days of the issuance date of this decision, providing additional information discussing the extent of mercury above maximum contamination levels in the vicinity of ASR-4, the potential for mercury to impact extracted water from the EW-1/EW-2 site, ~~and~~ any proposal to treat the mercury, and the potential cost impacts from mercury treatment as a Tier 3 advice letter to the California Public Utilities Commission’s Water Division within 30 days of the issuance date of this decision. Water Division is directed to increase the cost cap herein authorized for the EW-1/EW-2 facility, as reasonable, to address additional remediation measures.

5. ~~6.~~ The Mitigation Monitoring and Reporting Plan, attached to this decision as Appendix C, is adopted.

6. ~~7.~~ California-American Water Company (Cal-Am) shall carry out the following identified mitigation measures associated with the construction of Cal-Am’s facilities which are detailed in the attached Appendix C: AE-2, AE-3, AE-4, AQ-1, BT-1a to BT-1d, BT-1f, BT-1h to BT-1k, BT-1m, BT-4, CR-2b, CR-2c, EN-1, NV-1a, NV-1c, NV-1e, NV-1f, NV-2, PS-3, TR-2, TR-3, and TR-4.

7. ~~8.~~ California-American Water Company (Cal-Am) is authorized to construct wells EW-3, EW-4, and the associated pipelines, on condition that Cal-Am complies with the following identified mitigation measures associated with the construction of Cal-Am's facilities which are detailed in the attached Appendix C: AE-2, AE-3, AE-4, AQ-1, BT-1a to BT-1d, BT-1f, BT-1h to BT-1k, BT-1m, BT-4, CR-2b, CR-2c, EN-1, NV-1a, NV-1c, NV-1e, NV-1f, NV-2, PS-3, TR-2, TR-3, and TR-4.

8. ~~9.~~ California-American Water Company is authorized to track direct costs for the four Company-related facilities, including the allowance for funds used during construction, in a subaccount of the Monterey Peninsula Water Supply Project Phase 1 Costs Memorandum Account called the "PWM Expansion Project Costs Memorandum Account."

9. ~~10.~~ California-American Water Company shall submit a Tier 1 Advice Letter to the Commission's Water Division within 30 days of the date of issuance of this decision requesting to establish the PWM Expansion Project Costs Memorandum Account for the purpose of tracking PWM Expansion Project costs.

10. ~~11.~~ Within 60 days after operation commences at any of the Company-related facilities approved in this decision, California-American Water Company shall notify the Director of the Commission's Water Division by electronic letter indicating that the facility is completed and fully in service.

11. ~~12.~~ Within 60 days of notifying the Commission's Water Division of facility operation, California-American Water Company (Cal-Am) shall seek recovery of the costs of Company-related facilities up to the following cost caps using a Tier 2 Advice Letter: (1) \$16,723,704 for extraction wells EW-1 and EW-2, and the chemical treatment facility; (2) \$30,220,960 for extraction wells

EW-3 and EW-4 and related piping; ~~(23)~~ \$8,264,655 for the General Jim Moore Parallel Pipeline and the 1,100-foot section of the Transfer Pipeline; and ~~(34)~~ \$6,475,000 for the Carmel Valley Pump Station. Cal-Am's Tier 2 AL filing shall provide the following: (1) a description of the facilities that are used and useful;^{7.1} (2) whether the costs are reasonable;^{7.1} and (3) whether the facilities are appropriately sized.

12. ~~13.~~ California-American Water Company is authorized to seek recovery for the additional costs incurred subsequent to October 2021, when the costs exceed the rate caps adopted for the Company-related facilities, through the next applicable general rate case.

13. ~~14.~~ All rulings issued to date by the assigned Commissioner and the assigned Administrative Law Judge in this proceeding are affirmed.

14. ~~15.~~ All pending motions relating to issues in Phase 1 of this proceeding, not expressly addressed by the assigned Administrative Law Judge or assigned Commissioner are denied.

15. ~~16.~~ Application 21-11-024 remains open to resolve Phase 2 issues.

This order is effective today.

Dated _____, at Chico, California.

Document comparison by Workshare Compare on Monday, October 31, 2022
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Description	(Rev. 1) A.21-11-024 Decision Authorizing California-American Water Company
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Moved to	2
Style change	0
Format changed	0

Total changes	1217
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Monterey Audubon Society
PO Box 5656
Carmel, CA 93921

California Coastal Commission
455 Market Street, San Francisco, CA 94105

Re: California American Water Company's ("CalAm") CDP Application #9-20-0603

Dear Commissioners,

I write today on behalf of Monterey Audubon's 1000 members who live on or near Monterey's Coastline. We are concerned about the environmental impacts of the proposed Cal Am desalination project scheduled for the Commission's review. We believe that the project as devised is inconsistent with the Coastal Act, and accordingly ask that you deny the CDP.

This project was originally proposed to facilitate Cal Am's compliance with a Cease-and-Desist order to stop removing water illegally from the Carmel River. Since that time, institutional and environmental circumstances have changed materially, and the project can no longer be justified. Several other alternative water sources are already available. Specifically, recycling with Pure Water Monterey combined with enhanced aquifer storage and recharge is a viable alternative that will adequately serve as a reliable source for public water supply for Peninsula communities. Other technologies and locations are also available for water production that would avoid the Project's negative impacts to the Monterey Dune ecosystem.

The Project's proposed slant wells will be situated in the Monterey Bay coastal dune ecosystem and would destroy seven acres of extremely rare habitat, including designated Western Snowy Plover habitat and nesting areas. These dunes are habitat for over 33 listed and special status species that require the highest level of protection. The dunes are also considered Environmentally Sensitive Habitat Area and shouldn't be impacted through industrial development. They are already at risk due to sea level rise and no additional stressors should be put on this system. Dune development of this type, coupled with sea-level forecloses the upshore retreat species like Snowy Plover will need in coming decades if they are to survive. To allow coastal habitat destruction and restrict public access when better alternatives are available is unacceptable.

The Commission should wait to act until the CPUC has completed its current reassessment of Peninsula water supply and demand, which is likely to demonstrate the availability of a feasible alternative that would avoid environmental impacts to the Coastal Zone and substantially reduce rate impacts to disadvantaged communities.

Please vote "no." Do not ignore the Coastal Act requirements for projects to demonstrate public welfare and environmental justice.

A handwritten signature in black ink, appearing to read "Blake Matheson".

Blake Matheson
President
Monterey Audubon Society



Sustainable Seaside

1739 Havana St., Seaside CA 93955
(831) 915-7257 sustainableseaside@gmail.com
www.sustainablemontereycounty.org

Monday, November 10, 2022

Re: Cal Am Monterey Desal Project – Application No. 9-20-0603 – Oppose

Dear California Coastal Commissioners

Sustainable Seaside is a local chapter of Communities for Sustainable Monterey County. Our organization represents over 800 local residents who share a common concern about quality of life for all members of our Seaside, California community. We advocate for the equitable implementation of sustainable and regenerative practices to slow and adapt to the impacts of climate change facing our city and the surrounding region.

We write in opposition to the desalination plant proposed by the California American Water Company (Cal Am). Our concerns related to the project's environmental impacts are:

1. Cal Am's plant is expected to release 8,000 metric tons of greenhouse gas into the atmosphere each year. This would make Cal Am the largest contributor of climate-warming CO2 emissions on the Central Coast and would hinder county and state goals for addressing climate change.
2. The placement of the plant's intake wells above Marina's freshwater aquifers, even if moved slightly offshore, would disrupt their natural replenishment and induce sea water intrusion, which would put Marina's sole groundwater supply at risk of saltwater contamination.
3. The project's extraction wells, its operational infrastructure, and its access roads would sprawl and fence-off 30 acres of what is now scenic coastal sand dunes that provide habitat to sensitive species. Even with Cal Am's proposed phased project approach, the construction, operations, and maintenance activities under Phase I would still be environmentally damaging insofar as they would fracture the coastal environment, especially impacting Snowy Plover breeding and nesting grounds.
4. We are also concerned about the economic and environmental injustices that Cal Am's project would impose on our communities. The cities of Seaside and Marina are working-class communities and many residents live below the poverty line. The city of Seaside is the most economically vulnerable community in Cal Am's Monterey Peninsula service area.

The Monterey Peninsula Water Management District reported in a 2019 study that the average residential water bill could nearly double if Cal Am's desalination plant is implemented. Such a steep rate increase would cause economic hardship to low-income residents, possibly driving some out of their homes and out of the area.

The placement of the desalination plant in Marina would disproportionately hurt communities of color. The burning of fossil-fuels needed for desalination and the greenhouse gas emissions from the plant would create a pollution corridor. The diminished air quality would pollute Marina's inland neighborhoods and harm the predominately minority communities living there.

Moreover, if Cal-Am's project is allowed to proceed, it would impede restoration efforts on the site of the former Cemex sand mining plant. Underserved residents of both Marina and Seaside would stand to lose the coastal access, the recreation, and the education benefits promised under the terms of the 2017 settlement agreement between CEMEX and the Coastal Commission, the State Lands Commission, and the City of Marina.

A publicly-owned desalination plant may be part of the Monterey Peninsula's future water supply plans, however Cal Am's project is economically and environmentally unjust, disruptive to eco-systems, and fraught with uncertainties that could further delay or prevent its implementation. The Pure Water Monterey reclaimed water project offers a feasible alternative. It is a climate-friendly, cost-effective, and equitable solution to our future water needs for at least 30 years without harming our coast, Marina's groundwater sources, or the wellbeing of our communities.

We strongly urge the Commissioners to deny Cal Am's proposed project. We ask that you instead consider the Pure Water Monterey Project as the preferred solution to our Monterey Peninsula water supply needs.

Sincerely,



Catherine Crockett
Sustainable Seaside Chair

On behalf of the Sustainable Seaside Steering Group:

Kay Cline

Bertrand Deprez

Matthew Hess

Tom Hughes

Donna Penwell

Cathy Rivera

Bill Weigle

Roelof Wijbrandus



Sustainable Seaside is a chapter of Communities for Sustainable Monterey County, a 501c3 nonprofit. www.sustainablemontereycounty.org

COALITION OF PENINSULA BUSINESSES
A coalition to resolve the Peninsula water challenge to
comply with the CDO at a reasonable cost

*Members Include: Monterey County Hospitality Association, Monterey Commercial Property Owners' Association,
Monterey Peninsula Chamber of Commerce, Carmel Chamber of Commerce, Pacific Grove Chamber of Commerce,
Monterey County Association of Realtors, Associated General Contractors-Monterey Division,
Community Hospital of the Monterey Peninsula*

November 10, 2022

The Honorable Donne Brownsey, Chair, and Members
John Ainsworth, Executive Director and Tom Luster, Senior Environmental Scientist
California Coastal Commission
45 Fremont Street, Ste. 2000
San Francisco, California 94105

Transmitted by fax to 415-904-5400, email to John.Ainsworth@coastal.ca.gov, Tom.Luster@coastal.ca.gov and EORFC@coastal.ca.gov

Re: Application No. 9-20-0603 and Appeal No. A-3-MRA-19-0034(Monterey Peninsula Water Supply Project - MPWSP)

Dear Chair Brownsey, Honorable Coastal Commission Members, and gentlemen:

The Coalition of Peninsula Businesses shares the Commission's goal of bringing the public to the Monterey Peninsula to enjoy the ocean and the beautiful coast. These goals depends on sufficient water for coastal accommodations and for critically needed, and now mandated, workforce housing.

The Coalition of Peninsula Businesses (CPB) urges you to agree with the Commission staff recommendation and support the Monterey Peninsula Water Supply Project. The Peninsula needs a stable and sufficient water supply. The oft-mentioned alternatives to the three legged water supply approach (a portfolio of projects) - the Pure Water Monterey (PWM) and its expansion (PWMe) combined - do not provide a stable and sufficient water supply and there is serious dispute with the county's critically important ag interests whether the expansion can be even accomplished for municipal uses as contemplated. The desal plant provides needed stability and redundancy.

Just a decade ago, multiple parties - including Marina Coast Water District, Monterey County Water Resources Agency and California American Water Co.- reached agreement on a water supply project that eventually failed for reasons other than project efficacy. The present project is a scaled-down version of that Regional Desal Project with source water wells located in the area suggested by Marina Coast Water District. The present project will be phased in and opens up the possibility of a publicly controlled regional expansion that would benefit at least the entire county.

Please approve the Coastal Development Permit necessary to allow this water supply project to proceed. Please allow this closure to the Monterey Peninsula's four decades of agonizing attempts to solve its water supply problem and four decades-long attempt to stop the environmental damage to the Carmel River.

Sincerely,



Jeff Davi, Co-chair



John Tilley, Co-chair

Board of Directors
Darcy M. Burke, President
Andy Morris, Vice President
Chance Edmondson, Treasurer
Harvey R. Ryan, Director
Phil Williams, Director



Elsinore Valley Municipal Water District

Our Mission...

The EVMWD team delivers total water management that powers the health
and vibrancy of its communities so life can flourish.

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CALIFORNIA
COASTAL COMMISSION

General Manager
Greg Thomas
District Secretary
Terese Quintanar
Legal Counsel
Best Best & Krieger

October 25, 2022

Ms. Donne Brownsey, Chair
California Coastal Commission
455 Market St., Suite 300
San Francisco, CA 94105

**SUBJECT: MONTEREY PENINSULA WATER SUPPLY PROJECT – APPLICATION
NO. 9-20-0603 - SUPPORT**

Dear Chair Brownsey:

On behalf of Elsinore Valley Municipal Water District (EVMWD), we strongly urge your support for Application No. 9-20-0603 during your November 17, 2022 Coastal Commission hearing to advance the Monterey Peninsula Water Supply Project through the Commission's permitting process and towards construction of this essential water resilience project.

EVMWD is a public water agency that provides water service, wastewater treatment and recycled water service, and water supply development and planning. The District has over 49,000 water and 36,000 wastewater service connections. The District is a retail agency of the Western Municipal Water District, a member agency of the Metropolitan Water District of Southern California. Most of the District's water, approximately sixty-five percent, is imported into southern California via aqueducts, pipelines and storage reservoirs.

California is experiencing increasingly extreme weather conditions, with less predictable precipitation patterns, followed by longer and more frequent dry and hot periods. Climate change is reducing the reliability of our precipitation and snowpack. Produced locally, desalinated water provides new, high-quality water, and is resilient to both climate change and drought. Desalination can transform inland brackish water as well as coastal seawater into a drinkable supply. Desalination's ability to generate new water supplies in the face of an unrelenting drought is a valuable attribute that should be a strong component in our state's efforts to improve drought resiliency and water sustainability.

Your consideration of action on Application 9-20-0603 on November 17, 2022 is critical to protecting the quality of life and economy within the Monterey region that will benefit from the Monterey Peninsula Water Supply Project. Not only will the project provide up to 4.8 MGD of reliable, locally controlled water supplies for the region, it will do so using technology that is environmentally protective of ocean resources and marine life. The Monterey Peninsula Water Supply Project will use advanced slant wells that protect

marine life by using subsurface water intake technology. This project will advance environmentally protective technologies and will be valuable in providing much-needed relief from decades of drought that have created an unprecedented water crisis in the Monterey region.

While the reality is that California's ongoing and persistent drought conditions may be a new way of life for our state. You have it within your ability as Members of the California Coastal Commission to make decisions – through approval of the Monterey Peninsula Water Supply Project to help one region of the state move forward in the pursuit of a water resilient future that helps sustain the quality of life and regional economy.

Again, EVMWD strongly urges your support for Application No. 9-20-0603 at your November 17, 2022 hearing. Please don't hesitate to contact me at gthomas@evmwd.net or 951-674-3146 if you have any questions regarding our organization's comments on these matters.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Thomas", with a long horizontal flourish extending to the right.

Greg Thomas
General Manager

cc: Members, California Coastal Commission
Ian Crooks, California American Water



November 11, 2022

Mr. John Ainsworth
Executive Director
California Coastal Commission
455 Market Street
San Francisco, CA 94105

Via Email

RE: Cal-Am's CDP Application #9-20-0603

Dear Mr. Ainsworth:

Today marks the final day to submit comments to the Coastal Commission on the above-referenced Coastal Development Permit (CDP) application prior to the Commission's hearing November 17th.

Previously, the Monterey Peninsula Water Management District has written you to explain why such a hearing is premature, but at this point we simply want to highlight that the Commissioners have insufficient accurate data in front of them to make an informed decision. We encourage you to delay this significant decision until you have appropriate information before allowing ratepayers on the Monterey Peninsula to get saddled with a \$400 million dollar project that there is no need for, which damages the coastal environment and does not resolve environmental justice issues.

The Applicant has provided you flawed data that wildly overstates future demand for water and falsely discounts the capacity of existing and future supplies. This creates a fictional crisis that the Applicant contends can only be solved by this particular desalination plant in this particular location.

The Commission Staff Report dated November 4, 2022 incorrectly concludes, based on false and misleading data, that the Pure Water Monterey Expansion project alone is likely inadequate to meet demand over the next twenty years. For that reason, denial of the Project would adversely affect the public welfare, according to the Report. That conclusion is at odds with evidence in the record showing that Pure Water Monterey Expansion would clearly provide enough supplemental water to meet demand for more than twenty years. That evidence has not been considered in the staff report. The Commission should review the evidence that has been overlooked to determine whether a project of this size is really needed, and if so, when.

In fact: (a) Pure Water Monterey Expansion is a viable alternative to the desalination plant, delivering more than enough water supply for the next 30 years; (b) It is far less environmentally damaging; and (c) It has no impacts on the Coastal Zone.

I have attached a technical memorandum that shows that the Coastal Commission Staff Report:

Mr. Ainsworth
Page 2 of 2
November 11, 2022

- Willfully ignores data and conclusions of other experts in the field;
- Presents data riddled with errors;
- Makes conclusions where alternate conclusions have been ignored; and
- Presents data that is presently under review and not definitively complete, and should not be used to make a Commission decision.

Just as it did in November 2019, the Commission should ask additional questions and defer action on the Application until it gets appropriate answers.

We hope the Coastal Commission will defer action on CDP Application #9-20-0603. Given the number of unresolved issues, there is a significant likelihood that the project will need to come back before you anyway.

Sincerely,



David J. Stoldt
General Manager



MPWMD Technical Memorandum

Errors and Omissions in Coastal Commission Staff Report

Application 9-20-0603 / Appeal A-3-MRA-19-0034 (California American Water Co.)

The Coastal Act governs location and expansion of coastal-dependent industrial facilities (Cal. Pub. Resources Code § 30260). The Commission may approve a Coastal Development Permit (CDP) if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.

The Commission Staff Report dated November 4, 2022 incorrectly concludes, based on false and misleading data, that the Pure Water Monterey Expansion project alone is likely inadequate to meet demand over the next twenty years. For that reason, denial of the Project would adversely affect the public welfare. Because that conclusion is at fault, the Commission's deliberation in its hearing is adversely constrained, and the Commission has had the openness of its decision-making preempted.

In fact: (a) Pure Water Monterey Expansion is a viable alternative to the desalination plant, delivering more than enough water supply for the next 30 years; (b) It is far less environmentally damaging; and (c) It has no impacts on the Coastal Zone.

This memorandum will show that pages 143-147 of the Staff Report:

- Willfully ignores data of other experts in the field Staff had in hand;
- Presents data riddled with errors;
- Makes conclusions, where alternate conclusions have been ignored; and
- Presents data that is presently under review and not definitively complete and should not be used to make a Commission decision.

Just as it did in November 2019, the Commission should ask additional questions and defer action on the Application until it gets appropriate answers.

Staff Report Willfully Ignores Other Experts

Commission staff were provided, or otherwise had access to, the supply and demand data of two other professional organizations with water forecasting expertise that result in different conclusions than that provided by the Staff Report to the Commissioners.

For example, the Marina Coast Water District (MCWD) provided Commission staff with the August 19, 2022 Phase 2 Direct Testimony of Peter Mayer, principal of Water Demand Management, LLC (“WaterDM”). WaterDM is a nationally recognized water consulting firm providing expertise and services in municipal and industrial water use, research, and analysis; conservation and demand management planning and implementation; integrated water resources planning; drought preparedness; demand forecasting; and related matters.

Mr. Mayer’s principal conclusions – supported by data and an extensive report available to Commission staff – included:

“Cal-Am’s revised 2022 water demand forecast provided in Ian Crooks’ testimony is overstated.”

“A more realistic demand forecast prepared by WaterDM projects Cal-Am’s 2050 demands to be 11,160 AF, which is more than 3,400 AF lower than Cal-Am’s overstated forecast.”

“With the addition of 2,250 AF from the Pure Water Monterey Expansion, Cal-Am can meet future demand in 2050.”

MCWD is an experienced water supplier and performs Urban Water Management Plans every 5 years, just like Cal-Am. They have both internal and external expertise to understand supply and demand forecasting methods. Testimony of their General Manager made available to Commission staff states “MCWD believes CalAm’s future demand projections are vastly overstated.” And “MCWD understands the additional 2,250 AFY that would be supplied by expansion of the PWM project proposed in Phase 1 would allow CalAm to meet its customers’ needs for at least the next two or three decades.”

On October 19, 2022 the Monterey Peninsula Water Management District provided to Coastal Commission staff its adopted 2022 Supply & Demand Forecast and the Phase 2 Direct Testimony of David Stoldt its General Manager.

The District is a legislatively created public water district whose boundaries include the Cal-Am system subject to the Application presently in front of the Coastal Commission. The District’s

activities include monitoring the compliance of Cal-Am water production with the State's Cease and Desist Order and the Superior Court's adjudication, wholesale of Pure Water Monterey water to Cal-Am, operation of supply from the District's Aquifer Storage and Recovery project, conservation programs, and environmental mitigation on the Carmel River due to Cal-Am water withdrawals. It's General Manager, David Stoldt has over 30 years of infrastructure experience, an MBA from Stanford, a MS from Berkeley, and a degree in Civil and Environmental Engineering from the University of Illinois. In a previous position at PG&E he performed demand forecasting in an investor-owned utility setting.

Mr. Stoldt's principal conclusions – supported by data and the reports provided to Commission staff – included:

“The future Supply versus Demand analysis shows that the addition of the Pure Water Monterey Expansion meets the region's demand needs for over 30 years and a new Cal-Am desalination plant, or some other alternative, is not needed.”

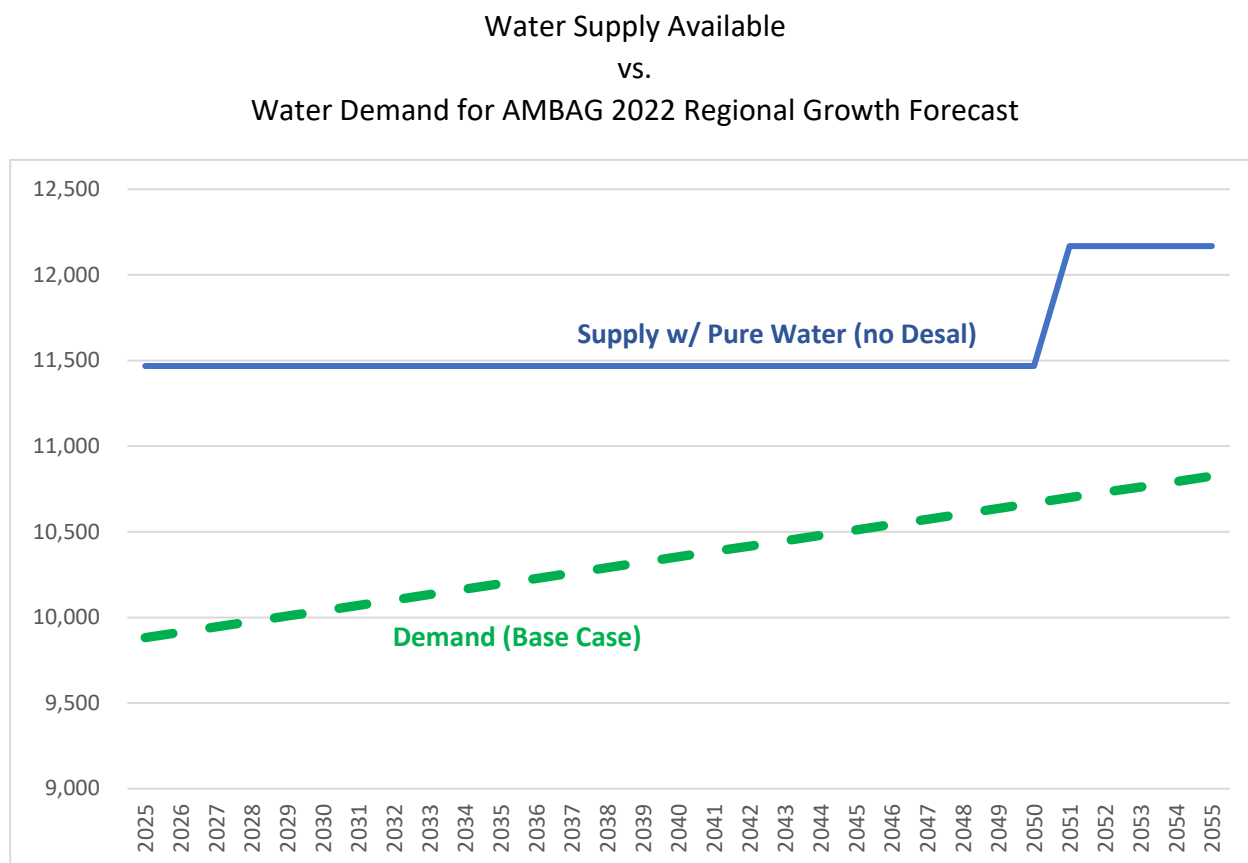
“MPWMD also analyzed a demand forecast 50% higher, at 47.2 AF per year of average growth. At that level, available supplies (with Pure Water Monterey Expansion, without a desalination plant) exceed water demand for over 30 years. In fact, MPWMD's model shows that at 63 AF per year of average growth – 200% of or twice the water forecasted to be required for the AMBAG 2022 Regional Growth Forecast – supplies are available for over 30 years.”

The District's forecasting methodology is based on the Association of Monterey Bay Area Governments (AMBAG) 2022 Regional Growth Forecast which forecasts population and economic growth for the coming 25-year period. Use of a fully-vetted third-party growth forecast is a very objective way for projecting water demand increase without bias.

AMBAG implemented an employment-driven forecast model for the first time in the 2014 forecast and contracted with the Population Reference Bureau (PRB) to test and apply the model again for the 2018 Regional Growth Forecast (RGF). To ensure the reliability of the population projections, PRB compared results with a cohort-component forecast, a growth trend forecast, and the most recent forecast published by the California Department of Finance (DOF). **All four models** resulted in similar population growth trends. As a result of these reliability tests, AMBAG and PRB chose to implement the employment-driven model again for the 2022 Regional Growth Forecast. AMBAG has undergone a very vigorous testing regime of its models.

The District then translates the population growth to residential water use and the jobs growth as a proxy for overall growth in non-residential water use. Demand is then compared to

available supply available with Pure Water Expansion, but without a desalination plant. The results are shown in the chart below:



The District’s demand forecast, based on the AMBAG Regional Growth Forecast is shown below:

	2020	2025	2030	2035	2040	2045	2050	2055
Water Demand - AF	9,725	9,882	10,039	10,196	10,353	10,511	10,668	10,825

The results shown above differ significantly from the information presented by Coastal Commission staff in the Staff Report. This is because of the large number of errors contained in Table 4 and Table 5 on pages 145 and 146 of the Staff Report, discussed below.

The Staff Report Presents Data Riddled with Errors

The Coastal Commission staff report relies heavily on Tables 4 and 5 on pages 145 and 146 to create doubt about the capability of Pure Water Monterey Expansion to meet long term water demand. Those tables are derived from a document titled “Report and Recommendations of Office of Public Advocates in Phase 2”, CPUC No. A-21-11-024 dated August 19, 2022. As

discussed later, this data is presently under review and not definitively complete. Nevertheless, Coastal Commission staff has presented it as fact. It is replete with errors that are in dispute and misrepresent the complete body of data that was available to Commission staff.

Water Demand: Table 4 is presented again below. Identified are five identified errors subject to dispute in the CPUC proceeding and, as yet unresolved. They are labelled 1 through 5 and then individually discussed below.

Forecasted Demand (AF)	Cal Am						Cal Advocates					
	2025	2030	2035	2040	2045	2050	2025	2030	2035	2040	2045	2050
Residential demand	5,031	5,644	5,754	5,864	5,974	6,084	5,297	5,403	5,511	5,621	5,734	5,848
Non-Residential demand	4,834	5,019	5,204	5,389	5,574	5,759	3,030	3,091	3,152	3,215	3,280	3,345
Total Residential and Non-Residential demand	9,865	10,663	10,958	11,253	11,548	11,843	8,327	8,494	8,663	8,837	9,013	9,194
Pebble Beach Entitlements	-	65	130	195	260	325	-	65	130	195	260	325
Tourism	250	500	500	500	500	500	-	-	-	-	-	-
Legal Lots of Record												
Single Family Residential	-	59	103	147	190	234	-	-	-	-	-	-
Multi Family Residential	-	35	60	86	111	137	-	-	-	-	-	-
Commercial	-	158	274	389	505	621	-	158	274	389	505	621
Residential Remodels	-	27	47	66	86	106	-	27	47	66	86	106
Commercial Remodels	-	21	36	51	67	82	-	21	36	51	67	82
Legal Lots of Record Total		300	520	739	959	1,180	-	206	357	506	658	809
RHNA Demands	-	370	745	745	745	745	-	370	745	745	745	745
Total	10,115	11,898	12,853	13,432	14,012	14,593	8,327	9,135	9,895	10,283	10,676	11,073

Error #1: The Table 4 data in 2025 shows “Residential demand” at 51% of the total, and “Non-Residential demand” at 49%. But Cal-Am’s own historical data shows that its system is predominately a residential system with years of data showing residential demand at 66% of the total – 2021 was 69% due to COVID. Thus, their starting point does not even represent their own system. If one starts in the wrong place, it is likely one will end in the wrong place.

Error #2: The data provided by Cal-Am to the CPUC Public Advocates Office includes the wild assumption that when a new water supply comes on-line between 2025 and 2030, per capita water use will increase by almost 5 gallons per person per day. That is a nonsensical assumption. Water comes out of the tap today. Why would people use 10% more water when it costs 50-60% more with a desalination plant? This is both counterintuitive and inconsistent with current and future regulations. Residential per-capita water use will not increase over time and is expected to decline because of plumbing codes, appliance and fixture turnover, new technology and new housing. In addition to numerous local efficiency requirements, water waste restrictions, and tiered rates, the adoption of “Making Water Conservation a California Way of Life” (Senate Bill 606 and Assembly Bill 1668 of 2018), and its predecessor “the Water Conservation Act of 2009” will result in further reductions in per-capita use. Further, State law (Water Code Section 10609.4) sets efficiency standards for indoor residential water use beginning with 55 gallons per capita per day (“GPCD”) until 2025, 52.5 GPCD from 2025-2030,

then 50 GPCD onward. Recent Senate Bill 1157 (Hertzberg), signed into law by the Governor several weeks ago will reduce these standards to 47 GPCD from 2025-2030 and 42 GPCD after January 1, 2030. Thus, it is difficult to trust in Cal-Am assumptions.

Error #3: Legal Lots of Record and Regional Housing Needs Allocation (RHNA) Housing Numbers should not be added on top of the population forecast which drives residential water use. Population moves to the area and lives in either existing housing stock or new housing stock that is built on Legal Lots of Record. Housing is already included in the AMBAG Regional Growth Forecast. Thus, Legal Lots of Record is not additive. The new 6th Cycle Regional Housing Needs Allocation Plan 2023-2031 is reflected within the AMBAG Regional Growth Forecast and therefore also is not additive. Houses don't use water, people do – population estimates drive water demand not housing stock estimates. Table 4 of the Staff Report shows the Commissioners not just double-counting, but triple-counting. Cal Advocates make the same mistake in their data. These mistakes have not been resolved in an ongoing CPUC proceeding.

Error #4: Pebble Beach Entitlements are already included in the AMBAG Regional Growth Forecast – within population growth for Pebble Beach's new home lots and within non-residential demand for new hotel rooms or other commercial projects within the unincorporated County non-residential growth. It is within the AMBAG Growth Forecast so to separately estimate them is more double-counting. Cal Advocates makes the same mistake in their data. These mistakes have not been resolved in an ongoing CPUC proceeding.

Error #5: Tourism Rebound has already occurred with no corresponding increase in commercial water use. It is true that the Salinas-Monterey market was one of five California markets, out of 22, to experience significant declines in hotel occupancy after the events of 2001, from 71.8% in 2000 to 63.0% in 2001. It is also true that the decline persisted and was still down when the MPWSP desalination plant was sized in April 2012, with occupancy rates of 62.8% in 2011-12 and 64.1% in 2012-13. However, occupancy rates have since recovered with no notable increase in water demand. In 2016, hotel occupancy locally was back at approximately 72% and was estimated by Smith Travel Research to be higher for better quality properties on the Monterey Peninsula. Recently the Monterey County Convention and Visitors Bureau stated that occupancy rates were 75%-80% pre-COVID and are now in the low 70%-75% range. Hence, Tourism Rebound has already occurred.

Water Supply: Table 5 is not presented again here in full. There are only two significant identified errors subject to dispute in the CPUC proceeding and as yet unresolved:

Error #1: In its data, Cal-Am has intentionally discounted the value of Aquifer Storage and Recovery (ASR) by ignoring year-to-year storage, the "S" in "ASR". The whole project is predicated on storage of water in normal to wet years. Their consultant has since in as much admitted, "I wasn't asked to look at storage." The Cal Advocates numbers are closer to

reasonable, but District scientific evidence and testimony shows 1,300 AFY is a reasonable expectation.

Error #2: Both Cal-Am and Cal Advocates show reduced supplies by 10% for a “supply buffer”. In its CPUC testimony and its Adopted 2022 Supply & Demand Forecast the District showed less expensive and more robust methods to achieve the supply buffer without over-spending and over-relying on desalination capacity. Such information was previously provided to Coastal Commission staff. It is also discussed again below.

The Staff Report Ignores Alternate Conclusions

Page 145 of the Staff Report states “Commission staff has reviewed longer-term estimates presented in the Phase 2 CPUC proceeding and believes that there is a basis for demand of additional sources of water supply beyond the Pure Water Expansion at some time by 2050.” If staff had equally weighed the other available expert testimony and reports made available, and sought to better address the errors in the data, also identified in testimony provided to Commission staff, staff could easily have recommended to the Commission that Pure Water Monterey Expansion will likely provide sufficient supplies to meet needs beyond 2050.

Page 146 of the Staff Report also states “Cal Advocates also included a 10% “supply buffer.” This supply buffer addresses the potential for some under-supply by a factor of 10% (and, therefore, builds in a buffer in the supply estimate).”

Information provided to Coastal Commission staff clearly showed a contingency can be achieved by having additional stored water available to call upon at any time. This can be achieved by building up available storage in the early years where supply exceeds demand. In the initial years following completion and availability of Pure Water Monterey Expansion (2025) the available supplies exceed demands by over 1,500 AF per year. In the very first year, more than 10% of available supplies (1,147 AF) can be stored to satisfy any contingency. This information was ignored in the Staff Report and artificially reduces future water supplies available to meet demand.

The Staff Report also utilizes fears about drought as a suggestion to undermine future supply available from Pure Water Monterey Expansion, stating on page 147 “Moreover, drought conditions have become increasingly more severe, which is another significant factor in the analysis. The three-year period ending August 2022 was recorded as the driest three-year period in California since records began in 1895.” However, during the course of Commission staff’s review of this application, staff was informed that the Monterey Peninsula just ended its second dry year, rather than a 3-year drought. Furthermore, since October 1, 2022 the Monterey Peninsula rainfall totals constitute a “Normal” to “Above Normal” rainfall year.

Hence, drought is a local condition and Commission staff have overstated the conditions on the Monterey Peninsula.

The Staff Report Presents Data that is Under Review and Not Complete

As the Commission is aware, it was only as a result of a complaint filed by the Monterey Peninsula Water Management District citing Cal-Am's failure to make progress on a permanent water supply, that Cal-Am filed Application 21-11-024 with the CPUC seeking approval to enter into the Amended and Restated Water Purchase Agreement ("Amended WPA") with M1W for Pure Water Monterey Expansion.

A decision in Phase 2 of the CPUC proceedings regarding supply and demand is unlikely to occur before March of 2023. Yet the Staff Report cites data from that Phase 2 proceeding as if fact. Instead, it is important to understand that the proceeding is ongoing, the data cited by Commission staff has occurred at different times, has not been rebutted or scrutinized by other witnesses at this point, and Commission staff ignored other expert testimony provided in the same proceeding.

The Cal-Am information provided in the Staff Report pages 143-147 was submitted by Cal-Am to the CPUC on July 20, 2022. On that date, they were the only party to submit testimony.

On August 19, 2022 all other intervenors were allowed to file their direct testimony, including Cal Advocates and the expert witnesses Peter Mayer and David Stoldt. To date, there has been no opportunity for any party to respond to any of the August 19, 2022 testimony. That means Cal Advocates has not accommodated any comments from others and that no party's testimony has been fully vetted by others, yet it has been presented by Commission staff to the Commissioners to support a decision at the November 17th hearing, as fact, which it is not. It is an ongoing proceeding for which no conclusions of law or ordering language have been established by the CPUC. It simply should not be relied upon by the Coastal Commission to make a decision on the application.

The CPUC's Phase 2 determination on supply and demand will inform whether Cal-Am's currently proposed desalination plant is still needed and, if so, whether it is appropriately sized. Therefore, until the CPUC issues its Phase 2 decision, the Coastal Commission cannot make an informed decision that there are no feasible alternatives to Cal-Am's proposed desalination plant that would avoid the Project's inconsistencies with the City's LCP and the Coastal Act and are less environmentally damaging as required under Section 30260 of the Coastal Act.



November 10, 2022

Mr. Tom Luster
California Coastal Commission
Energy and Ocean Resources Unit
445 Market Street, Suite 300
San Francisco, CA 94101

Re: Support for the Monterey Peninsula Water Supply Project, CDP Application No. 9-20-0603

Dear Mr. Luster,

On behalf of the Monterey County Vintners & Growers Association, this letter conveys our support for the Monterey Peninsula Water Supply Project.

Our organization represents the Monterey County wine industry's winegrowers and winemakers. (For reference on the size of our region, we cultivate approximately the same number of acres of wine grapes as Napa.) Our industry employs over 6,000 people in Monterey County. As an industry, we are committed to three sustainability pillars - caring for our land, our employees, and our community.

The Monterey wine industry has a strong presence in the Cal American Water District in several cities and unincorporated areas on the Monterey Peninsula and Carmel Valley. The wine grape growing occurs in the Salinas Valley and Carmel Valley. Most consumer-facing tasting rooms are on the Monterey Peninsula - Carmel, Carmel Valley, and Monterey.

The water shortage in Monterey County is a complex issue requiring multiple sustainable solutions, including both recycling and desalination. This is even more critical given the years of the ongoing drought. The lack of water impedes the building of affordable housing for people who work in the area. This issue is not only about domestic use but also for commercial and industrial processes essential to a thriving local economy. Recently, a property in the City of Monterey that would have been ideal for a winery tasting room did not have enough water credits to allow this use.

The lack of water disproportionately affects marginalized communities. The Monterey Peninsula needs housing development that is affordable not only to low-income households but also to those in the broader workforce. The key barrier to housing development for the essential workforce is the lack of water.

- In the City of Monterey, 87% of its local workforce commutes from elsewhere, primarily because of housing unaffordability and lack of inventory to rent or buy.
- According to the US Census Bureau, the median household income in the County is \$76,943 (2016-2020). According to MIT's Living Wage Calculator, a single parent with two children would need to earn \$131,000 per year to afford to live in Monterey County. The cost-of-living wage needed to live in the County is 70% more than the median household income. And living wage is well-beyond what most employers can afford in Monterey County.
- Some employees have been forced to move from the area and endure a long, costly, and environmentally damaging commute.
- Others have been forced to put multiple families in housing that is not adequate.

Limiting water alternatives and potential supply is a social equity issue that unfairly treats the workforce and marginalized communities.

We should invest in a diverse portfolio of water supplies to create a prosperous and sustainable environment. For example, Israel has been an innovative global leader in creating an abundant water supply.

- The Israeli water sector has NOT been narrowly focused - it's been comprehensive - undergoing a structural and infrastructural transformation that included:
 - Improvement in and maintenance of the existing municipal water supply.
 - Desalination facilities that are among the largest in the world.
 - Sewage effluents facilities that collect and treat most of Israel's wastewater for reuse.
- Israel's multi-pronged approach has been accomplished through both public and private sector investment.

As a community, we should learn from best practices and do the same; we should invest in multiple strategies, both public and private, to meet and exceed current and future demands, including desalination. Desalination would help ensure the Monterey Peninsula has a diverse portfolio of water supplies to meet existing community needs and state-housing requirements and ensure reliable water supplies are available for new housing to be built.

Our employees must be able to live in the community in which they work. This is an issue of equity and environmental justice. We ask you to approve the Monterey Peninsula Water Supply Project.

Respectfully Submitted,

Kim Stemler

Kim Stemler

Executive Director

Kim@MontereyWines.org

cc: Sumi Selvaraj, Environmental Justice Manager, Jack Ainsworth, Executive Director



Howard "Chip" Wilkins III
cwilkins@rmmenvirolaw.com

November 11, 2022

Via E-mail Only

Th7a & 8a

Chair Brownsey and Honorable Commissioners
California Coastal Commission
445 Market Street, Suite 300
San Francisco, CA 94101

**Re: November 17, 2022, Meeting Agenda Items Th7a & 8a:
California-American Water Company Monterey Peninsula Water Supply
Project – Appeal No. A-3-MRA-19-0034 and Coastal Permit No. 9-20-0603 --
Comments of Marina Coast Water District on November 4, 2022 Staff Report**

Dear Chair Brownsey and Honorable Commissioners:

On behalf of our client, the Marina Coast Water District ("MCWD"), we submit these comments regarding the November 4, 2022 Coastal Commission ("Commission") Staff Report for California-American Water Company's ("Cal-Am's") proposed Monterey Peninsula Water Supply Project ("MPWSP" or "Project"). As explained herein, the Commission's consideration of the project is legally premature, as there is significant uncertainty regarding the Project's feasibility, the extent of the Project's impacts on coastal resources and MCWD's water supplies, possible alternatives, and extent and feasibility of mitigation. The Commission's record reveals that staff has issued two prior Staff Reports recommending denial of the Project and thrice informed Cal-Am that its amended application materials were incomplete in light of these uncertainties. Nonetheless, it was recently determined it was in the "public interest" to waive the Commission's requirements found in Section 13502 and deemed Cal-Am's application complete. The Executive Director's decision to waive these requirements leaves the Commission with no legally sound choice but to deny the Project, as the record does not provide the Commission with enough substantial evidence to support the findings required to be made under Public Resources Code section 30260 and California Environmental Quality Act ("CEQA") (Pub. Resources Code, § 21000 et seq.). The Staff Report's recommendation of approval with numerous prior-to-issuance conditions

impermissibly defers the Commission's obligations to evaluate the whole of the Project's impacts and consider the feasibility of alternatives and mitigation measures in its CEQA-equivalent document. In addition, many of the proposed conditions in the Staff Report impermissibly delegate the Commission's discretion to actually approve the CDP to Commission staff and other public agencies despite its inconsistencies with the Coastal Act (Pub. Resources Code, § 30000 et seq.) and the City of Marina's Local Coastal Program ("LCP").

Not only is the current Staff Report's approval recommendation legally infirm as explained in more detail below but it also makes no sense. Phase One of Cal-Am's newly-proposed Project (4.8 million gallons per day [MGD]) would provide 5,280 acre feet per year ("AFY") of additional water supply capacity, none of which Cal-Am needs to meet its service area demand before the 25-year CDP would expire and the slant wells would need to be removed based on the Staff Report's Coastal Hazards analysis. Even if there is a small deficit in the 10 percent cushion between supply and demand in 2040 as the Staff Report speculates "may" be possible, a theoretical possibility does not support rushing ahead with approval of the Project. The Staff Report suggests the Project may only be needed in 18 years (at the earliest) and "involves the most significant environmental justice concerns the Commission has considered since it adopted an Environmental Justice Policy in 2019." Providing the public with less than two weeks to review and comment on the Commission's CEQA-equivalent document is an egregious violation of CEQA's public review requirements¹ and does not square with the Commission's statements that it takes environmental justice seriously.

¹ Given the significant new information that the Staff Report acknowledges did not exist at the time the CPUC certified the Project's EIR/EIS, coupled with numerous changes to the overall scope of the Project (which were not analyzed in the EIR/EIS), the Commission's Staff Report must serve as the functional equivalent of an EIR or other CEQA document. (Cal. Code Regs., tit. 14, § 15252 ["CEQA Guidelines"]; *Friends, Artists, & Neighbors of Elkhorn Slough v. California Coastal Com.* (2021) 72 Cal.App.5th 666, 693 (*FANS*), citing *Mountain Lion Foundation v. Fish & Game Com.* (1997) 16 Cal.4th 105, 113 (*Mountain Lion*).) To do so, the staff report must analyze "[a]lternatives to the activity and mitigation measures to avoid or reduce any significant or potentially significant effects that the project might have on the environment." (CEQA Guidelines § 15252, subd. (a)(2); Pub. Resources Code § 21080.5, subd. (d)(3)(A).) And the functional equivalent EIR (i.e., the Staff Report) must be made "available for a reasonable time to review and comment by other public agencies and the general public." (Pub. Resources Code, § 21080.5, subd. (d)(3)(B).) The Coastal Act further requires that the staff report include: (1) specific findings that explain and analyze whether the project conforms to the requirements of the Coastal Act; (2) specific findings evaluating the Project's conformity with CEQA's requirement that the activity will not be approved if there are feasible alternatives or feasible mitigation measures that will substantially lessen a significant adverse effect that the activity might have on the environment; (3) responses to significant environmental points raised during the evaluation of the Project, as required by CEQA; (4) whether the activity should be approved with or without conditions, or denied; and (5) if approval with conditions is recommended, then specific conditions must be

MCWD supports desalination as a viable water source when implemented at the appropriate time and place and following implementation of conservation and demand management efforts and exploration of options for less expensive, less energy-intensive and less environmentally damaging supply options. As the Commission recently determined when it approved the Doheny Project, desalination can be a viable solution of providing drought-resistant water supplies. Apart from the mechanics of the proposed intake technology, this Project is *nothing* like Doheny. Unlike the public Doheny desalination project, Cal-Am's private MPWSP project will result in significant adverse impacts to numerous coastal resources, coastal access, and environmental justice, including significant impacts to ESHA (and the critically rare coastal dune habitat that is home to many endangered species), wetlands and vernal ponds, groundwater resources, water quality, coastal public access, coastal hazards, and tribal resources. The MPWSP is more akin to Brookfield-Poseidon's private Huntington Beach Desalination Facility Project, which the Commission denied due to its significant adverse impacts to marine life, wetland/ESHA areas, sea level rise, public access, seismic hazards, and tribal resources. Most significantly, both Poseidon and MPWSP implicate some of the most alarming environmental justice concerns the Commission has assessed since it adopted its Environmental Justice Policy in 2019, particularly with respect to the astronomical rate hikes that low-income ratepayers would be forced to pay to offset construction costs of these private projects. Whereas Doheny's desalinated water would cost ~\$1,500 per acre foot and Poseidon's would cost just shy of \$3,000 per acre-foot, desalinated water produced by Cal-Am would cost upwards of \$6,100 per acre-foot or more.

Importantly, the record shows there is a feasible alternative, one that meets the Project objectives and solves the future water supply needs of the Monterey Peninsula without the environmental justice impacts of Cal-Am's proposed desalination plant. As Commission staff previously determined on a nearly identical record the Pure Water Monterey Expansion Project ("PWM Expansion") is viable alternative. The problem is Cal-Am. It has no interest in relying on purchased water, because that would be an operating cost in contrast to the desalination infrastructure, which would generate a profit for decades through the return on equity in water rates. Cal-Am has gone to great lengths to distort truths about viable water supply alternatives and credible studies that clearly

identified along with a discussion of why those conditions are necessary to ensure the project will be in accordance with the Coastal Act. (Cal. Code Regs., tit. 14, § 13057; *FANS*, *supra*, at p. 696.)

show the harm Cal-Am may cause with construction and operation of the MPWSP. While some of the details can be complicated, especially regarding groundwater impacts, the decision before the Commission is quite simple. Approving this Project would allow Cal-Am to make an enormous profit by destroying public trust assets that belong to all Californians, including the Salinas Valley Groundwater Basin, City of Marina's Coastal Resources and its groundwater dependent ecosystems. That's what Cal-Am has selfishly done with the Carmel River and the Seaside Groundwater Basin in the past—pumping low cost water and damaging natural resources while charging the nation's highest prices.

For these reasons, and the additional reasons outlined in these comments, MCWD requests the Commission deny the Project or, at a minimum continue the matter so that the Commission can make an informed decision after reviewing and responding to comments from the public and public agencies as required by the Coastal Act and CEQA.

Preliminary Statement and Summary of Key Issues

As noted above, Commission staff's two prior Staff Reports on the Project recommended denial of Cal-Am's requested CDP because the proposed MPWSP is inconsistent with the Coastal Act and the City of Marina's LCP. Both prior Staff Reports further concluded that the Commission could not rely on the "coastal-dependent facility" exception prescribed by Public Resources Code section 30260, to override these inconsistencies because: (1) the PWM Expansion is a feasible and less-environmentally damaging alternative that would timely meet most of the MPWSP's objectives; (2) denying the MPWSP would not adversely affect the public welfare because its costs are substantially higher than other water sources, including the PWM Expansion; and (3) the Project's impacts, particularly to ESHA and coastal water quality, are not mitigated to the maximum extent feasible.

Cal-Am's amended application, which is now before the Commission, does nothing to change these conclusions. As explained herein, the development of the PWM Expansion has become even more certain since staff previously determined it was a feasible alternative to Cal-Am's Project in its August 2020 Staff Report. Furthermore, Cal-Am's application continues to lack information regarding critical Project components — making it impossible for the Commission (and the public) to not only evaluate the extent and magnitude of the Project's known adverse impacts to ESHA, coastal resources, and surrounding disadvantaged communities — but also precluding the Commission from finding that adverse environmental effects are mitigated to the maximum extent feasible.

Moreover, Cal-Am's new phased version of the Project cannot be approved because it is inconsistent with the 2018 Certificate of Public Convenience and Necessity ("CPCN") issued by the California Public Utilities Commission ("CPUC") and was previously rejected by the CPUC in part because it would result in additional environmental impacts. The Staff Report also reveals the Commission lacks essential information regarding the whole of the Project, including its feasibility, feasible alternatives, and the feasibility of proposed mitigation to allow the Commission or the public to meaningfully evaluate the Project's adverse impacts on coastal resources and disadvantaged communities thereby making it impossible for the Commission to make the required findings under Public Resources Code section 30260 and CEQA. Specifically, and as explained in more detail in this letter, the Coastal Commission lacks essential information regarding the following to make an informed decision as required under the Coastal Act and CEQA:

Project Feasibility and Need/No Project Alternative.

- ***Final CPUC decision approving Water Purchase Agreement ("WPA") for PWM Expansion.*** As the Staff Report notes, a decision in Phase 1 of CPUC proceeding A.21-11-024 is expected this month approving a WPA that would allow Cal-Am to increase its purchase of water from Monterey One Water ("M1W's") from 3,500 AFY to 5,750 AFY from the now approved PWM Expansion. Notably, the Commission's prior Staff Reports in this matter determined PWM Expansion was a feasible alternative to the Project. Staff's prior conclusion was (and remains) correct. As explained herein and the attached WaterDM expert report, if Cal-Am banks water in wetter years, PWM Expansion will provide more than ample water supplies to meet realistic demand in Cal-Am's service area through 2050 and beyond. Even *without* Cal-Am's proposed 4.8 MGD first phase Project, Cal-Am will have a cumulative total excess supply of 27,874 AF by 2050. With Cal-Am's 4.8 MGD proposal, Cal-Am would have more than 144,000 AF of cumulative excess by 2050, far exceeding Cal-Am's storage capacity in the Seaside Basin.
- ***Final CPUC decision regarding supply and demand for Cal-Am's service area.*** The Staff Report proposes as part of Special Condition 1 that the Commission's approval be contingent on the CPUC's approval for construction of the Project based on CPUC's findings of supply and demand in proceeding A.21-11-024. However, the scope of CPUC's A.21-11-024 proceedings do not include a decision addressing whether Cal-Am can build the currently proposed 4.8 MGD

desalination plant. Rather, the result of the CPUC's A.21-11-024 proceedings regarding supply and demand will inform the Commission's decision regarding the feasibility of PWM Expansion to fully address Cal-Am's future water supply needs. While MCWD agrees it is appropriate for the Commission to wait for the CPUC's decision regarding Cal-Am's updated supply and demand, that determination will not address whether there are feasible alternatives under Section 30260. The Commission simply cannot cede its jurisdiction to the CPUC on this issue through a prior-to-issuance condition. Consistent with the Commission's prior staff report, the record reveals there are feasible alternatives to Cal-Am's 6.4 and 4.8 MGD proposals that would substantially lessen the Project's significant and unavoidable impacts to coastal resources and completely avoid the Project's impacts to rare coastal dune habitat (and ESHA) as required by the Coastal Act and the City of Marina's LCP.

- ***Cal-Am's Application to CPUC and CPUC approval for Cal-Am's newly proposed phasing of desalination components of MPWSP.*** The Staff Report fails to recognize Cal-Am's CPCN is for a 6.4 MGD desalination plant and related infrastructure (e.g., slant wells and pipelines) and did not include phasing. In fact, the CPUC expressly rejected both a 4.8 MGD alternative and phasing the 6.4 MGD desalination components of the Project that Cal-Am now proposes. If Cal-Am wants to build a smaller or phased project, it must ask the CPUC to amend the 2018 CPCN. It has not done so. As Cal-Am's proposed phased Project was rejected by the CPUC, the Commission lacks the authority to grant Cal-Am a permit to do so now. (Pub. Utilities Code, § 1709.)
- ***An agreement, environmental review and permits to modify the MIW Outfall is required to operate the Project.*** Cal-Am did not include the outfall modification work, which is required mitigation in the CPUC's EIR,² in its CDP application. Cal-Am argues the liner is not part of its Project alleging that MIW will apply for the needed permits and make the modification that the CPUC ordered Cal-Am to undertake. The record reveals this is not accurate. Moreover, Cal-Am cannot contract away the evaluation of the Project's impacts to another party to avoid the Coastal Act and CEQA's disclosure and mitigation requirements. The Staff

² As noted in our prior correspondence, the outfall modifications were included in the CPUC EIR-EIS's project description and its evaluation of alternatives. (Final EIR-EIS, pp. 3-29 – 3-30 [Project Description] 4; 5.3-19 -- 5.3-29 [Outfall Alternatives].) Thus, Cal-Am's prior argument that the outfall modifications are independent from the project, which it appears to have largely dropped, is also inconsistent with the CPUC's EIR-EIS.

Report attempts to address this basic project feasibility issue by requiring Cal-Am to obtain authorization to use the M1W outfall. The Staff Report, however, fails to disclose the impacts on coastal resources that would result from the outfall modifications, including impacts to ESHA and in-water impacts that would result from this work. Nor does the Staff Report include mitigation to ensure these impacts are mitigated to the maximum extent feasible. Notably, Cal-Am acknowledges that the required landward outfall modifications will require additional information and will result in additional environmental impacts (including additional impacts to ESHA) that were not considered by the CPUC in the Final EIR-EIS.³ Not only does the Staff Report's failure to address the modifications' impacts violate the Coastal Act and CEQA's disclosure and mitigation requirements it also results in impermissible piecemealing of the Project.

- ***Evaluation of the Project's groundwater impacts, including a determination of whether the Project is feasible in light of its lack of water rights.*** The Commission's 2020 Staff Report determined that the "current evidence does not support a finding that Cal-Am's proposed Project is consistent with the groundwater protection provision of Coastal Act Section 30231" and that "additional modeling and analysis is needed to identify the extent of Cal-Am's likely or potential effects on possible depletion of groundwater supplies." The current Staff Report suggests that Cal-Am's intent to extend the slant wells to at least 1,000 feet and initially construct a smaller project with the imposition of Special Condition 12 allows the Commission to determine the Project is consistent with Coastal Act Section 30231. As explained below, Special Condition 12 violates established precedent by impermissibly deferring the actual mitigation plan for the protection of groundwater resources to a closed-door negotiation between Cal-Am and Coastal Commission staff without establishing enforceable performance standards. The Staff Report also fails to address significant new information regarding whether the Project can obtain water rights, which is a fundamental feasibility issue for the Project. Special Condition 1's requirement deferring the issuance of a CDP until after a decision in *City of Marina v. RMC Lonestar, et al.* (Monterey Superior Court Case No. 20CV001387) may not address this issue as it possible the case could be resolved without determining

³ Cal-Am letter to Commission, August 5, 2022, Attachment A, p. 4.

whether Cal-Am can obtain water rights or whether the Project would cause harm to any aquifers.

Evaluation of the whole of the Project's impacts and enforceable mitigation that is not improperly deferred to closed door negotiations between Cal-Am and Commission staff

- ***Evaluation of Project's impacts on ESHA for wetlands and vernal pond and groundwater dependent ecosystems.*** The Commission's 2020 Staff Report determined that the Project was not consistent with the provisions of Coastal Act Section 30231 and the City's LCP due to the reasonably foreseeable groundwater drawdowns at wetlands and vernal ponds in the Project area. The 2020 Staff Report further determined that it would be difficult to provide adequate mitigation to identify potential impacts as well as to identify "sites where creating or restoring wetland or vernal ponds could be successful and would not result in the conversion of other sensitive habitats." The Commission's current Staff Report, however, proposes the Commission find the Project is consistent based on Special Condition 13, which requires Cal-Am to submit a Wetlands and Vernal Pond Adaptive Management Program that will be evaluated by the Executive Director to ensure it is adequately protective of area wetlands and vernal ponds. Special Condition 13 violates established precedent by impermissibly deferring the actual mitigation plan for the protection of wetlands and vernal ponds to a closed-door negotiation between Cal-Am and Coastal Commission staff without establishing enforceable performance standards. Even more problematic, Special Condition 13 requires Cal-Am to develop a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan to address any, and all, prior and future impacts to wetlands and vernal ponds without requiring Cal-Am to reduce or halt pumping and without addressing any requirements or the feasibility of mitigating impacts.
- ***Evaluation of the whole of the Project's impacts on terrestrial ESHA and mitigation that ensures impacts to ESHA are fully mitigated.*** As noted above, the Staff Report fails to evaluate, disclose, and mitigate the Project's full impacts on terrestrial ESHA by impermissibly piecemealing the Commission's review of the modifications to the outfall required for the Project. In addition, the Staff Report fails to disclose or address the impacts associated with removal or relocation of the slant wells after the CDP expires as required to address Coastal Hazards. The Commission's mitigation for impacts to terrestrial ESHA is also impermissibly

deferred as it fails to establish enforceable performance standards. In addition, Special Condition 10, which allows Cal-Am to pay an in-lieu fee of \$250,000 per acre-foot for required ESHA restoration is not legally adequate mitigation and does not ensure the Project's ESHA impacts will be mitigated at all, much less at the required ratios specified in the Staff Report.

Public Interest/Environmental Justice

- ***Environmental Justice impacts must be addressed before—not after—the Commission's decision to approve the Project.*** The Staff Report acknowledges that “the Project also involves the most significant environmental justice concerns the Commission has considered since it adopted an Environmental Justice Policy in 2019.” The Staff Report suggests that Cal-Am addressed some of the City and MCWD's concerns by agreeing to a smaller footprint and phasing. This is not accurate. MCWD did not suggest phasing the Project would address its concerns and Cal-Am's proposed reduced footprint is illusory. The Staff Report's proposed Special Condition requiring Cal-Am to submit Community Engagement and Public Access Plans and Implementation before the issuance of a permit and the requirement that the Executive Director approve a Public Access and Amenities Plan proposed by Cal-Am does not fulfill the Commission's obligations. Deferring the details of these plans for approval until after the Commission approves the Project to a negotiation between Cal-Am and the Commission staff behind closed-doors is the antithesis of environmental justice.

These key issue and others legal infirmities in the Staff Report and proposed findings are addressed in more detail below. These comments supplement MCWD's prior comments and those of our expert consultants that explain, in detail, the need for additional information, analysis and mitigation regarding key elements of the Project.⁴ As explained in our September 30, 2022 letter, which was omitted from Correspondence files posted with the Staff Report, until these issues are resolved, it will be impossible for the Commission to make an informed decision whether to override Project's numerous

⁴ MCWD incorporates by reference the comment letters it submitted to the Coastal Commission regarding the MPWSP on September 18, October 7 and 15, November 6 and 13, 2019, July 5, 2019, December 27, 2019, April 21, 2020, July 1, 2020, August 14, 2020, September 16, 2020, November 25, 2020, March 26, 2021, June 11, 2021, November 9, 2021, February 7, 2022, and September 30, 2022 and the attachments to these prior comments.

inconsistencies with the Coastal Act and City of Marina's LCP—including the permanent destruction of over seven acres of rare coastal dune habitat (or ESHA) under Section 30260 of the Coastal Act as Cal-Am requests to do within the City of Marina—one of California's most diverse coastal communities in the state.

I. PWM Expansion remains the superior alternative because it is demonstrably feasible and less-environmentally damaging than the MPWSP.

Coastal Act section 30260 prohibits the approval of a project that is inconsistent with the policies of the Coastal Act and applicable LCP where, like here, there is a feasible and less damaging alternative. The Commission, as part of its duties to analyze the Project's conformity with the Coastal Act and LCP, as well as its duties as a responsible agency under CEQA, has an independent obligation to consider alternatives such as PWM Expansion based on current information. Commission staff has previously found that PWM Expansion would provide comparable amounts of water via recycling, at reduced rates and significantly fewer environmental impacts than the MPWSP.⁵ This is even more true today.

As the Commission is aware, Cal-Am filed Application 21-11-024 with the CPUC seeking approval to enter into the Amended WPA with M1W. The Amended WPA would allow Cal-Am to purchase an additional 2,250 AFY of advanced-treated recycled water from PWM Expansion supply. On September 30, 2022, the CPUC issued a proposed Phase 1 decision to approve the additional purchase. That decision could be finalized as early as November 17, 2022.

This is significant because as part of Phase 2 of its proceeding, the CPUC is considering updated water supply and demand estimates for the MPWSP as the Staff Report acknowledges.⁶ The Phase 2 decision will address supply and demand within Cal-Am's service area, which will inform whether the currently proposed 6.4 MGD or first phase 4.8 MGD desalination plant is even necessary.⁷ The evidence in the CPUC proceeding supports, based on the updated demand analyses, that with the 2,250 AFY of

⁵ CCC Aug. 25, 2020 Staff Report, p. 3.

⁶ In approving the desalination component of the MPWSP, the CPUC indicated that in the event the PWM project were expanded that it would revisit the size of the desalination plant to avoid excessive costs to Cal-Am's ratepayers. (CPUC Decision 18-09-014)

⁷ As explained above, Cal-Am recently announced it would "phase" the Project by first developing a 4.8 MGD plant, instead of a 6.4 MGD facility, with the potential for increasing output capacity at some time in the future, based on need and demand.

water from PWM Expansion, the MPWSP as approved by the CPUC is not needed. Cal-Am can maintain a 10 percent supply cushion and meet its customers' demands through 2050 even assuming all projected population growth occurs.

Although the CPUC determined in 2018 that Cal-Am's water supply demands over the next 20-30 years could reach 14,000 AFY, its decision approving the MPWSP was based on outdated information, and it relied heavily on Cal-Am's own wildly inaccurate projections. A more realistic demand forecast prepared by Peter Mayer of WaterDM projects Cal-Am's 2050 demands to be 11,160 AFY.⁸ This forecast includes housing growth based on current population and anticipated growth through 2050, and it incorporates impacts of ongoing efficiency—a critical component overlooked in Cal-Am's previous demand analyses. In fact, Cal-Am's overall water demand and its customers' per capita use have continued to decrease, while Cal-Am's projections claim they will increase in the future—contrary to practice and policy across California. While future population growth is anticipated in Cal-Am's service area, the trend towards increased water efficiency is also expected to continue. Cal-Am's 2022 forecast that it will require 14,950 AFY of water supplies by 2050 (as compared to 2021 demand of 9,280 AFY) is vastly overstated because it ignores continued conservation, includes population that is not within Cal-Am's service area, and double counts its customers, all of which improperly increases future demand.⁹

But while appearing to leave the final decision on the necessity of the Project to the CPUC, the Staff Report nevertheless accepts that, "updated water demand and supply estimates and projections reasonably demonstrate that Cal-Am's (desalination) Project is likely to be needed at some point during the current 20-year planning period for future demand and supplies." This conclusion about Cal-Am's need for the desalination project in turn enables the Coastal Commission Staff to set aside numerous environmental and environmental justice concerns and recommend approval with conditions. The Staff Reports conclusion is based on the independent forecasts of demand prepared by the Public Advocates Office of the CPUC (Cal Advocates). As explained in the attached WaterDM comments, the Staff Report's conclusion is not supported by the record as it neglects Cal-Am's ability to store and bank water in the Seaside Basin in the coming years. As the WaterDM expert report and memo show this buffer supply will enable Cal-Am to provide reliable supply through 2050 and beyond without the desalination project.

⁸ See attached WaterDM Report, dated August 18, 202 and Memorandum dated November 10, 2022

⁹ Fifth Supplemental Expert Report and Recommendations of Peter Mayer, P.E., Aug. 18, 2022.

As the WaterDM memo explains without the desalination project, Cal-Am will have a cumulative total excess supply of 27,874 acre-feet by 2050. With the desalination project, Cal-Am will have more than 144,000 acre-feet of cumulative excess by 2050, far exceeding Cal-Am's storage capacity in the Seaside Basin.

The Commission is required to evaluate significant new information relating to supply and demand under CEQA and the Coastal Act.¹⁰ Because PWM Expansion would result in no additional impacts to coastal resources, the MPWSP cannot satisfy the first override criterion under Section 30260 of the Coastal Act, and the Commission cannot lawfully grant Cal-Am's appeal or its permit application.

II. The Commission's record lacks sufficient information to allow it and the public to meaningfully evaluate the Project's potential impacts—precluding a finding that the MPWSP's environmental effects have been mitigated to the “maximum extent feasible” as required by Section 30260.

As the Commission's prior Staff Reports determined there are significant questions about whether and how Cal-Am can mitigate the Project's impacts and therefore a finding that adverse environmental effects have been mitigated to the maximum extent feasible cannot be made.¹¹ Despite the current Staff Report's attempt to resolve these issues through special conditions, this continues to be the case.

A. The Commission lacks information regarding the outfall improvements required by the CPUC without which it cannot meaningfully evaluate the Project's impact on ESHA, coastal waters, and marine resources.

The MPWSP will discharge its effluent through an outfall owned and operated by M1W. Due to the potential for the effluent to exceed several water quality objectives, Cal-Am, in agreement with M1W, must replace WEKO clamps on the existing outfall, modify the diffusers along the offshore segment of the M1W outfall, and install a protective liner along the outfall's landward segment.¹² The CPUC and M1W require that this corrosion-resistant liner be installed inside the existing landward portion of the outfall *before* Cal-Am can discharge brine waste from the proposed desalination

¹⁰ See CCC Aug. 25, 2020 Staff Report, p. 11.

¹¹ See CCC Aug. 25, 2020 Staff Report, p. 11.

¹² See MPWSP EIR/EIS, at pp. 4.13-26 to 4.13-36 [Mitigation Measures 4.13-5a, 4.13-5b].

facility.¹³ Cal-Am's application, and the current Staff Report as a result, fail to provide the requisite information to evaluate impacts to ESHA, coastal waters and marine sources that would be caused by the required improvements to the M1W outfall.

As explained in MCWD's prior comments because the Project requires modifications to, and usage of, the outfall liner, future work on the liner cannot be segmented from review of the Project. As a reviewing agency, the Commission must be afforded with enough information about the proposed outfall liner work so that it can fully assess the potential environmental consequences of the proposed decision. (*Planning and Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 911.) "Where individual projects are, or a phased project, is to be undertaken and where the total undertaking comprises a project with significant environmental effect, *the responsible agency* or Lead Agency must prepare a single EIR for the ultimate project." (*Hixon v. County of Los Angeles* (1974) 38 Cal.App.3d 370, 376, fn. 3.) The outfall liner is a requisite element of the Project—the CPUC imposed outfall restructuring as a mandatory mitigation measure.¹⁴ If approval of a development is conditioned upon, "legally compels," or "practically presumes completion of another action," the two are considered "one single project" under CEQA. (*Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1223 ("*Banning Ranch*").)

Cal-Am suggests that M1W has agreed to construction of the Brown & Caldwell design for the protective slip liner.¹⁵ False. M1W has not agreed to independently or jointly apply for a CDP to construct the outfall modifications, or to a lease that would allow Cal-Am to do so.¹⁶ In fact, by a 4-1 vote, the M1W Recycled Water Committee recommended that the M1W Board *not* consider whether to move forward with a joint outfall project at its January 20, 2022 meeting, "but [rather] reconsider it and bring [it] back to the Recycled Water Committee once the Water Purchase Agreement is signed for the Pure Water Monterey Expansion, and then at that time [they] can evaluate the

¹³ See Coastal Commission Notice of Incomplete CDP Application No. 9-20-0603, dated December 3, 2020 ["Dec. 3, 2020 NOI"] at pp. 2–3.

¹⁴ Staff Report, p. 17.

¹⁵ See Cal-Am's August 5, 2022 Response to Feb. 8, 2022 NOI ["Aug. 5, 2022 NOI Response"], at p. 1.

¹⁶ See Cal-Am's August 5, 2022 Response to Feb. 8, 2022 NOI ["Aug. 5, 2022 NOI Response"], at p. 1.

progress on the water rights issue.”¹⁷ The full M1W Board agreed with the Recycled Water Committee's recommendation at its January 31, 2022 meeting.¹⁸ While the CPUC has issued a proposed decision, it has not yet approved the Amended WPA. Therefore, M1W has neither considered nor approved the design of the outfall improvements, let alone agreed to apply for permits to undertake those improvements.

Absent an agreement between Cal-Am and M1W, it is speculative as to when or if the M1W Board would agree to submit a CDP application for the outfall modifications, as Cal-Am suggests. The CPUC's proposed decision on Phase 1, which was recently issued on September 30, 2022, reiterates this uncertainty:

Besides the CCC's CDP permit, *permitting for the desalination plant outfall needs to be secured before the desalination plant can operate.* There has been evidence presented in this proceeding that M1W *has not agreed to a design for the outfall and declines to conduct the necessary environmental review for the outfall, or apply for the necessary permits needed for the outfall* until the [Public Utilities] Commission approved the Amended WPA at issue in this application. Likewise, it seems that ‘the City of Marina has not given at least preliminary approval for liner work that appears to require a CDP from the City.’¹⁹

¹⁷ / See M1W Recycled Water Committee Meeting Minutes – Item 6, January 20, 2022, available at: <https://civicclerk.blob.core.windows.net/stream/MONTEREYONEWATER/f4dd0b69-986b-4091-98ea-b6cb5ebd5378.pdf?sv=2015-12-11&sr=b&sig=xIYv%2B0EJuUe%2FI3q7lv%2FKw06AWf5yWaYFCHZvKMEqLEs%3D&st=2022-09-29T17%3A07%3A03Z&se=2023-09-29T17%3A12%3A03Z&sp=r&rsc=cache&rsct=application%2Fpdf>

¹⁸ / See M1W Board Meeting Minutes, January 31, 2022 [“Jan. 31, 2022 M1W Minutes”], available at: <https://civicclerk.blob.core.windows.net/stream/MONTEREYONEWATER/ad05bcc8-4677-4490-b8cc-da367b9fb112.pdf?sv=2015-12-11&sr=b&sig=zKawZ2bUsk7tgIsUloIIowqcUlnzJQzp99p8SRFJEa0=&st=2022-09-29T17%3A09%3A36Z&se=2023-09-29T17%3A14%3A36Z&sp=r&rsc=cache&rsct=application%2Fpdf>

¹⁹ ALJ Proposed Decision, CPUC App. No. 21-11-024, at p. 14, emphasis added; see also *id.* at p. 62 [Findings of Fact, no. 3: “By letter dated February 8, 2022, the CCC continues to find the CDP for the 6.4 mgd desalination plant incomplete because it requires additional information on the outfall for discharge of effluent from the 6.4 mgd desalination plan[t], which is owned and operated by M1W”; Findings of Fact, no. 4: “M1W does not agree to a design for the outfall of the 6.4 mgd desalination plant and declines to conduct the necessary environmental review for the outfall or apply for the necessary permits needed for the outfall until the Commission approved the Amended WPA”; Findings of Fact, no. 5: “The City of Marina has not approved a CDP needed for liner work on the outfall for discharge of effluent needed for construction of the 6.4 mgd desalination plant”].

In short, without an accurate, stable, and finite design proposal, it is impossible to accurately evaluate the impacts to ESHA, water quality, and coastal resources resulting from construction of the modifications.

Nevertheless, even if there were an agreement between Cal-Am and M1W to implement the Brown & Caldwell design, contrary to Cal-Am's assertion, those impacts were not previously evaluated in the CPUC's EIR/EIS.²⁰

In fact, Cal-Am acknowledges that the required landward outfall modifications will require additional information and will result in additional environmental impacts (including additional impacts to ESHA) that were not considered by the CPUC in the EIR/EIS for the MPWSP.

The report is based on currently available information and may need to be supplemented and/or revised with more detailed analysis in the future but provides a more detailed assessment of the excavation work that would need to be conducted to install a protective liner in the landward segment of M1W's existing outfall pipeline within the Coastal Zone. In short, *the preliminary report concludes that the access pits that would be excavated to reach the outfall pipeline would be larger than the Final EIR/EIS assumed, which would result in some additional impacts to ESHA and/or dune habitat.* As this is a preliminary report, additional analysis could assess whether there may be opportunities to reduce the number of access pits on the CEMEX site and/or relocate the access pits to minimize impacts to ESHA and/or dune habitat.²¹

Specifically, Cal-Am's supplemental studies show that outfall liner work "would result in 5.45 acres of impact within the Coastal Zone for the spiral-wound lining installation method (1.50 acres within the CEMEX property) and 4.04 acres for the slip-lining installation method (0.84 acres within the CEMEX property) This nets ***a worst-case scenario of 4.74 acres of temporary long-term impacts...***" which includes "***a net affected ESHA acreage of 4.55 acres.***"²² And, the proposed outfall liner construction would occur *directly adjacent to* dune habitat, which Cal-Am's study clearly identifies as "critical habitat" for the Western Snowy Plover.²³ M1W's experts, including its principal

²⁰ Aug. 5, 2022 NOI Response, Attachment A, at p. 2.

²¹ *Id.* at p. 4, emphasis added.

²² Aug. 5, 2022 NOI Response, pp. 65, 71, emphasis added.

²³ See *id.* at p. 66 [AECOM, Figure 1].

engineer, reiterated that the CPUC's EIR-EIS would need to have reviewed again as "it likely does not cover the full breadth of impacts." "[O]nce the project has been designed, then [M1W] would need to look at it again in light of what the existing CEQA compliance would need to be."²⁴

Despite its own admissions that the outfall modifications will result in unanalyzed ESHA impacts, Cal-Am continues to take the position that this deficiency can be cured by a special condition "that would fully address Staff's concerns regarding permitting and next steps involving the outfall modifications, such as requiring that M1W obtain required approval from the Commission for the outfall modifications prior to the commencement of Project construction."²⁵ Despite Commission Staff's prior statements that this was inadequate, the Staff Report has accepted Cal-Am's proposal in direct violation of CEQA's piecemealing prohibition. (See *Laurel Heights Improvement Assn v. Regents of University of California* (1988) 47 Cal.3d 376, 396 ("Laurel Heights I") [environmental effects of a future action must be analyzed if they are a reasonably foreseeable consequence of the initial project and the future action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects]; *Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170, 1208 ("Lighthouse Field Beach") [prohibition against piecemealing is the flip side of the requirement that the whole of a project be reviewed under CEQA].) Even if M1W agreed to undertake the outfall modifications—which it has not--neither CEQA nor the Coastal Act allow Cal-Am to contract away its obligations to mitigate the impacts of the Project's outfall to a later proceeding.

Without sufficient information and further evaluation of the extent and magnitude of additional ESHA impacts resulting from the outfall modifications, the Commission is precluded from making the required finding that the Project's environmental effects have been mitigated to the "maximum extent feasible." (Pub. Resources Code, § 30260.)

B. As part of the State Water Board's AHO proceeding, additional modeling is underway to evaluate the MPWSP's impacts to groundwater-dependent ecosystems and groundwater resources within the underlying basin.

²⁴ M1W Recycled Water Committee, Meeting Minutes, Jan. 20, 2022, at pp. 4–5 (emphasis added).

²⁵ Aug. 5, 2022 NOI Response, p. 6.

The 2020 Staff Report for the Project determined that “current evidence does not support a finding that Cal-Am’s proposed Project is consistent with the groundwater protection provision of Coastal Act Section 30231” and that “additional modeling and analysis is needed to identify the extent of Cal-Am’s likely or potential effects on possible depletion of groundwater supplies.”²⁶ The current Staff Report suggests that Cal-Am’s intent to extend the slant wells to at least 1,000 feet and initially construct a smaller project with the imposition of Special Condition 12 allows the Commission to determine the Project is consistent with Coastal Act Section 30231. This is false.

The Staff Report also fails to address significant new information regarding whether the Project can obtain water rights, which is a fundamental feasibility issue for the Project. Importantly, the Staff Report proposed Special Condition 1’s requirement deferring the issuance of a CDP until after a decision in *City of Marina v. RMC Lonestar, et al.* (Monterey Superior Court Case No. 20CV001387) and the court referenced questions to the SWRCB Administrative Hearing Office (“AHO”) acknowledges these proceeding could provide important information regarding whether Cal-Am can obtain water rights and whether the Project would cause harm to any aquifers. MCWD notes the Staff Report repeats Cal-Am’s misrepresentation that the SWRCB issued an advisory opinion in 2013 determining that it was reasonably foreseeable that Cal-Am had a path forward to obtain the necessary water rights. As the SWRCB AHO has confirmed on the record in the present proceeding, the unsigned advisory opinion was not issued by the SWRCB, but by an unknown staff member and significant new information has been developed since its issuance.

The current AHO proceeding includes testimony regarding new groundwater modeling as well as numerous expert opinions regarding the Project’s potential impacts on groundwater resources. In fact, Cal-Am—which has previously stated additional data collection, monitoring, and investigation are not necessary because the data and modeling in the CPUC’s Final EIR accurately characterize the Project’s potential impacts to groundwater supplies—had its consultant Geoscience prepare a new groundwater model referred to as NMGWM²⁰²², which includes key modifications from the prior version referred to as NMGWM²⁰¹⁶, as part of the AHO proceeding. Expert testimony and the completion of the NMGWM²⁰²² present new groundwater modeling regarding the Project’s potential impacts on groundwater supplies. This is significant new information

²⁶ CCC Aug. 25, 2020 Staff Report, p. 73.

that was not part of the CPUC's record when it certified the EIR-EIS, nor has it been reviewed by the Commission.

While the trial court proceeding and the AHO's proposed report will provide important information that is needed by both the Commission and the public to make an informed legal decision regarding whether the Project's groundwater impacts are mitigated to the maximum extent feasible as required under Section 30260 of the Coastal Act, the Commission cannot delegate this the determination of whether the Project will cause such impacts to its Executive Director as proposed in Special Condition 12. Moreover, it is possible that the Court and AHO may not decide or address this issue as the case could be resolved without reaching a final decision on these issues.

The Staff Report provides no evidence that Special Condition 11's requirement that Cal-Am extend the slant wells to at least 1,000 feet seaward of the proposed well head locations and screen the wells so they extract from the 180-Foot Aquifer as far seaward as is feasible would reduce any impacts to groundwater resources. Second, while reduced pumping proposed in the first phase of the Project may reduce groundwater impacts in some areas, there is no analysis or evidence to support a conclusion that it would avoid impacts to overdrafted groundwater aquifers that would be pumped by the Project or to groundwater dependent ecosystems (i.e. wetlands and vernal ponds). Given the less than two weeks of time provided for public review and comment on Cal-Am's new phased approach, there was insufficient time for MCWD or anyone (including the Commission) to evaluate the impacts associated with Cal-Am's 4.8 MGD proposal. Regardless, the Commission cannot segment or piecemeal its review by only evaluating impacts associated with the first phase of the project. (See *Laurel Heights I*, *supra*, 47 Cal.3d at p. 396; *Lighthouse Field Beach*, *supra*, 131 Cal.App.4th at p. 1208.)

The Staff Report's proposed Special Condition 12 cannot substitute for this required analysis. Moreover, Special Condition 12 violates established precedent by impermissibly deferring the actual mitigation plan for the protection of groundwater resources to a closed-door negotiation between Cal-Am and Coastal Commission staff without establishing enforceable performance standards. Notably, Special Condition 12 does not require Cal-Am to reduce or halt pumping if it is determined that MCWD's water supplies are adversely impacted by the Project. It is therefore woefully inadequate. MCWD has attached a memo from its hydrogeologists providing proposed changes to Special Conditions that would address some, but not all of MCWD's concerns regarding

the Project's impacts on groundwater resources.²⁷ While MCWD believes the Commission is required to reject or delay consideration of the Project until the Commission has evaluated Cal-Am's modified project and new modeling information, MCWD requests the Commission include the proposed changes to the Special Conditions if it decides to approve the project.

C. The Commission's record lacks information to meaningfully evaluate impacts related to the future location of slant wells.

Cal-Am continues to argue that the MPWSP's 40- to 60-year operating life is independent from the anticipated and approximate 25-year operating life of the Project's proposed slant well network.²⁸ Cal-Am is wrong. As the Commission correctly noted it is prior Staff Report:

[T]his change in Cal-Am's project description will likely require Commission staff to evaluate how this shorter operating life for the wells will change various CEQA analyses and conclusions that are based on the overall project having a 40- to 60-year operating life – e.g., a re-evaluation of the analyses conducted for the project's expected GHG emissions that were based on amortizing project emissions over a 40-year period[.]²⁹

The current Staff Report flip-flops on this issue imposing Special Condition 6, which limits the CDP term to 25 years. The Staff Report, however, fails to re-evaluate how the shorter operating life for the slant wells changes the Project's expected GHG emissions and whether additional mitigation is required to address the Project's GHG impacts based on amortizing Project emissions over the 25-year life of the CDP. Nor does the Staff Report analyze, disclose or mitigate the impacts to coastal resources from relocation or removal of the slant wells at the end of the CDP. This analysis and enforceable mitigation to address these impacts are required under the Coastal Act and CEQA.

As a responsible agency under CEQA, the Commission's review of the Project is not limited to the slant well component of the MPWSP. CEQA expressly defines "project" as the "whole of the action" and clarifies that although projects often require multiple discretionary approvals, [t]he term 'project' does not mean each separate government approval." (CEQA Guidelines, § 15378, subds. (a), (c).) In fact, CEQA

²⁷ See EKI memo, dated November 11, 2022.

²⁸ *Id.* at pp. 6–7.

²⁹ Feb. 8, 2022 NOI, p. 3.

forbids agencies from considering project components in isolation from the whole project. (See, e.g., *Banning Ranch, supra*, 211 Cal.App.4th at p. 1222.)

The general protections provided by the Coastal Act are analogous to those provided by CEQA. (*Bolsa Chica Land Trust v. Superior Court* (1999) 71 Cal.App.4th 493, 506, disapproved of on other grounds by *Dhillon v. John Muir Health* (2017) 2 Cal.5th 1109.) Under both the Coastal Act and CEQA, courts have found they are “enjoined to construe the statute liberally in light of its beneficent purposes. The highest priority must be given to environmental consideration in interpreting the statute.” (*Ibid.*, quoting, *Coastal Southwest Dev. Corp. v. California Coastal Zone Conservation Com.* (1976) 55 Cal.App.3d 525, 537.) For these reasons, the Commission’s environmental review of projects under the Coastal Act congruently comports with the mandates set forth in CEQA.

Pursuant to Public Resources Code section 21080.5, CEQA “allows the state Secretary of Resources to certify the regulatory program of a state agency requiring submission of environmental information. When the program is so certified... that submission of environmental information may be submitted ‘in lieu of’ an EIR.” (*Fudge v. City of Laguna Beach* (2019) 32 Cal.App.5th 193, 203.) The Secretary of Resources certified the Commission’s regulatory program in 1979, finding that its process of reviewing projects under the Coastal Act “was the functional equivalent of CEQA review.” (*Id.* at pp. 203-204, citing *San Mateo County Coastal Landowners’ Assn. v. County of San Mateo* (1995) 38 Cal.App.4th 523, 551-552 (“*San Mateo*”); see also Cal. Code Regs., tit. 14, § 15251, subd. (c) [“the regulatory program of the California Coastal Commission and the regional coastal commissions dealing with the consideration and granting of coastal development permits under the California Coastal Act of 1976, Division 20 (commencing with Section 30000) of the Public Resources Code”].) In particular, Commission staff reports prepared pursuant to the program “essentially encompass that which would be prepared in an environmental impact report,” such that “preparation of a separate EIR would be redundant and a plan or other written document can be used in lieu of an EIR.” (*San Mateo, supra*, 38 Cal.App.4th at p. 552.)

Because the Commission’s certified regulatory program uses documents “in lieu” of those required under CEQA, the Commission’s review process must encompass key provisions of CEQA. (Pub. Resources Code, § 21080.5, subd. (d).) Significantly, the Commission’s certified regulatory program must “require that an activity will not be approved or adopted as proposed if there are *feasible alternatives or feasible mitigation*

measures available that would substantially lessen a significant adverse effect that the activity may have on the environment.” (Pub. Resources Code § 21080.5, subd. (d)(2)(A), emphasis added.) Any documents prepared by the Commission “in lieu” of an EIR must include “a description of the proposed activity with alternatives to the activity, and mitigation measures to minimize any significant adverse effect on the environment of the activity.” (Pub. Resources Code, § 21080.5, subd. (d)(3)(A), emphasis added.)

Thus, the Commission’s environmental review process of the Project is the Commission’s certified regulatory program, which was approved *pursuant to CEQA*. (Pub. Resources Code, § 21080.5.) Therefore, the Commission’s review of the Project and its conformity with the City of Marina’s LCP must conform with the fundamental principles of CEQA, including CEQA’s mandate that the “whole of the action” be evaluated—including those components located outside of the coastal zone.

Additionally, as Commission staff previously concluded, under either scenario (protection or relocation), the MPWSP will cause additional impacts to ESHA and coastal resources over the life of the Project that must be evaluated and mitigated before the Commission can approve the Project, as required by the Coastal Act and CEQA. Prior to making its decision to approve or deny the Project, the Commission needs information regarding Cal-Am’s proposal to either relocate or protect and rehabilitate the slant wells over the life of the Project. Without this information, neither the Commission nor public can assess the project’s long-term impacts to ESHA, coastal resources, and public access thereby precluding any finding that those impacts have been mitigated to the “maximum extent feasible” as required by Public Resources Code section 30260.

D. The Commission’s record lacks information to meaningfully evaluate impacts resulting from Cal-Am’s newly announced Project “phasing.”

In October 2022, Cal-Am inexplicably announced a “phasing plan” for the MPWSP nearly one month after the Commission informed Cal-Am that its CDP application for the 6.4 MGD plant was complete.³⁰ This newly proposed “multi-phase plan [would] develop needed water supplies with the first phase of the desalination

³⁰ See American Water, *California Coastal Commission Deems Application for Monterey Peninsula Water Supply Project Complete*, Sept. 2, 2022, available at: <https://www.amwater.com/press-room/press-releases/california/california-coastal-commission-deems-application-for-monterey-peninsula-water-supply-project-complete>.

facility producing 4.8 million gallons per day.”³¹ Cal-Am contends that “[b]uilding the first phase of the MPWSP will protect the Carmel River ecosystem and create a drought-proof new water supply for [its] service area.”³²

Cal-Am claims it proposed to phase the Project based on feedback it apparently received during 10 public workshops (all of which were conducted at the last minute during the months of August and September).³³ As a result, Cal-Am believes “[r]educing the initial size of the facility will limit the number of ocean slant wells needed at this time and help control construction costs while ensuring that the Project can accommodate future water resource needs.”³⁴ The record does not support this argument.

The Commission's Staff Report lacks any analysis or information about the impacts of Cal-Am's eleventh-hour “phasing” plan and whether it is even feasible. The Staff Report fails to recognize Cal-Am's CPCN is for a 6.4 MGD desalination plant and related infrastructure (e.g., slant wells and pipelines) and did not include phasing. In fact, the CPUC expressly rejected both a 4.8 MGD alternative and phasing the 6.4 MGD desalination components of the Project that Cal-Am now proposes. If Cal-Am wants to build a smaller or phased project, it must ask the CPUC to amend the 2018 CPCN. It has not done so. As Cal-Am's proposed phased Project was rejected by the CPUC, the Commission lacks the authority to grant Cal-Am a permit to build it. The CPUC's approval of the 6.4 mgd alternative and its rejection of the project Cal-Am now proposes is binding in all collateral matters. (Pub. Util. Code § 1709; *Harmon v. Pacific Tel. & Tel. Co.* 183 Cal.App.2d 1, 2-3 (1960).) The Commission's approval of Cal-Am's new proposal would therefore be a nullity, vulnerable to legal attack and injunction without permission from the CPUC.

Not does the Staff Report address the potential additional impacts that could result from phasing the Project. For example, if Cal-Am constructs only some of the slant wells

³¹ See American Water, *California American Water Announces Phasing for Monterey Peninsula Water Supply Project*, Oct. 7, 2022, available at: <https://www.amwater.com/press-room/press-releases/california/california-american-water-announces-phasing-for-monterey-peninsula-water-supply-project>.

³² *Ibid.* As an added issue, Cal-Am has already reduced its Carmel River diversions to comply with the legal limit set by the Water Board in 1995, as its Vice-President of Engineering recently testified in the AHO proceeding, while still serving its customers' needs. Desalination is not required to protect the Carmel River ecosystem or endangered steelhead.

³³ *Ibid.*

³⁴ *Ibid.*

as part of this initial phase, ostensibly, it will be required to construct the remaining slant wells in Phase 2 thereby disturbing ESHA not just once, but twice. The Staff Report is entirely silent on this point. Again, neither the Coastal Act or CEQA allow the Commission to segment or piecemeal its environmental review as explained above.

Without further details about Cal-Am's phasing proposal, the Commission cannot evaluate potential adverse environmental effects or find that those effects are mitigated to the maximum extent feasible. Lastly, and as explained more fully below (see Section IV, *infra*), the phased Project presents significant concern about the affordability of Cal-Am's desalinated water—a price that already implicates substantial environmental justice issues.

E. The Commission lacks sufficient information to evaluate the Project's known—and impermissible—impacts to coastal wetlands, vernal pools, and ESHA.

It is undisputed that the Project will result in significant and unavoidable impacts to ESHA.³⁵ Despite furnishing the Commission with a collection of other—albeit, incomplete—studies, Cal-Am still has not provided the Commission with enough requisite information to *fully* evaluate the *complete* extent of the Project's well-established impacts to ESHA, coastal wetlands, and vernal pools. Therefore, substantial evidence does not support the Commission's conclusion that “the Project can be found consistent with the provisions of Coastal Act Section 30231” and the City's LCP. (Nov. 2022 Staff Report, p. 90.)

1. The Commission's Staff Report cannot rely on Cal-Am's latest vernal pool modeling because it determined the Dune Sand Aquifer is “confined,” which contradicts prior analyses that presumed the Dune Sand Aquifer was “unconfined.”

The Commission relies on Cal-Am's latest vernal pool modeling to conclude that Special Condition 13, which will require preparation of a Wetland and Vernal Pond Management Program, will sufficiently mitigate impacts to wetlands, vernal ponds, and groundwater dependent ecosystems. However, the revised model report prepared by Geoscience includes new but conflicting information that renders prior modeling and much of the EIR inconsistent and inadequate.

³⁵ CCC Aug. 25, 2020 Staff Report, pp. 28–47.

Specifically, Geoscience's updated report concludes "drawdown in the Dune Sand Aquifer (or "DSA") may be as much as 4.5 feet in the area of the Armstrong Ranch Ponds. The greatest extent of potential drawdown will be at the west end of the ponds, which are located closest to the slant well screen intakes."³⁶ However, Geoscience also concludes that "**the Dune Sand Aquifer is confined** by [a] restrictive layer and that pumping in the Dune Sand Aquifer is separate and does not affect the shallow perched system."³⁷ As a result, the DSA is apparently "confined and does not respond rapidly to rainfall events."³⁸ However, as previously explained by MCWD's expert—EKI—in November 2020:

[I]n the event that the additional data indicates that the Dune Sand Aquifer is confined in the vicinity of the Ponds, as Geoscience newly asserts, such information will need to be incorporated in the hydrogeologic numerical model, as the current model assumes the Dune Sand Aquifer is unconfined. ... [I]f the Dune Sand Aquifer is confined, water level declines in the Dune Sand Aquifer from Project pumping will be significantly greater than the declines disclosed by the CPUC's modeling and EIR.³⁹

Because Geoscience's latest modeling has concluded the DSA *is* confined, the Commission must require Geoscience and Cal-Am to incorporate this information into the hydrogeological numerical model—which currently assumes the DSA is *unconfined*—and re-run that modeling to ensure the most accurate results are presented.

Such modeling is fundamentally necessary because it directly implicates the water level declines that were estimated in the EIR, which the Commission has relied on in determining that Special Condition 13 will adequately mitigate potential vernal pool impacts. Because pumping from the confined DSA will yield significantly greater water level declines, the estimates and assumptions presented in the EIR significantly underestimate the Project's impacts to groundwater resources and groundwater dependent ecosystems. (*Save the Agoura Cornell Knoll v. City of Agoura Hills* (2020) 46 Cal.App.5th 665, 693–694 (*Save the Agoura Cornell Knoll*) [where initial testing is insufficient, evidence supported finding that updated survey of special status species

³⁶ Aug. 5, 2022 NOI Response, Exh. Z, Attach. A, p. 1.

³⁷ *Id.* at pp. 44–45.

³⁸ *Id.* at p. 62.

³⁹ MCWD Letter to Coastal Commission re: Cal-Am's CDP Application, Nov. 25, 2020, pp. 10–11.

would not merely be helpful but would be necessary to formulate an adequate mitigation measure for those affected species].)⁴⁰

Therefore, given this alarmingly conflicting information, and the broad potential consequences it may have, substantial evidence does not support the Commission's conclusion that Special Condition 13 will adequately mitigate the Project's impacts to groundwater dependent ecosystems, ESHA, coastal wetlands, and vernal pools to the maximum extent feasible.

2. The "Habitat Mitigation Monitoring Program" and "Vernal Pond Adaptive Management Program" required by Special Conditions 10 and 13 lack enforceable performance standards and improperly defer mitigation of established impacts.

At the suggestion of Cal-Am, Special Conditions 10 and 13 attempt to mitigate known impacts to ESHA and groundwater dependent ecosystems by requiring Cal-Am to submit a final Habitat Mitigation and Monitoring Plan and Wetlands and Vernal Pond Adaptive Management Program to the Commission's Executive Director for review and approval, respectively. (Nov. 2022 Staff Report, pp. 23–29, 32–33.) Both Programs either fail to include prescribed performance standards, or improperly impose mitigation measures that are neither consistent with the Coastal Act nor mitigation plans the Commission has previously approved. Significantly, the requirement for the final HMMP is inadequate because it:

- Does not address adequate buffers.
- Uses land for mitigation that is already scheduled for restoration under the CEMEX agreement (i.e., double counting).
- Does not address how the required construction and work on the proposed M1W liner will be performed in critical habitat for Western Snowy Plover during the breeding and nesting season.

⁴⁰ Cf., CCC Aug. 25, 2020 Staff Report at p. 53 ("importantly, it would be difficult to monitor the actual effects the expected drawdown would have on these wetland and vernal pond areas, in part due to the complex interactions among changing groundwater elevations, different amounts of precipitation and other water sources, the presence of different species with different responses to those changes, *as well as the lack of adequate reference sites or baseline data for many of these areas*. It would likewise be difficult to provide adequate mitigation for any adverse effects, in part due to the potential extent of the effects – which could cover up to several dozen acres of wetlands and vernal ponds – and also due to the difficulty in identifying sites where creating or restoring wetland or vernal ponds could be successful and would not result in the conversion of other sensitive habitats").

- Fails to include mitigation measures for lighting and sound impacts.
- Improperly allows in-lieu mitigation fees for a mitigation program that does not exist.

The requirements for Special Condition 13's "Wetlands and Vernal Pond Adaptive Management Program" fare no better. Just like the HMMP, Special Condition 13 improperly defers mitigation and analysis of readily-discernible impacts. For example, Stage 1 would require Cal-Am to "collect supplemental data and monitor vernal ponds and wetlands within the Project's drawdown zone during the first five years of operations."⁴¹ "If the results of that effort showed that there was no connection between well operation and conditions at the wetlands and vernal ponds, no further action would be taken."⁴² But if the results *do* establish a connection between the vernal ponds within the drawdown zone of the Project and the DSA, Stage 2 would require Cal-Am to "develop a second plan" and "return to the Commission for a permit amendment with [that] plan to continue monitoring and provide compensatory mitigation for any observed or future impacts."⁴³

Under its certified regulatory program, the Commission is prohibited from deferring the formulation of mitigation measures to a future time. (*Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280.) The Commission impermissibly defers the Project's mitigation measures where it "puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR." (*Id.* at pp. 280–281.) Specifically, mitigation is improperly deferred when "the success or failure of mitigation efforts may largely depend upon management plans that have not yet been formulated and have not been subject to analysis and review within the same EIR." (*Id.* at p. 281, quoting *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92.) As the Commission previously noted, "[g]iven the paucity of field data and monitoring at the various wetland/vernal pond sites, [the Commission] [is] not yet able to determine from the information provided whether these habitat areas would be adequately protected from Cal-Am's pumping. Because of the difficulty of mitigating adverse impacts to these types of habitats, please include in the final reports additional detailed information about what

⁴¹ Nov. 2022 Staff Report, p. 89; cf., CCC Aug. 25, 2020 Staff Report, p. 12.

⁴² *Ibid.*

⁴³ *Id.* at pp. 89–90.

mitigation locations and methods Cal-Am would propose should there be adverse impacts to these areas.”⁴⁴

For these reasons, neither of the adaptive management programs required by Special Conditions 10 and 13 are feasible because it is nearly impossible to “manage” impacts to vernal ponds if groundwater is removed. (Cf. *Save the Agoura Cornell Knoll*, *supra*, 46 Cal.App.5th at p. 693 [restoration plan held ineffective in offsetting impacts to special status plant species because plan failed to provide any feasible alternatives if restoration efforts failed].) Given the Commission’s commitment to ensuring mitigation measures for sensitive areas and ESHA are established *before* Project approval⁴⁵, the absence of requisite information, modelling, and enforceable mitigation expressly violates the Coastal Act.

Special Condition 10’s requirement of payment of in-lieu fees is in express violation of CEQA due to the absence of a pre-established in-lieu fee program. While in-lieu fee programs may offer a solution to mitigating environmental impacts, they are not “necessarily or presumptively adequate mitigation under CEQA.” (*California Native Plant Society v. County of El Dorado* (2009) 170 Cal.App.4th 1026, 1054 (CNPS).) In order for an in-lieu fee program to provide “a lawful substitute for the ‘traditional’ method of mitigating CEQA impacts, that is, a project-by-project analysis, ***the fee program must be evaluated under CEQA.***” (*Id.* at p. 1053, emphasis added.) Specifically, “such programs, or the specific applications of those programs to a given project, *when reviewed under CEQA*, may provide adequate mitigation.” (*Id.* at p. 1054, original emphasis.)

As a result, in-lieu fee programs may be adequate mitigation measures under CEQA if the improvement projects funded by those fees have undergone *separate* CEQA review and are in place *before* project approval. (*Id.* at pp. 1053–1054; see *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1188 [“to be adequate, these mitigation fees ... must be part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing”].) And the efficacy of whether those programs may sufficiently mitigate a particular project’s impacts must be analyzed in the

⁴⁴ Dec. 3, 2020 NOI, p. 5.

⁴⁵ See, e.g., Cal. Coastal Commission Staff Report, Feb. 23, 2022, Appeal No. A-5-HNB-10-224, App. No. 9-21-0488 [“Poseidon Water CDP”], pp. 7–8 [“The Coastal Act requires that marine resources and biological productivity of coastal waters be maintained and that maximum feasible mitigation be imposed for impacts to those resources. Poseidon’s proposed project would significantly diminish some of those marine resources.... It is critical that a project with this scale of impacts has well-defined and thoroughly evaluated mitigation in place that can be expected to provide timely and appropriate mitigation beginning concurrently with, or very soon after, project operation”].

corresponding EIR or environmental document. (*Ibid.*, citing *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 140–141 [evidence in EIR demonstrated specific traffic improvement projects were in place and underway, therefore, traffic impact mitigation fees were sufficiently tied to the actual mitigation of increased traffic impacts])

Here, Special Condition 10's in-lieu mitigation fees fail to conform to these parameters. First, the Condition fails to specify an in-lieu fee program that the Commission has already reviewed and implemented under CEQA, which would adequately mitigate the Project's significant impacts to sensitive dune habitats. To the contrary, the plain language of the Condition concedes that such a program may not yet exist, and thus, has not undergone CEQA review. (Nov. 2022 Staff Report, p. 24 ["[i]f a suitable account to accept and administer in-lieu fee funds for dune habitat in the region *does not already exist...*"]; cf. *CNPS, supra*, 170 Cal.App.4th at p. 1055 ["[f]or an in-lieu fee system to satisfy the duty to mitigate, either that system must be evaluated by CEQA...or the in-lieu fees or other mitigation must be evaluated on a project-specific basis"].) Second, the efficacy of this program has not been analyzed by either the MPWSP EIR/EIS or the Commission. Therefore, it is impossible for the public to ascertain, and for the Commission to rationally conclude, that Cal-Am's payment of these fees into an non-existent in-lieu program will fully mitigate the MPWSP's discernible adverse impacts to ESHA. (See *CNPS, supra*, 170 Cal.App.4th at p. 1055 ["although payment of the fee opens the door to development within the relevant area, payment of the fee does not obviate environmental review"].)

Thus, because Special Condition 10's unknown fee program has never undergone CEQA review, the Commission "cannot simply declare that such and such a fee will 'fully' mitigate the environmental effects of [the MPWSP] absent some environmental analysis." (*CNPS* at p. 1056.) Absent this analysis, Special Condition 10 evades CEQA by failing to adequately mitigate the Project's ESHA impacts.

III. The mitigation "refinements" proposed in the Staff Report are inadequate and in violation of CEQA.

A. Special Condition 7 fails to adequately protect nesting birds from noise impacts.

Construction of the slant wells will occur 24 hours per day, 7 days a week resulting in noise levels exceeding 80 dBA at 50 feet.⁴⁶ Additionally, operational noise from the slant wells would exceed 66 dBA at 50 feet even with attenuation due to soil and concrete casing.⁴⁷ For nesting birds, like Western snowy plover, Special Condition 7

⁴⁶ EIS-EIR, p. 4.12-22 to 4.12-23.

⁴⁷ EIS-EIR, p. 4.12-22 to 4.12-57.

requires noise levels to be maintained below 65 dBA or less at nest sites—and provides that noise barriers and visual screens may be considered, in consultation with the Executive Director.⁴⁸ The Staff Report indicates Special Condition 7 refines the FEIR/FEIS mitigation measures with respect to limits on noise at nest sites.⁴⁹ The FEIR/FEIS, however, did not contain any mitigation to minimize noise at nest sites. Mitigation Measure 4.12-1b: General Noise Controls for Construction Equipment and Activities expressly does not apply to construction of the slant wells.⁵⁰

Additionally, in violation of CEQA, Special Condition 7 would allow the Executive Director to approve construction of noise barriers or visual screens in ESHA with no consideration of the environmental impacts that may result. (See *Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116, 134 [a “decision having potentially significant environmental effects must be preceded, not followed, by CEQA review; *Laurel Heights I, supra*, 47 Cal.3d at pp. 394, 398 [agencies must analyze consequences that are reasonably foreseeable]; Guidelines, § 15132, subd. (a)(1)(D) [agencies must analyze secondary impacts of mitigation measures].)

B. Special Condition 3 fails to adequately mitigate lighting impacts.

The Staff Report explains that “[t]he most visible construction activities near the well field would likely be the lighting associated with the Project, and construction of the outfall modifications, which could be visible from nearby beach areas.”⁵¹ To minimize lighting impacts, the Staff Report explains that Special Condition 3 “requires that Project lighting during Project construction, operation, and maintenance be directed inward and downward towards any work areas or Project components and that it be the minimum needed to ensure the health and safety of Project personnel and the public.”⁵² Special Condition 3, however, contains no such language.⁵³ Rather, the condition only requires Cal-Am to submit for approval a Construction Plan that sets forth “Best Management Practices (BMPs),” including “all measures that will be implemented to reduce the effects of construction noise and lighting of areas outside the delineated construction areas.”⁵⁴ Otherwise, the condition does not specify any minimum standards that those lighting measures must adhere to let alone a requirement that lighting must “be directed inward

⁴⁸ Staff Report, pp. 18, 70, fn. 43.

⁴⁹ Staff Report, pp. 69-70.

⁵⁰ EIS-EIR, p. 4.12-37 to 4.12-38.

⁵¹ Staff Report, p. 134.

⁵² *Ibid.*

⁵³ See *id.* at pp. 14–15.

⁵⁴ *Ibid.*

and downward towards any work areas..."⁵⁵ For these reasons alone, substantial evidence does not support the Commission's conclusion that Special Condition 3 will adequately mitigate the Project's lighting impacts.

The absence of these performance standards not only renders Special Condition 3 inadequate, but also runs afoul of longstanding Commission practice. For example, in assessing the impacts of the similar Poseidon Huntington Beach Desalination Facility, the Commission's Staff Report determined that light emitted by Poseidon's facility would represent a new artificial light source to adjacent wetlands and ESHA, thus representing an additional cumulative impact to the numerous sensitive species dependent on those areas.⁵⁶ Staff explained that "[l]ight plays a pivotal role in biology and creates the potential that artificial light will create significant impacts on plants and animals" by disorienting natural circadian rhythms and behavioral routines, disrupting foraging, dispersal, and migration movements, and increasing the chances of predation and mortality.⁵⁷ Therefore, "[u]nless mitigated, the current proximity and elevation of the light sources would likely cause adverse artificial night lighting impacts in areas that are currently subject to somewhat less night lighting."⁵⁸ Though the Commission ultimately denied Poseidon's project, staff explained that adverse lighting impacts could be addressed via a Special Condition that would "requir[e] Poseidon to develop a lighting plan that ensures the use of the latest artificial night lighting fixtures and illumination technology to reduce the sky glow, glare, and light trespass from its facility, and other measures such as those consistent with the standards of the Illuminating Engineering Society of North America (IESNA) that provide best design practice minimums for areas with particularly sensitive natural resources."⁵⁹

The current Staff Report vastly differs. Despite the MPWSP's analogous proximity to ESHA, the Staff Report fails to analyze the Project's potentially significant lighting impacts to these sensitive areas and species. This missing analysis is further compounded by Special Condition 3's failure to prescribe *any* performance measures that would assure those impacts are sufficiently mitigated. For example, unlike the suggested condition for Poseidon, Special Condition 3 does not require Cal-Am to prepare a lighting plan that ensures all fixtures reduce sky glow and conform to IESNA standards

⁵⁵ *Id.* at pp. 15, 134.

⁵⁶ Coastal Comm. Staff Report for Poseidon Water, A-5-HNB-10-224/9-21-0488, Mar. 12, 2022 ["Poseidon Staff Report"], pp. 154–155.

⁵⁷ *Ibid.*

⁵⁸ *Id.* at p. 154.

⁵⁹ *Id.* at p. 155.

or limit the hours of when construction and operational lighting can occur.⁶⁰ Instead, Special Condition 3 simply authorizes Cal-Am to set its own construction schedule and dictate which lighting measures it will implement “to *reduce* the effects of construction lighting of areas outside the delineated construction areas.”⁶¹ By relinquishing discretion to Cal-Am to formulate how these significant impacts will be addressed, Special Condition 3 improperly defers mitigation and fails to guarantee that potential impacts to ESHA will be mitigated to the maximum extent feasible.

IV. Approval of the MPWSP would result in grave environmental justice impacts and would adversely affect the public welfare.

The Commission's August 25, 2020 Staff Report poignantly observed the most alarming aspect of the MPWSP, which still exists today: “*The Project ... involves the most significant environmental justice concerns the Commission has considered since it adopted an Environmental Justice Policy in 2019.*”⁶² Given the “long history of government institutions allowing unwanted industrial development to be concentrated in underserved communities of color ... *Approving yet another would perpetuate this discriminatory land use practice in Marina.*”⁶³

While the Staff Report current Staff Report observes the same alarming aspect of the MPWSP: “*The Project ... involves the most significant environmental justice concerns the Commission has considered since it adopted an Environmental Justice Policy in 2019*”,⁶⁴ it does not reach the same conclusion. Rather, the Staff Report notes, “[o]verall, the analysis shows that Cal-Am's Project creates several serious environmental justice issues.”⁶⁵ The Staff Report differing conclusion cannot be squared on the current record.

The City of Marina is a historically disadvantaged community that has been subjected to numerous sources of environmental pollutants, including a regional landfill, a regional sewage plant, a regional composting facility, a municipal airport, a

⁶⁰ Nov. 2022 Staff Report, pp. 14–15 [15 [“The [Construction] Plans are to provide a construction schedule identifying the expected duration of construction and the hours and days construction is expected to occur”], 154–155.

⁶¹ *Id.* at p. 15, emphasis added.

⁶² *Id.* at p. 2.

⁶³ CCC Aug. 25, 2020 Staff Report, p. 101.

⁶⁴ Staff Report at p. 4.

⁶⁵ Staff Report, p. 5.

contaminated military installation riddled with toxic substances and listed on the EPA's national priorities list, and the CEMEX sand mining facility.⁶⁶ Now, the City faces all associated impacts related to the construction and operation of Cal-Am's Project, even though the City will not reap any of the Project's purported benefits.⁶⁷ Cal-Am has publicly admitted this. After Cal-Am withdrew its CDP application in September 2020, company President Rich Svindland explained: "It became obvious that [Cal-Am] needed to take more time to address objections raised by the community of Marina, *namely that our project [the MPWSP] would be built in their backyard without them receiving any benefit from it.*"⁶⁸

Despite this concession, the Staff Report acknowledges that Cal-Am failed to actively and meaningfully engage with the City of Marina and surrounding community. As the City of Marina in its October 3, 2022 letter to the Commission explained:

Cal-Am has so far failed to undertake any meaningful outreach and engagement with the residents of the City, which is a disadvantaged, working-class community of color put at risk by the MPWSP. For example, Cal-Am was scheduled to appear at a City Council meeting on September 7, 2022, to discuss the MPWSP, but cancelled without explanation. Cal-Am has now submitted a public outreach plan to the Commission, which really constitutes a public relations effort masquerading as outreach. Cal-Am also submitted a public access plan to the Commission, but failed to even consult with the City before doing so.⁶⁹

The Commission should not follow Cal-Am's lead. Moreover, to adequately assess the Project's environmental justice effects on Cal-Am rate payers, the Commission needs the same information that is required to assess the public welfare effects—that is, capacity utilization, costs, and the resulting water rates for the Project as Cal-Am now proposes to phase it. The Commission's record lacks this necessary information to

⁶⁶ *Id.* at p. 8; see also *Marina, California: A Classic Case of Environmental Injustice Unfolding* (2019) Citizens for Just Water, available at: <https://www.youtube.com/watch?v=vRNjgxtFi7Y>.

⁶⁷ CCC Sept. 2020 Staff Report, p. 8 ["Cal-Am's proposed Project would be sited in part within the community of Marina, which is not in Cal-Am's service area but would be burdened with the adverse coastal resource impacts as discussed above and receive none of the Project benefits"].

⁶⁸ Svindland, Rich Svindland, *Guest Commentary: Explaining California American Water's decision to withdraw application* (Sept. 19, 2020) Monterey Herald < <https://www.montereyherald.com/2020/09/19/rich-svindland-guest-commentary-explaining-california-american-waters-decision-to-withdraw-application/>> (as of Oct. 11, 2022).

⁶⁹ Long, L., City of Marina, to Ainsworth, J., Cal. Coastal Commission, *RE: Monterey Peninsula Water Supply Project, Application No. 90-20-0603; Appeal No. A-3-MRA-19-0034* (Oct. 3, 2022).

adequately analyze the disproportionate impacts the MPWSP would have on the surrounding communities of concern.

Finally, Cal-Am's attempt at downplaying impacts to the City of Marina are troubling. Cal-Am maintains that the Project will provide "substantial benefits the disadvantaged communities both on the Monterey Peninsula and in the larger region that heavily relies on the Peninsula's jobs and economic activity. Its primary support for this claim that the Project will resolve water supply challenge[s] in Castroville, a noted community of concern."⁷⁰ However, MCWD notes that it has worked with Castroville to provide a solution to its water supply issues without Cal-Am's Project. MCWD has included an intertie with Castroville as part of its capital improvement plan that will allow MCWD to pump Castroville's groundwater allocation from MCWD's service area and provide it to Castroville. This solution addresses the environmental justice concerns associated with the Castroville without saddling the City of Marina and Cal-Am ratepayer with the impacts of Cal-Am desalination project.

A. Cal-Am's failure conduct any meaningful outreach to surrounding communities of concern prior to Project approval cannot be cured by Special Condition 17.

After Cal-Am withdrew its CDP application in September 2020, company President Rich Svindland explained: "It became obvious that [Cal-Am] needed to take more time to address objections raised by the community of Marina, *namely that our project [the MPWSP] would be built in their backyard without them receiving any benefit from it.*"⁷¹

Despite this concession, Cal-Am has never actively or meaningfully engaged with the surrounding community. In September 2022, community leaders were stunned to learn Cal-Am's was deemed "complete" given the company's demonstrable lack of engagement with disproportionately impacted ratepayers and residents. For example, "Kathy Biala, co-founder of Citizens for Just Water, says Cal-Am has done little to address environmental justice issues related to locating the project in and around Marina. During the initial Coastal Commission process, the Commission staff substantiated

⁷⁰ Jan. 11, 2022 NOI Response, p. 12.

⁷¹ Svindland, Rich Svindland, *Guest Commentary: Explaining California American Water's decision to withdraw application* (Sept. 19, 2020) Monterey Herald <
<https://www.montereyherald.com/2020/09/19/rich-svindland-guest-commentary-explaining-california-american-waters-decision-to-withdraw-application/>> (as of Oct. 11, 2022).

Marina as a community of concern; Biala says Cal-Am has failed to engage the community on addressing the impacts a project of such magnitude could have.”⁷²

Acknowledging Cal-Am's utter failure to adequately engage communities of concern, the Staff Report proposes Special Condition 17, which requires Cal-Am to prepare Community Engagement and Public Access Plans, *after* approval of the Project. Perhaps even more alarming, it gives the Executive Director sole discretion to approve the plan. Deferring the details of these plans until after the Commission approves the Project and then allowing a negotiation between Cal-Am and the Executive Director behind closed doors is the antithesis of community engagement and calls into question the Commission's “commitment” to environmental justice.⁷³ Cal-Am's Plan, which has now been incorporated in the Commission's Special Conditions is the precise reason why Commission Staff concluded this Project meets the definition of a “discriminatory land use practice.”

B. Cal-Am has failed to provide any information regarding how the Project's known rate increases will impact socio-economically disadvantaged ratepayers—and how Cal-Am will mitigate those disproportionate impacts particularly in light of the “phased” Project.

The Commission's Policy comports with prior Legislative measures, including the addition of Section 30013 to the Coastal Act in 2017. (Gov. Code § 11135; see also Coastal Act §§ 30013, 30107.3, subds. (a)–(b).) The very real potential for increased water rates, particularly at a time when customers are already financially burdened by the long-term effects of the COVID-19 pandemic, economic inflation, and rising housing costs, directly contravenes the Commission's 2019 EJ Policy.

Cal-Am's last minute decision to reduce the Project size from 6.4 MGD to 4.8 MGD presents additional environmental justice concerns with respect to water rates. That Cal-Am has provided no cost data for its newly proposed 4.8 MGD facility is practically speaking, irrelevant. Basic economic theory dictates that the fewer units of water that are

⁷² Neely, *The debate over Cal-Am's desalination plant returns to center stage*. (Sept. 15, 2022) Monterey County Weekly <https://www.montereycountyweekly.com/news/local_news/the-debate-over-cal-am-s-desalination-plant-returns-to-center-stage/article_395bb0ec-347d-11ed-aca1-873138048193.html> (as of Oct. 11, 2022).

⁷³ As the prior Staff Report noted “[w]hile government has long allowed industrial development to be clustered in underserved communities over their objections, the Commission's EJ Policy was created in part to allow these communities in California to have a greater voice on land use decisions that impact the health, safety, and welfare of their residents.” (August 25, 2020, CCC Staff Report, at p. 101.)

delivered, the fewer units there are to divide the fixed capital costs of the Project between, and the more expensive each unit would be. Because the smaller plant will require almost the exact same infrastructure as a 6.4 MGD facility, but produce less units of water, the price per unit—which for the 6.4 MGD facility is estimated at \$6,100 per acre-foot—will ostensibly rise. To conclude that saddling low-income ratepayers—who have taken to “flushing toilets only once per day, taking showers at municipal facilities instead of at home, [and] not washing clothes often”⁷⁴ to reduce their already astronomical water bills—with astronomical rate hikes to offset construction costs of Cal-Am’s project is unconscionable. In the absence of reassurances that Cal-Am will (or even can) offset these increased costs of Phase One, particularly to already disadvantaged and financially disenfranchised ratepayers, Cal-Am’s Project directly conflicts with the Commission’s EJ Policy.

V. Conclusion

After working for so many years to witness the closure and restoration of the CEMEX sand mining site, City of Marina residents should not have to bear the brunt of yet another regional industry facility on its precious coastline. Cal-Am’s meager attempt at providing a “Public Access Plan” that would allow limited and artificial access to the site does not cure the significant implications this Project presents for the City. While the Project’s slant wells have an expected operational life of only 25 years, the CPUC’s approval does not expire, therefore, the desalination facility will be required to obtain water from another source. In turn, the Commission’s decision on the Project will have a lasting impact on Marina, its residents, and its future water supplies.

Moreover, Cal-Am does not even have a CPCN for the project it is now proposing, which is a clear feasibility problem. The Commission should require Cal-Am to return to its primary regulator – the CPUC – to modify the Project CPCN before the Commission grants Cal-Am a CDP that it cannot lawfully use.

Because the MPWSP is inconsistent with the City of Marina’s LCP and the Coastal Act and those inconsistencies cannot be addressed by requiring mitigation or alternatives, the Commission may *only* approve the Project if it meets the three-part test set forth in Public Resources Code section 30260—which it does not. If the Project fails to meet one or more of the three criteria, the Commission cannot approve it. As set forth above, the MPWSP fails to meet any of the three criteria because: (1) the PWM Expansion is a less-environmentally damaging and feasible alternative; (2) unstudied

⁷⁴ Staff Report, p. 109.

November 11, 2022

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impacts to ESHA, coastal wetlands, and groundwater preclude a finding that adverse environmental effects have been mitigated to the maximum extent feasible; and (3) approving this Project in an already-disadvantaged community would perpetuate an ongoing history of discriminatory land use practices, in direct contravention of the Commission's Environmental Justice Policy, and would adversely affect the public welfare. Therefore, the Commission cannot approve Cal-Am's CDP application. If, however, the Commission does approve the Project, we respectfully request that incorporate the proposed conditions of approval provided in the attached.

Very truly yours,



Howard "Chip" Wilkins III

Attachments

cc: John Ainsworth (John.Ainsworth@coastal.ca.gov)
Tom Luster



MEMORANDUM

TO: Rem Scherzinger
General Manager
Marina Coast Water District

DATE: November 10, 2022

SUBJECT: Response to Supply and Demand Assumptions in the California Coastal Commission Staff Report, Appeal No: A-3-MRA-19-0034

Introduction

This memorandum expands upon information and analysis contained in WaterDM's Fifth Supplemental Export Report, responds to supply and demand assumptions in the California Coastal Commission Staff Report, Appeal No: A-3-MRA-19-0034, and projects the volume of excess supply available with and without California American Water Company's Monterey Peninsula Water Supply Project desalination project.

Water Demand Forecast

The necessity for Cal-Am's desalination project hinges upon its updated water demand forecast.¹ The California Coastal Commission Staff Report recommending approval with conditions for Cal-Am's desalination project asserts that the California Public Utilities Commission (CPUC) will ultimately decide if the project is necessary and "whether additional water supplies will be needed beyond what the Pure Water Monterey Expansion will provide."²

But while appearing to leave the final decision on the necessity of the project to the CPUC, the Coastal Commission Staff nevertheless accepts that, "updated water demand and supply estimates and projections reasonably demonstrate that Cal-Am's (desalination) Project is likely to be needed at some point during the current 20-year planning period for future demand and supplies." This conclusion about Cal-Am's need for the desalination project in turn enables the Coastal Commission Staff to set aside numerous environmental and environmental justice concerns and recommend approval with conditions.

The problem is that Cal-Am's long-term demand forecast of 14,593 AF in 2050 is inflated and the need for Cal-Am's desalination project is overstated. In Cal-Am's updated forecast, per capita water use is assumed to increase by 14% by 2050 – exactly the opposite to what has been happening and what the State of California has legislated. These inflations and other problems with the forecast are noted in WaterDM's Fifth Supplemental Export Report.³

¹ Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022, (Table 5, p.24).

² California Coastal Commission. Staff Report. 11/4/2022. Application 9-20-0603 / Appeal A-3-MRA-19-0034 (California American Water Co.)

³ WaterDM. 2022. Fifth Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company's Monterey Main System

Cal-Am has a poor track record with recent demand forecasts.⁴ Cal-Am's 2017 demand forecast provided to the CPUC as part of the application for the proposed desalination plant predicted water use in 2020 would be 12,350 AF. Cal-Am's water use in 2020 was in fact just 9,412 AF. Thus, Cal-Am's demand forecast was 31.2% higher than actual use, just three years after it was submitted. Errors of this magnitude are expensive for rate payers. Infrastructure projects sized based on an overstated demand forecast would almost certainly be sized larger than needed, imposing a costly and unnecessary burden on rate payers for years to come. Cal-Am's 2022 updated demand forecast repeats the same error of starting from an unrealistically high demand rather than the actual demand.

Independent forecasts of demand prepared by the Public Advocates Office of the CPUC (Cal Advocates)⁵ and WaterDM⁶ closely agree and show that a more realistic future forecast for Cal-Am in 2050 is between 11,073 AF (Cal Advocates) – 11,160 AF (WaterDM). WaterDM's forecast, which incorporates all anticipated future growth, is shown in Figure 1.⁷

Storage Build-Up

The Coastal Commission staff report neglects Cal-Am's ability to store and bank water in the Seaside Basin in the coming years. This buffer supply will enable Cal-Am to provide reliable supply to 2050 and beyond without the desalination project. Cal-Am is allocated 28,777 AF of total storage in the Seaside Groundwater Basin.⁸ Careful management of the Seaside Groundwater Basin and optimizing the storage opportunities it provides will help ensure a long-term reliable supply for the Cal-Am Monterey service area.

Cal-AM participates in an aquifer storage and recovery (ASR) project that allows for the capture of excess Carmel River winter flows through wells along the river. This river water is then transferred through existing conveyance facilities, including the new Monterey Pipeline and Pump Station, and stored in the Seaside Groundwater Basin for later extraction.⁹ There are two water rights totaling 5,326 AF that support the ASR system,¹⁰ but in reality Cal-Am is only be able to divert, inject, and store the maximum permitted volume in the wettest of years. Based on long-term historical precipitation and streamflow data, the ASR system is designed to allow an average of 1,920 AF per year to be recovered.

With the addition of the Pure Water Monterey Expansion, Cal-Am will have further opportunities to inject and store a portion of its Carmel River supply in the Seaside Groundwater Basin which will allow for recovery if additional supply is needed.

⁴ WaterDM 2022.

⁵ Public Advocates Office of the CPUC. 8/19/22. Report and Recommendations Application 21-11-024 Phase 2 San Francisco, California

⁶ WaterDM 2022.

⁷ WaterDM's continued efficiency forecast is based on Cal-Am's current stated service area population and on AMBAG's anticipated population growth through 2050 including population additions from the RHNA. With these additions, the total population of the Cal-Am service is forecast to be 117,948 in year 2050.

⁸ Seaside Basin Watermaster Annual Report – 2019, December 5, 2019

⁹ California-American Water Company. 2019. (U-210-W) Update to General Rate Case Application, A.19-07-004. Direct Testimony of Christopher Cook. (p.7)

¹⁰ MPWMD Report (p.3)

Excess Supply

As shown in Figure 1 and Table 1, starting in 2024 when the Pure Water Monterey Expansion supply comes online, there is excess supply volume in every year out to 2050. Some of this excess supply could be banked. The excess supply is shown as the volume above the dotted line (WaterDM's continued efficiency forecast) in Figure 1.

Without the desalination facility, Cal-Am will have a cumulative total excess supply of 27,874 AF by 2050 – enough to fill its storage allocation in the Seaside Basin. If Cal-Am's desalination project comes online in 2026¹¹, there will be more than 6,500 AF of excess supply per year and more than 144,000 AF of cumulative excess by 2050, far exceeding Cal-Am's storage capacity in the Seaside Basin.

Summary

The necessity for Cal-Am's desalination project and the Coastal Commission staff report conclusions hinge upon an inflated water demand forecast. Accepting Cal-Am's need for the desalination project in turn enables the Coastal Commission Staff to set aside numerous environmental and environmental justice concerns and recommend approval with conditions.

WaterDM's more realistic water demand forecast shows that with the addition of the Pure Water Monterey Expansion, Cal-Am will have excess available supplies which increases the potential for banking water in the Seaside Basin.

Without the desalination project, Cal-Am will have a cumulative total excess supply of 27,874 AF by 2050. With the desalination project, Cal-Am will have more than 144,000 AF of cumulative excess by 2050, far exceeding Cal-Am's storage capacity in the Seaside Basin.

¹¹ Assumes Phase 1 of Cal-Am desalination produces 5,376 AF/year and 695 AF/year are delivered to Castroville.

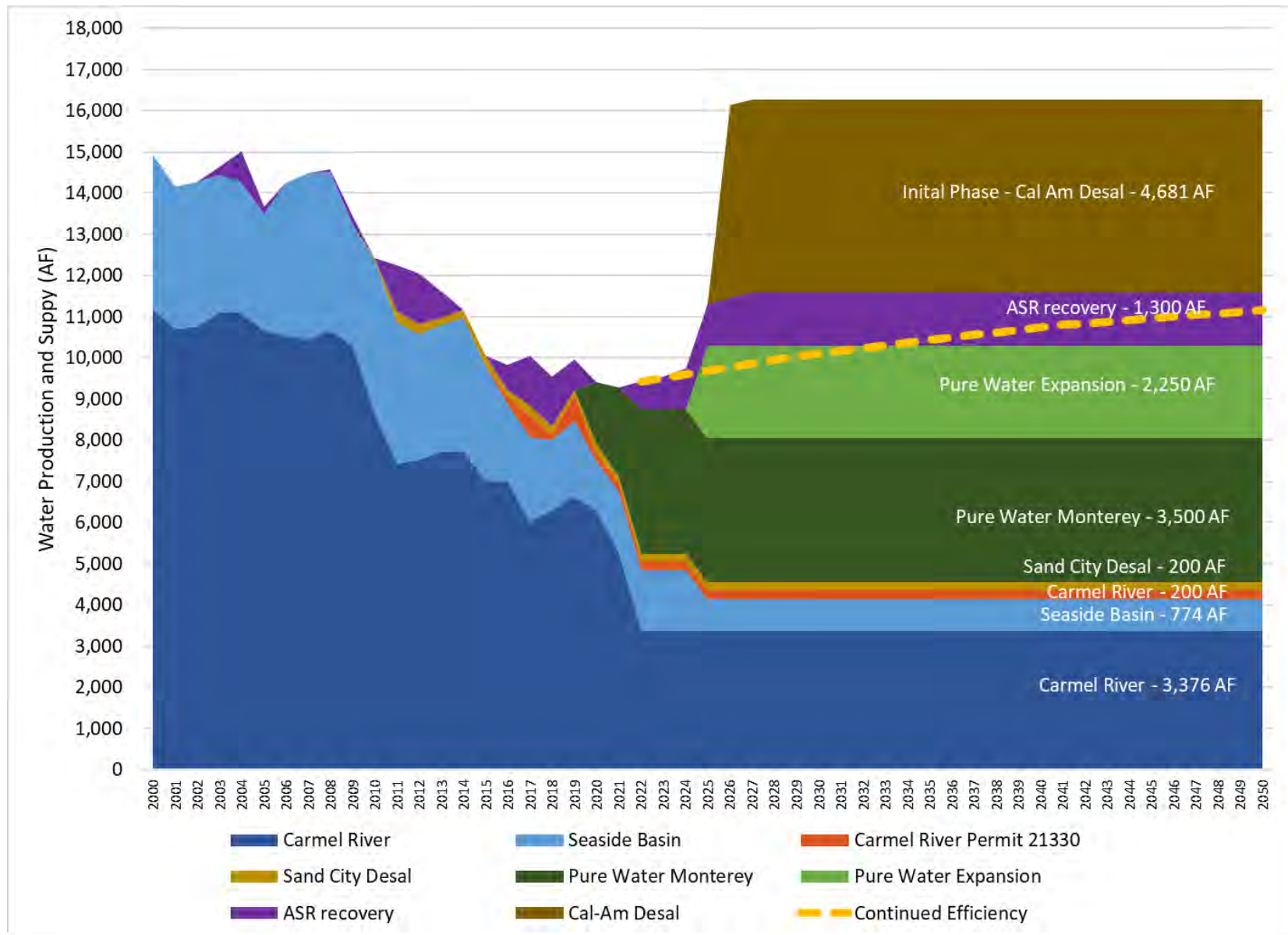


Figure 1: Cal-Am supply and demand 2000 – 2021, forecasted supply and demand 2022 - 2050

Table 1: Forecasted Cal-Am water supplies and demand 2022 - 2050

Year	Carmel River	Carmel River Permit 21330	Seaside Basin ¹²	ASR recovery	Sand City Desal	Pure Water Monterey	Pure Water Monterey Expansion	First Phase of Cal-Am Desal. ¹³	Total Cal-Am Supply	WaterDM Continued Efficiency Forecast	Excess supply without Desal.	Excess supply with Desal.	Cumulative Excess without Desal.	Cumulative Excess with Desal
2022	3,376	200	1,474	679	200	3,500	-	-	9,429	9,429	-	-	-	-
2023	3,376	200	1,474	800	200	3,500	-	-	9,550	9,517	33	33	33	33
2024	3,376	200	1,474	1,000	200	3,500	-	-	9,750	9,604	146	146	179	179
2025	3,376	200	774	1,300	200	3,500	2,250	-	11,600	9,691	1,909	1,909	2,088	2,088
2026	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	9,777	1,823	6,504	3,910	8,591
2027	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	9,863	1,737	6,418	5,647	15,009
2028	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	9,949	1,651	6,332	7,298	21,341
2029	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,034	1,566	6,247	8,864	27,588
2030	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,118	1,482	6,163	10,346	33,751
2031	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,182	1,418	6,099	11,764	39,850
2032	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,246	1,354	6,035	13,118	45,885
2033	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,309	1,291	5,972	14,409	51,857
2034	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,372	1,228	5,909	15,637	57,766
2035	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,435	1,165	5,846	16,802	63,612
2036	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,497	1,103	5,784	17,905	69,396
2037	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,559	1,041	5,722	18,946	75,118
2038	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,620	980	5,661	19,925	80,778
2039	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,681	919	5,600	20,844	86,378
2040	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,742	858	5,539	21,702	91,917
2041	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,803	797	5,478	22,499	97,395
2042	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,843	757	5,438	23,256	102,833
2043	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,884	716	5,397	23,972	108,230
2044	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,924	676	5,357	24,648	113,587
2045	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,964	636	5,317	25,284	118,904
2046	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	11,004	596	5,277	25,880	124,181
2047	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	11,043	557	5,238	26,437	129,419
2048	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	11,082	518	5,199	26,955	134,618
2049	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	11,121	479	5,160	27,434	139,778
2050	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	11,160	440	5,121	27,874	144,899

¹² Assumes 25-year payback of 700 AF per year to the Seaside Basin begins when the Pure Water Monterey Expansion comes online in 2025.

¹³ Assumes Phase 1 of Cal-Am desalination produces 5,376 AF/year and 695 AF/year are delivered to Castroville.

**Fifth Supplemental
Expert Report and Recommendations of**

Peter Mayer, P.E.

**Regarding Water Supply and Demand in the
California American Water Company's Monterey
Main System**

Prepared for:

The Marina Coast Water District

August 18, 2022





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SCOPE OF INVESTIGATION

This report is intended as a fifth supplement to the report WaterDM submitted to the Marina Coast Water District on April 21, 2020 and supplemental reports WaterDM submitted on July 1, September 11, and November 25, 2020, and March 22, 2022 that expanded on the research, analysis, and forecasts prepared for the original report.

For this fifth supplement, I was specifically asked to:

1. Review and respond to the July 20, 2022 Phase 2 direct testimony provided by the California-American Water Company (“Cal-Am”) as updated on July 25, 2022.¹
2. Update and extend to 2050 the demand forecast WaterDM prepared for Cal-Am’s Monterey Main System in a series of expert reports,² incorporating new information and data.
3. Review Cal-Am’s available water supplies if the Amended and Restated Water Purchase Agreement is adopted or if it is not adopted.

My opinions are based on my understanding of the information available as of the date of this report and my experience evaluating municipal and industrial water supplies and demands and conservation measures. In forming my opinions, I also considered the documents, testimony, and other materials listed in Appendix A. Should additional information become available to me, I reserve the right to supplement this report based on any additional work that I may conduct based on my review of such materials.

¹ Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022.

² WaterDM. April 21, 2020. Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company’s Monterey Main System.

WaterDM. July 1, 2020. Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company’s Monterey Main System.

WaterDM. September 11, 2020. Second Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company’s Monterey Main System.

WaterDM. March 22, 2022. Fourth Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company’s Monterey Main System.

SUMMARY OF OPINIONS AND CONCLUSIONS

As a result of my review of the items listed in Appendix A and other related and relevant documents and reports, my own independent analysis, and my expertise in municipal and industrial water use, water management, and engineering, I offer the following supplemental analysis and opinions regarding Cal-Am's water demand and supply:

Since my prior reports, Cal-Am's water demand further declined as customers have become more efficient and system water losses have been reduced.

WaterDM concluded in its April 21, 2020 expert report that Cal-Am's per capita use would continue to decrease due to ongoing conservation program implementation, conservation pricing, and water loss control measures. This has proven true and the trend towards increased efficiency is expected to gradually continue. WaterDM's updated demand forecasts for this supplemental report include continuing population growth in the Cal-Am service area and gradual efficiency improvements.

Cal-Am's revised 2022 water demand forecast provided in Ian Crooks' testimony is overstated.

The new Cal-Am forecast ignores the impacts of future conservation, includes population that is not in Cal-Am's service area, and includes double counts, all of which improperly increase future demand. Furthermore, the forecast in Crooks' testimony differs radically from Cal-Am's independently prepared 2022 PUC 3-year rate case forecast, which projects a decline in demand in the near-term.

A more realistic demand forecast prepared by WaterDM projects Cal-Am's 2050 demands to be 11,160 AF, which is more than 3,400 AF lower than Cal-Am's overstated forecast.

The growth rate in WaterDM's forecast is based on Cal-Am's current stated service area population and on AMBAG's anticipated population growth through 2050 including additions from the RHNA. WaterDM's forecast includes the impacts of ongoing efficiency improvements from Cal-Am's conservation program and state mandates. The result is a 6.1% reduction in per capita use and the conservation of 774 AF over 25 years.

With the addition of 2,250 AF from the Pure Water Monterey Expansion, Cal-Am can meet future demand in 2050.

By adding this additional source and continuing its water conservation efforts, Cal-Am should have sufficient supplies that the local development moratorium can be lifted, while still complying with the State Water Board's limits on Cal-Am's annual Carmel River diversions. Key to the success of this approach will be making necessary physical and management improvements to Cal-Am's aquifer storage and recovery ("ASR") system so it performs as designed and approved by the CPUC. This includes use of the Monterey Pipeline and continuing and extending water conservation and efficiency measures. With prudent management and

investment, Cal-Am should be able to steadily build up ASR reserves, essential for managing through drought periods.

If the Amended and Restated Water Purchase Agreement is not adopted and water from the Pure Water Monterey Expansion is not available, Cal-Am would face supply short falls starting in 2025 without additional action. If this supply shortfall were to be met with an alternative water supply source such as desalination, a supply sized similarly to the Pure Water Monterey Expansion (2,000 – 3,000 AF) would be adequate to meet future demand based on WaterDM's continued efficiency forecast.

ANALYSIS

Overview

The purpose of this report is to review and respond to the testimony provided by Cal-Am on July 20, 2022 (updated July 25) and to update and extend to 2050 the demand forecast WaterDM prepared in a series of expert reports, incorporating new information and analyses.

In its April 21, 2020 report, WaterDM prepared forecasts for the Cal-Am Monterey Main System to estimate future average annual production, inclusive of treatment losses and non-revenue water.³

For this report, WaterDM revised its demand forecasts for Cal-Am using the same basic assumptions but incorporating actual demand and population in 2021, as reported by Cal-Am. WaterDM's revised forecasts were then extended through 2050 based on the AMBAG population forecast with RHNA additions from Cal-Am's July 2022 testimony.⁴ These forecasts were used to compare against Cal-Am's available water supply to assess the necessary size and scope of proposed future supply projects.

Water Production and Demand

Annual Production

Annual water production for the Monterey System from 2000 – 2021 updated with data from Cal-Am's July 2022 testimony is shown in Figure 1 along with boxes added to indicate the influence of mandatory drought restrictions and recession. For the purposes of this report, total water production is assumed to be equivalent to the total annual water demand in the system inclusive of all water use, non-revenue water, and treatment losses.

³ Non-revenue water is the industry-standard replacement term for the antiquated "unaccounted for" water category. Non-revenue water is the technical term used to describe water that produces no revenue to the supplier, and it includes physical losses from water system as well as authorized consumption such as hydrant flushing.

⁴ Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022.

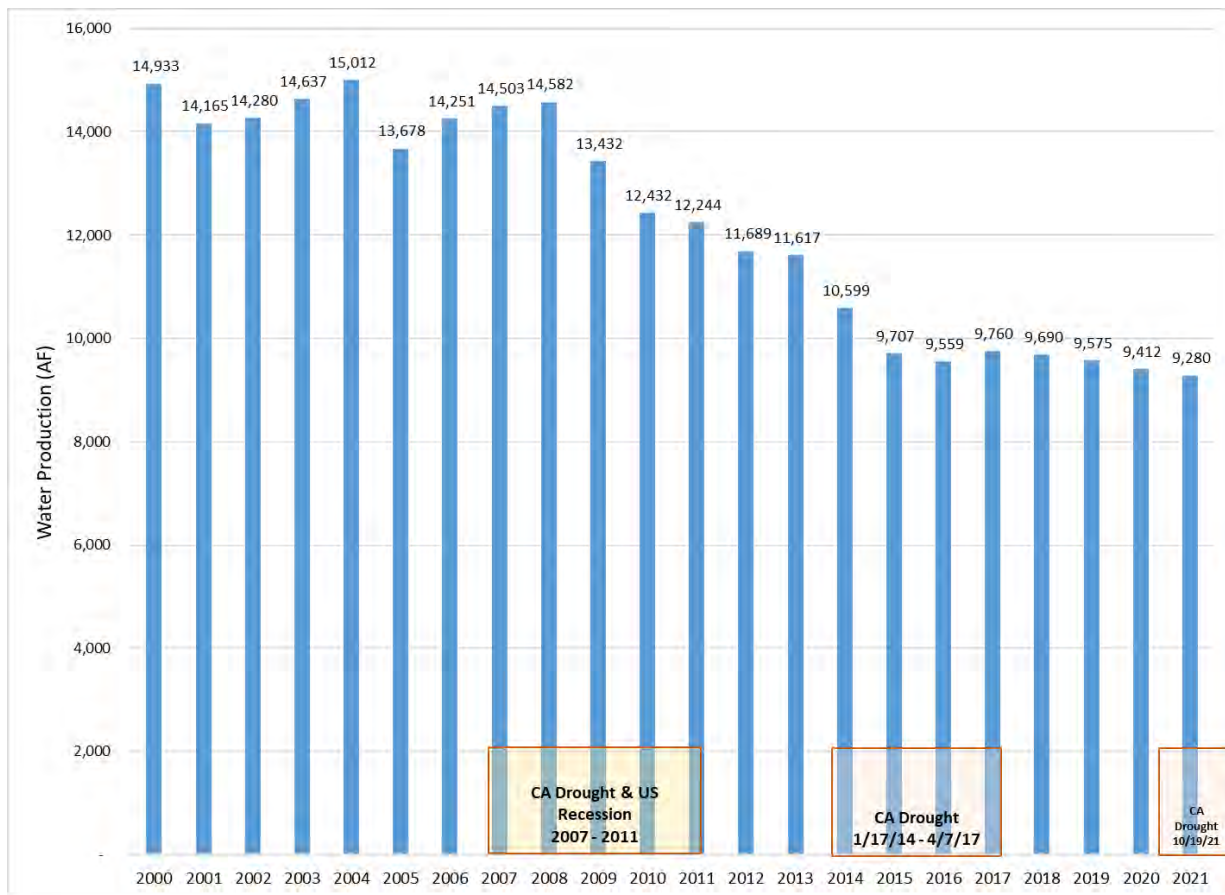


Figure 1: Cal-Am Monterey Main water production, 2000 - 2021⁵

From Figure 1 it is evident that water production in the Monterey System declined steeply from 2008 – 2016 and has continued to decline gradually since 2017. In this 8-year period, steep demand reductions occurred during years when California was in an officially declared drought paired with an economic recession. Production reductions also occurred in 2012 and 2013 which were non-drought and recession influenced years. Over the most recent five-year period, 2017 – 2021, water production in the Monterey Main service area averaged 9,543 AF per year. Over the most recent two-years, production averaged just 9,346 AF. Cal-Am water production in 2021 was the lowest in more than 20 years of records at 9,280 AF.

Comment on Data Sources

Recent data in Figure 1 comes from Cal-Am’s July 2022 testimony. Additionally, Cal-Am publishes and regularly updates monthly and annual water deliveries for Monterey Main,

⁵ Includes treatment and distribution losses. 2013 – 2021 from Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022. 2000 – 2012 From Monterey Peninsula Water Management District. 2019. Supply and Demand for Water on the Monterey Peninsula prepared by David Stoldt, General Manager.

Hidden Hills, Ryan Ranch & Bishop on its website for the desalination project.⁶ Monthly data going back to 2007 are available from the testimony of Ian Crooks (2012)⁷. I compared these published records with the production data set used in a 2020 Monterey Peninsula Water Management District report⁸ and with Cal-Am's quarterly and annual reports to the California State Water Resources Control Board.

Treatment and distribution losses come from Table Eight of Cal-Am's quarterly reports to the State Water Resources Control Board pursuant to condition eight of SWRCB Order WR 2016-0016 and condition six of WR 2009-0060.

For the purposes of the demand forecasts prepared in this report, WaterDM used Cal-Am's production in 2020 and 2021 as reported in Ian Crooks' July 2022 testimony to establish the starting point for the demand forecast to develop the most realistic updated demand forecast possible for the Monterey Main System.

Monthly Deliveries

While not relied upon as the starting point for WaterDM's demand forecasts, Cal-Am's published delivery data were used to analyze the seasonality of demand on the Monterey Main System. Monthly production is shown in Figure 2 with the period of recent drought declaration highlighted. A linear trendline is also added.

⁶ <https://www.watersupplyproject.org/system-delivery> (accessed 7/30/2022), and Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022.

⁷ Direct Testimony of Ian Crooks Before the Public Utilities Commission of the State of California. Application 12-04-019 (Filed April 23, 2012). (p.9).

⁸ Monterey Peninsula Water Management District. 2020. (MPWMD Report) Supply and Demand for Water on the Monterey Peninsula prepared by David Stoldt. (3-13-2020, 12-3-2019, and 9-16-2019).

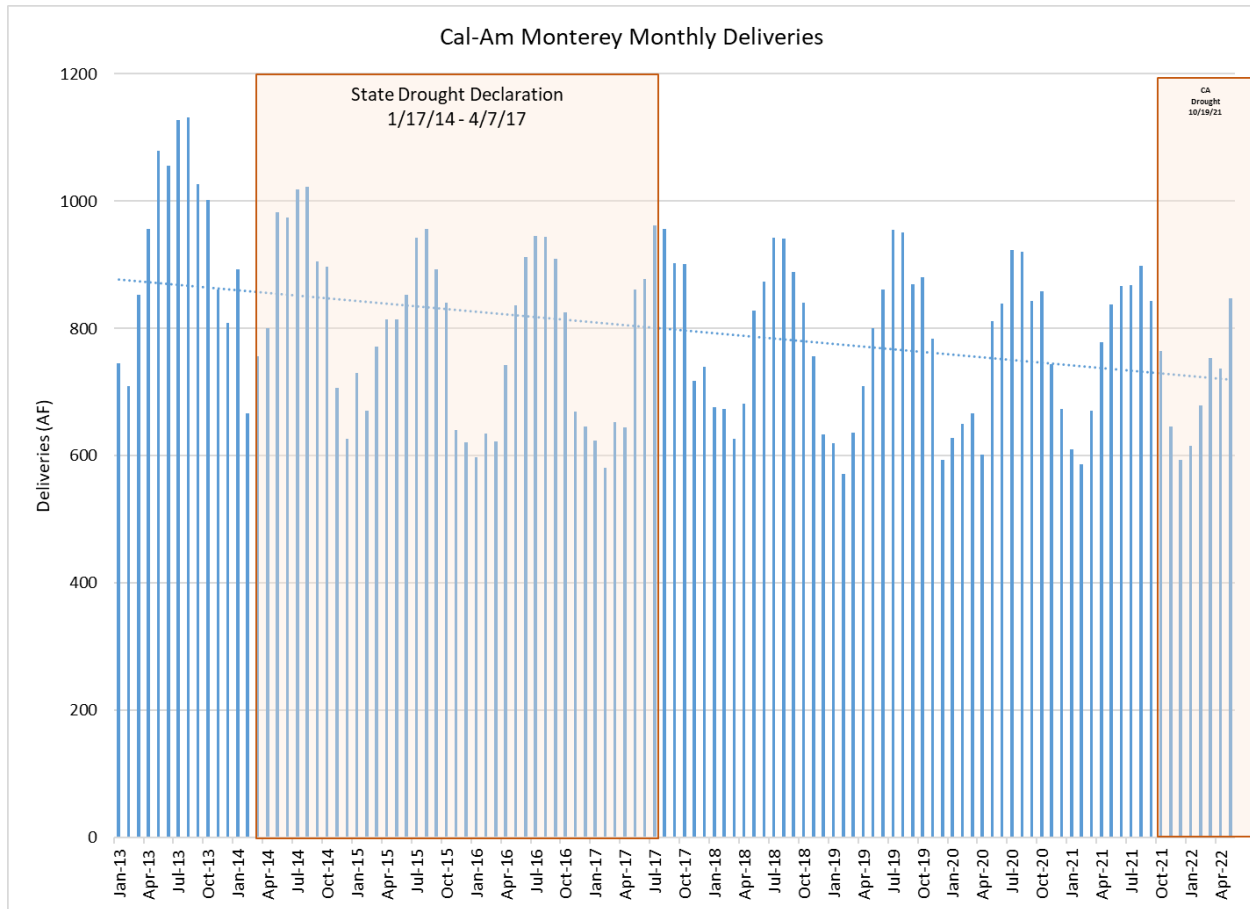


Figure 2: Cal-Am Monterey monthly deliveries

Using these published monthly data, I found the minimum and maximum month of delivery for each year. The average annual non-seasonal (predominantly indoor) deliveries for each year were calculated as the average water use in January, February, November, and December multiplied by 12. Seasonal production for each year was calculated by subtracting non-seasonal from total production. These data and results are shown as a chart in Figure 3 and in Table 1.

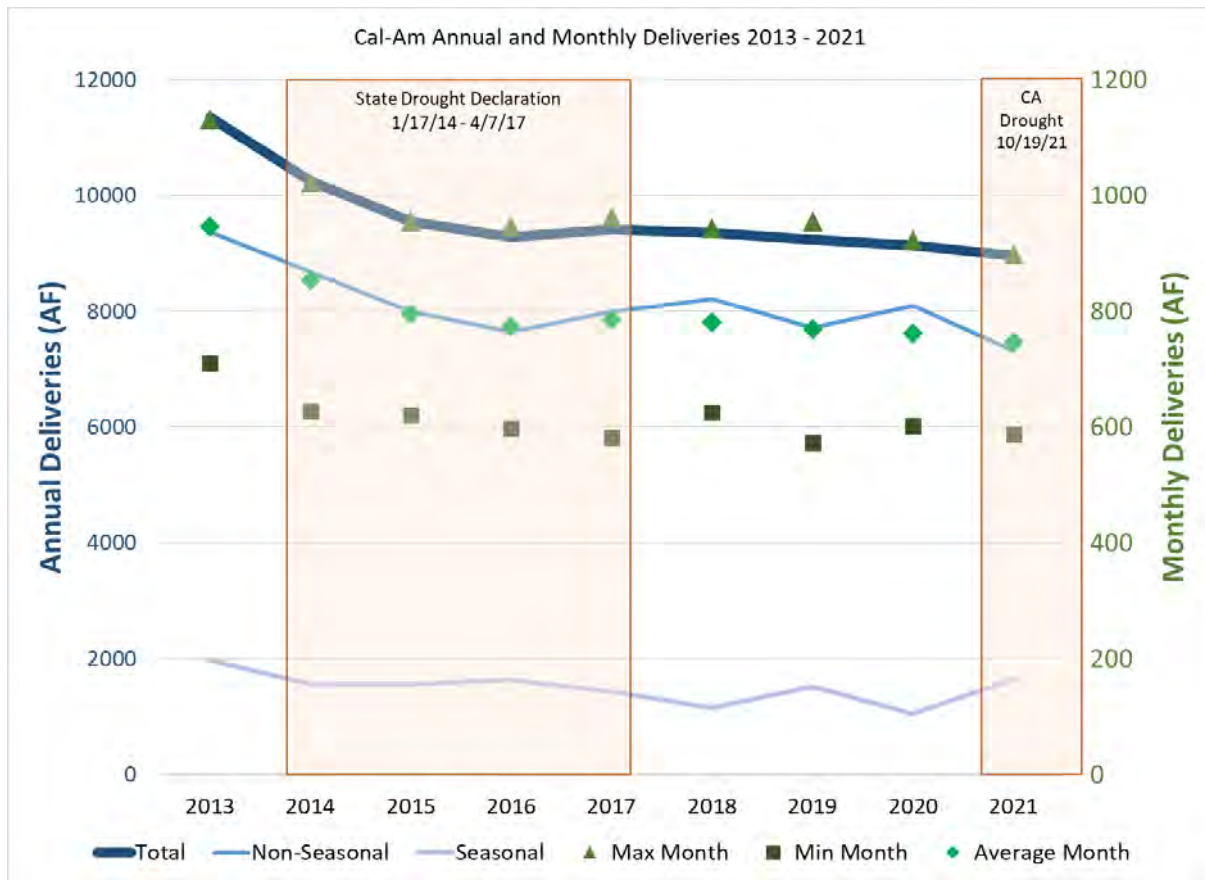


Figure 3: Cal-Am Monterey annual and monthly deliveries, 2013 - 2021⁹

Seasonal deliveries provide an estimate of summertime demand including outdoor irrigation and summertime tourism use. Non-seasonal deliveries provide an estimate of baseline indoor use and non-revenue water that occur throughout the year.

On average, seasonal deliveries accounted for 15.7% of Cal-Am's total across these nine years and ranged between 12.3% and 18.4%. Non-seasonal deliveries accounted for between 81.6% and 88.3% of usage from 2013 – 2021.

This analysis shows that the demand reductions achieved from 2013 - 2016 were largely in the non-seasonal category (predominantly indoor use). Seasonal demand did decline during this period, but not nearly as much as non-seasonal demand.

Both the minimum and the maximum month deliveries for each year have also been declining since 2013. The minimum month of delivery in 2021 was one of the lowest of any of the past nine years.

⁹ From production data published at: <https://www.watersupplyproject.org/system-delivery> (accessed 7/25/2022).

Table 1: Cal-Am monthly deliveries and annual statistics¹⁰

Month	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Jan	745	893	730	597	624	676	620	628	611	616
Feb	710	667	671	635	581	673	572	650	587	679
Mar	853	757	771	623	653	626	636	644	671	754
Apr	957	800	814	742	645	682	710	602	778	737
May	1079	982	814	836	861	828	801	811	838	848
Jun	1056	975	853	912	878	874	861	839	867	
Jul	1127	1018	942	946	962	943	955	923	868	
Aug	1131	1023	956	944	957	941	951	920	898	
Sep	1027	906	893	909	902	889	870	843	843	
Oct	1002	897	840	826	901	841	881	859	765	
Nov	861	707	640	670	717	756	784	744	647	
Dec	809	627	621	646	740	633	594	674	594	
Total Annual Deliveries	11,356	10,250	9,545	9,285	9,421	9,362	9,234	9,138	8,966	
Maximum Month	1131	1023	956	946	962	943	955	923	898	
Minimum Month	710	627	621	597	581	626	572	602	587	
Average Month	946.4	854.3	795.4	773.8	785.1	780.2	769.6	763.4	747.2	
Annual Non-Seasonal	9,375	8,682	7,986	7,644	7,986	8,214	7,710	8,088	7,315	
Annual Seasonal	1,981	1,568	1,559	1,641	1,435	1,148	1,524	1,049	1,652	
%Seasonal	17.4%	15.3%	16.3%	17.7%	15.2%	12.3%	16.5%	11.5%	18.4%	
Total Annual Production (from Figure 1)	11,617	10,599	9,707	9,559	9,760	9,690	9,575	9,412	9,280	
Difference between Production and Deliveries	261	349	162	274	339	328	341	275	314	
% Difference	2.3%	3.4%	1.7%	3.0%	3.6%	3.5%	3.7%	3.0%	3.5%	
System Per Capita (gpcd)	116.8	106.1	96.7	94.7	96.2	95.1	93.2	91.6	90.3	

Note on Data Differences

The volume of water produced by Cal-Am annually as shown in Figure 1 is based on Cal-Am's quarterly and annual reports to the State Water Resources Control Board (2017-2021) which

¹⁰ From delivery data published at: <https://www.watersupplyproject.org/system-delivery> (accessed 7/25/2022)
Includes: Monterey Main, Hidden Hills, Ryan Ranch & Bishop.

treat water loss explicitly. Prior years are based on the MPWMD Report and are higher than the delivery values reported on Cal-Am's website (Figure 2, Figure 3, and Table 1).

For the purposes of the demand forecasts prepared in this report, WaterDM used Cal-Am's production in 2020 and 2021 as reported in Ian Crooks' July 2022 testimony to establish the starting point for the demand forecast to develop the most realistic and updated demand forecast possible for the Monterey Main System.

Per Capita Water Use

WaterDM prepared an independent calculation of per capita water use based on the production volumes shown in Figure 1 and population data from Ian Crooks' testimony. System per capita use is calculated as the total volume of water produced at the source divided by the service area population and the number of days in the year. This calculation of system per capita use is based on production and thus inclusive of all water use, non-revenue water, and treatment losses.

System per capita use in the Cal-Am Monterey Main System in 2010 was 127.0 gpcd. This was the highest level of gpcd over the past 10 years. In 2021, system per capita use was 90.3 gpcd and in 2020 it was 91.6 gpcd. Twelve years of daily system per capita use for the Monterey Main System is shown in Table 2 and Figure 4. Per capita use has decreased in every year except for 2017.

Table 2: Per capita water use, 2010 - 2021

Year	Population	Production (AF)	Per Capita (GPCD)	Source of Production Data
2010	87,419	12,432	127.0	MPMWD Report
2011	87,866	12,244	124.4	MPMWD Report
2012	88,312	12,052	121.8	MPMWD Report
2013	88,759	11,617	116.8	Crooks July 2022 Testimony
2014	89,205	10,599	106.1	Crooks July 2022 Testimony
2015	89,652	9,707	96.7	Crooks July 2022 Testimony
2016	90,098	9,559	94.7	Crooks July 2022 Testimony
2017	90,545	9,760	96.2	Crooks July 2022 Testimony
2018	90,991	9,690	95.1	Crooks July 2022 Testimony
2019	91,717	9,575	93.2	Crooks July 2022 Testimony
2020	91,717	9,412	91.6	Crooks July 2022 Testimony
2021	91,717	9,280	90.3	Crooks July 2022 Testimony

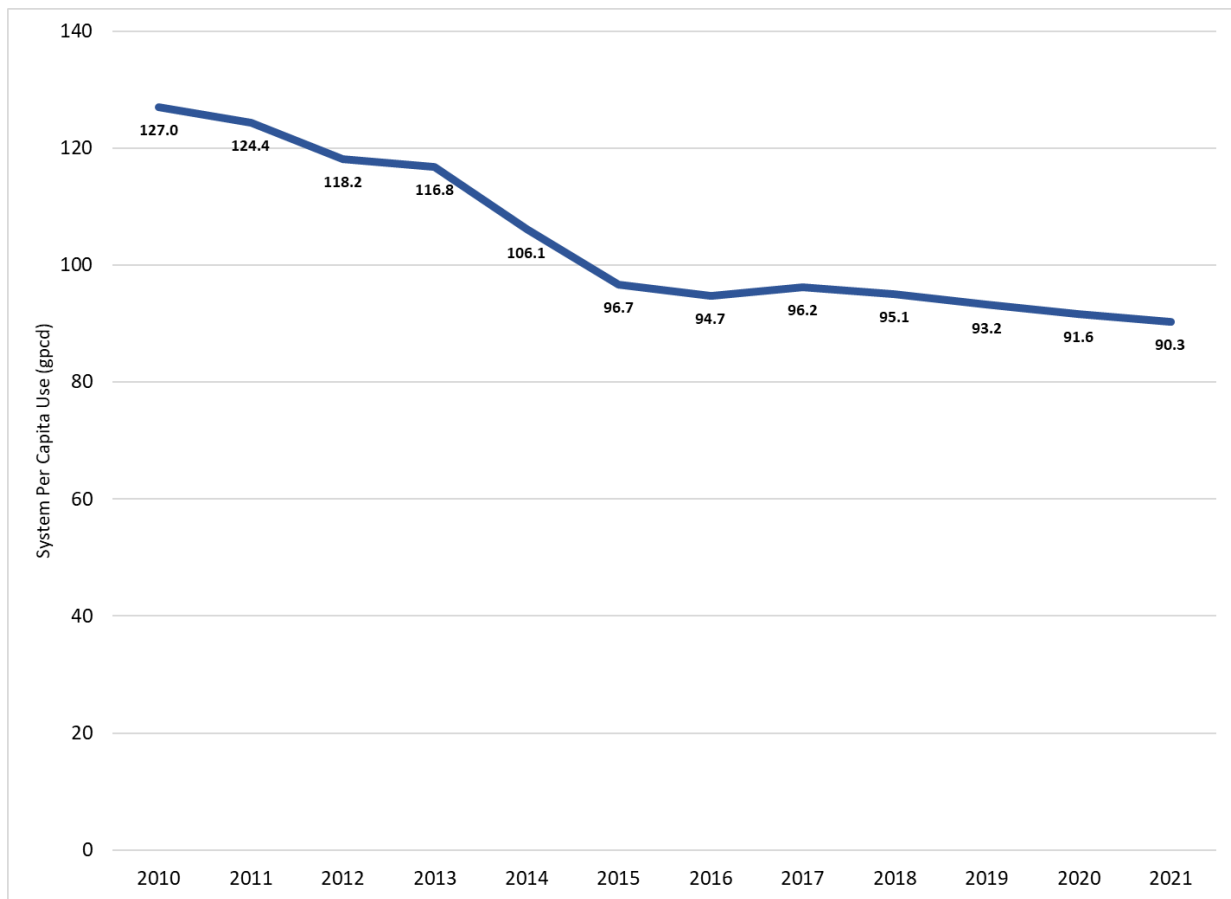


Figure 4: Cal-Am system-wide per capita use, 2010 - 2021

Water Demand by Sector

Cal-Am's 2021 water demand by sector is shown as a pie chart in Figure 5, based on data presented in Cal-Am's recent general rate cases.^{11, 12} Residential use including single- and multi-family customers used 64% of the total produced in 2021. Commercial and industrial customers used 27%, the public / other sector used 5%, and non-revenue was 4%. Non-revenue water includes real and apparent water loss as well as authorized and unauthorized uses for which the utility does not collect revenue.

¹¹ Decision 21-11-018 November 18, 2021, Application of California-American Water Company (U210W) for Authorization to Increase its Revenues for Water Service, Decision Approving and Adopting Settlement and Authorizing California-American Water Company's General Rate Increases for 2021, 2022, and 2023.

¹² Direct Testimony of David Mitchell. Application A.22-07-001. Public Utilities Commission of California. July 1, 2022, (Tables 38 and 39, p.36).

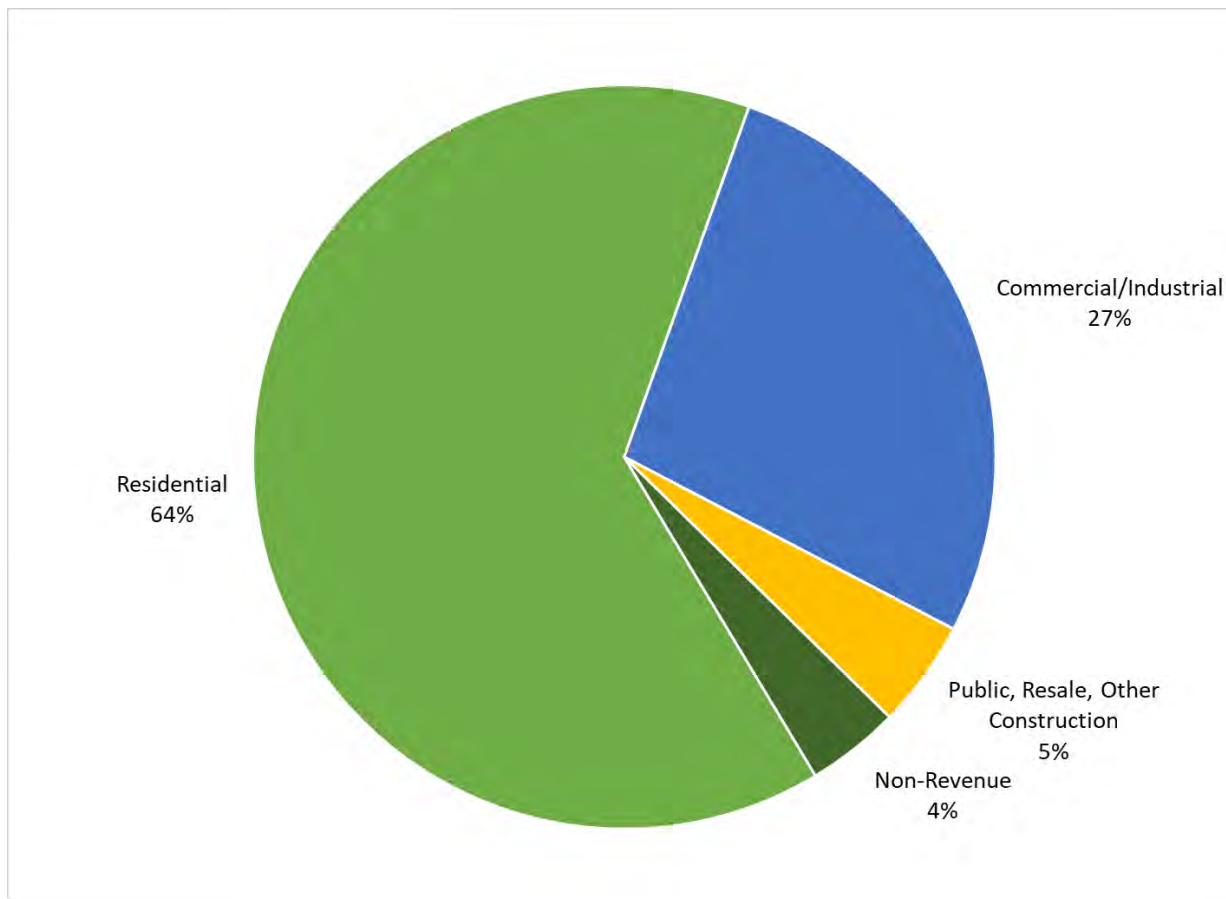


Figure 5: 2021 Cal-Am Monterey System demand by sector¹³

Updated Water Demand Forecast

Cal-Am's Updated Forecast

The updated demand forecast provided in Ian Crooks' July 2022 testimony extends Cal-Am's demand forecast out to 2050 and includes additional population growth from the RHNA, beyond the AMBAG forecast.¹⁴ The updated forecast also includes questionable additions that could easily result in double counting demand such as a "Tourism Rebound" and "Legal Lots of Record" that both seem to be included within the population and economic growth forecasts. The forecast fails to include the impacts of Cal-Am's own ongoing water efficiency and state regulations to reduce demand. In Cal-Am's updated forecast, per capita water use is assumed to *increase* by 14% by 2050 – exactly the opposite to what has been happening and what the State of California has legislated. On top of these inflations, Cal-Am further pads its demand

¹³ Direct Testimony of David Mitchell. A.22-07-001. Public Utilities Commission of California. July 1, 2022, Tables 38 and 39, p.36.

¹⁴ Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022, (Table 5, p.24).

forecast with an additional 10% contingency buffer. Cal-Am's recent demand forecasts are shown in Figure 6 and summarized in Table 3.

Cal-Am's 2022 updated demand forecast¹⁵ differs substantially from Cal-Am's own recent (and independently prepared) General Rate Case Application forecast which estimated demand for 2024.¹⁶ The magnitude of the changes in demand and the differences in the forecasts are significant. On July 1, Cal-Am submitted an independently prepared demand forecast that estimated water demand in 2024 (including losses) to be 9,036 AF.¹⁷ Then, just 19 days later on July 20 Cal-Am testified to the PUC that it needs 10,110 AF in 2025,¹⁸ an increase of 12%. Cal-Am has consistently used less than this amount of water for eight years as shown in Table 1. The starting point of Cal-Am's 2022 updated demand forecast is too high.

Cal-Am has a poor track record with recent CPUC demand forecasts as shown in Figure 6. Cal-Am's 2017 demand forecast provided to the CPUC as part of the application for the proposed desalination plant predicted water use in 2020 would be 12,350 AF. In reality, Cal-Am's water use in 2020 was 9,412 AF as shown in Figure 1. Cal-Am's demand forecast was 2,938 AF (31.2%) higher than actual use, just three years after it was submitted. Errors of this magnitude are expensive for rate payers. Infrastructure projects sized based on an overstated demand forecast would almost certainly be sized larger than needed, imposing a costly and unnecessary burden on rate payers for years to come. Cal-Am's 2022 updated demand forecast repeats the same error of starting from an unrealistically high demand rather than the actual demand.

¹⁵ Crooks, July 2022.

¹⁶ Direct Testimony of David Mitchell. Application A.22-07-001. Public Utilities Commission of California. July 1, 2022

¹⁷ Mitchell, July 1, 2022.

¹⁸ Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022, (Table 5, p.24).

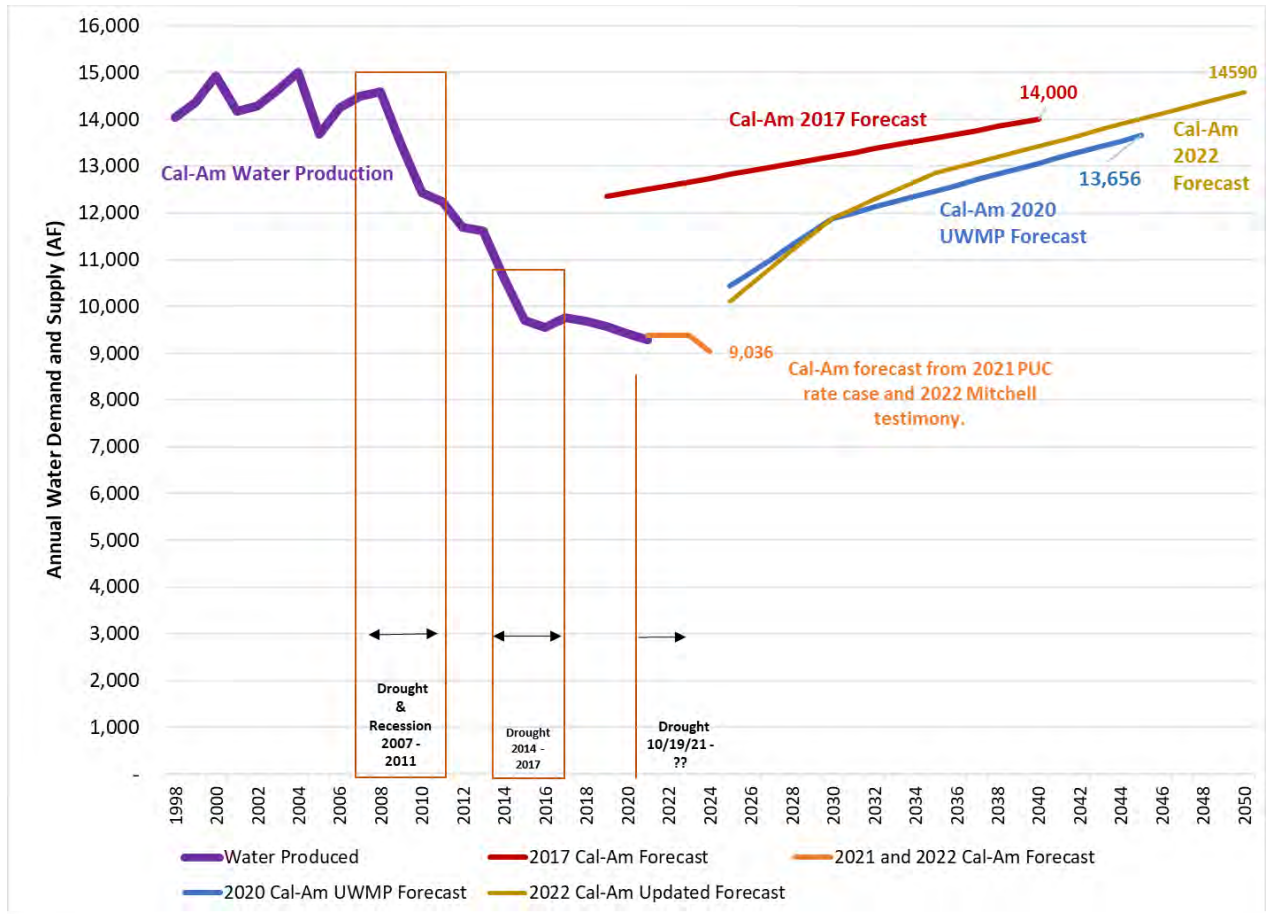


Figure 6: Cal-Am water production (1998 – 2021) and Cal-Am water demand forecasts

Table 3: Cal-Am demand forecasts and actual use

Forecast	Starting Year	Starting Volume	Starting Per Capita Use	Ending Year	Ending Volume	Ending Per Capita Use
2022 Ian Crooks Testimony	2025	10,110 AF	96.5 gpcd	2050	14,590 AF	110.0 gpcd
2021 and 2022 Cal-Am rate case testimony	2021	9,390 AF	91.4 gpcd	2024	9,036 AF	86.6 gpcd
2020 Cal-Am UWMP	2025	10,443 AF	99.6 gpcd	2045	13,656 AF	104.6 gpcd
2017 Cal-AM application to CPUC	2020	12,350 AF	120.0 gpcd	2040	14,000 AF	109.0 gpcd
2021 Cal-Am Actual Use and WaterDM Current gpcd forecast	2021	9,280 AF	90.3 gpcd	2050	11,934 AF	90.3 gpcd

Summary of Cal-Am Forecast Inflations

Based on WaterDM's analysis, Cal-Am's forecasted 2050 demand is improperly inflated by more than 2,500 AF. The Cal-Am forecast has been overstated through the following means, each of which is described below:

- Unlikely increasing per capita trend
- Improper RHNA inclusions, not within Cal-Am's service area
- Mis-categorization of multi-family housing as "Non-Residential"
- Tourism "bounce-back" lacks analysis, method, or supporting data and is based on events from 15 years ago
- Double counts of future demand as growth from "Legal Lots of Record" and "Pebble Beach Entitlements"

An overstated demand forecast can be very expensive for rate payers. If accepted without correction or modification, the inflated 2022 Cal-Am forecast could result in over-sizing of supply and delivery infrastructure and substantial unnecessary expenses to rate payers.

Unlikely Increasing Per Capita Trend

Cal-Am's 2022 updated forecast starts at an inflated level and results in a further overstated value for gpcd in the future. In 2021, Cal-Am customers used 90.3 gpcd. Cal-Am's 2022 updated forecast assumes 96.5 gpcd to start in 2025, which is 7% higher than current use. As shown in Figure 4, Cal-Am's per capita use has declined steadily since 2010. Cal-Am's starting point for the demand forecast assumes higher per capita use and thus less water efficiency than today. The starting point for Cal-Am's updated 2022 forecast is too high.

Next Cal-Am's 2022 forecast further rejects the impacts of water efficiency by projecting that per capita use in the future will *increase* over the next 30 years by 14% ending at 110 gpcd – higher than any previous Cal-Am forecast.

This significant increase in per capita use essentially means that Cal-Am expects its customers to become less and less efficient in the future. This doesn't square with Cal-Am's stated intent to spend more than \$1.8 million over three years on its water conservation programs, nor does it comport with state regulations and policies that incentivize demand reductions.

A 2050 level of 110 gpcd is unlikely given that water use in 2021 was 90.3 gpcd. Such a dramatic and remarkable reversal in water use efficiency is inconsistent with the state and local directives and contradicts recent sworn testimony from Cal-Am in its current General Rate Case.

Customers in the Cal-Am Monterey service area are among the most water efficient in the state. Cal-Am's updated 2022 forecast unreasonably assumes that these customers will go from being the most efficient to becoming remarkably less water efficient in California over the next 30 years. This is unlikely to occur.

Improper RHNA Inclusions

Additional RHNA housing will increase Cal-Am's future population beyond the previous AMBAG forecast. But Cal-Am has improperly overstated the updated 2022 demand forecast by including additional RHNA housing that is not within their service territory. In his July 2022 testimony, Ian Crooks assumed 50% of the new RHNA housing units in the City of Seaside will be served by Cal-Am.¹⁹ An estimate of 20% is conservative and the actual amount is likely less than 10%. Mr. Scherzinger will address this in his testimony.

Using 20% as an estimate for Cal-Am's portion of Seaside, WaterDM recalculated the RHNA units that are within the Cal-Am Monterey service area and found it to be 6,028 units rather than the 6,213 offered by Cal-Am.²⁰

Cal-Am mis-categorizes multi-family housing as "non-residential"

The sectoral breakdown and associated volumes shown in Figure 5 above, which comes from Cal-Am's metered data and PUC rate case differs from the breakdown of residential and non-residential demand provided in Ian Crooks' July testimony as part of the 2050 demand forecast. Mr. Crooks' testimony (Table 5, p. 24) states the baseline residential sector demand (2017 – 2021) is 4,857 AF (51% of total) and the non-residential demand (including non-revenue water) is 4,686 AF (49% of total). This discrepancy is apparently due to Cal-Am's mis-categorization of multi-family housing as non-residential.

In Mr. Crooks' testimony, total demand appears correctly stated, but Cal-Am has understated residential demand and over-stated non-residential demand. WaterDM's analysis suggests this is caused by the inclusion of multi-family housing within the non-residential category.²¹ This is a practice of some water utilities, but in the context of demand forecasting where future efficiency and growth are to be considered, it is best to either treat multi-family demand separately or to combine it with single-family residential demands.

The over statement of non-residential demand improperly accelerates the growth rate of the multi-family sector. That is because, in Cal-Am's updated 2022 demand forecast, growth in non-residential demand is accelerated by the "Service Area Employment" which grows much faster than the population. The mis-categorization of multi-family housing as "non-residential" contributes to Cal-Am's inflated demand forecast.

Tourism "Bounce-back"

Cal-Am has improperly added in 500 AF to its forecast for what is described as a "tourism bounce-back" from the "Great Recession" which occurred 15 years ago in 2007. Additional commercial demand in the Cal-Am service territory is anticipated along with population growth

¹⁹ Crooks, July 2022, (p. 16).

²⁰ Crooks, July 2022, (p. 16).

²¹ Crooks, July 2022, Table 5, (p. 24).

out to 2050, but that is not what Cal-Am has done. The flat addition of 500 AF to account for demand changes that are more than a decade old improperly inflates demand based on “discussions”²² rather than data.

According to Mr. Crooks’ testimony, hotel occupancy is only off by “12 to 15” percent but there is no attempt to connect the volume of 500 AF with this additional occupancy.²³ Furthermore, Mr. Crooks misquotes the source quotation found in CPUC D.18-09-017²⁴ which states, (emphasis added), “The Coalition of Peninsula Businesses bases part of its additional need on its assertion that the ‘tourism industry intends to increase hotel occupancy by approximately 12 to 15 percent *over the next two decades* to re-attain the occupancy levels of decade ago.” Cal-Am ignores this and forecasts the 500 AF increase to occur over the next 10 years.²⁵

Mr. Crooks also oddly blamed the CDO moratorium for the tourism slump when he testified, “Although time has passed since the Great Recession, as a result of the CDO’s moratorium, the recovery of the tourism industry has been slow.”²⁶ Mr. Crooks did not explain how or why a moratorium of water taps might reduce visitors to a hotel or motel.

Cal-Am has improperly added 500 AF (~ 4% inflation) without real analysis, method, or supporting data based on events from 15 years ago or the CDO, or both. This problem has persisted in Cal-Am forecasts since at least 2017.

Legal Lots of Record

Cal-Am inflates its future demand by 1,180 AF in 2050 stating there is undeveloped residential and commercial land in its service area and there is a backlog of remodel development. There are numerous problems with these claims as they relate to future water demand.

First off, remodel development does not usually increase water use and frequently results in a decrease in use as older fixtures and appliances are replaced with more efficient models and stricter landscape codes are applied. It is not clear why Cal-Am assumes remodel development will increase demand, when it will likely do the opposite.

Second, not all of the Legal Lots of Record are in fact developable, a point Cal-Am ignored.²⁷

Third, the 1,180 AF estimate is not based on any current analysis and instead originates in a 2009 Coastal Water Project environmental impact report.²⁸ The MPWMD observed in 2017 that

²² Crooks, July 2022, (p. 23 line 1).

²³ Crooks, July 2022, (p. 22).

²⁴ <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M229/K424/229424336.PDF>

²⁵ Crooks, July 2022, Table 5, (p. 24)

²⁶ Crooks July 2022, (p. 24).

²⁷ Monterey Peninsula Water Management District. 2020. Presentation of Updated Regional Water Demand Forecasts Related to Association of Monterey Bay Area Government 2018 Regional Growth Forecast and Regional Housing Needs Allocation Plan: 2014-2023, and Inclusion of 2019 Water Year.

development of lots of record has occurred since the estimates were prepared in the early 2000s and that some vacant lots on improved parcels that were included in MPWMD's vacant lot study may never be split from the main property and developed.²⁹

Undeveloped residential and commercial land could certainly be developed between 2025 and 2050 and thus require water, but Cal-Am has already included this water demand in its forecast. Thus, the addition of 1,180 AF amounts to a double count. Both AMBAG and RHNA have forecast future growth in the Cal-Am service area. Where else would this growth occur but on undeveloped residential and commercial land? Cal-Am's forecast already includes the water demand associated with development of these properties.

Ian Crooks admitted this double count problem when he testified, "Future development on Legal Lots of Record may have some overlap with growth projections prepared by AMBAG and future housing demands projected by AMBAG's RHNA plan for the AMBAG area."

It is clear, and Cal-Am admits, that Legal Lots of Record has overlap with the growth forecast by AMBAG and the RHNA plan. The result is the improper addition of 1,180 AF of future demand.

1989 Pebble Beach Entitlements

Pebble Beach entitlements amount to an additional 325 AF of water Cal-Am committed in 1989 to the Pebble Beach Company, but which have not been used to date. Like the Legal Lots of Record, this 325 AF is claimed to be needed for undeveloped lots in the Pebble Beach area. This amounts to an exaggeration of future demand at best and a double count at worst.

Undeveloped land owned by the Pebble Beach Company could certainly be developed between 2025 and 2050 and thus require water, but Cal-Am has already included this water demand with the population and commercial growth baked into its forecast. This future growth is treated by Cal-Am as outside of the AMBAG/RHNA realm, and no explanation other than the contractual obligation is offered.

Further, as of 2016, the Pebble Beach entitlements stood at 304 AF,³⁰ yet Cal-Am maintains 325 AF to be a "reasonable estimate". This "reasonable" estimate inflates Cal-Am's future demand forecast by at least 21 AF.

The addition of 325 AF to the demand forecast amounts to a double count unless Cal-Am establishes a sound reason for why growth in Pebble Beach falls outside of AMBAG/RHNA forecasts for the Cal-Am service area. Cal-Am's forecast likely already includes the water demand associated with development of these properties.

²⁸ IBID.

²⁹ Monterey Peninsula Water Management District. 2020.

³⁰ Crooks July 2022. Attachment G, EIR/EIS 2018 of CalAm's MPWSP, (pp. 2-13).

WaterDM's Updated Forecast

For this report, WaterDM updated its two forecasts for the Cal-Am Monterey Main System which estimate future average annual production, inclusive of treatment losses and non-revenue water. The growth rate in each forecast is based on Cal-Am's current stated service area population and on AMBAG's anticipated population growth through 2050 including additions from the RHNA.^{31, 32} Assuming 2.5 persons per unit, it is anticipated that the additional 6,028 RHNA units within Cal-Am's service territory will add 15,071 additional people by 2050. This RHNA population increase is incorporated into WaterDM's demand forecast. The total population of the Cal-Am service area in 2050 including the RHNA units is forecast to be 117,948.

The WaterDM forecasts are conservative and notably, both of these forecasts are higher than the forecasts Cal-Am itself produced for its most recent General Rate Case Application, which estimated demand for 2024 at 9,036 acre-feet per year as shown in Table 3.

- The "Current gpcd"³³ forecast assumed the 2021 rate of 90.3 gpcd continues into the future, without any increases in efficiency or conservation reductions. This forecast projects a demand of 11,934 AF in 2050.
- The "Continued efficiency" forecast includes the impacts of ongoing efficiency improvements from Cal-Am's conservation program and state mandates by applying reduction factors to seasonal and non-seasonal use by sector. The result is a 6.1% reduction in per capita use and the conservation of 774 AF over 25 years. The continued efficiency forecast projects a demand of 11,160 AF in 2050.

For this fifth supplemental report, the original forecasts were updated to reflect actual demands reported in 2020 and 2021 and to extend the forecast timeframe to 2050.

WaterDM's annual demand projections were built up from the analysis of historical production and deliveries presented above. The year 2022 is the first year of the projection, which then continues to produce average annual demands through 2050. Demand in 2021 was used as the starting point for WaterDM's revised forecast.

Production was split out by sector and future demand was increased proportionally with population and employment increases to 2050. The four sectors included in the model are:

- Residential (single-family + multi-family)
- Commercial and industrial

³¹ This likely over-estimates Cal-Am's future growth because it includes new population in portions of the cities of Monterey, Seaside, and Del Rey Oaks within the Fort Ord Buildout that will be served water by the Marina Coast Water District, not Cal-Am.

³² Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022.

³³ gpcd = gallons per capita per day.

- Public, resale, other, construction
- Non-revenue water

The summed annual demand of these four categories equals the estimated water supply requirement under average future conditions. The model allows specific factors to be applied to the non-seasonal or seasonal component of annual demand for each demand category, to simulate the impacts of water efficiency and conservation programs.

WaterDM's continued efficiency forecast is shown in Figure 7 along with Cal-Am's updated 2022 forecast from Ian Crooks' testimony and the 3-year 2022 rate case forecast prepared by independent consultant David Mitchell.

Notably, WaterDM's 2022 – 2024 forecasts are higher than the most recent forecasts Cal-Am submitted for its General Rate Case in July 2022.³⁴

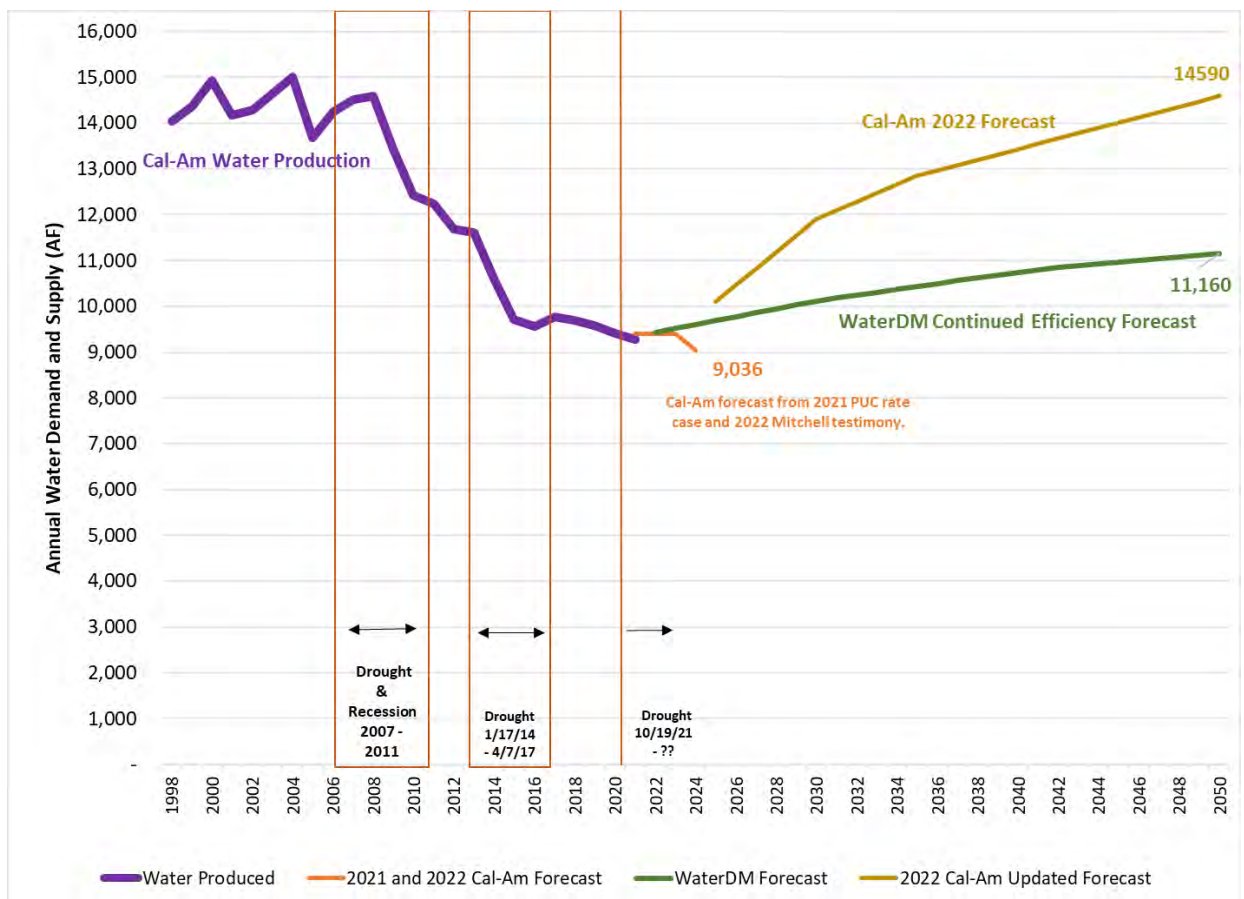


Figure 7: Cal-Am production 1998 – 2021 and demand forecasts prepared by WaterDM and Cal-Am, (2022 – 2050)

³⁴Direct Testimony of David Mitchell. Application A.22-07-001. Public utilities Commission of California. July 1, 2022

Cal-Am has a habit of producing overstated water demand forecasts as evidenced in the 2017 forecast submitted to the PUC, shown in Figure 6. The 2017 forecast was the latest in a series of erroneous projections that continue to over-estimate needs as Cal-Am's water demand has declined over time. Cal-Am's shorter-term rate case forecasts produced by David Mitchell of the consulting firm M.Cubed have consistently proved more accurate than any other forecast Cal-Am has offered the PUC.

WaterDM's forecasts include all forecasted growth as well as the on-going impacts of water efficiency and avoid double counts. In comparison, Cal-Am's updated 2022 forecast remains unreasonably high largely because it assumes per capita use will increase, ignores the ongoing impacts of water conservation, and double counts growth.

Should projected RHNA growth fail to materialize in the Cal-Am service area, a distinct possibility given the limited opportunities and associated expenses, Cal-Am's future demand could be even lower than WaterDM has projected.

Water Supply Under Normal and Drought Conditions

Water Supply for the Monterey Main System

Cal-Am delivers water to its Monterey Main system from a diverse collection of water sources. Cal-Am has historically relied heavily on diversions from the Carmel River and Seaside Basin native groundwater to provide water to the Monterey Main system. Withdrawals from the Carmel River have now been reduced to mandated levels. In the future, when an additional supply source becomes available, withdrawals from the Seaside Basin should be reduced. Each of Cal-Am's water sources was evaluated to determine what level of production can reasonably be expected under normal conditions and during drought conditions.

Table 4 presents the water supply sources available to Cal-Am for the coming years under normal conditions and under drought conditions. Figure 8 shows how each source of supply contributed to Cal-Am's total production from 2000 – 2021 and the available sources of supply available into the future along with WaterDM's Continued Efficiency forecast. WaterDM's demand forecast includes all forecasted population growth in the Cal-Am service area (ABMAG+RHNA). WaterDM's forecasts are higher than the 3-year Cal-Am General Rate Case forecasts.

During normal years, Cal-Am has 10,050 AF of water supply available and with the addition of the Pure Water Monterey Expansion, this will grow to 12,300 AF. During a drought year Cal-Am currently has 8,550 AF of available supply (exclusive of stored supply and purchases), which will grow to 10,800 AF by 2026.

With the addition of the 2,250 AF from Pure Water Monterey Expansion, Cal-Am can steadily build up storage reserves even as population grows. By adding this additional source, Cal-Am should have sufficient supplies that the local development moratorium can be lifted, while still complying with the State Water Board's limits on Cal-Am's annual Carmel River diversions.

Key to the success of this approach will be continuing and extending water conservation and efficiency measures. Cal-Am's conservation-oriented rate structure and active water conservation program will help ensure efficient water use across the service area. The addition of landscape water budgets and strict water waste ordinances and enforcement should be considered as well.

Table 4: Annual Cal-Am Monterey Main System water supply sources under normal and drought conditions, 2022 - 2050

Water Source	Normal AF	Drought AF	Notes	Data Source
Carmel River – Cease and Desist Order	3,376 AF	3,376 AF	2,179 AF from License 11866; 1,137 AF of pre-1914 appropriative rights; and 60 AF of riparian rights.	Cal-Am reports to the SWRCB
Carmel River – Permit 21330	200 AF	0 AF	Only available Dec. – May. Assumed not available during a drought.	Cal-Am reports to the SWRCB
Seaside Basin Native Groundwater	1,474 AF	1,474 AF	Reflects deferral of 700 AF payback for Cal-Am’s over-pumping of the Seaside Basin until a replacement desalination supply is online. Once the Pure Water Monterey Expansion comes fully online payback may be possible.	Watermaster’s annual reports.
ASR Recovered Water	1,300 AF	0 AF	Cal-Am must operate the system opportunistically and store water when possible. During a drought this water source is assumed to be unavailable to Cal-Am. But already stored ASR water would be available, if needed. ASR reserves as of March 2022 were 1,307.3 AF. ³⁵	Cal-Am reports to the SWRCB
Sand City Desalination Plant	200 AF	200 AF	300 AF capacity. Has averaged 209 AF over life of plant. During a drought it is possible this supply could produce more, but it was restricted in this analysis.	Cal-Am reports to the SWRCB
Pure Water Monterey	3,500 AF	3,500 AF	Starting in 2022, capable of delivering the full volume contracted to Cal-Am in a normal or a drought year.	Cal-Am reports
Pure Water Monterey Expansion	2,250 AF	2,250 AF	Starting in 2025, capable of delivering 2,250 AF to Cal-Am in a normal or a drought year.	TBD
Additional Withdrawal from storage (excluding ASR recovery)	As needed	As needed	Variable volume of additional recoveries from storage or Pure Water Monterey drought reserves taken as required.	Various
TOTAL	10,050 AF in 2022 12,300 AF in 2025	8,550 AF in 2022 10,800 AF in 2025³⁶		

³⁵ March 11, 2022 Supplemental Testimony of Ian C. Crooks before the Public Utilities Commission of the State of California, (p. 4).

³⁶ Does not include stored supplies, potential purchases, and demand management options.

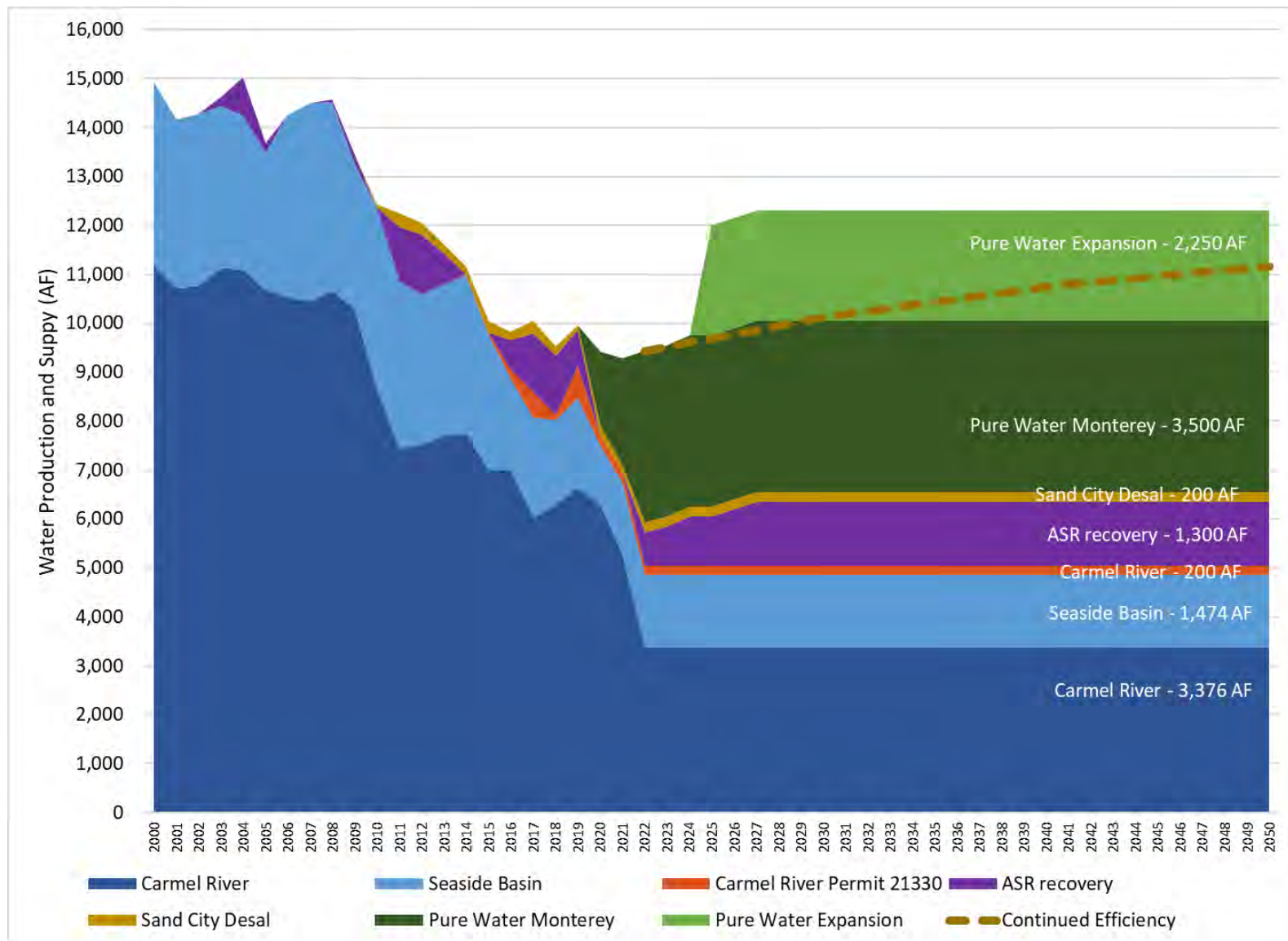


Figure 8: Cal-Am water production and future supply by source and WaterDM's Continued Efficiency forecast

Each source of water and the annual volume of available reliable supply during a normal year and drought year is described in detail in the sections below.

Carmel River

Diversions from the Carmel River, Cal-Am's primary water source, have been reduced in accordance with a cease-and-desist order from the State Water Resources Control Board. The original order, issued in 1995, determined that Cal-Am was extracting over 14,000 acre-feet per year from the river when it had a legal right to only 3,376 acre-feet. The State Water Resources Control Board determined that these illegal diversions were adversely affecting the river's population of federally threatened Central Coast steelhead and its riparian habitat. The Board ordered Cal-Am to develop or purchase alternative water supplies so it could end its illegal diversions.

Table 4 shows Carmel River production reduced to the mandated 3,376 AF in 2022. This is the volume to which Cal-Am has a legal right and is comprised of 2,179 AF from License 11866; 1,137 AF of pre-1914 appropriative rights; and 60 AF of riparian rights.³⁷

During a drought year it is assumed Cal-Am will have access to its full 3,376 AF legal entitlement.

Table 4 also shows an additional 200 AF of Carmel River supply under normal conditions based on Permit 21330.³⁸ Cal-Am's annual Progress Reports of Permittee to the State Water Resources Control Board show that it has withdrawn an average of 300 AF from 2019-2021 under this permit. During a drought it is assumed this supply will be unavailable.

Seaside Groundwater Basin – Native Groundwater

The Seaside Basin was over pumped by Cal-Am prior to the 2006 Seaside Groundwater Basin adjudication which imposed triennial reductions in operating yield until the basin's "Natural Safe Yield" is achieved. For Cal-Am, the last reduction occurred on October 1, 2021 and Cal-Am now has rights to 1,474 acre-feet per year. However, Cal-Am has over-drafted the Seaside Basin and has agreed to payback 700 AF of its 1,474 AF entitlement over 25 years or more "following final completion and acceptance of all MPWSP components"^{39, 40} which means once a desalination supply comes online.

³⁷ Monterey Peninsula Water Management District. 2020. (MPWMD Report) Supply and Demand for Water on the Monterey Peninsula prepared by David Stoldt. (3-13-2020, 12-3-2019, and 9-16-2019), (p.3),

³⁸ "In 2013, Cal-Am received Permit 21330 from the State Water Board for 1,488 AFA from the Carmel River. However, the permit is seasonally limited to December 1 through May 31 each year and subject to instream flow requirements." MPWMD Report, (p.3).

³⁹ Seaside Basin WaterMaster. 2008. Memorandum of Understanding between the Seaside Basin WaterMaster and California American Water, December 3, 2008.

The potential desalination supply will not be available for eight years at the earliest, but at Cal-Am's discretion, payback of 700 AF per year could begin sooner when the full capacity from the Pure Water Monterey Expansion is available to Cal-Am.

The Seaside Basin Watermaster's 2019 report to the Court overseeing the groundwater adjudication states that the total usable storage space in the entire Seaside Groundwater Basin is 52,030 AF. The report also describes the current allocation of that usable storage space among the Seaside Basin pumpers with Cal-Am allocated 28,733 acre-feet.⁴¹ This allocation allows Cal-Am to bank water as described in the Seaside Basin Storage Reserve section below. This reserve will be an available supply "cushion" for Cal-Am to meet demand.

Aquifer Storage and Recovery

Cal-Am participates in an aquifer storage and recovery (ASR) project that allows for the capture of excess Carmel River flows through its wells along the river from December through May. This river water is then transferred through the new Monterey Pipeline and Crest Pipeline and injected into the Seaside Groundwater Basin for later extraction and use. This project operates with a series of ASR well sites capable of both injection and extraction. Ownership and operation of this source water project has various components split between Cal-Am and the Monterey Peninsula Water Management District.⁴²

There are two water rights that support the ASR system: Permit 20808A which allows maximum diversion of 2,426 AF and Permit 20808C which allows up to 2,900 AF for a total potential maximum annual diversion of 5,326 AF.⁴³

The ASR is a supply system that requires Cal-Am to capture and store water opportunistically. It can provide an important long-term supply if managed prudently so that storage can be built up well beyond the current 1,307 AF noted by Mr. Crooks.⁴⁴ In the coming five years, Cal-Am and its partners must work to remove operational constraints, take advantage of the increased conveyance capacity of the new Monterey Pipeline, upgrade existing river wells, and make other improvements to assure optimal operation of the system.

Cal-Am has taken steps to improve capacity by planning to install new Pure Water Monterey extraction wells in the Seaside Basin as addressed in Phase 1 of its CPUC application.

⁴⁰ Seaside Basin WaterMaster. 2014. Amendment No. 1 to the Memorandum of Understanding between the Seaside Basin WaterMaster and California American Water, June 6, 2014.

⁴¹ Seaside Basin Watermaster Annual Report – 2019, December 5, 2019.

⁴² California-American Water Company. 2019. (U-210-W) Update to General Rate Case Application, A.19-07-004. Direct Testimony of Christopher Cook, (p.7).

⁴³ MPWMD 2020. Supply and Demand for Water on the Monterey Peninsula prepared by David Stoldt. (3-13-2020, 12-3-2019, and 9-16-2019), (p.3).

⁴⁴ Crooks July 2022, (p.35).

Attachment K to Ian Crooks' July 2022 testimony states that in 2025, when additional extraction wells are available, all four existing ASR wells will be available for injection.⁴⁵

Cal-Am's 2018 FEIR/EIS stated, "Together, the ASR-3 and ASR-4 Wells provide the capacity to yield an additional 1,000 AF from the ASR system, resulting in a total capacity of 1,920 AF for Phases I and II combined (Denise Duffy & Associates, 2012). The Phase I and Phase II ASR projects correspond to MPWMD and CalAm's existing State Water Board Permits 20808A and 20808C, which authorize the diversion of up to 2,426 AF for ASR Phase I, and up to 2,900 AF for ASR Phase II (State Water Board, 2007, 2011)"⁴⁶ for an annual production total of 5,326 AF under both permits.

The 2018 FEIR/EIS goes on to state, "the estimated combined long-term average annual yield from ASR is 1,300 AF for the Phase I and Phase II projects (RBF, 2013)."⁴⁷

WaterDM has assumed that starting in 2025 an average of 1,300 AF can be delivered from the ASR during normal years. During a drought, WaterDM conservatively assumed that Cal-Am will not be able to divert and inject any ASR water. Table 4 assumes 0 AF of ASR diversion and injection in drought years.

Sand City Desalination Plant

Cal-Am has an operating agreement for the Sand City Desalination Plant, a small facility designed to produce 300 acre-feet of water per year. Due to discharge permit requirements, to date the Sand City plant has never produced the full 300 AF and the maximum that it has ever produced was 276 AF in 2011. Over the life of the plant it has averaged 209 AF of production per year.⁴⁸ Table 3 assumes this facility can continue to produce 200 AF during drought years.⁴⁹ Once the Pure Water Monterey Expansion comes on line, Cal-Am can reduce its reliance on this source.

Crooks' July 2022 testimony states that Cal-Am is only able to take 94 AF from the Sand City Desalination Plant with the remaining 206 AF belonging to Sand City for new use. Much of the future new use, which has not materialized yet, will be for Cal-Am customers in Sand City. As Sand City growth occurs, it is assumed 200 AF of this supply will be available to Cal-Am into the future to serve what will eventually be Cal-Am customers in Sand City.

⁴⁵ Crooks, July 2022, Attachment K, (p 2).

⁴⁶ Crooks, July 2022, Attachment G, Excerpts from Cal-Am MPWWP FEIR/EIS - March 2018, (p. 2-19).

⁴⁷ IBID, (p. 2-20).

⁴⁸ MPWMD 2020.

⁴⁹ Ian Crooks' 3/11/22 testimony states Cal-Am is only allocated 94 AF from the Sand City Desalination plant with the remaining 206 AF allocated for growth in Sand City. However, until the growth and demand in Sand City materialize, Cal-Am can and has taken additional supply from this source. Furthermore, much of the future growth in Sand City is anticipated within Cal-Am's service area and thus eligible for reserved allocation.

Pure Water Monterey

Monterey One Water in partnership with the Monterey Peninsula Water Management District and Marina Coast Water District developed the Pure Water Monterey Groundwater Replenishment Project. The project provides a reliable source of water supply to replace illegally diverted Carmel River withdrawals and permanently supplement existing water supply sources for the Monterey Peninsula. The Pure Water Monterey project also makes available advanced treated water to the Marina Coast Water District.

The Pure Water Monterey Project is designed to produce 3,500 acre-feet per year of purified recycled water to compose a portion of Cal-Am's water supply and to assist in complying with the State Water Resources Control Board orders. The source waters for Cal-Am's 3,500 AF portion of the Pure Water Monterey Project are agricultural produce wash water and drainage flows from the Blanco Drain and Reclamation Ditch.

The Pure Water Monterey Project includes a 5 million gallon per day capacity water purification facility for treatment and production of purified recycled water that is conveyed and stored in the Seaside Basin using injection wells. Project conveyance facilities include the pipeline from the purification facility to injection wells in the Seaside Basin and a tank storage reservoir. This pipeline and tank storage are owned and operated by the Marina Coast Water District.

Once injected, the purified recycled water augments existing groundwater supplies to provide 3,500 acre-feet per year of water to Cal-Am for extraction and direct use. Pure Water Monterey is operational and Table 4 includes 3,500 AF of recovery from the Pure Water Monterey project during a continuous drought.

Pure Water Monterey Expansion

Monterey One Water and the MPWMD are developing an expansion of the Pure Water Monterey project to increase the capacity available to Cal-Am, which is the subject of Phase 1 of Cal-Am's PUC application. The Pure Water Monterey Expansion is expected to provide an additional 2,250 acre-feet per year to augment existing groundwater supplies.

The source water for the Pure Water Monterey Expansion is municipal wastewater and agricultural drainage water. Analysis of the water sources under four conditions including drought concluded that the project can reliably produce water under each circumstance and arguments to the contrary have been repeatedly and thoroughly rebutted by Monterey One Water and the MPWMD and their consultants.^{50, 51}

WaterDM's analysis assumes that the full 2,250 AF will be available to Cal-Am in 2025 in normal and drought years. With the addition of this supply, Cal-Am could choose to reduce reliance from year to year on other sources such as the Seaside Basin.

⁵⁰ April 11, 2020. Source Water Operational Plan Technical Memorandum. Prepared by Bob Holden, PE, and Alison Imamura, PE, Monterey One Water.

⁵¹ See also - Marina Coast Water District's Preliminary Response to Cal-Am's Presentation Materials dated 9/2/20.

Seaside Basin Groundwater Storage Reserve

Cal-Am is allocated 28,733 AF of total storage in the Seaside Groundwater Basin.⁵² Ian Crooks' testimony on March 11, 2022 stated current ASR reserves to be 1,307.30 AF.⁵³

Under the current Water Purchase Agreement, the first 1,000 AF of water produced in the Pure Water Monterey facility has been injected and stored as an operating reserve in the Seaside Basin. The operating reserve is owned by the Monterey Peninsula Water Management District and is available to ensure Cal-Am can recover 3,500 AF. An additional drought reserve of up to 1,750 AF is provided under the water purchase agreement. Banked storage provides a valuable and necessary buffer for Cal-Am to use if drought or higher demand than forecasted should occur.

Additional Supply and Reliability Considerations

Reliability, Cost of Desalination Not Considered

Mr. Crooks' July 2022 testimony applies intense scrutiny to the future reliability of the Pure Water Monterey Expansion yet fails to consider the future reliability and cost of the desalination facility Cal-Am has proposed.

Recent desalination projects in California have sometimes failed to produce expected volumes⁵⁴ and there many examples world-wide of production problems associated with desalination projects. Cal-Am need look no farther than the local Sand City Desalination plant on which it relies for an example of a facility that has failed to produce at its designed capacity. WaterDM's forecast includes only 200 acre-feet of annual production from the Sand City facility designed to produce 300 acre-feet annually.

Desalination is also the most expensive supply option currently available on the Monterey Peninsula and water from Cal-Am's proposed desalination project would cost at least three times as much as water from the Pure Water Monterey Expansion. The economic track record of desalination is problematic. Desalination plants must be paid for even if they do not produce any water. Victoria Australia's desalination facility, built in response to an intense drought, resulted in ongoing annual service payments of \$649 million (Australian dollars), and "annual service payments rise every year, even if no water is ordered."⁵⁵

Cal-Am justifies its need for desalination with an overstated demand forecast and chooses to ignore the negative long-term economic impacts to the community of oversizing such a project.

⁵² Seaside Basin Watermaster Annual Report – 2019, December 5, 2019.

⁵³ March 11, 2022 Supplemental Testimony of Ian C. Crooks before the Public Utilities Commission of the State of California (p. 4).

⁵⁴ <https://www.voiceofsandiego.org/topics/science-environment/desal-plant-producing-less-water-promised/>

⁵⁵ <https://www.dailymail.co.uk/news/article-5749621/Melbourne-desalination-plant-costs-tax-payers-eye-watering-649-million-year-operate.html>

Cal-Am is far less interested in purchasing more recycled water, because that would be an operating cost in contrast to the desalination infrastructure, which would generate a profit for decades through the return on equity in water rates – paid by customers. This perhaps explains why Cal-Am fails to apply the same scrutiny to the reliability and expense of desalination that it used in its critique of the Pure Water Monterey recycled water projects.

Additional Demand Management

One item notably missing from Cal-Am’s future water demand planning portfolio is additional demand management and water conservation. Cal-Am and the Monterey Peninsula Water Management District both operate robust water conservation programs documented in WaterDM reports,⁵⁶ but they have not implemented all of the best practices and options available to them.

WaterDM’s April 21, 2020 report noted that the Monterey region has been regarded as a model for water conservation programs for many years. Cal-Am and the Monterey Peninsula Water Management District implement an array of effective demand management policies and programs that are likely to extend water efficiency gains. Cal-Am implements an active water conservation program including a steeply inclining four tier block rate pricing structure and customer incentives for installing drought tolerant landscapes and high-efficiency fixtures and appliances. Cal-Am also implements a rigorous utility-scale water loss control program aimed at reducing real losses in its distribution system. Local development regulations ensure that all new and remodeled buildings are equipped with high-efficiency fixtures and appliances.

Cal-Am’s local efforts are in parallel to broader policy measures at the state level, designed to further increase efficiency. The State of California has implemented a series of laws and directives to ensure future water efficiency across the state including Assembly Bill 1668 and Senate Bill 60 which effectively mandate an ongoing reduction in per capita use. Cal-Am’s continued compliance with these regulations and its active efforts to reduce customer water demand in the future are likely to gradually decrease per capita water use across the service area.

All of the measures currently implemented will be extremely helpful in increasing water efficiency in the region, but even more can be done to manage demand in the Monterey Main system.

Water Budgets to Manage Demand

One of the most effective methods for managing and reducing outdoor water use are customer-specific water budgets. A water budget represents a reasonable volume of usage for each customer, based on the specific needs and requirements of each customer and the available water supply. The water budget is a volumetric target based on the legitimate needs

⁵⁶ Expert Report of Peter Mayer, P.E., April 21, 2020. (pp.24-25).

of the customer and the available water supply and provides a customer-specific mechanism for monitoring compliance with demand management measures.⁵⁷

Water budgets are a familiar concept in the region with Santa Cruz, Hayward, and Visalia all utilizing water budgets in some form. In Southern California water budgets are utilized by LADWP, Irvine Ranch, Eastern Municipal, and many other urban water providers.

The approach of using water budgets to manage demand was successfully implemented during California's last intense period of drought in 2016 by the California Water Company in its Visalia District. For the Visalia District, the mandated drought reduction goal was 32% below its 2013 residential per capita water use to be achieved by February 2016. This state-mandated goal served as motivation for the creation of customer level budgets, set at 32% reduction from 2013 usage.⁵⁸ Drought surcharges were based on the extent of overuse. Customers using less than their monthly budget could bank savings in that month and use it to offset excess use in a future billing period. The Visalia water budget program was successful in achieving the demand reduction goals.⁵⁹

The water budgets implemented by Cal-Am need not be tied to the water rate or penalty structure and can be primarily informational. Even without a connection to the water rate structure, water budgets serve the dual purpose of communicating with customers what is a reasonable and expected volume of use during a time of shortage and informing Cal-Am and/or the Monterey Peninsula Water Management District every time usage exceeds a budgeted amount. This enables the customer to immediately act if their usage exceeds budgeted amounts and it empowers the utility to address any customer with usage that is deemed unreasonable given the supply limitations. This in turn enables demand management across the entire system, tuned to the desired level of consumption to the extent possible.

Other Demand Management Measures

Other measures that Cal-Am should consider for managing demand until additional supply comes online include:

- adjust irrigation schedules – particularly during peak summer months
- strictly enforce water waste ordinances
- eliminate all but essential line flushing and hydrant testing
- limits on all non-essential uses

⁵⁷ Mayer, P.W. et. al. 2008. Water Budgets and Rate Structures: Innovative Management Tools. Journal of the American Water Works Association. May 2008. Vol. 100, No. 5.

⁵⁸ Exceptions were made if the reduction resulted in a water budget that fell below a specified health-and-safety volume. If this happened, the larger health-and-safety budget was used instead. Visalia also offered an appeals and variance process.

⁵⁹ Bamezai, A. L. Maddaus, et. al. 2019. Use and Effectiveness of Municipal Irrigation Restrictions During Drought. Alliance for Water Efficiency. Chicago, IL.

- leak detection – utilize metering technology like AMI and adaptive technology like home flow monitoring to reduce customer-side leakage

Additional, more robust demand management planning may be required. Running out of water is not an acceptable option and an effective demand management plan must be readied by Cal-Am so that necessary measures can be implemented when and if they are needed in the coming years.

Maximum Month Demands

Mr. Crooks' July 22 testimony states that a desalination plant is "necessary to provide system firm capacity to ensure MMD can be met over the near-term and long-term planning horizon."⁶⁰ MMD refers to maximum monthly demand which for Cal-Am typically occurs in the summer months when customers increase use by about 21% over average.⁶¹ There are several problems with Mr. Crooks' statement.

First off, the desalination plant may not be available to Cal-Am until 2030. It is inaccurate to consider desalination a solution for the "near-term" planning horizon, which, like Cal-Am's PUC rate forecast, is generally five years in the future or less. It is important not to confuse and conflate requirements for meeting the peak demand and annual demand planning practices. WaterDM addressed this issue in its first expert report of April 21, 2020 (pp. 37-39).

Meeting maximum monthly demand is usually accomplished by storing enough water ahead of time, not by producing enough water in the moment. Cal-Am's analysis appears to ignore the impact of available storage to help meet the MMD. Furthermore, a 21% difference between the average month and the maximum month is not a particularly large difference compared with many other providers that see a doubling of demand (or more) during summer months.

Perhaps most significantly, over the long-term, Cal-Am has based its calculation of MMD on a demonstrably overstated water demand forecast.

Peaking management approaches are available to Cal-Am to address maximum monthly and daily demands. In fact, peak demand management to shift the timing to off peak periods is already being practiced to some degree in the Cal-Am service area but could be expanded and adjusted if necessary to impact MMD.

Peak demand days usually occur during the hot and dry part of the year when outdoor irrigation occurs simultaneously across the service area. Currently Cal-Am restricts outdoor irrigation between 9 a.m. and 5 p.m. on any day. Irrigation is only permitted on two specific days per week (Wednesdays and Saturdays) unless the customer is equipped with a weather-responsive "smart" controller that automatically adjusts irrigation to meet prevailing climate conditions. These are all effective measures but focusing some irrigation demand on Wednesdays and Saturdays could have the unintended impact of creating peaks on those

⁶⁰ Crooks, July 2022. (p.26).

⁶¹ Crooks, July 2022. (p.25).

particular days. Cal-Am does not report measured peak day demand data so it was not possible to determine if this is in fact the case. Spreading the irrigation demand more evenly through the week could help alleviate daily peak concerns.

Should peak demands become a concern in the future, Cal-Am has a variety of effective, low-cost management options available which do not require construction of a desalination facility.

Interim Supply Options

Over the next three years, until water from the Pure Water Monterey Expansion becomes available, it is possible Cal-Am will require additional supplies. These supplies could come in three ways: 1) withdrawal from stored reserves including 1,307 AF of ASR plus Pure Water Monterey reserves; 2) additional purchases; and/or 3) additional demand management.

Amended and Restated Water Purchase Agreement

Adoption of the Amended and Restated Water Purchase Agreement will provide Cal-Am with necessary additional water supply from the Pure Water Monterey Expansion to meet anticipated future growth

If the Amended and Restated Water Purchase Agreement is not adopted and water from the Pure Water Monterey Expansion is not available, Cal-Am would face supply short falls starting in 2025 without additional action. Without the Pure Water Monterey Expansion Cal-Am could face a supply shortfall of 1,110 AF in 2050.

If this supply shortfall were to be met with an alternative water supply source such as desalination, a supply sized similarly to the Pure Water Monterey Expansion (2,000 – 3,000 AF) would be adequate to meet future demand based on WaterDM's continued efficiency forecast.

SUMMARY

As a result of my review of the items listed in Appendix A and other related and relevant documents and reports, my own independent analysis, and my expertise in municipal and industrial water use, water management, and engineering, I offer the following supplemental analysis and opinions regarding Cal-Am's water demand and supply:

Since my prior reports, Cal-Am's water demand further declined as customers have become more efficient and system water losses have been reduced.

WaterDM concluded in its April 21, 2020 expert report that Cal-Am's per capita use would continue to decrease due to ongoing conservation program implementation, conservation pricing, and water loss control measures. This has proven true and the trend towards increased efficiency is expected to gradually continue. WaterDM's updated demand forecasts for this supplemental report include continuing population growth in the Cal-Am service area and gradual efficiency improvements.

Cal-Am's revised 2022 water demand forecast provided in Ian Crooks' testimony is overstated.

The new Cal-Am forecast ignores the impacts of future conservation, includes population that is not in Cal-Am's service area, and includes double counts, all of which improperly increase future demand. Furthermore, the forecast in Crooks' testimony differs radically from Cal-Am's independently prepared 2022 PUC 3-year rate case forecast, which projects a decline in demand in the near-term.

A more realistic demand forecast prepared by WaterDM projects Cal-Am's 2050 demands to be 11,160 AF, which is more than 3,400 AF lower than Cal-Am's overstated forecast.

The growth rate in WaterDM's forecast is based on Cal-Am's current stated service area population and on AMBAG's anticipated population growth through 2050 including additions from the RHNA. WaterDM's forecast includes the impacts of ongoing efficiency improvements from Cal-Am's conservation program and state mandates. The result is a 6.1% reduction in per capita use and the conservation of 774 AF over 25 years.

With the addition of 2,250 AF from the Pure Water Monterey Expansion, Cal-Am can meet future demand in 2050.

By adding this additional source and continuing its water conservation efforts, Cal-Am should have sufficient supplies that the local development moratorium can be lifted, while still complying with the State Water Board's limits on Cal-Am's annual Carmel River diversions. Key to the success of this approach will be making necessary physical and management improvements to Cal-Am's aquifer storage and recovery system so it performs as designed and approved by the CPUC. This includes use of the Monterey Pipeline and continuing and extending water conservation and efficiency measures. With prudent management and investment, Cal-Am should be able to steadily build up ASR reserves, essential for managing through drought periods.

If the Amended and Restated Water Purchase Agreement is not adopted and water from the Pure Water Monterey Expansion is not available, Cal-Am would face supply short falls starting in 2025 without additional action. If this supply shortfall were to be met with an alternative water supply source such as desalination, a supply sized similarly to the Pure Water Monterey Expansion (2,000 – 3,000 AF) would be adequate to meet future demand based on WaterDM's continued efficiency forecast.

Appendix A – Materials Considered⁶²

Bamezai, A., L. Maddaus, et. al. 2019. Use and Effectiveness of Municipal Irrigation Restrictions During Drought. Alliance for Water Efficiency. Chicago, IL.

California-American Water Company. 2022. Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 20, 2022, updated July 25, 2022.

California-American Water Company. 2022. Direct Testimony of David Mitchell. Application A.22-07-001. Public Utilities Commission of California. July 1, 2022.

California-American Water Company. 2022. Supplemental Testimony of Ian C. Crooks before the Public Utilities Commission of the State of California. March 11, 2022.

California-American Water Company. 2020. State Water Resources Control Board Order WR 2016-0016 / WR 2009-0060, 4th Quarterly Report for the 2019-2020 Water Year Addressing Operations for the Period of July 1, 2020 to September 30, 2020.

California-American Water Company. 2021. (U-210-W) Application to Obtain Approval of the Amended and Restated Water Purchase Agreement for the Pure Water Monterey Groundwater Replenishment Project. Supplemental Testimony of Ian Crooks, filed March 11, 2022.

California-American Water Company. 2019. (U-210-W) Update to General Rate Case Application, A.19-07-004. Direct Testimony of Christopher Cook

California-American Water Company. 2012. Direct Testimony of Ian Crooks Before the Public Utilities Commission of the State of California. Application 12-04-019 (Filed April 23, 2012).

California Department of Water Resources. 2020. Urban Water Management Plan Guidebook 2020 (Aug. 2020 draft).

Marina Coast Water District. 2020. Marina Coast Water District's Preliminary Response to Cal-Am's Presentation Materials dated 9/2/20.

Mayer, P.W. et. al. 2008. Water Budgets and Rate Structures: Innovative Management Tools. Journal of the American Water Works Association. May 2008. Vol. 100, No. 5.

Monterey One Water. Aug. 20, 2020. Letter from Paul A. Sciuto, General Manager, to Mr. Tom Luster, California Coastal Commission.

Monterey One Water. April 11, 2020. Source Water Operational Plan Technical Memorandum. Prepared by Bob Holden, PE, and Alison Imamura, PE.

Monterey Peninsula Water Management District. 2020. Supply and Demand for Water on the Monterey Peninsula prepared by David Stoldt. (3-13-2020, 12-3-2019, and 9-16-2019)

⁶² Materials Considered also includes all materials cited in the footnotes of this Report.

Monterey Peninsula Water Management District. 2020. Presentation of Updated Regional Water Demand Forecasts Related to Association of Monterey Bay Area Government 2018 Regional Growth Forecast and Regional Housing Needs Allocation Plan: 2014-2023, and Inclusion of 2019 Water Year.

Seaside Basin Watermaster Jan. 8, 2020 Letter to Rachel Gaudoin. Subject: Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project (Draft Supplemental EIR)

Seaside Basin Watermaster Annual Report – 2019, December 5, 2019

Seaside Basin WaterMaster. 2008, 2014. Amendment No. 1 to the Memorandum of Understanding between the Seaside Basin WaterMaster and California American Water, Dated December 3, 2008; amended June 6, 2014.

State of California Water Code Sections 10631 (effective Jan. 1, 2020) and 10635 (effective Jan. 1, 2019).

WaterDM. April 21, 2020. Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company's Monterey Main System.

WaterDM. July 1, 2020. Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company's Monterey Main System.

WaterDM. September 11, 2020. Second Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company's Monterey Main System.

WaterDM. March 22, 2022. Fourth Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company's Monterey Main System.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Other Permits and Approvals.** PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall submit documentation from the following entities of final approvals, permits, and determinations required for the proposed Project or documentation from those entities that no further permits or approvals are required:

Local –

- a. **Monterey One Water (“M1W”):** authorization for connection to, and use of, the M1W ocean outfall.
- b. **Monterey County:** encroachment permit(s) for construction of Project pipelines within the coastal zone and within County jurisdiction.
- c. **Cities of Marina, Seaside, and Sand City:** encroachment permit(s) for construction and operation of Project pipelines within the coastal zone and within the jurisdiction of these entities.

Transportation Agency of Monterey County (“TAMC”): approvals necessary for construction and operation of Project pipelines within TAMC rights-of-way.

State –

- d. **State Lands Commission:** lease(s) of state tidelands for continued use of the Project’s existing test well and of new proposed wells beneath state tidelands.
- e. **Central Coast Regional Water Quality Control Board:** a National Pollution Discharge Elimination System (“NPDES”) Permit allowing the discharge of effluent through the M1W outfall and approval to modify that outfall to allow the discharge.
- f. **California Public Utilities Commission (“CPUC”):** final CPUC approval for construction of the Project, including but not limited to a final and binding CPUC determination in the pending proceeding (A.21-024) of water supply and demand estimates for the Monterey Peninsula Water Supply Project (MPWSP) that there is projected demand for additional water supply beyond the Pure Water Market Project Expansion (i.e., the project that would increase the capacity of the previously CPUC-approved Pure Water Market project from 3,500 AFY to 5,750 AFY) by or before 2050.

Federal –

- g. **Monterey Bay National Marine Sanctuary:** authorization from the Sanctuary to allow discharges into Sanctuary waters and drilling and disturbance of submerged lands within the Sanctuary. This is to include any necessary Biological Opinions from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service or confirmation from the Sanctuary that those Opinions are not required.

Other –

- h. **Other landowners:** authorization from any other landowners within the coastal zone on whose property the Applicant would conduct Project-related construction activities.
- i. **Legal:** a final judgment or other final disposition of the entirety of the pending

action entitled *City of Marina v. RMC Lonestar, et al.*, Monterey County Superior Court No. 20CV001387 (in which the trial court has referred various issues to the Administrative Hearings Office of the State Water Resources Control Board for determination), Cal-Am shall provide proof of such judgment or disposition to the Executive Director. This permit shall not be issued if that judgment or disposition demonstrates that (1) the Applicant does not have, and cannot feasibly obtain, water rights (to the extent applicable) for the Project or (2) Cal-Am's project would cause harm to any aquifer that is a source of drinking water to the City of Marina or the Marina Coast Water District.

If any of these approvals or determinations result in changes to the proposed Project that are not evaluated in this CDP, the Applicant submit a complete application to amend this permit unless the Executive Director determines that an amendment is not necessary.

2. **Project Phasing.** This permit authorizes construction and operation of Phase I of the Project. To obtain authorization for construction and operation of Phase II, the Applicant shall submit an application for an amendment to this permit that includes all of the following:

- Authorization from the CPUC for the 6.4 mgd facility and any other required approvals.
- A detailed description of the proposed development associated with Phase II.
- An assessment of coastal resource effects from Phase II, including whether there are any changed circumstances from what was analyzed as part of this CDP review.
- Confirmation that the Applicant has submitted all required monitoring reports for the Phase I Project.

The Applicant shall not begin operation of Phase II until the following criteria have been met:

- Phase I has been in full operation for a minimum of two years; and
- All required monitoring reports have been submitted, including the Groundwater Monitoring Report, Wetland Monitoring Report, etc., for a minimum two-year period, to demonstrate that the Project's Phase I has not caused any significant adverse effect on local groundwater supplies for the City of Marina and Marina Coast Water District, wetlands or other coastal resources.

3. **Construction Best Management Practices.** PRIOR TO STARTING CONSTRUCTION ACTIVITIES, the Applicant shall provide, for Executive Director review and approval, Construction Plans that address construction methods and Best Management Practices ("BMPs") of all project components and that include the following:

- a) Construction areas: site plans showing the location of all construction areas, staging areas, fueling areas, and construction access corridors. The areas within which construction activities and/or staging are to take place are to be minimized to the extent feasible to reduce potential impacts to coastal resources.
- b) Construction BMPs: the Plans shall identify the type and location of all erosion control and water quality BMPs that will be implemented during construction to protect coastal water quality. Silt fences, straw wattles, filtration equipment, and other similar materials are to be installed and maintained around the perimeter of all construction areas to prevent construction-related runoff and sediment from discharging directly into storm drains or coastal waters. The Plans shall identify all measures that will be used to keep the construction areas physically separate from public recreational use areas, such as using signage, temporary fencing, or other measures to delineate construction areas. The Plans are to also describe all measures that will be implemented to reduce the effects of construction noise and lighting of areas outside the delineated construction areas.
- c) Equipment BMPs. Equipment fueling, washing, and maintenance shall take place at a designated hard-surfaced area where any leaks or spills can be contained and collected. All equipment shall be inspected at least daily to identify any leaks or potential leaks promptly. Any fueling and maintenance of mobile equipment conducted on site shall take place at designated areas located at least 50 feet from coastal waters, drainage courses, and storm drain inlets, if feasible (unless those inlets are blocked to protect against fuel spills). Fueling and maintenance areas shall be designed to fully contain any spills of fuel, oil, or other contaminants. Equipment that cannot be feasibly relocated to a designated fueling and maintenance area may be fueled and maintained in other areas of the site, provided that procedures are implemented to fully contain any potential spills.
- d) Good Housekeeping BMPs. The Plans shall describe good construction housekeeping controls and procedures that will be implemented, including cleaning up all leaks, drips, and other spills immediately, keeping materials covered and out of the rain, covering exposed piles of soil and wastes, disposing of all wastes properly, placing trash receptacles on site and covering open trash receptacles during wet weather, and removing all construction debris from the site at least daily.
- e) Construction timing: The Plans are to provide a construction schedule identifying the expected duration of construction and the hours and days construction is expected to occur.
- f) Construction Coordinators. The Plans shall identify one or more designated construction coordinators at each construction site as the point of contact during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies). The Plan shall provide coordinators contact information, including, at minimum, an email address and a telephone number that will be made available 24 hours a day for the duration of construction and that shall be conspicuously posted at the job site where such contact information is readily visible from areas accessible to the public. The Plan shall require that the coordinators record all complaints received regarding

construction activities, including the nature of the complaints, contact information where available (e.g., name, phone number, and email address) and shall require the coordinator to investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry. All complaints and all actions taken in response shall be summarized and provided to the Executive Director upon request.

Copies of the approved Plans and of the signed CDP shall be maintained at the appropriate construction site(s) and be available to project personnel and the interested public upon request. All project personnel shall be briefed on the content and meaning of the CDP and the approved Plans prior to their start on project activities.

The Applicant shall implement development in accordance with this condition and the approved Construction Plans. Minor adjustments to the above requirements, as well as to the Executive Director approved Plan, which do not require a CDP amendment or a new CDP (as determined by the Executive Director), may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.

4. **Spill Prevention and Response Plan.** PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, the Applicant shall submit, for Executive Director review and approval, Project-specific Spill Prevention and Response Plans that address potential spills or releases of hazardous materials during both project construction and project operations. The Plans shall identify worst-case spill scenarios and demonstrate that adequate spill response equipment will be available. The Plans also shall include preventative measures that will be implemented to avoid spills and measures that will implemented should spills occur. The Plans shall specify responsibilities of contractors and project personnel. The Plans shall identify the location of all on- and off-site spill response equipment (including sorbent materials, booms, etc.) that will be available in the event of a spill, and the protocols and expected response times for deployment. The Plans are to clearly identify responsibilities of project personnel and contractors in the event of a spill and shall include necessary contact information for responsible personnel and involved emergency response agencies (e.g., Fire Department, U.S. Coast Guard, etc.).
5. **Closures for Species Protection.** Any construction activities at the Project well field or near the beach for outfall modifications shall occur outside of Western snowy plover breeding and nesting season (March 1 through September 30 of any year), unless authorized by the U.S. Fish and Wildlife Service ("USFWS"). Any construction activities within 30 feet of habitat known to be used by Smith's blue butterfly shall occur outside of the annual butterfly flight season (June 1 to September 15 of any year) unless authorized by the USFWS. All Project maintenance and repair activities shall occur outside these closure periods to the extent feasible. If the USFWS authorizations require any changes to the project as approved herein, the Applicant shall submit a complete application to amend this permit and receive approval from the Commission for those changes, unless the

Executive Director determines no amendment is necessary.

6. **Permit Term.** This coastal development permit authorizes the approved project slant wells and associated components to be installed and remain on the Applicant's property within the CEMEX site for a period of 25 years, or until January 1, 2050, whichever occurs first. After such time, the authorization for the continuation and/or retention of these project elements shall cease, unless an extension of the permit term is approved, as set forth below.

No later than two years prior to the end of this permit term, the Permittee shall apply for a new coastal development permit or amendment to this permit to remove, relocate, or rehabilitate these project elements or to modify this term of authorization. This application shall include, at a minimum, the most recent sea level rise projections for the project location, the most recent coastal erosion rates for the location, and the then-current location of site features, including the mean high tide line, foredunes, existing habitat types, and presence of any known or potential sensitive species using the site's habitat types. The application shall also identify and address changed circumstances and/or unanticipated impacts that have occurred or are reasonably expected to occur during the next 25-year period regarding environmental impacts and coastal hazards, including but not limited to ongoing sea level rise projections and changed projections of known and potential coastal hazards. It shall also describe any changes to coastal resources including those resulting from public access or modifications to site habitat types. Provided the Permittee submits a complete application by this date, the termination date for this permit shall be automatically extended until the time the Commission acts on the new or amended coastal development permit application.

Failure to obtain a new or amended coastal development permit authorizing removal of and/or an additional term to retain the project elements shall cause this development to be in violation of the terms and conditions of this coastal development permit.

7. **Pre-Construction Biological Surveys and Monitoring During Construction.** The Permittee shall enlist one or more qualified biologists acceptable to the Executive Director, to conduct sensitive species pre-construction surveys and to monitor the project site during all construction activities per the following:
- a. **Pre-Construction Biological Surveys.** PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES IN SPECIFIED WORK AREAS, Protocol-level surveys shall be conducted for any species that have been previously documented in the work area, its buffers, or within 0.5-mile, and could be reasonably expected on the basis of other known factors (e.g., habitat suitability). Surveys shall be conducted to at least 100 feet beyond the specified work areas. In the event that the biologist(s) reports finding any sensitive wildlife (within three days or less of intended construction for a specified work area) or plant species (within the preceding bloom season)

during the pre-construction surveys, the Permittee shall delay work, implement any pre-approved mitigation measures, and promptly notify the Executive Director as well as CDFW and/or USFWS, as applicable. Project activities may commence upon written approval from the Executive Director, following any necessary consultation with CDFW and/or USFWS. Surveys and mitigating measures shall additionally:

- i. For western snowy plover, nesting surveys shall be informed by the cumulative and trending record of habitat use from recent years and extend out to 500 feet from the work area.
 - ii. For legless lizards, use a triple-pass method where hand rakes are passed through the upper three inches of soil below the current vegetation layer in areas of appropriate habitat, and each sequential pass should demonstrably locate progressively fewer animals. The first pass shall occur in the early morning, when the species is most readily captured, and an overnight period of no soil disturbance shall be allowed before the second pass. If no animals are found during the second pass, they may be assumed absent and no third pass shall be required. If animals are found during the first or second passes, a third pass shall be required.
 - iii. For all nesting birds, other than western snowy plover and burrowing owls, surveys shall be completed no more than 72 hours prior to the commencement of construction activities and provide for a minimum of 300-ft buffers for non-raptor species and 500-ft buffers for raptor species, unless determined less may be acceptable during consultation with CDFW and/or USFWS, as appropriate. At a minimum, buffers shall not be reduced below 50 feet or 250 feet for non-raptors and raptors, respectively, and noise shall not exceed 65 dBA at any sensitive receptor site. Noise barriers and visual screens may be considered, in consultation with the Executive Director.
 - iv. For American badgers, surveys shall include areas along the pipeline alignments in vegetation communities where burrows have been previously recorded, including the various scrubs.
 - v. For Monterey dusky-footed woodrats, surveys shall extend out to 100 feet from the specified work area.
 - vi. Include the Executive Director in all relevant natural resource consultations and provide all survey results and supporting documentation, including submissions to other agencies.
- b. **Biological Monitoring During Construction.** PRIOR TO COMMENCEMENT OF CONSTRUCTION EACH DAY, the biologist(s) shall inspect the active project areas to ensure that the day's activities will not result in impacts to sensitive species or encroach on established buffers. The biologist(s) shall document the results of each daily pre-construction survey; the Permittee shall retain and make these available upon request. Construction activities may not commence until any sensitive wildlife species have left the project area and its vicinity and/or any sensitive plant species have been sufficiently protected or

salvaged in accordance with the approved final Habitat Mitigation and Monitoring Plan, pursuant to [Special Condition 10](#). In the event that the biologist(s) determines that any sensitive species exhibit reproductive or nesting behavior, the Permittee shall cease work and promptly notify the Executive Director as well as CDFW and/or USFWS, as applicable; construction activities may only resume upon written approval of the Executive Director. If impacts or injury occur to sensitive species, the Permittee shall notify the Executive Director as well as CDFW and/or USFWS and will be advised of the appropriate action or mitigation to be taken.

The biologist(s) shall possess the authority to halt work to prevent any breach in permit compliance occur, or if any unforeseen sensitive habitat issues arise and until they are satisfied that the issue has been resolved. The biologist(s) shall immediately notify the Executive Director if development activities outside of this permit occur and document any incidents requiring the stoppage of work.

8. **Construction Impact Validation and Compensatory Mitigation Ratios for Habitat.** NO LESS THAN 90 DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION IN ANY SPECIFIED WORK AREA, the Permittee shall submit baseline surveys documenting, at a minimum: the physical extent and acreage of all habitats within proposed impact areas; each vegetation community's native species diversity, native species cover, invasive species cover, and the relative cover of dominant native vegetation species; and the vegetation community's age classes and/or size structure distributions. Surveys shall be conducted during the late spring/early summer season when most plant species are blooming and readily identifiable, unless otherwise proposed with clear justification, for review and approval by the Executive Director. Existing records and documentation shall be considered in conjunction with the new data to establish as comprehensive a baseline as possible. Any sensitive species detections not previously documented in submitted materials shall be clearly reported, including with annotations identifying occurrences as new, and shall be additionally submitted to CDFW and/or USFWS, as appropriate, and to the California Natural Diversity Database (CNDDDB). Photos shall be taken from designated points across the survey area, at spacings and perspectives sufficient to represent existing conditions and support impact evaluations. In addition, post-construction surveys, final impact assessments, and compensatory mitigation requirements shall follow as:

- a. **Post-Construction Surveys.** For each habitat, post-construction surveys shall document, at a minimum: the physical extent and acreage of all impacted habitats, and the activities that occurred within the area, including any vegetation clearance, mortality, or other significant reduction in vegetation cover due to project activities (e.g., pruning), or ground disturbance. Post-construction surveys shall be completed within 90 days of completion of construction activities in a specified work area and for impacts anticipated to be potentially characterized as temporary,

additionally document, at a minimum: the dates of initial and final project-related disturbance to the habitat; each vegetation community's native species diversity, native species cover, invasive species cover, and the relative cover of dominant native vegetation species; the vegetation community's age classes and/or size structure distributions; and, photos from the designated points used for pre-construction surveys, to support impact evaluations.

- i. **Impact Validation Report.** A final report comparing the extent and nature of impacts as estimated by the Permittee in the submitted materials with those actually observed following construction shall be submitted within 30 days of post-construction survey completion, for Executive Director review and approval. The observed impacts, once approved, shall form the basis of the compensatory mitigation obligation. If the observed impacts are significantly greater than what has been assessed as part of the Commission's authorization, a permit amendment will be required to address the discrepancy, unless determined unnecessary by the Executive Director. Any such differences between estimated and observed impacts shall require revision or supplement to the HMMP pursuant to [Special Condition 10](#).
- b. **Temporary Impacts.** Short-term temporary impacts are those that are fully restored within 12 months of initial construction activity disturbance, and long-term temporary impacts are those that may occur for up to a 24-month period from the initial disturbance but require no more than 12 months following the conclusion of construction activity to fully recover. Any impacts that do not meet these timing parameters, significantly disturb the ground (e.g., trenching), or fail to recover vegetation communities to equal or better condition in terms of native diversity, native species cover, the relative cover of dominant native vegetation species, and vegetation community age classes and/or size structure distributions shall be considered permanent and mitigated for pursuant to sub-section C of this condition. Any impacts determined to qualify as temporary shall be mitigated for at a minimum of 1:1 (short-term) or 1.5:1 (long-term) ratio, and comply with the following terms:
 - i. **On-Site Mitigation.** No less than 1:1 of the mitigation shall occur in-kind and on-site, where temporary impacts are observed.
 - ii. **Off-Site Mitigation.** For long-term temporary impacts, the balance (0.5:1) shall occur as in-kind mitigation unless no feasible option is available and a clear nexus is identified, subject to Executive Director review and approval. The balance of mitigation acreage shall occur within the geography specified for all compensatory mitigation in [Special Condition 10 \[HMMP\]](#) and where it can be protected in perpetuity.
 - iii. **Invasive Species Treatments.** All California Invasive Plant Council (Cal-IPC) -listed species will be removed from temporarily impacted ESHA such that species ranked "high" shall not exceed a total of

1% cover and all ranked invasives shall not exceed a total of 5% cover. If this cannot be achieved by hand, for any herbicide proposed for potential use, the following information shall be provided prior to its use, for review and approval by the Executive Director: rationale for why herbicide(s) would constitute the least environmentally damaging alternative and detail on the specific product(s) that would be used, including certification by the California Department of Pesticide Regulation and allowance for the intended application.

- iv. **Revegetation Requirements.** Any revegetation intended to address temporary impacts shall include, at a minimum, replanting with locally and genetically appropriate native species. Documentation of all plant material sources shall be provided.
- v. **Restoration Report.** Within 30 days of completion of any active restoration work, the Permittee shall submit a post-restoration report documenting the areas where revegetation and invasive species treatments have occurred.
- vi. **Final Short-term Temporary Impact Survey.** Within twelve months of the initial disturbance, the Permittee shall conduct a survey that describes whether areas (physical extents and acreages) identified as short-term temporarily-impacted have returned to their pre-impact condition (or better) by comparison with the baseline condition for each vegetation community, including native species diversity, native species cover, the relative cover of dominant native vegetation species, and the vegetation community's age classes and/or size structure distributions. Invasive species cover shall also be described. The survey shall be detailed in a report, to be submitted by the Permittee within 30 days of final survey completion, for Executive Director review and approval. If the survey demonstrates impacts persist or any revegetation effort has been unsuccessful, in part or in whole, any remaining impacts are, by definition, permanent, and shall be mitigated accordingly and shall require revision or supplement to the HMMP pursuant to [Special Condition 10](#). Digital copies of the survey data and associated metadata shall be provided with the reports.
- vii. **Final Long-term Temporary Impact Survey.** Within twelve months of the conclusion of disturbance, the Permittee shall conduct a survey that describes whether areas (physical extents and acreages) identified as long-term temporarily-impacted have been returned to their pre-impact condition (or better) by comparison with the baseline condition for each vegetation community, including native species diversity, native species cover, the relative cover of dominant native vegetation species, and the vegetation community's age classes and/or size structure distributions. Invasive species cover shall also be described. The

survey shall be detailed in a report, to be submitted by the Permittee within 30 days of final survey completion, for Executive Director review and approval. If the survey demonstrates impacts persist or any revegetation effort has been unsuccessful, in part or in whole, any remaining impacts are, by definition, permanent, and shall be mitigated accordingly and shall require revision or supplement to the HMMP, pursuant to [Special Condition 10](#). Digital copies of the survey data and associated metadata shall be provided with the reports.

- c. **Permanent Impacts.** All impacts failing to qualify as temporary for any of the above cited reasons shall be recognized as permanent and mitigated for, consistent with the following:
 - i. A minimum ratio of 3:1 for ESHA impacts, where this base ratio assumes compensation as habitat creation or substantial restoration. Alternatively, enhancement or preservation strategies may be proposed at no less than double or triple the base ratio, respectively. No net loss of dune habitat(s) shall be assured by provision of a minimum 1:1 as habitat creation for the total acreage where permanent development will be located (e.g., the slant well pads and access road infrastructure); any remaining balance may be addressed through the various mitigation strategies, with adjustments to the discounted ratio, as described above (e.g., 2:1 may be satisfied via creation or substantial restoration, or as 4:1 via enhancement, or as 6:1 via preservation).
 - ii. All habitat mitigation for permanent impacts, and the 0.5:1 fraction for it, shall occur within areas that are or will be protected, as consistent with [Special Condition 9](#).
 - iii. Mitigation requirements for particular species impacts, as may be required by other agencies, may be folded into those for ESHA but may not conflict with or otherwise replace the requirements of this permit, and alternatively, may necessitate additional acreage or other requirements.

- 9. **Dune Habitat and Open Space Protection.** PRIOR TO THE START OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval evidence of existing deed restriction(s) or documentation irrevocably dedicating habitat and open space conservation easement(s) in perpetuity, consistent with the following terms:

- d. **Objective.** Existing restriction(s) and/or conservation easement(s) shall provide for the protection, creation and/or improvement of dune habitat in the subject area(s). At a minimum, the 1:1 dune habitat creation requirement in [Special Condition 8 \[Construction Impact Validation and Compensatory Mitigation Ratios for Habitat\]](#) shall be satisfied by the establishment of new protections over previously unprotected lands and activities necessary to restore natural dune processes at the site(s). Outside the TAMC corridor, any additional areas supporting compensatory

mitigation shall be afforded the comparable protections, whether existing or established by necessity of this permit.

- e. **Allowable Uses and Development.** No development, as defined in Section 30106 of the Coastal Act, shall occur within the easement area(s) except for those consistent with ESHA (*e.g., restoration activities, nature study, and low impact recreation*).
- f. **Recordation.** Conservation easement(s) shall be recorded free of prior liens and any other encumbrances that the Executive Director determines may affect the interest being conveyed and shall include formal legal descriptions of the entirety of the parcel, a metes and bounds legal description and graphic depiction, prepared by a licensed surveyor based on an on-site inspection, drawn to scale and approved by the Executive Director, of the dedicated easement area(s). Such easement(s) shall run with the land, binding successors and assigns of the Permittee and the landowner and indicate that the restrictions on the use of the land shall be in effect upon recording and remain as covenants, conditions, and restrictions running with the land in perpetuity.
- g. **Dedication.** The Permittee may dedicate dune habitat and open space conservation easement(s) to another public entity, including State Parks or another land management entity, upon approval of the Executive Director.
- h. **Deadline.** The Executive Director may extend the deadline if they determine that the Permittee has been diligently pursuing the conservation easement, and that the Permittee has demonstrated good cause for any identified delays.

10. **Habitat Mitigation and Monitoring Plan.** PRIOR TO PERMIT ISSUANCE, the Permittee shall submit two copies of a final Habitat Mitigation and Monitoring Plan (HMMP) prepared by a qualified restoration ecologist to the Executive Director for review and written approval. Impact acreages, which shall be the basis of compensatory mitigation requirements, are estimated in the materials submitted on October 24, 2022 and shall be finalized per [Special Condition 8](#). impound

- i. **Compensatory Mitigation Options.** Compensatory mitigation requirements for habitat impacts may be satisfied by either of the following alternatives, or combination thereof, with the exception of the dune creation requirement to achieve no net loss of dune acreage, which must be fulfilled on lands not yet protected and contribute significantly to the restoration of coastal dune processes:
 - i. **Protection and Improvement of Unprotected Lands.** Lands that presently support or would appropriately support dune habitat(s) following habitat improvement activities may be acquired or otherwise moved into protection from future development threats (*e.g., conservation easement*), for the purposes of habitat conservation. Such lands may be of singular or multiple nature, include sites of variable habitat condition, and involve acquisition, restoration or enhancement activities as part or all of the compensation due for habitat impacts and losses associated with

the permitted project. Newly protected but unimproved lands will qualify as preservation whereas protected and improved lands may qualify for credit as restoration or enhancement, if approved by the Executive Director.

- ii. **Improvement of Protected Lands.** Lands that presently support or would support dune habitat(s) following habitat improvement activities, and which occur on lands already protected for the purposes of habitat conservation, may be restored or enhanced with agreement and coordination with the landowner and Executive Director. In such case, the landowner may specify the acreage available and terms of agreement between the Permittee and landowner. Land already obligated to other regulatory requirements, including but not limited to prior Commission decisions, legal obligation, and Habitat Conservation Plans, shall not be considered available as compensation for this project unless the work would demonstrably exceed those obligations and provide mitigation determined by the Executive Director to be not otherwise available. The landowner shall be included in all discussions concerning site restoration priorities, goals and objectives, methods, maintenance, etc. The Executive Director shall review and approve any tentative agreement between the Permittee and landowner prior to execution, to ensure that all terms are consistent with the requirements of this and other Special Conditions.
- iii. **In-Lieu Fees.** A fee of \$250,000 per acre of required restoration shall be assessed and paid into an interest-bearing account to be established and managed by a government or non-governmental organization as approved by the Executive Director, for the sole purpose of financing dune habitat protection, restoration, and related activities in the region not otherwise already provided for. If a suitable account to accept and administer in-lieu fee funds for dune habitat in the region does not already exist, the Permittee shall be responsible for facilitating the development and initiation of such an account, including through the provision of funds to establish the account. Any additional costs associated with administering the prescribed fees for habitat benefit shall be the responsibility of the Permittee. For each year between the time of Commission approval and the payment of any in-lieu fees, the cost per acre shall be adjusted by any increase in the consumer price index applicable to the Monterey region. All of the habitat-directed funds and any accrued interest shall be used as consistent with the above stated purposes, in consultation with the Executive Director.

NO LESS THAN 90 DAYS PRIOR TO PERMIT ISSUANCE, if insufficient acreage has been secured by the Permittee for either protection or improvement, the balance shall be assessed as a non-refundable in-lieu fee per the terms above. Evidence of all fees having been received into an approved account shall be provided

PRIOR TO PERMIT ISSUANCE.

Any and all lands that would be protected and/or improved shall occur within the coastal zone, in dune habitats situated between the southern boundary of the Salinas River and northern boundary of the City of Monterey, and west of Highway 1. Any in-lieu fees that would be paid as compensation shall be applied to the protection and improvement of dune habitats in this same geography. Any and all lands that would support compensatory mitigation requirements, including those that would be protected or improved using in-lieu fees, shall be subject to the requirements of [Special Condition 9](#) with the sole exception being for temporary impacts that would be restored on-site and in-kind within the TAMC corridor.

- j. **Plan Components.** The final HMMP shall include, at a minimum, each of the following components and may necessarily be structured to address multiple mitigation sites:
- i. **Introduction.** Description of the HMMP purpose including an overview of the proposed project associated with the HMMP; a summary of impacts for which the HMMP is intended to mitigate; identification of the general mitigation strategies to be used; the proposed on-site and off-site mitigation locations; and the mitigation areas intended to compensate for each affected resource.
 - ii. **Mitigation Goals and Objectives.** Statement of mitigation goals, including the desired habitat type(s), major vegetation components, and sensitive species and wildlife support functions; description of the desired habitat with rationale, to be based on a high functioning reference site where feasible and alternatively, derived from literature describing either the site's historic conditions or "typical" regional habitat conditions; specific, actionable objectives to support stated goals; and a detailed timeline laying out all major activities including any outstanding preliminary work such as surveys, site preparation, mitigation implementation including revegetation activities, interim and final monitoring periods, etc.
 - iii. **Description of Existing Habitat(s).** Separate sections describing each of the impacted native habitat types including coastal dune, coastal scrub, and mixed chaparral habitat; final figures, maps, and related information depicting existing ecological resources; and specification of impacts for which the HMMP is intended to mitigate.
 - iv. **Design Plans and Construction Methods.** Specification of final mitigation site design and construction methods consistent with identified goals and objectives, including but not limited to:
 1. **Mitigation Design.** Detailed plans showing final topography, vegetation, and any other significant features characteristic of the intended habitat; and how these connect to the surrounding environment.
 2. **Site Preparation.** Methods and plans for salvage of any plant and/or seed material (including collection from impact

- areas, storage, relocation, and/or reestablishment); salvage of any topsoils to be stock-piled and reused in the mitigation area; any demolition, debris removal, grading, decompaction, soil amendment, or other substrate-affecting activities; erosion control measures; and treatment of invasive species.
3. **Best Management Practices.** Detailed list of all BMPs that will be implemented as part of project implementation, including triggers for further or remedial action.
 4. **Revegetation Plans.** Details on plant palettes; stocks and seed mixes; material sourcing including verification of local and genetically appropriate nature; any proposed irrigation including rationale, method, and schedule; and provisions for removal of any temporary infrastructure following plant establishment.
- v. **As-Built Report.** Provision that eight (8) weeks following completion of mitigation site construction and revegetation activities, an as-built report summarizing mitigation activities to-date, a description of consistency with approved plans, documentation of acreage treated, maps and descriptions any temporary infrastructure installed, photos taken from fixed points, and a description of consistency with all terms and conditions, to be submitted to the Executive Director.
 - vi. **Invasive Species Control.** Provision for continued control of all California Invasive Plant Council-listed species and description of monitoring and control methods. If any herbicide is proposed for potential use, rationale for why it would constitute the least environmentally damaging alternative and detail on the specific product(s) that would be used, including its certification by the California Department of Pesticide Regulation and allowance for the intended application.
 - vii. **Monitoring Plan.** Detailed plan for quantitatively monitoring the condition and progress of the mitigation site during both the initial mitigation phase as well as over the long-term at reduced frequency and intensity; performance relative to set criteria, as informed by robust sampling and statistics; triggers for adaptive management action; and reporting. Specifically:
 1. **Monitoring Frequency.** During the initial phase of no less than five (5) years or three (3) years following cessation of all remedial measures except weeding, whichever is longer, quantitative monitoring at least once per year during the period of rapid plant growth and flowering, generally in spring or early summer, unless a clear rationale for otherwise is fully presented. Following the determination that success criteria have been met, long-term monitoring to inform maintenance and adaptive management shall occur

at a frequency of no less than five (5) years.

- 2. Success Criteria.** Final success criteria supported by interim criteria, the latter of which are intended to serve as benchmarks and guide adaptive management, whereas the former will enable measure of mitigation success. Criteria shall have a clear empirical basis (i.e., reference sites and/or published technical literature appropriate for the local area) and generally include representativeness of target vegetation communities (e.g., species composition, cover, structure, diversity, and presence of major structure-producing and habitat-defining species); physical parameters such as topography, bare substrate, and hydrology; and target wildlife support functions or usage. Criteria may be fixed values where there is a strong empirical basis, but, where feasible, should be relative to high-functioning reference sites in order to account for environmental variability. Reference sites should be located within the geography identified in subsection (a) of this condition and be similar to the mitigation site with regard to soil type, aspect, slope, and other relevant abiotic characteristics, and shall be identified, sampled, and quantitatively described as a component of the monitoring plan. Invasive species ranked by the Cal-IPC as “high” shall not exceed a total of 1% cover, and all ranked invasives shall not exceed a total of 5% cover.
- 3. Performance Assessment.** Methods for judging mitigation success shall include supporting rationale for their selection and be specified in terms of the type(s) of comparison, including whether relative to fixed criteria or reference sites; identification of any reference sites that will be used; test(s) of similarity; specification of the maximum allowable difference or effect size between the mitigation value and the reference value for each success criterion; and where statistical tests will be employed, statistical power analyses to document that the planned sample sizes will provide adequate power to detect maximum allowable differences. For such a test, alpha must equal beta; these values are typically 0.10 or 0.20, depending on the expected natural variability of the variables of interest.
- 4. Sampling Design.** The field sampling program shall be designed in conjunction with the success criteria and selected methods of assessment. The sampling design and methods shall provide sufficient detail to enable an independent scientist to duplicate them, including a description of the randomized placement of sampling units, sampling unit size, planned number of samples, etc.

- viii. **Reporting.** Monitoring of and reporting on the mitigation site shall occur annually for no less than five (5) years, and for at least three (3) years following the conclusion of all remediation and maintenance activities other than weeding, whichever is later. All reports shall be prepared by a qualified restoration ecologist and be submitted to the Executive Director for review and approval, no later than December 31st of each year. Raw data and associated metadata shall be delivered with all reports (in digital format).
1. **Annual Monitoring.** Beginning the year after the mitigation project has been installed, annual monitoring reports shall be due each year, including photos taken from fixed points; assessment relative to interim success criteria; a work plan for the subsequent year; and specific recommendations to adaptively manage the effort and facilitate mitigation success. Once a monitoring report is approved by the Executive Director, recommendations identified in the report shall become prescriptive unless otherwise advised in writing.
 2. **Final Annual Monitoring Report.** A final monitoring report shall be submitted at the conclusion of all mitigation efforts, no sooner than five (5) years following mitigation implementation and summarize all prior reports; provide a detailed timeline of the overall progress and success; and include sufficient detail to evaluate comprehensive mitigation compliance with the specified goals, objectives, and success criteria set forth in the approved HMMP.
 3. **Long-Term Monitoring Reports.** Associated with the long-term monitoring, reports shall be provided to summarize results, document any management actions that have been taken on the mitigation site, and any recommendations for management action going forward.
- ix. **Long-Term Maintenance and Adaptive Management.** If a long-term monitoring report indicates that there has been substantial decline in the condition of the mitigation site, adaptive management shall be implemented to resolve this issue(s) to the extent feasible.
- x. **Provision for Possible Further Action.**
1. **Impact Validation.** If final post-construction impact validation surveys or temporary impact performance assessments pursuant to [Special Condition 8](#) indicate that additional compensatory mitigation is necessary, in part or in whole, the Permittee shall submit within 90 days a revised or supplemental HMMP to compensate for those increases relative to the original estimates. The revised or supplemental HMMP(s) shall be prepared by a qualified restoration ecologist approved by the Executive Director and shall specify plans to compensate for the additional acreage

consistent with all requirements of this Special Condition, to be reviewed and approved by the Executive Director. The revised HMMP may be processed administratively by the Executive Director, unless the Executive Director determines that an amendment to the original CDP is necessary.

2. **Non-performance.** If the final annual monitoring report indicates that the mitigation effort has been unsuccessful, in part or in whole, based on the approved success criteria, the Permittee shall submit within 90 days a revised or supplemental HMMP to compensate for those portions of the original program which did not meet the approved success criteria. The revised or supplemental HMMP(s) shall be prepared by a qualified restoration ecologist approved by the Executive Director and shall specify measures to remediate those portions of the original approved HMMP that have failed or have not been implemented in conformance with the original approved HMMP. These measures, and any subsequent measures necessary to carry out the approved revised or supplemental HMMP, shall be carried out in coordination with the direction of the Executive Director until the approved revised or supplemental HMMP is established to the Executive Director's satisfaction. The revised HMMP may be processed administratively by the Executive Director, unless the Executive Director determines that an amendment to the original CDP is necessary.

- x. **Partnering Agencies and/or Subcontractors.** The Permittee remains responsible for meeting all CDP terms and conditions, including funding of the full cost and implementing all measures to minimize and fully mitigate project impacts to coastal dune, coastal scrub, and mixed chaparral habitat. If the Permittee elects to enter into a binding agreement with a third-party agency or land management entity to carry out all or a portion of these HMMP requirements, the Permittee shall submit draft agreement provisions to the Executive Director for review and approval prior to finalizing any such agreements.
- xii. **Consistency.** The Permittee or the approved third-party entity shall undertake development in accordance with the approved HMMP. The Executive Director may approve minor adjustments to these terms if the Executive Director determines that the adjustments (1) are de minimis in nature and scope, (2) are reasonable and necessary, (3) do not adversely impact coastal resources, and (4) do not legally require an amendment.

11. **Groundwater Protection.** The Applicant shall install the Project's slant wells to extend at least 1,000 feet seaward of the proposed well head locations and shall screen the wells so they extract from the 180-Foot Aquifer as far seaward as is

feasible and without penetrating the 400-Foot Aquifer. Any proposed changes to this approved installation must be reported to the Executive Director for a determination as to whether those changes would require an amendment to this permit.

- a.
- b.

12. Monitoring and Remedial Measures to Protect Groundwater. PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall provide, for Executive Director review and approval, a Groundwater Monitoring Plan intended to ensure the Project's source water pumping does not adversely affect the aquifers that are a source of drinking water to the City of Marina and the Marina Coast Water District. The Plan shall include the following:

- a)
- b) A detailed description, including maps and diagrams of area aquifers, including those the Applicant would rely upon for the Project's source water and those relied upon by the City and Water District for drinking water. The description shall identify all known existing monitoring or production wells screened within each aquifer. It shall also identify any known existing groundwater monitoring (water level and water quality) that is currently occurring and the availability of the data.
- c) A narrative characterization of all known sources affecting these aquifers (e.g., existing withdrawals for municipal or agricultural purposes, precipitation rates, seasonal variations, inputs or outputs from surface water features, etc.) and the extent of any known existing contamination sources (e.g., locations and rate of seawater intrusion, contaminant plumes, etc.). It shall also describe the known or expected degree that these sources affect the aquifers.
- d) A comprehensive groundwater monitoring program designed to assess how the Project's proposed source water pumping could affect the quality and availability of freshwater within the aquifers relied upon by the City and Water District as sources of drinking water. This program shall include the following components:
 - i.
 - ii. Statement of monitoring goals to ensure that the monitoring will adequately identify the percentage of seawater extracted by the Project, will detect any change in the rate of seawater intrusion that the Project might induce, and will provide sufficient time to modify Project operations if monitoring identifies potential harm to the aquifers from those operations.
 - iii. A description of monitoring and other measures that will be implemented to establish baseline conditions. This shall include identification of proposed well locations and methods to be used to collect data, existing data to be used, measures to ensure the baseline conditions are sufficient to identify changes that occur from seasonal and water year type variations. Baseline data shall be collected for at least one year before Project pumping begins.

- iv. A description of monitoring methods and frequency to be implemented during Project operations, including the locations and depths of existing or proposed monitoring wells, methods of data collection and review (including frequency of data review), data management and storage, and intended purpose of the data being collected, and shall describe the analyses to be conducted to determine whether adverse effects are likely to occur. All monitoring data collected by the Applicant pursuant to this permit shall be publicly available and posted on the Applicant's website in a clear and conspicuous manner. Monitoring frequency should be adequate to characterize relevant scales of variability and should be conducted continuously for at least the first two years. If continuous monitoring is not feasible, the Plan shall include a justification explaining why.
- v. Proposed thresholds or criteria for total dissolved solids and any other relevant water quality constituents as well as groundwater levels that will be used to indicate or predict potential harm to local groundwater supplies consistent with monitoring goals described in (a). The criteria or thresholds will be established through an appropriate statistical analysis prepared by the Applicant, and the analysis shall identify the methods to evaluate any statistically significant deviations from the baseline data. The Plan shall include a justification for each proposed threshold.
- vi. A description of model validation to be conducted. This shall include methods to incorporate the above-referenced baseline data and subsequent operational data into the Project's modeling to assess the ability of the model to accurately predict groundwater conditions and identify what, if any, changes can be made to improve its reliability. Model validation shall also incorporate available and relevant Aerial Electromagnetic survey data and modeling into the proposed model validation, as appropriate.
- vii. A description of data analyses to be performed to assess impacts to local aquifers including a comparison of monitoring results to baseline conditions and the thresholds described above. If this involves updated groundwater modeling, provide a description of the proposed models, proposed statistical analyses to be conducted, and how monitoring data will be used. As part of the statistical evaluation, the monitoring data collected will be used to evaluate statistically significant deviations from monitoring criteria or thresholds compared to background levels.
- viii. Proposed remedial measures and operational controls that could be implemented should any of the above thresholds be reached. Remedial measures for thresholds indicating a lower level of concern may include further in-depth studies to investigate why a particular threshold has been reached. The proposed remedial measures shall include procedures for immediate notification to the Executive Director if Applicant discovers any exceedance of a threshold or criteria established pursuant to this Special Condition. Other remedial measures may include, but are not limited to, reduced or no pumping from one or more wells, repair and maintenance of existing intake or groundwater supply wells, relocation or redrilling of intake wells, groundwater recharge or similar projects implemented in partnership

with affected water supply providers, or other measures to address groundwater quality or supply concerns. All remedial measures shall include timelines for implementation and reporting requirements to the Executive Director.

- e) Annual reporting: The Plan shall include a provision for annual reporting of groundwater monitoring results. The annual report shall be submitted to the Executive Director as well as posted on a publicly accessible website and shall include annual results as well as results from previous years. The report shall also discuss comparison of annual data and/or multi-year data (if appropriate) to the thresholds identified in subsection (d), a discussion of planned remedial measures and the success of any previously implemented remedial measures, and an overall assessment of achievement of the monitoring goals set out in subsection (a).

The Applicant shall provide the funding necessary to allow the Executive Director to hire one or more independent third-party reviewers to evaluate the proposed Plan and to recommend any changes to the Plan necessary to ensure it is adequately protective of the aquifers used by the City and Water District. If, after any Executive Director approval of the Plan, new information becomes available to the Applicant demonstrating that less stringent criteria (e.g., Total Dissolved Solids, salinity concentrations, etc.) are adequately protective of sources of drinking water in the relevant aquifers, the Applicant may seek an amendment to this permit unless the Executive Director determines that an amendment is not needed.

13. **Wetlands and Vernal Pond Adaptive Management Program.** PRIOR TO PERMIT ISSUANCE, the Applicant shall submit a Wetlands and Vernal Pond Adaptive Management Program, for review and approval by the Executive Director. The Applicant shall provide the funding necessary to allow the Executive Director to hire one or more independent third-party reviewers to evaluate the proposed Plan and to recommend any changes to the Plan necessary to ensure it is adequately protective of area wetlands and vernal ponds.

The Plan shall provide for the following:

- a. Data collection and monitoring during Project operations of wetlands and vernal ponds within, at a minimum, the Project's drawdown zone plus a buffer area extending a distance of at least 50% beyond the edge of the drawdown zone. The Program shall identify the wetland areas to be monitored within this zone. If there is evidence that wetland areas outside this specified monitoring area could be affected by pumping, these wetland areas should also be included in Program. The data collection shall occur annually for no less than two (2) years immediately prior to operations and the first five (5) years following commencement of operations. For vernal ponds and all other wetland types within the monitoring area, appropriate reference sites shall be required to the extent feasible, and monitoring parameters shall include, at a minimum: evaluation of wetland extent consistent with the Commission's regulations;

depth of surface water; depth of saturation; depth to groundwater; characterization of other potential hydrologic inputs; hydroperiods (including duration and timing); water temperature and salinity; characterization of vegetation communities and their relative extents and conditions (e.g., stressed, healthy); root zone depth; and surveys for rare or otherwise sensitive plant and wildlife species. Remote-sensing along with on-the-ground monitoring efforts shall be used. Wetland delineations shall be completed annually. The annual results of Stage 1 shall be submitted to the Executive Director for review and approval by December 31 of each year. Subject to the Executive Director's review and approval, if at the end of the data collection period the results clearly demonstrate that there is no connection between the Project's pumping and the wetlands and/or vernal ponds within the Project's drawdown Project zone and buffer area, the Permittee's requirements under the Wetland and Vernal Pond Adaptive Management Program will be satisfied.

If at any time during the five (5) years of supplemental data collection, the results of Stage 1 suggest that there is a connection between the Project's pumping and the wetlands and/or vernal ponds within the Project's drawdown and buffer zones, the Permittee shall develop a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan (Plan) to address any, and all, prior and future impacts. The Permittee shall apply for and obtain the Commission's approval of the Plan in the form of an amendment to this permit.

14. No Future Shoreline Protective Device.

- a) By acceptance of this permit, the Applicant agrees, on behalf of itself and all other successors and assigns, that no shoreline protective device(s) shall be constructed to protect the wellheads and related development approved pursuant to Coastal Development Permit No. 9-20-0603 in the event that the development is threatened with damage or destruction from flooding, waves, erosion, storm conditions, sea level rise, or other natural hazards in the future. By acceptance of this permit, the Applicant acknowledges that the project is new construction for which there is no right to construct shoreline protective devices, and hereby waives, on behalf of itself and all successors and assigns, any rights to construct such devices that may exist under applicable law.
- b) By acceptance of this permit, the Applicant further agrees, on behalf of itself and all successors and assigns, that the landowner(s) shall remove the development authorized by this permit if: (a) any government agency has ordered that the structures are not to be occupied due to coastal hazards, or if any public agency requires the structures to be removed; (b) essential services to the site can no longer feasibly be maintained (e.g., utilities, roads); (c) the development is no longer located on private property due to the migration of the public trust boundary; (d) removal is required pursuant to LCP policies for sea level rise adaptation planning; or (e) the development would require a shoreline protective device to prevent a-d above.

- c) In the event that portions of the development fall to the beach before they are removed, the landowner(s) shall remove all recoverable debris associated with the development from the beach and/or ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit. Prior to removal, the Applicant shall submit two copies of a Removal Plan to the Executive Director for review and written approval. The Removal Plan shall clearly describe the manner in which such development is to be removed and the affected area restored so as to best protect coastal resources, including the beach and Pacific Ocean.

15. Assumption of Risk, Waiver of Liability, and Indemnity. By acceptance of this permit, the Applicant acknowledges and agrees (i) that the site may be subject to hazards from tsunamis, storm waves, surges, and erosion; (ii) to assume the risks to the Applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

16. Reporting of Environmental Justice Benefits. The Applicant shall submit an annual report to the Executive Director that describes and provides the status of all Project-related measures meant to reduce Project costs to low-income ratepayers. These shall include, but are not limited to:

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- All measures taken to enroll additional ratepayers into the Applicant's Customer Assistance and Low-Income Ratepayer Assistance programs, including the number and percentage of customers enrolled.
- All measures implemented to provide low- or no-cost purchase and installation of low-flow water fixtures (e.g., sink and bath faucets, showerheads, toilets, etc.), including the number of each type of fixture installed.
- The status of all requested or required CPUC proceedings meant to reduce costs to low-income ratepayers.
- All measures implemented to ensure that once deliveries of desalinated water from the Project start, ratepayers enrolled in these programs are subject to a rate increase of no more than \$10.00 per month for any costs associated with the delivery of desalinated water from the Project for a period of at least five years after start of those water deliveries.
- A description of outreach activities to low-income ratepayers to inform them of the cost-saving measures.

17. Community Engagement and Public Access Plans and Implementation. PRIOR

TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Applicant shall submit, for review and approval by the Executive Director, a Community Engagement Plan that ensures residents and representatives of the City of Marina will be equitably engaged in development of a revised Public Access and Amenities Plan.

The Community Engagement Plan is to describe how the Applicant will provide opportunities for Marina community members to identify public access priorities and projects for the benefit of Marina residents. It shall:

- a. Describe a community engagement strategy using community-centered and culturally relevant engagement and outreach methods (e.g., communication with multiple forms of media and in relevant languages, various methods to participate, such as in person meetings, online options, mail-in surveys, etc.) Materials developed to implement the Plan shall be provided in plain language to prevent cultural or educational barriers from preventing or reducing public participation.
- b. Includes a schedule and agendas for at least five community workshops within the City to allow community input on preferred public access opportunities and improvements. Workshops shall be noticed at least one month in advance and shall include benefits to ensure maximum participation, such as free parking, childcare options, refreshments, translation services, and others.

Upon Executive Director approval of the Plan, the Applicant shall implement it as approved to prepare a Public Access and Amenities Plan based on preferences expressed in the Community Engagement Plan. This Access Plan shall include:

- A description of all access amenities to be provided.
- b. Identification of all reviews, permits, and approvals that may be needed to implement these amenities.
- c. A proposed schedule to complete implementation, which shall ensure amenities are provided within five years of issuance of this permit.

- 18. Cultural Resource Monitoring During Construction.** Prior to construction, the Applicant (or its designee) shall retain a Cultural Resource Specialist ("CRS") that meets the minimum qualifications of the U.S. Secretary of Interior Guidelines (NPS 1983). Prior to construction, the Applicant (or its designee) shall additionally retain a minimum of one Native Monitor, including at least one monitor from each Tribal entity with documented ancestral ties to the area and that expresses an interest in monitoring, appointed consistent with the standards of the Native American Heritage Commission and the Native American most likely decedent (MLD) when State Law mandates identification of an MLD.

The Applicant shall ensure that all Project personnel are trained by the CRS and Native Monitor on the appropriate identification of potential Tribal cultural resources that may be encountered and on the necessary measures to be implemented should they be encountered. Prior to their presence at any Project construction area, all Project personnel shall complete cultural sensitivity training by Tribal experts to understand and acknowledge the cultural and ancestral Tribal resources in the

region and to ensure that the Native Monitor and Cultural Resource Specialist are treated respectfully during construction of the project.

The CRS and Native Monitor(s) shall be present during all ground disturbing activities, including excavations for pipeline trenches, well head installations and other actions that penetrate below native ground surface. The CRS, Native Monitor(s), and the Project Construction Manager shall have the authority to halt construction if previously unknown cultural resource sites or materials are encountered. In the event of unexpected cultural resource discovery, the Native Monitor(s) and CRS shall have the authority to redirect ground disturbance under consultation with the Construction Manager.

19. Energy Minimization and Greenhouse Gas Reduction. PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, the Applicant shall submit, for Executive Director review and approval, an Energy Minimization and Greenhouse Gas Reduction Plan that provides the following:

- a)
- b) Identifies the expected annual amount of indirect greenhouse gas (“GHG”) emissions resulting from the desalination facility’s electricity use during its initial year of operations, with provisions to update these expected emissions during each subsequent year of operations. These amounts shall be based each year on the electricity supplier’s most recent emission factor for delivered electricity as reported to the California Air Resources Board (“CARB”) and/or Climate Action Registry (“CAR”) that identifies the tonnes of GHG emissions per megawatt of electricity generated.
- c) For all remaining indirect GHG emissions resulting from facility operations, the Plan shall provide for the Applicant to submit an annual report for each year of facility operations that will identify all measures the Applicant will implement to ensure that the facility operates as “net carbon neutral” on an annual basis. These measures may include carbon offsets or Renewable Energy Credits purchased through CARB or CAR or approved by a California Air Pollution Control District, with reductions achieved using these measures documented by these entities as being “real, permanent, quantifiable, verifiable, and enforceable,” pursuant to CARB regulations. Each annual report shall be submitted for Executive Director review and approval within 90 days of the electricity supplier’s annual documentation to CARB or CAR of its most recent emission factor for delivered electricity. The Applicant may purchase more than one year’s worth of offsets or credits, if deemed prudent, to use in subsequent years, but at no time shall the facility be operating with its annual amount of indirect GHG emissions greater than its purchased offsets or credits for a given year.
- d) The Plan may also identify any on-site and project-related measures the Applicant implements to avoid or reduce the facility’s indirect GHG emissions – for example, installation of a roof-mounted solar photovoltaic system, use

of a fuel cell system, etc. - and describe the amount of emissions avoided through these measures.

20. Visual Resources. PRIOR TO CONSTRUCTION, the Applicant shall submit, for Executive Director review and approval, a Visual Elements Plan that illustrates all above-grade elements of Project components within the coastal zone. The Plan shall include drawings and illustrations of those components with proposed surface colors and treatments that ensure the Project features are compatible with, and blend in to, the surrounding habitats and other nearby coastal resources. The Applicant shall construct these Project components as approved by the Executive Director.

MCWD'S PROPOSED REVISIONS TO SPECIAL CONDITIONS

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions which are conditions precedent to the permit being issued and taking effect:

1. **Other Permits and Approvals.** PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall submit documentation from the following entities of final approvals, permits, and determinations required for the proposed Project or documentation from those entities that no further permits or approvals are required:

Local –

- a. **Monterey One Water (“M1W”):** authorization for connection to, and use of, the M1W ocean outfall. Documentation that all permits and environmental review are complete and all permit conditions have been satisfied for all modifications to the M1W ocean outfall required for the Project.
- b. **Monterey County:** encroachment permit(s) for construction of Project pipelines within the coastal zone and within County jurisdiction.
- ~~b-c.~~ **Monterey County Environmental Health:** well drilling permits
- ~~e-d.~~ **Cities of Marina, Seaside, and Sand City:** encroachment permit(s) for construction and operation of Project pipelines within the coastal zone and within the jurisdiction of these entities.
- e. **Transportation Agency of Monterey County (“TAMC”):** approvals necessary for construction and operation of Project pipelines within TAMC rights-of-way.
- f. **Salinas Valley Groundwater Sustainability Agency:** Written verifications from both GSAs that extractions by the proposed wells (1) would not be inconsistent with each Groundwater Sustainability Plan (“GSP”) adopted by the respective GSAs, (2) would not decrease the likelihood of achieving a sustainability goal under each plan, and (3) would not interfere with the production and functioning of existing wells.
- g. **Monterey County Water Resources Agency (“MCWRA”):** Annexation of the CEMEX property into the applicable MCWRA Assessment Zones.
- h. **Monterey LAFCO:** Annexation of the CEMEX property into Marina Coast Water District.

State –

- ~~d-i.~~ **State Lands Commission:** lease(s) of state tidelands for continued use of the Project’s existing test well and of new proposed wells beneath state tidelands.
- ~~e-j.~~ **Central Coast Regional Water Quality Control Board:** a National Pollution Discharge Elimination System (“NPDES”) Permit allowing the discharge of effluent through the M1W outfall and approval to modify that outfall to allow the discharge.
- k. **California Public Utilities Commission (“CPUC”):** final-final CPUC approval for construction of the Project as proposed by Cal-Am, including but not limited to a final and binding CPUC determination in the pending proceeding (A.21-11-024) of

water supply and demand estimates for the Monterey Peninsula Water Supply Project (MPWSP) that there is projected demand by or before 2050 for additional water supply in addition to the Pure Water Market Project Expansion (i.e., the project that would increase the capacity of the previously CPUC-approved Pure Water Monterey project from 3,500 AFY to 5,750 AFY), as well as a final decision by the CPUC issuing Cal-Am a Certificate of Public Convenience and Necessity ("CPCN") for the 4.8 mgd project currently proposed, or any phased approach to the CPCN that was issued by the CPUC in 2018 solely for a 6.4 mgd project.

~~£. Through a reopening of A.12-04-019 or petition for modification of D.18-09-017, final CPUC approval of a modified Return Water Agreement making any of the following parties who wish to join parties to the agreement: MW1, MCWD, ReGen Monterey and Dole with terms addressed in Special Condition 11. CPUC approval for construction of the Project, including but not limited to a final and binding CPUC determination in the pending proceeding (A.21-024) of water supply and demand estimates for the Monterey Peninsula Water Supply Project (MPWSP) that there is projected demand for additional water supply beyond the Pure Water Market Project Expansion (i.e., the project that would increase the capacity of the previously CPUC-approved Pure Water Market project from 3,500 AFY to 5,750 AFY) by or before 2050.~~

Federal –

~~g.l.~~ **Monterey Bay National Marine Sanctuary:** authorization from the Sanctuary to allow discharges into Sanctuary waters and drilling and disturbance of submerged lands within the Sanctuary. This is to include any necessary Biological Opinions from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service or confirmation from the Sanctuary that those Opinions are not required.

Other –

~~h.m.~~ **Other landowners:** authorization from any other landowners within the coastal zone on whose property the Applicant would conduct Project-related construction activities.

~~i.n.~~ **Legal:** a final judgment or other final disposition on the merits of the entirety of the pending action entitled City of Marina v. RMC Lonestar, et al., Monterey County Superior Court No. 20CV001387 (in which the trial court has referred various issues to the Administrative Hearings Office of the State Water Resources Control Board for determination) in favor of defendant, Applicant Cal-Am. Cal-Am shall provide proof of such judgment or disposition to the Executive Director. This permit shall not be issued if the final judgment or disposition determines that (1) the Applicant needs and does not have or cannot feasibly obtain water rights needed to operate the Project or (2) the Project would cause harm to any aquifer of the Salinas Valley Groundwater Basin, or (3) for any reason the Project cannot lawfully operate.
~~final judgment or other final disposition of the entirety of the pending action entitled City of Marina v. RMC Lonestar, et al., Monterey County Superior Court No. 20CV001387 (in which the trial court has referred various issues to the Administrative Hearings Office of the State Water Resources Control Board for determination), Cal-Am shall provide proof of such judgment or disposition to the Executive Director. This permit shall not be~~

~~issued if that judgment or disposition demonstrates that (1) the Applicant does not have, and cannot feasibly obtain, water rights (to the extent applicable) for the Project or (2) Cal-Am's project would cause harm to any aquifer that is a source of drinking water to the City of Marina or the Marina Coast Water District.~~

If any of these approvals or determinations result in changes to the proposed Project that are not evaluated in this CDP, the Applicant submit a complete application to amend this permit ~~unless the Executive Director determines that an amendment is not necessary.~~

2. Project Phasing. ~~This~~ This permit authorizes construction and operation of Phase I of the Project, a 4.8 mgd facility, subject to the CPUC's issuance of a CPCN for such a facility, as described in Condition 1.k, above. To obtain authorization for construction and operation of Phase II, a 6.4 mgd facility, the Applicant shall submit an application for an amendment to this permit that includes all of the following:

- a. Authorization from the CPUC in A.21-11-024, as described in Condition 1.k above, to proceed with the 6.4 mgd facility and any other required approvals.
- b. A detailed description of the proposed development associated with Phase II.
- c. An assessment of coastal resource effects from Phase II, including whether there are any changed circumstances from what was analyzed as part of this CDP review.
- d. Confirmation that the Applicant has submitted all required monitoring reports for the Phase I Project.

~~2. permit authorizes construction and operation of Phase I of the Project. To obtain authorization for construction and operation of Phase II, the Applicant shall submit an application for an amendment to this permit that includes all of the following:~~

~~3. Authorization from the CPUC for the 6.4 mgd facility and any other required approvals.~~

~~4. A detailed description of the proposed development associated with Phase II.~~

~~5. An assessment of coastal resource effects from Phase II, including whether there are any changed circumstances from what was analyzed as part of this CDP review.~~

~~Confirmation that the Applicant has submitted all required monitoring reports for the Phase I Project.~~

~~6. All support and above-ground infrastructure for the 6.4 mgd facility must be installed as part of Phase I to minimize the impacts of Phase II installation activities.~~

The Applicant shall not begin operation of Phase II until the following criteria have been met:

- Phase I has been in full operation for a minimum of two years; and
- All required monitoring reports have been submitted, including the Groundwater Monitoring Report, Wetland Monitoring Report, etc., for a minimum two-year period, to demonstrate that the Project's Phase I has not caused any significant adverse effect on local groundwater supplies for the City of Marina and Marina Coast Water District, wetlands or other coastal

resources.

7.3. Construction Best Management Practices. PRIOR TO STARTING

CONSTRUCTION ACTIVITIES, the Applicant shall provide, for Executive Director review and approval, Construction Plans that address construction methods and Best Management Practices (“BMPs”) of all project components and that include the following:

- a) Construction areas: site plans showing the location of all construction areas, staging areas, fueling areas, and construction access corridors. The areas within which construction activities and/or staging are to take place are to be minimized to the extent feasible to reduce potential impacts to coastal resources.
- b) Construction BMPs: the Plans shall identify the type and location of all erosion control and water quality BMPs that will be implemented during construction to protect coastal water quality. Silt fences, straw wattles, filtration equipment, and other similar materials are to be installed and maintained around the perimeter of all construction areas to prevent construction-related runoff and sediment from discharging directly into storm drains or coastal waters. The Plans shall identify all measures that will be used to keep the construction areas physically separate from public recreational use areas, such as using signage, temporary fencing, or other measures to delineate construction areas. The Plans are to also describe all measures that will be implemented to reduce the effects of construction noise and lighting of areas outside the delineated construction areas.
- c) Equipment BMPs. Electric vehicles and equipment must be used for all components of construction if feasible. Equipment fueling, washing, and maintenance shall take place at a designated hard-surfaced area where any leaks or spills can be contained and collected. All equipment shall be inspected at least daily to identify any leaks or potential leaks promptly. Any fueling and maintenance of mobile equipment conducted on site shall take place at designated areas located at least 50 feet from coastal waters, drainage courses, and storm drain inlets, if feasible (unless those inlets are blocked to protect against fuel spills). Fueling and maintenance areas shall be designed to fully contain any spills of fuel, oil, or other contaminants. Equipment that cannot be feasibly relocated to a designated fueling and maintenance area may be fueled and maintained in other areas of the site, provided that procedures are implemented to fully contain any potential spills.
- d) Good Housekeeping BMPs. The Plans shall describe good construction housekeeping controls and procedures that will be implemented, including cleaning up all leaks, drips, and other spills immediately, keeping materials covered and out of the rain, covering exposed piles of soil and wastes, disposing of all wastes properly, placing trash receptacles on site and covering open trash receptacles during wet weather, and removing all construction debris from the site at least daily.
- e) Construction timing: The Plans are to provide a construction schedule identifying the expected duration of construction and the hours and days construction is expected to occur.
- f) Construction Coordinators. The Plans shall identify one or more designated

construction coordinators at each construction site as the point of contact during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies). The Plan shall provide coordinators contact information, including, at minimum, an email address and a telephone number that will be made available 24 hours a day for the duration of construction and that shall be conspicuously posted at the job site where such contact information is readily visible from areas accessible to the public. The Plan shall require that the coordinators record all complaints received regarding construction activities, including the nature of the complaints, contact information where available (e.g., name, phone number, and email address) and shall require the coordinator to investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry. All complaints and all actions taken in response shall be summarized and provided to the Executive Director upon request.

g) 25 percent of all contracts and goods will be sourced within Monterey County.

h) No less than 80 percent of all construction waste must be recycled.

f)i)

Copies of the approved Plans and of the signed CDP shall be maintained at the appropriate construction site(s) and be available to project personnel and the interested public upon request. All project personnel shall be briefed on the content and meaning of the CDP and the approved Plans prior to their start on project activities.

The Applicant shall implement development in accordance with this condition and the approved Construction Plans. Minor adjustments to the above requirements, as well as to the Executive Director approved Plan, which do not require a CDP amendment or a new CDP ~~(as determined by the Executive Director)~~, may be ~~allowed~~ approved by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not have the potential to adversely impact coastal resources.

8.4. Spill Prevention and Response Plan. PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, the Applicant shall submit, for Executive Director review and approval, Project-specific Spill Prevention and Response Plans that address potential spills or releases of hazardous materials during both project construction and project operations. The Plans shall identify worst-case spill scenarios and demonstrate that adequate spill response equipment will be available. The Plans also shall include preventative measures that will be implemented to avoid spills and measures that will implemented should spills occur. The Plans shall specify responsibilities of contractors and project personnel. The Plans shall identify the location of all on- and off-site spill response equipment (including sorbent materials, booms, etc.) that will be available in the event of a spill, and the protocols and expected response times for deployment. The Plans are to clearly identify responsibilities of project personnel and contractors in the event of a spill and shall include necessary contact information for responsible personnel and involved

emergency response agencies (e.g., Fire Department, U.S. Coast Guard, etc.).

9.5. Closures for Species Protection. Any construction activities at the Project well field or near the beach for outfall modifications shall occur outside of Western snowy plover breeding and nesting season (March 1 through September 30 of any year), ~~unless authorized by the U.S. Fish and Wildlife Service (“USFWS”).~~ Any construction activities within 30 feet of habitat known to be used by Smith’s blue butterfly shall occur outside of the annual butterfly flight season (June 1 to September 15 of any year) ~~unless authorized by the USFWS.~~ All Project maintenance and repair activities shall occur outside these closure periods to the extent feasible. If the USFWS authorizations require any changes to the project as approved herein, the Applicant shall submit a complete application to amend this permit and receive approval from the Commission for those changes, ~~unless the Executive Director determines no amendment is necessary.~~

10.6. Permit Term. This coastal development permit authorizes the approved project slant wells and associated components to be installed and remain on the Applicant’s property within the CEMEX site for a period of 25 years, or until January 1, 2050, whichever occurs first. After such time, the authorization for the continuation and/or retention of these project elements shall cease, unless an extension of the permit term is approved, as set forth below.

No later than two years prior to the end of this permit term, the Permittee shall apply for a new coastal development permit or amendment to this permit to remove, relocate, or rehabilitate these project elements or to modify this term of authorization. This application shall include, at a minimum, the most recent sea level rise projections for the project location, the most recent coastal erosion rates for the location, and the then-current location of site features, including the mean high tide line, foredunes, existing habitat types, and presence of any known or potential sensitive species using the site’s habitat types. The application shall also identify and address changed circumstances and/or unanticipated impacts that have occurred or are reasonably expected to occur during the next 25-year period regarding environmental impacts and coastal hazards, including but not limited to ongoing sea level rise projections and changed projections of known and potential coastal hazards. It shall also describe any changes to coastal resources including those resulting from public access or modifications to site habitat types. Provided the Permittee submits a complete application by this date, the termination date for this permit shall be automatically extended until the time the Commission acts on the new or amended coastal development permit application.

Failure to obtain a new or amended coastal development permit authorizing removal of and/or an additional term to retain the project elements shall cause this development to be in violation of the terms and conditions of this coastal development permit.

Any new or amended coastal development permit authorizing removal of and/or an additional term to retain the project elements must be considered by the full Coastal Commission. Subsequent locations for slant wells will only be considered must be proposed east of the Pacific Coast Highway. This condition runs with the slant wells lifespan or sooner if any well fail to produce.

11.7. Pre-Construction Biological Surveys and Monitoring During Construction.

The Permittee shall enlist one or more qualified biologists acceptable to the Executive Director, to conduct sensitive species pre-construction surveys and to monitor the project site during all construction activities per the following:

- a. **Pre-Construction Biological Surveys.** PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES IN SPECIFIED WORK AREAS, Protocol-level surveys shall be conducted for any species that have been previously documented in the work area, its buffers, or within 0.5-mile, and could be reasonably expected on the basis of other known factors (e.g., habitat suitability). Surveys shall be conducted to at least 100 feet beyond the specified work areas. In the event that the biologist(s) reports finding any sensitive wildlife (within three days or less of intended construction for a specified work area) or plant species (within the preceding bloom season) during the pre-construction surveys, the Permittee shall delay work, implement any pre-approved mitigation measures, and promptly notify the Executive Director as well as CDFW and/or USFWS, as applicable. Project activities may commence upon written approval from the Executive Director, following any necessary consultation with CDFW and/or USFWS. Surveys and mitigating measures shall additionally:
 - i. For western snowy plover, nesting surveys shall be informed by the cumulative and trending record of habitat use from recent years and extend out to 500 feet from the work area.
 - ii. For legless lizards, use a triple-pass method where hand rakes are passed through the upper three inches of soil below the current vegetation layer in areas of appropriate habitat, and each sequential pass should demonstrably locate progressively fewer animals. The first pass shall occur in the early morning, when the species is most readily captured, and an overnight period of no soil disturbance shall be allowed before the second pass. If no animals are found during the second pass, they may be assumed absent and no third pass shall be required. If animals are found during the first or second passes, a third pass shall be required.
 - iii. For all nesting birds, other than western snowy plover and burrowing owls, surveys shall be completed no more than 72 hours prior to the commencement of construction activities and provide for a minimum of 300-ft buffers for non-raptor species and 500-ft buffers for raptor species, unless determined less may be acceptable during consultation with CDFW and/or USFWS, as appropriate. At a minimum, buffers shall not be reduced below 50 feet or 250 feet for non-raptors and raptors, respectively, and noise shall not exceed 65 dBA at any sensitive receptor site. Noise barriers and visual screens

- may be considered, in consultation with the Executive Director.
- iv. For American badgers, surveys shall include areas along the pipeline alignments in vegetation communities where burrows have been previously recorded, including the various scrubs.
 - v. For Monterey dusky-footed woodrats, surveys shall extend out to 100 feet from the specified work area.
 - vi. Include the Executive Director in all relevant natural resource consultations and provide all survey results and supporting documentation, including submissions to other agencies.
- b. **Biological Monitoring During Construction.** PRIOR TO COMMENCEMENT OF CONSTRUCTION EACH DAY, the biologist(s) shall inspect the active project areas to ensure that the day's activities will not result in impacts to sensitive species or encroach on established buffers. The biologist(s) shall document the results of each daily pre-construction survey; the Permittee shall retain and make these available upon request. Construction activities may not commence until any sensitive wildlife species have left the project area and its vicinity and/or any sensitive plant species have been sufficiently protected or salvaged in accordance with the approved final Habitat Mitigation and Monitoring Plan, pursuant to [Special Condition 10](#). In the event that the biologist(s) determines that any sensitive species exhibit reproductive or nesting behavior, the Permittee shall cease work and promptly notify the Executive Director as well as CDFW and/or USFWS, as applicable; construction activities may only resume upon written approval of the Executive Director. If impacts or injury occur to sensitive species, the Permittee shall notify the Executive Director as well as CDFW and/or USFWS and will be advised of the appropriate action or mitigation to be taken.

The biologist(s) shall possess the authority to halt work to prevent any breach in permit compliance occur, or if any unforeseen sensitive habitat issues arise and until they are satisfied that the issue has been resolved. The biologist(s) shall immediately notify the Executive Director if development activities outside of this permit occur and document any incidents requiring the stoppage of work.

12.8. Construction Impact Validation and Compensatory Mitigation Ratios for Habitat. NO LESS THAN 90 DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION IN ANY SPECIFIED WORK AREA, the Permittee shall submit baseline surveys documenting, at a minimum: the physical extent and acreage of all habitats within proposed impact areas; each vegetation community's native species diversity, native species cover, invasive species cover, and the relative cover of dominant native vegetation species; and the vegetation community's age classes and/or size structure distributions. Surveys shall be conducted during the late spring/early summer season when most plant species are blooming and readily identifiable, unless otherwise proposed with clear justification, for review and

approval by the Executive Director. Existing records and documentation shall be considered in conjunction with the new data to establish as comprehensive a baseline as possible. Any sensitive species detections not previously documented in submitted materials shall be clearly reported, including with annotations identifying occurrences as new, and shall be additionally submitted to CDFW and/or USFWS, as appropriate, and to the California Natural Diversity Database (CNDDDB). Photos shall be taken from designated points across the survey area, at spacings and perspectives sufficient to represent existing conditions and support impact evaluations. In addition, post-construction surveys, final impact assessments, and compensatory mitigation requirements shall follow as:

- a. **Post-Construction Surveys.** For each habitat, post-construction surveys shall document, at a minimum: the physical extent and acreage of all impacted habitats, and the activities that occurred within the area, including any vegetation clearance, mortality, or other significant reduction in vegetation cover due to project activities (e.g., pruning), or ground disturbance. Post-construction surveys shall be completed within 90 days of completion of construction activities in a specified work area and for impacts anticipated to be potentially characterized as temporary, additionally document, at a minimum: the dates of initial and final project-related disturbance to the habitat; each vegetation community's native species diversity, native species cover, invasive species cover, and the relative cover of dominant native vegetation species; the vegetation community's age classes and/or size structure distributions; and, photos from the designated points used for pre-construction surveys, to support impact evaluations.
 - i. **Impact Validation Report.** A final report comparing the extent and nature of impacts as estimated by the Permittee in the submitted materials with those actually observed following construction shall be submitted within 30 days of post-construction survey completion, for Executive Director review and approval. The observed impacts, once approved, shall form the basis of the compensatory mitigation obligation. If the observed impacts are significantly greater than what has been assessed as part of the Commission's authorization, a permit amendment will be required to address the discrepancy, unless determined unnecessary by the Executive Director. Any such differences between estimated and observed impacts shall require revision or supplement to the HMMP pursuant to [Special Condition 10](#).
- b. **Temporary Impacts.** Short-term temporary impacts are those that are fully restored within 12 months of initial construction activity disturbance, and long-term temporary impacts are those that may occur for up to a 24-month period from the initial disturbance but require no more than 12 months following the conclusion of construction activity to fully recover. Any impacts that do not meet these timing parameters, significantly disturb the ground (e.g., trenching), or fail to recover vegetation communities to equal or better condition in terms of native diversity, native species cover,

the relative cover of dominant native vegetation species, and vegetation community age classes and/or size structure distributions shall be considered permanent and mitigated for pursuant to sub-section C of this condition. Any impacts determined to qualify as temporary shall be mitigated for at a minimum of 1:1 (short-term) or 1.5:1 (long-term) ratio, and comply with the following terms:

- i. **On-Site Mitigation.** No less than 1:1 of the mitigation shall occur in-kind and on-site, where temporary impacts are observed.
- ii. **Off-Site Mitigation.** For long-term temporary impacts, the balance (0.5:1) shall occur as in-kind mitigation unless no feasible option is available and a clear nexus is identified, subject to Executive Director review and approval. The balance of mitigation acreage shall occur within the geography specified for all compensatory mitigation in [Special Condition 10 \[HMMP\]](#) and where it can be protected in perpetuity.
- iii. **Invasive Species Treatments.** All California Invasive Plant Council (Cal-IPC) -listed species will be removed from temporarily impacted ESHA such that species ranked “high” shall not exceed a total of 1% cover and all ranked invasives shall not exceed a total of 5% cover. If this cannot be achieved by hand, for any herbicide proposed for potential use, the following information shall be provided prior to its use, for review and approval by the Executive Director: rationale for why herbicide(s) would constitute the least environmentally damaging alternative and detail on the specific product(s) that would be used, including certification by the California Department of Pesticide Regulation and allowance for the intended application.
- iv. **Revegetation Requirements.** Any revegetation intended to address temporary impacts shall include, at a minimum, replanting with locally and genetically appropriate native species. Documentation of all plant material sources shall be provided.
- v. **Restoration Report.** Within 30 days of completion of any active restoration work, the Permittee shall submit a post-restoration report documenting the areas where revegetation and invasive species treatments have occurred.
- vi. **Final Short-term Temporary Impact Survey.** Within twelve months of the initial disturbance, the Permittee shall conduct a survey that describes whether areas (physical extents and acreages) identified as short-term temporarily-impacted have returned to their pre-impact condition (or better) by comparison with the baseline condition for each vegetation community, including native species diversity, native species cover, the relative cover of dominant native vegetation species, and the vegetation community’s age classes and/or size structure distributions. Invasive species cover shall also be described. The survey shall be detailed in a report, to be submitted by the Permittee within 30 days

of final survey completion, for Executive Director review and approval. If the survey demonstrates impacts persist or any revegetation effort has been unsuccessful, in part or in whole, any remaining impacts are, by definition, permanent, and shall be mitigated accordingly and shall require revision or supplement to the HMMP pursuant to [Special Condition 10](#). Digital copies of the survey data and associated metadata shall be provided with the reports.

- vii. **Final Long-term Temporary Impact Survey.** Within twelve months of the conclusion of disturbance, the Permittee shall conduct a survey that describes whether areas (physical extents and acreages) identified as long-term temporarily-impacted have been returned to their pre-impact condition (or better) by comparison with the baseline condition for each vegetation community, including native species diversity, native species cover, the relative cover of dominant native vegetation species, and the vegetation community's age classes and/or size structure distributions. Invasive species cover shall also be described. The survey shall be detailed in a report, to be submitted by the Permittee within 30 days of final survey completion, for Executive Director review and approval. If the survey demonstrates impacts persist or any revegetation effort has been unsuccessful, in part or in whole, any remaining impacts are, by definition, permanent, and shall be mitigated accordingly and shall require revision or supplement to the HMMP, pursuant to [Special Condition 10](#). Digital copies of the survey data and associated metadata shall be provided with the reports.
- c. **Permanent Impacts.** All impacts failing to qualify as temporary for any of the above cited reasons shall be recognized as permanent and mitigated for, consistent with the following:
 - i. A minimum ratio of 3:1 for ESHA impacts, where this base ratio assumes compensation as habitat creation or substantial restoration. Alternatively, enhancement or preservation strategies may be proposed at no less than double or triple the base ratio, respectively. No net loss of dune habitat(s) shall be assured by provision of a minimum 1:1 as habitat creation for the total acreage where permanent development will be located (e.g., the slant well pads and access road infrastructure); any remaining balance may be addressed through the various mitigation strategies, with adjustments to the discounted ratio, as described above (e.g., 2:1 may be satisfied via creation or substantial restoration, or as 4:1 via enhancement, or as 6:1 via preservation).
 - ii. All habitat mitigation for permanent impacts, and the 0.5:1 fraction for it, shall occur within areas that are or will be protected, as consistent with [Special Condition 9](#).
 - iii. Mitigation requirements for particular species impacts, as may be

required by other agencies, may be folded into those for ESHA but may not conflict with or otherwise replace the requirements of this permit, and alternatively, may necessitate additional acreage or other requirements.

13.9. Dune Habitat and Open Space Protection. PRIOR TO THE START OF

CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval evidence of existing deed restriction(s) or documentation irrevocably dedicating habitat and open space conservation easement(s) in perpetuity, consistent with the following terms:

- d. **Objective.** Existing restriction(s) and/or conservation easement(s) shall provide for the protection, creation and/or improvement of dune habitat in the subject area(s). At a minimum, the 1:1 dune habitat creation requirement in [Special Condition 8 \[Construction Impact Validation and Compensatory Mitigation Ratios for Habitat\]](#) shall be satisfied by the establishment of new protections over previously unprotected lands and activities necessary to restore natural dune processes at the site(s). Outside the TAMC corridor, any additional areas supporting compensatory mitigation shall be afforded the comparable protections, whether existing or established by necessity of this permit.
- e. **Allowable Uses and Development.** No development, as defined in Section 30106 of the Coastal Act, shall occur within the easement area(s) except for those consistent with ESHA (*e.g., restoration activities, nature study, and low impact recreation*).
- f. **Recordation.** Conservation easement(s) shall be recorded free of prior liens and any other encumbrances that the Executive Director determines may affect the interest being conveyed and shall include formal legal descriptions of the entirety of the parcel, a metes and bounds legal description and graphic depiction, prepared by a licensed surveyor based on an on-site inspection, drawn to scale and approved by the Executive Director, of the dedicated easement area(s). Such easement(s) shall run with the land, binding successors and assigns of the Permittee and the landowner and indicate that the restrictions on the use of the land shall be in effect upon recording and remain as covenants, conditions, and restrictions running with the land in perpetuity.
- g. **Dedication.** The Permittee may dedicate dune habitat and open space conservation easement(s) to another public entity, including State Parks or another land management entity, upon approval of the Executive Director.
- h. **Deadline.** The Executive Director may extend the deadline if they determine that the Permittee has been diligently pursuing the conservation easement, and that the Permittee has demonstrated good cause for any identified delays.

14.10. Habitat Mitigation and Monitoring Plan. PRIOR TO PERMIT

ISSUANCE, the Permittee shall submit two copies of a final Habitat Mitigation and Monitoring Plan (HMMP) prepared by a qualified restoration ecologist to the

Executive Director for review. If the Executive Director determines the plan is adequate and complies with the requirements specified herein, the Executive Director shall submit the plan to the Coastal Commission for approval and written approval at a public hearing. Impact acreages, which shall be the basis of compensatory mitigation requirements, are estimated in the materials submitted on October 24, 2022 and shall be finalized per **Special Condition 8.** The HMMP will, at a minimum, address impacts to the Portuguese Shelf, vernal ponds, Dune Sand Aquifer, Salinas River impound, and mitigation for loss of agricultural land.

- i. **Compensatory Mitigation Options.** Compensatory mitigation requirements for habitat impacts may be satisfied by either of the following alternatives, or combination thereof, with the exception of the dune creation requirement to achieve no net loss of dune acreage, which must be fulfilled on lands not yet protected and contribute significantly to the restoration of coastal dune processes:
 - i. **Protection and Improvement of Unprotected Lands.** Lands that presently support or would appropriately support dune habitat(s) following habitat improvement activities may be acquired or otherwise moved into protection from future development threats (e.g., conservation easement), for the purposes of habitat conservation. Such lands may be of singular or multiple nature, include sites of variable habitat condition, and involve acquisition, restoration or enhancement activities as part or all of the compensation due for habitat impacts and losses associated with the permitted project. Newly protected but unimproved lands will qualify as preservation whereas protected and improved lands may qualify for credit as restoration or enhancement, if approved by the Executive Director Commission at a public hearing.
 - ii. **Improvement of Protected Lands.** Lands that presently support or would support dune habitat(s) following habitat improvement activities, and which occur on lands already protected for the purposes of habitat conservation, may be restored or enhanced with agreement and coordination with the landowner and Executive Director. In such case, the landowner may specify the acreage available and terms of agreement between the Permittee and landowner. Land already obligated to other regulatory requirements, including but not limited to prior Commission decisions, legal obligation, and Habitat Conservation Plans, shall not be considered available as compensation for this project unless the work would demonstrably exceed those obligations and provide mitigation determined by the Commission at a public hearing ~~Executive Director~~ to be not otherwise available. The landowner shall be included in all discussions concerning site restoration priorities, goals and objectives, methods, maintenance, etc. The Executive Director shall review and approve any tentative agreement between the Permittee and landowner prior to the Commission's and its execution, to ensure that all terms are

consistent with the requirements of this and other Special Conditions.

- ~~iii. **In-Lieu Fees.** A fee of \$250,000 per acre of required restoration shall be assessed and paid into an interest-bearing account to be established and managed by a government or non-governmental organization as approved by the Executive Director, for the sole purpose of financing dune habitat protection, restoration, and related activities in the region not otherwise already provided for. If a suitable account to accept and administer in-lieu fee funds for dune habitat in the region does not already exist, the Permittee shall be responsible for facilitating the development and initiation of such an account, including through the provision of funds to establish the account. Any additional costs associated with administering the prescribed fees for habitat benefit shall be the responsibility of the Permittee. For each year between the time of Commission approval and the payment of any in-lieu fees, the cost per acre shall be adjusted by any increase in the consumer price index applicable to the Monterey region. All of the habitat-directed funds and any accrued interest shall be used as consistent with the above stated purposes, in consultation with the Executive Director. NO LESS THAN 90 DAYS PRIOR TO PERMIT ISSUANCE, if insufficient acreage has been secured by the Permittee for either protection or improvement, the balance shall be assessed as a non-refundable in-lieu fee per the terms above. Evidence of all fees having been received into an approved account shall be provided PRIOR TO PERMIT ISSUANCE.~~

Any and all lands that would be protected and/or improved shall occur within the coastal zone, in dune habitats situated between the southern boundary of the Salinas River and northern boundary of the City of Monterey, and west of Highway 1. ~~Any in-lieu fees that would be paid as compensation shall be applied to the protection and improvement of dune habitats in this same geography.~~ Any and all lands that would support compensatory mitigation requirements, including those that would be protected or improved using in-lieu fees, shall be subject to the requirements of [Special Condition 9](#) with the sole exception being for temporary impacts that would be restored on-site and in-kind within the TAMC corridor.

- j. **Plan Components.** The final HMMP shall include, at a minimum, each of the following components and may necessarily be structured to address multiple mitigation sites:
- i. **Introduction.** Description of the HMMP purpose including an overview of the proposed project associated with the HMMP; a summary of impacts for which the HMMP is intended to mitigate; identification of the general mitigation strategies to be used; the proposed on-site and off-site mitigation locations; and the mitigation areas intended to compensate for each affected resource.

- ii. **Mitigation Goals and Objectives.** Statement of mitigation goals, including the desired habitat type(s), major vegetation components, and sensitive species and wildlife support functions; description of the desired habitat with rationale, to be based on a high functioning reference site where feasible and alternatively, derived from literature describing either the site's historic conditions or "typical" regional habitat conditions; specific, actionable objectives to support stated goals; and a detailed timeline laying out all major activities including any outstanding preliminary work such as surveys, site preparation, mitigation implementation including revegetation activities, interim and final monitoring periods, etc.
- iii. **Description of Existing Habitat(s).** Separate sections describing each of the impacted native habitat types including coastal dune, coastal scrub, and mixed chaparral habitat; final figures, maps, and related information depicting existing ecological resources; and specification of impacts for which the HMMP is intended to mitigate.
- iv. **Design Plans and Construction Methods.** Specification of final mitigation site design and construction methods consistent with identified goals and objectives, including but not limited to:
 - 1. **Mitigation Design.** Detailed plans showing final topography, vegetation, and any other significant features characteristic of the intended habitat; and how these connect to the surrounding environment.
 - 2. **Site Preparation.** Methods and plans for salvage of any plant and/or seed material (including collection from impact areas, storage, relocation, and/or reestablishment); salvage of any topsoils to be stock-piled and reused in the mitigation area; any demolition, debris removal, grading, decompaction, soil amendment, or other substrate-affecting activities; erosion control measures; and treatment of invasive species.
 - 3. **Best Management Practices.** Detailed list of all BMPs that will be implemented as part of project implementation, including triggers for further or remedial action.
 - 4. **Revegetation Plans.** Details on plant palettes; stocks and seed mixes; material sourcing including verification of local and genetically appropriate nature; any proposed irrigation including rationale, method, and schedule; and provisions for removal of any temporary infrastructure following plant establishment.
- v. **As-Built Report.** Provision that eight (8) weeks following completion of mitigation site construction and revegetation activities, an as-built report summarizing mitigation activities to-date, a description of consistency with approved plans, documentation of acreage treated, maps and descriptions any temporary infrastructure installed, photos taken from fixed points,

and a description of consistency with all terms and conditions, to be submitted to the Executive Director.

- vi. **Invasive Species Control.** Provision for continued control of all California Invasive Plant Council-listed species and description of monitoring and control methods. If any herbicide is proposed for potential use, rationale for why it would constitute the least environmentally damaging alternative and detail on the specific product(s) that would be used, including its certification by the California Department of Pesticide Regulation and allowance for the intended application.
- vii. **Monitoring Plan.** Detailed plan for quantitatively monitoring the condition and progress of the mitigation site during both the initial mitigation phase as well as over the long-term at reduced frequency and intensity; performance relative to set criteria, as informed by robust sampling and statistics; triggers for adaptive management action; and reporting. Specifically:
 - 1. **Monitoring Frequency.** During the initial phase of no less than five (5) years or three (3) years following cessation of all remedial measures except weeding, whichever is longer, quantitative monitoring at least once per year during the period of rapid plant growth and flowering, generally in spring or early summer, unless a clear rationale for otherwise is fully presented. Following the determination that success criteria have been met, long-term monitoring to inform maintenance and adaptive management shall occur at a frequency of no less than five (5) years.
 - 2. **Success Criteria.** Final success criteria supported by interim criteria, the latter of which are intended to serve as benchmarks and guide adaptive management, whereas the former will enable measure of mitigation success. Criteria shall have a clear empirical basis (i.e., reference sites and/or published technical literature appropriate for the local area) and generally include representativeness of target vegetation communities (e.g., species composition, cover, structure, diversity, and presence of major structure-producing and habitat-defining species); physical parameters such as topography, bare substrate, and hydrology; and target wildlife support functions or usage. Criteria may be fixed values where there is a strong empirical basis, but, where feasible, should be relative to high-functioning reference sites in order to account for environmental variability. Reference sites should be located within the geography identified in subsection (a) of this condition and be similar to the mitigation site with regard to soil type, aspect, slope, and other relevant abiotic characteristics, and shall be identified, sampled, and quantitatively described as

a component of the monitoring plan. Invasive species ranked by the Cal-IPC as “high” shall not exceed a total of 1% cover, and all ranked invasives shall not exceed a total of 5% cover.

3. Performance Assessment. Methods for judging mitigation success shall include supporting rationale for their selection and be specified in terms of the type(s) of comparison, including whether relative to fixed criteria or reference sites; identification of any reference sites that will be used; test(s) of similarity; specification of the maximum allowable difference or effect size between the mitigation value and the reference value for each success criterion; and where statistical tests will be employed, statistical power analyses to document that the planned sample sizes will provide adequate power to detect maximum allowable differences. For such a test, alpha must equal beta; these values are typically 0.10 or 0.20, depending on the expected natural variability of the variables of interest.

4. Sampling Design. The field sampling program shall be designed in conjunction with the success criteria and selected methods of assessment. The sampling design and methods shall provide sufficient detail to enable an independent scientist to duplicate them, including a description of the randomized placement of sampling units, sampling unit size, planned number of samples, etc.

viii. **Reporting.** Monitoring of and reporting on the mitigation site shall occur annually for no less than five (5) years, and for at least three (3) years following the conclusion of all remediation and maintenance activities other than weeding, whichever is later. All reports shall be prepared by a qualified restoration ecologist and be submitted to the Executive Director for review and approval, no later than December 31st of each year. Raw data and associated metadata shall be delivered with all reports (in digital format).

1. **Annual Monitoring.** Beginning the year after the mitigation project has been installed, annual monitoring reports shall be due each year, including photos taken from fixed points; assessment relative to interim success criteria; a work plan for the subsequent year; and specific recommendations to adaptively manage the effort and facilitate mitigation success. Once a monitoring report is approved by the Executive Director, recommendations identified in the report shall become prescriptive unless otherwise advised in writing.

2. **Final Annual Monitoring Report.** A final monitoring report shall be submitted at the conclusion of all mitigation efforts, no sooner than five (5) years following mitigation

- implementation and summarize all prior reports; provide a detailed timeline of the overall progress and success; and include sufficient detail to evaluate comprehensive mitigation compliance with the specified goals, objectives, and success criteria set forth in the approved HMMP.
3. **Long-Term Monitoring Reports.** Associated with the long-term monitoring, reports shall be provided to summarize results, document any management actions that have been taken on the mitigation site, and any recommendations for management action going forward.
- ix. **Long-Term Maintenance and Adaptive Management.** If a long-term monitoring report indicates that there has been substantial decline in the condition of the mitigation site, adaptive management shall be implemented to resolve this issue(s) to the extent feasible.
- x. **Provision for Possible Further Action.**
1. **Impact Validation.** If final post-construction impact validation surveys or temporary impact performance assessments pursuant to [Special Condition 8](#) indicate that additional compensatory mitigation is necessary, in part or in whole, the Permittee shall submit within 90 days a revised or supplemental HMMP to compensate for those increases relative to the original estimates. The revised or supplemental HMMP(s) shall be prepared by a qualified restoration ecologist approved by the Executive Director and shall specify plans to compensate for the additional acreage consistent with all requirements of this Special Condition, to be reviewed and approved by the Executive Director. The revised HMMP may be processed administratively by the Executive Director, unless the Executive Director determines that an amendment to the original CDP is necessary.
 2. **Non-performance.** If the final annual monitoring report indicates that the mitigation effort has been unsuccessful, in part or in whole, based on the approved success criteria, the Permittee shall submit within 90 days a revised or supplemental HMMP to compensate for those portions of the original program which did not meet the approved success criteria. The revised or supplemental HMMP(s) shall be prepared by a qualified restoration ecologist approved by the Executive Director and shall specify measures to remediate those portions of the original approved HMMP that have failed or have not been implemented in conformance with the original approved HMMP. These measures, and any subsequent measures necessary to carry out the approved revised or supplemental HMMP, shall be carried out in coordination with the direction of the Executive Director until the approved revised or supplemental HMMP is established

to the Executive Director's satisfaction. The revised HMMP may be processed administratively by the Executive Director, unless the Executive Director determines that an amendment to the original CDP is necessary.

- xi. **Partnering Agencies and/or Subcontractors.** The Permittee remains responsible for meeting all CDP terms and conditions, including funding of the full cost and implementing all measures to minimize and fully mitigate project impacts to coastal dune, coastal scrub, and mixed chaparral habitat. If the Permittee elects to enter into a binding agreement with a third-party agency or land management entity to carry out all or a portion of these HMMP requirements, the Permittee shall submit draft agreement provisions to the Executive Director for review and approval prior to finalizing any such agreements.
- xii. **Consistency.** The Permittee or the approved third-party entity shall undertake development in accordance with the approved HMMP. The Executive Director may approve minor adjustments to these terms if the Executive Director determines that the adjustments (1) are de minimis in nature and scope, (2) are reasonable and necessary, (3) do not have the potential to adversely impact coastal resources, and (4) do not legally require an amendment.

~~15.11.~~ **Groundwater Protection.** The Applicant shall install the Project's slant wells to extend at least 1,000 feet seaward of the proposed well head locations and shall screen the wells so they extract from the 180-Foot Aquifer as far seaward as is feasible only in the portions of the aquifer seaward of the mean high tide line and without penetrating the 400-Foot Aquifer. Any proposed changes to this approved installation ~~must be reported to the Executive Director for a determination as to whether those changes would require~~ an amendment to this permit.

PRIOR TO ISSUANCE OF THIS PERMIT, the applicant shall submit documentation from the following entities of final approvals, permits, and determinations required for the proposed Project or documentation from those entities that no further permits or approvals are required to comply with:

- a. Align with goals of the 180/400-Foot Aquifer Subbasin GSP and the Monterey Subbasin GSP
- b. Fund all necessary modifications to the Salinas Valley Seawater Intrusion Model (SWI) and assessment of project impacts to the 180/400-Foot Aquifer Subbasin, the Monterey Subbasin, and any groundwater users.
- c. Leave 10 percent of all production in the Seaside groundwater basin until sustainable levels are reached
- a. Comply with SVBGSP and MCWDGSP
- b. Fund all necessary modifications to the SVBGSP and MCWDGSP to include

the project in the modeling for all groundwater basins

Implement the 20XX Leffler Groundwater Management Plan

Leave 10 percent of all production in the Seaside groundwater basin until sustainable levels are reached

Reduce production to 50 percent until the 180/400 Foot Aquifer meets its MO and MT (i.e., sustainability). If MO and MT are not reached by year 10 of the permit term, reduce production by an additional 10 percent every year until MO and MT are achieved

16.12. Monitoring and Remedial Measures to Protect Groundwater.

PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall provide, for Executive Director review and approval, a Groundwater Monitoring Plan intended to ensure the Project's source water pumping does not adversely affect the aquifers that are a source of drinking water to the City of Marina and the Marina Coast Water District. The Plan shall include the following:

- a) A fifty million dollar (\$50,000,000) bond for the relocation of MCWD supply wells where TDS exceeds 600 mg/l TDS during the permit term. If and when a MCWD supply well exceeds 600 mg/l Cal-Am will provide, at no cost to MCWD, supplemental water equal to the maximum pumping capacity of that well until it is replaced by Cal-Am.
- b) A detailed description, including maps and diagrams of area aquifers, including those the Applicant would rely upon for the Project's source water and those relied upon by the City and Water District for drinking water. The description shall identify all known existing monitoring or production wells screened within each aquifer. It shall also identify any known existing groundwater monitoring (water level and water quality) that is currently occurring and the availability of the data.
- c) A narrative characterization of all known sources affecting these aquifers (e.g., existing withdrawals for municipal or agricultural purposes, precipitation rates, seasonal variations, inputs or outputs from surface water features, etc.) and the extent of any known existing contamination sources (e.g., locations and rate of seawater intrusion, contaminant plumes, etc.). It shall also describe the known or expected degree that these sources affect the aquifers.
- d) A comprehensive groundwater monitoring program designed to assess how the Project's proposed source water pumping could affect the quality and availability of freshwater within the aquifers relied upon by the City and Water District as sources of drinking water. This program shall include the following components:
 - i. Cal-Am will construct MCWD monitoring wells at locations identified by MCWD as described below and provide four hundred thousand dollars (\$400,000) annually to MCWD for monitoring expenses. These wells shall be constructed in addition to the planning monitoring wells in the 2019 Integrated Coastal Groundwater Monitoring Program and Plan (Prepared by Martin Feeney for MCWRA, May 2019). This amount shall be adjusted for inflation annually based on the CPI. The monitoring program shall include nested or multi-port monitoring wells in at least five locations (1) along the 180/400-Foot

- Aquifer Subbasin and Monterey Subbasin boundary and (2) close to the coastline in the Monterey Subbasin. Monitoring data shall be collected at each location from at least three depth intervals specified by MCWD in the affected aquifers including but not limited to the Dune Sand, upper 180-Foot, and lower 180-Foot aquifers.
- ii. Statement of monitoring goals to ensure that the monitoring will adequately identify the percentage of seawater extracted by the Project, will detect any change in the rate of seawater intrusion that the Project might induce, and will provide sufficient time to modify Project operations if monitoring identifies potential harm to the aquifers from those operations.
 - iii. A description of monitoring and other measures that will be implemented to establish baseline conditions. This shall include identification of proposed well locations and methods to be used to collect data, existing data to be used, measures to ensure the baseline conditions are sufficient to identify changes that occur from seasonal and water year type variations. Baseline data shall be collected for at least one year before Project pumping begins.
 - iv. A description of monitoring methods and frequency to be implemented during Project operations, including the locations and depths of existing or proposed monitoring wells, methods of data collection and review (including frequency of data review), data management and storage, and intended purpose of the data being collected, and shall describe the analyses to be conducted to determine whether adverse effects are likely to occur. All monitoring data collected by the Applicant pursuant to this permit shall be publicly available and posted on the Applicant's website in a clear and conspicuous manner.
 - v. Monitoring frequency should be adequate to characterize relevant scales of variability and should be conducted for the life of the project. Monitoring shall commence no later than one year after approval (regardless of any pending conditions) and no less than two (2) years immediately prior to operations of project slant wells. Monitoring data collected before Project operations (i.e., baseline data) will be used to establish baseline conditions in the vicinity of the project. Monitoring frequency shall be no less than once per quarter and shall be increased to monthly at wells where a continued increasing trend of total dissolved solids or any other relevant water quality constituents is identified. All plant SCADA information will be shared in real-time with M1W and MCWD. All well sampling data collected by Cal-Am will be made available to MCWRA, MCWD, and M1W..
 - vi. Proposed thresholds or criteria for total dissolved solids and any other relevant water quality constituents as well as groundwater levels that will be used to indicate or predict potential harm to local groundwater supplies consistent with monitoring goals described in (a). Exceedance of thresholds indicating expansion of seawater intrusion shall be defined as TDS or chloride concentration increase by 50 percent or more compared to baseline concentrations at any monitoring well. Baseline concentrations are calculated as the average TDS or chloride concentration during the monitoring period before operation of project slant wells. The Plan shall be approved by the Commission at public hearing.

- vii. Proposed remedial measures and operational controls that could be implemented should any of the above thresholds be reached. Remedial measures for thresholds indicating a lower level of concern may include further in-depth studies to investigate why a particular threshold has been reached. The proposed remedial measures shall include (1) procedures for immediate notification to the Executive Director if Applicant discovers any exceedance of a threshold or criteria established pursuant to this Special Condition and (2) gradually reduce pumping from Project wells and reduce Project production while continue monitoring for aquifer response. If any of the above thresholds be reached, Project pumping and production shall be immediately reduced by 10 percent every twelve months until the constituent of concerns falls below the threshold. Other remedial measures may include, but are not limited to, repair and maintenance of existing intake or groundwater supply wells, relocation or redrilling of intake wells, groundwater recharge or similar projects implemented in partnership with affected water supply providers, or other measures to address groundwater quality or supply concerns. All remedial measures shall include timelines for implementation and reporting requirements to the Executive Director.
- e) Annual reporting: The Plan shall include a provision for annual reporting of groundwater monitoring results. The annual report shall be submitted to the Executive Director as well as posted on a publicly accessible website and shall include annual results as well as results from previous years. The report shall also discuss comparison of annual data and/or multi-year data (if appropriate) to the thresholds identified in subsection (d), a discussion of planned remedial measures and the success of any previously implemented remedial measures, and an overall assessment of achievement of the monitoring goals set out in subsection (a).
- a) The Applicant shall provide the funding necessary to allow the Executive Director to hire one or more independent third-party reviewers to evaluate the proposed Plan and to recommend any changes to the Plan necessary to ensure it is adequately protective of the aquifers used by the City and Water District. The Executive Director shall provide a copy of the plan to the City and Water District and provide them with at least 30 days to provide comments on the Plan. If, after any Executive Director approval of the Plan, new information becomes available to the Applicant demonstrating that less stringent criteria (e.g., Total Dissolved Solids, salinity concentrations, etc.) are adequately protective of sources of drinking water in the relevant aquifers, the Applicant may seek an amendment to this permit.
Maintain \$50M bond for the relocation of MCWD supply wells where TDS exceeds 600 mg/l TDS during the permit term. If and when a MCWD supply well exceeds 600 mg/l Cal-Am will provide, at no cost to MCWD, supplemental water equal to the maximum pumping capacity of that well until it is replaced by Cal-Am.
- b) A detailed description, including maps and diagrams of area aquifers, including those the Applicant would rely upon for the Project's source water and those relied upon by the City and Water District for drinking water. The description shall identify all known existing monitoring or production wells screened within

- ~~each aquifer. It shall also identify any known existing groundwater monitoring (water level and water quality) that is currently occurring and the availability of the data.~~
- ~~c) A narrative characterization of all known sources affecting these aquifers (e.g., existing withdrawals for municipal or agricultural purposes, precipitation rates, seasonal variations, inputs or outputs from surface water features, etc.) and the extent of any known existing contamination sources (e.g., locations and rate of seawater intrusion, contaminant plumes, etc.). It shall also describe the known or expected degree that these sources affect the aquifers.~~
 - ~~d) A comprehensive groundwater monitoring program designed to assess how the Project's proposed source water pumping could affect the quality and availability of freshwater within the aquifers relied upon by the City and Water District as sources of drinking water. This program shall include the following components:~~
 - ~~i. Cal Am will construct 10 MCWD monitoring wells at locations identified by MCWD and provide \$400,000 annually to MCWD for monitoring expenses.~~
 - ~~ii. Statement of monitoring goals to ensure that the monitoring will adequately identify the percentage of seawater extracted by the Project, will detect any change in the rate of seawater intrusion that the Project might induce, and will provide sufficient time to modify Project operations if monitoring identifies potential harm to the aquifers from those operations.~~
 - ~~iii. A description of monitoring and other measures that will be implemented to establish baseline conditions. This shall include identification of proposed well locations and methods to be used to collect data, existing data to be used, measures to ensure the baseline conditions are sufficient to identify changes that occur from seasonal and water year type variations. Baseline data shall be collected for at least one year before Project pumping begins.~~
 - ~~iv. A description of monitoring methods and frequency to be implemented during Project operations, including the locations and depths of existing or proposed monitoring wells, methods of data collection and review (including frequency of data review), data management and storage, and intended purpose of the data being collected, and shall describe the analyses to be conducted to determine whether adverse effects are likely to occur. All monitoring data collected by the Applicant pursuant to this permit shall be publicly available and posted on the Applicant's website in a clear and conspicuous manner. Monitoring frequency should be adequate to characterize relevant scales of variability and should be conducted continuously for at least the first two years. If continuous monitoring is not feasible, the Plan shall include a justification explaining why.~~
 - ~~v. Proposed thresholds or criteria for total dissolved solids and any other relevant water quality constituents as well as groundwater levels that will be used to indicate or predict potential harm to local groundwater supplies consistent with monitoring goals described in (a). The criteria or thresholds will be established through an appropriate statistical analysis prepared by the Applicant, and the analysis shall identify the methods to evaluate any statistically significant deviations from the baseline data. The Plan shall include a justification for each proposed threshold.~~

- ~~vi. A description of model validation to be conducted. This shall include methods to incorporate the above-referenced baseline data and subsequent operational data into the Project's modeling to assess the ability of the model to accurately predict groundwater conditions and identify what, if any, changes can be made to improve its reliability. Model validation shall also incorporate available and relevant Aerial Electromagnetic survey data and modeling into the proposed model validation, as appropriate.~~
- ~~vii. A description of data analyses to be performed to assess impacts to local aquifers including a comparison of monitoring results to baseline conditions and the thresholds described above. If this involves updated groundwater modeling, provide a description of the proposed models, proposed statistical analyses to be conducted, and how monitoring data will be used. As part of the statistical evaluation, the monitoring data collected will be used to evaluate statistically significant deviations from monitoring criteria or thresholds compared to background levels.~~
- ~~viii. Proposed remedial measures and operational controls that could be implemented should any of the above thresholds be reached. Remedial measures for thresholds indicating a lower level of concern may include further in-depth studies to investigate why a particular threshold has been reached. The proposed remedial measures shall include procedures for immediate notification to the Executive Director if Applicant discovers any exceedance of a threshold or criteria established pursuant to this Special Condition. Other remedial measures may include, but are not limited to, reduced or no pumping from one or more wells, repair and maintenance of existing intake or groundwater supply wells, relocation or redrilling of intake wells, groundwater recharge or similar projects implemented in partnership with affected water supply providers, or other measures to address groundwater quality or supply concerns. All remedial measures shall include timelines for implementation and reporting requirements to the Executive Director.~~
- ~~e) Annual reporting: The Plan shall include a provision for annual reporting of groundwater monitoring results. The annual report shall be submitted to the Executive Director as well as posted on a publicly accessible website and shall include annual results as well as results from previous years. The report shall also discuss comparison of annual data and/or multi-year data (if appropriate) to the thresholds identified in subsection (d), a discussion of planned remedial measures and the success of any previously implemented remedial measures, and an overall assessment of achievement of the monitoring goals set out in subsection (a).~~

~~The Applicant shall provide the funding necessary to allow the Executive Director to hire one or more independent third-party reviewers to evaluate the proposed Plan and to recommend any changes to the Plan necessary to ensure it is adequately protective of the aquifers used by the City and Water District. If, after any Executive Director approval of the Plan, new information becomes available to the Applicant demonstrating that less stringent criteria (e.g., Total Dissolved Solids, salinity~~

~~concentrations, etc.) are adequately protective of sources of drinking water in the relevant aquifers, the Applicant may seek an amendment to this permit unless the Executive Director determines that an amendment is not needed.~~

17.13. Wetlands and Vernal Pond Adaptive Management Program. PRIOR TO PERMIT ISSUANCE, the Applicant shall submit a Wetlands and Vernal Pond Adaptive Management Program, for review and approval by the Executive Director. The Applicant shall provide the funding necessary to allow the Executive Director to hire one or more independent third-party reviewers to evaluate the proposed Plan and to recommend any changes to the Plan necessary to ensure it is adequately protective of area wetlands and vernal ponds. This program will be administered by MCWD and funded by Cal-Am at a cost of \$50,000 annually. This amount shall be adjusted for inflation annually based on with CPI.

The Plan shall provide for the following:

- a. Data collection and monitoring during Project operations of wetlands and vernal ponds within, at a minimum, the Project's drawdown zone plus a buffer area extending a distance of at least 50% beyond the edge of the drawdown zone. The Program shall identify the wetland areas to be monitored within this zone. If there is evidence that wetland areas outside this specified monitoring area could be affected by pumping, these wetland areas should also be included in Program. The data collection shall occur annually for no less than two (2) years immediately prior to operations and the first five (5) years following commencement of operations. For vernal ponds and all other wetland types within the monitoring area, appropriate reference sites shall be required to the extent feasible, and monitoring parameters shall include, at a minimum: evaluation of wetland extent consistent with the Commission's regulations; depth of surface water; depth of saturation; depth to groundwater; characterization of other potential hydrologic inputs; hydroperiods (including duration and timing); water temperature and salinity; characterization of vegetation communities and their relative extents and conditions (e.g., stressed, healthy); root zone depth; and surveys for rare or otherwise sensitive plant and wildlife species. Remote-sensing along with on-the-ground monitoring efforts shall be used. Wetland delineations shall be completed annually. The annual results of Stage 1 shall be submitted to the Executive Director for review and approval by December 31 of each year. Subject to the Executive Director's review and approval, if at the end of the data collection period the results clearly demonstrate that there is no connection between the Project's pumping and the wetlands and/or vernal ponds within the Project's drawdown Project zone and buffer area, the Permittee's requirements under the Wetland and Vernal Pond Adaptive Management Program will be satisfied.

If at any time during the five (5) years of supplemental data collection, the results of Stage 1 suggest that there is a connection between the Project's pumping and the

wetlands and/or vernal ponds within the Project's drawdown and buffer zones, the Permittee shall develop a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan (Plan) to address any, and all, prior and future impacts. The Permittee shall apply for and obtain the Commission's approval of the Plan in the form of an amendment to this permit.

18.14. No Future Shoreline Protective Device.

- a) By acceptance of this permit, the Applicant agrees, on behalf of itself and all other successors and assigns, that no shoreline protective device(s) shall be constructed to protect the wellheads and related development approved pursuant to Coastal Development Permit No. 9-20-0603 in the event that the development is threatened with damage or destruction from flooding, waves, erosion, storm conditions, sea level rise, or other natural hazards in the future. By acceptance of this permit, the Applicant acknowledges that the project is new construction for which there is no right to construct shoreline protective devices, and hereby waives, on behalf of itself and all successors and assigns, any rights to construct such devices that may exist under applicable law.
- b) By acceptance of this permit, the Applicant further agrees, on behalf of itself and all successors and assigns, that the landowner(s) shall remove the development authorized by this permit if: (a) any government agency has ordered that the structures are not to be occupied due to coastal hazards, or if any public agency requires the structures to be removed; (b) essential services to the site can no longer feasibly be maintained (e.g., utilities, roads); (c) the development is no longer located on private property due to the migration of the public trust boundary; (d) removal is required pursuant to LCP policies for sea level rise adaptation planning; or (e) the development would require a shoreline protective device to prevent a-d above.
- c) In the event that portions of the development fall to the beach before they are removed, the landowner(s) shall remove all recoverable debris associated with the development from the beach and/or ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit. Prior to removal, the Applicant shall submit two copies of a Removal Plan to the Executive Director for review and written approval. The Removal Plan shall clearly describe the manner in which such development is to be removed and the affected area restored so as to best protect coastal resources, including the beach and Pacific Ocean.

19.15. Assumption of Risk, Waiver of Liability, and Indemnity. By acceptance of this permit, the Applicant acknowledges and agrees (i) that the site may be subject to hazards from tsunamis, storm waves, surges, and erosion; (ii) to assume the risks to the Applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees

with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

20.16. Reporting of Environmental Justice Benefits. The Applicant shall submit an annual report to the Executive Director that describes and provides the status of all Project-related measures meant to reduce Project costs to low-income ratepayers. These shall include, but are not limited to:

- ~~Develop/construct an OSEN passive cultural facility at the public access entrance site.~~
- ~~Give OSEN access authority into and onto the well easement for cultural purposes (e.g., ceremony and species collection)~~
- ~~Execute franchise agreement with the City of Marina equal to 0.5% of the project value effective through the term of the agreement.~~
- At Cal-Am's cost, the City of Marina shall develop, construct, and maintain a passive cultural facility focusing on the importance of a diverse and inclusive culture to be located at the public access entrance to the restored CEMEX property. Cal-Am shall also provide a dedicated public access easement for cultural and other public purposes.
- All measures taken to enroll additional ratepayers into the Applicant's Customer Assistance and Low-Income Ratepayer Assistance programs, including the number and percentage of customers enrolled.
- All measures implemented to provide low- or no-cost purchase and installation of low-flow water fixtures (e.g., sink and bath faucets, showerheads, toilets, etc.), including the number of each type of fixture installed.
- The status of all requested or required CPUC proceedings meant to reduce costs to low-income ratepayers.
- All measures implemented to ensure that once deliveries of desalinated water from the Project start, ratepayers enrolled in these programs are subject to a rate increase of no more than \$10.00 per month for any costs associated with the delivery of desalinated water from the Project for a period of at least five years after start of those water deliveries.
- A description of outreach activities to low-income ratepayers to inform them of the cost-saving measures.

21.17. Community Engagement and Public Access Plans and Implementation. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Applicant shall submit, for review and approval by the ~~Executive Director~~Coastal Commission, a Community Engagement Plan that ensures residents and representatives of the City of Marina will be equitably engaged in development of a revised Public Access and Amenities Plan. In addition to Commission approval of the Plan, Cal-Am shall obtain any CDPs necessary to implement the plan.

The Community Engagement Plan is to describe how the Applicant will provide opportunities for Marina community members to identify public access priorities and

projects for the benefit of Marina residents. It shall:

- a. Describe a community engagement strategy using community-centered and culturally relevant engagement and outreach methods (e.g., communication with multiple forms of media and in relevant languages, various methods to participate, such as in person meetings, online options, mail-in surveys, etc.) Materials developed to implement the Plan shall be provided in plain language to prevent cultural or educational barriers from preventing or reducing public participation.
- b. Includes a schedule and agendas for at least five community workshops within the City to allow community input on preferred public access opportunities and improvements. Workshops shall be noticed at least one month in advance and shall include benefits to ensure maximum participation, such as free parking, childcare options, refreshments, translation services, and others.

Upon ~~Executive Director~~Coastal Commission approval of the Plan and any CDPs necessary to implement the plan, the Applicant shall implement it as approved to prepare a Public Access and Amenities Plan based on preferences expressed in the Community Engagement Plan. This Access Plan shall include:

- a. A description of all access amenities to be provided.
 - The Applicant will develop within the facility and make available to the public the necessary public space to seat no less than 100 persons for a single event. Facilities will be available to the public during business hours.
 - The entire project will consider all spaces ADA accessible and develop the necessary improvements to accommodate all persons with disabilities.
 - The Applicant will provide the necessary infrastructure to allow onsite bulk water sales to the public.
 - The Applicant shall pay \$75,000 to MCWD for Marina-Ord Conservation Programming to be used at MCWD's discretion and escalated annually by the CPI.
- b. Identification of all reviews, permits, and approvals that may be needed to implement these amenities.
- c. A proposed schedule to complete implementation, which shall ensure amenities are provided within five years of issuance of this permit.

22.18. Cultural Resource Monitoring During Construction. Prior to construction, the Applicant (or its designee) shall retain a Cultural Resource Specialist ("CRS") that meets the minimum qualifications of the U.S. Secretary of Interior Guidelines (NPS 1983). Prior to construction, the Applicant (or its designee) shall additionally retain a minimum of one Native Monitor, including at least one monitor from each Tribal entity with documented ancestral ties to the area and that expresses an interest in monitoring, appointed consistent with the standards of the Native American Heritage Commission and the Native American most likely decendent (MLD) when State Law mandates identification of an MLD.

The Applicant shall ensure that all Project personnel are trained by the CRS and Native Monitor on the appropriate identification of potential Tribal cultural resources that may be encountered and on the necessary measures to be implemented should

they be encountered. Prior to their presence at any Project construction area, all Project personnel shall complete cultural sensitivity training by Tribal experts to understand and acknowledge the cultural and ancestral Tribal resources in the region and to ensure that the Native Monitor and Cultural Resource Specialist are treated respectfully during construction of the project.

The CRS and Native Monitor(s) shall be present during all ground disturbing activities, including excavations for pipeline trenches, well head installations and other actions that penetrate below native ground surface. The CRS, Native Monitor(s), and the Project Construction Manager shall have the authority to halt construction if previously unknown cultural resource sites or materials are encountered. In the event of unexpected cultural resource discovery, the Native Monitor(s) and CRS shall have the authority to redirect ground disturbance under consultation with the Construction Manager.

Any and all remains, or culturally significant discoveries must be monitored for ...

Members from the Steinbeck Museum and Agriculture and Rural Cultural Museum must be present given the operational age and significance of the site.

23.19. Energy Minimization and Greenhouse Gas Reduction. PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, the Applicant shall submit, for Executive Director review and approval, an Energy Minimization and Greenhouse Gas Reduction Plan that provides the following:

a) 100 percent renewable power must be used for all sight power needs;

b) All buildings must be LEED Platinum certified;

c) All buildings must have a green roof;

d) Project must operate as a zero-waste facility;

a)e) Public charging stations must be provided;

b)f) Identifies the expected annual amount of indirect greenhouse gas (“GHG”) emissions resulting from the desalination facility’s electricity use during its initial year of operations, with provisions to update these expected emissions during each subsequent year of operations. These amounts shall be based each year on the electricity supplier’s most recent emission factor for delivered electricity as reported to the California Air Resources Board (“CARB”) and/or Climate Action Registry (“CAR”) that identifies the tonnes of GHG emissions per megawatt of electricity generated;

c)g) For all remaining indirect GHG emissions resulting from facility operations, the Plan shall provide for the Applicant to submit an annual report for each year of facility operations that will identify all measures the Applicant will implement to ensure that the facility operates as “net carbon neutral” on an annual basis. These measures may include carbon offsets or Renewable Energy Credits purchased through CARB or CAR or approved by a California Air Pollution Control District, with reductions achieved using these measures

documented by these entities as being “real, permanent, quantifiable, verifiable, and enforceable,” pursuant to CARB regulations. Each annual report shall be submitted for Executive Director review and approval within 90 days of the electricity supplier’s annual documentation to CARB or CAR of its most recent emission factor for delivered electricity. The Applicant may purchase more than one year’s worth of offsets or credits, if deemed prudent, to use in subsequent years, but at no time shall the facility be operating with its annual amount of indirect GHG emissions greater than its purchased offsets or credits for a given year; and.

d)h) The Plan may also identify any on-site and project-related measures the Applicant implements to avoid or reduce the facility’s indirect GHG emissions – for example, installation of a roof-mounted solar photovoltaic system, use of a fuel cell system, etc. - and describe the amount of emissions avoided through these measures.

24.20. Visual Resources. PRIOR TO CONSTRUCTION, the Applicant shall submit, for ~~Executive Director~~ review and approval by the Executive Director, and the design committees of the City of Marina, Monterey County, and community of Castroville, a Visual Elements Plan that illustrates all above-grade elements of Project components within the coastal zone. The Plan shall include drawings and illustrations of those components with proposed surface colors and treatments that ensure the Project features are compatible with, and blend in to, the surrounding habitats and other nearby coastal resources. Lighting shall be designed to reduce light pollution. No part of the facility will extend above ground higher than a two-story building. All components of the MPWSP will be screened so as not to be visible from any highway The Applicant shall construct these Project components as approved by the Executive Director and the design committees of the City of Marina, Monterey County, and community of Castroville.

11 November 2022

MEMORANDUM

To: Remleh Scherzinger, Marina Coast Water District

From: Tina Wang, P.E., EKI Environment & Water, Inc.
Vera Nelson, P.E., EKI Environment & Water, Inc.

Subject: Recommended Revisions to the Special Conditions Proposed in Commission Staff Report

EKI Environment & Water, Inc. (EKI) do not think the California Coastal Commission permit of the Monterey Peninsula Water Supply Project should be approved due to the potential impacts to the groundwater basin that such slant wells will cause.

As previously identified in EKI's presentation and comments to the Coastal Commission on behalf of the Marina Coast Water District, these impacts include (1) drawdown of groundwater levels along the coastline; (2) potential expansion of the seawater intrusion front; (3) capture of freshwater from the Dune Sand Aquifer and the upper 180-Foot Aquifer; and (4) lowering of water levels which has the potential to impact groundwater dependent ecosystems that exist near the coast.

However, if the permit is adopted, we recommend the following changes to the special conditions proposed in the Commission staff report as identified in the attached document.

Attachment

Recommended Revisions to the Special Conditions Proposed in Commission Staff Report

11. Groundwater Protection. The Applicant shall install the Project's slant wells to extend at least 1,000 feet seaward of the proposed well head locations and shall screen the wells so they extract from the 180-Foot Aquifer as far seaward as is feasible and without penetrating the 400-Foot Aquifer. Any proposed changes to this approved installation ~~must be reported to the Executive Director for a determination as to whether those changes would~~ requires an amendment to this permit.

PRIOR TO ISSUANCE OF THIS PERMIT, the applicant shall submit documentation from the following entities of final approvals, permits, and determinations required for the proposed Project or documentation from those entities that no further permits or approvals are required to comply with:

- a. Align with goals of the 180/400-Foot Aquifer Subbasin GSP and the Monterey Subbasin GSP
- b. Fund all necessary modifications to the Salinas Valley Seawater Intrusion Model (SWI) and assessment of project impacts to the 180/400-Foot Aquifer Subbasin, the Monterey Subbasin, and any groundwater users.
- c. Leave 10 percent of all production in the Seaside groundwater basin until sustainable levels are reached

11.12. Monitoring and Remedial Measures to Protect Groundwater.

PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall provide, for Executive Director review and approval, a Groundwater Monitoring Plan intended to ensure the Project's source water pumping does not adversely affect the aquifers that are a source of drinking water to the City of Marina and the Marina Coast Water District. The Plan shall include the following:

- a) A fifty million dollar (\$50,000,000) bond for the relocation of MCWD supply wells where TDS exceeds 600 mg/l TDS during the permit term. If and when a MCWD supply well exceeds 600 mg/l Cal-Am will provide, at no cost to MCWD, supplemental water equal to the maximum pumping capacity of that well until it is replaced by Cal-Am.
- ~~a)~~
- b) A detailed description, including maps and diagrams of area aquifers, including those the Applicant would rely upon for the Project's source water and those relied upon by the City and Water District for drinking water. The description shall identify all known existing monitoring or production wells screened within each aquifer. It shall also identify any known existing groundwater monitoring (water level and water quality) that is currently occurring and the availability of the data.
- c) A narrative characterization of all known sources affecting these aquifers (e.g., existing withdrawals for municipal or agricultural purposes, precipitation rates, seasonal variations, inputs or outputs from surface water features, etc.) and the

extent of any known existing contamination sources (e.g., locations and rate of seawater intrusion, contaminant plumes, etc.). It shall also describe the known or expected degree that these sources affect the aquifers.

- d) A comprehensive groundwater monitoring program designed to assess how the Project's proposed source water pumping could affect the quality and availability of freshwater within the aquifers relied upon by the City and Water District as sources of drinking water. This program shall include the following components:
- i. Cal-Am will construct MCWD monitoring wells at locations identified by MCWD as described below and provide four hundred thousand dollars (\$400,000) annually to MCWD for monitoring expenses. This amount shall be adjusted for inflation annually based on the CPI. These wells shall be constructed in addition to the planning monitoring wells in the Integrated Coastal Groundwater Monitoring Program and Plan prepared by Martin Feeney for the Monterey County Water Resources Agency, dated May 2019. The monitoring program shall include nested or multi-port monitoring wells in at least five locations (1) along the 180/400-Foot Aquifer Subbasin and Monterey Subbasin boundary and (2) close to the coastline in the Monterey Subbasin. Monitoring data shall be collected at each location from at least three depth intervals specified by MCWD in the affected aquifers including but not limited to the Dune Sand, upper 180-Foot, and lower 180-Foot aquifers.
 - ii. Statement of monitoring goals to ensure that the monitoring will adequately identify the percentage of seawater extracted by the Project, will detect any change in the rate of seawater intrusion that the Project might induce, and will provide sufficient time to modify Project operations if monitoring identifies potential harm to the aquifers from those operations.
 - iii. A description of monitoring and other measures that will be implemented to establish baseline conditions. This shall include identification of proposed well locations and methods to be used to collect data, existing data to be used, measures to ensure the baseline conditions are sufficient to identify changes that occur from seasonal and water year type variations. Baseline data shall be collected for at least one year before Project pumping begins.
 - iv. A description of monitoring methods and frequency to be implemented during Project operations, including the locations and depths of existing or proposed monitoring wells, methods of data collection and review (including frequency of data review), data management and storage, and intended purpose of the data being collected, and shall describe the analyses to be conducted to determine whether adverse effects are likely to occur. All monitoring data collected by the Applicant pursuant to this permit shall be publicly available and posted on the Applicant's website in a clear and conspicuous manner.
 - iv-v. Monitoring frequency should be adequate to characterize relevant scales of variability and should be conducted ~~continuously for at least the first two~~

- ~~years for the life of the project. Monitoring shall commence no later than one year after approval (regardless of any pending conditions) and no less than two (2) years immediately prior to operations of project slant wells. Monitoring data collected before Project operations (i.e., baseline data) will be used to establish baseline conditions in the vicinity of the project. Monitoring frequency shall be no less than once per quarter and shall be increased to monthly at wells where a continued increasing trend of total dissolved solids or any other relevant water quality constituents is identified. All plant SCADA information will be shared in real-time with M1W and MCWD. All well sampling data collected by Cal-Am will be made available to MCWRA, MCWD, and M1W. If continuous monitoring is not feasible, the Plan shall include a justification explaining why.~~
- ~~v.vi.~~ Proposed thresholds or criteria for total dissolved solids and any other relevant water quality constituents as well as groundwater levels that will be used to indicate or predict potential harm to local groundwater supplies consistent with monitoring goals described in (a). ~~-Exceedance of thresholds indicating expansion of seawater intrusion shall be defined as TDS or chloride concentration increase by 50 percent or more compared to baseline concentrations at any monitoring well. Baseline concentrations are calculated as the average TDS or chloride concentration during the monitoring period before operation of project slant wells. The criteria or thresholds will be established through an appropriate statistical analysis prepared by the Applicant, and the analysis shall identify the methods to evaluate any statistically significant deviations from the baseline data. The Plan shall include a justification for each proposed threshold. The Plan shall be approved by the Commission at public hearing.~~
- ~~vi.~~ A description of model validation to be conducted. This shall include methods to incorporate the above referenced baseline data and subsequent operational data into the Project's modeling to assess the ability of the model to accurately predict groundwater conditions and identify what, if any, changes can be made to improve its reliability. Model validation shall also incorporate available and relevant Aerial Electromagnetic survey data and modeling into the proposed model validation, as appropriate.
- ~~vii.~~ A description of data analyses to be performed to assess impacts to local aquifers including a comparison of monitoring results to baseline conditions and the thresholds described above. If this involves updated groundwater modeling, provide a description of the proposed models, proposed statistical analyses to be conducted, and how monitoring data will be used. As part of the statistical evaluation, the monitoring data collected will be used to evaluate statistically significant deviations from monitoring criteria or thresholds compared to background levels.
- ~~viii.vii.~~ Proposed remedial measures and operational controls that could be implemented should any of the above thresholds be reached. Remedial

measures for thresholds indicating a lower level of concern may include further in-depth studies to investigate why a particular threshold has been reached. The proposed remedial measures shall include (1) procedures for immediate notification to the Executive Director if Applicant discovers any exceedance of a threshold or criteria established pursuant to this Special Condition and (2) gradually reduce pumping from Project wells and reduce Project production while continue monitoring for aquifer response. If any of the above thresholds be reached, Project pumping and production shall be immediately reduced by 10 percent every twelve months until the constituent of concerns falls below the threshold. Other remedial measures may include, but are not limited to, ~~reduced or no pumping from one or more wells,~~ repair and maintenance of existing intake or groundwater supply wells, relocation or redrilling of intake wells, groundwater recharge or similar projects implemented in partnership with affected water supply providers, or other measures to address groundwater quality or supply concerns. All remedial measures shall include timelines for implementation and reporting requirements to the Executive Director.

- e) Annual reporting: The Plan shall include a provision for annual reporting of groundwater monitoring results. The annual report shall be submitted to the Executive Director as well as posted on a publicly accessible website and shall include annual results as well as results from previous years. The report shall also discuss comparison of annual data and/or multi-year data (if appropriate) to the thresholds identified in subsection (d), a discussion of planned remedial measures and the success of any previously implemented remedial measures, and an overall assessment of achievement of the monitoring goals set out in subsection (a).

The Applicant shall provide the funding necessary to allow the Executive Director to hire one or more independent third-party reviewers to evaluate the proposed Plan and to recommend any changes to the Plan necessary to ensure it is adequately protective of the aquifers used by the City and Water District. If, after any Executive Director approval of the Plan, new information becomes available to the Applicant demonstrating that less stringent criteria (e.g., Total Dissolved Solids, salinity concentrations, etc.) are adequately protective of sources of drinking water in the relevant aquifers, the Applicant may seek an amendment to this permit ~~unless the Executive Director determines that an amendment is not needed.~~

12.13. Wetlands and Vernal Pond Adaptive Management Program. PRIOR TO PERMIT ISSUANCE, the Applicant shall submit a Wetlands and Vernal Pond Adaptive Management Program, for review and approval by the Executive Director. The Applicant shall provide the funding necessary to allow the Executive Director to hire one or more independent third-party reviewers to evaluate the proposed Plan and to recommend any changes to the Plan necessary to ensure it is adequately protective

of area wetlands and vernal ponds. This program will be administered by MCWD and funded by Cal-Am at a cost of \$50,000 annually. This amount shall be adjusted for inflation annually based on CPI.

The Plan shall provide for the following:

- a. Data collection and monitoring during Project operations of wetlands and vernal ponds within, at a minimum, the Project's drawdown zone plus a buffer area extending a distance of at least 50% beyond the edge of the drawdown zone. The Program shall identify the wetland areas to be monitored within this zone. If there is evidence that wetland areas outside this specified monitoring area could be affected by pumping, these wetland areas should also be included in Program. The data collection shall occur annually for no less than two (2) years immediately prior to operations and the first five (5) years following commencement of operations. For vernal ponds and all other wetland types within the monitoring area, appropriate reference sites shall be required to the extent feasible, and monitoring parameters shall include, at a minimum: evaluation of wetland extent consistent with the Commission's regulations; depth of surface water; depth of saturation; depth to groundwater; characterization of other potential hydrologic inputs; hydroperiods (including duration and timing); water temperature and salinity; characterization of vegetation communities and their relative extents and conditions (e.g., stressed, healthy); root zone depth; and surveys for rare or otherwise sensitive plant and wildlife species. Remote-sensing along with on-the-ground monitoring efforts shall be used. Wetland delineations shall be completed annually. The annual results of Stage 1 shall be submitted to the Executive Director for review and approval by December 31 of each year. Subject to the Executive Director's review and approval, if at the end of the data collection period the results clearly demonstrate that there is no connection between the Project's pumping and the wetlands and/or vernal ponds within the Project's drawdown Project zone and buffer area, the Permittee's requirements under the Wetland and Vernal Pond Adaptive Management Program will be satisfied.

If at any time during the five (5) years of supplemental data collection, the results of Stage 1 suggest that there is a connection between the Project's pumping and the wetlands and/or vernal ponds within the Project's drawdown and buffer zones, the Permittee shall develop a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan (Plan) to address any, and all, prior and future impacts. The Permittee shall apply for and obtain the Commission's approval of the Plan in the form of an amendment to this permit.

MONTEREY COUNTY

WATER RESOURCES AGENCY

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BRENT BUCHE
GENERAL MANAGER



STREET ADDRESS
1441 SCHILLING PLACE, NORTH BUILDING
SALINAS, CA 93901

November 3, 2022

AGENDA ITEMS # 7, 8

Chair Brownsey and Honorable Commissioners
California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105

Sent via First Class Mail and Email (also provided to Coastal Commission Staff)

Re: Monterey Peninsula Water Supply Project, Application No. 9-20-0603 & Appeal
No. A-3-MRA-19-0034

Dear Chair Brownsey and Honorable Commissioners,

The Monterey County Water Resources Agency ("MCWRA") has a long recognized history of utilizing recycled water. It began with the construction and operation of the Castroville Seawater Intrusion Project ("CSIP") and the Salinas Valley Reclamation Project ("SVRP"), collectively known as the Monterey County Water Recycling Projects ("MCWRP"), in collaboration with Monterey One Water ("M1W"). The MCWRP has delivered close to 300,000 acre-feet of recycled water to the agricultural lands around the community of Castroville for over 24 years. The implementation of the MCWRP has enabled MCWRA to reduce groundwater pumping in the area and slow the advancement of long established seawater intrusion into coastal water supply aquifers. However, the advancement of seawater intrusion persists and Castroville's municipal water supply is one of the most impacted by this continued advancement. This letter provides details regarding MCWRA's concerns over water supply estimates at issue for the Pure Water Monterey Expansion (PWMx). Importantly, MCWRA seeks to highlight PWMx's potential impact on the Salinas Valley Groundwater Basin ("Basin") and on CSIP. MCWRA fully supports its ongoing collaboration with M1W and the use of recycled water, but not at the expense of other longstanding projects.

1. Amended and Restated Water Recycling Agreement

On November 3, 2015, MCWRA and M1W entered into an Amended and Restated Water Recycling Agreement ("ARWRA") which incorporates and reiterates agreements that had been developed over the years since the establishment of CSIP, the SVRP, and the Salinas River Diversion Facility ("SRDF"). The intent of the ARWRA was to compile all the information that pertains to the operations and maintenance of CSIP, SVRP and the SRDF, as well as the

The Water Resources Agency manages, protects, stores and conserves water resources in Monterey County for beneficial and environmental use, while minimizing damage from flooding to create a safe and sustainable water supply for present and future generations

allocation of wastewater flowing into M1W's Regional Wastewater Treatment Plant.

a. New Source Waters

The ARWRA contemplated for the first time the identification and allocation of "New Source Waters". The New Source Waters are defined in the ARWRA as: (1) Agricultural Wash Water, (2) Blanco Drain Water, (3) Reclamation Ditch/Tembladero Slough Water, (4) Monterey Storm Water, and (5) Salinas Storm Water.

These New Source Waters were to be dedicated to the Pure Water Monterey Groundwater Replenishment project ("PWM") and to potentially provide additional water supply to CSIP. The ARWRA also outlines the process in which the facilities to convey these new supplies to the Regional Treatment Plant would be financed and constructed. When the ARWRA was executed, the final water rights had not been obtained for the New Source Waters, nor had the Conditions Precedent for the financing of the New Source Water facilities been met.

b. Blanco Drain, Reclamation Ditch/Tembladero Slough

MCWRA filed water rights applications with the State Water Resources Control Board for the drainage flows from Blanco Drain, the Reclamation Ditch, and Tembladero Slough in 2014. The applications were protested by various stakeholders and the subsequent negotiations, led by both M1W and MCWRA, resulted in much lower than expected flows. The final dismissal terms of the protests removed Tembladero Slough flows from the portfolio, and outline stringent flow conditions on which water can be diverted from the Blanco Drain and Reclamation Ditch. The overall effect of the terms of the water rights is a large reduction in the yield available to use as New Source Waters, especially during dry year types. The ARWRA is based on outdated planning analysis which considered 6,500 acre feet per year ("AFY") of water from these two sources; however, operations over the past three seasons revealed there is significantly less than expected available water.

On June 9, 2022, MCWRA notified M1W that because the Conditions Precedent cannot be met, it was opting out of using water from Blanco Drain and the Reclamation Ditch due to the low water yields and lack of agreement for terms of use by the Regional Water Quality Control Board.

c. Agricultural Wash Water

Per the ARWRA, the Agricultural Wash Water (aka, Salinas Industrial Wastewater) availability is to be determined by a separate agreement which is currently being negotiated by MCWRA, the City of Salinas, and M1W. As of now, MCWRA retains the right to utilize all the Agricultural Wash Water for CSIP. This past summer a pilot program was implemented to determine the actual amount of water that could be used from this source, which had been estimated at 3,000 AFY. Actual operations reveal this number to be close to 500 AFY.

d. Salinas and Monterey Storm Water

Facilities have been constructed to capture a portion of Salinas' Storm Water and store it in the Salinas Industrial Wastewater Treatment Facility. This is currently a disposal facility.

Over the past two winters an estimated 4 acre-ft of stormwater has been captured and due to losses in the system, 0 acre-ft has been available as a New Source Water. M1W erroneously overestimates annual available Salinas storm water to be 225 acre-ft a number derived based on normal and wet years only. This again reflects outdated planning estimates and has not yet been validated through the current operations and recent conditions in which nine of the past thirteen years have been dry or dry-normal.

MCWRA is unaware of the status of the Monterey Storm Water.

2. Pure Water Monterey Water Purchase Agreement

On September 19, 2016, California-American Water Company (“Cal-Am”), M1W and MPWMD executed a Water Purchase Agreement (“Agreement”) to provide for the sale of advanced treated recycled water (“ATW”) from M1W to MPWMD, and from MPWMD to Cal-Am to serve Cal-Am’s customers. This Agreement states:

- M1W will design, construct, operate and own facilities for the production and delivery of ATW for the PWM groundwater replenishment project.
- MPWMD will buy ATW and resell to Cal-Am.
- Performance Start Date is no later than January 1, 2020.
- M1W will inject 3,500 acre-feet of ATW into the Seaside Groundwater Basin every year.

According to M1W, as of September 15, 2022, approximately 7,900 acre-ft of ATW has been injected into the Seaside Groundwater Basin. For Fiscal Year 21-22, 3,500 acre-feet was delivered to Cal-Am and 173.4 acre-feet put into Seaside Basin operating reserves. This amount of delivered water takes approximately 4,320 acre-feet of source water to be treated.

3. Pure Water Monterey Water Expansion Project

a. Supplemental Environmental Impact Report

M1W published a Notice of Preparation (“NOP”) of a Supplemental Environmental Impact Report (“SEIR”) for the PWMx project on May 15, 2019. The SEIR described changes to the PWM project, known as PWMx, that would increase project yield for Cal-Am from 3,500 AFY to 5,750 AFY. MCWRA recommended in response to the NOP that a thorough water balance analysis be completed to support the project recommendations for expansion of the PWM facilities. MCWRA also asserted that this analysis should be consistent with the ARWRA terms of water use priorities and allocations, as well as other contractual rights to source water.

On January 21, 2020, MCWRA provided extensive comments on the PWMx Draft SEIR including:

- The ARWRA contemplates the base PWM project, but does not include the additional water commitments necessary for PWMx.
- There are other reasonable and foreseeable projects that propose to use wastewater being utilized by M1W and those projects must be considered when determining sustainable yield for PWMx.

- The DSEIR lacks data on both source water quantities and origin.
- The data that was used may provide rough estimates of yield, but is not reliable enough to implement a project of this magnitude.
- The DSEIR uses the same sources of water as the PWM Final EIR with a demand increase of 2,250 AFY with no consideration to what this increase will do to peak demands on the entire system in the summer months.
- There is no verification that PWMx has a sustainable, reliable drought resistant water supply that does not impact the rights of MCWRA stakeholders.

On April 27, 2020, MCWRA wrote a letter to the M1W Board detailing the numerous issues with the FSEIR, and PWMx's potential impact on the Salinas Groundwater Basin and stated it did not support certification of the Final SEIR for the PWMx. These comments were largely ignored by M1W and the Final EIR was certified on April 26, 2021, and the PWMx was conditionally approved.

b. Amended and Restated Water Purchase Agreement

The proposed Amended and Restated Water Purchase Agreement ("Amended WPA") between Cal-Am, M1W, and the Monterey Peninsula Water Management District defines the terms for the sale of water from the PWMx project to Cal-Am. The Public Utilities Commission ("PUC") must authorize the execution of the agreement prior to Cal-Am signing the Amended WPA, and Cal-Am filed its application on November 29, 2021. Since this date, there have been numerous documents filed with the Commission on this matter and the most recent include Phase II Testimony from Ian Crooks, Paul Sciuto, and David Stoldt. If PWMx is approved to supply an additional 2,250 AFY, it will need approximately 3,000 AFY of additional source water to generate the 2,250 AFY.

4. PUC Proceeding Testimony and Water Supply

Ian Crooks' Phase II testimony indicates that Cal-Am estimates that there is between 2,215 – 2,503 AFY of source water available for the PWMx project. Paul Sciuto's testimony estimates a range between 14,686 and 16,035 AFY. It is unclear how Mr. Sciuto differentiates between the PWM and PWMx, but he uses long-term averages and outdated assumptions from the planning stages of PWM. Long-term water reliability and water planning decision-making must account for times when supply is limited and should not be based on averages. Using averages in this situation is flawed. There are no provisions in the Amended WPA that allow deliveries to stop if there is no source water available to M1W. In fact, the Amended WPA unrealistically requires a steady commitment to supply recycled water at all times of the year.

Based on the operational experiences of the past two years with the PWM project online, MCWRA's concerns regarding the availability of sufficient source waters for both the PWM and the PWMx projects are heightened, particularly in dry/drought conditions. MCWRA estimates there is only 1,688 AFY of water available for the PWMx, mostly during the winter months.

The goals of CSIP are to reduce groundwater pumping and slow the rate of advancement of seawater intrusion. MCWRA notes that in the summer of 2021 and 2022, MCWRA's supplemental CSIP wells were excessively pumped by M1W (who controls the system). This

excessive pumping contributed to lower groundwater levels. CSIP demands have been fairly consistent with previous years and yet well use data dating back to the first year CSIP was online, show June and July 2022 to be the highest two months of pumping (see Attachment 1). The previous highest month of well use was in 2003. From August 2020 to August 2021 groundwater levels declined in the 180-Foot and 400-Foot Aquifers. The greatest declines occurred in the 400-Foot Aquifer in areas near Castroville and Espinosa Lake, which is also the aquifer and geographic area of the most heavily used CSIP supplemental wells. Groundwater level data for the 2021-2022 period is still under review, but based on the trends in extraction data from the supplemental wells during this period it is reasonable to expect that the downward trend in groundwater levels will continue. Persistent declines in groundwater levels will strengthen the mechanism for seawater intrusion. Even while most of the supplemental wells were being pumped 24-hours a day this summer, there were two occurrences in which not enough water was available to serve CSIP. This has never occurred in the history of CSIP. M1W encouraged growers to utilize their private standby wells, also for the first time in the history of CSIP.

MCWRA is concerned that M1W might be prioritizing wastewater use for PWM when it should be utilized for CSIP, and that this situation could worsen considerably with the PWMx project, especially if the drought continues. MCWRA is also concerned that there is not enough available source water to supply the PWMx's additional annual demand of approximately 3,000 AFY, especially when the current PWM annual demand of 4,320 AFY appears to be challenging to meet during this extended drought. MCWRA is committed to collaboration, but regional solutions, as PWMx purports to be, should not negatively impact one basin for the benefit of another basin.

MCWRA is committed to assist in securing long-term sustainable water supplies for the Monterey Peninsula, Salinas Valley, and all County of Monterey communities. In that regard, MCWRA wants to ensure that factual data is provided to the Coastal Commission as it moves forward in the decision process for the Coastal Development Permit for the Monterey Peninsula Water Supply Project. Thank you for the opportunity to comment on this application. Please feel free to contact me with any questions.

Sincerely,

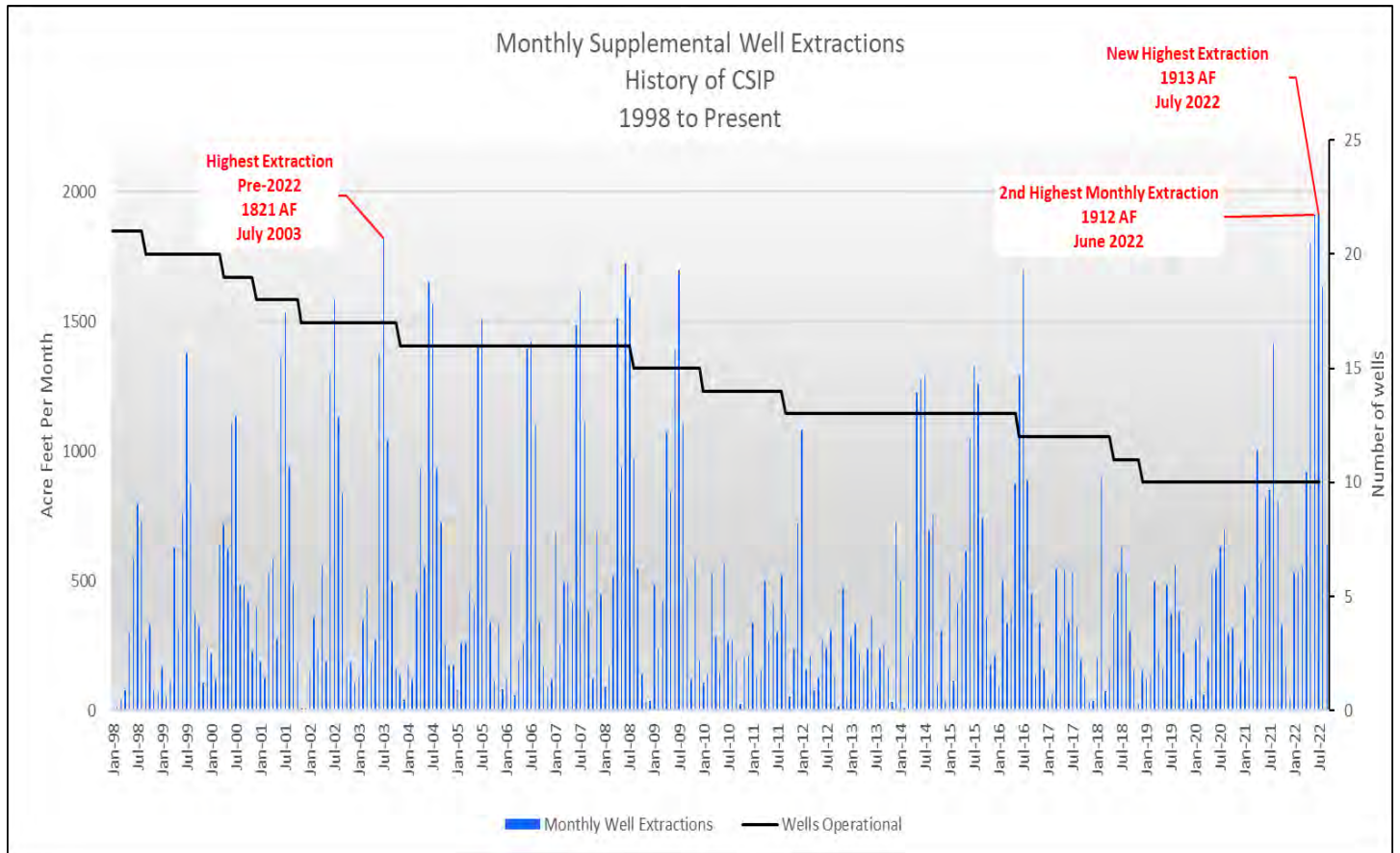


Brent Buche, PE
General Manager

Attachment 1: CSIP Supplemental Well Use from 1998 – 2022

cc: Coastal Commission staff
Executive Office, California Coastal Commission,
45 Fremont St. Ste. 2000,
San Francisco, CA 94105
ExecutiveStaff@coastal.ca.gov

Attachment 1



CALIFORNIA COASTAL COMMISSION**MONTEREY PENINSULA WATER SUPPLY PROJECT,****APPLICATION NO. 9-20-0603 & APPEAL NO. A-3-MRA-19-0034****SERVICE LIST****Chair Brownsey and Honorable Commissioners**

DONNE BROWNSEY, Chair 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202 Donne.Brownsey@coastal.ca.gov	DR. CARYL HART, Vice Chair 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202 Caryl.Hart@coastal.ca.gov
DAYNA BOCHCO, Commissioner 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202	EFFIE TURNBULL-SANDERS, Commissioner 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202 Effie.Turnbull-Sanders@coastal.ca.gov
SARA AMINZADEH, Commissioner 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202 Sara.Aminzadeh@coastal.ca.gov	LINDA ESCALANTE, Commissioner 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202 Linda.Escalante@coastal.ca.gov
MIKE WILSON, Commissioner Humboldt County Board of Supervisors - 3rd District 825 5th Street, Room 111 Eureka, CA 95501 (415) 904-5202 mike.wilson@coastal.ca.gov	CATHERINE (KATIE) RICE, Commissioner 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202 Katie.Rice@coastal.ca.gov
STEVE PADILLA, Commissioner City of Chula Vista – City Council 276 Fourth Ave Chula Vista, CA 91910 (415) 904-5202 Stephen.padilla@coastal.ca.gov	MEAGAN HARMON, Commissioner 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202 Meagan.Harmon@coastal.ca.gov
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CALIFORNIA COASTAL COMMISSION**MONTEREY PENINSULA WATER SUPPLY PROJECT,
APPLICATION NO. 9-20-0603 & APPEAL NO. A-3-MRA-19-0034
SERVICE LIST****INFORMATION ONLY**

NATURAL RESOURCES AGENCY WADE CROWFOOT OR TOM GIBSON/JENN ECKERLE Secretary, Non-Voting 1416 Ninth Street, Room 1311 Sacramento, CA 95814-5570 (916) 653-5656	STATE LANDS COMMISSION BETTY YEE OR KRISTINA KUNKEL SLC Ex Officio Non-Voting 300 Capitol Mall, Ste. 1850, Sacramento, CA 95814 (916) 322-4404
STATE TRANSPORTATION AGENCY TOKS OMISHAKIN OR JEREMIAH KETCHUM Secretary, Non-Voting 915 Capitol Mall, Suite 350B Sacramento, CA 95814 (916) 323-5400	GOVERNOR'S APPOINTMENTS PUBLIC MEMBER ZAHIRAH MANN, Alternate For Effie Turnbull-Sanders 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202 zahirah.mann@coastal.ca.gov
SENATE RULES COMMITTEE APPOINTMENTS PUBLIC MEMBER BELINDA FAUSTINOS, Alternate For Dayna Bochco 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202 Belinda.Faustinos@coastal.ca.gov	ASSEMBLY SPEAKER APPOINTMENTS PUBLIC MEMBER FRANCINE DIAMOND, Alternate For Dr. Caryl Hart 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202
SENATE RULES COMMITTEE APPOINTMENTS PUBLIC MEMBER MATT O'MALLEY, Alternate For Sara Aminzadeh 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202	SENATE RULES COMMITTEE APPOINTMENTS NORTH CENTRAL COAST REPRESENTATIVE RAFAEL MANDELMAN, Alternate For Catherine (Katie) Rice 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202
SENATE RULES COMMITTEE APPOINTMENTS SOUTH COAST REPRESENTATIVE RICK D. RIVAS, Alternate For Roberto Uranga 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202 Rick.rivas@coastal.ca.gov	ASSEMBLY SPEAKER APPOINTMENTS SAN DIEGO COAST REPRESENTATIVE PALOMA AGUIRRE, Alternate For Steve Padilla 455 Market Street, Suite 300 San Francisco, CA 94105 (415) 904-5202

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Los Angeles	Tokyo
Madrid	Washington, D.C.

October 17, 2022

VIA EMAIL

Board of Directors
Monterey Peninsula Water Management District
5 Harris Court, Building G
Monterey, California 93940

Re: MPWMD Board of Directors October 17, 2022 Special and Regular Meeting,
Item 8: Resolution No. 2022-31

Dear Chair Paull and Members of the Board:

On behalf of California American Water Company (“CalAm”), this letter addresses the MPWMD Board’s consideration of proposed Resolution No. 2022-31 (the “Resolution”), which purports to clarify MPWMD’s requirements for CalAm to obtain an amendment to its water distribution system permit for the Monterey Peninsula Water Supply Project (“MPWSP”). The Resolution also would direct MPWMD’s General Manager to notify other regulators with permit authority over the MPWSP that CalAm has not yet applied for or received an amendment to its water distribution system permit. The Resolution misconstrues and overstates MPWMD’s jurisdiction by asserting that an amendment to CalAm’s water distribution permit is necessary before CalAm may construct the MPWSP. Because MPWMD does not have pre-construction jurisdiction and for the reasons set forth below, the Board should reject the Resolution as currently drafted.

First, the Resolution appears to exceed MPWMD’s jurisdiction. The majority of the MPWSP’s infrastructure, including its proposed slant intake wells in the City of Marina, the desalination plant in the unincorporated County, and the pipeline infrastructure associated with those project components, would be constructed *outside* of MPWMD’s boundaries and therefore outside of its jurisdiction. MPWMD Rule 11 defines a “Water Distribution System” as “all works *within the District* used for the collection, storage, transmission or distribution of water from the Source of Supply to the Connection of a system providing water service to any Connection including all Water-Gathering Facilities and Water-Measuring Devices.” (Emphasis added.) Therefore, consistent with this definition, MPWMD does not have permitting authority over construction of any component of the MPWSP that would be built outside of MPWMD’s boundaries. As such, Section 1 of the proposed Resolution only can be read to apply to portions of the MPWSP within MPWMD’s boundaries.

Second, Section 4 of the Resolution is unnecessary. Since the CPUC approved the MPWSP and certified its Final Environmental Impact Report and Final Environmental Impact Statement (“EIR/EIS”) in 2018, CalAm has been working to seek and obtain approvals from

various governmental agencies for different components of the MPWSP. Currently, CalAm's coastal development permit application (and appeal of Marina's denial of a local coastal development permit) is pending before the Coastal Commission, with a hearing scheduled for November 17, 2022. The MPWSP EIR/EIS identifies more than two dozen necessary permits and approvals for the MPWSP, including that CalAm obtain MPWMD's approval of an amendment to its water distribution system permit. (See EIR/EIS, Table 3-8.) Accordingly, other responsible agencies, such the Coastal Commission and State Lands Commission, are well aware that MPWMD has permitting authority over certain aspects of the MPWSP. Passing a resolution notifying other agencies of CalAm's permitting status is neither necessary nor germane to those agencies' separate permitting authority.

Third, CalAm is concerned that the Resolution appears to misconstrue MPWMD's limited authority over the construction of components of the MPWSP located within MPWMD's boundaries. Section 1 of the Resolution states that CalAm must obtain the amended permit "prior to initiating construction of facilities" pursuant to District Rules 21.C. and 22.E. This statement is not supported by MPWMD's Rules applicable to modifications to water distribution system permits. Specifically, Rule 21.C. and Rule 22.E. do not state that applications for water distribution system amendments must be processed prior to initiation of construction. Nor does any applicable MPWMD Ordinance. As to *initial* permits for a water distribution system, Rule 20.A. states that "[b]efore any Person ***Creates or Establishes*** a Water Distribution System . . . , such Person shall either obtain a written Confirmation of Exemption from the Water Distribution System Permit requirements or a Water Distribution System Permit from the [MPWMD]." (Emphasis added.) Rule 11 defines "Create a Water Distribution System" and "Establish" to mean "the construction and operation of a Water Distribution System." Rule 20.A. and Rule 22.E. also state that before a water distribution system can be modified, expanded, or its supply sources changed, MPWMD must approve an amendment to the existing water distribution system permit. However, neither of these Rules use the terms "Create a Water Distribution System" or "Establish" in connection with modifications to an existing system with an existing permit. While approval of an amendment to a water distribution permit may be required prior to MPWSP operation, the Rules cannot be read so broadly as to require such approval for construction alone. Thus, the Resolution appears to be an attempt to take a position that exceeds MPWMD's authority for considering amendments to existing water distribution permits.¹

MPWMD's proposed Resolution is unnecessary, exceeds MPWMD's authority, and should not be adopted as drafted. Thank you for your consideration of these comments.

Very truly yours,



Winston P. Stromberg
of LATHAM & WATKINS LLP

¹ This letter should not be read as constituting all of CalAm's positions with respect to MPWMD's jurisdiction over the components of the MPWSP, and, as such, CalAm reserves the right to make additional or different arguments in the future. For instance, CalAm notes that the proposed Resolution *may* interfere with the CPUC's constitutional authority to regulate public utilities' production, storage, treatment, transmission and distribution of water.

LATHAM & WATKINS LLP

cc: Ian Crooks, California American Water Company
Kathryn Horning, California American Water Company
DJ Moore, Latham & Watkins LLP

November 11, 2022

California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105

Re: Cal Am Monterey Desalination Project – Application No.
9-20-0603

Dear Chair Brownsey, Commissioners and Staff:

I am writing this letter to request that the Coastal Commission deny California American Water Company's application for its proposed desalination facility on the Monterey Bay. The proposed project is harmful to the local environment, overly expensive, damaging to the city of Marina's water supply, harmful to low-income residents of Cal Am's service area and there is a viable alternative provided by the Pure Water Monterey expansion project.

Those of us who live here are already paying some of the highest water rates in the country additional increases will make it difficult for many of us to continue to live here. The PWN project will meet the needs of the Monterey Peninsula for the next thirty years at a considerably lower cost to the residents.

Looking at the water needs of this region Cal Am's Proposal will do nothing to meet regional needs. What is needed is a regional solution taking into account all the stakeholders in the Monterey Bay region. We do not need competing small-minded solutions. We need a publicly owned agency providing solutions to meet the needs of all at a fair price and with equitable access.

The environmental impacts are many. This project will emit 8,000 metric tons of CO₂ annually. Global warming is an emergency. This figure alone should give you pause. This project will also damage Marina's groundwater supply. When this occurs how will the residents of Marina be compensated? Who will pay for the damage? Ratepayers who oppose this expansion? Is that just?

This project would result in a considerable discharge of brine to the Monterey Bay Marine Sanctuary. How will that be mitigated?

This project will also destroy the breeding habitat for the snowy plover and rob Marina of the ability to restore and provide access to a beautiful dune area for its citizens.

The location of the proposed slant wells is also problematic. Slant well at this location result in further damage to seawater intrusion. Additionally, these slant wells are located in an area that receives a heavy sediment load from the Salinas River. It is known that his sediment from the Salinas River is and has been contaminated with agricultural runoff. Think of the pollution in Blanco Drain for one source. If you examine satellite and aerial views you can clearly see this phenomenon. It's well known that this sediment accumulates pollutants for decades. DDT, for instance, is still found in these sediments (Paull et al 2002 pesticides as tracers of sediment transport through the Monterey Canyon). It is well established by now that pollutants from agricultural runoff are extremely damage to public health even in extremely small amount (measured in nanograms per liter). The PWM facility is designed to remove these dangerous contaminants as thoroughly as possible given current techniques. In addition, they have stated that going forward they will monitor the situation in regard to emerging pollutants and new technologies. Given the location of the proposed slant wells and the sure fact that they will be drawing water through these sediments what does Cal Am propose to do to provide the safest water to its customers? Has Cal Am Provided you with any research or assurances regarding the safety of water from this proposed source? Do not proceed until they can provide you with answers.

Finally, I feel I must bring up the issue of trust. Cal Am as a corporation has harmed this area and its residents it has taken water illegally from the Carmel River for decades until ordered to stop through judicial proceedings. It has overdrawn the Seaside basin again until ordered to stop. They knew these actions were illegal and damaging but did not act to find solutions until forced by judicial action. They do not hold the interests of their customers in high regard. We clearly are a much lower priority than profit. This is why

measure J passed. The majority of Cal Am's customers do not trust Cal Am. Why should you? Look to what they do, not what they say.

PLEASE DENY this application help the citizens of this area extricate themselves from a bad situation.

Robert McGinley, Seaside

From: [Anna Brigantino](#)
To: Energy@Coastal
Subject: Public Comment on November 2022 Agenda Item Thursday 7a - Appeal No. A-3-MRA-19-0034 (California American Water Co., Marina)
Date: Monday, November 07, 2022 12:59:00 PM

Sent from [Mail](#) for Windows

To: California Coastal Commission

From: Anna Brigantino, Marina resident

Dear CA Coastal Commissioners, Executive Director John Ainsworth and staff,
My name is Anna Brigantino. I am a resident of Marina. I am a lover of nature, history and books. Steinbeck, of course, is a favorite author. In his words:
“The Salinas Valley is. . . a long narrow swale between two ranges of mountains, and the Salinas River winds and twists up the center until it falls at last into Monterey Bay.”

As powerful as words are, a picture is said to be worth a thousand of them. So I've included a photo near the area that Steinbeck is referring to, the Salinas River National Wildlife Refuge.

Location. Location. Location. The Salinas River National Wildlife Refuge is only about 2 miles from the Cemex Industrial Sand Mining Plant (the proposed site for CalAm's desal plant). The Cemex site, located between the Salinas River National Wildlife Refuge and beautiful Sanctuary Beach, is the first glimpse of the Monterey Bay that many tourists see as they make their way along Highway 1 to the Monterey Peninsula.

This industrial site is being shut down and the area designated as open space by agreement of the CCC, the City of Marina and the State Lands Commission in the Cemex Settlement Agreement of 2017. This area is home to 14 species of threatened plants and animals.

For so many reasons, it is obvious that this is the wrong location for any type of industrial infrastructure. What sense does it make to have an industrial complex sandwiched in between the National Wildlife Refuge and Marina State Beach which, along with nearby Fort Ord Dunes State Park and the Fort Ord Dunes National Monument (more than 14,000 acres where woodland open space connects to the bay) attracts many ecotourists and locals to the area?

Protect Marina's beach, dunes, habitat and water source. Please deny this most inappropriate use of our priceless natural wonders. **Please make sure this area is preserved for future generations to enjoy—and not just read about in a Steinbeck novel.**

ALEXANDER HENSON

P.O. Box 1381, Carmel Valley, CA 93924

831 659-4100 | Email: zancan@aol.com

November 10, 2022

California Coastal Commission

Re: Application no. 9-20-0603 Oppose Cal-Monterey Desal Project

Honorable Commissioners:

I am writing on behalf of my client, Public Water Now, a non-profit organization of over 4000 ratepayers of Cal-Am who oppose this costly, unnecessary and unjust project. The staff report valiantly seeks to justify approval by tacking on “special conditions” that will require substantial proofs that are currently lacking. But, ultimately, the project should be denied as untimely in that there is no current need in the next thirty years for desalinated water to meet the water needs of the Monterey Peninsula .

With the completion of the PWM Expansion in two years, the total available water supply will be 11,468 acre-feet a year. The Peninsula only currently uses 9,725 acre-feet a year. Research using the AMBAG growth forecast revealed that demand by 2050 will be 10,668 acre-feet a year, which will still allow a valuable surplus for drought reserves and protective water levels.

Cal-Am only recently agreed its proposed plant was far bigger than needed and proposed to reduce the size and phase the development This is a tacit acknowledgment of how inappropriate its proposed project is.

It is acknowledged by all, the environmental injustice of siting this project in Marina which will receive zero benefit from the project’s location in their city. However, placing the project within the boundaries of Cal-Am’s service area requires an affirmative vote by the affected populace pursuant to the MPWMD laws. Cal-Am evidently thinks its ratepayers will not vote to approve such a project.

The plant design to take brackish water distinguishes this proposal from the recently approved Doheny Project that proposes to use strictly ocean water. Cal-Am has no water right for the freshwater component of the brackish water. This project, by design, will encourage saltwater intrusion where the pumping is taking place. Monitoring wells may be helpful in determining the impact from the proposed wells. However, there is little that can be done to reverse the saltwater contamination once detected.

Timing is everything. Why is Cal-Am pursuing this Coastal Commission approval now? The proceeding to approve Cal-Am's purchase of recycled water is pending before the CPUC. The use of recycled water has the potential for providing sufficient water for the foreseeable future. Given that the valuation of Cal-Am is currently being examined for condemnation, it is clear Cal-Am hopes to boost the price of its assets without regard to the water supply that is actually needed. There is no compelling need for this project at this time.

For each of the foregoing reasons, it is respectfully requested the Commission deny project approval.

Sincerely,

Alexander Henson

ALEXANDER HENSON,
Attorney for Public

Water Now

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of California-American Water
Company (U210W) for Approval of the
Monterey Peninsula Water Supply Project and
Authorization to Recover All Present and Future
Costs in Rates.

A.12-04-019

(Filed April 23, 2012)

**REVISED
MOTION TO DISQUALIFY ALJ HAGA
FROM MAKING FURTHER DECISIONS
ON MOTIONS AND PETITIONS BY
WATER PLUS IN THE PROCEEDING ON
THE MONTEREY PENINSULA WATER
SUPPLY PROJECT**

RON WEITZMAN, Ph.D.

23910 Fairfield Place
Carmel, CA 93923
Telephone: (831) 375-8439
Facsimile: (none)
Email: ronweitzman@redshift.com
President, Water Plus

Date: 19 September 2022

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I. REVISED MOTION TO DISQUALIFY

As directed by Chief Administrative Law Judge Anne E. Simon on 19 September 2022, pursuant to Rule 9.4(b) of the Commission's Rules of Practice and Procedure, I file this revision of the motion to disqualify, filed by me in behalf of Water Plus on 12 September 2022, to include within the required declaration the factual basis for the motion.

I, Ronald Weitzman, declare under penalty of perjury that I represent a party, Water Plus, to the above-captioned rate-setting proceeding.

That I, Ronald Weitzman, believe that I cannot have a fair hearing before Administrative Law Judge Robert W. Haga and move pursuant to Rule 9.4 for his disqualification from making any further decisions on motions and petitions by Water Plus in the proceeding on the Monterey Peninsula Water Supply Project ("MPWSP" or "the project") on the basis of the following facts: On 5 August 2022 (re-service date, 8 August 2022), Water Plus filed a petition to modify D.18-09-017 ("the petition") based on failure to meet requirements of the California Environmental Quality Act ("CEQA"). On 6 September 2022, California American Water ("Cal Am") timely responded to the petition, and on the same day, in behalf of Water Plus, I requested by email permission from ALJ Haga to file a reply to that response. The reply, with permission by the ALJ, must be filed within 10 days of 6 September, no later than 16 September. It was then (at the time I filed the motion) 12 September, near the end of the day, and I had not received any reply from ALJ Haga. I could ignore this failure to reply as simply an innocent oversight if a similar incident had not occurred earlier. On 28 September 2020, while the proceeding on the MPWSP had been reopened, I submitted by email the following request to ALJ Haga:

Dear ALJ Robert W. Haga:

I just learned today that Cal Am had responded on September 23 to the Water Plus Motion to Dismiss filed on September 21. Now, I ask your permission to file a reply to **RESPONSE OF CALIFORNIA-AMERICAN WATER COMPANY TO THE WATER PLUS MOTION TO DISMISS, filed on September 23, 2020.**

Respectfully,

Ron Weitzman
President, Water Plus

On the same day, ALJ Haga made this reply, also by email:

Mr. Weitzman,

Proceeding A.12-04-019 is closed.

Accordingly, your request to file a reply to the response of California-American Water Company must be denied.

Robert Haga
Administrative Law Judge, CPUC

Now, with the proceeding on the MPWSP again reopened, that 21 September 2020 Water Plus motion to dismiss remains pending, with no further action by ALJ Haga on the motion or my timely request to tile a reply.

That I, Ronald Weitzman, or the party I represent has not filed, pursuant to Rule 9.4, any prior motion for reassignment on peremptory challenge in the proceeding.

Dated 19 September 2022, at Monterey, California.

A handwritten signature in black ink, appearing to read "Ron Weitzman", with a long horizontal stroke extending to the right.

II. WHO IS RESPONSIBLE FOR ENFORCING CEQA?

In response to an inquiry about the enforcement of CEQA, particularly about who is responsible for enforcing it, I received this reply from the California Environmental Protection Agency (“CalEPA”):

CalEPA is not authorized to enforce CEQA’s requirements, nor can it compel another public agency to perform CEQA differently. For this reason, inquiries and complaints regarding CEQA compliance for a proposed project and/or failure to prepare an Environmental Impact Report must be made directly to the public agency responsible for the project.

For a project requiring approval of one or more agencies, that means each of those agencies is responsible for enforcing the CEQA conditions that the project is required to satisfy. In the case of the MPWSP, that means that the Commission, as the lead agency for the project’s required Environmental Impact Report (“EIR”), has the primary responsibility for ensuring that the project’s EIR is credible and complete.

The petition at issue here, bolstered by the following sections originally intended under Rule 16.4(g) of the Commission’s Rules of Practice and Procedure to constitute a reply to the Cal Am response to the petition, shows that the project’s EIR is anything but credible in its modeling of the project’s environmental impact, and for that reason the Commission should grant the petition.

III. CALIBRATION IS THE VILLAIN

Cal Am claims that Water Plus has failed to identify any act of data tampering. I intentionally tried to avoid the use of the word “tampering” in the petition because

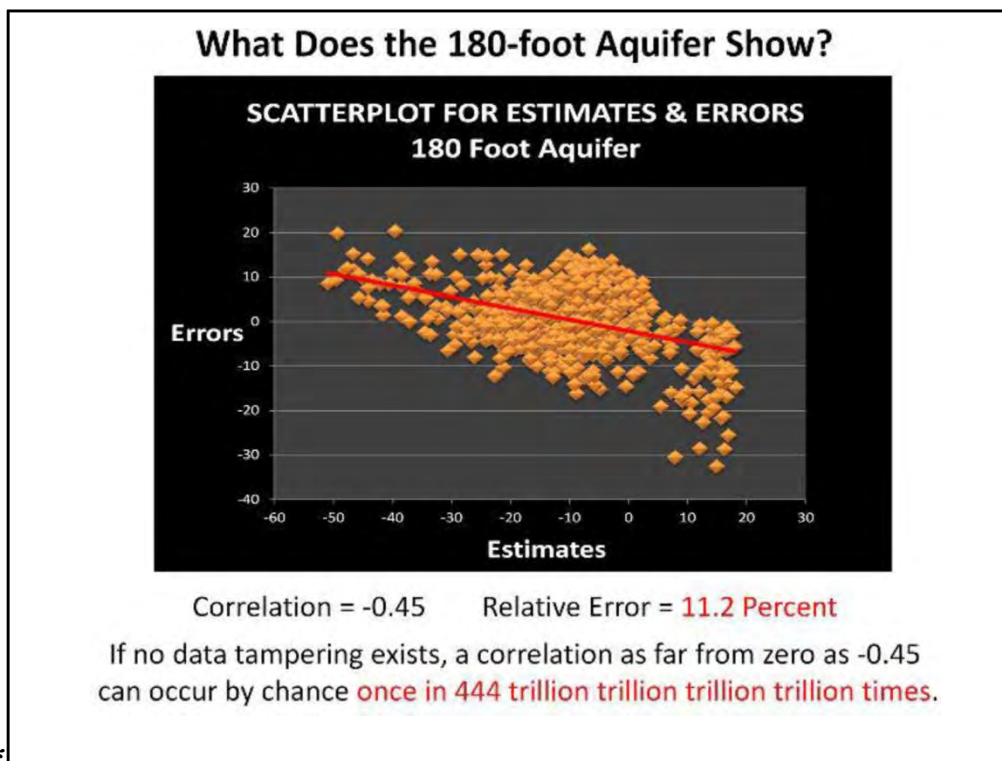
being pejorative was not necessary to support my claim that in the act of calibration both Geoscience and HydroFocus corrupted the data by creating an impermissible negative correlation between model estimates and errors. Cal Am did not question the use of calibration by those two modeling consultants. In fact, Cal Am did not use the word “calibration” at all in its response to the petition.

As I indicated in the petition, I learned that calibration involved the adjustment of data from hydrogeologist Barbara Ford. Prior to that, I had thought that it meant the creation of a new model with new weights because Geoscience and HydroFocus referred to calibration in the E2 appendices of the EIR as the adjustment of “parameters,” a word which to a statistician means weights in a model’s prediction equation consisting of a weighted sum of values of predictor variables. What I learned specifically from Barbara Ford is that the word “parameters” to hydrogeologists does not mean weights but means the values of the variables to which the weights apply in the model’s prediction equation. In other words, what I learned from Barbara Ford is that the adjustment of parameters to hydrogeologists means the adjustment of data.

Although I learned a lot more about hydrogeology from Barbara Ford, the fact that calibration means the adjustment of data was the only one of those things that was relevant to the Water Plus claim in the petition that Geoscience and HydroFocus had adjusted data to improve the appearance of the models they used to predict the environmental impact of the MPWSP. Yet, in its response, Cal Am questioned Barbara Ford’s credentials. So, I must state here that her credentials are beyond question. Barbara Ford is a licensed professional engineer in Colorado and Arizona. She has a master’s degree in hydrogeology from the Colorado School of Mines. She is an expert on modeling in her field and has coauthored publications

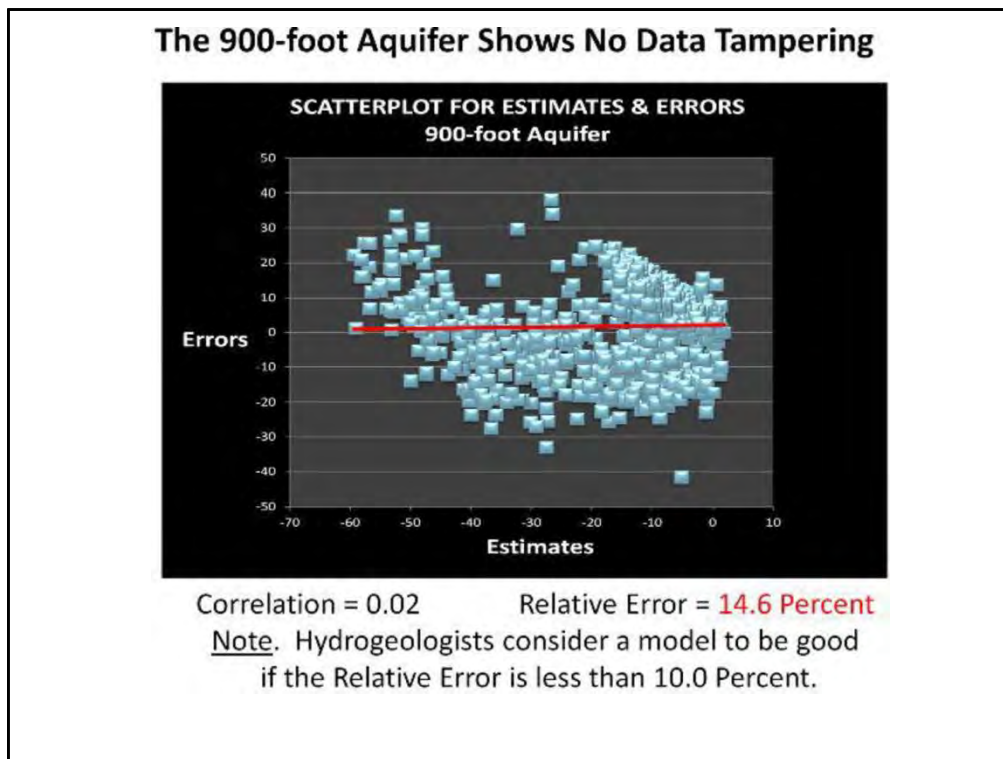
in it with at least one university professor of hydrogeology, who in fact was the person who recommended her to me.

The modeling consultants Geoscience and HydroFocus used calibration—the adjustment (tampering?) of predictor data—to reduce error variation to an acceptable range. As I have indicated in filed comments on the EIR as early as 2015, Geoscience failed in that attempt with the 180-foot aquifer: The relative error for that aquifer was 11.2%, outside the acceptable range of zero to 10. See the figure below.



HydroFocus dealt with that problem by raising the upper limit of the acceptable range from 10 to 15 though for a bell-shaped error distribution 15 is 90 percent of the highest practical value (16.7%) for the relative error, a value indicating zero model predictive power.

What would the relative error for the 180-foot aquifer be without calibration? The data for the 900-foot aquifer suggest an answer to that question. The non-negative, near-zero (0.02) correlation between estimates and errors for the 900-foot aquifer indicates that the consultants did not engage in calibration for that aquifer. As shown in the figure below, the relative error for the 900-foot aquifer was 14.6%, indicative of near-zero model predictive power in the absence of calibration.



In response to the question, “Does tuning a model in climatology have the same meaning as calibrating a model in hydrogeology?”, the first paragraph of the second article to which the petition provides a link continues with, “That is an interesting question because in a November 2021 *Chance* article that took a forensic look at the misuse of statistics in hydrogeology the villain turned out to be model calibration.” To repeat, calibration is the villain.

IV. WHY CALIBRATION CREATES A NEGATIVE CORRELATION BETWEEN ESTIMATES AND ERRORS

As the petition indicates, model calibration that moves the error component of an observed water-level measurement closer to zero must move the predictor component equally in the opposite direction to avoid changing the observed measurement. A simple example should make that clear. Suppose the calibration moved the error two units closer to zero. If the error component was positive, that would require decreasing it by two units and, correspondingly, increasing the predictor component by two units. If the error component was negative, that would require increasing it by two units and, correspondingly, decreasing the predictor component by two units. That movement of the two components in opposite directions is what creates the negative correlation between them in the process of model calibration.

V. THE JOURNAL *CHANCE* AND THE JOURNAL OF THEORETICAL AND APPLIED STATISTICS

Cal Am claims the two articles to which the petition provides links are merely online one-way communications. The earlier of these articles is in the journal *Chance*. This journal is not an online communication. Supported by the American Statistical Association, it is a peer-reviewed journal that comes out in print four times a year and is accessible online only by payment. Articles in *Chance* are written in non-technical language to communicate with people outside statistics what of interest or importance to them might be going on inside it.

The reviewers of an article submitted for publication in *Chance* are experts in the subject-matter of the article, and both the reviewers and the authors are blind to each other. How many reviewers did the *Chance* article have? The comments of

reviewers on the submitted version were identified by different colors, and the four different colors of comments on that version indicated that it had four different independent reviewers.

The American Journal of Theoretical and Applied Statistics is also a peer-reviewed journal. Different from *Chance*, however, it is an open-access journal. That means articles in it are accessible online without charge. I submitted the article to that journal because I thought the subject-matter should have wide accessibility. So far, the article has had 317 views and 56 downloads.

Far from being merely a one-way online communication vehicle, as Cal Am contends, publication in these two peer-reviewed journals provides strong support for the claim that the misuse of statistics in the practice of model calibration is so severe that it causes any calibrated-model predictions of environmental impact to have zero credibility. All predictions of environmental impact reported in the EIR were predictions by calibrated models.

VI. WHY THE COMMISSION SHOULD MAKE A DECISION NOW DIFFERENT FROM ITS PREVIOUS ONES

Citing a string of prior decisions to deny attempts by Water Plus to terminate the MPWSP, Cal Am contends that the petition is based on no new information that is sufficiently strong for the Commission to make a different decision now. As I indicated in the petition, all prior attempts involving data tampering were based on the Water Plus finding of an impermissible negative correlation between model estimates and errors for the 180-foot aquifer without the identification of any specific act of data tampering that could have produced that correlation. The petition identifies that act in the Geoscience and HydroFocus practice of model calibration used to improve the appearance of model predictive power which, in

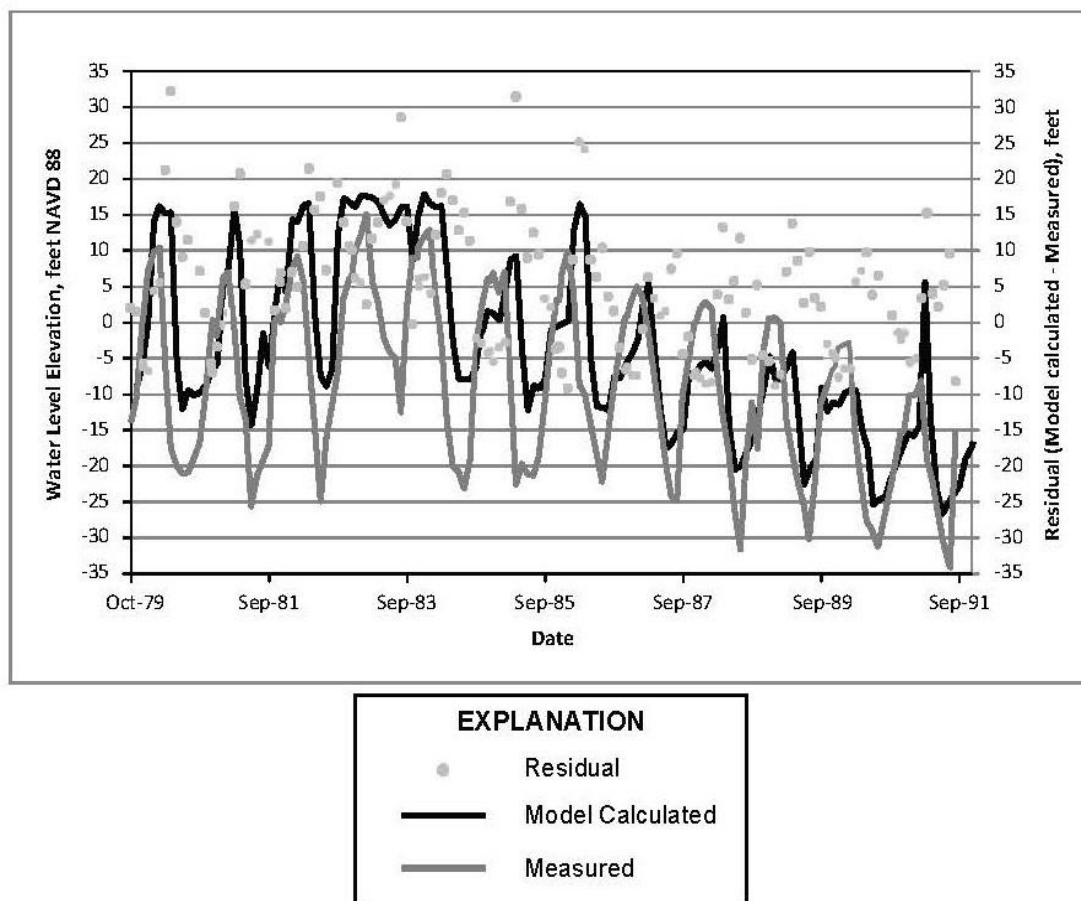
the absence of that practice, would be—and is, even with calibration—unacceptably low for the 180-foot aquifer. The identification of that act is more than sufficient reason now for the Commission to terminate the MPWSP.

Prior to the identification of that act, the Commission was faced with two competing explanations of the impermissible non-zero correlation between estimates and errors. HydroFocus contended that it was due to the inability of its model to catch up with the data when water levels were falling. Water Plus contended that the opposite was true: The correlation of errors with both falling water levels and their correspondingly falling model estimates was due to the non-zero correlation between estimates and errors—now, but not previously, known to be caused by model calibration. The Commission decided in favor of HydroFocus, likely because, if for no other reason, to do otherwise would be so costly that it would appear to be irresponsibly arbitrary. With the identification of the cause of the -0.45 estimate-error correlation in model calibration, that problem no longer exists. The Commission has every reason now to terminate the MPWSP by granting the petition of Water Plus.

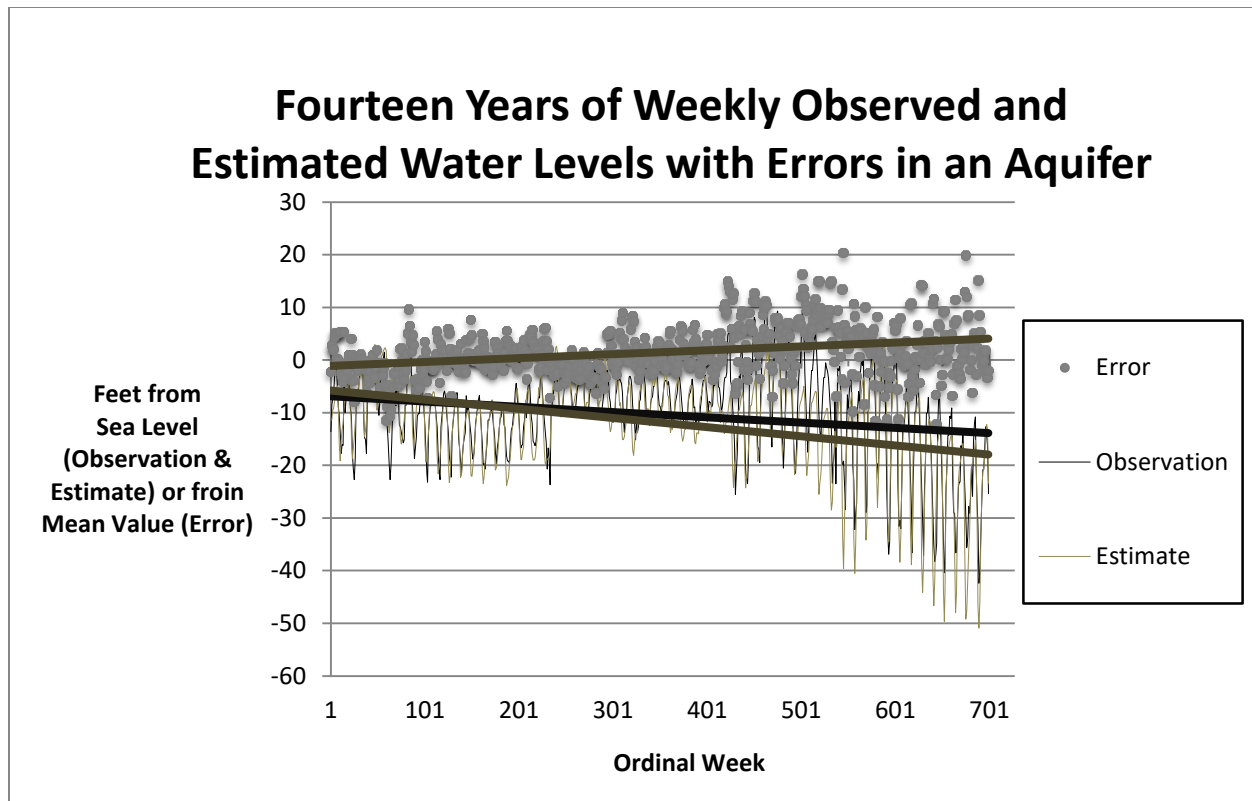
VII. THE HYDROFOCUS EXPLANATION OF THE NON-ZERO CORRELATION BETWEEN ESTIMATES AND ERRORS: A CLOSER LOOK

In evaluating my draft submission to *Chance*, its editor (Amanda Peterson-Plunkett) was so careful that she sent the draft to the Commission and to both Geoscience and HydroFocus and invited them all to comment on the draft. Only HydroFocus responded, as follows: “The issues discussed in the article were addressed during the EIR process.” That was it, and so it is worth a closer look now.

HydroFocus used the following graph (Figure 4.3d in Appendix E2 of the 2017 EIR) to illustrate its contention that the non-zero correlation between estimates and errors was caused by the model's inability to catch up with falling water levels:



This graph shows water-level measurements (grey line) and their estimates (black line) trending downward over time while errors (open circles) trend downward, as well, from positive to negative, showing a positive correlation between errors and both the observed measurements and their estimates. How could that be when the actual correlation is negative (-0.45), suggesting an upward error trend, as shown in the graph below, which is the first figure in the second linked article in the petition?



Here, appropriately, the errors trend upward while both the water-level observations and their estimates trend downward, correctly reflecting the negative error-estimate and error-observation correlations.

So, what explains the discrepancy between the two graphs? The description of the vertical scale for errors (residuals) on the right side of the HydroFocus graph suggests the answer: “Model-calculated - Measured.” That is the opposite of what it should be, as shown in the equation below:

$$\text{Measured water level} = \text{Model-calculated [Estimate]} + \text{Residual [Error]}$$

What it should be is, “Measured - Model-calculated.” HydroFocus determined errors incorrectly. What it described as positive errors should be negative errors and vice versa. The errors in its graph should be rising rather than falling. What HydroFocus described as a positive correlation between estimates and errors and

between measured water levels and errors over time should be a negative correlation. What its graph should show—instead of a model that was too slow to catch up with the data—is a model whose predictions are ahead of the data, a prescient model which, to believe it as an explanation of the non-zero correlation between estimates and errors, would require a return to the old days of divining rods.

Cal Am claims that Water Plus failed to supply an affidavit supporting the assertion central to the petition that calibration causes a negative correlation between estimates and errors. That calibration creates a negative correlation between estimates and errors is a demonstrated fact, not merely a claim or a contention. It does not need an affidavit.

VIII. CONCLUSION

For reasons provided in Section 1 herein, in behalf of Water Plus, I request that the Commission grant this motion to disqualify ALJ Haga for reasons of bias from making further decisions on motions and petitions by Water Plus in the proceeding on the MPWSP, particularly on the pending petition by Water Plus filed on 5 August 2022 to modify D.18-09-017.

Dated 19 September 2022

Respectfully submitted and verified,

A handwritten signature in black ink, appearing to read "Ron Weitzman".

Ron Weitzman, Ph.D.

President, Water Plus

Sam Farr

November 11, 2022

California Coastal Commission Members
455 Market Street, Suite 300
San Francisco, CA 94105
VIA EMAIL: EORFC@coastal.ca.gov

RE: Support for Monterey Peninsula Water Supply Project, App. No. 9-20-0603 (Agenda Item Th8a)

Dear Members,

I'm sorry I couldn't be here today, but I wanted to submit these remarks, having you understand the "Big Picture" not covered in your staff report.

I support the staff recommendations. I served for 44 years in elective office at the local, state, and federal level. When I was a County Supervisor I sat on the Regional Coastal Commission and was responsible for the Local Coastal Plans (LCP), for Big Sur, Carmel Highlands, and Pebble Beach. I also drafted the Monterey Peninsula Water Management District law 40 years ago with the goal of placing all public water and sewer districts under one authority, thus the name "water management". The Goliath in water management is not Cal Am, but the six public water and sewer districts on the peninsula.

1. Too many special districts.

The six special districts of the Monterey Peninsula dealing with water and sewer all seem to oppose the Cal Am Project. None of them produce new water, and while they all talk about the need for affordable housing on the Monterey Peninsula, none have done anything to either create new water supplies or earmark water for affordable housing needs. These six districts have budgets exceeding \$215M, paying 16 executives more than the Governor of California (Governor salary is \$210,000/year). The most cost-effective way to save on water and sewer costs would be to merge these districts into one.

2. Social/Environmental Justice

In the legislation creating the Monterey Peninsula Water Management District, jurisdictional authority was given to merge all the water and sewer districts. Marina Coast Water District was the first to pull out of the legislation saying they wanted to remain alone. Now, despite their jurisdictional isolation, they continue to have both managerial and jurisdictional difficulties and are dependent on over-drafted ground water. After Fort Ord closed, the Marina Coast Water District was given the United States Army's supply wells and pipeline distribution system at no cost. The city of Marina was given all its former Ft. Ord land without cost. Together they had a unique financial ability with no cost land and additional free water to build abundant affordable housing. Instead, the land was sold to developers without setting aside any water for affordable housing.

Marina Coast Water District also created a new unequitable pricing system that charges different rates for water users of old housing and a different rate for those in new housing. The district has now increased its size to 257 employees with an annual budget of \$47.5 M. As staff has noted, the district seems to spend more time in lawsuits blocking solutions than in finding new water solutions.

The staff report notes that Marina is disproportionately affected by neighboring industrial users. The report fails to point out, however, that the regional landfill, the regional composting facility, and the regional sewage plant, are

Sam Farr

all collocated in one location outside of Marina City limits and were created before Marina City was incorporated. Also, Monterey One Water is at that site and employs 117 people. The commission staff report indicates that Marina is disproportionately affected by industrial uses noting the Marina Airport as an industrial burden. The airport was given to Marina by the United States Army at no cost and is now home to the Joby Air Taxi Assembly plant and the largest private employer in the City.

3. Catch 22 - New Water vs Cost

Cal Am is a private water delivery system and the only entity with existing financial ability, knowledge, and track record of producing and distributing potable water on the Monterey Peninsula. (Marina Coast has its own system but is unable to produce more potable water without the risk of greater saltwater intrusion). Cal Am must produce new sources of potable water to support housing needs. It now gets its water from several different sources including the Carmel River, stormwater capture and recycled water. Given the imperative to reduce pumping on the Carmel River, saltwater conversion is the only way to produce a reliable, drought proof, water supply, thus the project before you. If approved as the Staff recommends, the new cost of water will be mixed in with the old costs, plus additional sources when available.

4. Affordable Housing

The regional housing needs assessment (RHNA) adopted by AMBAG points out that the housing elements of each city's adopted general plan calls for a total of 6,853 new affordable housing units on the Monterey Peninsula including Marina. In the seven cities on the peninsula a total of 2,225 "very low and low income" units of housing are needed. Despite this, no city or water agency has earmarked any water to meet this need. Without sustainable water supplies the much needed housing has no chance of being built. New supplies of potable water are needed and must be first earmarked for affordable housing as prescribed in the AMBAG assessment. In all cases, the system for reliable potable water, including during drought times, is needed.

Conclusion:

The Commission should support the staff recommendations and add a condition that water from the Project should first be set aside in a water bank and earmarked for affordable housing pursuant to the adopted needs assessment.

Thank you,



Congressman Sam Farr (Retired)

To the California Coastal Commission:
I am a Seaside resident. I oppose the Cal Am desalination project that will more than double my water bills, which are already very high. This plant is overly costly, environmentally damaging, and not needed. Please deny the permit for Cal Am's desalination plant.

A la Comisión Costera de California:

Soy residente de Seaside. Me opongo al proyecto de desalinización de Cal Am porque duplicará el costo de mis facturas de agua, que ya son muy altas. Esta planta es demasiado costosa, dañina para el medio ambiente, y no es necesaria. Por favor de rechazar el permiso por la planta desalinizadora de Cal Am.

Name/Nombre & Signature/Firma	Address / Dirección
Francesca Fowler Amor	1245 Hilby Ave, Seaside, CA 93955
Marb Deu	830 Arlington Pl Del Rey Lakes
BOBBY MAXWELL	949 HUBBARD AVE SEASIDE, CA 93955
MADISON PARKER	1582 VALLEJO ST, SEASIDE, CA 93955
KAY E. CLINE	1614 KENNETH ST, SEASIDE, CA 93955
DAVID COTTON	1075 TWEED ST SEASIDE 93955
CATE MOLLIGAN	1645 HERDING ST SEASIDE CA 93955
MICHAEL WILDOYER	2000 HIGHLAND ST SEASIDE CA 93955
JOAN L. MILLER	2000 HIGHLAND ST SEASIDE 93955
ALSO MY SISTER	1505 OGD GROVE AVE SEASIDE CA 93955
LUISY INEARR	1515 OGD GROVE AVE SEASIDE, CA 93955
AN OBER	403 SAN BERNABE DR MENDOCINO, CA 93940
KEELY NIGHTINGALE	1496 OGD GROVE AVE SEASIDE CA 93955
CARLY RIVER	2035 CROSS ST SEASIDE 93955
THOMAS HUGHES WILSON	2035 CROSS ST SEASIDE, CA 93955
SUANN M. DUBOY	1480 OGD GROVE AVE SEASIDE, CA 93955
514 BROWN	1655 MILITARY SEASIDE 93955

To the California Coastal Commission:
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Name/Nombre & Signature/Firma	Address / Dirección
1. <i>Shirley J. James</i>	1324 Harding St. Seaside
2. <i>Barbara J. Miller</i>	1337 Harding St. Seaside
3. <i>Barbara J. Miller</i>	1318 Harding St. Seaside
4. <i>Kenneth A. Mayes</i>	1355 Harding St. Seaside 93955
5. <i>Mark Miller</i>	1367 Harding St. Seaside 93955
6. <i>James H. Singletary</i>	1379 Harding St. Seaside 93955
7. <i>Kelly Cowan-Sanchez</i>	1385 Harding St. Seaside, CA 93955
8. <i>Michael B. Sanchez</i>	1385 Harding St. Seaside, CA 93955
9. <i>Patricia Fay-Maguire</i>	1336 Harding St. Seaside, CA 93955
10. <i>Frank A. Llanera</i>	1585 Mira Mar Ave Seaside, CA 93955
11. <i>Robert S. Bonasobas</i>	1585 Mira Mar Ave Seaside CA 93955
12. <i>Erminio Lopez</i>	1325 Harding St Seaside, CA 93955
13. <i>Erminio Lopez</i>	1470 Wanda Ave. Seaside CA 93955
14. <i>Erminio Lopez</i>	1470 Wanda Ave. Seaside CA 93955
15. <i>Angela Doolittle</i>	1470 Wanda Ave. Seaside CA 93955
16. <i>Laura Wood</i>	1248 Harding St. Seaside, CA 93955

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Name/Nombre & Signature/Firma	Address / Dirección
Martina	1656 Harding St
Lea	1648 Harding St
Alma	1648 Harding St
Jody Lee	1648 Harding St Seaside CA
Jody Lee	1665 Harding St. Seaside CA
Britany Casas Solano	1669 Harding St. Seaside CA
Dotricia Isadore	1677 Harding St Seaside
Patrick Mays	1681 Harding St. Seaside
Veronica Perez	1696 Harding St Seaside CA
Alex Hernandez	1693 Harding St Seaside CA
Chloe Runt	1691 Harding St Seaside CA
Trang Nguyen	1680 Harding St Seaside CA 93955
Carmen Galt	
Richard Hernandez	1609 Harding St, Seaside CA 93955
Shari Lopez	1608 Harding St Seaside CA 93955
Laura Cortez	1600 Darwin St Seaside CA 93955
MW	1623 Darwin St, Seaside CA

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Name/Nombre & Signature/Firma	Address / Dirección
Shirah Shih <i>Consadora Brando</i>	680 Harcourt Ave 93955
CONSOACION INOSATO	685 Harcourt Ave. Seaside, CA 93955
William F. Weigle	1614 Kenneth St., Seaside, CA 93955
William F. Weigle	
Kavi Chund Bhat	698 Harcourt Ave Seaside CA 93955
LEN S. MEILLOS	690 Harcourt Ave, Seaside
Joe B. Meillos	690 Harcourt Ave, Seaside, CA
ABEULDE MEILLOS	
<i>Joe B. Meillos</i>	
EMILY MEILLOS DM	690 Harcourt Ave, Seaside CA
NICOLA LAGARO	535 WILLIAMS AVE, Seaside, CA. 93955
Maria Lagaro	
VIRGILIO LAGARO	535 WILLIAMS AVE, Seaside, CA 93955
<i>Virgilio Lagaro</i>	
AMY HUNTINGTON	675 HARCOURT AVE SEASIDE, CA 93955
884	
KARRY W AMOS	1072 KONTZ CT. 55

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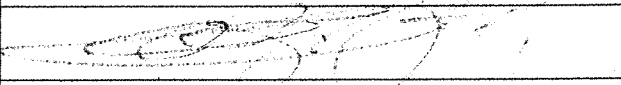


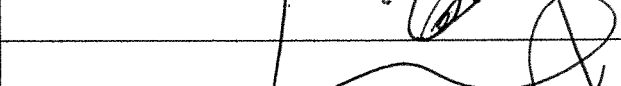

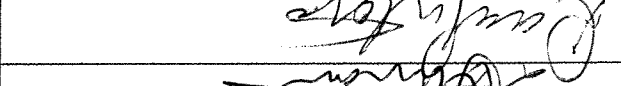
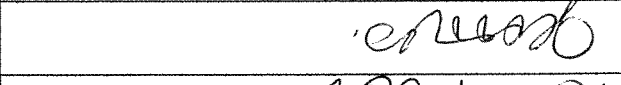
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[illegible]

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Name/Nombre & Signature/Firma	Address / Dirección
	1337 HARDING ST SEASIDE CA 93955
	1399-11120th ST SEASIDE CA 93955
	2604 S. CARNELO HILLS DR. CARNELO CA 93923
	360 SOMERVALE AVE SEASIDE CA 93955
	1232 HARDING ST SEASIDE CA 93955
	1232 HARDING ST SEASIDE CA 93955
	1200 HARDING ST SEASIDE CA 93955

To the California Coastal Commission:

A la Comisión Costera de California:

Cal Am's desalination plant.

necesaria. Por favor de rechazar el permiso por la planta desalinizadora de Cal Am.

[illegible]

To the California Coastal Commission:

A la Comisión Costera de California:

Cal Am's desalination plant.

Name/Nombre & Signature/Firma	Address / Dirección
Susan Spilow, Susan Spilow	1146 Birch Ave, #24, Seaside
John Norman, John Norman	1291 Sonoma Ave, Seaside 93955
Dr. Ann Watanabe	1291 Sonoma Avenue Seaside CA 93955
Stefani Mistretta	1289 Sonoma Ave Seaside CA 93955
SAMUEL ANDREWS	1286 Sonoma Seaside CA 93955
Sidney L. Brown - Jr	1442 Yosemita St. Apt H Seaside CA 93955
Erin Drake - Prier	1266 Sonoma Ave Seaside CA 93955
Acot Pimmon	1250 Sonoma Ave Seaside CA 93955
CAROL SHIELDS Caldwell	1808 SAINT HELENA ST SEASIDE 93955

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Name/Nombre & Signature/Firma	Address/Dirección
1. <i>Adela Fuenti Quicog</i>	60 Cuarta Vía, Monterey 93940
2. <i>KATHLEEN DICICCO</i>	29 LOS ENCINOS RD, Mary 93940
3. <i>gman</i>	1520 WANDA AVE, SEASIDE, CA 93955
4. <i>Ruth Bedorn</i>	1513 Wanda Avenue, Seaside, CA
5. <i>Angela</i>	1300 Valley St, Seaside 93955
6. <i>Joseph Thompson</i>	" " " " " "
7. <i>Bobby Thompson</i>	1361 LUTHERN ST SEASIDE CA 93955
8. <i>Ex mor Raurig</i>	831 244 3225 Seaside 93955
9. <i>Ruth Wells</i>	PO Box 10 Via Contaruto 93954
10. <i>DANN SIMS</i>	529 MONROE ST Monterey
11. <i>TRISH SIMS</i>	529 MONROE ST, Monterey
12. <i>SALMAN SIDDIQUE</i>	571-299-0911 SEASIDE, CA 93940
13. <i>Terence P Smith</i>	669 Van Buren St #109 Monterey, CA 93940
14. <i>Agnes Fontalis</i>	200 GREENWOOD CIR. Monterey
15. <i>William Smit</i>	131 Lighthouse Ave Apt #2 Monterey CA
16. <i>Shirone Smit</i>	131 Lighthouse Ave Apt #2 Monterey CA

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Name/Nombre & Signature/Firma	Address / Dirección
Insa Walker James Walker	
James Walker 1245 Lowell St, Seaside, CA	
Gilda Smith 1933 Lowell St, Seaside, CA	
Gilda Smith 1933 Lowell St, Seaside, CA	
Gilda Smith 1933 Lowell St, Seaside, CA	
Gilda Smith 1933 Lowell St, Seaside, CA	
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[illegible]



MEMORANDUM

TO: Rem Scherzinger
General Manager
Marina Coast Water District

DATE: November 10, 2022

SUBJECT: Response to Supply and Demand Assumptions in the California Coastal Commission Staff Report, Appeal No: A-3-MRA-19-0034

Introduction

This memorandum expands upon information and analysis contained in WaterDM's Fifth Supplemental Export Report, responds to supply and demand assumptions in the California Coastal Commission Staff Report, Appeal No: A-3-MRA-19-0034, and projects the volume of excess supply available with and without California American Water Company's Monterey Peninsula Water Supply Project desalination project.

Water Demand Forecast

The necessity for Cal-Am's desalination project hinges upon its updated water demand forecast.¹ The California Coastal Commission Staff Report recommending approval with conditions for Cal-Am's desalination project asserts that the California Public Utilities Commission (CPUC) will ultimately decide if the project is necessary and "whether additional water supplies will be needed beyond what the Pure Water Monterey Expansion will provide."²

But while appearing to leave the final decision on the necessity of the project to the CPUC, the Coastal Commission Staff nevertheless accepts that, "updated water demand and supply estimates and projections reasonably demonstrate that Cal-Am's (desalination) Project is likely to be needed at some point during the current 20-year planning period for future demand and supplies." This conclusion about Cal-Am's need for the desalination project in turn enables the Coastal Commission Staff to set aside numerous environmental and environmental justice concerns and recommend approval with conditions.

The problem is that Cal-Am's long-term demand forecast of 14,593 AF in 2050 is inflated and the need for Cal-Am's desalination project is overstated. In Cal-Am's updated forecast, per capita water use is assumed to increase by 14% by 2050 – exactly the opposite to what has been happening and what the State of California has legislated. These inflations and other problems with the forecast are noted in WaterDM's Fifth Supplemental Export Report.³

¹ Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022, (Table 5, p.24).

² California Coastal Commission. Staff Report. 11/4/2022. Application 9-20-0603 / Appeal A-3-MRA-19-0034 (California American Water Co.)

³ WaterDM. 2022. Fifth Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company's Monterey Main System

Cal-Am has a poor track record with recent demand forecasts.⁴ Cal-Am's 2017 demand forecast provided to the CPUC as part of the application for the proposed desalination plant predicted water use in 2020 would be 12,350 AF. Cal-Am's water use in 2020 was in fact just 9,412 AF. Thus, Cal-Am's demand forecast was 31.2% higher than actual use, just three years after it was submitted. Errors of this magnitude are expensive for rate payers. Infrastructure projects sized based on an overstated demand forecast would almost certainly be sized larger than needed, imposing a costly and unnecessary burden on rate payers for years to come. Cal-Am's 2022 updated demand forecast repeats the same error of starting from an unrealistically high demand rather than the actual demand.

Independent forecasts of demand prepared by the Public Advocates Office of the CPUC (Cal Advocates)⁵ and WaterDM⁶ closely agree and show that a more realistic future forecast for Cal-Am in 2050 is between 11,073 AF (Cal Advocates) – 11,160 AF (WaterDM). WaterDM's forecast, which incorporates all anticipated future growth, is shown in Figure 1.⁷

Storage Build-Up

The Coastal Commission staff report neglects Cal-Am's ability to store and bank water in the Seaside Basin in the coming years. This buffer supply will enable Cal-Am to provide reliable supply to 2050 and beyond without the desalination project. Cal-Am is allocated 28,777 AF of total storage in the Seaside Groundwater Basin.⁸ Careful management of the Seaside Groundwater Basin and optimizing the storage opportunities it provides will help ensure a long-term reliable supply for the Cal-Am Monterey service area.

Cal-AM participates in an aquifer storage and recovery (ASR) project that allows for the capture of excess Carmel River winter flows through wells along the river. This river water is then transferred through existing conveyance facilities, including the new Monterey Pipeline and Pump Station, and stored in the Seaside Groundwater Basin for later extraction.⁹ There are two water rights totaling 5,326 AF that support the ASR system,¹⁰ but in reality Cal-Am is only be able to divert, inject, and store the maximum permitted volume in the wettest of years. Based on long-term historical precipitation and streamflow data, the ASR system is designed to allow an average of 1,920 AF per year to be recovered.

With the addition of the Pure Water Monterey Expansion, Cal-Am will have further opportunities to inject and store a portion of its Carmel River supply in the Seaside Groundwater Basin which will allow for recovery if additional supply is needed.

⁴ WaterDM 2022.

⁵ Public Advocates Office of the CPUC. 8/19/22. Report and Recommendations Application 21-11-024 Phase 2 San Francisco, California

⁶ WaterDM 2022.

⁷ WaterDM's continued efficiency forecast is based on Cal-Am's current stated service area population and on AMBAG's anticipated population growth through 2050 including population additions from the RHNA. With these additions, the total population of the Cal-Am service is forecast to be 117,948 in year 2050.

⁸ Seaside Basin Watermaster Annual Report – 2019, December 5, 2019

⁹ California-American Water Company. 2019. (U-210-W) Update to General Rate Case Application, A.19-07-004. Direct Testimony of Christopher Cook. (p.7)

¹⁰ MPWMD Report (p.3)

Excess Supply

As shown in Figure 1 and Table 1, starting in 2024 when the Pure Water Monterey Expansion supply comes online, there is excess supply volume in every year out to 2050. Some of this excess supply could be banked. The excess supply is shown as the volume above the dotted line (WaterDM's continued efficiency forecast) in Figure 1.

Without the desalination facility, Cal-Am will have a cumulative total excess supply of 27,874 AF by 2050 – enough to fill its storage allocation in the Seaside Basin. If Cal-Am's desalination project comes online in 2026¹¹, there will be more than 6,500 AF of excess supply per year and more than 144,000 AF of cumulative excess by 2050, far exceeding Cal-Am's storage capacity in the Seaside Basin.

Summary

The necessity for Cal-Am's desalination project and the Coastal Commission staff report conclusions hinge upon an inflated water demand forecast. Accepting Cal-Am's need for the desalination project in turn enables the Coastal Commission Staff to set aside numerous environmental and environmental justice concerns and recommend approval with conditions.

WaterDM's more realistic water demand forecast shows that with the addition of the Pure Water Monterey Expansion, Cal-Am will have excess available supplies which increases the potential for banking water in the Seaside Basin.

Without the desalination project, Cal-Am will have a cumulative total excess supply of 27,874 AF by 2050. With the desalination project, Cal-Am will have more than 144,000 AF of cumulative excess by 2050, far exceeding Cal-Am's storage capacity in the Seaside Basin.

¹¹ Assumes Phase 1 of Cal-Am desalination produces 5,376 AF/year and 695 AF/year are delivered to Castroville.

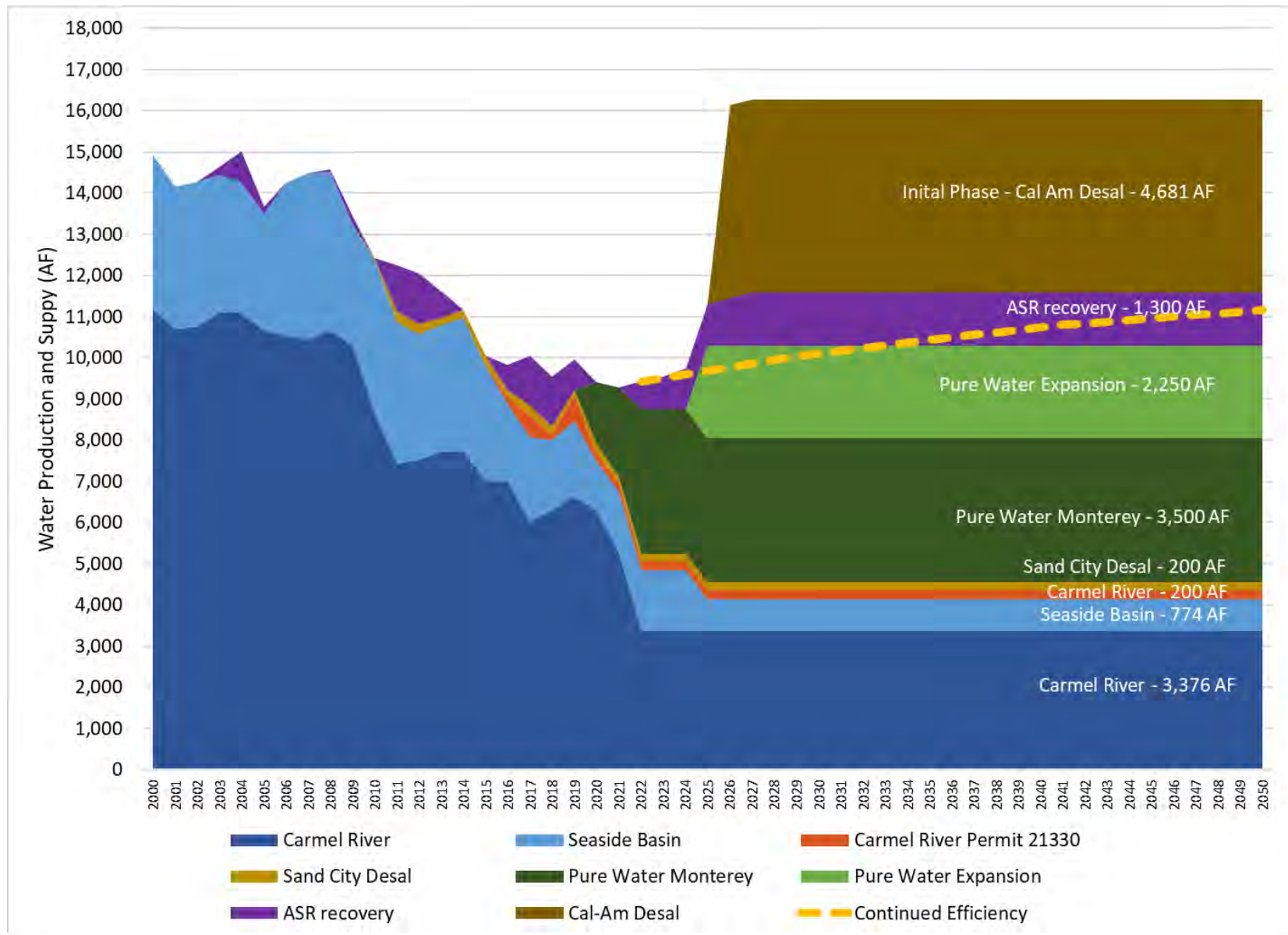


Figure 1: Cal-Am supply and demand 2000 – 2021, forecasted supply and demand 2022 - 2050

Table 1: Forecasted Cal-Am water supplies and demand 2022 - 2050

Year	Carmel River	Carmel River Permit 21330	Seaside Basin ¹²	ASR recovery	Sand City Desal	Pure Water Monterey	Pure Water Monterey Expansion	First Phase of Cal-Am Desal. ¹³	Total Cal-Am Supply	WaterDM Continued Efficiency Forecast	Excess supply without Desal.	Excess supply with Desal.	Cumulative Excess without Desal.	Cumulative Excess with Desal
2022	3,376	200	1,474	679	200	3,500	-	-	9,429	9,429	-	-	-	-
2023	3,376	200	1,474	800	200	3,500	-	-	9,550	9,517	33	33	33	33
2024	3,376	200	1,474	1,000	200	3,500	-	-	9,750	9,604	146	146	179	179
2025	3,376	200	774	1,300	200	3,500	2,250	-	11,600	9,691	1,909	1,909	2,088	2,088
2026	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	9,777	1,823	6,504	3,910	8,591
2027	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	9,863	1,737	6,418	5,647	15,009
2028	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	9,949	1,651	6,332	7,298	21,341
2029	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,034	1,566	6,247	8,864	27,588
2030	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,118	1,482	6,163	10,346	33,751
2031	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,182	1,418	6,099	11,764	39,850
2032	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,246	1,354	6,035	13,118	45,885
2033	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,309	1,291	5,972	14,409	51,857
2034	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,372	1,228	5,909	15,637	57,766
2035	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,435	1,165	5,846	16,802	63,612
2036	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,497	1,103	5,784	17,905	69,396
2037	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,559	1,041	5,722	18,946	75,118
2038	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,620	980	5,661	19,925	80,778
2039	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,681	919	5,600	20,844	86,378
2040	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,742	858	5,539	21,702	91,917
2041	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,803	797	5,478	22,499	97,395
2042	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,843	757	5,438	23,256	102,833
2043	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,884	716	5,397	23,972	108,230
2044	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,924	676	5,357	24,648	113,587
2045	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	10,964	636	5,317	25,284	118,904
2046	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	11,004	596	5,277	25,880	124,181
2047	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	11,043	557	5,238	26,437	129,419
2048	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	11,082	518	5,199	26,955	134,618
2049	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	11,121	479	5,160	27,434	139,778
2050	3,376	200	774	1,300	200	3,500	2,250	4,681	16,281	11,160	440	5,121	27,874	144,899

¹² Assumes 25-year payback of 700 AF per year to the Seaside Basin begins when the Pure Water Monterey Expansion comes online in 2025.

¹³ Assumes Phase 1 of Cal-Am desalination produces 5,376 AF/year and 695 AF/year are delivered to Castroville.

**Fifth Supplemental
Expert Report and Recommendations of**

Peter Mayer, P.E.

**Regarding Water Supply and Demand in the
California American Water Company's Monterey
Main System**

Prepared for:

The Marina Coast Water District

August 18, 2022





WATER DEMAND MANAGEMENT
1339 Hawthorn Ave.
Boulder, CO 80304
waterdm.com

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SCOPE OF INVESTIGATION

This report is intended as a fifth supplement to the report WaterDM submitted to the Marina Coast Water District on April 21, 2020 and supplemental reports WaterDM submitted on July 1, September 11, and November 25, 2020, and March 22, 2022 that expanded on the research, analysis, and forecasts prepared for the original report.

For this fifth supplement, I was specifically asked to:

1. Review and respond to the July 20, 2022 Phase 2 direct testimony provided by the California-American Water Company (“Cal-Am”) as updated on July 25, 2022.¹
2. Update and extend to 2050 the demand forecast WaterDM prepared for Cal-Am’s Monterey Main System in a series of expert reports,² incorporating new information and data.
3. Review Cal-Am’s available water supplies if the Amended and Restated Water Purchase Agreement is adopted or if it is not adopted.

My opinions are based on my understanding of the information available as of the date of this report and my experience evaluating municipal and industrial water supplies and demands and conservation measures. In forming my opinions, I also considered the documents, testimony, and other materials listed in Appendix A. Should additional information become available to me, I reserve the right to supplement this report based on any additional work that I may conduct based on my review of such materials.

¹ Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022.

² WaterDM. April 21, 2020. Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company’s Monterey Main System.

WaterDM. July 1, 2020. Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company’s Monterey Main System.

WaterDM. September 11, 2020. Second Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company’s Monterey Main System.

WaterDM. March 22, 2022. Fourth Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company’s Monterey Main System.

SUMMARY OF OPINIONS AND CONCLUSIONS

As a result of my review of the items listed in Appendix A and other related and relevant documents and reports, my own independent analysis, and my expertise in municipal and industrial water use, water management, and engineering, I offer the following supplemental analysis and opinions regarding Cal-Am's water demand and supply:

Since my prior reports, Cal-Am's water demand further declined as customers have become more efficient and system water losses have been reduced.

WaterDM concluded in its April 21, 2020 expert report that Cal-Am's per capita use would continue to decrease due to ongoing conservation program implementation, conservation pricing, and water loss control measures. This has proven true and the trend towards increased efficiency is expected to gradually continue. WaterDM's updated demand forecasts for this supplemental report include continuing population growth in the Cal-Am service area and gradual efficiency improvements.

Cal-Am's revised 2022 water demand forecast provided in Ian Crooks' testimony is overstated.

The new Cal-Am forecast ignores the impacts of future conservation, includes population that is not in Cal-Am's service area, and includes double counts, all of which improperly increase future demand. Furthermore, the forecast in Crooks' testimony differs radically from Cal-Am's independently prepared 2022 PUC 3-year rate case forecast, which projects a decline in demand in the near-term.

A more realistic demand forecast prepared by WaterDM projects Cal-Am's 2050 demands to be 11,160 AF, which is more than 3,400 AF lower than Cal-Am's overstated forecast.

The growth rate in WaterDM's forecast is based on Cal-Am's current stated service area population and on AMBAG's anticipated population growth through 2050 including additions from the RHNA. WaterDM's forecast includes the impacts of ongoing efficiency improvements from Cal-Am's conservation program and state mandates. The result is a 6.1% reduction in per capita use and the conservation of 774 AF over 25 years.

With the addition of 2,250 AF from the Pure Water Monterey Expansion, Cal-Am can meet future demand in 2050.

By adding this additional source and continuing its water conservation efforts, Cal-Am should have sufficient supplies that the local development moratorium can be lifted, while still complying with the State Water Board's limits on Cal-Am's annual Carmel River diversions. Key to the success of this approach will be making necessary physical and management improvements to Cal-Am's aquifer storage and recovery ("ASR") system so it performs as designed and approved by the CPUC. This includes use of the Monterey Pipeline and continuing and extending water conservation and efficiency measures. With prudent management and

investment, Cal-Am should be able to steadily build up ASR reserves, essential for managing through drought periods.

If the Amended and Restated Water Purchase Agreement is not adopted and water from the Pure Water Monterey Expansion is not available, Cal-Am would face supply short falls starting in 2025 without additional action. If this supply shortfall were to be met with an alternative water supply source such as desalination, a supply sized similarly to the Pure Water Monterey Expansion (2,000 – 3,000 AF) would be adequate to meet future demand based on WaterDM's continued efficiency forecast.

ANALYSIS

Overview

The purpose of this report is to review and respond to the testimony provided by Cal-Am on July 20, 2022 (updated July 25) and to update and extend to 2050 the demand forecast WaterDM prepared in a series of expert reports, incorporating new information and analyses.

In its April 21, 2020 report, WaterDM prepared forecasts for the Cal-Am Monterey Main System to estimate future average annual production, inclusive of treatment losses and non-revenue water.³

For this report, WaterDM revised its demand forecasts for Cal-Am using the same basic assumptions but incorporating actual demand and population in 2021, as reported by Cal-Am. WaterDM's revised forecasts were then extended through 2050 based on the AMBAG population forecast with RHNA additions from Cal-Am's July 2022 testimony.⁴ These forecasts were used to compare against Cal-Am's available water supply to assess the necessary size and scope of proposed future supply projects.

Water Production and Demand

Annual Production

Annual water production for the Monterey System from 2000 – 2021 updated with data from Cal-Am's July 2022 testimony is shown in Figure 1 along with boxes added to indicate the influence of mandatory drought restrictions and recession. For the purposes of this report, total water production is assumed to be equivalent to the total annual water demand in the system inclusive of all water use, non-revenue water, and treatment losses.

³ Non-revenue water is the industry-standard replacement term for the antiquated "unaccounted for" water category. Non-revenue water is the technical term used to describe water that produces no revenue to the supplier, and it includes physical losses from water system as well as authorized consumption such as hydrant flushing.

⁴ Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022.

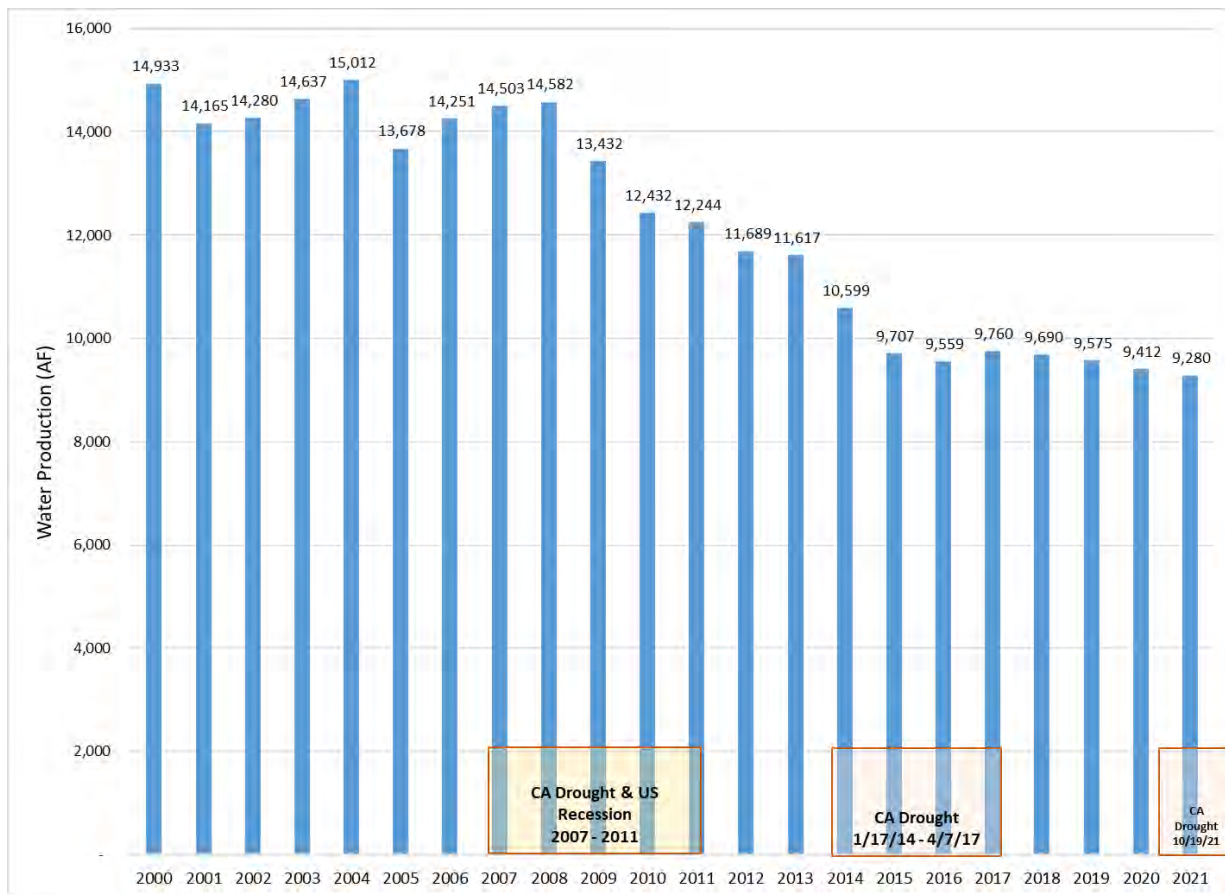


Figure 1: Cal-Am Monterey Main water production, 2000 - 2021⁵

From Figure 1 it is evident that water production in the Monterey System declined steeply from 2008 – 2016 and has continued to decline gradually since 2017. In this 8-year period, steep demand reductions occurred during years when California was in an officially declared drought paired with an economic recession. Production reductions also occurred in 2012 and 2013 which were non-drought and recession influenced years. Over the most recent five-year period, 2017 – 2021, water production in the Monterey Main service area averaged 9,543 AF per year. Over the most recent two-years, production averaged just 9,346 AF. Cal-Am water production in 2021 was the lowest in more than 20 years of records at 9,280 AF.

Comment on Data Sources

Recent data in Figure 1 comes from Cal-Am’s July 2022 testimony. Additionally, Cal-Am publishes and regularly updates monthly and annual water deliveries for Monterey Main,

⁵ Includes treatment and distribution losses. 2013 – 2021 from Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022. 2000 – 2012 From Monterey Peninsula Water Management District. 2019. Supply and Demand for Water on the Monterey Peninsula prepared by David Stoldt, General Manager.

Hidden Hills, Ryan Ranch & Bishop on its website for the desalination project.⁶ Monthly data going back to 2007 are available from the testimony of Ian Crooks (2012)⁷. I compared these published records with the production data set used in a 2020 Monterey Peninsula Water Management District report⁸ and with Cal-Am's quarterly and annual reports to the California State Water Resources Control Board.

Treatment and distribution losses come from Table Eight of Cal-Am's quarterly reports to the State Water Resources Control Board pursuant to condition eight of SWRCB Order WR 2016-0016 and condition six of WR 2009-0060.

For the purposes of the demand forecasts prepared in this report, WaterDM used Cal-Am's production in 2020 and 2021 as reported in Ian Crooks' July 2022 testimony to establish the starting point for the demand forecast to develop the most realistic updated demand forecast possible for the Monterey Main System.

Monthly Deliveries

While not relied upon as the starting point for WaterDM's demand forecasts, Cal-Am's published delivery data were used to analyze the seasonality of demand on the Monterey Main System. Monthly production is shown in Figure 2 with the period of recent drought declaration highlighted. A linear trendline is also added.

⁶ <https://www.watersupplyproject.org/system-delivery> (accessed 7/30/2022), and Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022.

⁷ Direct Testimony of Ian Crooks Before the Public Utilities Commission of the State of California. Application 12-04-019 (Filed April 23, 2012). (p.9).

⁸ Monterey Peninsula Water Management District. 2020. (MPWMD Report) Supply and Demand for Water on the Monterey Peninsula prepared by David Stoldt. (3-13-2020, 12-3-2019, and 9-16-2019).

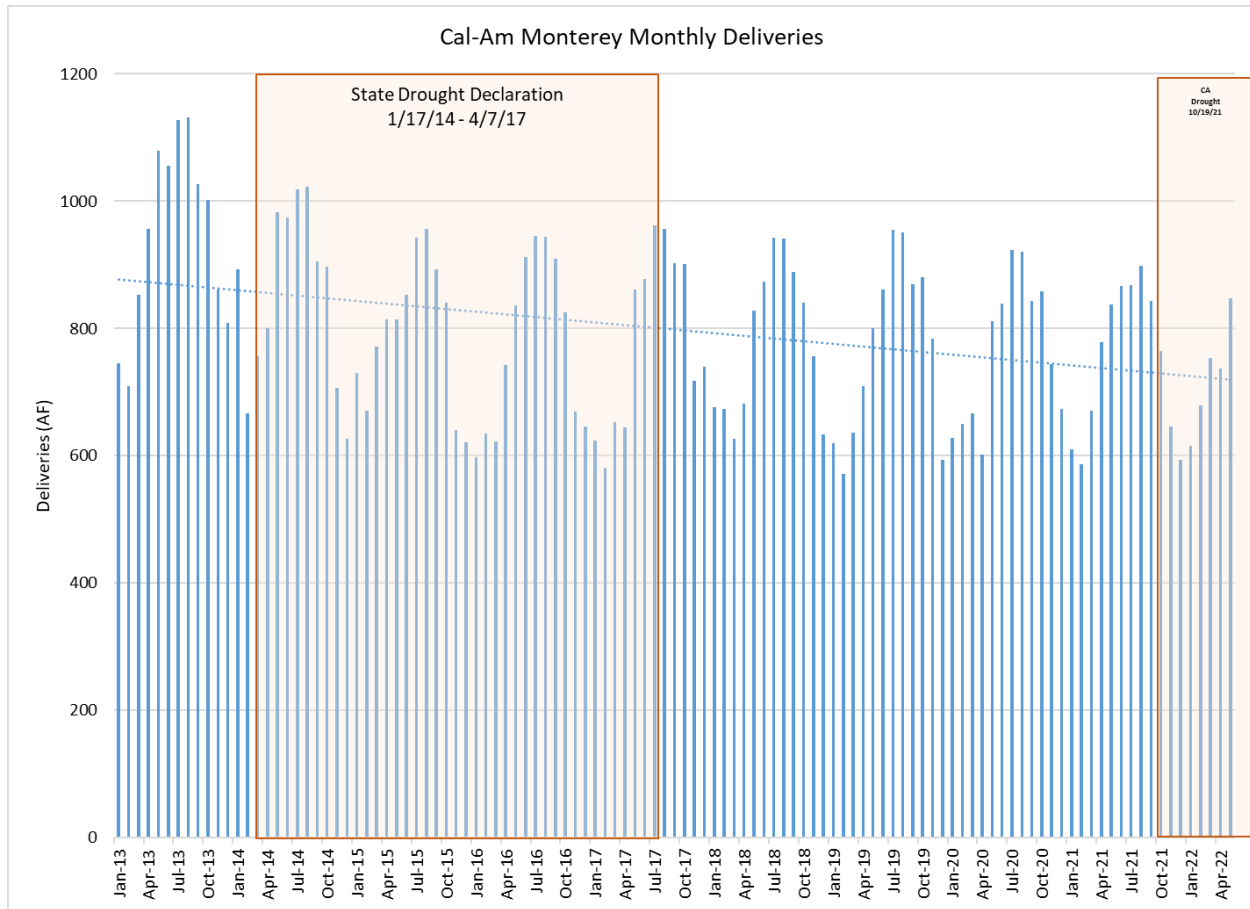


Figure 2: Cal-Am Monterey monthly deliveries

Using these published monthly data, I found the minimum and maximum month of delivery for each year. The average annual non-seasonal (predominantly indoor) deliveries for each year were calculated as the average water use in January, February, November, and December multiplied by 12. Seasonal production for each year was calculated by subtracting non-seasonal from total production. These data and results are shown as a chart in Figure 3 and in Table 1.

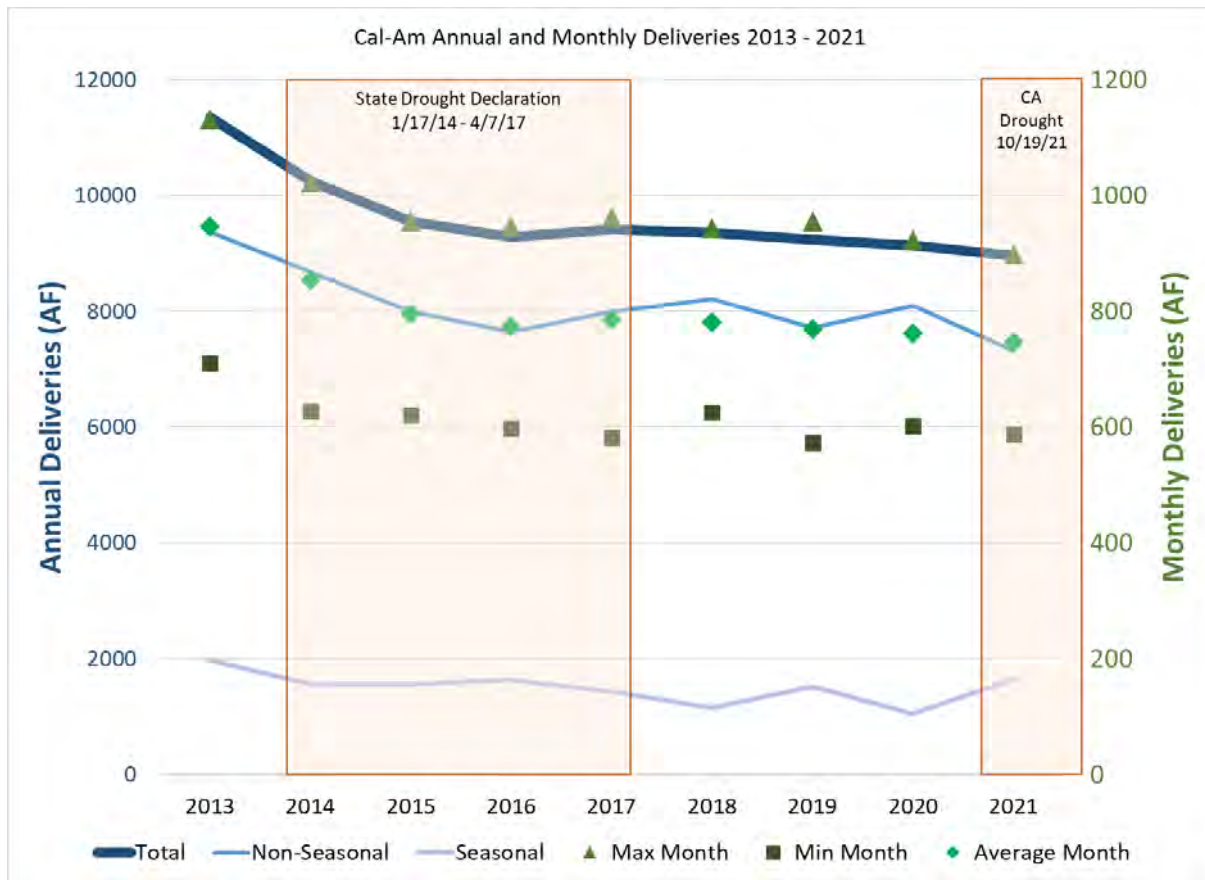


Figure 3: Cal-Am Monterey annual and monthly deliveries, 2013 - 2021⁹

Seasonal deliveries provide an estimate of summertime demand including outdoor irrigation and summertime tourism use. Non-seasonal deliveries provide an estimate of baseline indoor use and non-revenue water that occur throughout the year.

On average, seasonal deliveries accounted for 15.7% of Cal-Am's total across these nine years and ranged between 12.3% and 18.4%. Non-seasonal deliveries accounted for between 81.6% and 88.3% of usage from 2013 – 2021.

This analysis shows that the demand reductions achieved from 2013 - 2016 were largely in the non-seasonal category (predominantly indoor use). Seasonal demand did decline during this period, but not nearly as much as non-seasonal demand.

Both the minimum and the maximum month deliveries for each year have also been declining since 2013. The minimum month of delivery in 2021 was one of the lowest of any of the past nine years.

⁹ From production data published at: <https://www.watersupplyproject.org/system-delivery> (accessed 7/25/2022).

Table 1: Cal-Am monthly deliveries and annual statistics¹⁰

Month	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Jan	745	893	730	597	624	676	620	628	611	616
Feb	710	667	671	635	581	673	572	650	587	679
Mar	853	757	771	623	653	626	636	644	671	754
Apr	957	800	814	742	645	682	710	602	778	737
May	1079	982	814	836	861	828	801	811	838	848
Jun	1056	975	853	912	878	874	861	839	867	
Jul	1127	1018	942	946	962	943	955	923	868	
Aug	1131	1023	956	944	957	941	951	920	898	
Sep	1027	906	893	909	902	889	870	843	843	
Oct	1002	897	840	826	901	841	881	859	765	
Nov	861	707	640	670	717	756	784	744	647	
Dec	809	627	621	646	740	633	594	674	594	
Total Annual Deliveries	11,356	10,250	9,545	9,285	9,421	9,362	9,234	9,138	8,966	
Maximum Month	1131	1023	956	946	962	943	955	923	898	
Minimum Month	710	627	621	597	581	626	572	602	587	
Average Month	946.4	854.3	795.4	773.8	785.1	780.2	769.6	763.4	747.2	
Annual Non-Seasonal	9,375	8,682	7,986	7,644	7,986	8,214	7,710	8,088	7,315	
Annual Seasonal	1,981	1,568	1,559	1,641	1,435	1,148	1,524	1,049	1,652	
%Seasonal	17.4%	15.3%	16.3%	17.7%	15.2%	12.3%	16.5%	11.5%	18.4%	
Total Annual Production (from Figure 1)	11,617	10,599	9,707	9,559	9,760	9,690	9,575	9,412	9,280	
Difference between Production and Deliveries	261	349	162	274	339	328	341	275	314	
% Difference	2.3%	3.4%	1.7%	3.0%	3.6%	3.5%	3.7%	3.0%	3.5%	
System Per Capita (gpcd)	116.8	106.1	96.7	94.7	96.2	95.1	93.2	91.6	90.3	

Note on Data Differences

The volume of water produced by Cal-Am annually as shown in Figure 1 is based on Cal-Am's quarterly and annual reports to the State Water Resources Control Board (2017-2021) which

¹⁰ From delivery data published at: <https://www.watersupplyproject.org/system-delivery> (accessed 7/25/2022)
Includes: Monterey Main, Hidden Hills, Ryan Ranch & Bishop.

treat water loss explicitly. Prior years are based on the MPWMD Report and are higher than the delivery values reported on Cal-Am's website (Figure 2, Figure 3, and Table 1).

For the purposes of the demand forecasts prepared in this report, WaterDM used Cal-Am's production in 2020 and 2021 as reported in Ian Crooks' July 2022 testimony to establish the starting point for the demand forecast to develop the most realistic and updated demand forecast possible for the Monterey Main System.

Per Capita Water Use

WaterDM prepared an independent calculation of per capita water use based on the production volumes shown in Figure 1 and population data from Ian Crooks' testimony. System per capita use is calculated as the total volume of water produced at the source divided by the service area population and the number of days in the year. This calculation of system per capita use is based on production and thus inclusive of all water use, non-revenue water, and treatment losses.

System per capita use in the Cal-Am Monterey Main System in 2010 was 127.0 gpcd. This was the highest level of gpcd over the past 10 years. In 2021, system per capita use was 90.3 gpcd and in 2020 it was 91.6 gpcd. Twelve years of daily system per capita use for the Monterey Main System is shown in Table 2 and Figure 4. Per capita use has decreased in every year except for 2017.

Table 2: Per capita water use, 2010 - 2021

Year	Population	Production (AF)	Per Capita (GPCD)	Source of Production Data
2010	87,419	12,432	127.0	MPMWD Report
2011	87,866	12,244	124.4	MPMWD Report
2012	88,312	12,052	121.8	MPMWD Report
2013	88,759	11,617	116.8	Crooks July 2022 Testimony
2014	89,205	10,599	106.1	Crooks July 2022 Testimony
2015	89,652	9,707	96.7	Crooks July 2022 Testimony
2016	90,098	9,559	94.7	Crooks July 2022 Testimony
2017	90,545	9,760	96.2	Crooks July 2022 Testimony
2018	90,991	9,690	95.1	Crooks July 2022 Testimony
2019	91,717	9,575	93.2	Crooks July 2022 Testimony
2020	91,717	9,412	91.6	Crooks July 2022 Testimony
2021	91,717	9,280	90.3	Crooks July 2022 Testimony

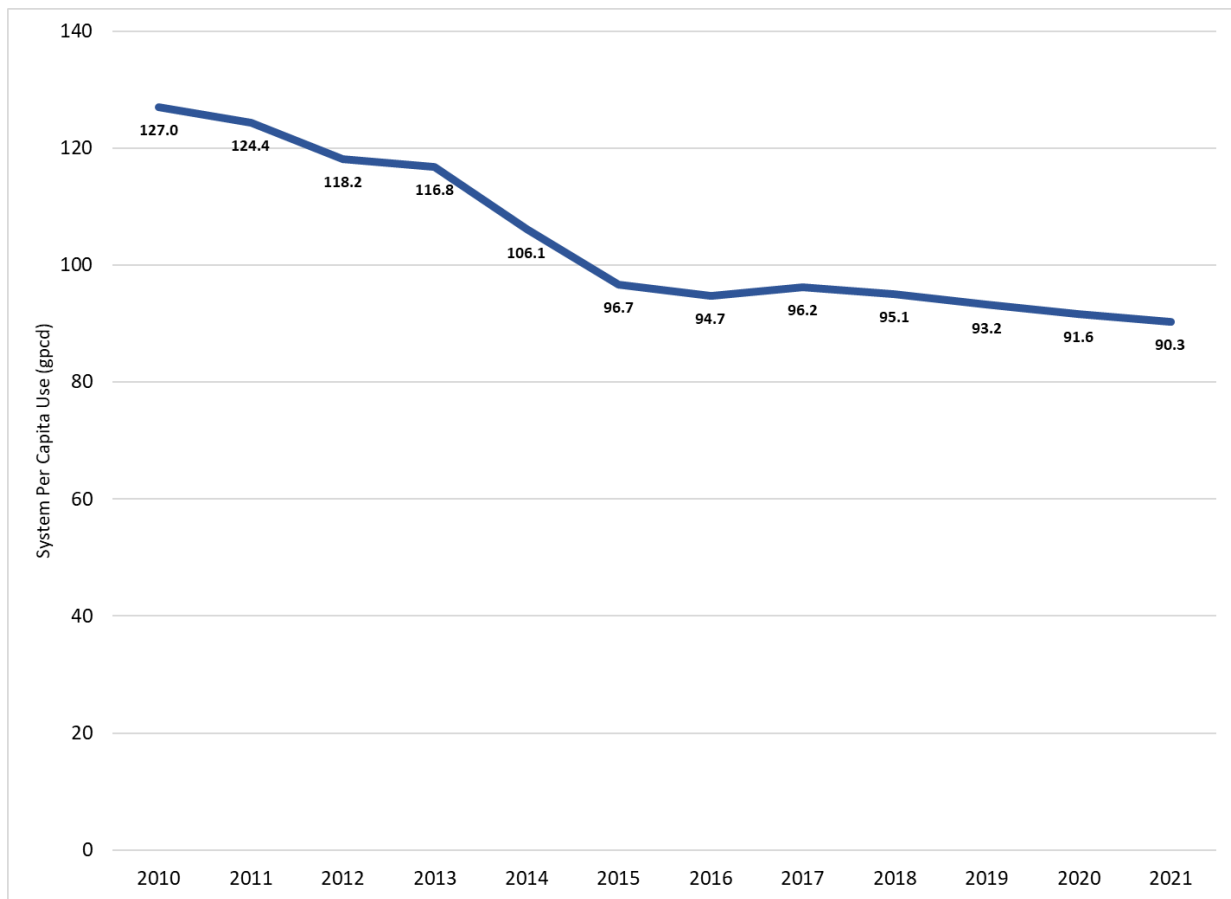


Figure 4: Cal-Am system-wide per capita use, 2010 - 2021

Water Demand by Sector

Cal-Am's 2021 water demand by sector is shown as a pie chart in Figure 5, based on data presented in Cal-Am's recent general rate cases.^{11, 12} Residential use including single- and multi-family customers used 64% of the total produced in 2021. Commercial and industrial customers used 27%, the public / other sector used 5%, and non-revenue was 4%. Non-revenue water includes real and apparent water loss as well as authorized and unauthorized uses for which the utility does not collect revenue.

¹¹ Decision 21-11-018 November 18, 2021, Application of California-American Water Company (U210W) for Authorization to Increase its Revenues for Water Service, Decision Approving and Adopting Settlement and Authorizing California-American Water Company's General Rate Increases for 2021, 2022, and 2023.

¹² Direct Testimony of David Mitchell. Application A.22-07-001. Public Utilities Commission of California. July 1, 2022, (Tables 38 and 39, p.36).

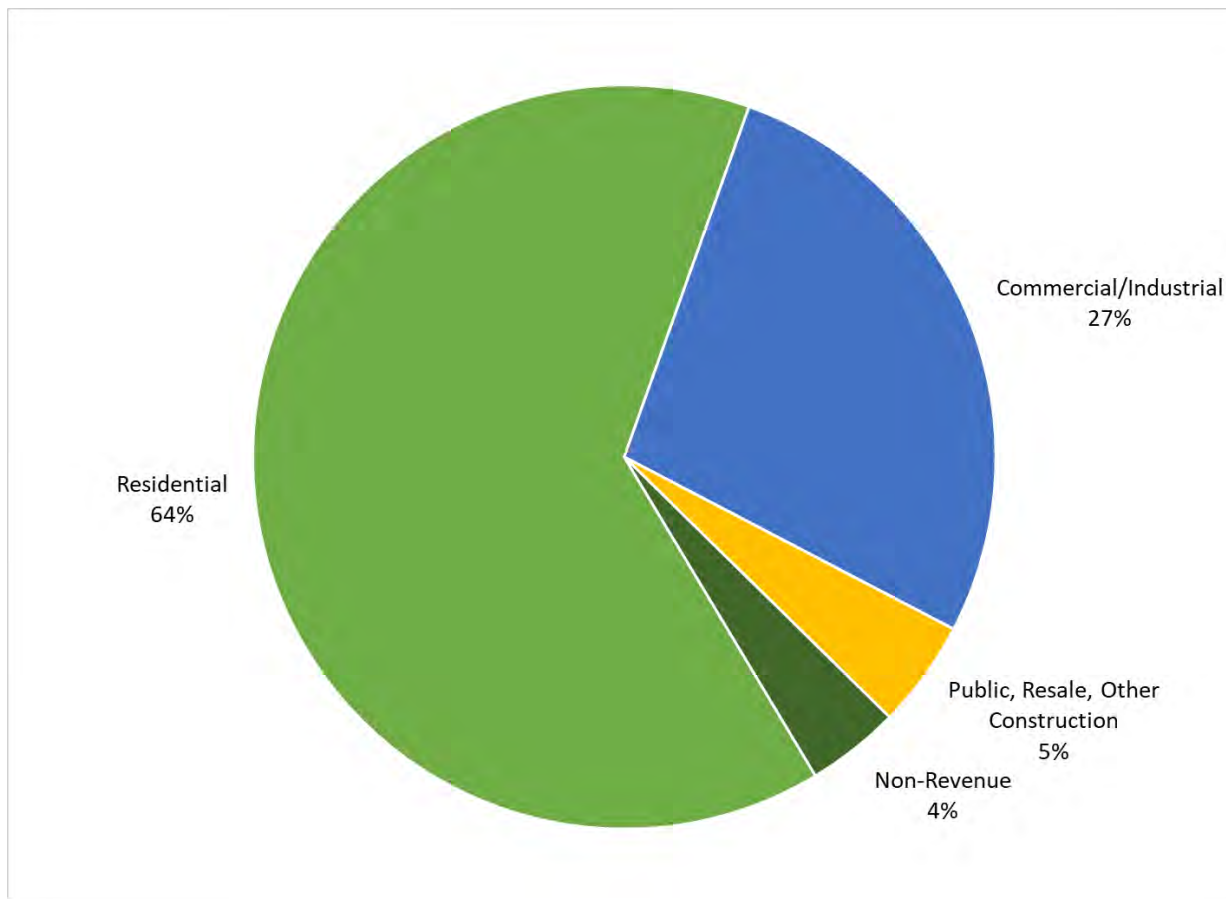


Figure 5: 2021 Cal-Am Monterey System demand by sector¹³

Updated Water Demand Forecast

Cal-Am's Updated Forecast

The updated demand forecast provided in Ian Crooks' July 2022 testimony extends Cal-Am's demand forecast out to 2050 and includes additional population growth from the RHNA, beyond the AMBAG forecast.¹⁴ The updated forecast also includes questionable additions that could easily result in double counting demand such as a "Tourism Rebound" and "Legal Lots of Record" that both seem to be included within the population and economic growth forecasts. The forecast fails to include the impacts of Cal-Am's own ongoing water efficiency and state regulations to reduce demand. In Cal-Am's updated forecast, per capita water use is assumed to *increase* by 14% by 2050 – exactly the opposite to what has been happening and what the State of California has legislated. On top of these inflations, Cal-Am further pads its demand

¹³ Direct Testimony of David Mitchell. A.22-07-001. Public Utilities Commission of California. July 1, 2022, Tables 38 and 39, p.36.

¹⁴ Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022, (Table 5, p.24).

forecast with an additional 10% contingency buffer. Cal-Am's recent demand forecasts are shown in Figure 6 and summarized in Table 3.

Cal-Am's 2022 updated demand forecast¹⁵ differs substantially from Cal-Am's own recent (and independently prepared) General Rate Case Application forecast which estimated demand for 2024.¹⁶ The magnitude of the changes in demand and the differences in the forecasts are significant. On July 1, Cal-Am submitted an independently prepared demand forecast that estimated water demand in 2024 (including losses) to be 9,036 AF.¹⁷ Then, just 19 days later on July 20 Cal-Am testified to the PUC that it needs 10,110 AF in 2025,¹⁸ an increase of 12%. Cal-Am has consistently used less than this amount of water for eight years as shown in Table 1. The starting point of Cal-Am's 2022 updated demand forecast is too high.

Cal-Am has a poor track record with recent CPUC demand forecasts as shown in Figure 6. Cal-Am's 2017 demand forecast provided to the CPUC as part of the application for the proposed desalination plant predicted water use in 2020 would be 12,350 AF. In reality, Cal-Am's water use in 2020 was 9,412 AF as shown in Figure 1. Cal-Am's demand forecast was 2,938 AF (31.2%) higher than actual use, just three years after it was submitted. Errors of this magnitude are expensive for rate payers. Infrastructure projects sized based on an overstated demand forecast would almost certainly be sized larger than needed, imposing a costly and unnecessary burden on rate payers for years to come. Cal-Am's 2022 updated demand forecast repeats the same error of starting from an unrealistically high demand rather than the actual demand.

¹⁵ Crooks, July 2022.

¹⁶ Direct Testimony of David Mitchell. Application A.22-07-001. Public Utilities Commission of California. July 1, 2022

¹⁷ Mitchell, July 1, 2022.

¹⁸ Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022, (Table 5, p.24).

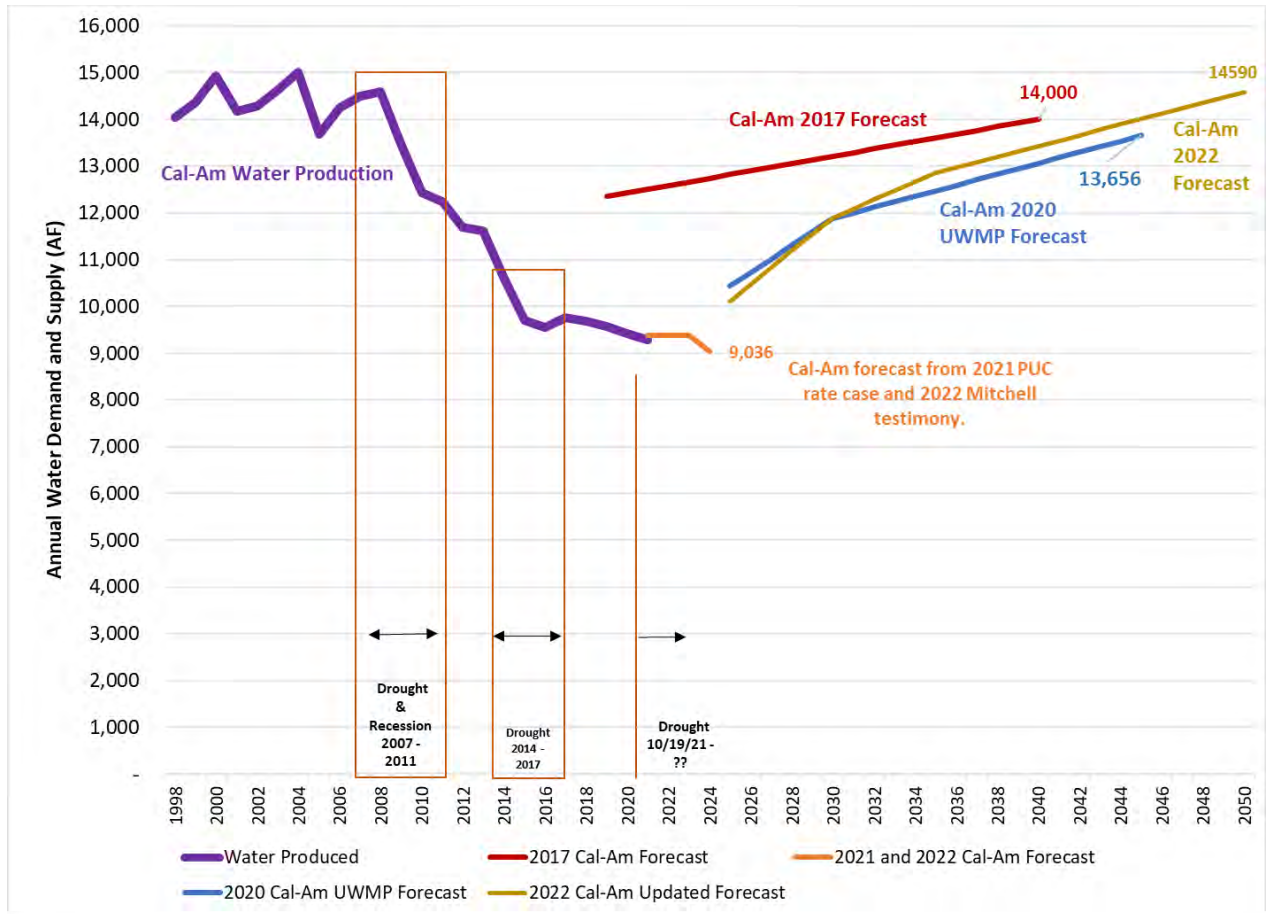


Figure 6: Cal-Am water production (1998 – 2021) and Cal-Am water demand forecasts

Table 3: Cal-Am demand forecasts and actual use

Forecast	Starting Year	Starting Volume	Starting Per Capita Use	Ending Year	Ending Volume	Ending Per Capita Use
2022 Ian Crooks Testimony	2025	10,110 AF	96.5 gpcd	2050	14,590 AF	110.0 gpcd
2021 and 2022 Cal-Am rate case testimony	2021	9,390 AF	91.4 gpcd	2024	9,036 AF	86.6 gpcd
2020 Cal-Am UWMP	2025	10,443 AF	99.6 gpcd	2045	13,656 AF	104.6 gpcd
2017 Cal-AM application to CPUC	2020	12,350 AF	120.0 gpcd	2040	14,000 AF	109.0 gpcd
2021 Cal-Am Actual Use and WaterDM Current gpcd forecast	2021	9,280 AF	90.3 gpcd	2050	11,934 AF	90.3 gpcd

Summary of Cal-Am Forecast Inflations

Based on WaterDM's analysis, Cal-Am's forecasted 2050 demand is improperly inflated by more than 2,500 AF. The Cal-Am forecast has been overstated through the following means, each of which is described below:

- Unlikely increasing per capita trend
- Improper RHNA inclusions, not within Cal-Am's service area
- Mis-categorization of multi-family housing as "Non-Residential"
- Tourism "bounce-back" lacks analysis, method, or supporting data and is based on events from 15 years ago
- Double counts of future demand as growth from "Legal Lots of Record" and "Pebble Beach Entitlements"

An overstated demand forecast can be very expensive for rate payers. If accepted without correction or modification, the inflated 2022 Cal-Am forecast could result in over-sizing of supply and delivery infrastructure and substantial unnecessary expenses to rate payers.

Unlikely Increasing Per Capita Trend

Cal-Am's 2022 updated forecast starts at an inflated level and results in a further overstated value for gpcd in the future. In 2021, Cal-Am customers used 90.3 gpcd. Cal-Am's 2022 updated forecast assumes 96.5 gpcd to start in 2025, which is 7% higher than current use. As shown in Figure 4, Cal-Am's per capita use has declined steadily since 2010. Cal-Am's starting point for the demand forecast assumes higher per capita use and thus less water efficiency than today. The starting point for Cal-Am's updated 2022 forecast is too high.

Next Cal-Am's 2022 forecast further rejects the impacts of water efficiency by projecting that per capita use in the future will *increase* over the next 30 years by 14% ending at 110 gpcd – higher than any previous Cal-Am forecast.

This significant increase in per capita use essentially means that Cal-Am expects its customers to become less and less efficient in the future. This doesn't square with Cal-Am's stated intent to spend more than \$1.8 million over three years on its water conservation programs, nor does it comport with state regulations and policies that incentivize demand reductions.

A 2050 level of 110 gpcd is unlikely given that water use in 2021 was 90.3 gpcd. Such a dramatic and remarkable reversal in water use efficiency is inconsistent with the state and local directives and contradicts recent sworn testimony from Cal-Am in its current General Rate Case.

Customers in the Cal-Am Monterey service area are among the most water efficient in the state. Cal-Am's updated 2022 forecast unreasonably assumes that these customers will go from being the most efficient to becoming remarkably less water efficient in California over the next 30 years. This is unlikely to occur.

Improper RHNA Inclusions

Additional RHNA housing will increase Cal-Am's future population beyond the previous AMBAG forecast. But Cal-Am has improperly overstated the updated 2022 demand forecast by including additional RHNA housing that is not within their service territory. In his July 2022 testimony, Ian Crooks assumed 50% of the new RHNA housing units in the City of Seaside will be served by Cal-Am.¹⁹ An estimate of 20% is conservative and the actual amount is likely less than 10%. Mr. Scherzinger will address this in his testimony.

Using 20% as an estimate for Cal-Am's portion of Seaside, WaterDM recalculated the RHNA units that are within the Cal-Am Monterey service area and found it to be 6,028 units rather than the 6,213 offered by Cal-Am.²⁰

Cal-Am mis-categorizes multi-family housing as "non-residential"

The sectoral breakdown and associated volumes shown in Figure 5 above, which comes from Cal-Am's metered data and PUC rate case differs from the breakdown of residential and non-residential demand provided in Ian Crooks' July testimony as part of the 2050 demand forecast. Mr. Crooks' testimony (Table 5, p. 24) states the baseline residential sector demand (2017 – 2021) is 4,857 AF (51% of total) and the non-residential demand (including non-revenue water) is 4,686 AF (49% of total). This discrepancy is apparently due to Cal-Am's mis-categorization of multi-family housing as non-residential.

In Mr. Crooks' testimony, total demand appears correctly stated, but Cal-Am has understated residential demand and over-stated non-residential demand. WaterDM's analysis suggests this is caused by the inclusion of multi-family housing within the non-residential category.²¹ This is a practice of some water utilities, but in the context of demand forecasting where future efficiency and growth are to be considered, it is best to either treat multi-family demand separately or to combine it with single-family residential demands.

The over statement of non-residential demand improperly accelerates the growth rate of the multi-family sector. That is because, in Cal-Am's updated 2022 demand forecast, growth in non-residential demand is accelerated by the "Service Area Employment" which grows much faster than the population. The mis-categorization of multi-family housing as "non-residential" contributes to Cal-Am's inflated demand forecast.

Tourism "Bounce-back"

Cal-Am has improperly added in 500 AF to its forecast for what is described as a "tourism bounce-back" from the "Great Recession" which occurred 15 years ago in 2007. Additional commercial demand in the Cal-Am service territory is anticipated along with population growth

¹⁹ Crooks, July 2022, (p. 16).

²⁰ Crooks, July 2022, (p. 16).

²¹ Crooks, July 2022, Table 5, (p. 24).

out to 2050, but that is not what Cal-Am has done. The flat addition of 500 AF to account for demand changes that are more than a decade old improperly inflates demand based on “discussions”²² rather than data.

According to Mr. Crooks’ testimony, hotel occupancy is only off by “12 to 15” percent but there is no attempt to connect the volume of 500 AF with this additional occupancy.²³ Furthermore, Mr. Crooks misquotes the source quotation found in CPUC D.18-09-017²⁴ which states, (emphasis added), “The Coalition of Peninsula Businesses bases part of its additional need on its assertion that the ‘tourism industry intends to increase hotel occupancy by approximately 12 to 15 percent *over the next two decades* to re-attain the occupancy levels of decade ago.” Cal-Am ignores this and forecasts the 500 AF increase to occur over the next 10 years.²⁵

Mr. Crooks also oddly blamed the CDO moratorium for the tourism slump when he testified, “Although time has passed since the Great Recession, as a result of the CDO’s moratorium, the recovery of the tourism industry has been slow.”²⁶ Mr. Crooks did not explain how or why a moratorium of water taps might reduce visitors to a hotel or motel.

Cal-Am has improperly added 500 AF (~ 4% inflation) without real analysis, method, or supporting data based on events from 15 years ago or the CDO, or both. This problem has persisted in Cal-Am forecasts since at least 2017.

Legal Lots of Record

Cal-Am inflates its future demand by 1,180 AF in 2050 stating there is undeveloped residential and commercial land in its service area and there is a backlog of remodel development. There are numerous problems with these claims as they relate to future water demand.

First off, remodel development does not usually increase water use and frequently results in a decrease in use as older fixtures and appliances are replaced with more efficient models and stricter landscape codes are applied. It is not clear why Cal-Am assumes remodel development will increase demand, when it will likely do the opposite.

Second, not all of the Legal Lots of Record are in fact developable, a point Cal-Am ignored.²⁷

Third, the 1,180 AF estimate is not based on any current analysis and instead originates in a 2009 Coastal Water Project environmental impact report.²⁸ The MPWMD observed in 2017 that

²² Crooks, July 2022, (p. 23 line 1).

²³ Crooks, July 2022, (p. 22).

²⁴ <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M229/K424/229424336.PDF>

²⁵ Crooks, July 2022, Table 5, (p. 24)

²⁶ Crooks July 2022, (p. 24).

²⁷ Monterey Peninsula Water Management District. 2020. Presentation of Updated Regional Water Demand Forecasts Related to Association of Monterey Bay Area Government 2018 Regional Growth Forecast and Regional Housing Needs Allocation Plan: 2014-2023, and Inclusion of 2019 Water Year.

development of lots of record has occurred since the estimates were prepared in the early 2000s and that some vacant lots on improved parcels that were included in MPWMD's vacant lot study may never be split from the main property and developed.²⁹

Undeveloped residential and commercial land could certainly be developed between 2025 and 2050 and thus require water, but Cal-Am has already included this water demand in its forecast. Thus, the addition of 1,180 AF amounts to a double count. Both AMBAG and RHNA have forecast future growth in the Cal-Am service area. Where else would this growth occur but on undeveloped residential and commercial land? Cal-Am's forecast already includes the water demand associated with development of these properties.

Ian Crooks admitted this double count problem when he testified, "Future development on Legal Lots of Record may have some overlap with growth projections prepared by AMBAG and future housing demands projected by AMBAG's RHNA plan for the AMBAG area."

It is clear, and Cal-Am admits, that Legal Lots of Record has overlap with the growth forecast by AMBAG and the RHNA plan. The result is the improper addition of 1,180 AF of future demand.

1989 Pebble Beach Entitlements

Pebble Beach entitlements amount to an additional 325 AF of water Cal-Am committed in 1989 to the Pebble Beach Company, but which have not been used to date. Like the Legal Lots of Record, this 325 AF is claimed to be needed for undeveloped lots in the Pebble Beach area. This amounts to an exaggeration of future demand at best and a double count at worst.

Undeveloped land owned by the Pebble Beach Company could certainly be developed between 2025 and 2050 and thus require water, but Cal-Am has already included this water demand with the population and commercial growth baked into its forecast. This future growth is treated by Cal-Am as outside of the AMBAG/RHNA realm, and no explanation other than the contractual obligation is offered.

Further, as of 2016, the Pebble Beach entitlements stood at 304 AF,³⁰ yet Cal-Am maintains 325 AF to be a "reasonable estimate". This "reasonable" estimate inflates Cal-Am's future demand forecast by at least 21 AF.

The addition of 325 AF to the demand forecast amounts to a double count unless Cal-Am establishes a sound reason for why growth in Pebble Beach falls outside of AMBAG/RHNA forecasts for the Cal-Am service area. Cal-Am's forecast likely already includes the water demand associated with development of these properties.

²⁸ IBID.

²⁹ Monterey Peninsula Water Management District. 2020.

³⁰ Crooks July 2022. Attachment G, EIR/EIS 2018 of CalAm's MPWSP, (pp. 2-13).

WaterDM's Updated Forecast

For this report, WaterDM updated its two forecasts for the Cal-Am Monterey Main System which estimate future average annual production, inclusive of treatment losses and non-revenue water. The growth rate in each forecast is based on Cal-Am's current stated service area population and on AMBAG's anticipated population growth through 2050 including additions from the RHNA.^{31, 32} Assuming 2.5 persons per unit, it is anticipated that the additional 6,028 RHNA units within Cal-Am's service territory will add 15,071 additional people by 2050. This RHNA population increase is incorporated into WaterDM's demand forecast. The total population of the Cal-Am service area in 2050 including the RHNA units is forecast to be 117,948.

The WaterDM forecasts are conservative and notably, both of these forecasts are higher than the forecasts Cal-Am itself produced for its most recent General Rate Case Application, which estimated demand for 2024 at 9,036 acre-feet per year as shown in Table 3.

- The "Current gpcd"³³ forecast assumed the 2021 rate of 90.3 gpcd continues into the future, without any increases in efficiency or conservation reductions. This forecast projects a demand of 11,934 AF in 2050.
- The "Continued efficiency" forecast includes the impacts of ongoing efficiency improvements from Cal-Am's conservation program and state mandates by applying reduction factors to seasonal and non-seasonal use by sector. The result is a 6.1% reduction in per capita use and the conservation of 774 AF over 25 years. The continued efficiency forecast projects a demand of 11,160 AF in 2050.

For this fifth supplemental report, the original forecasts were updated to reflect actual demands reported in 2020 and 2021 and to extend the forecast timeframe to 2050.

WaterDM's annual demand projections were built up from the analysis of historical production and deliveries presented above. The year 2022 is the first year of the projection, which then continues to produce average annual demands through 2050. Demand in 2021 was used as the starting point for WaterDM's revised forecast.

Production was split out by sector and future demand was increased proportionally with population and employment increases to 2050. The four sectors included in the model are:

- Residential (single-family + multi-family)
- Commercial and industrial

³¹ This likely over-estimates Cal-Am's future growth because it includes new population in portions of the cities of Monterey, Seaside, and Del Rey Oaks within the Fort Ord Buildout that will be served water by the Marina Coast Water District, not Cal-Am.

³² Phase 2 Direct Testimony of Ian C. Crooks. Public Utilities Commission of the State of California. Application 21-11-024. July 25, 2022.

³³ gpcd = gallons per capita per day.

- Public, resale, other, construction
- Non-revenue water

The summed annual demand of these four categories equals the estimated water supply requirement under average future conditions. The model allows specific factors to be applied to the non-seasonal or seasonal component of annual demand for each demand category, to simulate the impacts of water efficiency and conservation programs.

WaterDM's continued efficiency forecast is shown in Figure 7 along with Cal-Am's updated 2022 forecast from Ian Crooks' testimony and the 3-year 2022 rate case forecast prepared by independent consultant David Mitchell.

Notably, WaterDM's 2022 – 2024 forecasts are higher than the most recent forecasts Cal-Am submitted for its General Rate Case in July 2022.³⁴

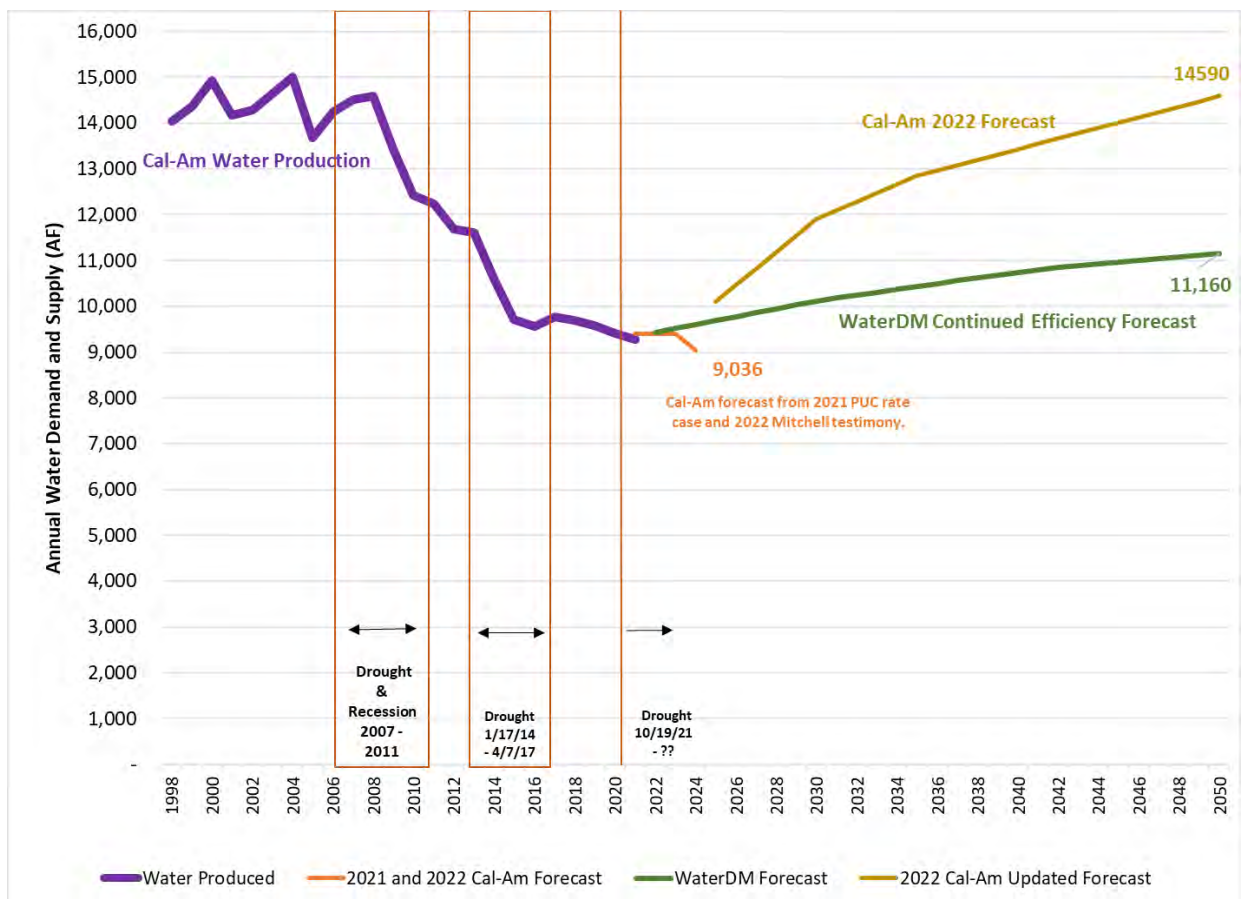


Figure 7: Cal-Am production 1998 – 2021 and demand forecasts prepared by WaterDM and Cal-Am, (2022 – 2050)

³⁴Direct Testimony of David Mitchell. Application A.22-07-001. Public utilities Commission of California. July 1, 2022

Cal-Am has a habit of producing overstated water demand forecasts as evidenced in the 2017 forecast submitted to the PUC, shown in Figure 6. The 2017 forecast was the latest in a series of erroneous projections that continue to over-estimate needs as Cal-Am's water demand has declined over time. Cal-Am's shorter-term rate case forecasts produced by David Mitchell of the consulting firm M.Cubed have consistently proved more accurate than any other forecast Cal-Am has offered the PUC.

WaterDM's forecasts include all forecasted growth as well as the on-going impacts of water efficiency and avoid double counts. In comparison, Cal-Am's updated 2022 forecast remains unreasonably high largely because it assumes per capita use will increase, ignores the ongoing impacts of water conservation, and double counts growth.

Should projected RHNA growth fail to materialize in the Cal-Am service area, a distinct possibility given the limited opportunities and associated expenses, Cal-Am's future demand could be even lower than WaterDM has projected.

Water Supply Under Normal and Drought Conditions

Water Supply for the Monterey Main System

Cal-Am delivers water to its Monterey Main system from a diverse collection of water sources. Cal-Am has historically relied heavily on diversions from the Carmel River and Seaside Basin native groundwater to provide water to the Monterey Main system. Withdrawals from the Carmel River have now been reduced to mandated levels. In the future, when an additional supply source becomes available, withdrawals from the Seaside Basin should be reduced. Each of Cal-Am's water sources was evaluated to determine what level of production can reasonably be expected under normal conditions and during drought conditions.

Table 4 presents the water supply sources available to Cal-Am for the coming years under normal conditions and under drought conditions. Figure 8 shows how each source of supply contributed to Cal-Am's total production from 2000 – 2021 and the available sources of supply available into the future along with WaterDM's Continued Efficiency forecast. WaterDM's demand forecast includes all forecasted population growth in the Cal-Am service area (ABMAG+RHNA). WaterDM's forecasts are higher than the 3-year Cal-Am General Rate Case forecasts.

During normal years, Cal-Am has 10,050 AF of water supply available and with the addition of the Pure Water Monterey Expansion, this will grow to 12,300 AF. During a drought year Cal-Am currently has 8,550 AF of available supply (exclusive of stored supply and purchases), which will grow to 10,800 AF by 2026.

With the addition of the 2,250 AF from Pure Water Monterey Expansion, Cal-Am can steadily build up storage reserves even as population grows. By adding this additional source, Cal-Am should have sufficient supplies that the local development moratorium can be lifted, while still complying with the State Water Board's limits on Cal-Am's annual Carmel River diversions.

Key to the success of this approach will be continuing and extending water conservation and efficiency measures. Cal-Am's conservation-oriented rate structure and active water conservation program will help ensure efficient water use across the service area. The addition of landscape water budgets and strict water waste ordinances and enforcement should be considered as well.

Table 4: Annual Cal-Am Monterey Main System water supply sources under normal and drought conditions, 2022 - 2050

Water Source	Normal AF	Drought AF	Notes	Data Source
Carmel River – Cease and Desist Order	3,376 AF	3,376 AF	2,179 AF from License 11866; 1,137 AF of pre-1914 appropriative rights; and 60 AF of riparian rights.	Cal-Am reports to the SWRCB
Carmel River – Permit 21330	200 AF	0 AF	Only available Dec. – May. Assumed not available during a drought.	Cal-Am reports to the SWRCB
Seaside Basin Native Groundwater	1,474 AF	1,474 AF	Reflects deferral of 700 AF payback for Cal-Am’s over-pumping of the Seaside Basin until a replacement desalination supply is online. Once the Pure Water Monterey Expansion comes fully online payback may be possible.	Watermaster’s annual reports.
ASR Recovered Water	1,300 AF	0 AF	Cal-Am must operate the system opportunistically and store water when possible. During a drought this water source is assumed to be unavailable to Cal-Am. But already stored ASR water would be available, if needed. ASR reserves as of March 2022 were 1,307.3 AF. ³⁵	Cal-Am reports to the SWRCB
Sand City Desalination Plant	200 AF	200 AF	300 AF capacity. Has averaged 209 AF over life of plant. During a drought it is possible this supply could produce more, but it was restricted in this analysis.	Cal-Am reports to the SWRCB
Pure Water Monterey	3,500 AF	3,500 AF	Starting in 2022, capable of delivering the full volume contracted to Cal-Am in a normal or a drought year.	Cal-Am reports
Pure Water Monterey Expansion	2,250 AF	2,250 AF	Starting in 2025, capable of delivering 2,250 AF to Cal-Am in a normal or a drought year.	TBD
Additional Withdrawal from storage (excluding ASR recovery)	As needed	As needed	Variable volume of additional recoveries from storage or Pure Water Monterey drought reserves taken as required.	Various
TOTAL	10,050 AF in 2022 12,300 AF in 2025	8,550 AF in 2022 10,800 AF in 2025³⁶		

³⁵ March 11, 2022 Supplemental Testimony of Ian C. Crooks before the Public Utilities Commission of the State of California, (p. 4).

³⁶ Does not include stored supplies, potential purchases, and demand management options.

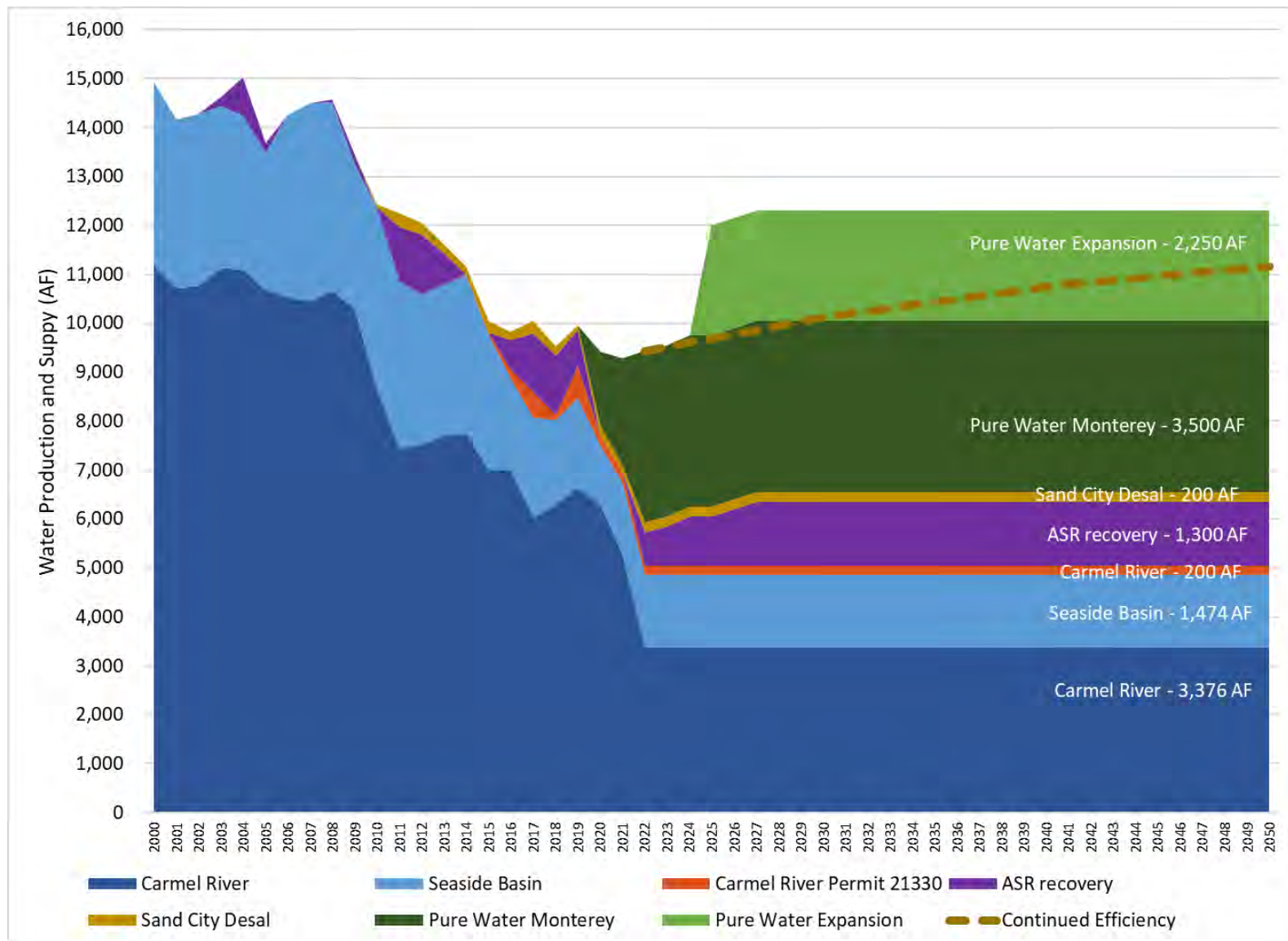


Figure 8: Cal-Am water production and future supply by source and WaterDM's Continued Efficiency forecast

Each source of water and the annual volume of available reliable supply during a normal year and drought year is described in detail in the sections below.

Carmel River

Diversions from the Carmel River, Cal-Am's primary water source, have been reduced in accordance with a cease-and-desist order from the State Water Resources Control Board. The original order, issued in 1995, determined that Cal-Am was extracting over 14,000 acre-feet per year from the river when it had a legal right to only 3,376 acre-feet. The State Water Resources Control Board determined that these illegal diversions were adversely affecting the river's population of federally threatened Central Coast steelhead and its riparian habitat. The Board ordered Cal-Am to develop or purchase alternative water supplies so it could end its illegal diversions.

Table 4 shows Carmel River production reduced to the mandated 3,376 AF in 2022. This is the volume to which Cal-Am has a legal right and is comprised of 2,179 AF from License 11866; 1,137 AF of pre-1914 appropriative rights; and 60 AF of riparian rights.³⁷

During a drought year it is assumed Cal-Am will have access to its full 3,376 AF legal entitlement.

Table 4 also shows an additional 200 AF of Carmel River supply under normal conditions based on Permit 21330.³⁸ Cal-Am's annual Progress Reports of Permittee to the State Water Resources Control Board show that it has withdrawn an average of 300 AF from 2019-2021 under this permit. During a drought it is assumed this supply will be unavailable.

Seaside Groundwater Basin – Native Groundwater

The Seaside Basin was over pumped by Cal-Am prior to the 2006 Seaside Groundwater Basin adjudication which imposed triennial reductions in operating yield until the basin's "Natural Safe Yield" is achieved. For Cal-Am, the last reduction occurred on October 1, 2021 and Cal-Am now has rights to 1,474 acre-feet per year. However, Cal-Am has over-drafted the Seaside Basin and has agreed to payback 700 AF of its 1,474 AF entitlement over 25 years or more "following final completion and acceptance of all MPWSP components"^{39, 40} which means once a desalination supply comes online.

³⁷ Monterey Peninsula Water Management District. 2020. (MPWMD Report) Supply and Demand for Water on the Monterey Peninsula prepared by David Stoldt. (3-13-2020, 12-3-2019, and 9-16-2019), (p.3),

³⁸ "In 2013, Cal-Am received Permit 21330 from the State Water Board for 1,488 AFA from the Carmel River. However, the permit is seasonally limited to December 1 through May 31 each year and subject to instream flow requirements." MPWMD Report, (p.3).

³⁹ Seaside Basin WaterMaster. 2008. Memorandum of Understanding between the Seaside Basin WaterMaster and California American Water, December 3, 2008.

The potential desalination supply will not be available for eight years at the earliest, but at Cal-Am's discretion, payback of 700 AF per year could begin sooner when the full capacity from the Pure Water Monterey Expansion is available to Cal-Am.

The Seaside Basin Watermaster's 2019 report to the Court overseeing the groundwater adjudication states that the total usable storage space in the entire Seaside Groundwater Basin is 52,030 AF. The report also describes the current allocation of that usable storage space among the Seaside Basin pumpers with Cal-Am allocated 28,733 acre-feet.⁴¹ This allocation allows Cal-Am to bank water as described in the Seaside Basin Storage Reserve section below. This reserve will be an available supply "cushion" for Cal-Am to meet demand.

Aquifer Storage and Recovery

Cal-Am participates in an aquifer storage and recovery (ASR) project that allows for the capture of excess Carmel River flows through its wells along the river from December through May. This river water is then transferred through the new Monterey Pipeline and Crest Pipeline and injected into the Seaside Groundwater Basin for later extraction and use. This project operates with a series of ASR well sites capable of both injection and extraction. Ownership and operation of this source water project has various components split between Cal-Am and the Monterey Peninsula Water Management District.⁴²

There are two water rights that support the ASR system: Permit 20808A which allows maximum diversion of 2,426 AF and Permit 20808C which allows up to 2,900 AF for a total potential maximum annual diversion of 5,326 AF.⁴³

The ASR is a supply system that requires Cal-Am to capture and store water opportunistically. It can provide an important long-term supply if managed prudently so that storage can be built up well beyond the current 1,307 AF noted by Mr. Crooks.⁴⁴ In the coming five years, Cal-Am and its partners must work to remove operational constraints, take advantage of the increased conveyance capacity of the new Monterey Pipeline, upgrade existing river wells, and make other improvements to assure optimal operation of the system.

Cal-Am has taken steps to improve capacity by planning to install new Pure Water Monterey extraction wells in the Seaside Basin as addressed in Phase 1 of its CPUC application.

⁴⁰ Seaside Basin WaterMaster. 2014. Amendment No. 1 to the Memorandum of Understanding between the Seaside Basin WaterMaster and California American Water, June 6, 2014.

⁴¹ Seaside Basin Watermaster Annual Report – 2019, December 5, 2019.

⁴² California-American Water Company. 2019. (U-210-W) Update to General Rate Case Application, A.19-07-004. Direct Testimony of Christopher Cook, (p.7).

⁴³ MPWMD 2020. Supply and Demand for Water on the Monterey Peninsula prepared by David Stoldt. (3-13-2020, 12-3-2019, and 9-16-2019), (p.3).

⁴⁴ Crooks July 2022, (p.35).

Attachment K to Ian Crooks' July 2022 testimony states that in 2025, when additional extraction wells are available, all four existing ASR wells will be available for injection.⁴⁵

Cal-Am's 2018 FEIR/EIS stated, "Together, the ASR-3 and ASR-4 Wells provide the capacity to yield an additional 1,000 AF from the ASR system, resulting in a total capacity of 1,920 AF for Phases I and II combined (Denise Duffy & Associates, 2012). The Phase I and Phase II ASR projects correspond to MPWMD and CalAm's existing State Water Board Permits 20808A and 20808C, which authorize the diversion of up to 2,426 AF for ASR Phase I, and up to 2,900 AF for ASR Phase II (State Water Board, 2007, 2011)"⁴⁶ for an annual production total of 5,326 AF under both permits.

The 2018 FEIR/EIS goes on to state, "the estimated combined long-term average annual yield from ASR is 1,300 AF for the Phase I and Phase II projects (RBF, 2013)."⁴⁷

WaterDM has assumed that starting in 2025 an average of 1,300 AF can be delivered from the ASR during normal years. During a drought, WaterDM conservatively assumed that Cal-Am will not be able to divert and inject any ASR water. Table 4 assumes 0 AF of ASR diversion and injection in drought years.

Sand City Desalination Plant

Cal-Am has an operating agreement for the Sand City Desalination Plant, a small facility designed to produce 300 acre-feet of water per year. Due to discharge permit requirements, to date the Sand City plant has never produced the full 300 AF and the maximum that it has ever produced was 276 AF in 2011. Over the life of the plant it has averaged 209 AF of production per year.⁴⁸ Table 3 assumes this facility can continue to produce 200 AF during drought years.⁴⁹ Once the Pure Water Monterey Expansion comes on line, Cal-Am can reduce its reliance on this source.

Crooks' July 2022 testimony states that Cal-Am is only able to take 94 AF from the Sand City Desalination Plant with the remaining 206 AF belonging to Sand City for new use. Much of the future new use, which has not materialized yet, will be for Cal-Am customers in Sand City. As Sand City growth occurs, it is assumed 200 AF of this supply will be available to Cal-Am into the future to serve what will eventually be Cal-Am customers in Sand City.

⁴⁵ Crooks, July 2022, Attachment K, (p 2).

⁴⁶ Crooks, July 2022, Attachment G, Excerpts from Cal-Am MPWWP FEIR/EIS - March 2018, (p. 2-19).

⁴⁷ IBID, (p. 2-20).

⁴⁸ MPWMD 2020.

⁴⁹ Ian Crooks' 3/11/22 testimony states Cal-Am is only allocated 94 AF from the Sand City Desalination plant with the remaining 206 AF allocated for growth in Sand City. However, until the growth and demand in Sand City materialize, Cal-Am can and has taken additional supply from this source. Furthermore, much of the future growth in Sand City is anticipated within Cal-Am's service area and thus eligible for reserved allocation.

Pure Water Monterey

Monterey One Water in partnership with the Monterey Peninsula Water Management District and Marina Coast Water District developed the Pure Water Monterey Groundwater Replenishment Project. The project provides a reliable source of water supply to replace illegally diverted Carmel River withdrawals and permanently supplement existing water supply sources for the Monterey Peninsula. The Pure Water Monterey project also makes available advanced treated water to the Marina Coast Water District.

The Pure Water Monterey Project is designed to produce 3,500 acre-feet per year of purified recycled water to compose a portion of Cal-Am's water supply and to assist in complying with the State Water Resources Control Board orders. The source waters for Cal-Am's 3,500 AF portion of the Pure Water Monterey Project are agricultural produce wash water and drainage flows from the Blanco Drain and Reclamation Ditch.

The Pure Water Monterey Project includes a 5 million gallon per day capacity water purification facility for treatment and production of purified recycled water that is conveyed and stored in the Seaside Basin using injection wells. Project conveyance facilities include the pipeline from the purification facility to injection wells in the Seaside Basin and a tank storage reservoir. This pipeline and tank storage are owned and operated by the Marina Coast Water District.

Once injected, the purified recycled water augments existing groundwater supplies to provide 3,500 acre-feet per year of water to Cal-Am for extraction and direct use. Pure Water Monterey is operational and Table 4 includes 3,500 AF of recovery from the Pure Water Monterey project during a continuous drought.

Pure Water Monterey Expansion

Monterey One Water and the MPWMD are developing an expansion of the Pure Water Monterey project to increase the capacity available to Cal-Am, which is the subject of Phase 1 of Cal-Am's PUC application. The Pure Water Monterey Expansion is expected to provide an additional 2,250 acre-feet per year to augment existing groundwater supplies.

The source water for the Pure Water Monterey Expansion is municipal wastewater and agricultural drainage water. Analysis of the water sources under four conditions including drought concluded that the project can reliably produce water under each circumstance and arguments to the contrary have been repeatedly and thoroughly rebutted by Monterey One Water and the MPWMD and their consultants.^{50, 51}

WaterDM's analysis assumes that the full 2,250 AF will be available to Cal-Am in 2025 in normal and drought years. With the addition of this supply, Cal-Am could choose to reduce reliance from year to year on other sources such as the Seaside Basin.

⁵⁰ April 11, 2020. Source Water Operational Plan Technical Memorandum. Prepared by Bob Holden, PE, and Alison Imamura, PE, Monterey One Water.

⁵¹ See also - Marina Coast Water District's Preliminary Response to Cal-Am's Presentation Materials dated 9/2/20.

Seaside Basin Groundwater Storage Reserve

Cal-Am is allocated 28,733 AF of total storage in the Seaside Groundwater Basin.⁵² Ian Crooks' testimony on March 11, 2022 stated current ASR reserves to be 1,307.30 AF.⁵³

Under the current Water Purchase Agreement, the first 1,000 AF of water produced in the Pure Water Monterey facility has been injected and stored as an operating reserve in the Seaside Basin. The operating reserve is owned by the Monterey Peninsula Water Management District and is available to ensure Cal-Am can recover 3,500 AF. An additional drought reserve of up to 1,750 AF is provided under the water purchase agreement. Banked storage provides a valuable and necessary buffer for Cal-Am to use if drought or higher demand than forecasted should occur.

Additional Supply and Reliability Considerations

Reliability, Cost of Desalination Not Considered

Mr. Crooks' July 2022 testimony applies intense scrutiny to the future reliability of the Pure Water Monterey Expansion yet fails to consider the future reliability and cost of the desalination facility Cal-Am has proposed.

Recent desalination projects in California have sometimes failed to produce expected volumes⁵⁴ and there many examples world-wide of production problems associated with desalination projects. Cal-Am need look no farther than the local Sand City Desalination plant on which it relies for an example of a facility that has failed to produce at its designed capacity. WaterDM's forecast includes only 200 acre-feet of annual production from the Sand City facility designed to produce 300 acre-feet annually.

Desalination is also the most expensive supply option currently available on the Monterey Peninsula and water from Cal-Am's proposed desalination project would cost at least three times as much as water from the Pure Water Monterey Expansion. The economic track record of desalination is problematic. Desalination plants must be paid for even if they do not produce any water. Victoria Australia's desalination facility, built in response to an intense drought, resulted in ongoing annual service payments of \$649 million (Australian dollars), and "annual service payments rise every year, even if no water is ordered."⁵⁵

Cal-Am justifies its need for desalination with an overstated demand forecast and chooses to ignore the negative long-term economic impacts to the community of oversizing such a project.

⁵² Seaside Basin Watermaster Annual Report – 2019, December 5, 2019.

⁵³ March 11, 2022 Supplemental Testimony of Ian C. Crooks before the Public Utilities Commission of the State of California (p. 4).

⁵⁴ <https://www.voiceofsandiego.org/topics/science-environment/desal-plant-producing-less-water-promised/>

⁵⁵ <https://www.dailymail.co.uk/news/article-5749621/Melbourne-desalination-plant-costs-tax-payers-eye-watering-649-million-year-operate.html>

Cal-Am is far less interested in purchasing more recycled water, because that would be an operating cost in contrast to the desalination infrastructure, which would generate a profit for decades through the return on equity in water rates – paid by customers. This perhaps explains why Cal-Am fails to apply the same scrutiny to the reliability and expense of desalination that it used in its critique of the Pure Water Monterey recycled water projects.

Additional Demand Management

One item notably missing from Cal-Am’s future water demand planning portfolio is additional demand management and water conservation. Cal-Am and the Monterey Peninsula Water Management District both operate robust water conservation programs documented in WaterDM reports,⁵⁶ but they have not implemented all of the best practices and options available to them.

WaterDM’s April 21, 2020 report noted that the Monterey region has been regarded as a model for water conservation programs for many years. Cal-Am and the Monterey Peninsula Water Management District implement an array of effective demand management policies and programs that are likely to extend water efficiency gains. Cal-Am implements an active water conservation program including a steeply inclining four tier block rate pricing structure and customer incentives for installing drought tolerant landscapes and high-efficiency fixtures and appliances. Cal-Am also implements a rigorous utility-scale water loss control program aimed at reducing real losses in its distribution system. Local development regulations ensure that all new and remodeled buildings are equipped with high-efficiency fixtures and appliances.

Cal-Am’s local efforts are in parallel to broader policy measures at the state level, designed to further increase efficiency. The State of California has implemented a series of laws and directives to ensure future water efficiency across the state including Assembly Bill 1668 and Senate Bill 60 which effectively mandate an ongoing reduction in per capita use. Cal-Am’s continued compliance with these regulations and its active efforts to reduce customer water demand in the future are likely to gradually decrease per capita water use across the service area.

All of the measures currently implemented will be extremely helpful in increasing water efficiency in the region, but even more can be done to manage demand in the Monterey Main system.

Water Budgets to Manage Demand

One of the most effective methods for managing and reducing outdoor water use are customer-specific water budgets. A water budget represents a reasonable volume of usage for each customer, based on the specific needs and requirements of each customer and the available water supply. The water budget is a volumetric target based on the legitimate needs

⁵⁶ Expert Report of Peter Mayer, P.E., April 21, 2020. (pp.24-25).

of the customer and the available water supply and provides a customer-specific mechanism for monitoring compliance with demand management measures.⁵⁷

Water budgets are a familiar concept in the region with Santa Cruz, Hayward, and Visalia all utilizing water budgets in some form. In Southern California water budgets are utilized by LADWP, Irvine Ranch, Eastern Municipal, and many other urban water providers.

The approach of using water budgets to manage demand was successfully implemented during California's last intense period of drought in 2016 by the California Water Company in its Visalia District. For the Visalia District, the mandated drought reduction goal was 32% below its 2013 residential per capita water use to be achieved by February 2016. This state-mandated goal served as motivation for the creation of customer level budgets, set at 32% reduction from 2013 usage.⁵⁸ Drought surcharges were based on the extent of overuse. Customers using less than their monthly budget could bank savings in that month and use it to offset excess use in a future billing period. The Visalia water budget program was successful in achieving the demand reduction goals.⁵⁹

The water budgets implemented by Cal-Am need not be tied to the water rate or penalty structure and can be primarily informational. Even without a connection to the water rate structure, water budgets serve the dual purpose of communicating with customers what is a reasonable and expected volume of use during a time of shortage and informing Cal-Am and/or the Monterey Peninsula Water Management District every time usage exceeds a budgeted amount. This enables the customer to immediately act if their usage exceeds budgeted amounts and it empowers the utility to address any customer with usage that is deemed unreasonable given the supply limitations. This in turn enables demand management across the entire system, tuned to the desired level of consumption to the extent possible.

Other Demand Management Measures

Other measures that Cal-Am should consider for managing demand until additional supply comes online include:

- adjust irrigation schedules – particularly during peak summer months
- strictly enforce water waste ordinances
- eliminate all but essential line flushing and hydrant testing
- limits on all non-essential uses

⁵⁷ Mayer, P.W. et. al. 2008. Water Budgets and Rate Structures: Innovative Management Tools. Journal of the American Water Works Association. May 2008. Vol. 100, No. 5.

⁵⁸ Exceptions were made if the reduction resulted in a water budget that fell below a specified health-and-safety volume. If this happened, the larger health-and-safety budget was used instead. Visalia also offered an appeals and variance process.

⁵⁹ Bamezai, A. L. Maddaus, et. al. 2019. Use and Effectiveness of Municipal Irrigation Restrictions During Drought. Alliance for Water Efficiency. Chicago, IL.

- leak detection – utilize metering technology like AMI and adaptive technology like home flow monitoring to reduce customer-side leakage

Additional, more robust demand management planning may be required. Running out of water is not an acceptable option and an effective demand management plan must be readied by Cal-Am so that necessary measures can be implemented when and if they are needed in the coming years.

Maximum Month Demands

Mr. Crooks' July 22 testimony states that a desalination plant is "necessary to provide system firm capacity to ensure MMD can be met over the near-term and long-term planning horizon."⁶⁰ MMD refers to maximum monthly demand which for Cal-Am typically occurs in the summer months when customers increase use by about 21% over average.⁶¹ There are several problems with Mr. Crooks' statement.

First off, the desalination plant may not be available to Cal-Am until 2030. It is inaccurate to consider desalination a solution for the "near-term" planning horizon, which, like Cal-Am's PUC rate forecast, is generally five years in the future or less. It is important not to confuse and conflate requirements for meeting the peak demand and annual demand planning practices. WaterDM addressed this issue in its first expert report of April 21, 2020 (pp. 37-39).

Meeting maximum monthly demand is usually accomplished by storing enough water ahead of time, not by producing enough water in the moment. Cal-Am's analysis appears to ignore the impact of available storage to help meet the MMD. Furthermore, a 21% difference between the average month and the maximum month is not a particularly large difference compared with many other providers that see a doubling of demand (or more) during summer months.

Perhaps most significantly, over the long-term, Cal-Am has based its calculation of MMD on a demonstrably overstated water demand forecast.

Peaking management approaches are available to Cal-Am to address maximum monthly and daily demands. In fact, peak demand management to shift the timing to off peak periods is already being practiced to some degree in the Cal-Am service area but could be expanded and adjusted if necessary to impact MMD.

Peak demand days usually occur during the hot and dry part of the year when outdoor irrigation occurs simultaneously across the service area. Currently Cal-Am restricts outdoor irrigation between 9 a.m. and 5 p.m. on any day. Irrigation is only permitted on two specific days per week (Wednesdays and Saturdays) unless the customer is equipped with a weather-responsive "smart" controller that automatically adjusts irrigation to meet prevailing climate conditions. These are all effective measures but focusing some irrigation demand on Wednesdays and Saturdays could have the unintended impact of creating peaks on those

⁶⁰ Crooks, July 2022. (p.26).

⁶¹ Crooks, July 2022. (p.25).

particular days. Cal-Am does not report measured peak day demand data so it was not possible to determine if this is in fact the case. Spreading the irrigation demand more evenly through the week could help alleviate daily peak concerns.

Should peak demands become a concern in the future, Cal-Am has a variety of effective, low-cost management options available which do not require construction of a desalination facility.

Interim Supply Options

Over the next three years, until water from the Pure Water Monterey Expansion becomes available, it is possible Cal-Am will require additional supplies. These supplies could come in three ways: 1) withdrawal from stored reserves including 1,307 AF of ASR plus Pure Water Monterey reserves; 2) additional purchases; and/or 3) additional demand management.

Amended and Restated Water Purchase Agreement

Adoption of the Amended and Restated Water Purchase Agreement will provide Cal-Am with necessary additional water supply from the Pure Water Monterey Expansion to meet anticipated future growth

If the Amended and Restated Water Purchase Agreement is not adopted and water from the Pure Water Monterey Expansion is not available, Cal-Am would face supply short falls starting in 2025 without additional action. Without the Pure Water Monterey Expansion Cal-Am could face a supply shortfall of 1,110 AF in 2050.

If this supply shortfall were to be met with an alternative water supply source such as desalination, a supply sized similarly to the Pure Water Monterey Expansion (2,000 – 3,000 AF) would be adequate to meet future demand based on WaterDM's continued efficiency forecast.

SUMMARY

As a result of my review of the items listed in Appendix A and other related and relevant documents and reports, my own independent analysis, and my expertise in municipal and industrial water use, water management, and engineering, I offer the following supplemental analysis and opinions regarding Cal-Am's water demand and supply:

Since my prior reports, Cal-Am's water demand further declined as customers have become more efficient and system water losses have been reduced.

WaterDM concluded in its April 21, 2020 expert report that Cal-Am's per capita use would continue to decrease due to ongoing conservation program implementation, conservation pricing, and water loss control measures. This has proven true and the trend towards increased efficiency is expected to gradually continue. WaterDM's updated demand forecasts for this supplemental report include continuing population growth in the Cal-Am service area and gradual efficiency improvements.

Cal-Am's revised 2022 water demand forecast provided in Ian Crooks' testimony is overstated.

The new Cal-Am forecast ignores the impacts of future conservation, includes population that is not in Cal-Am's service area, and includes double counts, all of which improperly increase future demand. Furthermore, the forecast in Crooks' testimony differs radically from Cal-Am's independently prepared 2022 PUC 3-year rate case forecast, which projects a decline in demand in the near-term.

A more realistic demand forecast prepared by WaterDM projects Cal-Am's 2050 demands to be 11,160 AF, which is more than 3,400 AF lower than Cal-Am's overstated forecast.

The growth rate in WaterDM's forecast is based on Cal-Am's current stated service area population and on AMBAG's anticipated population growth through 2050 including additions from the RHNA. WaterDM's forecast includes the impacts of ongoing efficiency improvements from Cal-Am's conservation program and state mandates. The result is a 6.1% reduction in per capita use and the conservation of 774 AF over 25 years.

With the addition of 2,250 AF from the Pure Water Monterey Expansion, Cal-Am can meet future demand in 2050.

By adding this additional source and continuing its water conservation efforts, Cal-Am should have sufficient supplies that the local development moratorium can be lifted, while still complying with the State Water Board's limits on Cal-Am's annual Carmel River diversions. Key to the success of this approach will be making necessary physical and management improvements to Cal-Am's aquifer storage and recovery system so it performs as designed and approved by the CPUC. This includes use of the Monterey Pipeline and continuing and extending water conservation and efficiency measures. With prudent management and investment, Cal-Am should be able to steadily build up ASR reserves, essential for managing through drought periods.

If the Amended and Restated Water Purchase Agreement is not adopted and water from the Pure Water Monterey Expansion is not available, Cal-Am would face supply short falls starting in 2025 without additional action. If this supply shortfall were to be met with an alternative water supply source such as desalination, a supply sized similarly to the Pure Water Monterey Expansion (2,000 – 3,000 AF) would be adequate to meet future demand based on WaterDM's continued efficiency forecast.

Appendix A – Materials Considered⁶²

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⁶² Materials Considered also includes all materials cited in the footnotes of this Report.

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Seaside Basin Watermaster Jan. 8, 2020 Letter to Rachel Gaudoin. Subject: Draft Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project (Draft Supplemental EIR)

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WaterDM. September 11, 2020. Second Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company's Monterey Main System.

WaterDM. March 22, 2022. Fourth Supplemental Expert Report and Recommendations of Peter Mayer, P.E. Regarding Water Supply and Demand in the California American Water Company's Monterey Main System.

Monterey Peninsula Water Management District
Technical Memorandum

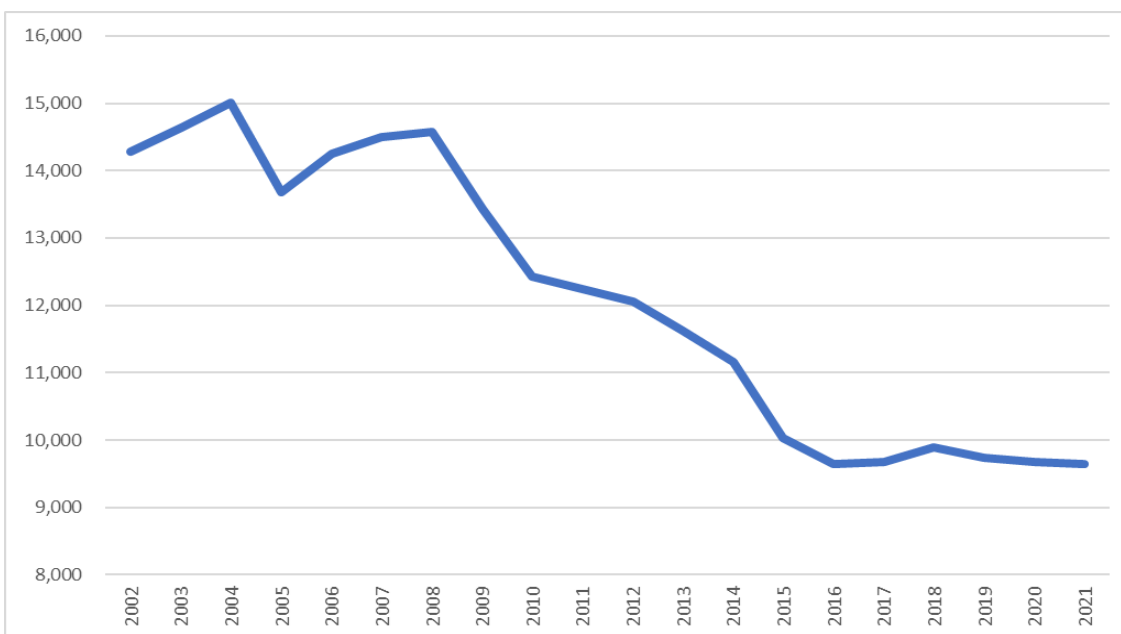
2022 Supply and Demand Forecast
September 2022

Water Demand

At its basic level, planning water supply is being able to answer three simple questions: (i) What is our usage today (current demand)? (ii) What will we need in the future (future demand)? and, (iii) when will we get there (growth rate)? The answers translate to how much supply will be needed each year going forward. In addition, the planner also has to examine if there is enough supply available to reliably serve the 10-Year Maximum Daily Demand (MDD) and Peak Hour Demand (PHD) in the higher demand months, per the California Code of Regulations (CCR) section 64554.

The 5-year average demand from 2017-2021 was 9,725 AFY. As can be seen in Figure 1 below, the trend in water demand has been declining, but relatively steady the past seven years.

Figure 1
Trend in Annual Water Demand



Using a fully-vetted third-party growth forecast is a very objective way for projecting water demand increase. AMBAG implemented an employment-driven forecast model for the first time in the 2014 forecast and contracted with the Population Reference Bureau (PRB) to test and apply the model again for the 2018 Regional Growth Forecast (RGF). To ensure the reliability of the population projections, PRB compared the employment driven model results with results from a cohort-component forecast, a growth trend forecast, and the most recent forecast published by the California Department of Finance (DOF). All four models resulted in similar

population growth trends. As a result of these reliability tests, AMBAG and PRB chose to implement the employment-driven model again for the 2022 Regional Growth Forecast.

AMBAG has captured the factors that influence both residential and non-residential water demand growth in its Regional Growth Forecast. AMBAG's Final 2022 Regional Growth Forecast is utilized by AMBAG in its 2045 Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS) adopted in May 2022. The 2045 MTP/SCS includes a planning period through 2045. The years forecasted include 2025, 2030, 2035, 2040, and 2045. The forecast the same model that predicts employment growth using a shift-share model based on local data as well as state and national trends. Population growth is then driven by employment growth. Household and housing growth are driven by population growth, demographic factors and external factors. While the methodology for the 2022 Regional Growth Forecast has remained the same through three planning cycles, the models have been updated for the Moving Forward 2045 Monterey Bay Plan to include current data, a revised base year of 2020 and a new horizon year of 2045.

Houses and empty lots do not use water, people do. The portion of the AMBAG Regional Growth Forecast that forecasts population captures that water demand for residential purposes. Hence, the housing envisioned for Legal Lots of Record, within Pebble Beach, or elsewhere is affiliated with the population growth forecast.

Similarly, economic growth is captured in the AMBAG Regional Growth Forecast by the growth in jobs. Both Cal-Am¹ and the District have utilized job growth as a proxy for non-residential water demand growth. Hence, the commercial growth envisioned for Legal Lots of Record, within Pebble Beach, or due to increased tourism is affiliated with the growth in the jobs forecast.

AMBAG conducted 22 one-on-one meetings with local jurisdictions in the Cal-Am Main service area,² where AMBAG discussed the Regional Growth Forecast estimates, subregional allocations, and recent trends at the Planning Directors Forum in August 2019, January 2020, and August 2020. Those meetings were the opportunity for the jurisdictions to voice concerns that other growth-related activities needed to be reflected and incorporated into the growth forecast.

¹ Phase 2 Direct Testimony of Ian C. Crooks, Attachment A, 2022 Urban Water Management Plan, p.4-7: "For non-residential customers, water use will increase at the rate of employment growth forecasted by AMBAG."

² Attachment A hereto, Final 2022 Regional Growth Forecast, Attachment 1.

Regional Housing Needs Allocation (RHNA) housing numbers are also embedded in the Regional Growth Forecast. “The regional growth forecast (RGF) is an important reference point in the RHNA process.”³

“The 2045 MTP/SCS includes an updated RHNA. The 6th Cycle Regional Housing Needs Determination (RHND) from HCD to AMBAG is 33,274 units.”⁴ The final growth forecast was adopted along with the 2045 Metropolitan Transportation Plan/Sustainable Communities in June 2022. The 6th Cycle RHNA Plan itself recognizes that it is contained within the 2045 MTP/SCS which utilizes the AMBAG 2022 Regional Growth Forecast. “May 2022 – AMBAG releases final 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) accommodating RHNA.”⁵ They are all tied together.

Since the City of Seaside is not entirely served by Cal-Am’s service area, only half of the future units for Seaside are assumed to be within the Cal-Am service area.” However, any future housing permitted and built in the old Fort Ord area of the cities of Monterey, Del Rey Oaks, or Seaside would also be served by Marina Coast Water District, not Cal-Am. Similarly, any housing units to be built in unincorporated Carmel Valley may be served by existing supplies that are not Cal-Am’s future supplies, but perhaps “wheeled” by Cal-Am – including 130 units at Carmel Valley Village, as well as September Ranch, that will apply against the RHNA goal, but not require a new supply to be met by Cal-Am. MPWMD believes the water for housing requirements that will be met by others should be as follows: Seaside 50% (same as Cal-Am’s own assumption), Del Rey Oaks 20%, Monterey 10%, unincorporated County 30% and should be applied as a discount to future residential water demand. These discounts will be reflected in MPWMD’s demand forecast shown below.

Many people incorrectly interpret the RHNA process as requiring housing units to be built within the next 8 years. That is not the case. The role of local governments is to participate in the development of the allocation methodology and to update their Housing Elements within the County General Plans and local zoning to show how they will accommodate their share of the housing, following the adoption of the RHNA methodology. It is a planning and zoning process. It is not a building process.

The September 8-14, 2022 edition of The Monterey County Weekly states: “Cities and counties do not have to guarantee the units will be built by 2031, but they do have to rezone areas and remove barriers to developer who may take on the actual construction.” The City of Lafayette describes the process as “the RHNA allocation is not a prescription to build any units. And, the

³ Attachment C hereto, Draft 6th Cycle Regional Housing Needs Allocation Plan 2023-2031, April 2022, p. 5.

⁴ Attachment B hereto, Monterey Bay 2045 – Moving Forward, AMBAG, June 2022, Excerpts, pp. 4-38.

⁵ Attachment B hereto, Draft 6th Cycle Regional Housing Needs Allocation Plan 2023-2031, April 2022, p. 13.

City itself does not build units; private developers do. The City is only required to show that there is enough land zoned at appropriate densities to accommodate this need, should a developer want to build these units. In addition, the City must demonstrate that its codes and requirements do not unduly constrain the building of housing (for example, it needs to show that housing can be built “as-of-right” in some zones, without requiring a land use permit).”⁶ Or, as the City of Santa Monica adds: “It is important to recognize that the RHNA is a targeted housing number - Cities and counties do not have to build this number of units, but rather they are required by the state to plan for them and demonstrate that under the current land use and development standards, there is capacity to accommodate for this number of housing units.”⁷

This concept is reinforced by Sand City’s appeal and statement “it is inconceivable how the City could meet the goals of the current RHNA allocation. The City of Sand City requests AMBAG lower Sand City's allotment to a number that is actually achievable in light of its small size and noted constraints” and Pacific Grove Councilmember’s statement “Do I think Pacific Grove will really build all (1,125 units)? No, but we’re putting a policy in place that is supportive of additional housing. Our staff’s job is to show that the city in good faith is implementing policing, zoning or incentives to do so.”⁸

The ability of the Monterey Peninsula to generate or “absorb” the housing and commercial growth will help determine when such water supply is needed. The average growth in, or absorption of, water use in the decade preceding the Cease and Desist Order (CDO) was during a period of relative economic stability, available property, no moratorium on new service connections, and lower water rates, yet only resulted in 16.4 AF per year of absorption. Things do not develop quickly on the Monterey Peninsula. MPWMD analysis below shows 31.4 AF per year, almost twice as much as the historical rate, based on the AMBAG forecast.

To summarize:

- Legal Lots of Record: Population moves to the area and lives in either existing housing stock or new housing stock built on Legal Lots of Record. Housing is already included in the AMBAG Regional Growth Forecast. Thus, Legal Lots of Record is not additive.
- Tourism Rebound: Non-residential economic growth is captured in the AMBAG Regional Growth Forecast and is not additive.
- Pebble Beach Entitlements: The entitlements represent new housing and commercial growth in the unincorporated County area of Pebble Beach. Hence, it is encapsulated within the AMBAG Regional Growth Forecast and is not additive.

⁶ Attachment E hereto, Frequently Asked Questions About RHNA, pp. 17, 19 et al.

⁷ Id., p. 16.

⁸ Id., pp. 21, 23-24.

- RHNA Housing Numbers: The new 6th Cycle Regional Housing Needs Allocation Plan 2023-2031 is reflected within the AMBAG Regional Growth Forecast and is not additive.

MPWMD’s forecast is based on the AMBAG 2022 Regional Growth Forecast and uses current 5-year average water production, a measure of the total water required to “feed” the system for customer use, before losses and fire flows, as the base. Starting with three years of actual consumption data (2017, 2018, and 2019 – pre-COVID), MPWMD allocated consumption for residential and non-residential by political jurisdiction, based on the proportionate percentages of each then mapped the current base production to the same proportions.⁹

Assuming all prospective population and housing growth is captured in AMBAG’s Regional Growth Forecast and all commercial economic expansion occurs at the same rate as AMBAG’s employment projections, MPWMD offers the following water demand forecast:

Table 1
Water Required for Population Growth¹⁰

	Monterey	Pacific Grove	Carmel-by-the-Sea	Seaside	Del Rey Oaks	Sand City	County¹¹	TOTAL
Population in 2020	28,170	15,265	3,949	33,537	1,662	385	8,916	91,884
Population in 2045	29,639	15,817	3,984	38,316	2,650	1,198	9,916	101,520
Increase	5.2%	3.6%	0.9%	14.2%	59.4%	211.2%	11.2%	10.5%
Acre-Feet in 2020	1,675	908	413	1,015	92	21	2,221	6,345
Acre-Feet by 2045	1,762	941	417	1,160	146	65	2,471	6,961
AF Served by Others ¹²	9	-	-	72	11	-	75	167
Net AF in 2045	1,753	941	417	1,087	135	65	2,396	6,795

⁹ Attachment D hereto, Data and Methodology to Support MPWMD Forecast of Water Demand

¹⁰ Attachment A hereto, Final 2022 Regional Growth Forecast

¹¹ To estimate unincorporated County population, use Cal-Am service area population reported in SWRCB Urban Water Supplier Monthly Reports (Raw Dataset), May 2022 value, minus urban areas. Estimate 1,000 residents added by 2045.

https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html.

¹² This represents the portion of new residents in the jurisdiction who will reside in units served by water other than Cal-Am’s Main system. Non-Residential water demand served by others has not been designated.

Table 2
Water Required for Employment Growth¹³

	Monterey	Pacific Grove	Carmel-by-the-Sea	Seaside	Del Rey Oaks	Sand City	County¹⁴	TOTAL
Jobs in 2020	40,989	8,016	3,566	10,476	748	2,092	4,300	70,187
Jobs in 2045	45,509	8,445	3,915	11,543	834	2,259	4,721	77,226
Increase	11.0%	5.4%	9.8%	10.2%	11.5%	8.0%	9.8%	10.0%
Non-Residential AF in 2020	1,547	332	225	336	22	66	853	3,380
Non-Residential AF in 2045	1,718	349	247	370	24	71	936	3,716
Increase	171	18	22	34	3	5	83	336

These AMBAG Regional Growth Forecast values can be converted to a long-term water demand forecast in the following manner:

Table 3
Calculation of Future (Year 2045) Water Demands

	Base Year (2020)	Estimate For 2045 AMBAG	AF per Year
Net Water for Population	6,345 AF	6,795 AF	18.00
Water for Non-Residential	3,380 AF	3,716 AF	13.44
Total	9,725 AF	10,511 AF	31.44

This future year growth rate, applied annually, results in the following water demand forecast:

¹³ Attachment A hereto, Final 2022 Regional Growth Forecast.

¹⁴ California Employment Development Department, Monthly Labor Force Data for Cities and Census Designated Places. November 15, 2019. Sum of Carmel Valley Village CDP and Del Monte Forest CDP. Escalated at same rate as Carmel-by-the-Sea.

Table 4
MPWMD Water Demand Forecast

	2020	2025	2030	2035	2040	2045	2050	2055
Water Demand - AF	9,725	9,882	10,039	10,196	10,353	10,511	10,668	10,825

This demand forecast does not need to be increased by a “peaking factor” to meet the Maximum Month Demand, Maximum Day, or Peak Hourly Demand. As explained later in the section about “Water Supply”, it is not necessary to provide additional supplies if water resources stored can be utilized to meet peak demands. Instead, stored water can be accessed with increased production well capacity, rather than over-building supplies. It is always in the ratepayer’s interest to build one or two additional production wells for \$3 million each, rather than a \$321 million¹⁵ desalination plant if stored water can be utilized to meet peak demands.

WATER SUPPLY

Available sources of supply are shown in Table 5 below and are described in the discussion that follows.

Table 5
Monterey Peninsula Available Supply
(Acre-Feet Annually)

Supply Source	w/ PWM Expansion
Pure Water Monterey	3,500
PWM Expansion	2,250
Carmel River	3,376
Seaside Basin	774
Aquifer Storage & Recovery (ASR)	1,300
Sand City Desalination Plant	210
Table 13 Water Rights	0
Malpaso Water Rights	58
Total Available Supply	11,468

¹⁵ From Attachment C-3 of Advice Letter AL 1220-A, September 10, 2019. Proposed costs for Cal-Am desalination plant have not been updated for many years. Given current inflation, supply chain issues, and increased construction cost environment, the desalination plant costs should be updated.

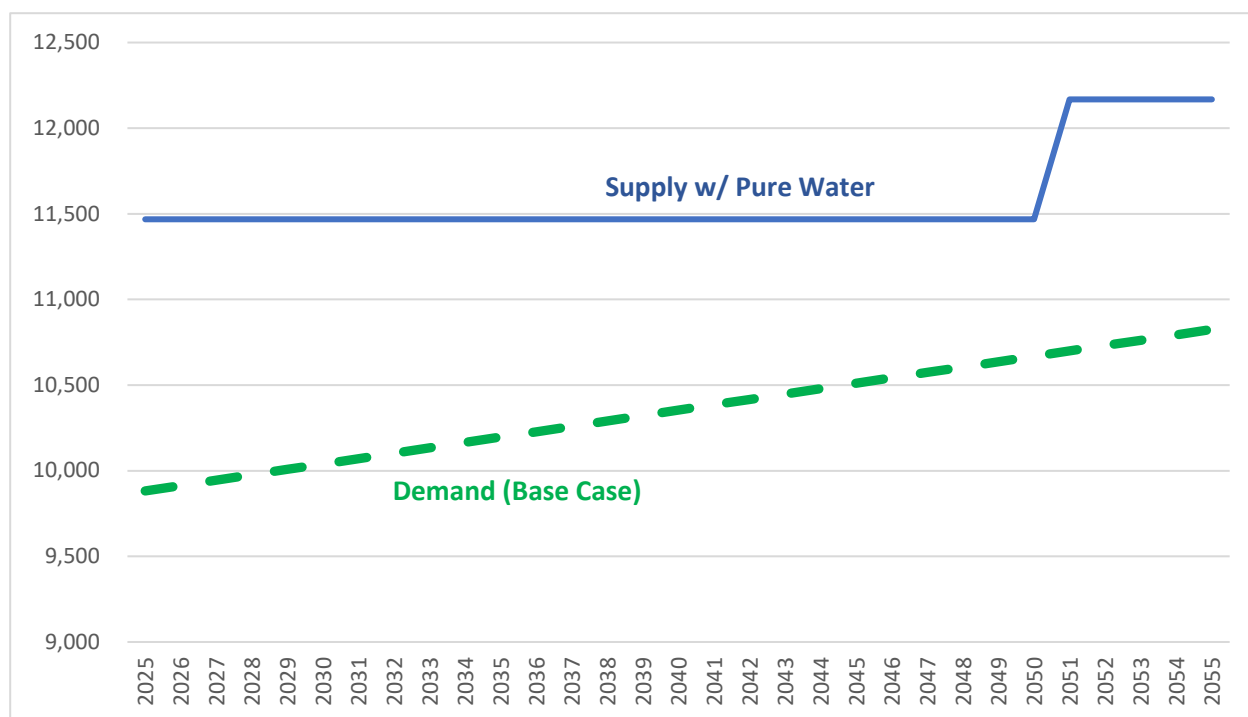
SUPPLY v. DEMAND

By comparing future supplies available inclusive of Pure Water Monterey Expansion and comparing to the expected long-term water demand¹⁶, future water supply beyond a Pure Water Monterey Expansion, such as a desalination plant, can be determined if needed for the Monterey Peninsula

The future Supply versus Demand analysis shows that the addition of the Pure Water Monterey Expansion meets the region's demand needs for over 30 years and a new Cal-Am desalination plant, or some other alternative, is not needed.

Applying the 31.44 AFY from Table 3 linearly across a 30-year horizon results in the demands shown in the figure below showing expected supply versus demand.

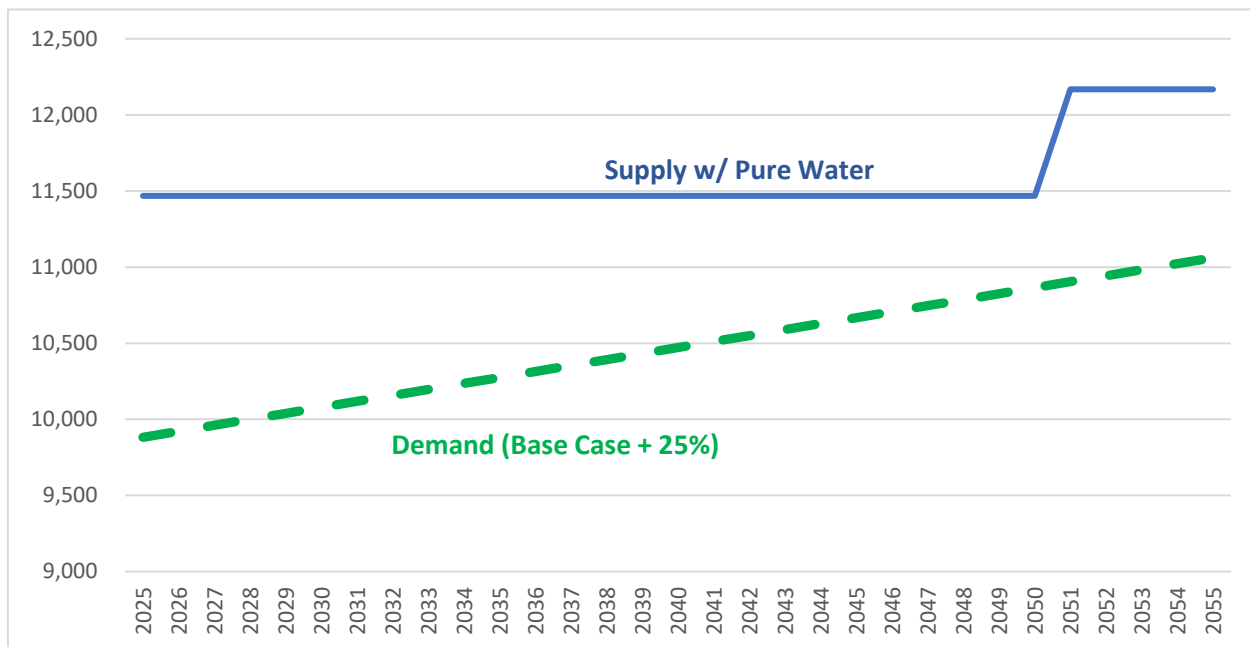
Figure 2
Water Supply Available
vs.
Water Demand for AMBAG 2022 Regional Growth Forecast



¹⁶ Attachment F hereto, Evaluation of Water Supply Available versus Water Demand.

MPWMD also analyzed a demand forecast 25% higher, at 39.3 AF per year of average growth. That result is shown in Figure 3, below:

Figure 3
Water Supply Available
vs.
Water Demand for AMBAG 2022 Regional Growth Forecast
Plus 25% for Forecasting Error



MPWMD also analyzed a demand forecast 50% higher, at 47.2 AF per year of average growth. At that level, available supplies (with Pure Water Monterey Expansion, without a desalination plant) exceed water demand for over 30 years. In fact, MPWMD's model shows that at 63 AF per year of average growth – 200% of or twice the water forecasted to be required for the AMBAG 2022 Regional Growth Forecast – supplies are available for over 30 years.

A contingency can be achieved by having additional stored water available to call upon at any time. This can be achieved by building up available storage in the early years where supply exceeds demand. As seen in Figures 2 and 3 above, and in the last columns of Attachment F, in the initial years following completion and availability of Pure Water Monterey Expansion (2025) the available supplies exceed demands by over 1,500 AF per year. In the very first year, more than 10% of available supplies (1,147 AF) can be stored to satisfy any contingency.

Water for available storage is shown below:

Table 6
Water Available for Storage
(With Pure Water Monterey Expansion, without Desalination)

Year	Storage Available Base Case Demand	Storage Available Base Case Demand + 25% Error		Year	Storage Available Base Case Demand	Storage Available Base Case Demand + 25% Error
2025	1,586	1,586		2041	1,083	957
2026	1,555	1,547		2042	1,052	918
2027	1,523	1,507		2043	1,020	879
2028	1,492	1,468		2044	989	839
2029	1,460	1,429		2045	957	800
2030	1,429	1,390		2046	926	761
2031	1,397	1,350		2047	894	721
2032	1,366	1,311		2048	863	682
2033	1,334	1,272		2049	831	643
2034	1,303	1,232		2050	800	604
2035	1,272	1,193		2051	1,469	1,264
2036	1,240	1,154		2052	1,437	1,225
2037	1,209	1,114		2053	1,406	1,186
2038	1,177	1,075		2054	1,374	1,146
2039	1,146	1,036		2055	<u>1,343</u>	<u>1,107</u>
2040	1,114	997	Total		38,046	34,392

In addition to eliminating a need for a contingency from bigger water supply construction, the stored water can be used for peaking to meet maximum month demands (MMD), maximum day demand (MDD), and peak hourly demand (PHD) without building more supply projects. As stated earlier, it is always in the ratepayer’s interest to build one or two additional production wells for \$3 million each, rather than a \$321 million desalination plant if stored water can be utilized to meet peak demands.

Stored water can also be used as a drought reserve and to provide protective water levels in the Seaside Groundwater Basin. In fact, the average water to storage in the base case above in Table 6 is 1,268 AFY – far in excess of recommended protective water levels for the basin.

If the Monterey Peninsula were to experience drought during the initial “buildup period” of ASR reserves following the completion of new water supply and the lifting of the CDO, ASR would arguably be delayed in building up a drought reserve, but it should not be overlooked that a Pure Water Monterey Expansion is new capacity without an immediate offsetting demand. That is, 2,250 AFA from Pure Water Monterey Expansion would provide an off-set in the early years if

ASR's drought reserve has not yet built-up. Just a few years of Pure Water Monterey Expansion water could also provide drought-resilience to the Monterey Peninsula.

Attachment A

A

Regional Growth Forecast



2022 Regional Growth Forecast

Technical Documentation

Association of Monterey Bay Area Governments
Scheduled for Adoption June 2022

2022 Regional Growth Forecast

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2022 Regional Growth Forecast

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2022 Regional Growth Forecast

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2022 Regional Growth Forecast

Executive Summary

As the Metropolitan Planning Organization (MPO), the Association of Monterey Bay Area of Governments (AMBAG) carries out many planning functions for the tri-county area including development and maintenance of the regional travel demand model (RTDM), long range transportation planning and programming and acting as a regional forum for dialogue on issues facing the region. Most of AMBAG's projects are carried out in support of these major functions, including but not limited to the regional growth forecast. AMBAG develops the forecast with a horizon year that matches the planning timeline of the Metropolitan Transportation Plan (MTP) and the model years for the Regional Travel Demand Model (RTDM). In addition to informing regional planning processes, the forecast is used by local jurisdictions and special districts to inform local and subregional planning.

The last regional growth forecast was adopted in 2018. AMBAG staff began the process of developing a new forecast in spring 2019. This new forecast is referred to as the 2022 Regional Growth Forecast (2022 RGF).

In preparation for this forecast, AMBAG staff conducted a review of recently completed population, housing and employment forecasts. The results of this review indicated that most of the other MPOs in California are using a methodology that emphasizes employment growth as the primary driver of long-term population change at the regional scale. The traditional approach to forecasting population uses a cohort-component approach that considers three factors: births, deaths and migration. While birth and death data are readily available and trends are relatively predictable over time, migration tends to be much more difficult to track and forecast as it is heavily influenced by political and economic climates. For the development of the new forecast, AMBAG chose to progress towards a more contemporary approach that places a greater emphasis on employment. The assumption is that the economy is a reliable predictor of population growth.

AMBAG implemented an employment-driven forecast model for the first time in the 2014 forecast and contracted with the Population Reference Bureau (PRB) to test and apply the model again for the 2018 RGF and the 2022 RGF. To ensure the reliability of the population projections, PRB compared the employment-driven model results with results from a cohort-component forecast, a growth trend forecast, and the most recent forecast published by the California Department of Finance (DOF). All four models resulted in similar population growth trends. As a result of these reliability tests, AMBAG and PRB chose to implement the employment-driven model again for the 2022 RGF.

To disaggregate the forecast for each jurisdiction, AMBAG and PRB used the most current data available to update a series of shift-share models and replicate the methodology used in the prior forecast.

2022 Regional Growth Forecast

This technical document provides a description of the methodology for the development of the regional growth forecast figures in addition to the methodology for disaggregation of those figures. The regional and subregional forecast figures for population, jobs and housing were accepted by the AMBAG Board of Directors at the November 18, 2020 meeting.

Summary of the Forecast

The 2022 RGF projects that the region will add 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. The regional growth rate is slightly slower than nation- and state-level forecasts, reflecting historical growth rates that have tended to be slightly slower than either the state or nation. Furthermore, job growth is expected across most employment sectors. The fastest-growing industries include Site-Based Skilled Trade, Health Care and Social Assistance, and Other Services. Conversely, Retail is expected to be the slowest-growing industry. Notably, while many models for the U.S. predict declines in agricultural job growth, the AMBAG region is experiencing steady agricultural job growth.

This forecast projects that the region's population will grow by approximately 107,500 people between 2015 and 2045, for a total population of just under 869,800 in 2045. This is slightly lower than prior forecasts and follows the slowing growth rates seen at both the state and national level. This revised growth trend also reflects the most current population estimate for the region. As a result of declining fertility, stalled improvements in life expectancy, and falling international migration, the 2020 population estimate was more than 16,000 lower than prior forecasts predicted. In addition to slower growth, the new forecast predicts an older age distribution, with a larger proportion of the population age 65 and older.

An aging population affects the household and housing unit forecasts. While population growth will slow, which reduces future housing demand, older people are more likely to live alone or in small households. This shift offsets the lower population forecast with a slight upward effect on housing demand. The net result is that the region is expected to build just over 42,200 housing units by 2045, for a total of approximately 304,900 units.

Section 1: Process for Forecast Completion

Following the preparation of the regional forecast figures, AMBAG staff began the process of disaggregating the figures to each of the jurisdictions using historical data to develop a baseline disaggregated forecast. The initial results were a purely quantitative application of the methodology. These preliminary draft disaggregated numbers were presented for discussion purposes at one-on-one meetings held by AMBAG staff with each of the jurisdictions, the Local Agency Formation Commissions,

2022 Regional Growth Forecast

the Fort Ord Reuse Authority, the University of California, Santa Cruz and the California State University, Monterey Bay. AMBAG staff also provided materials for these meetings that outlining the data sources and methodology for the regional forecast figures as well as the preliminary draft disaggregated forecast figures. The intent of the first round of meetings was to gather information and data that was then used to make adjustments to the forecast. (See Attachment 1 for a list of meeting dates, times and attendees.)

These preliminary draft disaggregated numbers were adjusted based on information and feedback provided by each jurisdiction. In addition, new data became available. The release of vintage 2020 estimates from the California Department of Finance showed 2019 population approximately 7,000 lower than in the preliminary estimate, although housing estimates were relatively stable. These updates necessitated minor revisions to the regional forecast.

Staff updated the regional growth forecast to reflect the most current information. The entire revised forecast, regional and subregional, was re-circulated for a second round of comments. After the second round of comments were received, AMBAG staff incorporated additional input and prepared a revised draft of the disaggregated forecast figures. Staff circulated the revised population, employment and housing forecast which incorporated additional comments from the Board of Directors. The final draft was accepted for planning purposes only by the AMBAG Board of Directors at its meeting on November 18, 2020. The final growth forecast is scheduled for adoption along with the 2045 Metropolitan Transportation Plan/Sustainable Communities in June 2022.

Section 2: Development of the Regional Growth Forecast

In spring 2019, AMBAG asked PRB to prepare regional employment, population and housing projections to 2045. This section documents the findings of the work by PRB and includes a summary of the methodology, a description of the projections and an explanation of past, current and projected job growth in the region.

Summary of the 2022 Regional Growth Forecast

The 2022 RGF projects that the region will add 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. (See Table 1) The regional growth rate is similar to national forecasts but slightly slower than state-level forecasts. Furthermore, job growth is expected across most employment sectors. The fastest-growing industries include Site-Based Skilled Trade, Health Care and Social Assistance, and Other Services. Conversely, Retail is expected to be the slowest-growing industry. Notably, while many models for the U.S. predict declines in agricultural job growth, the AMBAG region is experiencing steady agricultural job growth.

2022 Regional Growth Forecast

This forecast projects that the region's population will grow by approximately 107,500 people between 2015 and 2045, for a total population of just under 869,800 in 2045. (See Table 1) This is slightly lower than prior forecasts and follows the slowing growth rates seen at both the state and national level. This revised growth trend also reflects the most current population estimate for the region. Despite an upward revision to the estimate, the revised DOF population estimate for 2015 was more than 3,000 lower than prior forecasts predicted. As such, an adjustment was made in this forecast of population growth to account for the sharp fall in fertility rates and international migration that occurred during the recession years that have not fully rebounded. In addition to slower growth, the new forecast predicts an older age distribution, with a larger proportion of the population age 65 and older.

An aging population affects the household and housing unit forecasts. While population growth will slow, which reduces future housing demand, older people are more likely to live alone or in small households. This shift offsets the lower population forecast with a slight upward effect on housing demand. The net result is that the region is expected to build just over 42,200 housing units by 2045, for a total of approximately 304,900 units. (See Table 1)

Table 1: Forecast Summary

	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
Population	710,598	719,561	732,708	762,241	774,729	800,726	824,992	842,189	857,828	869,776
Change		8,963	13,147	29,533	12,488	25,997	24,266	17,197	15,639	11,948
% Change		1%	2%	4%	2%	3%	3%	2%	2%	1%
Households	228,260	234,869	236,059	238,862	243,863	253,106	262,493	269,175	273,462	276,730
Change		6,609	1,190	2,803	5,001	9,243	9,387	6,682	4,287	3,268
% Change		3%	1%	1%	2%	4%	4%	3%	2%	1%
Housing	247,080	256,467	260,256	262,660	267,812	277,645	288,386	296,352	301,307	304,900
Change		9,387	3,789	2,404	5,152	9,833	10,741	7,966	4,955	3,593
% Change		4%	1%	1%	2%	4%	4%	3%	2%	1%
Jobs				377,335	406,280	410,017	418,132	425,845	434,147	442,824
Change				25,600	28,945	3,737	8,115	7,713	8,302	8,677
% Change					8%	1%	2%	2%	2%	2%

Sources: Jobs data for 2000-2015 are from California Employment Development Department and InfoUSA; population, household, and housing data for years 2000-2020 are from the U.S. Census Bureau and the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

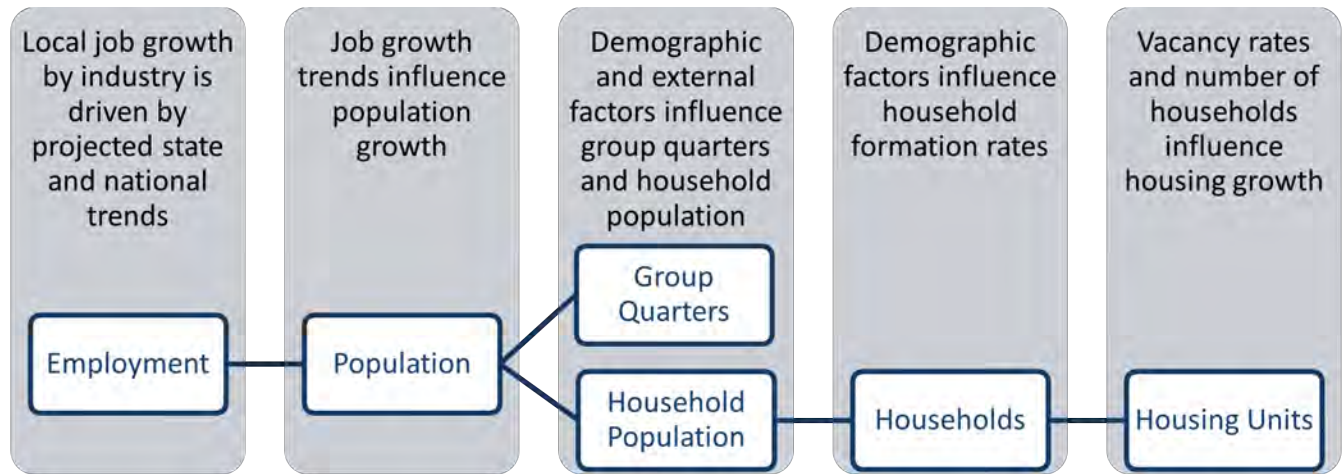
Regional Growth Forecast Methodology

As shown in the flow chart below, the forecast uses a model that predicts employment growth using a shift-share model based on local data as well as state and national trends. Population growth is then driven by employment growth. Household and housing growth are driven by population growth, demographic factors and external factors (explained below). This approach was vetted and approved by the AMBAG Board of Directors in 2014 for use in the metropolitan transportation plan, Moving Forward 2035 Monterey Bay. While the methodology for the 2022 RGF remains the same, the models

2022 Regional Growth Forecast

have been updated to include current data, a revised base year of 2015 and a new horizon year of 2040.

Figure 1: Regional Growth Forecast Process



1. **Employment:** Employment is measured as the number of jobs by place of work. Employment growth by industry is driven by projected national and statewide trends for all industries in the region using a shift-share model.
2. **Population:** Population is the total resident population of the region. Job growth trends influence population growth. The forecast of total population is based on historical trends in the ratio of population to employment in the AMBAG region. Projections of demographic characteristics (i.e., population by age, sex, and race/ethnicity) in the 2022 RGF relied on a proportional approach based on demographic projections from the California Department of Finance (DOF).
3. **Household Population and Group Quarters:** Household population is the population that lives in a housing unit. Group quarters population is the population that lives in a group living arrangement such as a dorm, barracks, correctional institution, or congregate care facility. Demographic factors (e.g., age, sex, race/ethnicity) and external factors (e.g., major group quarters facilities like colleges and universities, correctional facilities, etc.) influence the household population and group quarters population.
4. **Households/Occupied Housing Units:** A household is a person, or group of people, living in a house. Because a household, by definition, occupies a housing unit, households are equivalent to and synonymous with occupied housing units. Household projections are driven by household formation rates. Household formation rates are calculated as the ratio of households divided by the household population. Household formation rates are the inverse of average household size.
5. **Housing Units:** Housing is the total number of housing units, including both occupied and vacant structures. Housing includes primary residences, second homes, accessory dwelling

2022 Regional Growth Forecast

units, vacation rentals, farmworker housing, and any other habitable structure—including unauthorized units. The only type of dwelling excluded from the housing inventory is group quarters (dorms, barracks, congregate care, etc.).

Housing projections are driven by the household population projection, demographic characteristics of the household population (age, sex, race/ethnicity), household formation rates, and housing vacancy rates. Vacancy rates are calculated as the share of all units (including vacation rentals, unauthorized dwellings, etc.) that are not currently occupied.

Data sources include the California Department of Finance, California Employment Development Department, the U.S. Bureau of Labor Statistics and the U.S. Census Bureau.

For more information on the definitions of housing and group quarters, see Attachment 4.

Step 1: Employment

The AMBAG region is projected to add 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. The 2015 base year data were re-benchmarked to reflect revisions to county totals published by the California Employment Development Department, as well as an employer database from InfoUSA, and extensive ground-truthing conducted by AMBAG staff. (See Table 2 and Figure 2.) Employment grew faster in the 2015-2020 time period than had been anticipated in the 2018 RGF, but is expected to return to a slow-growth trend.

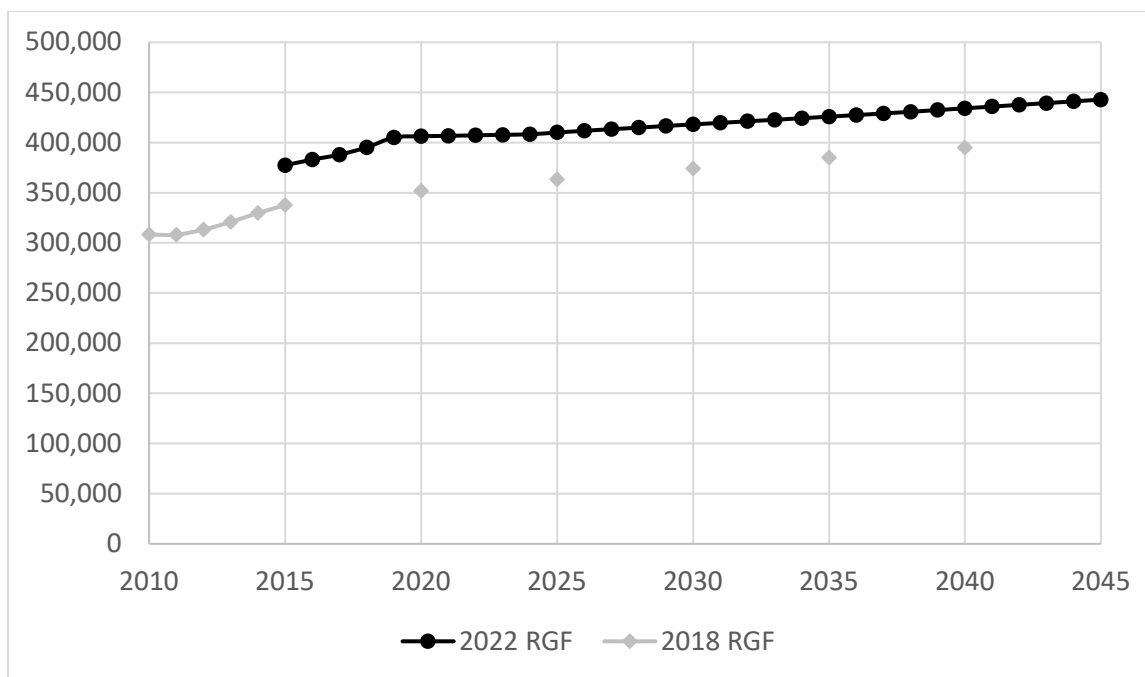
2022 Regional Growth Forecast

Table 2: Forecast Comparison of Employment

Forecast	2010	2015*	2020	2025	2030	2035	2040	2045
2018 RGF	308,300	337,600	351,800	363,300	374,100	384,800	395,000	N.A.
% Change		10%	4%	3%	3%	3%	3%	N.A.
2022 RGF		377,335	406,280	410,017	418,132	425,845	434,147	442,824
% Change			8%	1%	2%	2%	2%	2%

Sources: Data for years 2010 and 2015 are from the California Employment Development Department.

*In the 2022 RGF, data for 2015 were re-benchmarked using updated estimates from the California Employment Development Department, an employer database InfoUSA, and extensive ground-truthing. Forecast years were prepared by AMBAG and PRB.

Figure 2: AMBAG Region Employment Forecast

Sources: Data for years 2010-2014 are from the California Employment Development Department. In the 2022 RGF, data for 2015 were re-benchmarked using updated estimates from the California Employment Development Department, an employer database InfoUSA, and extensive ground-truthing. Forecast years were prepared by AMBAG and PRB.

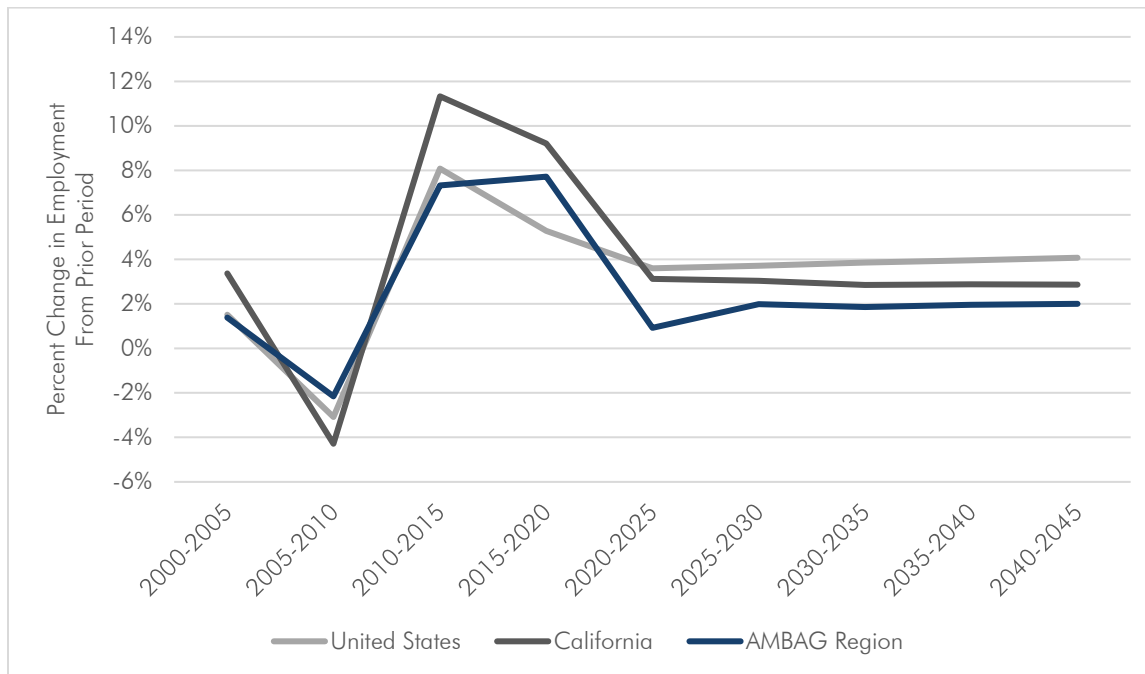
Job projections to 2045 were developed for each major NAICS industry category by projecting the AMBAG region share of state job growth based on the analysis of trends in the period from 2005 to 2019. The NAICS industries were then grouped into major industry sectors for the transportation model. Industry categories are described in Attachment 2.

The AMBAG region experienced job growth slower than the state, and similar to the nation between 2000 and 2019. (See Figure 3.) The region is projected to experience job growth at a slightly slower rate than the state and nation. The primary reason for this below-average job growth is the region's below-

2022 Regional Growth Forecast

average concentration in fast-growing sectors such as information and professional services. The region also has a below-average exposure to growth in foreign trade.

Figure 3: Employment Change



Sources: Data for years 2000-2015 from the U.S. Bureau of Labor Statistics and California Employment Development Department. Forecast years were prepared by AMBAG and PRB with input from U.S. Bureau of Labor Statistics, Employment by Major Industry Sector: 2014-2024; California Department of Transportation, California County-Level Economic Forecast 2014-2040, September 2014; and from the California Employment Development Department, Industry Employment Projections.

Positive growth factors include above-average performance relative to state trends in tourism and agriculture. Agriculture has shown strong growth for several years, and new crops such as cannabis as well as new investments in processing facilities, portend that the industry will continue to grow. However, any job growth due to new crops may be mitigated by losses due to increased mechanization in agriculture and agricultural processing.

Method for Producing the Employment Forecast

The AMBAG region job projections were developed using three guiding principles:

1. The AMBAG region projections were based on projections of job growth in the nation and state. The national and state projections provide the **pool of job opportunities** and the AMBAG region projections reflect historical trends in the **share** of national and state job growth that will locate in the AMBAG region.

2022 Regional Growth Forecast

2. The AMBAG region **share** of national and state job growth is determined by the industry composition of job growth and the projected share of job growth locating in the AMBAG region. If national and state job growth is concentrated in sectors where the AMBAG region has a competitive advantage, the region's projected job growth will be higher than if national and state job growth is concentrated in sectors where the region has a below-average share of jobs and a relatively poor competitive position.
3. The analysis of competitive advantage is focused on sectors in the AMBAG region **economic base**. The region's economic base consists of those sectors that sell a high proportion of goods and services to customers outside the region. They export goods and services to customers in world and national markets and markets throughout California. Key examples of economic base sectors in the AMBAG region are agriculture and tourism. The UC Santa Cruz campus and state prison are also examples of activities that do not primarily serve local residents.

U.S. and California Job Growth to 2045

The starting point for the AMBAG projections is an examination of future U.S. and California job growth for total jobs and major industry sectors. The U.S. job growth projections are based on the most recent forecast from the U.S. Bureau of Labor Statistics and an extrapolation of growth trends to 2045. California job growth projections are based on an industry-level forecast published by the California Department of Transportation, as well as data from the California Employment Development Department and PRB.

The California industry projections identify the structure of job growth as an input to AMBAG region job projections. The resulting projections of job growth are shown below.

The nation is expected to add 41 million jobs between 2015 and 2045 for an increase of 27 percent. Growth, nationwide, is expected to be fairly constant throughout the forecast period. The state of California is projected to experience job growth that is slightly faster than the nation's job growth in the early years of the forecast and to slow down to a rate more similar to the national growth rate by 2045.

The state is projected to see a 26 percent increase in total jobs between 2015 and 2045. The pattern of California industry job growth is shown below and was used in developing AMBAG region job projections. (See Table 3)

2022 Regional Growth Forecast

Table 3: California Jobs by Major Industry (000s)

	2010	2015	2020	2045	Avg. Annual Growth Rate		
					2010-2015	2015-2020	2015-2045
Agriculture	382.8	422.3	426.8	433.1	2.0%	0.2%	0.5%
Mining	24.6	26.4	22.8	23.8	1.4%	-2.9%	-2.1%
Construction	560.0	732.1	892.9	996.2	5.5%	4.1%	6.4%
Manufacturing	1,247.9	1,303.0	1,340.4	1,439.2	0.9%	0.6%	2.0%
Wholesale	629.7	691.0	699.2	789.8	1.9%	0.2%	2.7%
Retail	1,516.5	1,660.1	1,683.3	1,812.5	1.8%	0.3%	1.8%
Transp., Warehousing, Utilities	466.9	557.8	682.2	717.9	3.6%	4.1%	5.2%
Information	428.4	488.6	562.0	714.0	2.7%	2.8%	7.9%
Financial Serv.	758.8	800.8	840.1	1,096.7	1.1%	1.0%	6.5%
Prof. & Business Serv.	1,224.1	1,431.6	1,591.7	1,861.8	3.2%	2.1%	5.4%
Educ. & Health Serv.	2,993.9	3,526.1	3,988.6	4,792.4	3.3%	2.5%	6.3%
Leisure & Hospitality	1,500.8	1,828.3	2,056.8	2,348.2	4.0%	2.4%	5.1%
Other services (excl. gov't)	483.6	543.6	583.3	797.4	2.4%	1.4%	8.0%
Government	2,448.4	2,463.0	2,636.6	2,959.3	0.1%	1.4%	3.7%
Self Employed	1,192.6	1,180.9	1,275.7	1,519.6	-0.2%	1.6%	5.2%
Total Jobs	15,859.0	17,655.6	19,282.4	22,301.7	2.2%	1.8%	4.8%

Sources: Data for years 2005, 2010 and 2015 from the Employment Development Department. Forecast years were prepared by PRB with input from California Department of Transportation, California County-Level Economic Forecast 2018-2050, September 2019 and from the California Employment Development Department, California Industry Employment Projections.

The projections show substantial differences in the expected growth rate among industries between 2015 and 2045 and these differences tell a story about where job growth is expected and where job levels will remain flat or decline. These differences directly influenced the AMBAG region job projections described below.

It is important to note that the statewide projections listed above were completed before the start of the coronavirus pandemic. The net result is unknown at this time, and projections will be updated as new information becomes available. AMBAG will begin the next update to the Regional Growth Forecast will begin in 2023.

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The AMBAG Region Economy and Job Growth

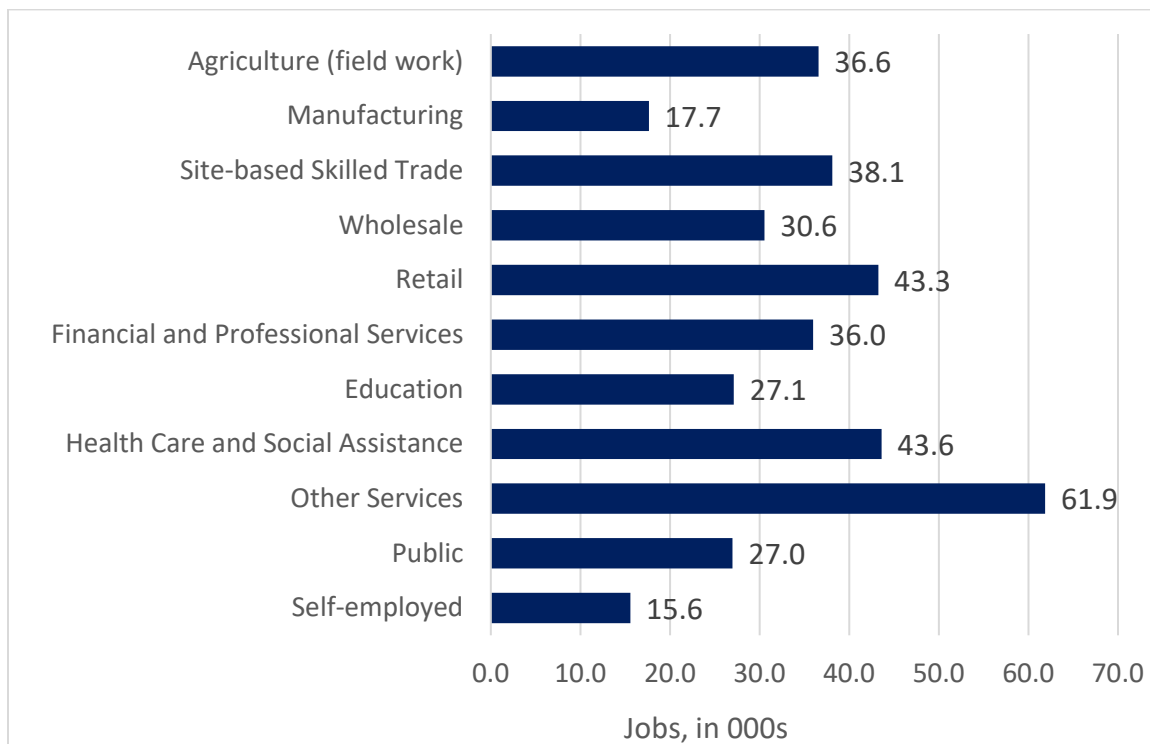
The previous section provided an overview of the current trends in the California economy. As previously noted the AMBAG region's job projections are based on an analysis of the regional economy and its relationship to the growth forecasted for California. The national and state projections provide the **pool of job opportunities** and the AMBAG region forecast reflects judgments about the **share** of national and state job growth that will locate in the AMBAG region. What follows is a description of the current structure of the regional economy as well as the resulting job projections based on the region's share of industries.

The database used for analysis and projections consists of annual industry employment data from 1990 through 2019, from the California Employment Development Department. for each of the three counties in the region and added together to produce an AMBAG region jobs database.

In addition to the historical time-series, AMBAG re-benchmarked the 2015 employment data to more accurately reflect local employment, and grouped the data to eleven categories for modeling purposes. This process is described in more detail in the "Sub-County Employment Database and Re-benchmarking" section, below. Industry definitions are included in Attachment 2.

The largest sectors are Other Services (including hotels, restaurants, and personal services), Health Care and Social Assistance, and Retail. (See Figure 4.)

Figure 4: Jobs by Industry Sector in 2015, AMBAG Region



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Sources: Data from the California Employment Development Department, InfoUSA, and AMBAG.

The AMBAG regional economy has an industry structure that is quite different in some ways than the statewide structure or the industry structure in regions like Southern California or the San Francisco Bay Area. One difference is the large share of jobs in Agriculture. Nineteen percent of total jobs in the AMBAG region are in Agriculture compared to just over two percent statewide. Other sectors with above average shares in the region include Public, Other Services, and Self Employed. Conversely, the AMBAG region has a below average share of jobs in the fast-growing, high wage Financial and Professional Services sectors.

AMBAG Region Forecast Job Trends, by Industry

The AMBAG region is expected to have moderate job growth between 2015 and 2040.

Table 4: AMBAG Region Jobs by Major Industry (000s)

	2015	2020	2025	2030	2035	2040	2045	Avg. Annual Growth Rate	
								2015-2020	2015-2045
Agriculture	36,600	40,100	40,100	40,200	40,300	40,500	40,600	1.8%	0.3%
Manufacturing	17,700	19,700	19,800	19,900	20,000	20,100	20,200	2.2%	0.3%
Site-based Skilled Trade	38,100	42,900	43,700	44,900	45,600	46,600	47,700	2.4%	0.6%
Wholesale	30,600	33,300	32,800	33,200	33,500	33,800	34,100	1.7%	0.3%
Retail	43,300	42,100	42,200	42,500	43,000	43,500	44,000	-0.6%	0.0%
Financial and Professional Services	36,000	37,100	37,400	38,500	39,600	40,800	41,900	0.6%	0.4%
Education	27,100	29,900	30,100	30,700	31,400	32,200	33,100	2.0%	0.5%
Healthcare and Social Assistance	43,600	47,400	48,900	50,200	51,500	52,900	54,400	1.7%	0.6%
Other Services	61,900	68,500	69,100	71,200	73,200	75,200	77,300	2.0%	0.6%
Public	27,000	29,700	29,800	30,200	30,700	31,200	31,900	1.9%	0.4%
Self-employed	15,600	15,700	16,200	16,600	16,900	17,300	17,700	0.1%	0.3%
Total	377,300	406,300	410,000	418,100	425,800	434,100	442,800	1.5%	0.4%

Sources: Data for years 2015 from the California Employment Development Department, InfoUSA, and AMBAG. Forecast years were prepared by AMBAG and PRB.

Note: Parts may not sum to total due to independent rounding.

The industry-level trends in the AMBAG Region are as follows:

- Agricultural job growth has been strong for the past 10 years, and while the rate of growth is expected to slow, the region's agricultural industry will still grow faster than state or national projections.
- The region lost Manufacturing jobs during the recession, but recent years have seen a turnaround. Growth is expected to be slow but steady in future years.

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- Site-based Skilled Trade (which includes construction) saw steep job losses during the recession and a bounce-back through 2019. Future growth is expected to be moderate.
- The Wholesale and Retail sectors both lost jobs in recession years, and retail has continued to decline. Growth is expected to remain low through the forecast.
- Financial and Professional Services is expected to grow at a moderate rate.
- Education has grown rapidly in recent years, but growth will likely slow as population growth slows.
- Healthcare and Social Assistance has seen steady growth, even in recession years. This is expected to continue as the population ages and demand for health services increases.
- Other Services (including hotels, restaurants, and personal services) lost jobs in the AMBAG region during the recession, but growth rebounded between 2010 and 2015. Growth is expected to be moderate in the future.
- The Public sector, locally, lost jobs between 2008 and 2013 as a result of the recession. Those losses began to reverse in 2014, and the sector is expected to see modest growth in the future.
- Self-employment tends to be counter-cyclical as people who lose their wage-and-salary job during a recession may turn to self-employment. Growth forecasts are based primarily on population growth.

Step 2: Population

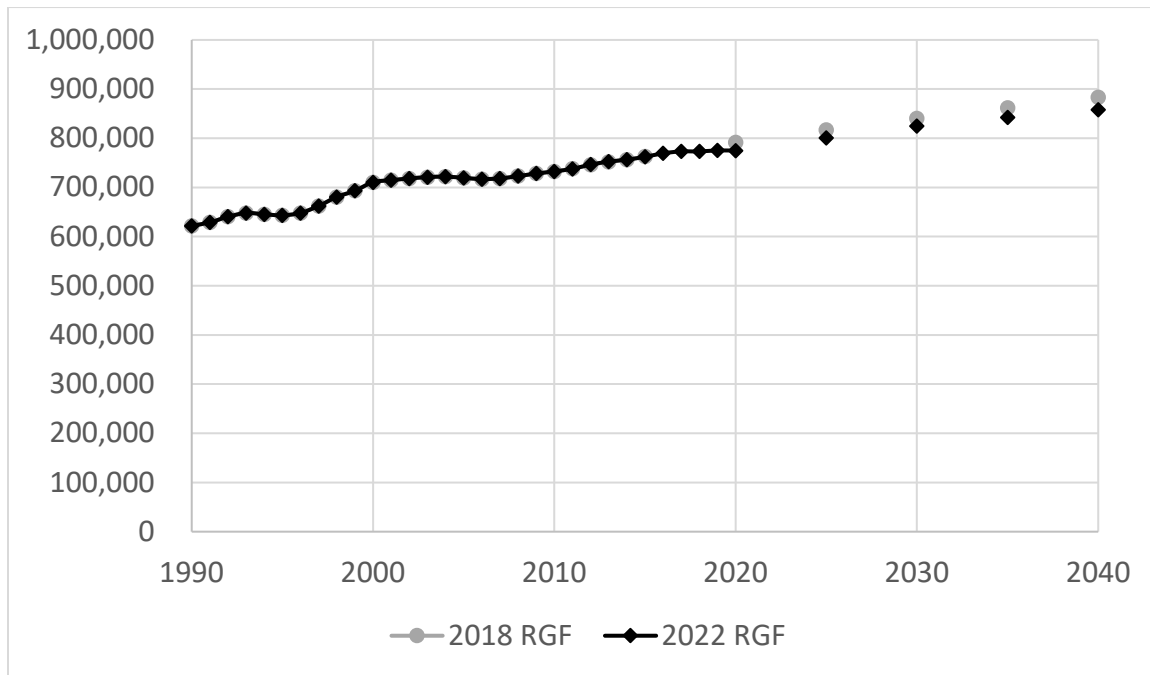
The region is projected to add approximately 107,500 people between 2015 and 2045, for an increase of 14 percent. The 2045 projected regional population of 869,776 is lower than the 883,300 residents projected for year 2040 in the 2018 RGF. (See Table 5 and Figure 6) This lower population forecast reflects slower growth than anticipated since the 2010 Census due to record low birth rates, stalled improvements in life expectancy, and lower migration rates. This slower growth in population is possible, despite faster growth in employment, due to changing unemployment and labor force participation rates.

Table 5: Comparison of Forecasts for Population

Forecast	2010	2015	2020	2025	2030	2035	2040	2045
2018 RGF	732,708	762,676	791,600	816,900	840,100	862,200	883,300	N.A.
% Change		4%	4%	3%	3%	3%	2%	N.A.
2022 RGF	732,708	762,241	774,729	800,726	824,992	842,189	857,828	869,776
% Change		4%	2%	3%	3%	2%	2%	1%

Sources: Data for years 2010-2020 are from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

2022 Regional Growth Forecast

Figure 5: AMBAG Region Population Forecast

Sources: Data for years 1990-2020 are from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Despite the lower population forecast, it is expected that AMBAG will continue to see population and housing growth associated with job growth outside of the region. In particular, job growth in Silicon Valley, combined with high housing prices, is expected to lead to an increase in the number of commuters to Bay Area jobs that live in the AMBAG region.

Method for Producing the Population Forecast

In preparing for this forecast, PRB tested a variety of methods for the population forecast, each of which produced similar results. (Findings are summarized in Attachment 3.) As a result of this review, PRB and AMBAG staff determined that the employment-driven population growth forecast model used in the 2014 RGF was suitable for the 2018 RGF.

Benchmark Population

All population projections are benchmarked to the 2010 Census counts which include people whose primary residence on “Census Day” (April 1, 2010) is within the region, regardless of citizenship status. It is recognized that the AMBAG region is home to a sizeable seasonal population (seasonal workers, who often work in agricultural occupations, and their families). Seasonal worker populations have

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historically been found to be “hard to count” (HTC) in official statistics.¹ In an encouraging development, the 2010 Census was more effective than prior decennial census efforts in reaching, and enumerating, HTC areas. Specifically, “Census 2010 coverage of households in the HTC tracts in the San Joaquin Valley and Central Coast counties... was significantly improved from previous decennials,” but some undercount remained a problem.²

The timing of data collection has also historically been a challenge for counting seasonal workers in the AMBAG region. Migratory workers are counted based on their location on Census Day. If the agricultural work cycle is in a lull in March and April, but ramps up at other times of the year, the worker population may be lower on Census Day than it is at other times of the year. However, it has been observed through informal surveys (i.e., for the AMBAG Regional Agricultural Vanpool Feasibility Study) that the seasonal population in the AMBAG region has been moving towards a trend of year-round residence, particularly with regard to agricultural jobs.

Given these two trends – better enumeration of HTC populations and a trend toward year-round residence – the seasonal population is increasingly likely to be counted in the decennial Census and in California Department of Finance demographic estimates. That said, seasonal workers who were not present on Census Day would not have been counted in the AMBAG region, and undercount remains a problem for seasonal populations, nationwide. Thus, to the extent that seasonal workers are present and counted in official statistics, they are also included in this forecast.

The AMBAG region population projections were benchmarked against prior decennial Census and employment data, and derived by anticipating that the regional population to job ratio will move in line with the statewide trend as it has in the past.

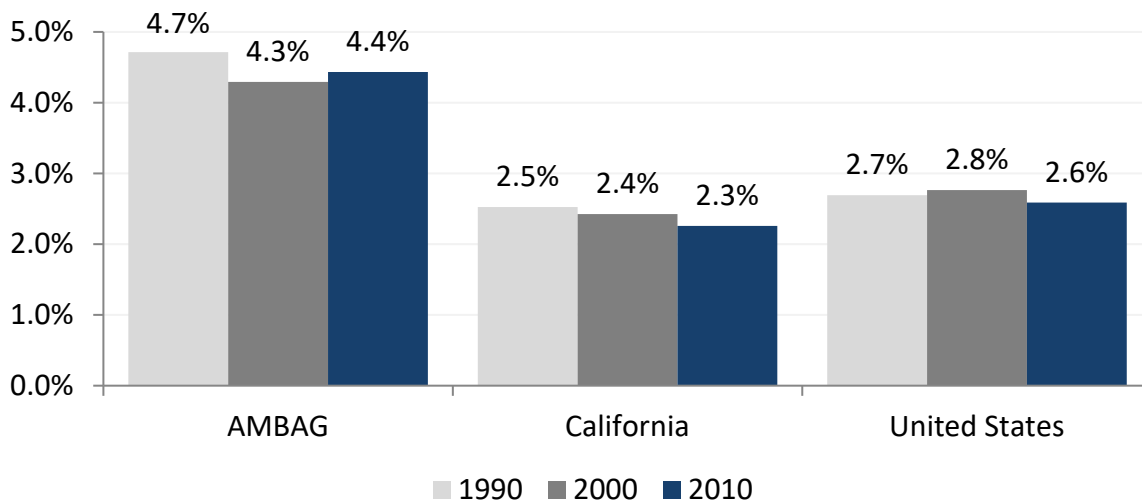
U.S., California and AMBAG Region Demographic and Economic Trends to 2045

The AMBAG region has an above-average share of residents who live in group quarters and are not tied to the regional job market. This trend has continued since 1990 although the mix of group quarters residents has changed. (See Figures 6 and 7.) Changes in group quarters population, such as growth at the region’s universities, will play a role in regional growth through 2045.

¹ U.S. General Accounting Office. “Key Efforts to Include Hard-to-Count Populations Went Generally as Planned; Improvements Could Make the Efforts More Effective for Next Census” (December 2010), accessed at <http://www.gao.gov/new.items/d1145.pdf> on October 4, 2016.

² California Rural Legal Assistance, Inc. “2010 Census Enumeration of Immigrant Communities in Rural California: Dramatic Improvements but Challenges Remain” (November 2010), accessed at <http://www.crla.org/sites/all/files/content/uploads/Census/Census10-JBS-CRLA.pdf> on October 4, 2016.

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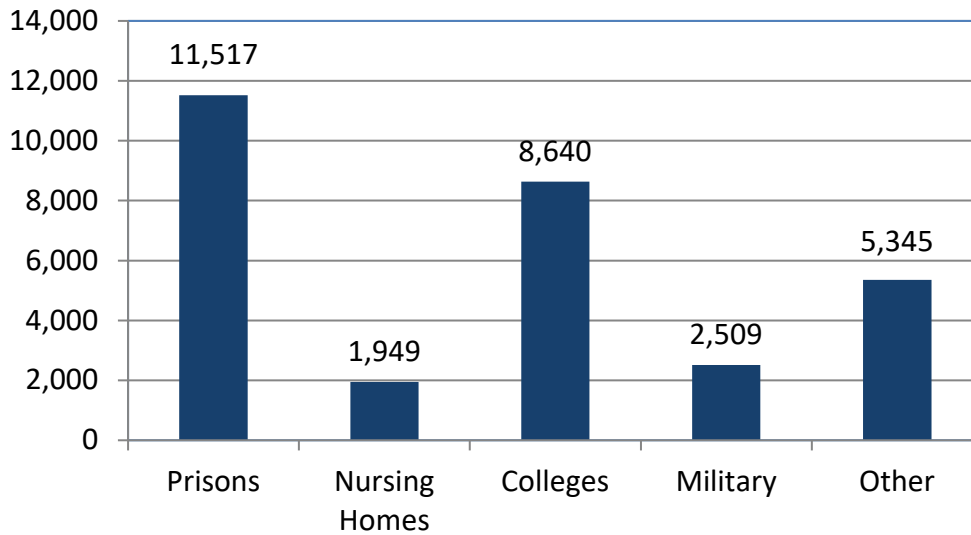
Figure 6: Group Quarters as a Percent of Population

Sources: U.S. Census Bureau, California Department of Finance

In 1990 there was a substantial military group quarters presence around the Fort Ord base. Since then the military population has declined due to the closure of the base, but that group quarters population has been offset by an increase at colleges (primarily UC Santa Cruz and CSU Monterey Bay) and an increase in the state prison population. In future years it will be important to continue watching the development and growth of military institutions in the region. There is still a strong military and naval presence in Monterey County including the Presidio area as well as Fort Hunter Liggett in the southern portion of the County.³

³ While Fort Hunter Liggett has a small permanent population, they are a large training facility and host a substantial amount of trainees every year. Not only will it be important to follow the FHL plans for expansion from a population perspective, but it will also be important to consider the presence of the FHL in transportation planning given the Fort's heavy reliance on Highway 101.

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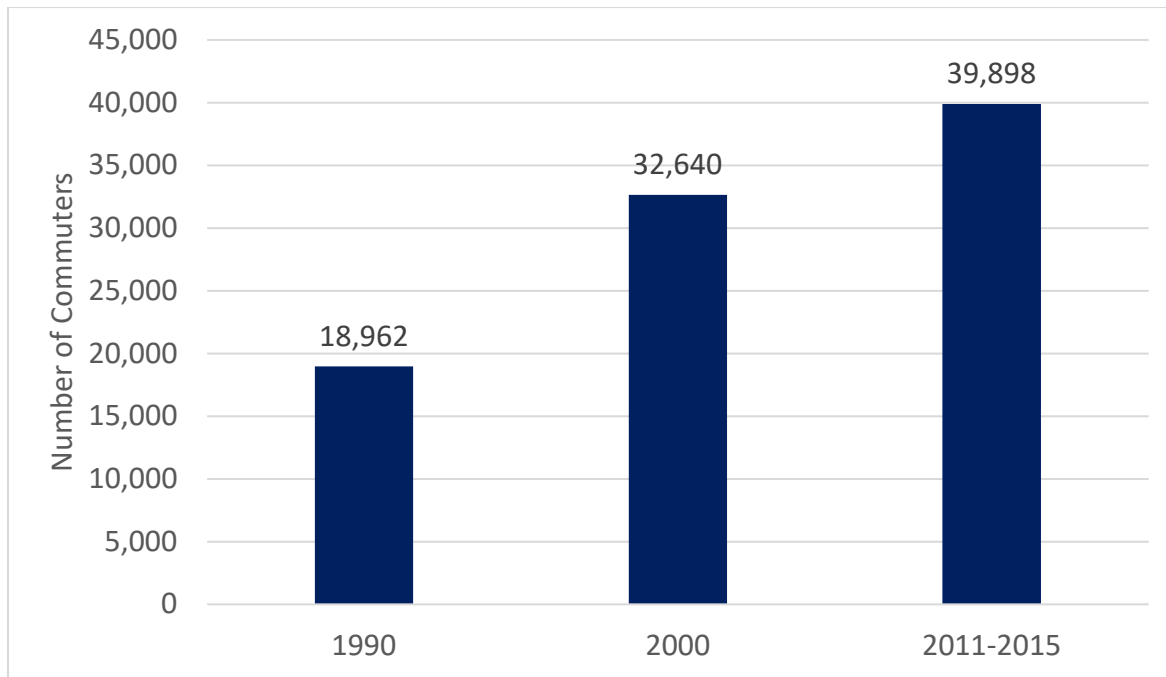
Figure 7: AMBAG Group Quarters Population in 2010

Source: U.S. Census Bureau, Census 2010

The AMBAG region, the state, and the nation all have about 2 residents per job, and that is expected to continue to 2045.

AMBAG residents commute to jobs outside the region, principally to jobs in Santa Clara County. This net out-commuting means there are residents in the region not connected to AMBAG region job growth. Net out-commuting surged between 1990 and 2000 as the “dot.com boom” pushed Silicon Valley (Santa Clara County) job levels higher, and has continued to rise as people to search for cheaper housing in portions of the AMBAG region. (See Figure 8.)

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Figure 8: Net Out-Commuting from AMBAG Region

Sources: 1990 & 2000 - Census Journey to Work and 2011-2015 - American Community Survey Special Tabulations for the Census Transportation Planning Package.

AMBAG Region Forecast Population Trends

As described above (see Table 5), the region is projected to add approximately 2,700 residents per year between 2015 and 2045. This is less than the average of just under 8,900 between 1990 and 2000 and above the recession-affected growth of 2,200 between 2000 and 2010. Recent growth from 2015-2020 has averaged 2,500 per year, close to the projected long-term growth rate.

Step 3: Housing and Households

The region is projected to add approximately 42,200 housing units by 2045, for a total of approximately 304,900 for an increase of 16 percent. The 2045 projected regional housing stock of 304,900 is slightly higher than the 305,293 housing units projected for year 2040 in the 2018 RGF, reflecting slower population growth.

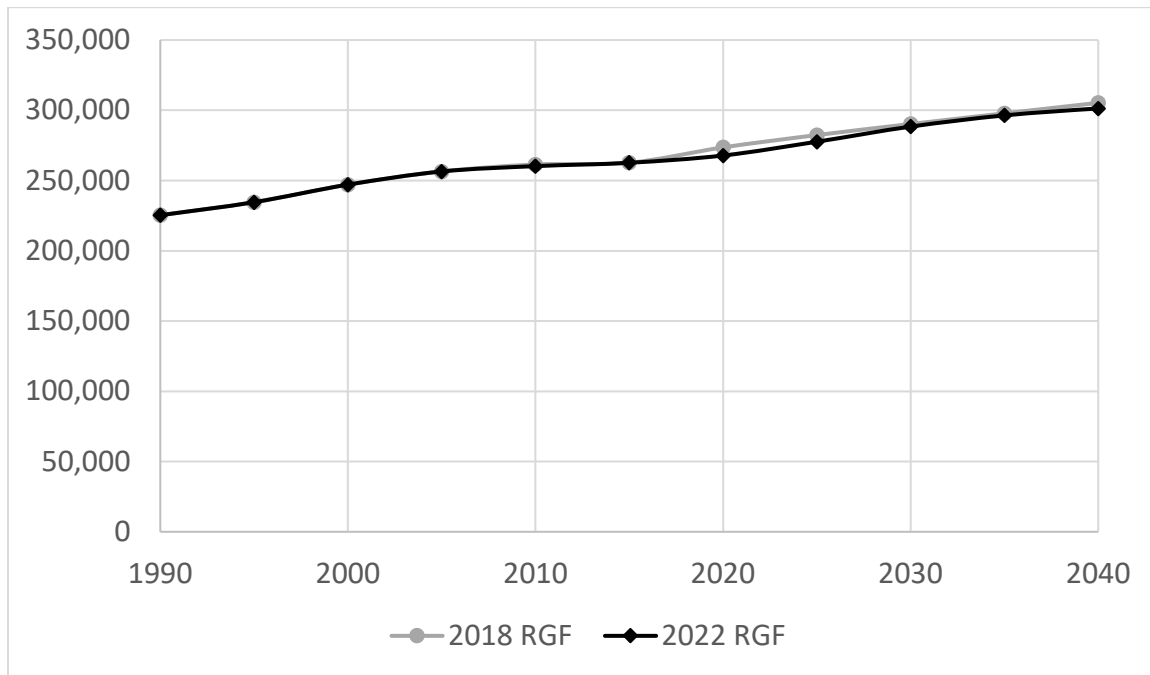
Table 6: Comparison of Forecasts for Housing

Forecast	2010	2015	2020	2025	2030	2035	2040	2045
2018 RGF	261,394	262,660	273,606	282,368	290,225	297,851	305,293	N.A.
% Change		0%	4%	3%	3%	3%	2%	N.A.
2022 RGF	260,256	262,660	267,812	277,645	288,386	296,352	301,307	304,900
% Change		1%	2%	4%	4%	3%	2%	1%

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Sources: Data for years 2010-2020 are from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Figure 9: AMBAG Region Housing Forecast



Sources: Data for 1990-2020 from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Method for Producing the Housing Forecast

The housing forecast begins with a household forecast, and the household forecast is driven by demographic factors such as the size and structure of the population. Demographic factors (e.g., gender, age, and race/ethnicity) and external factors (e.g., major group quarters facilities like colleges and universities, correctional facilities, etc.) influence household population and household formation rates (i.e., the number of people per household). Household formation rates predict future demand for housing. That predicted demand, combined with expected vacancy rates, drives the forecast for housing growth.

AMBAG Region Forecast Housing Trends

As described above (see Table 5), the region is projected to add approximately 2,700 residents per year between 2015 and 2045. Taking average household size and vacancy rates into account, the resulting housing growth is expected to be just over 1,000 per year between 2015 and 2045. This is similar to the recent growth of 1,000 housing units per year between 2000 and 2015.

It is worth noting that several jurisdictions in the AMBAG region have historically had relatively high vacancy rates, reflecting a mix of vacation rentals and second homes, particularly in coastal

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communities. In recent years, there is some evidence that more homeowners may be participating in the vacation rental market via platforms such as Airbnb and VRBO. It is unclear whether these new services will result in higher vacancy rates as more housing units become primarily vacation rentals or lower vacancy rates as short-term rental units shift demand away from units that are intended to be available for rental most (or all) of the year. AMBAG will continue to monitor this trend for future forecasts.

Section 3: Development of the Subregional Forecast

Following the preparation of the regional forecast figures, AMBAG staff began the process of disaggregating the figures to the county and city level using historical data. This section summarizes that process and the results.

Summary of the 2022 Subregional Forecast

The 2022 RGF projects that the region will add about 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. Of that growth, 58 percent (approximately 38,200 jobs) is expected to be in Monterey County, 7 percent (approximately 4,500 jobs) is expected to be in San Benito County and 35 percent (approximately 22,800 jobs) is expected to be in Santa Cruz County.

This forecast projects that the region's population will grow by approximately 107,500 people between 2015 and 2045, for a total population of just under 869,800 in 2045. Of that growth, 57 percent (approximately 61,100 people) is expected to be in Monterey County, 23 percent (approximately 25,200 people) is expected to be in San Benito County and 20 percent (approximately 21,200 people) is expected to be in Santa Cruz County.

To house the region's expected population growth, this forecast shows an increase of just over 42,200 housing units by 2045, for a total of approximately 304,900 units. Of that growth, 62 percent (approximately 26,200 houses) is expected to be in Monterey County, 18 percent (approximately 7,500 houses) is expected to be in San Benito County and 20 percent (approximately 8,600 houses) is expected to be in Santa Cruz County. Housing growth rates do not exactly parallel population growth rates because of local variations in average household size and vacancy rate, and because some population (e.g., at UCSC and CSUMB) is expected to be housed in group quarters facilities.

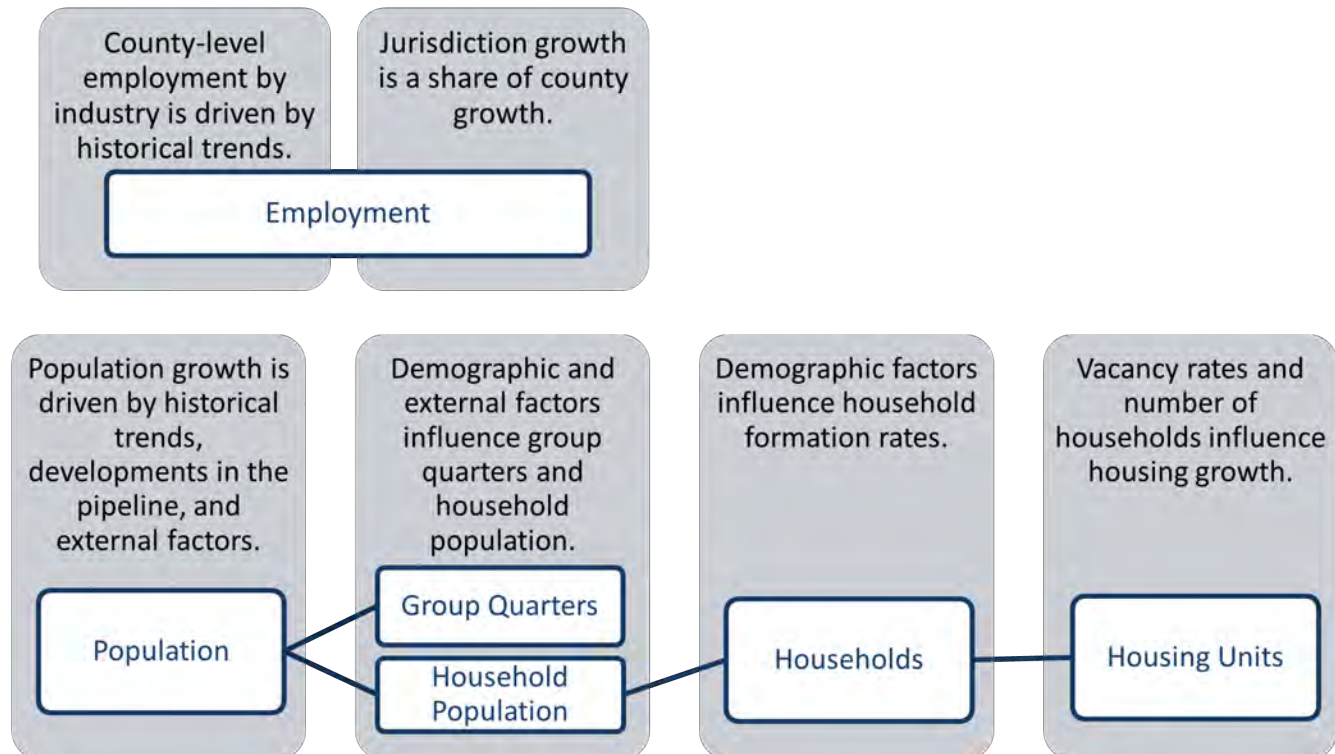
Details of the population, housing, and job growth forecasts for each jurisdiction, as well as population and housing forecasts for the two universities, can be found in Attachment 5.

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Subregional Allocation Methodology

Unlike the regional forecast, in which employment growth drives population and housing growth, the employment forecast is separate from the population and housing forecast in the subregional allocation. This separation reflects differing economic and demographic forces at the regional and local levels.

Figure 10: Subregional Allocation Process



1. **Employment trends:** Employment is measured as the number of jobs by place of work. For the county-level forecast, employment growth by industry is driven by historical trends (i.e., shift-share model). Total growth across the three counties is constrained by the region-level forecast. For each jurisdiction (cities and unincorporated balance of county), employment growth by industry is a constant share of the jurisdiction's parent county's growth in that industry.
2. **Population trends:** Population is the total resident population of the region. The jurisdiction level forecast is driven by three factors:
 - a. Historical trends (i.e., shift-share model)
 - b. Anticipated future developments such as housing projects under development that are likely to be occupied within the forecast horizon
 - c. External factors (e.g., universities, military, correctional facilities)

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Each county's population forecast is a sum of the jurisdiction-level forecasts. All levels (county, city, unincorporated area) are constrained by the region-level forecast.

3. Household Population and Group Quarters: Household population is the population that lives in a housing unit. Group quarters population is the population that lives in a group living arrangement such as a dorm, barracks, correctional institution, or congregate care facility. Demographic factors (e.g., age, race/ethnicity) and external factors (e.g., major group quarters facilities like colleges and universities, correctional facilities, etc.) influence the household population and household formation rates (i.e., the number of people per household).
4. Households/Occupied Housing Units: A household is a person, or group of people, living in a house. Because a household, by definition, occupies a housing unit, households are equivalent to and synonymous with occupied housing units.
Household projections are driven by household formation rates. Household formation rates are calculated as the ratio of households divided by the household population. Household formation rates are the inverse of average household size.
5. Housing Units: Housing is the total number of housing units, including both occupied and vacant structures. Housing includes primary residences, second homes, accessory dwelling units, vacation rentals, farmworker housing, and any other habitable structure—including unauthorized units. The only type of dwelling excluded from the housing inventory is group quarters (dorms, barracks, congregate care, etc.).
Housing projections are driven by the household population projection, demographic characteristics of the household population (age, sex, race/ethnicity), household formation rates, and housing vacancy rates. Vacancy rates are calculated as the share of all units (including vacation rentals, unauthorized dwellings, etc.) that are not currently occupied.

Data sources include the California Department of Finance, the California Employment Development Department, InfoUSA, and the U.S. Census Bureau.

For more information on the definitions of housing and group quarters, see Attachment 4.

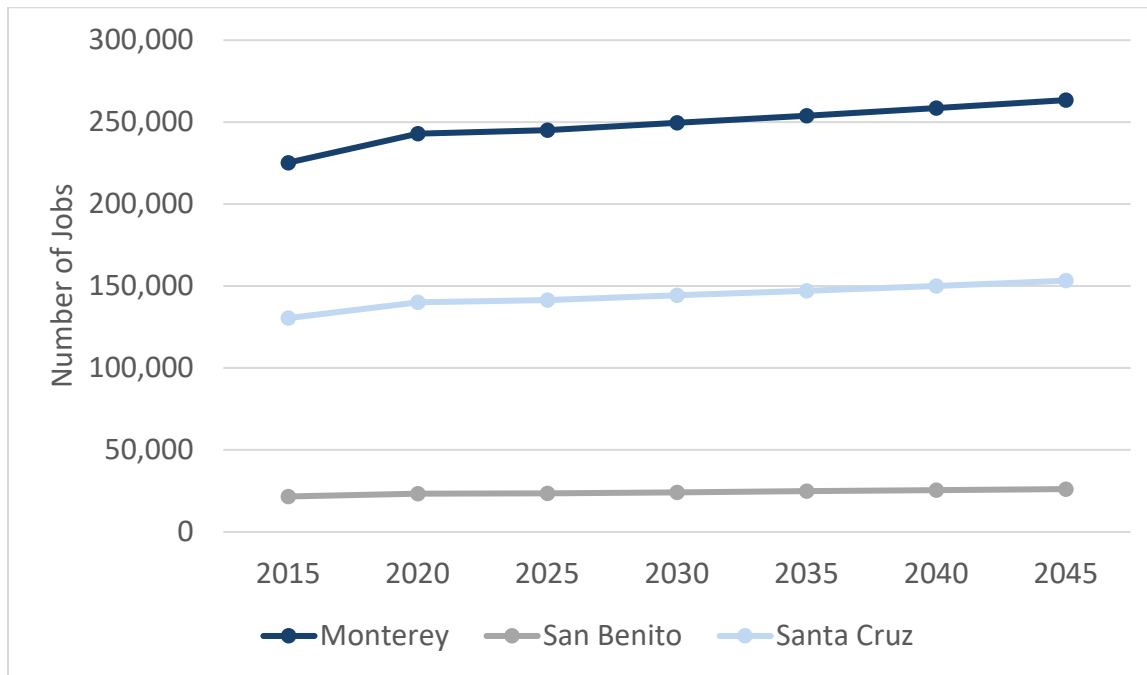
This process resulted in draft estimates at the jurisdictional level that were used for discussion purposes with staff at each of the cities and counties within the region. In addition to the cities and counties, staff met with the Local Agency Formation Commissions (LAFCOs) for each county, the Fort Ord Reuse Authority, the University of California, Santa Cruz (UCSC) and California State University, Monterey Bay (CSUMB) to discuss the results. Adjustments were made to the forecast based on these conversations to incorporate growth on the basis of planned developments, specific and General Plan research and economic development plans. The process of revision and meeting with local jurisdictions one-on-one was repeated several times to reach a consensus on the forecast.

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Step 1: Employment

The 2022 RGF projects that the region will add about 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. Of that growth, 58 percent (approximately 38,200 jobs) is expected to be in Monterey County, 7 percent (approximately 4,500 jobs) is expected to be in San Benito County and 35 percent (approximately 22,800 jobs) is expected to be in Santa Cruz County.

Figure 11: Employment by County 2015-2045



Sources: California Employment Development Department, InfoUSA, AMBAG, forecast by PRB and AMBAG.

Method for Producing the County and Sub-County Employment Forecast

The subregional employment forecast incorporated a two-step process: a county-level forecast and a jurisdiction-level allocation.

In order to disaggregate the tri-county regional industry employment forecast by county, AMBAG staff selected what is known as a Classical Shift-Share model. The Classical Shift-Share formula is similar to the Implicit Shift-Share formula used to disaggregate the population forecast, except that it is comprised of three mathematical functions rather than two. In this case, they are referred to as the regional share, industry mix and competitive shift functions. The regional share function estimates what employment growth in a certain industry would look like in the local area (i.e., county) if it were to grow at the same rate as the total all-industry employment in the region as a whole. The second industry mix function then adjusts for the difference in the rate of employment growth in a certain industry, compared to all industry employment. The industry mix function is calculated using regional

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employment values. The third function, known as the competitive shift, adjusts the estimate to account for faster or slower industry employment growth in the county, compared to the region.

Figure 12: Classical Shift-Share Equation

$$E_i^{t+n} = E_i^t \left[\frac{R_A^{t+n}}{R_A^t} + \left(\frac{R_i^{t+n}}{R_i^t} - \frac{R_A^{t+n}}{R_A^t} \right) + \alpha \left(\frac{E_i^t}{E_i^{t-m}} - \frac{R_i^t}{R_i^{t-m}} \right) \right]$$

E = local Value R = Regional Value
 i = industry A = All industries

Sub-County Employment Database and Re-benchmarking

To produce the subregional employment component of the forecast and to support transportation modeling, AMBAG created an address-level database for all employers in the AMBAG region in 2015. The database combined industry employment data from the California Employment Development Department (EDD) with employer data from InfoUSA. The InfoUSA data are derived from dozens of sources including but not limited to postal records, white pages listings, new business registrations, utility connections, real estate data (deeds & assessments) and industry directories. The database is then verified and supplemented with regular phone surveys. InfoUSA database is used by many other regional Councils of Governments to conduct forecast work and is a reputable source of data.

Staff compared records from EDD with those from InfoUSA. Where both sources matched, one record was retained, unedited. Where records differed, staff conducted extensive research (using AMBAG's land use inventory, web-based investigation, and field research) to determine the proper industry code and employment level for the record and retained the most accurate record (typically the higher reported number). As a result of the editing and reconciliation process, the address-level inventory differs from EDD industry totals.

While there are differences across all industries, edits to agricultural records were extensive. Staff review of address-level records showed that many establishments listed as "agriculture" by EDD are, in the AMBAG region, engaged in food processing (manufacturing), storage (warehousing), or retail (farm stands). Agricultural recategorization is described in more detail in Attachment 2.

It is also important to note that the AMBAG estimate of agricultural jobs differs from estimates of the agricultural workforce (91,433 in 2016) described in "Farmworker Housing Study and Action Plan for Salinas Valley and Pajaro Valley." The reasons for this difference are both temporal and definitional. The industry estimates are annual-average estimates of jobs (a job is a paid position at a company) for 2015. The Farmworker Housing Study figures are 2016 estimates of all workers who were ever employed during the year, including those who worked part-time or part-year. If a company has high turnover or seasonal work, that company's number of workers (all year) would be higher than their average number of jobs. For example, if a company typically has 10 paid positions, but in peak season brings on another 10 for three months, the annual average number of jobs is 12.5 (10 x (9/12months) +

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$20 \times (3/12\text{months}) = 12.5/\text{month}$) but there were 20 unique workers at peak (original 10 plus additional 10).

Thus, in this case, the farmworker study estimates are higher than jobs estimates for three key reasons:

- Agricultural employment grew slightly between 2015 and 2016.
- Worker estimates take peak seasonal employment into account, while EDD industry estimates are annual averages.
- Some companies that identify as agricultural are more accurately classified as food processing (manufacturing), storage (warehousing), or retail (farm stands).

Sub-County Disaggregation Method for Employment

The address-level database, described above, was used to calculate the share of employment for each industry in each jurisdiction in 2015. This percent share was then carried forward to future years in order to calculate the number of jobs located in each jurisdiction by industry. While the County level totals use the Classical Shift-Share method as described above, the sub-county level forecast is a constant share approach. However, because the sub-county level forecasts are based on the County totals by industry the Classical Shift-Share method does influence the sub-county trends.

A preliminary draft forecast was distributed to planning staff at each jurisdiction. AMBAG staff held one-on-one meetings to gather comments and additional information from planning staff at each jurisdiction. (See Attachment 1 for a list of meeting dates, times, locations and attendees.) Staff then used economic studies, entitled development, the establishment of enterprise zones and other information from local planners to supplement the employment assumptions at the jurisdictional level. These comments and additional pieces of information were incorporated into the final forecast.

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Table 7: Subregional Employment Forecast

Geography	2015	2020	2025	2030	2035	2040	2045	Change 2015-2045	
								Numeric	%
AMBAG Region	377,335	406,280	410,017	418,132	425,845	434,147	442,824	65,489	17%
Monterey County	225,268	243,015	245,054	249,613	253,918	258,553	263,437	38,169	17%
Carmel-By-The-Sea	3,353	3,566	3,593	3,674	3,752	3,833	3,915	562	17%
Del Rey Oaks	705	748	753	774	794	815	834	129	18%
Gonzales	5,764	6,326	6,382	6,533	6,660	6,788	6,920	1,156	20%
Greenfield	7,227	7,882	7,948	8,061	8,177	8,298	8,423	1,196	17%
King City	7,573	8,195	8,248	8,371	8,511	8,669	8,832	1,259	17%
Marina	6,107	6,548	6,621	6,765	6,899	7,055	7,217	1,110	18%
Monterey	38,133	40,989	41,527	42,506	43,452	44,465	45,509	7,376	19%
Pacific Grove	7,470	8,016	8,061	8,152	8,244	8,343	8,445	975	13%
Salinas	73,009	78,874	79,577	81,079	82,505	84,044	85,683	12,674	17%
Sand City	1,966	2,092	2,102	2,151	2,188	2,224	2,259	293	15%
Seaside	9,667	10,476	10,589	10,833	11,062	11,290	11,543	1,876	19%
Soledad	8,532	9,010	9,079	9,161	9,235	9,333	9,462	930	11%
Unincorporated	55,762	60,293	60,574	61,553	62,439	63,396	64,395	8,633	15%
San Benito County	21,631	23,263	23,572	24,203	24,802	25,475	26,126	4,495	21%
Hollister	14,428	15,492	15,728	16,207	16,655	17,121	17,613	3,185	22%
San Juan Bautista	515	557	569	580	588	603	612	97	19%
Unincorporated	6,688	7,214	7,275	7,416	7,559	7,751	7,901	1,213	18%
Santa Cruz County	130,436	140,002	141,391	144,316	147,125	150,119	153,261	22,825	17%
Capitola	11,666	12,250	12,376	12,633	12,902	13,181	13,454	1,788	15%
Santa Cruz	40,840	43,865	44,317	45,594	46,863	48,203	49,636	8,796	22%
Scotts Valley	9,458	10,109	10,185	10,345	10,489	10,637	10,797	1,339	14%
Watsonville	26,403	28,514	28,765	29,156	29,505	29,896	30,303	3,900	15%
Unincorporated	42,069	45,264	45,748	46,588	47,366	48,202	49,071	7,002	17%

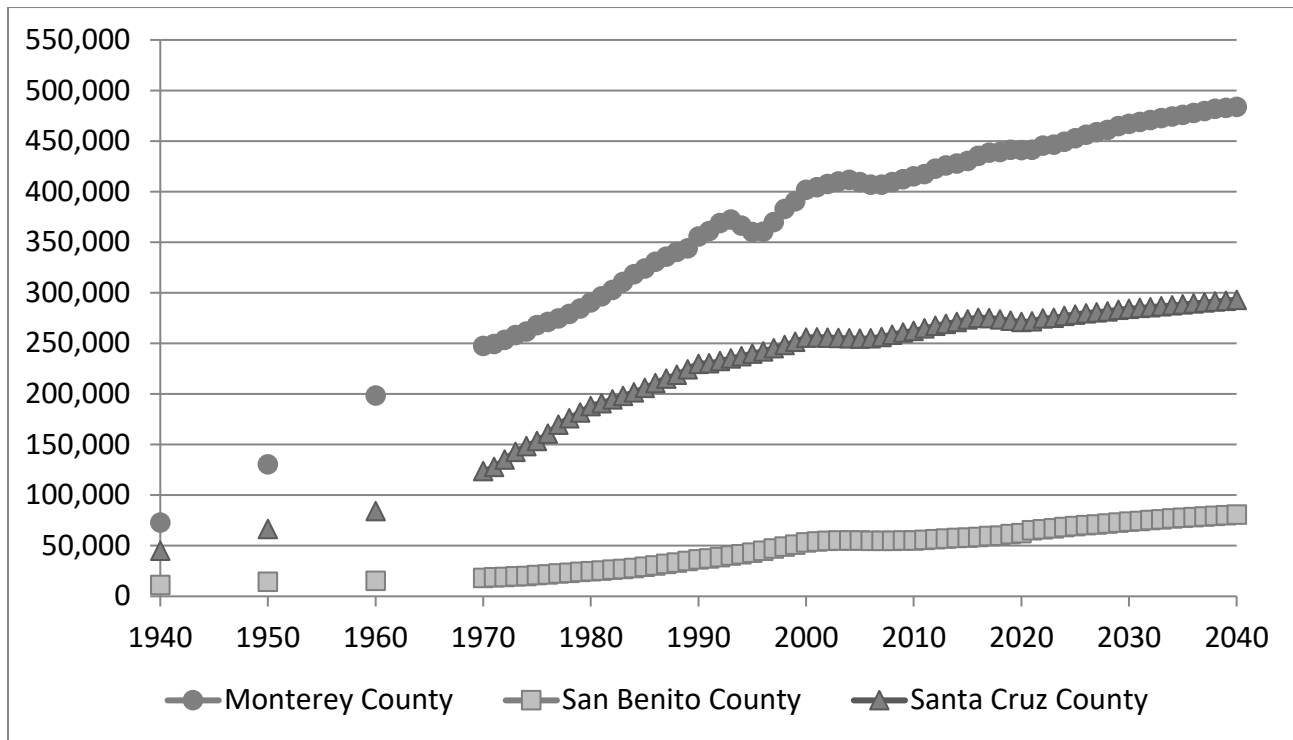
Sources: Data for 2015 from InfoUSA and the California Employment Development Department.

Forecast years were prepared by AMBAG and PRB.

Step 2: Population

This forecast projects that the region's population will grow by approximately 107,500 people between 2015 and 2045, for a total population of just under 869,800 in 2045. Of that growth, 57 percent (approximately 61,100 people) is expected to be in Monterey County, 23 percent (approximately 25,200 people) is expected to be in San Benito County and 20 percent (approximately 21,200 people) is expected to be in Santa Cruz County.

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Figure 13: Population in Monterey, San Benito and Santa Cruz Counties 1940-2045

Sources: Data for years 1940-2020 are from the U.S. Census Bureau and California Department of Finance. Forecast years were prepared by AMBAG and PRB.

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Table 8: Subregional Population Forecast

Geography	2015	2020	2025	2030	2035	2040	2045		%
AMBAG Region	762,241	774,729	800,726	824,992	842,189	857,828	869,776	107,535	14%
Monterey County	430,310	441,143	452,761	467,068	476,028	483,884	491,443		4%
Carmel-By-The-Sea	3,854	3,949	3,946	3,954	3,964	3,974	3,984	130	3%
Del Rey Oaks	1,663	1,662	1,693	1,734	1,859	2,330	2,650		9%
Gonzales	8,441	8,506	9,650	13,492	14,630	15,398	15,711	7,270	86%
Greenfield	17,172	18,284	19,342	19,734	19,961	20,202	20,433		9%
King City	13,736	14,797	15,376	16,101	16,689	16,881	17,064	3,328	24%
Marina	21,057	22,321	23,723	25,126	26,713	28,433	30,044		3%
Marina balance	20,037	21,371	22,293	22,841	23,238	23,768	24,237	4,200	21%
CSUMB (portion)	1,020	950	1,430	2,285	3,475	4,665	5,807		9%
Monterey	28,086	28,170	28,044	28,650	29,032	29,342	29,639	1,553	6%
Monterey balance	24,095	24,749	24,623	25,229	25,611	25,921	26,218		9%
DLI & Naval Postgrad	3,991	3,421	3,421	3,421	3,421	3,421	3,421	-570	-14%
Pacific Grove	15,460	15,265	15,290	15,395	15,530	15,676	15,817		2%
Salinas	158,059	162,222	166,226	170,459	173,393	175,358	177,128	19,069	12%
Sand City	361	385	430	516	756	1,012	1,198		2%
Seaside	33,815	33,537	34,497	35,107	35,634	36,582	38,316	4,501	13%
Seaside balance	25,835	26,345	27,285	27,850	28,317	29,205	30,881		0%
Fort Ord (portion)	4,163	3,083	3,083	3,083	3,083	3,083	3,083	-1080	-26%
CSUMB (portion)	3,817	4,109	4,129	4,174	4,234	4,294	4,352		4%
Soledad	24,597	25,301	26,112	26,824	27,697	28,419	29,133	4,536	18%
Soledad balance	16,298	17,190	18,001	18,713	19,586	20,308	21,022		9%
SVSP & CTF	8,299	8,111	8,111	8,111	8,111	8,111	8,111	-188	-2%
Unincorporated	104,009	106,744	108,432	109,976	110,170	110,277	110,326		6%
Unincorp balance	101,468	104,203	105,891	107,435	107,629	107,736	107,785	6,317	6%
CSUMB	2,541	2,541	2,541	2,541	2,541	2,541	2,541		0%
San Benito County	58,138	62,353	69,324	73,778	77,638	80,788	83,366	25,228	43%
Hollister	37,314	40,646	42,604	43,327	44,421	45,345	45,599		2%
San Juan Bautista	1,945	2,112	2,269	2,315	2,374	2,410	2,436	491	25%
Unincorporated	18,879	19,595	24,451	28,136	30,843	33,033	35,331		7%
Santa Cruz County	273,793	271,233	278,641	284,146	288,523	293,156	294,967	21,174	8%
Capitola	10,224	10,108	10,485	10,794	10,957	11,049	11,126		9%
Santa Cruz	64,223	64,424	68,845	72,218	75,257	78,828	79,534	15,311	24%
Santa Cruz balance	46,947	45,324	47,845	49,118	49,957	50,828	51,534		0%
UCSC	17,276	19,100	21,000	23,100	25,300	28,000	28,000	10,724	62%
Scotts Valley	11,946	11,693	11,718	11,837	11,867	11,868	12,010		1%
Watsonville	52,410	51,515	52,918	54,270	55,138	55,786	56,344	3,934	8%
Unincorporated	134,990	133,493	134,675	135,027	135,304	135,625	135,953		1%

Sources: Data for 2015-2020 are from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

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Method for Producing the County and Sub-County Population Forecast

In order to disaggregate the tri-county regional population forecast, PRB and AMBAG implemented the Implicit Shift-Share method. This particular technique was chosen because it provides a relatively simple, yet rigorous, method for estimating the future geographic distribution of the regional population based on historic estimates of local and regional population growth.

The Implicit Shift-Share formula is comprised of two distinct mathematical functions. These are sometimes known as the regional share and the local shift. The regional share function calculates what the total population growth in the local area (i.e., a city or county) would be if that area were to grow at the same rate as the region as a whole. The second function then adjusts for historic changes in the local area's share of the total regional population. Combined with an accurate estimate of the size of the base population obtained from the 2010 Decennial Census, the regional share and local shift functions provide a reasonable estimate of the future local area population, taking into account past changes in the percentage share of the regional population. Historical data are from the Department of Finance. The Department of Finance does benchmark their historical estimates to the Decennial Census for 1990, 2000 and 2010.⁴

Figure 14: Implicit Shift-Share Equation

$$E^{t+n} = E^t \left(\frac{R^{t+n}}{R^t} \right) + \alpha R^{t+n} \left(\frac{E^t}{R^t} - \frac{E^{t-m}}{R^{t-m}} \right) \quad \begin{array}{l} E = \text{Local Value} \\ R = \text{Regional Value} \end{array}$$

To produce jurisdiction-level forecast, AMBAG and PRB compiled a database of historical population by jurisdiction. This database included information on population growth (or decline) as well as details for “special” populations (e.g., college students, military personnel, prisoners). (Special populations are described in more detail in the section “Adjustments for Special Populations,” below.)

AMBAG and PRB compiled historical data⁵ to track trends in, and relied upon institutional/facility plans to produce the population forecast for the following areas:

- Marina:
 - Fort Ord (portion)

⁴ Department of Finance, E-8 Historical Population and Housing Estimates for Cities, Counties and the State, 1990-2000, August 2008; Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2010, September 2011 and Department of Finance, E-1 Population Estimates for Cities, Counties and the State, 2011 and 2012, August 2009.

⁵ Sources include the California Department of Finance, U.S. Census Bureau and institutional records.

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- CSUMB (portion)
- Monterey
 - Defense Language Institute and Naval Postgraduate School
- Seaside
 - Fort Ord (portion)
 - CSUMB (portion)
- Soledad
 - SVSP & CTF
- Balance of County
 - CSUMB (portion)
- Santa Cruz
 - UCSC

AMBAG and PRB then applied the implicit shift-share methodology to the balance of population in each jurisdiction to produce a draft of the first forecast increment. The benchmark period for the shift-share model was 2010-2015, and the model was applied to produce the draft forecast.

Forecast years, for this initial draft, presumed that each jurisdiction maintained a constant share of the region's population. This approach, using shift-share for the first increment, and constant-share thereafter, was implemented in the 2014 RGF and 2018 RGF to ensure that jurisdictions that experienced population loss during the benchmark period would not continue to decline. This forecast assumption is reasonable given that any jurisdiction may experience a period of temporary population decline, even when the long-term trend has been stability or growth.

Further initial adjustments were made to reflect population growth associated with housing under construction or in the permit pipeline.

AMBAG staff then met with representatives from each jurisdiction to ground truth the forecast with respect to anticipated future growth and development in the pipeline. (See Attachment 1 for a full list of meetings.)

Step 3: Housing

To house the region's expected population growth, this forecast shows an increase of just over 42,200 housing units by 2045, for a total of approximately 304,900 units. Of that growth, 62 percent (approximately 26,200 houses) is expected to be in Monterey County, 18 percent (approximately 7,500 houses) is expected to be in San Benito County and 20 percent (approximately 8,600 houses) is expected to be in Santa Cruz County. Housing growth rates do not exactly parallel population growth rates because of local variations in average household size and vacancy rate, and because some population (e.g., at UCSC and CSUMB) is expected to be housed in group quarters facilities.

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Table 9: Subregional Housing Forecast

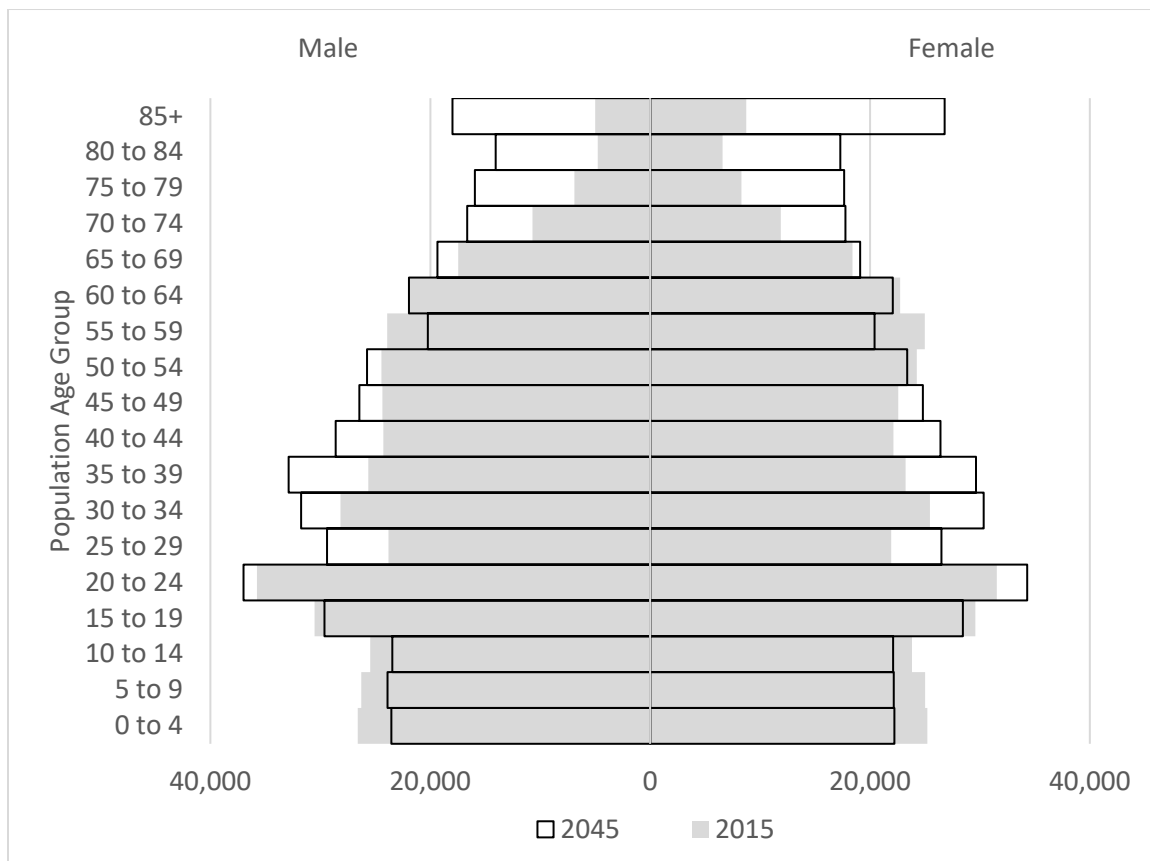
Geography	2015	2020	2025	2030	2035	2040	2045	Change 2015-2045	
								Numeric	%
AMBAG Region	262,660	267,812	277,645	288,386	296,352	301,307	304,900	42,240	16%
Monterey County	139,177	141,764	146,716	153,852	159,100	162,612	165,328	26,151	19%
Carmel-By-The-Sea	3,417	3,437	3,437	3,442	3,450	3,453	3,459	42	1%
Del Rey Oaks	741	741	762	809	848	1,052	1,195	454	61%
Gonzales	1,987	1,987	2,399	3,630	4,182	4,474	4,626	2,639	133%
Greenfield	3,794	3,981	4,359	4,766	5,047	5,164	5,238	1,444	38%
King City	3,283	3,432	3,672	4,002	4,282	4,356	4,403	1,120	34%
Marina	7,334	7,784	8,277	8,837	9,265	9,521	9,693	2,359	32%
Marina balance	7,334	7,784	8,277	8,832	9,205	9,445	9,617	2,283	31%
CSUMB (portion)	0	0	0	5	60	76	76	76	--
Monterey	13,637	13,705	13,705	13,920	14,209	14,402	14,549	912	7%
Monterey balance	13,205	13,273	13,273	13,488	13,777	13,970	14,117	912	7%
DLI & Naval Postgrad	432	432	432	432	432	432	432	0	0%
Pacific Grove	8,184	8,201	8,214	8,267	8,336	8,400	8,463	279	3%
Salinas	43,001	43,411	45,552	48,673	50,968	52,229	53,150	10,149	24%
Sand City	176	189	198	228	333	446	526	350	199%
Seaside	10,913	10,920	11,437	11,925	12,248	12,604	13,192	2,279	21%
Seaside balance	8,908	8,942	9,429	9,888	10,190	10,531	11,107	2,199	25%
Fort Ord (portion)	1,119	1,119	1,119	1,119	1,119	1,119	1,119	0	0%
CSUMB (portion)	886	859	889	918	939	954	966	80	9%
Soledad	3,927	4,137	4,433	4,733	5,024	5,240	5,426	1,499	38%
Soledad balance	3,927	4,137	4,433	4,733	5,024	5,240	5,426	1,499	38%
SVSP & CTF	0	0	0	0	0	0	0	0	--
Unincorporated	38,783	39,839	40,271	40,620	40,908	41,271	41,408	2,625	7%
Unincorp balance	38,783	39,839	40,238	40,569	40,592	40,616	40,616	1,833	5%
CSUMB	0	0	33	51	316	655	792	792	--
San Benito County	18,262	19,913	21,721	23,333	24,773	25,452	25,775	7,513	41%
Hollister	10,757	11,917	12,501	13,177	13,701	14,054	14,122	3,365	31%
San Juan Bautista	750	819	878	918	951	965	975	225	30%
Unincorporated	6,755	7,177	8,342	9,238	10,121	10,433	10,678	3,923	58%
Santa Cruz County	105,221	106,135	109,208	111,201	112,479	113,243	113,797	8,576	8%
Capitola	5,537	5,554	5,786	5,970	6,009	6,017	6,017	480	9%
Santa Cruz	23,535	23,954	24,988	25,578	25,974	26,295	26,525	2,990	13%
Santa Cruz balance	23,005	23,424	24,422	24,970	25,342	25,663	25,892	2,887	13%
UCSC	530	530	566	608	632	632	633	103	19%
Scotts Valley	4,691	4,739	4,798	4,846	4,869	4,887	4,930	239	5%
Watsonville	14,131	14,226	14,829	15,629	16,108	16,347	16,519	2,388	17%
Unincorporated	57,327	57,662	58,807	59,178	59,519	59,697	59,806	2,479	4%

Sources: Data for 2015-2020 are from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

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Method for Producing the County and Sub-County Housing Forecast

In order to convert county level population forecast figures into the forecast of housing units, staff created a set of demographic profiles that describe the age, sex, race, and ethnicity characteristics of the future population. The basis for the demographic profiles is a set of detailed population projections developed by the California Department of Finance in 2019.⁶ The profiles were developed by calculating the share of total projected population within each county that may be attributed to each age, sex, race and ethnic category. The population age distribution for the AMBAG Region is shown in Figure 15 below. County-specific demographic patterns from the Department of Finance forecast were applied to AMBAG-projected total population for each county.

Figure 15: Population Size and Age Structure of AMBAG Region in 2015 and 2045

Source: 2015 data from the California Department of Finance, 2045 data from AMBAG and PRB.

⁶ In January 2020, DOF published State and County Population Projections. These have not been re-benchmarked to the 2020 Census.

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The first step toward translating the county demographic projections into forecasted housing was to subtract the group quarters population from the total population. (For an explanation of Group Quarters, see Attachment 4.) Staff calculated a set of group quarters rates by dividing the group quarters population in each age, sex, race and ethnic category as provided by the 2010 Census⁷ by the total 2010 age, sex, race and ethnic population in each county. The team then updated these 2010 rates to reflect 2020 population and group quarters population estimates from the Department of Finance. In order to estimate the group quarters population in each county, staff multiplied the group quarters rates within each category by the total population in each category. This population was then removed from the total population to provide an estimate of the number of people living in households, by demographic subgroup.

Next, to generate estimates of the total number of households in each county, staff calculated a set of head of householder rates. These also are frequently referred to as “headship rates” or “household formation rates.” As with the group quarters rates, these are derived from 2010 Census data.⁸ To generate the head of householder rates, staff divided the 2010 estimates of the number of individuals within each age, race and ethnic category who were reported to be the head of a household by the total number of individuals within each age, race, and ethnic population category less the group quarters population.⁹ By multiplying the base-year household population estimates for each category by the head of householder rates, staff derived a new set of head of household estimates, which were controlled to published data from the California Department of Finance. Note that for each head of household there is, by definition, one household. Thus, by adding up all of the head of householders, the staff was able to generate estimates of the total number of households within each county.¹⁰

Finally, vacant units were added to the total number of households in order to obtain an estimate of housing units. Vacancy data was obtained from the U.S. Census Bureau for 1990, 2000 and 2010, and

⁷ U.S. Census Bureau, 2010 Decennial Census, Summary File 1, Table QTP-12.

⁸ U.S. Census Bureau, 2010 Decennial Census, Summary File 2, Table PCT-12.

⁹ The householders data for the "Some other race alone, not Hispanic or Latino" and "Native Hawaiian and Other Pacific Islander alone, not Hispanic or Latino" categories of population in San Benito County was suppressed because there was not a population of greater than 100. For these ethnic categories the regional rate was used instead given the lack of data on this population.

¹⁰ The Census does include "second dwelling units" or accessory units within their counts of households if the unit has its own bathroom and kitchen facilities. However, there are likely illegal "granny units" that are not counted through this process.

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from the Department of Finance for intercensal years.¹¹ To better understand what a normal housing vacancy rate might be, staff reviewed historical data on residential vacancy for the last two decades. Once a vacancy rate was established, this was used to calculate the total number of vacant housing units (the number of occupied units being equal to the number of households). By adding together estimates of the total number of vacant and occupied housing units, staff derived estimates of the total housing stock within each county.

Forecasting Sub-County Population, Households and Housing Units

To derive a city-level forecast of population, household population, households, and housing units, staff used a simplified version of the methodology described above. The MPO is not required to develop detailed demographic characteristics for city-level estimates. As such the household and housing unit conversion was done using aggregate group quarters and household formation rates for each city, as reported in the 2010 Census and with trends through 2020 from the Department of Finance.¹² Vacancy rates were derived from a 30-year average as reported by the Department of Finance.¹³ The Department of Finance does benchmark their estimates to the decennial Census.

Some of the jurisdictions within the region show a declining population over the last 10 to 20 years. Because the Implicit Shift-Share method was used for projecting 2025 population and the method reflects the change in population over time, for those jurisdictions that have experienced population decline there would be a continuation of that decline reflected for the year 2025. Instead of showing a decline, the 2025 share of the regional population calculated for these jurisdictions was held constant. This has the effect of showing an increase in population to 2025 even if recent trends were toward population decline. There is too little information to know whether short-term declines will continue, so instead of assuming continual decline, growth was held at a constant. AMBAG will continue to monitor these trends.

¹¹ Department of Finance, E-8 Historical Population and Housing Estimates for Cities, Counties and the State, 1990-2000, August 2008; and Department of Finance, E-5 Population and Housing Estimates for Places, 2001-2010, with 2000 Benchmark, September 2011.

¹² U.S. Census Bureau, 2010 Decennial Census, Summary File 1, Tables QTP-12 and PCT-12.

¹³ Department of Finance, E-8 Historical Population and Housing Estimates for Cities, Counties and the State, 1990-2000, August 2008; Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2010, September 2011 and Department of Finance, E-5 Population Estimates for Cities, Counties and the State, 2010-2016, July 2016.

Section 4: Demographic History of the AMBAG Region

The AMBAG region grew at a faster rate than California in the 1960s and 1970s and grew at approximately the same rate as the state in the 1980s (24% in AMBAG region, 26% statewide). Both the state and the AMBAG region grew at the same rate in the 1990s (14%). The AMBAG region's growth fell far below the statewide average between 2000 and 2010, increasing by only three percent while the state grew by 10 percent. From 2010 to 2020 both the state and the AMBAG region grew at similar rates (7% and 6%, respectively).

AMBAG Region: 1970 to 1990

Between 1970 and 1990 the AMBAG region population grew by more than 110,000 each decade, increasing by 29 percent from 1970 to 1980 and by 24 percent from 1980 to 1990. Growth slowed in the 1990s. The slowdown can be attributed, in part, to the closure of Fort Ord in 1994, which is described in more detail in the "Adjustments" section, below. These population losses greatly affected the growth rates of the communities of Marina and Seaside prior to 2000. Concurrent civilian job losses affected population growth in the AMBAG region more broadly. The AMBAG region population grew by 88,500 (14%) between 1990 and 2000.

AMBAG Region: 2000 to 2010

In the following decade, population growth slowed considerably. The AMBAG region population grew by only 22,100 (3%) during the decade between 2000 and 2010. This pattern of slowing population growth reflects an aging population and lower net migration into the AMBAG region. Lowered net migration could be due to several factors including but not limited to water resource constraints, the after-effects of the closure of Fort Ord, as well as increasing housing costs followed by a major recession.

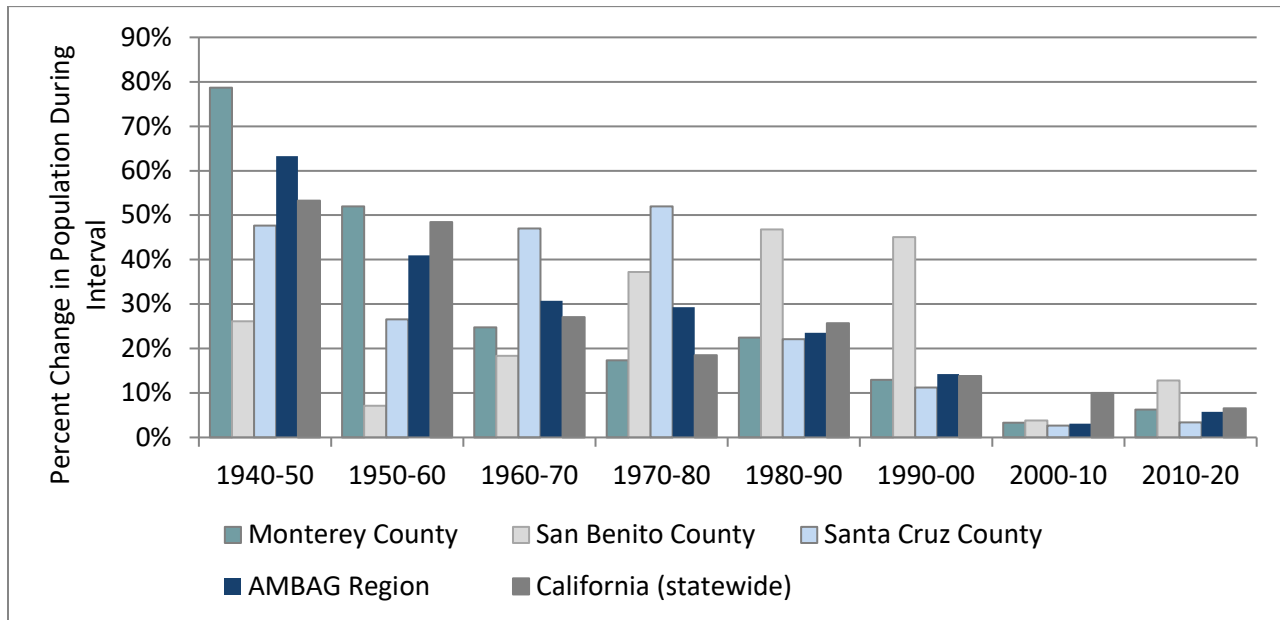
AMBAG Region: 2010 to 2020

In the five years since the decennial census, population growth began to return to historical levels. The AMBAG region population grew by just over 42,000 (6%) during the period between 2010 and 2020. This recovery in population growth reflects post-recession recovery.

Demographic History of AMBAG Counties

Population growth details for all three counties are shown below. County-specific summaries follow the charts.

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Figure 16: Population Growth Rates in Monterey County, San Benito County, Santa Cruz County, AMBAG Region and California (statewide) 1940-2020

Source: California Department of Finance

Monterey County

Between 1960 and 2000, Monterey County has grown at a rate slower than the AMBAG region as a whole. From 2000-2010 and 2010-2020 Monterey County grew at the same rate in the region. (See Figure 16, above.)

As a result of the closure of Fort Ord, Monterey County experienced a population decline in the middle of the 1990s, yet population growth rebounded later in the decade. The county registered 13 percent growth (an increase of 46,100) between 1990 and 2000. (See Figures 2 and 3)

The 1990s also saw the opening of two large institutions: California State University, Monterey Bay and Salinas Valley State Prison. Both are described in more detail in the Special Populations section below.

While the County as a whole grew, six of the county's thirteen jurisdictions experienced population loss during the 1990s (Carmel-By-The-Sea, -4%; Del Rey Oaks, -1%, Marina, -29%, Monterey, -7%, Pacific Grove, -4%, Seaside, -15%). Conversely, the population of Salinas grew by nearly 34,000 during the decade. Soledad also grew at a rapid clip (16,000 population) largely as the result of Salinas Valley State Prison opening in 1996.

The following decade saw much slower growth, with an increase of less than 13,300 (3%) between 2000 and 2010. Five jurisdictions lost population (Carmel-By-The-Sea, -9%; Del Rey Oaks, -2%,

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Monterey, -6%, Pacific Grove, -3%, unincorporated Monterey County, -1%). The city of Seaside remained virtually unchanged.

From 2010 to 2020, the cities of Greenfield, King City, Marina, and Sand City all had estimated growth of greater than 10 percent. Only the city of Soledad is estimated to have lost population.

San Benito County

While San Benito County grew at a rate much slower than the AMBAG region prior to the 1970s, the county saw rapid population growth in the 1970s, 1980s, and 1990s, a dip in the early 2000s, and a return to rapid growth 2010-2020. (See Figure 16, above.)

San Benito County registered rapid population growth, adding more than 16,500 population (45%) between 1990 and 2000. During this decade the city of Hollister nearly doubled in population (78%) while the population of San Juan Bautista declined (-1%).

San Benito's population growth slowed to four percent (2,000 population) between 2000 and 2010. The trend of the 1990s was reversed. Hollister grew by only one percent while San Juan Bautista increased by 20 percent.

From 2010 to 2020 San Benito County grew faster than the region, with Hollister and San Juan Bautista growing by 16% and 13%, respectively.

Santa Cruz County

Santa Cruz County grew at a rate faster than the AMBAG region in the 1960s and 1970s, but grew more slowly in every other decade from 1940-2020. (See Figure 16, above.)

Santa Cruz County grew by more than 25,800 (11%) between 1990 and 2000. The fastest-growing jurisdiction in Santa Cruz County between 1990 and 2000 was Watsonville (42%) followed by Scotts Valley (31%). Capitola's population fell during the decade (-1%).

The County's growth slowed considerably, adding just under 6,800 population (3%) between 2000 and 2010. The fastest-growing jurisdiction in Santa Cruz County between 2000 and 2010 was Watsonville (16%, including the annexation area, 11% without) followed by Santa Cruz (10%). Scotts Valley, which grew rapidly during the 1990s, showed only two percent population growth during the decade. Capitola's population fell during the decade (-1%).

In recent years, no jurisdiction in Santa Cruz has grown by more than 10 percent. The fastest growing city, Santa Cruz, grew by 7% between 2010 and 2020.

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Adjustments for Special Populations

In small area demographic analysis, some populations grow or decline as a result of exogenous factors, rather than in response to demographic or economic conditions. For example, uniformed military populations, college populations, and prison populations may grow or decline as new facilities are added or older facilities are phased out of use. These population changes involve facilities that are outside the authority of local land use agencies and that change based on policy, rather than demographic, factors.

Changes in these facilities can result in population “shocks” that affect the rate of population change within an area, independent of larger demographic and economic trends.

As a result of their unique characteristics, these populations are referred to as “special populations” and are often treated separately in forecasting.

Special populations include people associated with military bases, tourists, prisons, and colleges and universities. The size of a special population may have no connection to the general trends affecting the area. A special population can be stable for long periods of time, balloon quickly, and deflate, or, in the case of military bases, disappear rapidly through a closure program. It is best to develop a detailed understanding of the nature of the special population and set out the projection for it separately.¹⁴

Over the past two decades, the AMBAG region has been home to several “special populations” including the military resident population at Fort Ord, the Defense Language Institute and Naval Postgraduate School, students at UCSC and CSUMB, and inmates at SVSP.

In the preliminary forecast, AMBAG staff began the shift-share analysis at 1996 to address the population “shocks” resulting from the closure of Fort Ord and the opening of both California State University Monterey Bay and the Salinas Valley State Prison. While this adjustment was effective at addressing some of the special population concerns, it has a key weakness: it does not allow for independent forecasting of special populations.

The following discussion provides a method for addressing that issue.

¹⁴ Merc, Stuart. “Projections and Demand Analysis.” Planning and Urban Design Standards. published by the American Planning Association. Sept 2012.
<http://books.google.com/books?id=NXpncFYj73QC&pg=PA299&lpg=PA299&dq=%22special+population%22+forecasting&source=bl&ots=L2fSbUMT8R&sig=uV05NN3-rNYcpCr97xU2hTpYt6s&hl=en&sa=X&ei=eEC5UMT8O42tqAGAvIDQCQ&ved=0CG0Q6AEwCQ#v=onepage&q=%22special%20population%22%20forecasting&f=false>

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History of Special Populations in the AMBAG Region***Fort Ord***

Established in 1917, Fort Ord was eliminated during the Base Realignment and Closure Act of 1990, closing in 1994. This resulted in the loss of more than 30,000 residents in Monterey County, primarily in the jurisdictions of Marina and Seaside, as described in the Fort Ord Reuse Plan:

*Fort Ord has been a significant presence in Monterey County since 1917... maintained a large military population numbering approximately 14,500 military personnel and 17,000 family members of active-duty personnel... the resident population of Fort Ord totaled 31,270 in 1991.*¹⁵

In addition...

*The on-post resident population was divided between the two municipalities of Marina and Seaside. Through 1990, 17,139 people (56%) were within the Seaside city limits and 13,321 people (44%) were within the Marina city limits (Harding Lawson Associates, 1991, Workplan remedial investigation/feasibility study, Fort Ord, CA).*¹⁶

These population losses greatly affected the communities of Marina and Seaside. However, the forecast was developed using the 2000 to 2015 time period as a historical reference. By 2000 abnormalities in growth rates caused by the closure of Fort Ord had self-corrected. The Fort Ord Reuse Authority's mandate for overseeing the area ended in June 2020. Beginning with the 2022 RGF, the area will be projected as any other potential development in the AMBAG region, based on plans and permits.

Defense Language Institute and Naval Postgraduate School

The Army Language School, later renamed the Defense Language Institute, has been a presence in Monterey County since the end of World War II. The number of people living in group quarters at the Institute and Postgraduate School has been stable, at approximately 4,000, in recent years. Because of this stability, the 2018 RGF presumes no change to the population of these two institutions in future years.

¹⁵ Fort Ord Reuse Plan, Volume 1: Context and Framework. June 1997.

¹⁶ Fort Ord Reuse Plan, Volume 2: Reuse Plan Elements. June 1997.

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University of California, Santa Cruz

Founded in 1965, the University of California, Santa Cruz grew to 9,800 students by the 1991-92 academic year, 10,885 students by the 1999-2000 academic year, and 16,300 full-time equivalent students in the 2009-2010 academic year.¹⁷ In meetings with AMBAG staff, UCSC staff indicated that they expect growth of 300-500 students per year, resulting in a 2040 student forecast of 28,000 (the 2022 RGF holds this level constant from 2040-2045).

It is important to note that these projections reflect full-time equivalent students, and actual headcounts will likely be higher.

California State University, Monterey Bay

Founded in 1995, California State University Monterey, Bay grew to 2,265 students during the 1999-2000 school year and 4,000 students by 2010.¹⁸ Although not created by the Fort Ord Reuse Plan, the University is a significant component of the Base Reuse Plan and as it continues to grow will help to stimulate the economic development of the Fort Ord Area. The most recent master plan projects full-time equivalent student enrollment of 12,000 by 2025.¹⁹ In meetings with AMBAG staff, CSUMB staff indicated that they expect growth to 12,700 full-time equivalent students by 2045.

It is important to note that these projections reflect full-time equivalent students, and actual headcounts will likely be higher.

In addition, discussions with CSUMB staff suggested that some group quarters (student) dormitory housing in the “East Campus” unincorporated area would convert to faculty/family housing over time. This transition is reflected through the growth of group quarters population in the Marina area of the CSUMB campus, decline of group quarters in Unincorporated Monterey County—and transition of those formerly group quarters structures into family housing (i.e. increase in households and housing units).

¹⁷ University of California, Santa Cruz Department of Planning and Budget.

<http://planning.ucsc.edu/irps/thirdWeek.asp> accessed December 2012. Figures based on 3-quarter average measured in the spring quarter of the academic year.

¹⁸ California State University Monterey Bay historical timeline <http://about.csumb.edu/node/4287> accessed November 2012.

¹⁹ Recirculated Draft Environmental Impact Report for the California State University Monterey Bay 2007 Master Plan. July 2008.

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Salinas Valley State Prison and Soledad Correctional Training Facility

Opened in 1996, Salinas Valley State Prison has a design capacity of 3,888.²⁰ According to annual reporting by the California Department of Finance, the facility had a resident population of 4,100 at the beginning of the 2000s decade and a population of 3,630 on January 1, 2010.²¹ The facility has a maximum capacity of 4,400, according to the 2010 Master Plan Annual Report.²²

Opened in 1946, Soledad Correctional Training Facility has a design capacity of 3,301. According to annual reporting by the California Department of Corrections and Rehabilitation and counts from the 2000 and 2010 decennial census, the facility had a resident population of between 6,000 and 7,200 during the decade.²³

Because both facilities currently house group quarters populations in excess of their design capacity, no future population growth is shown at these facilities in the 2018 RGF. Population totals are held constant at their 2015 levels.

Table 10: Historical Special Population Counts

	1990	2000	2010	2015
Fort Ord Military Population	31,270*	0	0	0
Defense Language Institute and Naval Postgraduate School	n/a	n/a	4,227	4,004
University of California, Santa Cruz	9,800**	10,885	16,332	17,276
California State University, Monterey Bay	0	2,265	4,000	6,368
Salinas Valley State Prison	0	4,100	3,630	3,592
Soledad Correctional Training Facility	0	7,120	6,148	4,707

* *Estimate.*

**1990 figure for University of California, Santa Cruz reflects data from the 1991-92 academic year, the earliest year reported.

²⁰ California Department of Corrections and Rehabilitation website for Salinas Valley State Prison. Figure reported for fiscal year 2009-2010. http://www.cdcr.ca.gov/Facilities_Locator/SVSP-Institution_Stats.html accessed December 9, 2012.

²¹ California Department of Finance. Exclusion and Dorm Report. November 2012.

²² Master Plan Annual Report: Calendar Year 2010. California Department of Corrections and Rehabilitation. January 2011.

²³ California Department of Corrections and Rehabilitation website for Soledad Correctional Training Facility. Figure reported for fiscal year 2007 http://www.cdcr.ca.gov/Facilities_Locator/CTF-Institution_Stats.html accessed December 9, 2012. Population counts derived from institutionalized group quarters counts from Census 2000 and Census 2010, U.S. Census Bureau.

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Adjustments to the Population Projections***Developing Special and Non-Special Population Estimates***

Special populations provide a challenge to the population projections because their growth and decline are often not determined by factors that impact the rates of change of the general population. This is particularly true of college students, prison inmates, and military personnel and their dependents. Residents of nursing homes, while also a special population, share many of the characteristics of the general population, and their growth and decline often mirror the demographic changes of the larger community. To deal with the special population issue, a common procedure applied in population projections is to exclude the special populations by using group quarters data and to project the adjusted population separately, i.e., the total population minus the special population. At the end of the projection module, the special population is added back to the projected adjusted population to produce the projected total population. The special population is either held constant or projected separately.²⁴

Thus, projections for AMBAG jurisdictions (Marina, Santa Cruz, Seaside, Soledad and unincorporated Monterey County) should be adjusted to account for special populations independent of the non-special population trends.

To accomplish this, special populations should be subtracted from the census year population estimates used in developing the shift-share model population shares. Independent projections of the special populations (e.g., from master plan documents) should then be addressed separately in the population forecast.

Incorporating Special Populations into the Final Projections

As noted above, Fort Ord has closed, and thus major military populations can be assumed to be constant throughout the remainder of the forecast.

For the universities and the prison, master plan documents provide useful information about expected future populations. These population plans can be used to fill in horizon-year projections, which are then kept constant for any remaining years of the AMBAG forecast. Additionally, staff worked closely with UCSC to develop conservative estimates for growth after the horizon year of their long-range development plan.

²⁴ Rayer, Stephan. MISER Population Projections for Massachusetts, 2000–2020. July 2003.
<http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&ved=0CEUQFjAD&url=http%3A%2F%2Fwww.umass.edu%2Fmiser%2Fpopulation%2FDocuments%2FMAProjMethodology.doc&ei=-ke5UNPKDMmdggH0h4GgDQ&usg=AFQjCNF6tP0wQ9CqtSb8X7-EUtMm9rmMrw&sig2=8pz3atGy03rNWjtvjbdjeg>

2022 Regional Growth Forecast

Translating Population Growth into Housing

Special population adjustments for Fort Ord require no special processing, as the military population on Fort Ord is not expected to change in future years.

However, university populations for UCSC and CSUMB pose a special case. While housing will be provided by the universities, it is likely that many students will live in group quarters (described in more detail in Attachment 4), but at least some students will reside in housing “in town” as part of the resident population of surrounding jurisdictions. For this reason, university population projections and housing projections were completed separately from the jurisdiction population projections.

Population projection adjustments for SVSP and SCTF require no special processing for housing unit projections. These populations will be classified as group quarters, and thus are not considered in housing calculations.

Adjustments for Annexations

The shift-share approach outlined above presumes that most population change is a result of demographic and economic forces that can be represented by the rate of change over time. The shift-share approach is intended for use with jurisdictions that retain consistent geographic boundaries over time. Because the shift-share method presumes constant geographic boundaries, annexations, which by definition change jurisdiction boundaries, pose a unique problem. Adjustment techniques are needed to address these cases. Between 1990 and 2010 there was one heavily populated annexation in the AMBAG region. This case, the Watsonville annexation, is described in more detail below. (In 2008 Salinas also annexed the North of Boronda Future Growth Area, which had a population of approximately 100. This annexation, which affected the overall jurisdiction population by less than 0.1%, was not modeled separately.)

History of Annexations in the AMBAG Region

In 2000 the city of Watsonville annexed a portion of unincorporated Santa Cruz County. Known as the Freedom-Carey annexation, the change was recorded in July 2000, after the 2000 decennial Census.

Historical population estimates for the City of Watsonville, unincorporated Santa Cruz County and Freedom-Carey annexation area are shown in Table 11 below.

The data for 2000 reflect reports published by the Local Agency Formation Commission with respect to the annexation area. Data for 1990 were derived using trend extrapolations based on the rate of growth in associated census tracts (1106 and 1107). Similarly, data for 2010 were derived using trend extrapolations based on the rate of growth in associated census tracts (1105.02, 1106 and 1107).

2022 Regional Growth Forecast

If the annexation of 2,022 residents were simply attributed to the population growth of Watsonville between 2000 and 2010, it would account for forty percent of the growth in the city's population during that period of time. Conversely, the loss of the annexed population would account for more than half of the decline in unincorporated population between 2000 and 2010.

Since the shift reflects an administrative boundary change, not a demographic one, the shift-share model was adjusted accordingly.

Table 11: Historical Population Estimates for the Watsonville Annexation Area

	1990	2000	2010
City of Watsonville	31,099	44,246	51,199
Excluding Annexation Area	31,099	44,246	49,229
Unincorporated County of Santa Cruz	130,086	135,345	129,739
Excluding Annexation Area	128,426	133,323	129,739
Annexation Area	1,660	2,022	1,970

Sources: Analysis by PRB of data from the U.S. Census Bureau.

Adjusting the Watsonville and Unincorporated Santa Cruz County Projections

In order to ensure that the population shift resulting from annexation does not skew the shift-share results for Watsonville or unincorporated Santa Cruz County, population projections for Watsonville, unincorporated Santa Cruz County, and the annexation area were estimated separately.

To complete this adjustment, the estimated annexation area population was subtracted from the unincorporated Santa Cruz County population totals in 1990 and 2000. Similarly, the projected population from the annexation area population was added to Watsonville in 2010.

Independent shift-share projections were developed for each of the three sub-areas: Watsonville excluding the annexation area, unincorporated Santa Cruz County excluding the annexation area and the annexation area.

To complete the projections, the annexation area projected population growth was added to Watsonville. Unlike the special population projections described above, there are no further adjustments needed to translate the resulting population projections into housing projections.

Attachment 1: List of Meetings & Attendees

Agency	Meeting Date	Meeting Time	Location	AMBAG Attendees*	Other Attendees*
City of Gonzales	9/3/2019	1:30 PM	147 Fourth Street, Gonzales, CA	Maura Twomey, Heather Adamson and Paul Hierling	Matthew Sundt
City of Hollister	9/10/2019	1:30 PM	375 Fifth Street, Hollister, CA	Maura Twomey, Heather Adamson and Paul Hierling	Abraham Prado and Jamila Saqqa
City of Marina	8/21/2019	11:00 AM	209 Cypress Avenue, Marina, CA	Maura Twomey, Heather Adamson and Paul Hierling	Fred Aegerter, Christy Hopper and Matt Mogensen
City of Salinas	8/28/2019	1:30 PM	65 West Alisal Street, 2nd Floor, Salinas, CA	Maura Twomey, Heather Adamson and Paul Hierling	Megan Hunter and Adam Garrett
City of Santa Cruz	8/23/2019	1:00 PM	809 Center Street, Room 107, Santa Cruz, CA	Maura Twomey, Heather Adamson and Paul Hierling	Lee Butler
City of Seaside	9/10/2019	11:00 AM	656 Broadway Avenue, Seaside, CA 93955	Heather Adamson and Paul Hierling	Rick Medina
County of Monterey	8/7/2019	4:00 PM	1441 Schilling Pl, 2nd Floor, Salinas, CA	Maura Twomey, Heather Adamson and Paul Hierling	Brandon Swanson and John Dugan
County of Monterey	8/12/2019	3:15 PM	168 West Alisal, 3rd Floor, Salinas, CA	Paul Hierling	Darby Marshall and Anastacia Wyatt
County of San Benito	9/4/2019	1:00 PM	2301 Technology Parkway, Hollister, CA	Maura Twomey, Heather Adamson and Paul Hierling	Harry Mavrogenes, Taven Kinison Brown and Jamila Saqqa
County of Santa Cruz	8/23/2019	3:00 PM	701 Ocean Street, Room 400, Santa Cruz, CA	Maura Twomey, Heather Adamson and Paul Hierling	Kathy Molloy and Stephanie Hansen

*All attendees were at the meeting in person unless otherwise noted.

Agency	Meeting Date	Time	Location	AMBAG Attendees*	Jurisdiction Attendees*
City of Capitola	2/3/2020	9:30 AM	420 Capitola Ave., Capitola, CA	Heather Adamson	Katie Herlihy
City of Carmel-By-The-Sea	2/5/2020	9:30 AM	AMBAG Office	Maura Twomey, Gina Schmidt, Miranda Taylor	Marnie Waffle
City of Del Rey Oaks	2/13/2020	11:00 AM	650 Canyon Del Rey Blvd, Del Rey Oaks, CA	Heather Adamson and Miranda Taylor	Dino Pick and Denise Duffy
City of Gonzales	2/7/2020	2:00 PM	City of Gonzales, 147 Fourth Street, Gonzales, CA	Heather Adamson	Matthew Sundt
City of Greenfield	3/3/2020	9:00 AM	Greenfield City Hall, 599 El Camino Real, Greenfield, CA	Heather Adamson, Maura Twomey and Miranda Taylor	Paul Mugan
City of Hollister	3/10/2020	2:00 PM	City of Hollister, Development Services, 375 Fifth Street, Hollister, CA 95023	Heather Adamson	Abraham Prado, Jamila Saqqa, Eva Kelly and Ambur Cameron
City of King City	3/10/2020	11:00 AM	City of King City Hall, 212 South Vanderhurst Avenue, King City, CA 93930	Heather Adamson, Maura Twomey and Miranda Taylor	Doreen Liberto-Blanck and Maricruz Aguilar-Navarro
City of Marina	2/26/2020	2:30 PM	City of Marina, Community Depevelopment Dept, 209 Cypress Avenue, Marina, CA	Heather Adamson, Maura Twomey and Miranda Taylor	Christy Hopper and Lisa Berkley
City of Monterey	2/4/2020	1:00 PM	City of Monterey, 580 Pacific Street, Monterey, CA 93940	Heather Adamson, Maura Twomey, Miranda Taylor	Kim Cole
City of Pacific Grove	2/5/2020	11:30 AM	City of Pacific Grove, 300 Forest Avenue, 2nd Floor, Pacific Grove, CA 93950	Maura Twomey, Gina Schmidt, Miranda Taylor	Anastazia Aziz and Alyson Hunter
City of Salinas	3/2/2020	10:00 AM	City of Salinas, 65 West Alisal Street, 2nd Floor, Salinas, CA	Heather Adamson and Miranda Taylor	Megan Hunter and Tara Hullingers
City of San Juan Bautista	2/24/2020	9:00 AM	San Juan Bautista City Hall, 311 2nd Street, San Juan Bautista, CA	Heather Adamson	Don Reynolds and Mary Gilbert (SBtCOG)
City of Sand City	2/11/2020	3:00 PM	Sand City, City Hall, 1 Pendergrass Way, Sand City, CA	Heather Adamson, Maura Twomey, Miranda Taylor	Chuck Pooler and Aaron Blair
City of Santa Cruz	3/9/2020	11:00 AM	City of Santa Cruz, 809 Center Street, Room 107, Santa Cruz, CA	Heather Adamson	Lee Butler, Katherine Donovan and Eric Marlatt
City of Scotts Valley	2/3/2020	11:30 AM	1 Civic Center Drive, Scotts Valley, CA	Heather Adamson	Taylor Bateman
City of Seaside	3/3/2020	2:00 PM	656 Broadway Avenue, Seaside, CA 93955	Heather Adamson, Maura Twomey, Paul Hierling and Miranda Taylor	Kurt Overmeyer, Gloria Stearns and Sharon Mikesell
City of Soledad	2/24/2020	1:30 PM	City of Soledad, City Hall, 248 Main Street, Soledad, CA	Heather Adamson and Miranda Taylor	Brent Slama
City of Watsonville	2/21/2020	10:00 AM	Community Development Dept., 250 Main Street, Watsonville, CA 95076	Heather Adamson	Suzi Merriam and Justin Meek
	2/21/2020	10:00 AM	Community Development Dept., 250 Main Street, Watsonville, CA 95076	Heather Adamson	Suzi Merriam and Justin Meek
County of Monterey	3/17/2020	2:30 PM	GoTo Meeting	Heather Adamson and Paul Hierling	Brandon Swanson
County of San Benito	3/4/2020	3:00 PM	San Benito County - RMA, 2301 Technology Parkway, Hollister, CA	Heather Adamson and Maura Twomey	Harry Mavrogenes and Taven Kinison Brown
County of Santa Cruz	3/9/2020	3:00 PM	County of Santa Cruz, 701 Ocean Street, Room 400, Santa Cruz, CA	Heather Adamson	Kathy Molloy, Paia Levine, Barbara Mason, Stephanie Hansen and Anais Schenk
CSU Monterey Bay	2/5/2020	3:00 PM	2061 Intergarrison Road, Suite 84-A, Seaside, CA	Maura Twomey, Gina Schmidt, Miranda Taylor	Anya Spear and Matt McCluney
Monterey County LAFCO	2/11/2020	1:00 PM	LAFCO Monterey Co., 132 W. Gabilan Street, Suite 102, Salinas, CA 93901	Heather Adamson, Maura Twomey, Miranda Taylor	Kate McKenna
Santa Cruz County LAFCO	2/21/2020	1:00 PM	LAFCO, 701 Ocean Street, Room 318-D, Santa Cruz, CA 95060	Heather Adamson	Joe Serrano
UC Santa Cruz	2/25/2020	10:30 AM	UC Santa Cruz, 1156 High St, Barn G, Santa Cruz, CA 95064	Heather Adamson	Jolie Kerns and Oxo Slayer

*All attendees were at the meeting in person unless otherwise noted

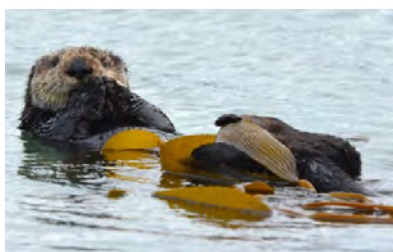
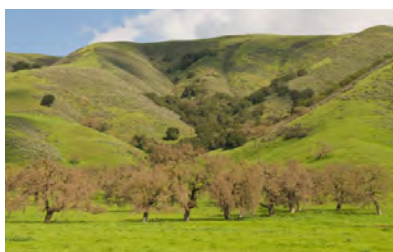
Agency	Meeting Date	Meeting Time	Location	AMBAG Attendees	Jurisdiction Attendees
City of Capitola	5/19/2020	1:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Katie Herlihy
City of Carmel-By-The-Sea	5/26/2020	1:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Marnie Waffle
City of Del Rey Oaks	6/17/2020	4:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Dino Pick and Denise Duffy
City of Gonzales	5/26/2020	3:00 PM	GoTo Meeting	Heather Adamson, Paul Hierling, and Miranda Taylor	Matthew Sundt
City of Greenfield	6/11/2020	11:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson, and Miranda Taylor	Paul Mugan
City of Hollister	5/29/2020	10:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Abraham Prado, Jamila Saqqa, Eva Kelly and Ambur Cameron from Hollister; Mary Gilbert from SBtCOG. Additionally, various consultants for the Hollister General Plan attended this meeting.
City of King City	6/2/2020	1:00 PM	GoTo Meeting	Heather Adamson and Miranda Taylor	Doreen Liberto-Blanck and Maricruz Aguilar-Navarro
City of Marina	5/28/2020	10:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Christy Hopper and Fred Aegerter
City of Monterey	5/29/2020	1:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Kimberly Cole
City of Pacific Grove	5/19/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Anastazia Aziz, Alyson Hunter and Terri Schaeffer
City of Salinas	6/8/2020	2:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Megan Hunter, Tara Hullinger, and Jonathan Moore
City of San Juan Bautista	6/1/2020	1:30 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Don Reynolds and Mary Gilbert from SBtCOG
City of Sand City	6/17/2020	9:00 AM	GoTo Meeting	Heather Adamson, Paul Hierling, and Miranda Taylor	Chuck Pooler and Aaron Blair
City of Santa Cruz	5/18/2020	9:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Lee Butler, Katherine Donovan, Bonnie Lipscomb, Eric Marlatt and Matt Vanhua
City of Scotts Valley	6/3/2020	1:00 PM	GoTo Meeting	Maura Twomey, HPaul Hierling, and Miranda Taylor	Taylor Bateman
City of Seaside	6/11/2020	4:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Kurt Overmeyer and Gloria Stearns

Agency	Meeting Date	Meeting Time	Location	AMBAG Attendees	Jurisdiction Attendees
City of Soledad	6/16/2020	1:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Brent Slama
City of Watsonville	6/2/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Suzi Merriam and Justin Meek
County of Monterey	6/3/2020	9:00 AM	GoTo Meeting	Maura Twomey, Paul Hierling, and Miranda Taylor	Brandon Swanson, John Dugan and Anastacia Wyatt
County of Monterey	6/29/2020	1:00 PM	GoTo Meeting	Maura Twomey, Paul Hierling, Miranda Taylor and Beth Jarosz (consultant)	Brandon Swanson, John Dugan, Craig Spencer and Anastacia Wyatt
County of San Benito	6/1/2020	9:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Harry Mavrogenes, Taven Kinison Brown and Mary Gilbert from SBtCOG
County of Santa Cruz	5/18/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Paia Levine, Barbara Mason, Anais Schenk, Kathy Molloy, Stephanie Hansen
CSU Monterey Bay	6/16/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling,	Anya Spear, Matt McCluney, and Kathleen Ventimiglia
CSU Monterey Bay	7/10/2020	1:00 PM	GoTo Meeting	Heather Adamson and Beth Jarosz (consultant)	Matt McCluney and Kathleen Ventimiglia
UC Santa Cruz	6/15/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling,	Oxo Slayer

Agency	Meeting Date	Meeting Time	Location	AMBAG Attendees	Jurisdiction Attendees
City of Del Rey Oaks	8/25/2020	1:00 PM	GoTo Meeting	Heather Adamson	Dino Pick and Denise Duffy (consultant)
City of Greenfield	9/4/2020	2:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Rob Mullane (consultant) and Paul Mugan
City of Hollister	8/20/2020	11:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Abraham Prado, Jamila Saqqa, Bryan Swanson, Eva Kelly, Ambur Cameron, Areli Perez and Marian Mendez from Hollister; Mary Gilbert from SBtCOG
City of Hollister	9/4/2020	3:30 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Carol Lenoir
City of King City	8/24/2020	11:00 AM	GoTo Meeting	Maura Twomey and Heather Adamson	Doreen Liberto-Blanck and Maricruz Aguilar-Navarro
City of Marina	8/7/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Christy Hopper, Fred Aegerter, Layne Long and Lisa Berkeley
City of Monterey			GoTo Meeting		
City of Pacific Grove	8/7/2020	1:30 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Anastazia Aziz and Terri Schaeffer
City of Salinas	9/8/2020	2:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Megan Hunter and Jonathan Moore
County of Monterey	8/13/2020	3:30 PM	GoTo Meeting	Heather Adamson and Beth Jarosz (consultant)	Brandon Swanson and John Dugan
County of San Benito	8/10/2020	1:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Harry Mavrogenes, Taven Kinison Brown, Jamila Saqqa, Gary Black (Hexagon), Ollie Zhou (Hexagon), Stan Ketchum (contract planner) and Mary Gilbert from SBtCOG

Agency	Meeting Date	Meeting Time	Location	AMBAG Attendees	Jurisdiction Attendees
City of San Juan Bautista	10/30/2020	9:00 AM	Go To Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	John Freeman, Don Reynolds, and Mary Gilbert from SBtCOG
County of San Benito	10/29/2020	3:00 PM	Go To Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Anthony Botelho, Mark Medina, Taven Kinison Brown, Benny Young, Stan Stan Ketchums, and Mary Gilbert from SBtCOG
County of San Benito	11/2/2020	2:00 PM	Go To Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Benny Young, Taven Kinison Brown, and Mary Gilbert from SBtCOG

Attachment B



Monterey Bay 2045

Moving Forward

Sustainability.
Mobility.
Accessibility.
Economy.
Social Equity.



2045 Metropolitan Transportation Plan / Sustainable Communities Strategy

Final
June 2022

Monterey Bay 2045

Moving Forward

Sustainability.
Mobility.
Accessibility.
Economy.
Social Equity.



Moving Forward Monterey Bay 2045

Final
June 2022



24580 Silver Cloud Ct.
Monterey, CA 93940

<http://ambag.org/>
<https://www.facebook.com/MontereyBayAMBAG>

development process faster and easier. The State of California offers grants to accelerate the production of housing and approves legislation that allows for more types of homes, like accessory dwelling units to be built statewide. Regionally, government agencies are considering how to better align housing policies with transportation initiatives because both contribute substantially to the region's cost of living.

The SCS land use pattern accommodates the more than 42,000 new households that will be needed over the next 25 years to serve a projected growth of nearly 108,000 additional people.



The SCS land use pattern addresses the needs of all economic segments of the population. Based on the capacity for planned housing development the region will be able to accommodate the projected housing needs for residents of all income levels.

Regional Housing Needs Allocation

California Housing Element law requires that every eight years, AMBAG shall develop a methodology for distributing projected housing need in four income categories – very low, low, moderate and above moderate – to local jurisdictions in Monterey and Santa Cruz Counties and sets forth a process, objectives and factors to use for that methodology. The Council of San Benito County Governments (SBtCOG) performs this function for San Benito County. This process, the Regional Housing Needs Allocation (RHNA), is coordinated by the California Department of Housing and Community Development (HCD). The 2045 MTP/SCS includes an updated RHNA. The 6th Cycle Regional Housing Needs Determination (RHND) from HCD to AMBAG is 33,274 units. SBtCOG's 6th Cycle RHND is 5,005 units.

In the past, the RHNA was conducted separately from the MTP process. SB 375 now links the RHNA and MTP/SCS processes to better integrate housing, land use, and transportation planning. Integrating processes helps ensure that the state's housing goals are met. The RHNA occurs before each housing element cycle, which SB 375 changed from a five-year to an eight-year cycle.

The AMBAG region received its RHNA Determination (for Monterey and Santa Cruz Counties) from HCD for the housing element cycle (2023-2031). The AMBAG RHNA Plan allocates the RHNA Determination by jurisdiction. (For the San Benito RHNA, refer to SBtCOG's RHNA Plan.) Based on the RHNA Plan each jurisdiction will need to

identify adequate sites to address its RHNA allocations in the four income categories when updating its housing element.

Monterey and Santa Cruz Counties have enough housing capacity to accommodate the RHNA allocations. San Benito County also has the housing capacity to accommodate the RHNA as described in the San Benito RHNA Plan. The allocations do not exceed forecasted growth and can be accommodated through infill and redevelopment. The AMBAG and SBtCOG RHNA Plans are under development and are expected to be consistent with the 2045 MTP/SCS. The 2045 MTP/SCS will be adopted within 18 months of the RHNA planning period and 6th Cycle Housing Element deadline as documented by HCD. This schedule follows the required statutory deadlines.

Meeting GHG Targets

In 2018, CARB set updated targets for lowering GHG in the Monterey Bay region. They call for a three percent reduction, in per capita GHG emissions from passenger vehicles by 2020 (compared with 2005); and a six percent per capita reduction by 2035 through land use and transportation planning.

The 2045 MTP/SCS demonstrates that the Monterey Bay region will meet these targets by focusing housing and employment growth in urbanized areas; protecting sensitive habitat and open space; and investing in a transportation system that provides residents, workers and visitors with transportation options that are more effective and diverse.

In addition, the 2045 MTP/SCS includes economic development strategies to encourage job growth in communities that are currently job poor as well as planning for new housing in communities that are currently job rich help to address the jobs/housing imbalance in the region and reduce vehicle miles traveled. The process to develop the MTP/SCS was based upon modeling these forecasted land use patterns and future transportation networks, along with the use of sustainable development principles that have been standard planning practice in the region for some time, and an extensive public outreach process.

California Environmental Quality Act (CEQA) Streamlining

Provisions in SB 375 include opportunities for streamlining the CEQA process, when certain conditions are met, as an incentive for implementing projects that are consistent with this SCS. Generally, there are two types of projects for which CEQA requirements can be streamlined, once the MPO adopts an MTP/SCS that meet the greenhouse gas targets established by CARB:

- Transit priority projects streamlining
- Residential/mixed use projects streamlining

SB 375 includes specific requirements for the CEQA streamlining. The discussion below provides a general outline of the requirements.

Transit Priority Projects

A Transit Priority Project (TPP) is a project within an Opportunity Area and is eligible for CEQA streamlining if it is:

- Consistent with the SCS;

Attachment C

Draft 6th Cycle Regional Housing Needs Allocation Plan 2023-2031

April 2022

**Association of Monterey Bay Area
Governments**



AMBAG Board of Directors

Kristen Brown, City of Capitola, Councilmember
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Manu Koenig, County of Santa Cruz, Supervisor

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Jenny McAdams, City of Pacific Grove, 1st Vice President
John Freeman, City of San Juan Bautista, 2nd Vice President

Ex-Officios

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Mary Gilbert, San Benito County Council of Governments (SBtCOG)
Guy Preston, Santa Cruz County Regional Transportation Commission (SCCRTC)
Michael Tree, Santa Cruz Metropolitan Transit District (METRO)
Todd Muck, Transportation Agency for Monterey County (TAMC)
Lisa Rheinheimer, Monterey-Salinas Transit (MST)
Catherine Stedman, Central Coast Community Energy (CCCE)
LisAnne Sawhney, Monterey Peninsula Airport District (MPAD)

Acknowledgements

Many individuals aided in the preparation of the 6th Cycle RHNA Plan. In particular, AMBAG appreciated the cooperation and involvement of members of the Planning Directors Forum.

AMBAG Staff

Maura F. Twomey, Executive Director

Heather Adamson, Director of Planning, Project Manager

Paul Hierling, Senior Planner

Miranda Taylor, Planner

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Executive Summary

In August 2021, the California Department of Housing and Community Development (HCD) issued a Regional Housing Need Determination to the AMBAG region for the 6th Cycle planning period of June 30, 2023 to December 15, 2031 and determined that the region must zone to accommodate a minimum of 33,274 housing units during this period. California housing law (Government Code § 65580 et seq.) requires AMBAG, acting in the capacity of Council of Governments (COG), to develop a Regional Housing Needs Allocation (RHNA) Plan to allocate existing and projected housing needs to local jurisdictions within Monterey and Santa Cruz Counties.

Based on the final RHNA Plan, each city and county must update its housing element to demonstrate how the jurisdiction will meet the expected growth in housing need over this period of time. The table below shows the final regional housing need allocation for each jurisdiction in the AMBAG region, broken into four income categories.

Table 1 – RHNA for the AMBAG Region, June 30, 2023 to December 15, 2031

	Income Group Totals				RHNA
	Very Low	Low	Mod.	Above Mod.	Total
Region	7,868	5,146	6,167	14,093	33,274
Monterey County					
Carmel-By-The-Sea	113	74	44	118	349
Del Rey Oaks	60	38	24	62	184
Gonzales	173	115	321	657	1,266
Greenfield	101	66	184	379	730
King City	97	63	178	364	702
Marina	94	62	173	356	685
Monterey	1,177	769	462	1,246	3,654
Pacific Grove	362	237	142	384	1,125
Salinas	920	600	1,692	3,462	6,674
Sand City	59	39	49	113	260
Seaside	86	55	156	319	616
Soledad	100	65	183	376	724
Unincorporated Monterey	1,070	700	420	1,136	3,326
Santa Cruz County					
Capitola	430	282	169	455	1,336
Santa Cruz	859	562	709	1,606	3,736
Scotts Valley	392	257	154	417	1,220
Watsonville	283	186	521	1,063	2,053
Unincorporated Santa Cruz	1,492	976	586	1,580	4,634

Introduction

Since 1969, the State of California has required that all local governments (cities and counties) adequately plan to meet the housing needs of everyone in the community. The California Department of Housing and Community Development (HCD) issued a Regional Housing Need Determination to the AMBAG region for the 6th Cycle planning period of June 30, 2023 to December 15, 2031. HCD determined that the region must zone to accommodate a minimum of 33,274 housing units during this period. HCD calculates the regional determination using information provided by the California Department of Finance and the most recent U.S. Census Bureau data regarding overcrowding, cost burden, and vacancy rate. The regional determination includes an overall housing need number, as well as a breakdown of the number of units required in four income distribution categories.

Once HCD issues their determination, the Regional Housing Needs Allocation (RHNA) Plan establishes the total number of housing units that each city and county must plan for within the eight-year planning period. The allocation is based on factors that address the five statutory RHNA objectives, as described below. The RHNA methodology and RHNA Plan are part of the state-mandated housing element law (Government Code § 65580 et seq.). Based on the adopted RHNA, each city and county must update its housing element to demonstrate how the jurisdiction will meet the expected growth in housing need over this period of time.

This document, the RHNA Plan, officially assigns the allocations to cities and counties for two of the three counties within the Monterey Bay Area, Monterey and Santa Cruz Counties. San Benito County conducts a separate RHNA, as explained below. The RHNA process and describes the adopted RHNA methodology including total unit allocations and allocations by income category. This plan also describes how the allocation meets the five statutory RHNA objectives. The appendix includes documents that were part of the planning process such as official correspondence from HCD regarding the regional determination and methodology review, AMBAG Board agenda items, and results of a statutorily-required jurisdiction survey. The table above shows the result of this planning process—an allocation of housing units by income level that jurisdictions plan to accommodate in their housing elements over the June 30, 2023 to December 15, 2031 timeframe.

Housing Element Law and RHNA Objectives

State housing element law, Government Code § 65584 (d), requires the RHNA to be consistent with five objectives:

1. Increasing the housing supply and the mix of housing types, tenure, and affordability in all cities and counties with the region in an equitable manner, which shall result in all jurisdictions receiving an allocation of units for low- and very low income households.
2. Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, the encouragement of efficient development patterns, and the achievement of the region's greenhouse gas reductions targets provided by the State Air Resources Board pursuant to § 65080.
3. Promoting an improved intraregional relationship between jobs and housing, including an improved balance between the number of low-wage jobs and the number of housing units affordable to low-wage workers in each jurisdiction.
4. Allocating a lower proportion of housing need to an income category when a jurisdiction already has a disproportionately high share of households in that income category, as compared to the countywide distribution of households in that category from the most recent American Community Survey.
5. Affirmatively furthering fair housing.

As explained below, AMBAG's Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS) and its RHNA are consistent with these objectives.

The Metropolitan Transportation Plan/Sustainable Communities Strategy and RHNA

Senate Bill (SB) 375, passed into state law in 2008, requires the coordination of housing planning with regional transportation planning through the MTP/SCS. This requires consistency in growth forecasts for land use, housing, and transportation purposes. In prior plans, the RHNA and the MTP were prepared independently and had different timelines and planning periods. SB 375 requires that the RHNA and MTP/SCS process be undertaken together in order to integrate housing, land use, and transportation planning to ensure that the state's housing goals are met and to help reduce greenhouse gas emissions (GHG) from cars and light duty trucks. The goal of this integrated planning is to create opportunities for residents of all incomes to have access to jobs, housing, services, and other common needs by a variety of means, including public transit, walking, and bicycling.

Prior to SB 375, RHNA was updated every five years and the MTP was updated every four years. Because SB 375 requires better coordination between transportation planning with land use and housing planning, the RHNA process is now tied to the adoption of every two cycles of the regional MTP/SCS. As a result, the RHNA Plan must be adopted every eight years, aligning with the adoption of the MTP/SCS. This also means that each city and county with a compliant

housing element will update its housing element every eight years instead of every five years, as required before SB 375.

2022 Regional Growth Forecast

As the MPO, AMBAG carries out many planning functions for the tri-county area including development and maintenance of the regional travel demand model (RTDM), long range transportation planning and programming, and acting as a regional forum for dialogue on issues facing the region. Most of AMBAG's projects are carried out in support of these major functions, including but not limited to the regional growth forecast. AMBAG develops the forecast with a horizon year that matches the planning timeline of the MTP/SCS and the model years for the RTDM. In addition to informing MTP/SCS, the regional growth forecast (RGF) is an important reference point in the RHNA process.

The 2045 MTP/SCS includes a planning period through 2045. The years forecasted include 2025, 2030, 2035, 2040, and 2045. The forecast uses a model that predicts employment growth using a shift-share model based on local data as well as state and national trends. Population growth is then driven by employment growth. Household and housing growth are driven by population growth, demographic factors and external factors. This approach was vetted and approved by the AMBAG Board of Directors in 2014 for use in the metropolitan transportation plan, Moving Forward 2035 Monterey Bay. The framework was used again in 2018 for Moving Forward 2040 Monterey Bay, and remains in use in 2022. While the methodology for the 2022 RGF has remained the same through three planning cycles, the models have been updated for the Moving Forward 2045 Monterey Bay Plan to include current data, a revised base year of 2015 and a new horizon year of 2045.

Process for Development of the 2023-2031 Regional Growth Forecast

In consultation with local planning departments, AMBAG prepared an estimated 2045 growth forecast for the region. The Planning Directors Forum was the primary venue for ongoing coordination between local agency planning staff and AMBAG; however, a number of jurisdiction-specific meetings and comment periods also were held, including over 100 one-on-one meetings held by AMBAG staff with each of the jurisdictions, the University of California, Santa Cruz, and the California State University, Monterey Bay. The development of the 2022 Regional Growth Forecast and the methodology is documented in detail as part of the 2045 MTP/SCS. Both of these documents can be found on the AMBAG website.

Geography

The local jurisdictions addressed in the RHNA process for the AMBAG region include the sixteen incorporated cities and two counties as shown in Table 3. University of California Santa Cruz, California State University Monterey Bay, the Salinas Valley State Prison (SVSP), the Correctional Training Facility (CTF) in Soledad, the Defense Language Institute (DLI), the Naval Post Graduate School (NPS) are not allocated any regional housing need since they are not city or county agencies, located on State or federal lands, and considered exempt entities not part of the RHNA process.

The AMBAG RHNA area is predominantly rural, with urban development clustered along the Monterey Bay coastline and in agricultural inland valleys along US 101. Major urban development in the Monterey Bay Area primarily occurs along the Bay coastal plains and foothills of the Monterey Peninsula from the City of Santa Cruz in the north to the City of Carmel-by-the-Sea to the south. The Santa Cruz, Watsonville, Seaside-Monterey, and Salinas urbanized areas are the most densely developed in the region.

Table 3: Cities and Counties Participating in the AMBAG RHNA Process

Carmel-by-the-Sea	Del Rey Oaks	Gonzales	Greenfield
King City	Marina	Monterey	Pacific Grove
Salinas	Sand City	Seaside	Soledad
Capitola	Santa Cruz	Scotts Valley	Watsonville
County of Monterey	County of Santa Cruz		

A substantial portion of the AMBAG area is forested and hence at an elevated risk of fire. Large forests and wooded areas border many cities and are prevalent throughout County unincorporated areas. In 2020, the Santa Cruz County area was affected by one of the top 20 most destructive fires in California history, destroying 1,490 structures including homes, burning over 86,000 acres of rural forested land including multiple unincorporated communities and towns. In 2016, the Soberanes Fire in Monterey County burned over 132,000 acres and dozens of homes, and in 2020, the Dolan Fire in Monterey County burned over 124,000 acres. These risks make developing housing in suburban and rural areas near forested areas particularly difficult.

Many population centers in the Monterey Bay Area are located on the coast and subject to flooding due to continuing sea level rise. During the plan period, the coastal region in AMBAG will be affected by sea level rise according to the National Oceanic and Atmospheric Administration (NOAA). This threatens existing housing, and limits where new housing can be constructed. Jurisdictions affected include Santa Cruz, Capitola, the County of Santa Cruz,

Marina, Seaside, Sand City, Monterey, Pacific Grove, Carmel, and the County of Monterey. Also affected are the unincorporated communities of Aptos, Live Oak, Moss Landing, and Pebble Beach.

Figure 1: Map of AMBAG RHNA Area



Process for Developing RHNA

The State of California, through the Housing and Community Development Department (HCD), issued a Regional Housing Needs Determination to AMBAG for Monterey and Santa Cruz Counties (see Appendix 4 for the letter of determination). HCD calculated the regional determination using information provided by the California Department of Finance. The regional determination includes an overall housing need number, as well as a breakdown of the percentage of units required in four income distribution categories, as further defined below. The region's overall allocation for Monterey and Santa Cruz Counties is 33,274 housing units. San Benito County receives its own Regional Housing Needs Determination (RHND) from HCD and must complete its own RHNA.

San Benito County

The state mandate for distributing the RHNA is tied to the state designation of a Council of Governments (COG). Each COG is expected to distribute the RHNA to their member jurisdictions. AMBAG is the Metropolitan Planning Organization for the Counties of San Benito, Santa Cruz, and Monterey and has prepared a 2045 MTP/SCS for the tri-county region. However, it is the COG for only the Counties of Santa Cruz and Monterey. For this reason HCD makes a separate determination for San Benito County and tasks the San Benito County Council of Governments (SBtCOG) with developing its own RHNA Plan. AMBAG does coordinate with SBtCOG so that its RHNA Plan is consistent with the 2045 MTP/SCS.

AMBAG's Role in RHNA

Based on the regional determination provided by HCD, AMBAG must develop the allocation of units to each jurisdiction, along with the plan document that contains the allocations. It is AMBAG's responsibility to coordinate with HCD prior to its determination of the regional housing need. Once AMBAG receives the regional determination, including the overall need number and the income category distribution, it must adopt a methodology for distributing the regional growth number throughout the region. The methodology is the basis for the final RHNA Plan that AMBAG adopts.

The methodology used for the RHNA distribution is developed in coordination with the local jurisdictions via the Planning Directors Forum and the AMBAG Board of Directors, as well as with input from the public. The state mandated RHNA Plan establishes the total number of housing units that each city and county must plan for within the eight-year planning period broken into four income categories as described above. Based on the adopted RHNA, each city and county must update its housing element by December 2023.

Importance of RHNA for Local Governments

RHNA allows communities to anticipate growth so that the region can grow in ways that enhance quality of life, improve access to jobs, promote transportation mobility, and address fair share housing needs for all members of the community. Local governments were key to the development of the RHNA allocation methodology and will determine how their jurisdiction's allocation will be accommodated through their Housing Elements.

Once it receives its allocation, each local government must update the Housing Element of its General Plan and its zoning to show how it plans to accommodate its RHNA requirements and meet the housing needs in its community. It is in the community's Housing Element that local governments make decisions about where future housing units could be located and the policies and strategies for addressing specific housing needs within a given jurisdiction, such as

addressing homelessness, meeting the needs of specific populations, affirmatively furthering fair housing, or minimizing displacement. Having a sufficient and housing element compliant with HCD requirements is also critical to securing and maintaining state funding for their community.

State funding programs often consider a local jurisdiction's compliance with housing element law. These competitive funds can be used for fixing roads, adding bike lanes, improving transit, or providing much needed affordable housing to communities. In some cases, funding from state/federal housing programs can only be accessed if the jurisdiction has a compliant housing element. In other cases, a compliant housing element allows grant applicants to receive extra points on their application if they do have a compliant housing element, increasing their chances in the competitive application process. Moving forward, more state grant funds may include housing element compliance factors. State funds which tie housing element compliance to eligibility or scoring include the following:

- Community Development Block Grant Program
- Infill Infrastructure Grant Program
- Local Housing Trust Fund Program
- Affordable Housing and Sustainable Communities Program
- Permanent Local Housing Allocation Program
- Caltrans Sustainable Communities Grant Program
- Local Partnership Program
- Transit and Intercity Rail Capital Program
- Active Transportation Program
- Solutions for Congested Corridors Program
- HOME Investment Partnerships Program

The Regional Housing Needs Determination (RHND)

The California Department of Housing and Community Development (HCD) identifies the total number of homes for which each region in California must plan in order to meet the housing needs of people at all income levels. The total number of housing units from HCD is separated into four income categories that cover everything from housing for very low-income households all the way to market rate housing. AMBAG is responsible for developing a methodology to allocate a portion of this housing need to every local government in the region.

The four income categories included in the RHND are:

- Very Low Income: Less than 50% of Area Median Income
- Low Income: 50-80% of Area Median Income
- Moderate Income: 80-120% of Area Median Income
- Above Moderate Income: 120% or more of Area Median Income

In a letter dated August 31, 2021 the California Department of Housing and Community Development (HCD) provided AMBAG with the RHND for use in this cycle of RHNA (See appendix 4).

Table 2: RHND from HCD for AMBAG – June 30, 2023 to December 15, 2031

<u>Income Category</u>	<u>Percent</u>	<u>Housing Unit Need</u>
Very-Low*	23.6%	7,868
Low	15.5%	5,146
Moderate	18.5%	6,167
Above-Moderate	42.4%	14,093
Total	100.0%	33,274

*Extremely-Low 13.1% Included in Very-Low Category

Income Distribution: Income categories are prescribed by California Health and Safety Code (§ 50093, et. Seq.). Percentages are derived based on Census/ACS reported household income brackets and county median income.

The RHND is based on a population and household forecast for the region from the California Department of Finance (DOF) and the application of specific adjustments to determine the total amount of housing needs for the region. Certain adjustments are a result of recent legislation that sought to incorporate an estimate of existing housing need, per Government Code 65584.01, shown below.

- The vacancy rates in existing housing stock, and the vacancy rates for healthy housing market functioning and regional mobility, as well as housing replacement needs. For purposes of this subsection, the vacancy rate for a healthy rental housing market shall be considered no less than 5 percent.
- The percentage of households that are overcrowded and the overcrowding rate for a comparable housing market. For purposes of this subparagraph:
 - The term “overcrowded” means more than one resident per room in each room in a dwelling.
 - The term “overcrowded rate for a comparable housing market” means that the overcrowding rate is no more than the average overcrowding rate in comparable regions throughout the nation, as determined by the council of governments.
- The percentage of households that are cost burdened and the rate of housing cost burden for a healthy housing market. For the purposes of this subparagraph:
 - The term “cost burdened” means the share of very low, low-, moderate-, and above moderate-income households that are paying more than 30 percent of household income on housing costs.

- The term “rate of housing cost burden for a healthy housing market” means that the rate of households that are cost burdened is no more than the average rate of households that are cost burdened in comparable regions throughout the nation, as determined by the council of governments.

The RHNA process only considers the needs of the population in households who are housed in the regular housing market, and excludes the population living in group quarters, which are non-household dwellings, such as jails, nursing homes, dorms, and military barracks. HCD uses the age cohorts of the forecasted population from the California Department of Finance to understand the rates at which people are expected to form households. This can vary for people at different stages of life. This results in the estimate of the total number of households that will need a housing unit in 2031, which is the end date of the projection period for AMBAG’s RHNA cycle.

The total number of projected households is then adjusted using the factors related to vacancy rate, overcrowding, and an estimate of the need for replacement housing for units that were demolished or lost. These adjustments result in a forecast of the number of housing units that will be needed to house all households in the region in 2031. The number of expected occupied housing units at the beginning of the RHND period is subtracted from the total number of housing units needed, which results in the number of additional housing units necessary to meet housing demand. The final step is an adjustment related to cost-burdened households, which leads to the total RHND.

Distributing the RHNA and Income Categories

California’s Housing Element Law (Government Code § 65580 et seq.) mandates that AMBAG develop and approve a RHNA methodology and RHNA Plan for Monterey and Santa Cruz Counties and the cities within. Once AMBAG receives the regional determination, including the overall need number and the income category distribution, it must adopt a methodology for distributing those numbers throughout the region. The methodology is the basis for the final RHNA Plan that AMBAG adopts.

The RHNA has two parts as required by state law:

- Overall Allocation: AMBAG receives a total housing unit number for growth during the planning period for Monterey and Santa Cruz Counties. AMBAG is required to distribute this regional housing growth number to the jurisdictions within the region for the period from January 30, 2023 to December 15, 2031.
- Income Category Distributions: HCD also provides a household income distribution of the total regional housing unit number. As defined by state law, four income categories

make up this distribution: very low income (less than 50 percent area median income [AMI]); low income (50 to 80 percent AMI); moderate income (80 to 120 percent AMI); and above moderate income (above 120 percent AMI). The total housing unit growth AMBAG allocates to each jurisdiction must be further allocated into the four household income categories.

Coordination with Jurisdictions

The most critical factor in the RHNA process is the development of the methodology for allocating housing units within the region. The meetings of the regional Planning Directors Forum, comprised of local government planning staff but open to the public, served as the forum for the technical development of the draft methodologies. The Planning Directors Forum met monthly and provided input on approaches to different methodologies. AMBAG staff developed different methodology options for inquiry, review, and input from the planning directors. The AMBAG Board of Directors received regular updates on the development of the RHNA and the methodologies being considered. Of the various methodologies discussed at the Planning Directors Forum and the Board of Directors' meetings, the methodology emphasizes AFFH and a balanced jobs/housing ratio was selected as the preferred method and was recommended to the Board of Directors. The Board of Directors approved this methodology on April 13, 2022.

Coordination with Regional Stakeholders and the Public

The methodology used in this RHNA allocation was discussed multiple times at the Board of Directors and the Planning Directors Forum as well as presented at city council meetings and other stakeholder meetings. In addition, specific recommendations from the public were included in the selected methodology. These groups expressed support for the methodology and indicated that it was a good representation of housing need in the region. Opportunities for public comment were provided at all Board of Directors and Planning Directors Forum meetings.

Timeline

The RHNA Plan is scheduled for adoption by the AMBAG Board of Directors in Fall 2022. Based on state statutory timelines prescribed in Government Code § 65584.04, below are the key milestones dates for the RHNA:

- February 2021 to December 2021 – The Planning Directors Forum, comprised of the planning directors and local government planners for all of the cities and counties in the region, met seven times over eleven months to discuss RHNA and to develop and evaluate draft RHNA methodologies. The AMBAG Board of Directors were informed

regularly on the development of the different draft methodologies. As meetings open to the public, these meetings also served as opportunities for the public and advocacy groups to provide comments on the process.

- June 2021 to January 2022 – The Board of Directors met seven times over eight months to review progress on the RHNA methodologies, take input from the Planning Directors Forum, and provide feedback on the process. As meetings open to the public, these meetings also served as opportunities for the public and advocacy groups to provide comments on the process.
- January 12, 2022 – The AMBAG Board of Directors adopted the draft RHNA methodology.
- April 13, 2022 – Approval of the final RHNA methodology by the AMBAG Board
- April 22, 2022 – Draft RHNA plan released with RHNA allocations by jurisdictions
- April 22 to June 6, 2022 – Local jurisdictions and HCD may appeal RHNA allocation within 45 days of release of the draft RHNA plan/allocations
- May 2022 – AMBAG releases final 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) accommodating RHNA
- June 7 to July 22, 2022 - Local jurisdictions and HCD may comment on appeals within 45 days of the close of the appeal period (if appeal(s) are received)
- June 8, 2022 – Adoption of Final 2045 MTP/SCS by AMBAG Board
- August 10, 2022 - Adoption of Final 2023-31 RHNA Plan with RHNA allocations by AMBAG Board (if no appeal(s) are received)
- August 10, 2022 - AMBAG to hold public hearing on appeals (if appeals are received)
- September 23, 2022 - AMBAG makes final determination that accepts, rejects, modifies appeals and issues final proposed allocation plan
- October 12, 2022 - Adoption of Final 2023-31 RHNA Plan with RHNA allocations by AMBAG Board (if appeal(s) are received)
- December 15, 2023 - Jurisdiction's 6th Cycle Housing Elements are due to HCD

Housing Elements

Once a local government has received its final RHNA from AMBAG, it must revise the Housing Element of its general plan and update zoning ordinances to accommodate its portion of the region's housing need. For this cycle, that process must be completed by December 2023. Communities are also required to report their progress to HCD annually.

The four income categories, as listed above, must be addressed in a jurisdiction's housing element. Specifically, accommodations must be made to ensure that the jurisdiction provides

sufficient zoning capacity to accommodate the projected housing need in each income category. For the very low and low income categories, jurisdictions generally are required to identify sites (constructed or vacant) zoned at multifamily residential densities.

It is important to note that each jurisdiction is responsible for providing sufficient zoning capacity for the units allocated to all four economic income categories, but is not responsible for the construction of these units. The intent of the housing element law is to ensure that jurisdictions do not impede the construction of housing in any income category. Other factors, such as market forces, are beyond a jurisdiction's control and have considerable influence over whether or not housing units in each income category are actually constructed. The HCD website contains more information about Housing Element compliance at <https://www.hcd.ca.gov/community-development/housing-element/index.shtml>.

Adopted RHNA Methodology and Distribution

Once HCD issued the Regional Housing Need Determination of 33,274 housing units for our region, state housing element law required AMBAG to formulate a methodology to assign a share of the RHND to each jurisdiction in the region. The RHNA methodology was approved by the Board of Directors on April 13, 2022. Before asking the Board to approve a methodology AMBAG reviewed all of the HCD approved RHNA methodologies to date for the 6th Cycle from other COGs and presented the results to the Planning Directors Forum and the Board. The list of options was refined and narrowed with recommendations from the Planning Directors Forum before presentation to the Board. The final methodology that was chosen distributes the RHNA based on the RGF, AFFH, jobs/housing balance, jobs, climate resiliency, and transit service. Using this method creates a direct tie to the objectives of the Housing Element law as well as the goals and concepts in the 2045 MTP/SCS.

RHNA Methodology

This section describes the draft methodology that the AMBAG Board of Directors approved on January 12, 2022. Appendix 1 provides the RHNA unit and income allocation estimates based on the approved draft methodology. To satisfy the requirements of Government Code § 65584.04(a) AMBAG, in consultation with HCD staff, elected to pursue a three-step methodology. The first and second steps allocates the total number of units for the AMBAG region. The third step allocates by income category.

First Step in RHNA Methodology: 2022 Regional Growth Forecast Base Allocation

This RHNA methodology allocates a portion of housing units (6,260) based on data for projected housing growth for the four-year RHNA planning period from the 2022 Regional Growth Forecast (RGF). The 2022 RGF was used in the 2045 Metropolitan Transportation Plan/Sustainable

Communities Strategy (MTP/SCS). The use of the 2022 RGF data is important to meeting the RHNA plan statutory objectives of protecting environmental and agricultural resources and achieving the region's greenhouse gas reduction targets. (Gov. Code, § 65584(d)(2).) Use of the 2022 RGF ensures that this RHNA methodology is consistent with the 2045 MTP/SCS, which was released for public review and comment in November 2021.

The 2022 RGF is the most accurate growth forecast available for the region, is more granular than any other available projections, included significant quality control, was reviewed and approved by executive planning staff in all jurisdictions for accuracy, and was accepted by the AMBAG Board. This supports the furtherance of a RHNA plan statutory objective, which focuses on promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, the encouragement of efficient development patterns, and the achievement of the region's greenhouse gas reductions targets. (Gov. Code, § 65584.04(d)(2).)

The 2022 RGF allocation step is just one element in the RHNA methodology; jobs, jobs/housing balance, transit, resiliency, and AFFH are all used to allocate housing units, which go above and beyond existing jurisdictions' general plans. In fact, HCD's 6th Cycle RHND of 33,274 units is higher than the number of units that jurisdictions within the AMBAG region have planned for through 2050, so general plan changes will be necessary and are not precluded by using the 2022 RGF as a part of the allocation.

The data source for this factor is described below:

- 2022 RGF: Housing growth from 4-year RHNA period from the AMBAG 2022 RGF (accepted for planning purposes by the AMBAG Board in November 2020), based on California Department of Finance (2020)
 - The full RGF can be found at the following location:
https://ambag.org/sites/default/files/2021-11/PDFAAppendix%20A_2022%20RGF.pdf and
<https://www.ambag.org/plans/regional-growth-forecast>

Second Step in RHNA Methodology: Jobs, Jobs/Housing Balance, Transit, Resiliency, and AFFH Unit Allocation

The second step in the RHNA methodology allocates the remaining units (27,014) for the AMBAG region by the following categories: 15% jobs (4,000 units), 31% jobs/housing (8,449 units), 4% transit (1,038 units), 8% resilience (2,075 units), and 42% of AFFH (11,452 units). The draft methodology presented here is the result of several rounds of methodology revision to include

feedback from the AMBAG Board, Planning Directors forum, and the community. Revisions also accommodated additional feedback from the public and HCD staff, including adding jobs/housing and AFFH factors and reducing the weight of the RGF in the allocation.

Another revision made to reflect suggestions from HCD staff was to include both the California State Treasurer's Tax Credit Allocation Committee (TCAC) and Racially Concentrated Areas of Affluence (RCAA) data to calculate the AFFH allocation factor for incorporated jurisdictions

Data sources used for this second step in the RHNA methodology are described below.

- Employment: AMBAG 2022 RGF, based on InfoUSA and California Employment Development Department (2020)
 - Jobs data reflects the pre-pandemic distribution of employment opportunities throughout the AMBAG region. Future job growth in Monterey and Santa Cruz Counties is expected to be concentrated in the same areas. Since such a large share of the region's jobs are agricultural, allocating based on jobs helps the region address the housing needs of farmworkers. (Gov. Code, § 65584.04(e)(8).)
 - Focusing a significant share of the RHNA allocation on jobs helps to correct existing jobs/housing imbalances.
- Jobs-Housing Ratio: Number of jobs in 2020 divided by number of housing units, both jobs and housing data are from AMBAG 2022 RGF, based on InfoUSA and California Employment Development Department, and California Department of Finance (2020).
- Transit: Existing (2020) transit routes with 15- and 30-minutes headways, based on existing transit routes and stops from transit operators
 - While the AMBAG region does not have the kind of extensive transit system found in larger urban areas, transit access is important for the sustainability of future growth.
 - Focusing future developing in areas with the region's highest quality transit promotes infill development and encourages efficient development patterns. (Gov. Code, § 65584(d)(2).)
- Resiliency: Percent not in high fire risk or 2' sea level rise risk, CALFIRE, California Public Utilities Commission (CPUC), and National Oceanic and Atmospheric Administration (NOAA)
 - The AMBAG region includes areas at great risk due to climate change, including areas at high risk of wildfire and areas at risk of inundation due to sea level rise. These constraints to development must be considered as the region plans for climate change.

- This factor furthers the objective of promoting infill development, protecting environmental resources, and encourages efficient development patterns. (Gov. Code, § 65584(d)(2).)
- Affirmatively Furthering Fair Housing Unit Allocation: The AFFH factor is the average of a jurisdiction's RCAA and TCAC score for incorporated jurisdictions, both of which are explained below. For unincorporated areas the AFFH factor is the TCAC score alone and does not include RCAA. Given the size of the unincorporated areas, TCAC better reflects the diversity of high- and low-income communities within the unincorporated areas. Jurisdictions qualifying as RCAAs, partial RCAAs, or TCAC Opportunity Areas are shown in Appendix 2.
 - RCAA: Jurisdictions with higher than the regional average for percentage above 200% of the poverty level and percentage white are defined as RCAAs. Jurisdictions that qualify under one category receive a partial allocation. Data was utilized from the U.S. Census Bureau, American Community Survey (2015-2019) and 2020 Census.
 - TCAC: This score reflects the percent of each jurisdiction's households in high/highest opportunity areas. Data was used from the TCAC Opportunity Map Database (2021) and U.S. Census Bureau, American Community Survey (2015-2019).

Third Step in RHNA Methodology: Income Allocation

Addressing the socioeconomic disparities of the AMBAG region's member jurisdictions was a key focus of the income allocation methodology. Though jurisdiction level disparities cannot be completely corrected within a single RHNA cycle, Planning Directors Forum and AMBAG Board members recommended allocating a high weight to this factor.

There are several ways to measure socioeconomic disparities across jurisdictions. After considering alternatives, the AMBAG Board of Directors suggested a measure of Racially Concentrated Areas of Affluence (RCAA), based on data from the U.S. Census Bureau and a framework described by the U.S. Department of Housing and Urban Development. Using the most recent data available from the U.S. Census Bureau, jurisdictions that are both high income (higher than the regional average for percentage above 200% of the poverty level) and racially-concentrated (above the regional average for percent white non-Hispanic) are defined as RCAAs. Jurisdictions that were either higher income or racially-concentrated, but did not meet both criteria, were identified as "partial RCAA." Consensus from the PDF was that the RCAAs analysis better reflected the AMBAG region's areas of opportunity than alternative measures such as the HCD/TCAC Opportunity Map data.

The third step of the methodology shifts Above Moderate units to Very Low and Moderate units to Low in jurisdictions that qualify as RCAAs. This results in RCAA jurisdictions getting a higher share of their RHNA in the lower income categories. In the draft methodology presented here, just over 53% of the RHNA allocation is Very Low or Low income in jurisdictions that are RCAAs. In partial RCAA jurisdictions, approximately 38% of the RHNA allocation is Very Low or Low income. The comparable share for non-RCAA jurisdictions is less than 23%.

The data sources used for this step are described below.

- AFFH Income Allocation: U.S. Census Bureau, American Community Survey (2015-2019) and 2020 Census

RHNA Objectives

The following section summarizes how the development of the RHNA allocation methodology and the income group allocation methodology satisfies the five objectives. Development of the RHNA allocation methodology and the income group allocation methodology was focused on satisfying the five RHNA objectives (Govt. Code §65584(d)(1-5). Appendix 1 illustrates the methodology in further detail.

- 1. Increase the housing supply and the mix of housing types, tenure, and affordability in all cities and counties within the region in an equitable manner, which shall result in each jurisdiction receiving an allocation of units for low- and very low-income households.*

The 6th Cycle RHNA methodology allocates units to all jurisdictions in the AMBAG region. The proposed RHNA methodology affirmatively furthers fair housing by allocating units based on TCAC/RCAA data and by allocating a larger share of very low and low income housing in jurisdictions that have an above-average share of households in advantaged areas.

To promote a mix of housing types, the methodology adjusts jurisdictions' allocations by income levels, and provides larger shares of very low- and low-income categories to jurisdictions that have historically been racially concentrated areas of affluence (Carmel by the Sea, Del Rey Oaks, Monterey, Pacific Grove, unincorporated Monterey County, Scotts Valley, and unincorporated Santa Cruz). Jurisdictions which already contain a disproportionately high share of very low and low income households are allocated higher proportions of moderate and above-moderate housing allocations. In accordance with State law, each jurisdiction is allocated housing in all four income groups.

- 2. Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, the encouragement of efficient development patterns, and the achievement of the region's greenhouse gas reductions targets provided by the State Air Resources Board pursuant to Section 65080.*

The methodology directly complements the region's SCS which seeks to reduce greenhouse gases emitted by light-duty vehicles. AMBAG's SCS achieves the required greenhouse gas emissions (GHG) with a critical strategy that addresses the region's jobs-housing imbalance. AMBAG achieves its GHG target of a 6% reduction per capita for 2035. AMBAG's SCS promotes infill development, socioeconomic equity, and the protection of agricultural resources. In excess of 76% of the region's determination is allocated to incorporated cities, thereby advancing this objective by promoting infill development. In addition, the allocation provided to the unincorporated counties could reasonably be assumed to be accommodated within currently developed areas. In its planning survey responses, both Monterey and Santa Cruz Counties noted that substantial proportions of their unincorporated areas are preserved or protected from urban development as conservation land, state parks, federal ownership, via land trusts, or are protected under federal and state species protection regulations or under the Williamson Act. This largely constrains new development in the unincorporated areas. Much of the existing development in the unincorporated counties is indistinguishable to that of the abutting cities; therefore, it is not expected to place demand on transportation inefficient parcels of land.

By allocating 4% of RHNA by transit, the methodology further promotes more housing in jurisdictions with better transit access, which will further reduce GHG emissions and promote efficient development patterns. By allocating 8% of RHNA using a resiliency factor, the methodology promotes protection of coastal and forest areas by shifting allocations away from these sensitive environmental resources.

3. *Promoting an improved intraregional relationship between jobs and housing, including an improved balance between the number of low-wage jobs and the number of housing units affordable to low-wage workers in each jurisdiction.*

By allocating a substantial share of the RHND based on jobs (15%) and jobs/housing balance (31%), AMBAG's methodology directly addresses the imbalance between jobs and housing. The methodology allocates a majority of units to jurisdictions with jobs-to-housing imbalances.

4. *Allocating a lower proportion of housing need to an income category when a jurisdiction already has a disproportionately high share of households in that income category, as compared to the countywide distribution of households in that category from the most recent American Community Survey.*

Addressing the income-equity disparities of the region's jurisdictions was a key focus of the income allocation methodology. Though jurisdiction-level disparities cannot be completely corrected within a single RHNA cycle, PDF members recommended, and the AMBAG Board of Directors assured this was a significant consideration within the RHNA.

Using the RCAA and TCAC adjustments for AFFH, the RHNA places a higher proportion of very low and low income units in more affluent areas which have a shortage of these types of units. This shift necessarily allocated a significant portion of very low and low income units away from jurisdictions which a preponderance of lower income units, placing more moderate and above moderate units in these communities. The AMBAG methodology directs a higher share of total units to TCAC/RCAA jurisdictions, and a higher share of lower income housing to RCAA jurisdictions. In RCAA jurisdictions, more than 53% of the RHNA allocation is Very Low or Low income. In partial RCAA jurisdictions, approximately 38% of the RHNA allocation is Very Low or Low income. The comparable share for non-RCAA jurisdictions is less than 23%.

5. Affirmatively furthering fair housing.

The proposed RHNA methodology affirmatively furthers fair housing by allocating units based on TCAC and RCAA data. The proposed RHNA methodology allocates a large portion of the RHNA (42% of the total allocation) based on AFFH. The methodology assigns additional units to jurisdictions that are above the regional average for percentage of population about 200% of the poverty level and/or which have a higher racially concentrated white population than the regional average and/or have areas of high/highest opportunity. The methodology also focuses a larger share of very low and low income housing in jurisdictions that have an above-average share of advantaged households, as described in Objective 4 above.

RHNA Methodology Metrics

AMBAG evaluated the draft methodology to ensure that it performed well in meeting all of the RHNA objectives. Appendix 3 highlights how the draft methodology supports and furthers the RHNA objectives.

RHNA Factors

To the extent that sufficient data is available, the COG must consider 13 factors when developing the methodology that allocates regional housing needs. The following section summaries how the development of the RHNA allocation methodology satisfies the 13 factors.

- 1. Each member jurisdiction's existing and projected jobs and housing relationship. This shall include an estimate based on readily available data on the number of low-wage jobs within the jurisdiction and how many housing units within the jurisdiction are affordable to low-wage workers as well as an estimate based on readily available data, of projected job growth and projected household growth by income level within each member jurisdiction during the planning period.*

The final RHNA methodology directly incorporates each jurisdiction's existing and projected jobs-housing relationship in both the baseline allocation and the allocation factors. Forecasts from the

MTP/SCS 2045 inform the baseline allocation. The final RHNA methodology improves jobs-housing balance by using factors related to job proximity to allocate a significant portion of the RHND. These factors direct housing units to those jurisdictions, allocating 31% of units to areas with jobs to housing imbalances (higher jobs/housing ratios). The methodology also allocates 42% of units based on AFFH, placing more units in higher income areas which correspond to areas with lower jobs to housing ratios. The final RHNA methodology helps to create a more balanced relationship between housing and jobs by directing RHNA units to job-rich jurisdictions and jurisdictions with the most imbalanced jobs-housing fit. Additionally, the jurisdictions with the worst jobs-housing fit receive a larger share of their RHNA as affordable housing than other jurisdictions. An equity adjustment is included in the methodology, directing additional lower-income units to jurisdictions with an imbalanced jobs-housing ratio.

2. *The opportunities and constraints to development of additional housing in each member jurisdiction, including all of the following: (A) Lack of capacity for sewer or water service due to federal or state laws, regulations or regulatory actions, or supply and distribution decisions made by a sewer or water service provider other than the local jurisdiction that preclude the jurisdiction from providing necessary infrastructure for additional development during the planning period; (B) The availability of land suitable for urban development or for conversion to residential use, the availability of underutilized land, and opportunities for infill development and increased residential densities. The council of governments may not limit its consideration of suitable housing sites or land suitable for urban development to existing zoning ordinances and land use restrictions of a locality, but shall consider the potential for increased residential development under alternative zoning ordinances and land use restrictions. The determination of available land suitable for urban development may exclude lands where the Federal Emergency Management Agency (FEMA) or the Department of Water Resources has determined that the flood management infrastructure designed to protect that land is not adequate to avoid the risk of flooding; (C) Lands preserved or protected from urban development under existing federal or state programs, or both, designed to protect open space, farmland, environmental habitats, and natural resources on a long-term basis, including land zoned or designated for agricultural protection or preservation that is subject to a local ballot measure that was approved by the voters of that jurisdiction that prohibits or restricts conversion to nonagricultural uses; and (D) County policies to preserve prime agricultural land, as defined pursuant to Section 56064, within an unincorporated area and land within an unincorporated area zoned or designated for agricultural protection or preservation that is subject to a local ballot measure that was approved by the voters of that jurisdiction that prohibits or restricts its conversion to nonagricultural uses.*

The final RHNA allocation assigns 8% of RHNA using a resiliency factor which allocates RHNA units away from forested areas at high risk of fire, and away from coastal areas that may be inundated should sea levels rise by at least two feet. This approach protects open space, environmental habitats, and natural resources, and encourages housing growth away from these sensitive resources.

All other RHNA factors assign housing units towards incorporated population centers by allocating factors such as jobs, jobs/housing ratio, transit, resiliency, and AFFH. This works to direct housing away from farmland, and towards cities which normally have adequate sewer and water service.

3. *The distribution of household growth assumed for purposes of a comparable period of regional transportation plans and opportunities to maximize the use of public transportation and existing transportation infrastructure.*

The final RHNA methodology allocates 4% of the region's RHNA units based on a jurisdiction's transit service. The methodology will encourage higher-density housing in jurisdictions with existing transit infrastructure, which can maximize the use of public transportation in these communities.

4. *Agreements between a county and cities in a county to direct growth toward incorporated areas of the county and land within an unincorporated area zoned or designated for agricultural protection or preservation that is subject to a local ballot measure that was approved by the voters of the jurisdiction that prohibits or restricts conversion to nonagricultural uses.*

The large majority of the RHNA allocation is within incorporated areas. Monterey County has a policy as well as several agreements with cities to direct growth into incorporated areas. AMBAG considered and incorporated these policies and agreements into the development of the 2022 Regional Growth Forecast by directing the majority of growth in the forecast towards incorporated cities. Because the RHNA is based on the 2022 Regional Growth Forecast the distribution inherently directs growth towards incorporated cities. While most of the growth within Monterey County is planned within incorporated cities, and there are policies reinforcing this growth pattern, the County has made plans to accommodate new population within Community Plan Areas. Based on this and the reality of a continued presence of low income minority populations in the unincorporated areas of the County, Monterey County will also have to plan for affordable housing as allocated in this RHNA Plan. Santa Cruz County does not have similar agreements with cities to direct development towards incorporated areas.

5. *The loss of units contained in assisted housing developments, as defined in paragraph (9) of subdivision (a) of Section 65583, that changed to non-low-income use through mortgage prepayment, subsidy contract expirations, or termination of use restrictions.*

Comprehensive data about the loss of assisted housing units is not available for all jurisdictions in a consistent format. Given the lack of consistent data, this topic was not included as a

specific factor in the final RHNA methodology. Some jurisdictions indicated that there was a small loss of units contained in assisted housing developments. However, the cumulative loss for any given jurisdiction is relatively small and therefore was not considered as a factor adjustment. The loss of assisted housing units for lower income households is an issue that would be best addressed by local jurisdictions when preparing their Housing Elements.

6. The percentage of existing households at each of the income levels listed in subdivision (e) of Section 65584 that are paying more than 30 percent and more than 50 percent of their income in rent.

The final methodology allocates lower-income units to all jurisdictions, particularly those with the most access to opportunity, allocating 42% of the region's lower-income units based on the jurisdictions' access to opportunity according to the California Tax Credit Allocation Committee (TCAC) Opportunity Maps and Racially Concentrated Areas of Affluence (RCAA). Jurisdictions with the highest housing costs receive a larger percentage of their RHNA as lower-income units than other jurisdictions in the region, and the jurisdictions with the most houses in High or Highest Resource census tracts also receive a larger percentage of their allocations as lower income units than other jurisdictions. Local governments will have additional opportunities to address jurisdiction specific issues related to cost burdened households when they update their housing elements.

7. The rate of overcrowding.

To address the needs of overcrowding in the region, HCD's RHNA Determination included an overcrowding adjustment which added housing units to the regional housing need to alleviate overcrowding in the region. As a result, overcrowding is considered throughout the region through inclusion in the base allocation from HCD. Since overcrowding tends to be the worst in lower income communities, including an overcrowding metric in the methodology would have placed more housing in lower income communities. This would have been counter to the AFFH metric, which requires more lower income housing be placed in jurisdictions with an existing higher income housing stock. Such an allocation would have also been counter to guidance provided by HCD during consultation on the methodology process. While the methodology does not have a specific overcrowding metric, the methodology base allocation is based on the RGF which assigns a significant share of housing growth to areas of high demand, which includes jurisdictions with higher overcrowding rates.

8. Housing needs of farmworkers.

The RHNA allocation benefits farmworker housing due to the rural and agricultural nature of the region. Most of the population is within a few miles of farmland, and nearly every population center is no further than 15 miles from an agricultural area. By encouraging housing development throughout the region, the RHNA will benefit the farmworker community.

9. The housing needs generated by the presence of a private university or a campus of the California State University or the University of California within any member jurisdiction.

The region currently has two major universities, the University of California, Santa Cruz (UCSC) and the California State University, Monterey Bay (CSUMB). Both universities place housing demands on their surrounding jurisdictions. The majority of the RHNA allocation is within the commute sheds of these two universities, primarily within the Santa Cruz metropolitan area near UCSC, and within the Monterey and Salinas metropolitan areas near CSUMB. In addition, UCSC has made efforts to meet some of that demand as there is a binding agreement between the University and the City of Santa Cruz. CSUMB is planning for growth which has generated housing pressure on the surrounding jurisdictions. The City of Marina is actively working to meet some of this demand with plans for housing development in areas close to the campus. Not only will housing be in demand in the City of Marina, but Marina is a closer commute than the Salinas Valley is to those coastal cities that have severe restrictions on new development.

10. Housing needs of individuals and families experiencing homelessness.

Comprehensive jurisdiction-level data about individuals and families experiencing homelessness is not available for most AMBAG jurisdictions. As a result, this topic was not included as a specific factor in the final RHNA methodology. However, the methodology does consider the housing needs of individuals and families experiencing homelessness by allocating very low- and low-income units to all jurisdictions throughout the region.

11. The loss of units during a state of emergency that was declared by the Governor pursuant to the California Emergency Services Act (Chapter 7 (commencing with Section 8550) of Division 1 of Title 2), during the planning period immediately preceding the relevant revision pursuant to Section 65588 that have yet to be rebuilt or replaced at the time of the analysis.

The RHND included HCD's minimum replacement adjustment of 0.5 percent, which exceeds the region's demolition rate. This adjustment added 1,202 housing units to the RHND. Since the demolition adjustment in the RHND included significantly more units than were lost, it was not necessary to include a specific factor in the final RHNA methodology to address the loss of units.

12. The region's greenhouse gas emissions targets provided by the State Air Resources Board pursuant to Section 65080.

By allocating 15% of RHNA according to jobs and 31% based on jobs/housing ratio, 4% by transit, and 42% by AFFH, the RHNA allocates the vast majority of units in existing urban areas with a strong focus on placing more units where jobs/housing ratios are imbalanced. These factors combine to place more units near jobs centers which, over time, will reduce commuting distances and associated GHG emissions throughout the region.

13. Any other factors adopted by the council of governments, that further the objectives listed in subdivision (d) of Section 65584, provided that the council of governments specifies which of the objectives each additional factor is necessary to further. The council of governments may include additional factors unrelated to furthering the objectives listed in subdivision (d) of Section 65584 so long as the additional factors do not undermine the objectives listed in subdivision (d) of Section 65584 and are applied equally across all household income levels as described in subdivision (f) of Section 65584 and the council of governments makes a finding that the factor is necessary to address significant health and safety conditions.

No other planning factors were adopted by AMBAG for the 6th Cycle RHNA.

Appendix 1: Final AMBAG 6th Cycle RHNA Allocation

AMBAG RHNA Methodology Summary

	Income Group Totals				RHNA
	Very Low	Low	Mod.	Above Mod.	Total
Region	7,868	5,146	6,167	14,093	33,274
Monterey County					
Carmel-By-The-Sea	113	74	44	118	349
Del Rey Oaks	60	38	24	62	184
Gonzales	173	115	321	657	1,266
Greenfield	101	66	184	379	730
King City	97	63	178	364	702
Marina	94	62	173	356	685
Monterey	1,177	769	462	1,246	3,654
Pacific Grove	362	237	142	384	1,125
Salinas	920	600	1,692	3,462	6,674
Sand City	59	39	49	113	260
Seaside	86	55	156	319	616
Soledad	100	65	183	376	724
Unincorporated Monterey	1,070	700	420	1,136	3,326
Santa Cruz County					
Capitola	430	282	169	455	1,336
Santa Cruz	859	562	709	1,606	3,736
Scotts Valley	392	257	154	417	1,220
Watsonville	283	186	521	1,063	2,053

AMBAG RHNA Methodology

April 13, 2022

Region	RHNA Total 33,274	Housing	Jobs 15%			Jobs/Housing Ratio 31%				Transit 4%			Resiliency (Wildfire & Sea Level Rise) 8%				AFFH 42%						RHNA
	4-year Unit Change 6,260	Jobs 2020	% Reg.	Units 4,000	J/H	Jobs 2020	% Reg.	Units 8,449	Transit Score	% Reg.	Units 1,038	% Area Not in High Risk Zone	Normalize (% Area x Unit Chg)	% Reg.	Units 2,075	RCAA	TCAC	Avg.	Normalize (Avg. x 2020 HHs)			Units 11,452	Total 33,274
Monterey County																							
Carmel	5	3,566	0.9%	37	1.0	0	0.0%	0	0	0%	0	64%	3	0.1%	1	100%	100%	100%	2,129	2.7%	306	349	
Del Rey Oaks	34	748	0.2%	8	1.0	0	0.0%	0	1	8%	87	44%	15	0.3%	6	100%	0%	50%	342	0.4%	49	184	
Gonzales	713	6,326	1.7%	66	3.2	6,326	2.5%	215	0	0%	0	100%	713	13.1%	272	0%	0%	0%	0	0.0%	0	1,266	
Greenfield	275	7,882	2.1%	82	2.0	7,882	3.2%	268	0	0%	0	100%	275	5.1%	105	0%	0%	0%	0	0.0%	0	730	
King City	244	8,195	2.1%	86	2.4	8,195	3.3%	279	0	0%	0	100%	244	4.5%	93	0%	0%	0%	0	0.0%	0	702	
Marina	395	6,548	1.7%	68	0.8	0	0.0%	0	1	8%	87	89%	353	6.5%	135	0%	0%	0%	0	0.0%	0	685	
Monterey	202	40,989	10.7%	428	3.0	40,989	16.5%	1,396	1	8%	87	63%	126	2.3%	48	100%	73%	87%	10,386	13.0%	1,493	3,654	
Pacific Grove	49	8,016	2.1%	84	1.0	0	0.0%	0	0	0%	0	95%	46	0.9%	18	100%	100%	100%	6,779	8.5%	974	1,125	
Salinas	2,166	78,874	20.6%	824	1.8	78,874	31.8%	2,687	2	17%	168	100%	2,166	39.9%	829	0%	0%	0%	0	0.0%	0	6,674	
Sand City	54	2,092	0.5%	22	11.1	2,092	0.8%	71	1	8%	87	100%	54	1.0%	21	50%	0%	25%	36	0.0%	5	260	
Seaside	324	10,476	2.7%	109	1.0	0	0.0%	0	1	8%	87	77%	251	4.6%	96	0%	0%	0%	0	0.0%	0	616	
Soledad	236	9,010	2.4%	94	2.2	9,010	3.6%	307	0	0%	0	96%	227	4.2%	87	0%	0%	0%	0	0.0%	0	724	
Unincorporated Monterey	255	60,293	15.7%	629	1.5	0	0.0%	0	1	8%	87	19%	48	0.9%	18	n/a	48%	48%	16,268	20.4%	2,337	3,326	
Santa Cruz County																							
Capitola	89	12,250	3.2%	128	2.2	12,250	4.9%	417	0	0%	0	83%	74	1.4%	28	100%	97%	98%	4,691	5.9%	674	1,336	
Santa Cruz	394	43,865	11.5%	458	1.8	43,865	17.7%	1,494	1	8%	87	75%	296	5.5%	113	50%	23%	37%	8,279	10.4%	1,190	3,736	
Scotts Valley	28	10,109	2.6%	106	2.1	10,109	4.1%	344	1	8%	87	50%	14	0.3%	5	100%	100%	100%	4,522	5.7%	650	1,220	
Watsonville	512	28,514	7.4%	298	2.0	28,514	11.5%	971	1	8%	87	95%	485	8.9%	185	0%	0%	0%	0	0.0%	0	2,053	
Unincorporated Santa Cruz	285	45,264	11.8%	473	0.8	0	0.0%	0	1	8%	87	13%	38	0.7%	15	n/a	50%	50%	26,259	33.0%	3,774	4,634	

Calculations are performed on unrounded numbers. Numbers shown here are rounded to the nearest whole number.

Jobs/housing ratio is the 2020 number of jobs divided by the 2020 number of housing units. A higher number reflects a larger imbalance between jobs and housing.

Transit Score: 1 = has transit service with 30-minute headways. 2 = has transit service with both 15- and 30-minute headways.

RCAA = Racially Concentrated Areas of Affluence.

TCAC = California Tax Credit Allocation Committee

AMBAG RHNA Methodology

April 13, 2022

Income Shift: Shifts 40% Units Between Above Moderate and Very Low and Between Moderate and Low

Region	Baseline Income Allocation				RCAA			Raw RCAA Adjustments				Rebalance to Income Group Totals				RHNA
	V.L.	Low	Mod.	A.M.		40%	40%									
					RCAA	Shift V.L.	Shift Low	Very Low	Low	Mod.	Above Mod.	Very Low	Low	Mod.	Above Mod.	Total
Monterey County	7,868	5,146	6,167	14,093				8,092	5,296	6,017	13,869	7,868	5,146	6,167	14,093	33,274
Carmel-By-The-Sea	83	54	65	148	100%	33	22	116	76	43	114	113	74	44	118	349
Del Rey Oaks	44	28	34	78	100%	18	11	62	39	23	60	60	38	24	62	184
Gonzales	299	196	235	536	0%	-120	-78	179	118	313	656	173	115	321	657	1,266
Greenfield	173	113	135	309	0%	-69	-45	104	68	180	378	101	66	184	379	730
King City	166	109	130	297	0%	-66	-44	100	65	174	363	97	63	178	364	702
Marina	162	106	127	290	0%	-65	-42	97	64	169	355	94	62	173	356	685
Monterey	864	565	677	1,548	100%	346	226	1,210	791	451	1,202	1,177	769	462	1,246	3,654
Pacific Grove	266	174	209	476	100%	106	70	372	244	139	370	362	237	142	384	1,125
Salinas	1,579	1,031	1,237	2,826	0%	-632	-412	947	619	1,649	3,459	920	600	1,692	3,462	6,674
Sand City	61	40	48	110	50%	0	0	61	40	48	111	59	39	49	113	260
Seaside	146	95	114	261	0%	-58	-38	88	57	152	319	86	55	156	319	616
Soledad	171	112	134	307	0%	-68	-45	103	67	179	375	100	65	183	376	724
Unincorporated Monterey	786	514	616	1,409	100%	314	206	1,100	720	410	1,096	1,070	700	420	1,136	3,326
Santa Cruz County																
Capitola	316	207	248	566	100%	126	83	442	290	165	439	430	282	169	455	1,336
Santa Cruz	883	578	692	1,582	50%	0	0	883	578	692	1,583	859	562	709	1,606	3,736
Scotts Valley	288	189	226	517	100%	115	76	403	265	150	402	392	257	154	417	1,220
Watsonville	485	318	381	870	0%	-194	-127	291	191	508	1,063	283	186	521	1,063	2,053
Unincorporated Santa Cruz	1,096	717	859	1,963	100%	438	287	1,534	1,004	572	1,524	1,492	976	586	1,580	4,634

Calculations are performed on unrounded numbers. Numbers shown here are rounded to the nearest whole number.

RCAA = Racially Concentrated Areas of Affluence.

Attachment D

CALIFORNIA AMERICAN WATER
MONTEREY DISTRICT
CUSTOMERS & CONSUMPTION BY POLITICAL JURISDICTION
1000 Gallons
Oct 2018 to Sep 2019

CITY CODE	JURISDICTION	RESIDENTIAL		MULTI-RES		COMM/ IND		GOLF COURSE		PUB AUTHORITY		OTHER		NON REVENUE		TOTAL CONNECTIONS	TOTAL (1000 GAL)	TOTAL (AF)
		CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE			
	CITY																	
1	Monterey	7,918	266,136.80	566	215,865.04	1,533	310,347.83	0	0.00	289	120,095.24	21	3,816.22	0	0.00	10,327	916,261.13	2,811.90
2	Pacific Grove	5,846	198,431.41	388	64,946.75	511	65,085.19	1	3,329.57	72	15,794.74	13	372.85	0	0.00	6,830	347,960.51	1,067.85
3	Carmel	2,818	110,552.71	153	9,960.04	370	62,518.26	0	0.00	49	3,580.14	3	1,189.41	0	0.00	3,393	187,800.55	576.34
4	Seaside	5,562	212,609.56	286	62,734.48	588	76,044.00	0	0.00	69	15,898.78	8	42.18	1	48.17	6,514	367,377.17	1,127.44
5	Del Rey Oaks	726	23,999.15	4	269.32	64	6,652.31	0	0.00	7	64.93	1	0.00	0	0.00	803	30,985.71	95.09
7	Sand City	102	3,234.69	7	2,664.56	236	17,300.02	0	0.00	3	179.28	4	802.32	0	0.00	352	24,180.87	74.21
CITY TOTAL		22,973	814,964.31	1,403	356,440.20	3,303	537,947.61	1	3,329.57	489	155,613.10	50	6,222.97	1	48.17	28,219	1,874,565.92	5,752.83
	COUNTY																	
6	Mtry Co. CV	1,359	70,401.40	100	16,327.40	127	22,573.78	0	0.00	5	11,552.07	4	51.42	3	456.20	1,598	121,362.27	372.45
8	In Crml San. Dist	2,652	124,302.30	80	21,895.50	186	31,849.18	0	0.00	16	11,113.04	5	1,015.53	0	0.00	2,940	190,175.55	583.63
9	Out Crml San. Dist	1,885	97,970.75	100	21,042.81	195	58,612.69	0	0.00	22	6,199.25	5	9.35	0	0.00	2,207	183,834.85	564.17
A	Mtry Co. Monterey	277	14,512.62	10	1,291.49	4	320.59	1	31,716.76	6	7,183.74	0	0.00	0	0.00	297	55,025.20	168.87
C	MPCC DMF	2,032	94,314.56	10	694.62	55	22,353.16	1	48.17	4	266.70	0	0.00	1	1.12	2,104	117,678.32	361.14
D	Mtry Co. PB	736	79,206.68	14	2,469.01	55	28,886.94	1	11.60	2	159.66	4	5,908.85	0	0.00	812	116,642.74	357.96
G	Rancho Fiesta	23	1,769.88	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	23	1,769.88	5.43
H	Rancho Del Monte	416	25,637.73	15	1,313.46	3	240.54	0	0.00	0	0.00	0	0.00	0	0.00	434	27,191.73	83.45
J	PB - LCP	19	2,248.75	0	0.00	1	26.40	0	0.00	0	0.00	0	0.00	0	0.00	20	2,275.15	6.98
COUNTY TOTAL		9,399	510,364.68	330	65,034.28	625	164,863.28	3	31,776.53	55	36,474.46	19	6,985.15	4	457.32	10,434	815,955.69	2,504.08
	OTHER																	
F	Well Irrigation CV	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	5.38	1	13.30	3	18.68	0.06
OTHER TOTAL		0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	5.38	1	13.30	3	18.68	0.06
CV-SS-SCD TOTAL		32,371	1,325,328.99	1,734	421,474.48	3,928	702,810.89	4	35,106.10	543	192,087.56	71	13,213.51	6	518.78	38,656	2,690,540.30	8,256.96

E	Ryan Ranch	1	8.37	0	0.00	192	15,936.33	0	0.00	5	209.34	2	0.00	0	0.00	200	16,154.05	49.57
I	Hidden Hills	447	28,993.78	0	0.00	9	128.55	0	0.00	0	0.00	1	70.98	0	0.00	456	29,193.31	89.59
L	Bishop	340	25,595.07	0	0.00	60	10,503.09	0	0.00	0	0.00	13	51.75	0	0.00	413	36,149.91	110.94
RR-HH-Bishop Total		788	54,597.23	0	0.00	260	26,567.97	0	0.00	5	209.34	16	122.73	0	0.00	1,069	81,497.27	250.11
The number of Connections includes Fire Services														All Jurisdictions =		39,725	2,772,037.57	8,507.07

CALIFORNIA AMERICAN WATER
MONTEREY DISTRICT
CUSTOMERS & CONSUMPTION BY POLITICAL JURISDICTION
1000 Gallons
Oct 2017 to Sep 2018

CITY CODE	JURISDICTION	RESIDENTIAL			MULTI-RES			COMM/ IND /GOLF			GOLF COURSE		PUB AUTHORITY			OTHER			NON REVENUE		AF	TOTAL CONNECTIONS	TOTAL (1000 GAL)	TOTAL (AF)
		CONNECTIONS	USE	AF	CONNECTIONS	USE	AF	CONNECTIONS	USE	AF	CONNECTIONS	USE	CONNECTIONS	USE	AF	CONNECTIONS	USE	AF	CONNECTIONS	USE				
	CITY																							
1	Monterey	7,901	277,778.90	852.47	560	215,758.25	662.14	1,570	325,177.38	997.93	0	0.00	258	121,289.57	372.22	31	3,429.49	10.52	0	0.00	0.00	10,320	943,433.59	2,895.29
2	Pacific Grove	5,852	205,144.30	629.56	386	67,629.32	207.55	551	78,588.60	241.18			72	16,956.91	52.04	16	656.05	2.01	0	0.00	0.00	6,877	368,975.19	1,132.34
3	Carmel	2,815	117,195.57	359.66	152	10,401.30	31.92	402	62,228.22	190.97	0	0.00	49	3,771.35	11.57	2	484.10	1.49	0	0.00	0.00	3,420	194,080.53	595.61
4	Seaside	5,542	237,863.49	729.98	285	65,745.97	201.77	585	85,517.27	262.44	0	0.00	63	16,958.29	52.04	8	66.13	0.20	1	47.20	0.14	6,484	406,198.34	1,246.58
5	Del Rey Oaks	726	27,755.78	85.18	4	254.44	0.78	74	6,347.26	19.48	0	0.00	6	68.94	0.21	1	0.00	0.00	0	0.00	0.00	812	34,426.41	105.65
7	Sand City	102	3,698.36	11.35	7	2,912.30	8.94	246	19,463.83	59.73	0	0.00	3	158.33	0.49	6	635.94	1.95	0	0.00	0.00	363	26,868.77	82.46
CITY TOTAL		22,938	869,436.40	2,668.20	1,394	362,701.58	111.31	3,427	577,322.55	1,771.74	0	0.00	451	159,203.39	488.58	63	5,271.70	16.18	1	47.20	0.14	28,275	1,973,982.82	6,057.93
	COUNTY																							
6	Mtry Co. CV	1,354	76,135.75	233.65	101	14,904.60	45.74	135	22,925.85	70.36	0	0.00	5	14,717.95	45.17	6	1,499.38	4.60	3	390.82	1.20	1,604	130,574.35	400.72
8	In Crml San. Dist	2,681	137,482.72	421.92	81	23,140.59	71.02	202	32,958.04	101.14	0	0.00	16	14,584.71	44.76	3	902.95	2.77	0	0.00	0.00	2,983	209,069.01	641.61
9	Out Crml San. Dist	1,882	106,410.06	326.56	99	22,153.20	67.99	213	58,289.92	178.89	0	0.00	22	16,055.58	49.27	6	42.11	0.13	0	0.00	0.00	2,222	202,950.87	622.83
A	Mtry Co. Monterey	253	13,161.75	40.39	10	1,096.99	3.37	4	27,654.90	84.87	1	0.00	5	7,446.85	22.85	0	0.00	0.00	0	0.00	0.00	272	49,360.49	151.48
C	MPCC DMF	2,010	100,222.20	307.57	10	773.73	2.37	61	23,882.21	73.29	1	0.00	4	258.35	0.79	0	0.00	0.00	1	0.00	0.00	2,087	125,136.49	384.03
D	Mtry Co. PB	733	90,136.76	276.62	15	2,841.27	8.72	63	28,024.60	86.00	1	0.00	2	204.49	0.63	5	1,897.75	5.82	0	0.00	0.00	819	123,104.87	377.79
G	Rancho Fiesta	23	2,012.07	6.17	0	0.00	0.00	0	0.00	0.00	0	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	23	2,012.07	6.17
H	Rancho Del Monte	415	26,988.79	82.83	15	1,470.65	4.51	4	330.52	1.01	0	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	434	28,789.96	88.35
J	PB - LCP	19	2,734.00	8.39	0	0.00	0.00	1	109.19	0.34	0	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	20	2,843.19	8.73
COUNTY TOTAL		9,370	555,284.10	1,704.10	331	66,381.03	203.72	682	194,175.22	595.90	3	0.00	54	53,267.93	163.47	20	4,342.19	13.33	4	390.82	1.20	10,463	873,841.29	2,681.72
	OTHER																							
F	Well Irrigation CV	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0	0.00	0.00	2	0.90	0.00	1	10.55	0.03	3	11.44	0.04
OTHER TOTAL		0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0	0.00	0.00	2	0.90	0.00	1	10.55	0.03	3	11.44	0.04
CV-SS-SCD TOTAL		32,308	1,424,720.50	0.00	1,725	429,082.61	1,316.81	4,109	771,497.77	2,367.64	3	0.00	505	212,471.32	652.05	85	9,614.79	0.01	6	448.57	1.38	38,740	2,847,835.55	8,739.69
E	Ryan Ranch	1	3.21	0.01	0	0.00	0.00	204	14,100.67	43.27	0	0.00	5	290.43	0.89	3	0.00	0.00	0	0.00	0.00	212	14,394.31	44.17
I	Hidden Hills	444	31,442.85	96.49	0	0.00	0.00	10	624.10	1.92	0	0.00	0	0.00	0.00	1	75.16	0.23	0	0.00	0.00	454	32,142.12	98.64
L	Bishop	318	25,750.64	79.03	0	0.00	0.00	55	9,459.29	29.03	0	0.00	0	0.00	0.00	12	30.89	0.09	0	0.00	0.00	385	35,240.82	108.15
RR-HH-Bishop Total		762	57,196.70	175.53	0	0.00	0.00	269	24,184.06	74.22	0	0.00	5	290.43	0.89	16	106.05	0.33	0	0.00	0.00	1,051	81,777.25	250.97
																					All Jurisdictions =			
																						39,791	2,929,612.80	8,990.65

CALIFORNIA AMERICAN WATER
MONTEREY DISTRICT
CUSTOMERS & CONSUMPTION BY POLITICAL JURISDICTION
1000 Gallons
Oct 2016 to Sep 2017

CITY CODE	JURISDICTION	RESIDENTIAL		MULTI-RES		COMM/ IND		GOLF COURSE		PUB AUTHORITY		OTHER		NON REVENUE		TOTAL	TOTAL	TOTAL
		CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	(1000 GAL)	(AF)
1	CITY Monterey	7,942	277,579.23	565	225,080.62	1,519	319,939.68	0	0.00	290	112,545.80	22	1,763.62	0	0.00	10,338	936,908.95	2,875.27
2	Pacific Grove	5,833	198,475.25	386	66,975.09	508	69,155.12	1	24,219.76	72	17,896.24	12	637.29	0	0.00	6,813	377,358.75	1,158.07
3	Carmel	2,810	106,452.87	152	10,343.02	374	60,795.57	0	0.00	49	3,459.68	2	200.25	0	0.00	3,386	181,251.39	556.24
4	Seaside	5,542	244,682.86	289	72,288.53	580	85,322.28	0	0.00	68	16,459.85	8	100.82	1	4.85	6,488	418,859.19	1,285.43
5	Del Rey Oaks	727	28,243.27	4	317.00	64	6,174.92	0	0.00	7	62.30	1	0.00	0	0.00	803	34,797.49	106.79
7	Sand City	98	3,453.49	7	2,391.33	243	18,807.64	0	0.00	3	126.49	4	607.28	0	0.00	355	25,386.23	77.91
CITY TOTAL		22,951	858,886.96	1,403	377,395.58	3,288	560,195.21	1	24,219.76	490	150,550.36	49	3,309.27	1	4.85	28,183	1,974,561.99	6,059.71
6	COUNTY Mtry Co. CV	1,355	74,461.10	100	15,492.06	125	18,059.67	0	0.00	5	12,434.11	5	493.60	3	377.57	1,593	121,318.10	372.31
8	In Crml San. Dist	2,681	135,774.49	82	22,783.26	182	31,085.23	0	0.00	16	10,552.69	2	1,180.34	0	0.00	2,963	201,376.00	618.00
9	Out Crml San. Dist	1,883	100,926.42	98	23,996.27	199	54,996.19	0	0.00	22	10,185.27	5	39.79	0	0.00	2,207	190,143.94	583.53
A	Mtry Co. Monterey	275	13,672.91	11	1,284.42	4	303.83	1	30,644.07	5	6,588.50	0	0.00	0	0.00	296	52,493.72	161.10
C	MPCC DMF	2,004	92,776.59	10	605.68	57	24,700.04	1	52.88	4	254.10	0	0.00	1	0.00	2,077	118,389.28	363.32
D	Mtry Co. PB	722	74,266.70	15	2,706.19	57	25,318.30	1	6.96	2	194.01	4	826.24	0	0.00	801	103,318.39	317.07
G	Rancho Fiesta	23	1,422.88	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	23	1,422.88	4.37
H	Rancho Del Monte	417	27,270.26	14	1,299.21	4	238.96	0	0.00	0	0.00	0	0.00	0	0.00	435	28,808.43	88.41
J	PB - LCP	20	2,763.32	0	0.00	1	63.06	0	0.00	0	0.00	0	0.00	0	0.00	21	2,826.38	8.67
COUNTY TOTAL		9,380	523,334.67	329	68,167.09	629	154,765.26	3	30,703.90	55	40,208.68	16	2,539.96	4	377.57	10,416	820,097.12	2,516.79
F	OTHER Well Irrigation CV	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	3.22	1	89.68	3	92.90	0.29
OTHER TOTAL		0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	3.22	1	89.68	3	92.90	0.29
CV-SS-SCD TOTAL		32,332	1,382,221.64	1,732	445,562.67	3,918	714,960.47	4	54,923.66	544	190,759.04	67	5,852.44	6	472.11	38,602	2,794,752.00	8,576.78
E	Ryan Ranch	0	0.00	0	0.00	179	16,265.54	0	0.00	5	283.93	2	0.00	0	0.00	185	16,549.47	50.79
I	Hidden Hills	442	31,168.23	0	0.00	8	53.85	0	0.00	0	0.00	1	71.66	0	0.00	451	31,293.73	96.04
L	Bishop	321	29,116.99	0	0.00	54	10,048.52	1	0.00	0	0.00	11	61.71	0	0.00	387	39,227.21	120.38
RR-HH-Bishop Total		763	60,285.21	0	0.00	241	26,367.91	1	0.00	5	283.93	14	133.37	0	0.00	1,023	87,070.42	267.21
All Jurisdictions =																39,625	2,881,822.42	8,843.99

Consumption by Political Jurisdiction
1000 Gallons
Water Years 2017, 2018, 2019 Combined

	<u>Monterey</u>	<u>Pacific Grove</u>	<u>Carmel-by-the-Sea</u>	<u>Seaside</u>	<u>Del Rey Oaks</u>	<u>Sand City</u>	<u>County</u>	TOTAL
Total	2,843,701.50	1,094,294.45	563,132.47	1,192,434.70	100,209.61	76,435.87	2,713,264.22	8,583,472.82
Percent of Total								
Residential	1,478,210.42	801,602.12	364,905.51	895,924.89	80,838.96	18,354.73	1,960,633.41	5,600,470.04
Percent of Total	17.2%	9.3%	4.3%	10.4%	0.9%	0.2%	22.8%	
Non-Residential	1,365,491.08	292,692.33	198,226.96	296,509.81	19,370.65	58,081.14	752,630.81	2,983,002.78
Percent of Total	15.9%	3.4%	2.3%	3.5%	0.2%	0.7%	8.8%	

Notes:

- 1) Source: Cal-Am Customers & Consumption by Political Jurisdiction annual reports
- 2) Residential includes "Residential" and "Multi-Res" categories
- 3) Non-Residential is Total minus Residential
- 4) Monterey includes Ryan Ranch
- 5) County includes Hidden Hills and Bishop

Allocation of Production
Based on 5-Year Average (2017-2021)
Water Years 2017, 2018, 2019 Combined

	<u>Monterey</u>	<u>Pacific Grove</u>	<u>Carmel-by-the-Sea</u>	<u>Seaside</u>	<u>Del Rey Oaks</u>	<u>Sand City</u>	<u>County</u>	TOTAL
Residential	1,674.80	908.21	413.43	1,015.08	91.59	20.80	2,221.38	6,345.28
Non-Residential	1,547.09	331.62	224.59	335.94	21.95	65.81	852.72	3,379.72

Notes: Based on 5-year average production of: 9,725 AF

**Water Required to Meet
AMBAG Regional Growth Forecast**

Water Required for Population Growth

	Monterey	Pacific Grove	Carmel-by-the-Sea	Seaside	Del Rey Oaks	Sand City	County	TOTAL
Population in 2020	28,170	15,265	3,949	33,537	1,662	385	8,916	91,884
Population in 2045	29,639	15,817	3,984	38,316	2,650	1,198	9,916	101,520
Increase	5.2%	3.6%	0.9%	14.2%	59.4%	211.2%	11.2%	10.5%
Acre-Feet in 2020	1,675	908	413	1,015	92	21	2,221	6,345
Acre-Feet by 2045	1,762	941	417	1,160	146	65	2,471	6,961
AF Served by Others	9	-	-	72	11	-	75	167
Net AF in 2045	1,753	941	417	1,087	135	65	2,396	6,795

Water Required for Employment Growth

	Monterey	Pacific Grove	Carmel-by-the-Sea	Seaside	Del Rey Oaks	Sand City	County	TOTAL
Jobs in 2020	40,989	8,016	3,566	10,476	748	2,092	4,300	70,187
Jobs in 2045	45,509	8,445	3,915	11,543	834	2,259	4,721	77,226
Increase	11.0%	5.4%	9.8%	10.2%	11.5%	8.0%	9.8%	10.0%
Non-Residential AF in 2020	1,547	332	225	336	22	66	853	3,380
Non-Residential AF in 2045	1,718	349	247	370	24	71	936	3,716
Increase	171	18	22	34	3	5	83	336

Attachment E



Frequently Asked Questions about RHNA

Topics:

- Regional Housing Needs Allocation (RHNA) Overview
- Regional Housing Needs Determination (RHND) from HCD
- RHNA Methodology
- ABAG Housing Methodology Committee
- Connections between RHNA and Plan Bay Area 2050
- RHNA Subregions
- RHNA and Local Jurisdictions

REGIONAL HOUSING NEEDS ALLOCATION (RHNA) OVERVIEW

What is RHNA?

Local housing is enshrined in state law as a matter of “vital statewide importance” and, since 1969, the State of California has required that all local governments (cities, towns and counties, also known as local jurisdictions) adequately plan to meet the housing needs of everyone in our communities. To meet this requirement, each city or county must develop a Housing Element as part of its General Plan (the local government’s long-range blueprint for growth) that shows how it will meet its community’s housing needs. There are many laws that govern this process, and collectively they are known as [Housing Element Law](#).

The Regional Housing Need Allocation (RHNA) process is the part of Housing Element Law used to determine how many new homes, and the affordability of those homes, each local government must plan for in its Housing Element. This process is repeated every eight years, and for this cycle the Bay Area is planning for the period from 2023 to 2031.

How does RHNA assist in addressing the Bay Area’s housing crisis?

The Bay Area’s housing affordability crisis is decades in the making. State law is designed to match housing supply with demand—particularly for affordable homes. Each new RHNA cycle presents new requirements to address dynamic housing markets, which in recent years have seen demand dramatically outstrip supply across all affordability levels.

RHNA provides a local government with a minimum number of new homes across all income levels for which it must plan in its Housing Element. The Housing Element must include sites zoned for enough capacity to meet the RHNA goals as well as policies and strategies to expand housing choices and increase housing affordability.

Who is responsible for RHNA?

Responsibility for completing RHNA is shared among state, regional, and local governments:

- The **role of the State** is to identify the total number of homes for which each region in California must plan in order to meet the housing needs of people across the full spectrum of income levels, from housing for very low-income households all the way to market rate housing. This is developed by the [California Department of Housing and Community Development \(HCD\)](#) and is known as the Regional Housing Need Determination (RHND).
- The **role of the region** is to allocate a share of the RHND to each local government in the region. As the Council of Governments (COG) for the nine-county Bay Area, the Association of Bay Area Governments (ABAG) is responsible for developing the methodology for sharing the RHND among all cities, towns, and counties in the region. ABAG does this in conjunction with a committee of elected officials, city and county staff, and stakeholders called [the Housing Methodology Committee \(HMC\)](#).
- The **role of local governments** is to participate in the development of the allocation methodology and to update their Housing Elements and local zoning to show how they will accommodate their share of the RHND, following the adoption of the RHNA methodology.

What are the steps in the RHNA process?



Conceptually, RHNA starts with the Regional Housing Needs Determination provided by HCD, which is the total number of housing units the Bay Area needs, by income group. The heart of ABAG's work on RHNA is developing the methodology to allocate a portion of housing needs to each city, town, and county in the region. ABAG has convened a [Housing Methodology Committee](#) made up of local elected officials and staff and stakeholders to advise staff on the proposed methodology that ABAG will release for public comment in fall 2020. Following that milestone, ABAG will then develop a draft methodology to send to HCD for its review in early 2021.

After ABAG adopts the final methodology in spring 2021, it is used to develop a draft allocation for every local government in the Bay Area. A local government or HCD can appeal any local government's allocation. After ABAG takes action on the appeals, it will issue the final allocation by the end of 2021. Local governments must update Housing Elements by January 2023, including identifying sites that are zoned with enough capacity to meet the RHNA allocation. ABAG's role in the RHNA process ends once it has allocated a share of the Regional Housing Needs Determination (RHND) to each local government in the Bay Area; HCD reviews and approves local Housing Elements.

What's the timeline for completing RHNA?

The RHNA process is currently underway and will be complete by the end of 2021. Local governments will then have until January 2023 to update their Housing Elements. The proposed timing for the key milestones in the RHNA process is shown below:

ABAG 2023-2031 RHNA and Plan Bay Area 2050 Key Milestones	Proposed Deadline
Housing Methodology Committee kick-off	October 2019
Subregions form	February 2020
HCD Regional Housing Needs Determination	Summer 2020
Proposed RHNA methodology, draft subregion shares	Fall 2020
Final subregion shares	December 2020
Draft RHNA methodology to HCD for review	Winter 2021
Final RHNA methodology, draft allocation	Spring 2021
RHNA appeals	Summer 2021
Final RHNA allocation	End of 2021
Housing Element due date	January 2023

This is the 6th cycle for RHNA. What's different this time?

Recent legislation will result in the following key changes for this RHNA cycle:

- It is expected there will be a higher total regional housing need. HCD's identification of the region's total housing needs has changed to account for unmet existing need, rather than only projected housing need. HCD now must consider overcrowded households, cost burdened households (those paying more than 30% of their income for housing), and a target vacancy rate for a healthy housing market (with a minimum of 5%).

- RHNA and local Housing Elements must affirmatively further fair housing. According to HCD, achieving this objective includes preventing segregation and poverty concentration as well as increasing access to areas of opportunity. HCD has mapped [Opportunity Areas](#) and has developed guidance for jurisdictions about [how to address affirmatively furthering fair housing in Housing Elements](#). As required by Housing Element Law, ABAG has surveyed local governments to understand [fair housing issues, strategies, and actions across the region](#).
- There will be greater HCD oversight of RHNA. ABAG and subregions must now submit the draft allocation methodology to HCD for review and comment. HCD can also appeal a jurisdiction's draft allocation.
- Identifying Housing Element sites for affordable units will be more challenging. There are new limits on the extent to which jurisdictions can reuse sites included in previous Housing Elements and increased scrutiny of small, large, and non-vacant sites when these sites are proposed to accommodate units for very low- and low-income households.

How can I be more involved in the RHNA process?

Public participation is encouraged throughout the RHNA process especially at public meetings and during official public comment periods following the release of discussion documents and board decisions. Visit the ABAG website to:

- Learn about the [Housing Methodology Committee](#)
- View [upcoming meetings](#)
- Sign up for the [RHNA mailing list](#)

Is ABAG's prior RHNA available to review?

Yes, you can find more information about the [2015-2023 RHNA](#) on the ABAG website. You can also view documents from the [2007-2014 RHNA](#) and [1999-2006 RHNA](#).

REGIONAL HOUSING NEEDS DETERMINATION (RHND) FROM HCD

What is the Regional Housing Needs Determination?

The California Department of Housing and Community Development (HCD) identifies the total number of homes for which each region in California must plan in order to meet the housing needs of people at all income levels. The total number of housing units from HCD is separated into four income categories that cover everything from housing for very low-income households all the way to market rate housing. ABAG is responsible for developing a methodology to allocate a portion of this housing need to every local government in the Bay Area.

The four income categories included in the RHND are:

- Very Low Income: 0-50% of Area Median Income
- Low Income: 50-80% of Area Median Income
- Moderate Income: 80-120% of Area Median Income
- Above Moderate Income: 120% or more of Area Median Income

What will the actual RHND and RHNA numbers look like this cycle?

Although we expect the RHND will be significantly higher than prior cycles, we do not have this information at this time. We will receive the RHND from HCD in summer 2020; the methodology which will determine each local government's share of housing needs is currently being developed and is slated for release in fall 2020.

As a point of reference for how much the RHND might increase, for the current (6th) cycle, the Sacramento region received a RHND approximately 1.3 times higher than the previous cycle, while the Los Angeles region received a RHND approximately 3 times higher than the previous cycle. For the 5th RHNA cycle, the Bay Area's RHND was 187,990.

How does HCD develop the RHND?

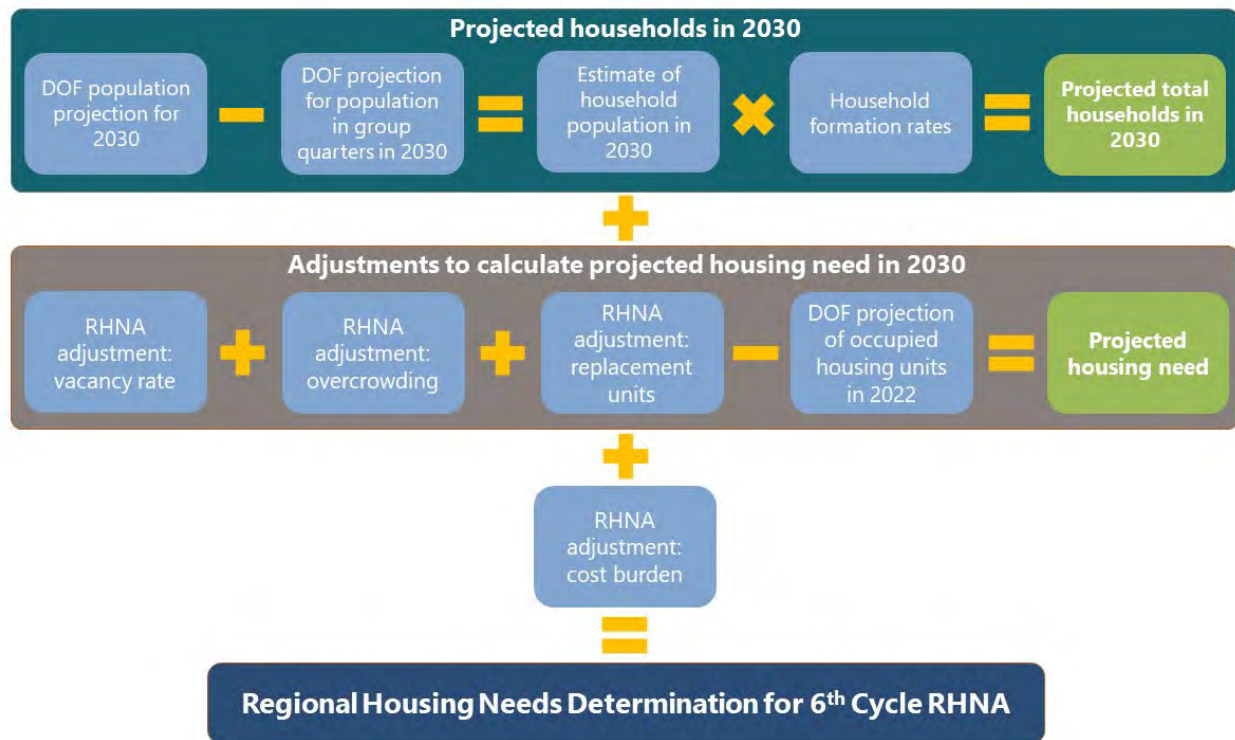
HCD is responsible for determining the number of housing units for which each region must plan, known as the Regional Housing Needs Determination (RHND). The RHND is based on a population forecast for the region from the California Department of Finance (DOF) and the application of specific adjustments to determine the total amount of housing needs for the region.

The adjustments are a result of recent legislation that sought to incorporate an estimate of existing housing need by applying factors related to:

- A target vacancy rate for a healthy housing market (defined as no less than 5 percent),
- The rate of overcrowding, which is defined as having more than one person per room in each room in a dwelling.
- The share of cost burdened households, which is defined as households paying more than 30% of household income on housing costs.

The RHNA process only considers the needs of the population in households who are housed in the regular housing market, and excludes the population living in group quarters, which are non-household dwellings, such as jails, nursing homes, dorms, and military barracks. HCD uses the age cohorts of the forecasted population to understand the rates at which people are expected to form households, which can vary for people at different stages of life. This results in the estimate of the total number of households that will need a housing unit in 2030 (which is the end date of the projection period for the Bay Area's RHNA cycle).

HCD Process for Identifying Regional Housing Needs Determination (RHND)



The total number of projected households is then adjusted using the factors related to vacancy rate, overcrowding, and an estimate of the need for replacement housing for units that were demolished or lost. This results in a forecast of the number of housing units that will be needed to house all households in the region in 2031. The number of existing occupied housing units is subtracted from the total number of housing units needed, which results in the number of additional housing units necessary to meet the housing need. The final step is an adjustment related to cost-burdened households, which results in the RHND for the region.

RHNA METHODOLOGY

What is the RHNA methodology?

At its core, RHNA is about connecting regional housing needs with the local planning process and ensuring local Housing Elements work together to address regional housing challenges. Working with the [Housing Methodology Committee](#), ABAG develops a methodology, or formula, that shares responsibility for accommodating the Bay Area's Regional Housing Needs Determination (RHND) by quantifying the number of housing units, separated into four income categories, that will be assigned to each city, town, and county to incorporate into its Housing Element.

The four income categories included in the RHND are:

- Very Low Income: 0-50% of Area Median Income
- Low Income: 50-80% of Area Median Income

- Moderate Income: 80-120% of Area Median Income
- Above Moderate Income: 120% or more of Area Median Income

The allocation formula is made up of factors that use data for each jurisdiction in the region to determine each jurisdiction's share of the total housing need. The allocation formula assigns units based on relative relationships between jurisdictions within the region. For example, if there is a factor to allocate units based on access to jobs, then a jurisdiction with many jobs will be allocated more units and a jurisdiction with fewer jobs will be allocated fewer units.

What are the objectives and factors that must be considered in the RHNA methodology?

The RHNA objectives provide the guiding framework for how ABAG must develop the methodology. ABAG is required to demonstrate how its methodology furthers each of the objectives. The RHNA factors include a longer list of considerations that must be incorporated into the methodology to the extent that sufficient data is available.

Summary of RHNA objectives [from [Government Code §65584\(d\)](#)]:

1. Increase housing supply and mix of housing types, with the goal of improving housing affordability and equity in all cities and counties within the region.
2. Promote infill development and socioeconomic equity; protect environmental and agricultural resources; encourage efficient development patterns; and achieve greenhouse gas reduction targets.
3. Improve intra-regional jobs-to-housing relationship, including the balance between low-wage jobs and affordable housing units for low-wage workers in each jurisdiction.
4. Balance disproportionate household income distributions (more high-income allocation to lower-income areas, and vice-versa)
5. Affirmatively further fair housing

Summary of RHNA factors [from [Government Code §65584.04\(d\)](#)]:

1. Existing and projected jobs and housing relationship, particularly low-wage jobs and affordable housing
2. Lack of capacity for sewer or water service due to decisions outside a jurisdiction's control
3. The availability of land suitable for urban development
4. Lands protected from urban development under existing federal or state programs
5. County policies to preserve prime agricultural land

6. The distribution of household growth assumed for regional transportation plans and opportunities to maximize use of public transportation and existing transportation infrastructure
7. Agreements between a county and cities in a county to direct growth toward incorporated areas of the county
8. The loss of units in assisted housing developments as a result of expiring affordability contracts.
9. The percentage of existing households paying more than 30 percent and more than 50 percent of their income in rent
10. The rate of overcrowding
11. The housing needs of farmworkers
12. The housing needs generated by the presence of a university within the jurisdiction
13. The housing needs of individuals and families experiencing homelessness
14. The loss of units during a state of emergency that have yet to be rebuilt or replaced at the time of the analysis
15. The region's greenhouse gas emissions targets provided by the State Air Resources Board

What does it mean to “affirmatively further fair housing”?

For the 2023-2031 RHNA, recent legislation added a new objective that requires the RHNA plan to “affirmatively further fair housing.” According to [Government Code Section 65584\(e\)](#), this means:

“Taking meaningful actions, in addition to combating discrimination, that overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity based on protected characteristics. Specifically, affirmatively furthering fair housing means taking meaningful actions that, taken together, address significant disparities in housing needs and in access to opportunity, replacing segregated living patterns with truly integrated and balanced living patterns, transforming racially and ethnically concentrated areas of poverty into areas of opportunity, and fostering and maintaining compliance with civil rights and fair housing laws.”

In addition to this requirement for promoting fair housing as an outcome for RHNA, statutes required ABAG to collect information about [fair housing issues, strategies, and actions](#) in its survey of local jurisdictions about data to inform the development of the RHNA allocation methodology.

Lastly, a local jurisdiction's Housing Element must also affirmatively further fair housing and include a program that establishes goals and actions to do so. HCD has developed guidance for jurisdictions about [how to address affirmatively furthering fair housing in Housing Elements](#).

Does RHNA dictate how local governments meet their communities' housing needs or where new housing goes within a given city or town?

It is important to note the primary role of the RHNA methodology is to encourage a pattern of housing growth for the Bay Area. The final result of the RHNA process is the allocation of housing units by income category to each jurisdiction. It is in the local Housing Element that decisions about where future housing units could be located and the policies and strategies for addressing a community's specific housing needs are made. Local governments will include strategies related to issues such as addressing homelessness, meeting the needs of specific populations, affirmatively furthering fair housing, or minimizing displacement when they develop their Housing Elements. Although the RHNA methodology may include factors that conceptually assign housing to a particular geography, such as near a transit stop or in proximity to jobs, the resulting allocation from ABAG goes to the jurisdiction as a whole. It is up to local governments to use their Housing Elements to select the specific sites that will be zoned for housing.

The following table distinguishes between the narrow scope of RHNA and the broader requirements for jurisdictions' Housing Elements:

RHNA	LOCAL HOUSING ELEMENTS
Determines how many new homes each local jurisdiction must plan for in its Housing Element.	Includes goals, policies, quantified objectives, financial resources, and constraints for the preservation, improvement, and development of housing for all income levels.
Housing allocation is for an entire jurisdiction – housing is not allocated to specific sites or geographies within a jurisdiction.	Identifies sites for housing and provides an inventory of land suitable and available for residential development, including vacant sites and sites having potential for redevelopment.
A jurisdiction's housing allocation is divided across four income groups: very low-, low-, moderate-, and above moderate-income.	Analyzes special housing needs, such as those of the elderly; persons with disabilities, including a developmental disability; large families; farmworkers; families with female heads of households; and families and persons in need of emergency shelter.
Beyond allocation of housing units by income group, does not address housing needs of specific population groups nor include policy recommendations for addressing those needs.	Must demonstrate local efforts to remove governmental and nongovernmental constraints that hinder locality from meeting the need for housing for persons with disabilities, supportive housing, transitional housing, and emergency shelters.
	Analyzes existing affordable units at risk of converting to market-rate due to expiring subsidies or affordability contracts.
	Assesses existing fair housing issues and strategies for affirmatively furthering fair housing.

ABAG HOUSING METHODOLOGY COMMITTEE

What is the Housing Methodology Committee?

For the past several RHNA cycles, ABAG has convened an ad-hoc [Housing Methodology Committee \(HMC\)](#) to advise ABAG staff on the RHNA allocation methodology. The HMC for the 6th Cycle was convened in October 2019. The HMC is comprised of local elected officials and staff from every county in the Bay Area as well as stakeholder representatives selected by ABAG staff from a diverse applicant pool:

- 9 local government elected officials (one from each Bay Area county)
- 12 local government housing or planning staff (at least one from every county)
- 16 regional stakeholders representing diverse perspectives, from equity and open space to public health and public transit
- 1 partner from state government

View the HMC roster at https://abag.ca.gov/sites/default/files/hmc_roster_january_2020.pdf.

Why is the Housing Methodology Committee important?

ABAG's Housing Methodology Committee approach stands out compared to most other large Councils of Governments, going beyond the legal requirements by convening a forum where local elected officials, local government staff, stakeholder representatives, and the public can talk about the process together to inform the housing methodology.

The Housing Methodology Committee and its large stakeholder network is a key part of ABAG's approach to creating the RHNA allocation methodology. Through the HMC, ABAG staff seek to facilitate dialogue and information-sharing among local government representatives and stakeholders from across the Bay Area with crucial expertise to enable coordinated action to address the Bay Area's housing crisis. As ABAG strives to advance equity and affirmatively further fair housing, the agency seeks to ensure that a breadth of voices is included in the methodology process.

CONNECTIONS BETWEEN RHNA AND PLAN BAY AREA 2050

How are RHNA and Plan Bay Area 2050 related?

[Plan Bay Area 2050](#) is the Bay Area's next long-range regional plan for transportation, housing, the economy, and the environment, focused on resilient and equitable strategies for the next 30 years. Anticipated to be adopted in fall 2021, Plan Bay Area 2050 will establish a blueprint for future growth and infrastructure. Plan Bay Area 2050 must meet or exceed a wide range of federal and state requirements, including a per-capita greenhouse gas reduction target of 19 percent by 2035. Upon adoption by MTC and ABAG, it will serve as the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the San Francisco Bay Area.

By law, the RHNA Plan is required to be consistent with the development pattern from Plan Bay Area 2050. These two planning processes seek to address the Bay Area's housing needs over different time horizons: Plan Bay Area 2050 has a planning horizon of 2050, while the 6th cycle of RHNA addresses the need to address short-term housing needs, from 2023 to 2031. To achieve the required consistency, both the overall housing growth for the region, as well as housing growth for each jurisdiction, must be greater in the long-range plan than over the eight-year RHNA cycle.

Is Plan Bay Area 2050 used as part of the RHNA process?

In past RHNA cycles, ABAG used its long-range housing, population, and job forecast as an input into the RHNA methodology. However, this approach is not required by Housing Element Law. For the 6th cycle of RHNA, the [Housing Methodology Committee \(HMC\)](#) is still considering whether or not to incorporate data from the Plan Bay Area 2050 Blueprint into the RHNA methodology. Some of the options the HMC has discussed are:

1. Using the forecasted development pattern from the Blueprint as a baseline input into the RHNA methodology
2. Using a hybrid approach that uses the forecasted development pattern from the Blueprint along with additional factors to represent policy goals that are underrepresented in the Blueprint to direct RHNA allocations
3. Not using forecasted data from the Blueprint, but include factors that align with the policies and strategies in the Blueprint to direct RHNA allocations.

HMC members expressed interest and some concerns in considering use of the Plan in the methodology. While the strategies integrated into the Draft Blueprint were adopted in February 2020, the HMC is awaiting further details on the outputs of the Draft Blueprint modeling, which are anticipated in summer 2020. At that time, they will make a determination on if and how to integrate the Plan Bay Area 2050 Blueprint into the RHNA methodology. If not, they may need to adjust factors and weights to achieve consistency under Option 3 above.

RHNA SUBREGIONS

What is a subregion?

Housing Element Law allows two or more jurisdictions to form a "subregion" to conduct a parallel RHNA process to allocate the subregion's housing need among its members. The subregion process allows for greater collaboration among jurisdictions, potentially enabling RHNA allocations that are more tailored to the local context as well as greater coordination of local housing policy implementation. A subregion is responsible for conducting its own RHNA process that meets all of the statutory requirements related to process and outcomes, including developing its own RHNA methodology, allocating a share of need to each member jurisdiction,

and conducting its own appeals process. The subregion's final allocation must meet the same requirements as the regional allocation: it must further the statutory objectives, have considered the statutory factors, and be consistent with the development pattern of the SCS.

What subregions have formed for the 6th Cycle of RHNA in the Bay Area?

ABAG has received notification of formation of two subregions:

1. **Napa County:** includes City of American Canyon, City of Napa, Town of Yountville, and the County of Napa (*does not include City of Calistoga or City of St. Helena*)
2. **Solano County:** includes City of Benicia, City of Dixon, City of Fairfield, City of Rio Vista, City of Suisun City, City of Vacaville, City of Vallejo, and County of Solano

Can a jurisdiction withdraw from a subregion?

Consistent with ABAG's approach for previous RHNA cycles, a jurisdiction may withdraw from a subregion without causing the dissolution of the entire subregion. If a jurisdiction withdraws from the subregion, the subregion's share of housing needs will be reduced by the number of units the withdrawing jurisdiction would receive from the most current version of ABAG's methodology available at the time when the jurisdiction decides to withdraw. The withdrawing member will then become part of the region's RHNA process, and it would receive its allocation based on the methodology adopted by ABAG.

RHNA AND LOCAL JURISDICTIONS

How are local jurisdictions involved in RHNA? Do they help create the housing methodology?

Elected officials and staff from each county are on the [Housing Methodology Committee \(HMC\)](#) to represent the jurisdictions in that county. The HMC will make recommendations about the allocation methodology to the [ABAG Regional Planning Committee \(RPC\)](#), and the RPC will make recommendations to the [ABAG Executive Board](#), which will take action at key points in the RHNA process. Local governments will have the opportunity to comment on the proposed and draft methodology, both in written comments and at public meetings. There will also be an opportunity for local governments to file appeals on the draft allocations.

How does RHNA impact local jurisdictions' general plans? What is a Housing Element?

California's [Housing Element Law](#) states that "designating and maintaining a supply of land and adequate sites suitable, feasible, and available for the development of housing sufficient to meet the locality's housing need for all income levels is essential to achieving the state's housing goals." Once a city, town or county receives its RHNA allocation, it must then update the Housing Element of its general plan and zoning to demonstrate how it will accommodate all of the units assigned for each income category. General plans serve as a local government's blueprint for how the city, town or county will grow and develop. There are seven elements that

all jurisdictions are required to include in the General Plan: land use, transportation, conservation, noise, open space, safety, and housing.

What agency is responsible for the certification of Housing Elements?

ABAG's role in the RHNA process ends once it has allocated a share of the Regional Housing Needs Determination (RHND) to each local government in the Bay Area. The [California Department of Housing and Community Development](#) (HCD) reviews and approves Housing Elements and is responsible for all other aspects of [enforcing Housing Element Law](#).

Is there any funding and technical assistance available to assist local jurisdictions in creating their Housing Elements?

In the 2019-20 Budget Act, Governor Gavin Newsom allocated \$250 million for all regions, cities, and counties to do their part by prioritizing planning activities that accelerate housing production to meet identified needs of every community. With this allocation, HCD established the [Local Early Action Planning Grant Program \(LEAP\)](#) with approximately \$25.6 million expected to come to cities and counties in the Bay Area and the [Regional Early Action Planning Grant Program \(REAP\)](#) with \$23.9 million expected to come to ABAG. The LEAP program augments HCD's [SB2 Planning Grants](#) which have provided approximately \$24 million in funding to localities in the Bay Area. ABAG is currently designing its REAP program to provide in-depth technical assistance to localities.

Some individuals in the Bay Area view their jurisdictions as "built out." How might communities with little to no vacant land meet their respective housing allocations?

Large and small communities throughout the Bay Area have successfully identified under-utilized, infill sites for housing development. In past RHNA cycles, numerous Bay Area communities were able to meet their housing allocation exclusively through the identification of infill sites to provide for future housing needs. Encouraging the development of Accessory Dwelling Units (ADUs) is another strategy many Bay Area communities have used to add more housing choices for residents.

Will my jurisdiction be penalized if we do not plan for enough housing?

State [Housing Element Law](#) requires that jurisdictions plan for all types of housing based on the allocations they receive from the RHNA process. The state requires this planning, in the form of having a compliant housing element, and submitting housing element annual progress reports, as a threshold or points-related requirement for certain funding programs (SB 1 Sustainable Community Planning Grants, SB 2 Planning Grants and Permanent Local Housing Allocation, etc.). Late submittal of a housing element can result in a jurisdiction being required to submit a four-year update to their housing element.

HCD [may refer jurisdictions to the Attorney General](#) if they do not have a compliant housing element, fail to comply with their HCD-approved housing element, or violate housing element

law, the housing accountability act, density bonus law, no net loss law, or land use discrimination law. The consequences of those cases brought by the Attorney General are up to the courts, but can include financial penalties.

In addition, as the housing element is one of the required components of the general plan, a jurisdiction without a compliant housing element, may risk legal challenges to their general plan from interested parties outside of HCD.

Local governments must also implement their commitments from the housing element, and the statute has several consequences for the lack of implementation. For example, failure to rezone in a timely manner may impact a local government's land use authority and result in a carryover of RHNA to the next cycle. Failure to implement programs can also influence future housing element updates and requirements, such as program timing. HCD may investigate any action or lack of action in the housing element.

Will my jurisdiction be penalized if we do not build enough housing?

For [jurisdictions that did not issue permits for enough housing](#) to keep pace consistent with RHNA building goals, a developer can elect to use a ministerial process to get project approval for residential projects that meet certain conditions. This, in effect, makes it easier to build housing in places that are not on target to meet their building goals.

GLOSSARY OF ACRONYMS

ABAG - Association of Bay Area Governments

AMI – Area Median Income

DOF - California Department of Finance

HCD - California Department of Housing and Community Development

HMC - Housing Methodology Committee

MTC - Metropolitan Transportation Commission

RHNA - Regional Housing Need Allocation

RHND - Regional Housing Need Determination

RTP/SCS - Regional Transportation Plan/Sustainable Communities Strategy

TCAC - California Tax Credit Allocation Committee

Santa Monica: Regional Housing Needs Allocation

What is the RHNA?

The State of California, as part of the State Housing Law, sets a targeted number of housing units that each regional council of governments in California must plan for. This targeted housing number known as the Regional Housing Needs Allocation, or RHNA, is updated every 8 years and is further divided amongst individual cities and counties by the regional council of governments.

How will the RHNA impact Santa Monica?

The Southern California Association of Governments (SCAG) serves as the regional council of governments for Southern California and is responsible for allocating the RHNA numbers between six counties and 191 cities, including the City of Santa Monica. This year, the regional allocation for Southern California is significantly larger than it has been in past years, in recognition of the severity of the State's housing crisis. SCAG developed a methodology for splitting up the regional allocation, which is based on numerous factors such as the past, present, and future demand for housing, access to jobs, quality of transit, among other factors. To read more about the methodology, visit [SCAG's website](#).

It is important to recognize that the RHNA is a targeted housing number - Cities and counties do not have to build this number of units, but rather they are required by the state to plan for them and demonstrate that under the current land use and development standards, there is capacity to accommodate for this number of housing units. However, if a jurisdiction fails to demonstrate that they can accommodate their RHNA, it can result in the loss of local control and important funding resources.

For the RHNA cycle planning period of October 2021 through October 2029, the Southern California region received an allocation of 1.3 million units. That means that the State is requiring cities within Southern California to demonstrate that they can plan for and have the capacity to build up to 1.3 million new housing units over the next 8 years. For this 6th Cycle of the RHNA, Santa Monica has received an allocation of 8,874 new housing units, of which about 70% must be for lower income households.



City Council

Don Tatzin, Mayor
 Brandt Andersson, Vice Mayor
 Mike Anderson
 Mark Mitchell
 Traci Reilly

THE CITY OF LAFAYETTE'S HOUSING ELEMENT FREQUENTLY ASKED QUESTIONS

What is the Housing Element?

The Housing Element is a chapter of Lafayette's General Plan. Every City in California must have a Housing Element, and this is the only part of the General Plan that must be regularly reviewed and approved by the State. Housing Elements are usually updated every five to eight years. Lafayette's current Housing Element covers the period from 2007 to 2014, and the updated Element will cover the period from 2014 to 2022.

What does it contain?

The Housing Element contains information on the housing needs of the community, including the needs of lower-income households and people with special needs, such as homeless persons, seniors, and people with disabilities. Some of these needs are determined by the state-mandated Regional Housing Needs Allocation (see below). In addition, the Element provides a detailed explanation of how the jurisdiction addresses the needs of the community based on existing and future housing needs. Lastly, it contains an inventory of sites within the community that could accommodate the RHNA allocation of affordable housing if they were developed.

What is the Regional Housing Needs Allocation (RHNA)?

The RHNA (pronounced REE-NAH) is an allocation of the State's projected housing needs to accommodate various income categories over the 8-year cycle of the Housing Element. The Association of Bay Area Governments (ABAG) receives a bulk allocation for the region from the State, and ABAG then assigns a portion of this regional allocation to each jurisdiction in the nine-county Bay Area, based on a complex model of job and population growth. The essential requirement of RHNA is that all jurisdictions need to demonstrate that its planning documents have enough land zoned at appropriate densities to allow the development of the housing needed to meet their allocation.

What is the City of Lafayette's RHNA allocation?

Lafayette's total RHNA allocation for the current period (2007-2014) is 361 units, and for the next period (2014-2022) is 400 units. The 2014-2022 allocation was reduced as a result of a successful protest by Lafayette of their initial figures. The following illustrates the 2014-2022 allocation, broken down along various income categories. ABAG adopted a policy that allocated a greater share of affordable housing to those communities, including Lafayette, that have a less than average share of affordable housing currently, and a smaller share of affordable housing to those communities that currently accommodate much affordable housing.

Total Projected Need	Very Low	Low	Mod	Above Mod	Average Yearly Need
400	138	78	85	99	57
	34.5%	19.5%	21.3%	24.8%	

Is the City required to make sure these units are built?

No, the RHNA allocation is not a prescription to build any units. And, the City itself does not build units; private developers do. The City is only required to show that there is enough land zoned at appropriate densities to accommodate this need, should a developer want to build these units. In addition, the City must demonstrate that its codes and requirements do not unduly constrain the building of housing (for example, it needs to show that housing can be built "as-of-right" in some zones, without requiring a land use permit).

Does the inventory of sites mean these sites can only be used for housing?

No. The City is only required to show sites that could be used for housing, but the actual use of the sites is always a decision made by the owners. However, if a site in the inventory is developed with a completely non-housing use during the eight-year cycle of the Housing Element, the City is required to replace that site with another to ensure that the inventory's capacity is maintained.

Does the City have enough land in the inventory to meet its RHNA allocation?

Yes, the City has prepared a draft inventory of sites which shows there is enough land to meet its RHNA allocation. While the inventory may change as a result of the public process, the City is required to ensure that it will meet its RHNA allocation during the eight-year cycle of the Housing Element.

Is there a minimum zoning density that the City must allow? What determines the minimum?

The State sets standards to ensure that densities are high enough to allow affordable housing to be built. As a suburban community, the State has set this default density at 20 units per acre. Although Lafayette can, and does, have lower densities, the State requires zoning for multifamily housing to be at least 20 units per acre. When a city's population reaches 25,000 people then the minimum default density increases to 30 units per acre. Lafayette's 2010 census population was just under 24,000. Lafayette's General Plan establishes the housing density at 35 units per acre in the downtown and in multifamily zoning districts. The City may consider lowering the housing densities, which will be a topic of discussion during the community meetings.

What is a Density Bonus?

A density bonus is a provision of State law and allows a developer to ask for and receive additional housing density (beyond what is allowed by the City's current zoning) in prescribed amounts, in return for providing affordable housing or senior housing within their developments. Even if the City does not adopt its own Density Bonus ordinance, it is still required to comply with the provisions of the State's Density Bonus law, which includes:

- Granting a sliding scale of market-rate density bonus percentages (20%-35%) based on the amount percentage of proposed affordable units;
- Providing up to three development concessions or incentives, depending on the percentage of affordable units provided;
- Granting a density bonus if a developer donates land for very low income housing; and
- Requiring jurisdictions to implement Density Bonus law through local codes.

Why is the City considering a Density Bonus ordinance?

Several years ago, the City decided not to adopt a Density Bonus ordinance but rather issued guidelines for compliance with the State's Density Bonus law. However, the State is now offering to do a streamlined review of the city's Housing Element, if a Density Bonus ordinance is adopted before the City submits its draft Housing Element to the State. It is expected that the streamlined review will result in a significantly shorter review period by the State, since it will only review those parts of the Element that have changed since the last Element was certified.

What happens if the City elects to resign its membership from ABAG?

In terms of the Housing Element, nothing would change. The City would still receive a RHNA allocation and be required by State law to complete the Housing Element, and have it certified by the State, regardless of its participation in ABAG. Further, continuing to participate in ABAG means that the City can have meaningful input on the RHNA allocation process and other programs conducted by ABAG.

Does having a Priority Development Area (PDA) affect the RHNA allocation?

A City's PDA status alone does not have a direct relationship to the allocation of Regional Housing Needs by ABAG. A determining factor on where growth will occur is based on where there are transit nodes; in the case of Lafayette, the RHNA allocation is partially tied to the existence of the BART station. In addition, one of the criteria for becoming a PDA is proximity to transit nodes, so the BART station was a significant reason the PDA was approved for Lafayette.

What happens if the City does not complete the Housing Element, or fails to receive certification from the State?

Successful certification of the Housing Element is directly tied to whether or not a jurisdiction is eligible to receive certain kinds of funding, including some transportation funds. Additionally, not having a certified Element puts a jurisdiction at risk of lawsuits from developers. Courts have required cities without approved Housing Elements to allow housing "as-of-right", without any discretionary review by the City until the Housing Element is certified, including in single-family zones.

What is the City doing to garner public comment and input on the Housing Element?

The City is holding three community meetings at which residents can ask questions and provide input as the Housing Element is being developed. In addition, there will be opportunities for community input before the Planning Commission and the City Council, both during the draft review of the Housing Element (prior to initial comments from the State), as well as during the final review before the Housing Element is adopted. The following is a tentative schedule for these meetings:

1. Wednesday, April 30th – Introduction to the Housing Element
2. Tuesday, May 13th – Housing Sites Inventory, Density Bonus Ordinance, and Density Adjustments
3. Wednesday, May 28th – Policies and Programs

When does the Housing Element have to be submitted to the State?

The Housing Element must be adopted by the City prior to submission of the final document in January 2015. As noted above, the City expects to adopt the Element in December 2014.

How can I find out more about this?

The City has more information on its website at www.lovelafayette.org/HE or you can contact planning staff:

[Niroop K. Srivatsa](#) at (925) 299-3206 • [Lindy Chan](#) at (925) 299-3202 • [Greg Wolff](#) at (925) 299-3204

Lafayette California: Overview

Since 1969, the State of California has required that all local governments adequately plan to meet the housing needs of everyone in our communities. To meet this requirement, each city or county must develop a Housing Element as part of its General Plan (the local government's long-range blueprint for growth) that shows how it will meet its community's housing needs. There are many laws that govern this process, and collectively they are known as [Housing Element Law](#).

The Regional Housing Need Allocation (RHNA) process is the part of Housing Element Law used to determine how many new homes, and the affordability of those homes, each local government must plan for in its Housing Element. This process is repeated every eight years, and for this cycle the Bay Area is planning for the period from 2023 to 2031.

Working with the State Department of Finance, the CA Department of Housing and Community Development (HCD) assigns future housing and population growth projections in eight-year cycles to every Council of Government in the State (in our case, the Association of Bay Area Governments, or ABAG). ABAG then assigns a number of units to each member jurisdiction, like Lafayette, San Francisco, Hayward, etc., which must ensure that there is enough land zoned at appropriate densities to accommodate the assigned RHNA. The RHNA number includes a distribution of units to be provided across the four income categories discussed above.

Some key takeaways about RHNA

We are *planning* for housing, not building it.

The free market will determine if and when the required units are actually developed. Lafayette does not develop housing and no one will be forced to sell their property or build housing.

If we are planning for housing, how should we plan for it and where should it be located? The allocation has been provided by the state and regional governments, while there is an appeal process, we don't know the outcome of the appeal. To be prepared, we must develop a compliant plan for how we want to handle our allocation. The Housing Element update process is your opportunity to decide where the housing should go.



June 2, 2022

Heather Adamson, AICP
AMBAG Director of Planning
24580 Silver Cloud Court
Monterey, CA 93940

sent USPS standard, certified mail, email

RE: Draft 6th Cycle RHNA Plan and Sand City Allotment

Dear Ms. Adamson:

This correspondence is in response to the Draft 6th Cycle (2023-2031) RHNA Plan and the allotment of 260 units in this cycle of the RHNA allocation to the City of Sand City. According to the Department of Finance, the City has a 2022 estimated population of 372 persons. There are approximately 184 dwelling units within the City (8 of which are currently under construction). Requiring a RHNA allocation of 260 that is approximately 141% of the existing number of all existing residential units in the City is patently unreasonable. The allocation to Sand City fails to meet the requirement of Cal. Gov. Code section 65584(d)(1) that the RHNA plan allocates in a manner that is equitable within the region. By comparison, if applied to the City of Monterey, the allocation to Sand City would be equivalent to allocating approximately 42,600 units to the City of Monterey based on its population of approximately 30,218 residents. Instead, your allocation in the draft plan allocates 3,654 units to the City of Monterey.

In addition, the allocation to Sand City ignores additional factors that the methodology requires be observed. For example, you are required to consider "the availability of land suitable for urban development or for conversion to residential use, the availability of underutilized land, and opportunities for infill development and increased residential densities..." and "land preserved or protected from urban development under federal or state programs, or both, designed to protect open space... environmental habitats..." (AMBAG Draft 6th Cycle RHNA Plan, April 2022, page 20); Cal Gov. code section 65584(d)(2). Sand City is small in land area (approximately 347 acres), landlocked between other jurisdictions and the Monterey Bay, with development within constrained by the presence of environmentally sensitive species and habitat protected and regulated by both the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. About half of the City is located west of the Highway 1 freeway

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Police
(831) 394-1451

FAX
(831) 394-1038

Incorporated
May 31, 1960

corridor within an appealable Coastal Zone overlay regulated by the City's Local Coastal Plan (LCP); yet subject to appeal to the California Coastal Commission (CCC). The CCC has previously imposed strict limits on coastal development in Sand City due to the Coastal Act's prioritization of public access, coastal recreation, and the preservation of sensitive coastal habitat over that of residential land use.

In addition, a majority of the City has already been re-zoned to either High Density Residential (R-3) or Planned Mixed Use, both enabling high density and multifamily residential development, consistent with Government Code Section 65584(d)(2) for infill and equitable housing opportunities and Government Code Section 65584(d)(3) for an improved relationship between jobs and housing. There are almost no other practical opportunities for re-zoning to accommodate additional residences without impacting the City's primary revenue source, its regional shopping centers.

The City understands the State-wide need for affordable housing and job/housing balance. However, in light of the above constraints and efforts already implemented by the City, it is inconceivable how the City could meet the goals of the current RHNA allocation. The City of Sand City requests AMBAG lower Sand City's allotment to a number that is actually achievable in light of its small size and noted constraints.

Sincerely,



Vibeke Norgaard
City Manager

cc: Mary Ann Carbone, Mayor
Sand City Council Members
Adam Lindgren, City Attorney
Charles Pooler, City Planner

NEWS > HOUSING

Pacific Grove to hold housing element update workshop



Pacific Grove City Hall. (James Herrera/Monterey Herald)

By **TESS KENNY** | tkenny@montereyherald.com | Monterey Herald

PUBLISHED: July 22, 2022 at 2:43 p.m. | UPDATED: July 22, 2022 at 2:44 p.m.



PACIFIC GROVE — Amid lofty state goals to expand housing over the next decade

The workshop, set for Monday from 6-8 p.m. at the Pacific Grove Community Center, will provide an update on the city's housing element, a state-required blueprint for how a locality's current and projected lodging needs can be satisfied. Housing elements are adjusted every eight years, as goals are realigned with present-day demands through a periodic process called the Regional Housing Needs Assessment, or RHNA.

Districts throughout the state are currently working through the latest housing element update. Local jurisdictions as part of the Association of Monterey Bay Area Governments will need to submit their revamped plans by December 2023. Though the process doesn't obligate local governments to build or approve new housing, it does mandate that they demonstrate appropriate zoning, development regulations and policies to support homebuilding goals.

In Pacific Grove, expectations are ambitious. Per the Regional Needs Allocation for 2023 to 2031, the city has been tasked with planning for a 14% jump in housing, an addition of 1,125 units that will necessitate not only rezoning but also changes to a general plan not touched since 1994.

"When I first saw (the allocation), like everyone, I thought it was a lot of units to plan for," said Anastacia Wyatt, Pacific Grove community development director. "I think we can feasibly plan for it, and we will do our best."

Wyatt said that with the scope and scale of rezoning that will be necessary to achieve a certified housing element, community engagement and input is particularly important. Hearing what residents need, she continued, will allow the city to reconcile citizen concerns and wants with whatever zoning and general plan changes are to come. Doing so will also help the city take an equitable approach to future homebuilding.

"I think equity is really critical. ... This is an opportunity to look at our community and think about what we want for the future," said Wyatt.

Pacific Grove Councilwoman Jenny McAdams reiterated Wyatt's optimism under a new housing element, even if she doesn't think the city will actually see the 14% increase in units by 2031.

"Do I think Pacific Grove will really build all (1,125 units)? No, but we're putting a policy in place that is supportive of additional housing," said Adams. "Our staff's job is to show that the city in good faith is implementing policing, zoning or incentives to



For more information about Pacific Grove's Housing Element Update Workshop on Monday, go to

https://www.cityofpacificgrove.org/our_city/departments/community_development/housing/index.php.


Tags: **Newsletter**



Tess Kenny

Tess Kenny covers education and events across Monterey County. She recently graduated from UC Santa Barbara with a bachelor's in communication and political science.

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 Follow Tess Kenny @TessKenny12



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WellnessGuide101.com

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Attachment F

Evaluation of Water Supply Available versus Water Demand
Cal-Am Main Service Area

Supply Available									Demand		Supply vs Demand	
Year	Pure Water (Base)	Pure Water Expansion	Carmel River	Seaside Basin	ASR	Sand City Desal	Malpaso	Total Available Supply	Base Case Water Demand	Base Case Demand Plus Forecast Error =	Supply over Base Case Demand	Supply over Base Case Demand + 25% Error
										25%		
2025	3,500	2,250	3,376	774	1,300	210	58	11,468	9,882	9,882	1,586	1,586
2026	3,500	2,250	3,376	774	1,300	210	58	11,468	9,913	9,921	1,555	1,547
2027	3,500	2,250	3,376	774	1,300	210	58	11,468	9,945	9,961	1,523	1,507
2028	3,500	2,250	3,376	774	1,300	210	58	11,468	9,976	10,000	1,492	1,468
2029	3,500	2,250	3,376	774	1,300	210	58	11,468	10,008	10,039	1,460	1,429
2030	3,500	2,250	3,376	774	1,300	210	58	11,468	10,039	10,079	1,429	1,390
2031	3,500	2,250	3,376	774	1,300	210	58	11,468	10,071	10,118	1,397	1,350
2032	3,500	2,250	3,376	774	1,300	210	58	11,468	10,102	10,157	1,366	1,311
2033	3,500	2,250	3,376	774	1,300	210	58	11,468	10,134	10,196	1,334	1,272
2034	3,500	2,250	3,376	774	1,300	210	58	11,468	10,165	10,236	1,303	1,232
2035	3,500	2,250	3,376	774	1,300	210	58	11,468	10,196	10,275	1,272	1,193
2036	3,500	2,250	3,376	774	1,300	210	58	11,468	10,228	10,314	1,240	1,154
2037	3,500	2,250	3,376	774	1,300	210	58	11,468	10,259	10,354	1,209	1,114
2038	3,500	2,250	3,376	774	1,300	210	58	11,468	10,291	10,393	1,177	1,075
2039	3,500	2,250	3,376	774	1,300	210	58	11,468	10,322	10,432	1,146	1,036
2040	3,500	2,250	3,376	774	1,300	210	58	11,468	10,354	10,472	1,114	997
2041	3,500	2,250	3,376	774	1,300	210	58	11,468	10,385	10,511	1,083	957
2042	3,500	2,250	3,376	774	1,300	210	58	11,468	10,416	10,550	1,052	918
2043	3,500	2,250	3,376	774	1,300	210	58	11,468	10,448	10,589	1,020	879
2044	3,500	2,250	3,376	774	1,300	210	58	11,468	10,479	10,629	989	839
2045	3,500	2,250	3,376	774	1,300	210	58	11,468	10,511	10,668	957	800
2046	3,500	2,250	3,376	774	1,300	210	58	11,468	10,542	10,707	926	761
2047	3,500	2,250	3,376	774	1,300	210	58	11,468	10,574	10,747	894	721
2048	3,500	2,250	3,376	774	1,300	210	58	11,468	10,605	10,786	863	682
2049	3,500	2,250	3,376	774	1,300	210	58	11,468	10,637	10,825	831	643
2050	3,500	2,250	3,376	774	1,300	210	58	11,468	10,668	10,865	800	604
2051	3,500	2,250	3,376	1,474	1,300	210	58	12,168	10,699	10,904	1,469	1,264
2052	3,500	2,250	3,376	1,474	1,300	210	58	12,168	10,731	10,943	1,437	1,225
2053	3,500	2,250	3,376	1,474	1,300	210	58	12,168	10,762	10,982	1,406	1,186
2054	3,500	2,250	3,376	1,474	1,300	210	58	12,168	10,794	11,022	1,374	1,146
2055	3,500	2,250	3,376	1,474	1,300	210	58	12,168	10,825	11,061	1,343	1,107
											38,046	34,392

Notes: Projected annual water demand growth in AFY is estimated at: 31.44
 Projected annual water demand growth in AFY plus 25% error: 39.30

EXHIBIT A

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of California-American Water
Company (U210W) for Approval of the
Monterey Peninsula Water Supply Project and
Authorization to Recover All Present and Future
Costs in Rates

Application No. 12-04-019
(Filed April 23, 2012)

**SETTLEMENT AGREEMENT ON
MPWSP DESALINATION PLANT RETURN WATER**

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[ADDITIONAL PARTIES LISTED BELOW]

Dated: June 14, 2016

EXECUTION COPY

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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of California-American Water
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Application No. 12-04-019
(Filed April 23, 2012)

**SETTLEMENT AGREEMENT ON
MPWSP DESALINATION PLANT RETURN WATER**

Pursuant to Article 12 of the Rules of Practice and Procedure of the California Public Utilities Commission (“CPUC”), California-American Water Company (“Cal Am”), Coalition of Peninsula Businesses (“CPB”), Landwatch Monterey County (“Landwatch”), the Monterey County Farm Bureau (“MCFB”), the Monterey County Water Resources Agency (“Agency”), the Monterey Peninsula Regional Water Authority (“Authority”), Monterey Peninsula Water Management District (“MPWMD”), Monterey Regional Water Pollution Control Agency (“MRWPCA”), Planning and Conservation League Foundation (“PCL”), and the Salinas Valley Water Coalition (“SVWC”) (collectively, the “Parties”) agree on the terms of this Settlement Agreement, which they now submit for review, consideration, and approval by the CPUC.

RECITALS

- A. Cal Am is seeking permits and approvals for the Monterey Peninsula Water Supply Project (“Project”), including a certificate of public convenience and necessity from the CPUC.
- B. The Project includes a desalination plant that will provide a potable water supply for Cal Am’s Monterey Peninsula service area. Rather than using an open-ocean intake that would produce only seawater as source water for the desalination plant, the Project desalination plant will produce its source water from subterranean slant wells drilled adjacent to the ocean, which will draw water from strata underlying the ocean. The location of the wells overlies the western portion of the Salinas River Groundwater Basin (“SRGB”).
- C. Cal Am characterizes its Project as proposing to develop seawater and brackish groundwater originating from the SRGB to produce source water that would be desalinated to provide a potable water supply for Cal Am’s Monterey Peninsula service area.
- D. The SVWC, MCFB and Landwatch contend that—rather than proposing to use an open-ocean intake that would produce only seawater—Cal Am’s Project proposes to use wells developed in the SRGB to produce source water for desalination to provide Cal Am’s Monterey Peninsula service area with a new source of water supply.

- E. The ratio of seawater to brackish SRGB groundwater in the Project source water is anticipated to change over time, with more seawater and less SRGB groundwater anticipated later in the Project's life.
- F. Cal Am contends that source water production by the Project is unlikely to cause significant adverse environmental effects with respect to SRGB groundwater resources and is unlikely to cause injury to prior groundwater rights in the SRGB but submits that the Monterey County Water Resources Agency Act ("Agency Act") authorizes the Agency to obtain an injunction prohibiting the export and use of SRGB groundwater outside of the SRGB and certain areas of Fort Ord.
- G. The Agency, SVWC, MCFB and Landwatch submit that the Agency Act directly prohibits the export and use of SRGB groundwater outside of the SRGB and certain areas of Fort Ord without the need for the Agency to obtain an injunction.
- H. The Project's slant intake wells are designed to produce source water for treatment by the selected desalination plant ("Project Source Water Production"). To meet applicable requirements of the Agency Act, Cal Am has proposed as part of the Project to make available for delivery to groundwater users overlying the SRGB a volume of water ("Return Water") equal to the percentage of SRGB groundwater in the total Project Source Water Production, as calculated on a water year basis and determined by the Agency.
- I. The SVWC, MCFB and Landwatch contend there is no surplus SRGB groundwater available for Cal Am's use in providing public water service within or outside of the SRGB and that the law of California groundwater rights requires that any production and use of SRGB groundwater by the Project must be returned for use within the SRGB in lieu of existing groundwater pumping.
- J. For Project planning and engineering purposes, Cal Am submits that the Project source water wells have been designed so that approximately 4% of the source water produced by the Project will originate as brackish groundwater from the SRGB.
- K. For planning purposes, Cal Am has assumed that the Return Water volume for the large desalination plant will be 1,080 acre feet annually ("afa") and, for the small desalination plant, 690 afa.
- L. The CPUC is conducting environmental review of the Project under the California Environmental Quality Act ("CEQA"), and the Monterey Bay National Marine Sanctuary is conducting environmental review of the Project under the National Environmental Policy Act ("NEPA").
- M. The modeling used in the CPUC's April 2015 CalAm Monterey Peninsula Water Supply Project Draft Environmental Impact Report ("DEIR") estimates that the volume of SRGB groundwater produced as source water for the large-scale (9.6 million gallons per day) Project would be approximately 7 percent, or 1,889 afa, under existing land-use conditions and would be approximately 4 percent, or 1,080 afa, under projected future 2060 land-use conditions, and would average approximately 5.5 percent, or 1,485 afa, over the life of the Project. (DEIR at 4.4-67.)

- N. Note C to the CPUC's DEIR Table 2-5 states that "groundwater modeling indicates that as much as 1,080 afa may need to be returned to the Salinas Valley Groundwater Basin (based on 4 percent of total source water intake being drawn from the Salinas Valley Groundwater Basin)" and states that "Project supply would be sufficient to provide this larger quantity of return water."
- O. The CPUC is preparing a revised DEIR/Environmental Impact Statement (RDEIR/DEIS) for the Project that will assess the significance of effects to SRGB groundwater resources, and the modeling in the revised RDEIR/DEIS will be updated and calibrated to include test well production data obtained to date (over 100 days of pumping). Cal Am also is working to gather additional (up to two years) test well production data to inform analysis of those effects. The full data set is not expected to be available before the CPUC's completion of CEQA/NEPA review and its decision whether to approve a certificate of convenience and necessity for the Project.
- P. The Parties and the State Water Resources Control Board are in agreement, and the DEIR concludes, that delivering Return Water by injecting desalinated water from the Project into the SRGB is less desirable than delivering Return Water for beneficial use in in the SRGB.
- Q. The Castroville Seawater Intrusion Project ("CSIP") is an Agency project that provides recycled water and diverted Salinas River water for use in lieu of groundwater pumping for irrigated agricultural use in the Castroville area of the SRGB.
- R. It has been proposed that Cal Am Return Water obligations be fulfilled, in part, by delivery of Return Water to CSIP. Prior environmental analyses reveal that there may be limitations in the capacity of CSIP to accommodate all of the Project Return Water under some conditions. (DEIR, p. 2-45, 6-4, 6-114; Pure Water Monterey, GWR DEIR, Appendix Q, Table B-3).
- S. The SVWC, MCFB and Landwatch contend that the Project's well production may cause injury to the SRGB and senior groundwater rights holders in the SRGB under California groundwater law, even if the RDEIR/DEIS concludes that the well production would not cause a significant adverse effect under CEQA.
- T. MCFB, SVWC and Landwatch oppose any scenario where Return Water would be used outside the SRGB, rather than for use in lieu of existing groundwater pumping in the SRGB.
- U. In the July 31, 2013 Settlement Agreement among 16 parties to Proceeding A.12-04-019, MCFB, SVWC, Landwatch, the Agency, and Citizens for Public Water reserved all rights to challenge production of water from the SRGB by Cal Am in any appropriate forum based on their concerns for potential harm to the SRGB and users thereof.
- V. MCFB and SVWC have stated they may litigate these issues if they are not resolved through agreement.
- W. Cal Am and the Authority maintain that any obligation to return SRGB groundwater to the SRGB arises only as a requirement of the Agency Act, except to the extent that Return

Water is necessary as part of a physical solution to avoid harm to the SRGB and senior groundwater rights holders in the SRGB under California groundwater law or to mitigate significant adverse effects to the SRGB or particular groundwater users pursuant to CEQA.

- X. Cal Am, with the encouragement of the Authority, also desires to maximize revenue for Return Water to offset water costs and water rates for Cal Am customers on the Monterey Peninsula.
- Y. Cal Am must obtain CPUC approval to deliver or sell any Return Water for use outside of Cal Am's service area.
- Z. A controversy has now arisen as to Cal Am's obligation to deliver Return Water to the SRGB, and as to the responsibility for the costs of producing the Return Water, and the Parties to this Settlement Agreement seek to resolve these issues through this Settlement Agreement.
- AA. Pursuant to the terms of this Settlement Agreement, the Parties propose that Cal Am deliver Return Water to the Castroville Community Services District ("CCSD") and to the CSIP to satisfy Return Water requirements that may arise out of the Agency Act, CEQA, or California groundwater law, in accordance with terms and conditions and general principles contained in this Settlement Agreement and separate Return Water Purchase Agreements between Cal Am as seller and CCSD and the Agency, respectively, as purchasers of Return Water.
- BB. To facilitate planning and review, the Parties and CCSD executed a Return Water Planning Term Sheet ("Planning Term Sheet") on January 22, 2016 (Appendix A). At a regular meeting called and held on January 19, 2016, the Board of Directors of CCSD adopted Resolution No. 16-2 (Appendix B) approving execution of the Planning Term Sheet. The form of the Planning Term Sheet approved by Resolution 16-2 is consistent with the Planning Term Sheet executed by the Parties and CCSD on January 22, 2016. CCSD and the Parties have met and conferred since January 22, 2016 concerning the terms for a Return Water Purchase Agreement between CCSD and Cal Am ("CCSD RWPA") consistent with the Planning Term Sheet. The Board of Directors of CCSD reviewed the draft CCSD RWPA at a regular meeting on April 19, 2016 and adopted Resolution 16-4 (Appendix B) approving the draft CCSD RWPA in concept for submission to the CPUC for planning purposes and review. CCSD submits that CCSD would sign a CCSD RWPA after expiration of the statute of limitations for challenging a decision by the CPUC certifying the Project environmental impact report and approving this Settlement Agreement.
- CC. In the Planning Term Sheet, CCSD submits that it provides municipal and domestic water service to the Town of Castroville, which overlies the SRGB in an area north of the City of Marina and west of the City of Salinas.
- DD. In the Planning Term Sheet, CCSD submits that it currently relies on groundwater from the SRGB to meet Castroville's water demands, which use averages approximately 780 afa.
- EE. In the Planning Term Sheet, CCSD submits that it increasingly has experienced water

supply challenges due to water quality degradation of its water supplies, primarily from increased salinity.

- FF. In the Planning Term Sheet, CCSD submits that poor water quality, including elevated sodium levels in CCSD's groundwater supplies, can contribute to health risks of individuals susceptible to high sodium.
- GG. In the Planning Term Sheet, CCSD submits that it has been identified as a disadvantaged community (Greater Monterey County IRWM Regional Water Management Group Disadvantaged Community Outreach Plan, Prepared for the Environmental Justice Coalition for Water by Nilsen & Associates, Approved April 18, 2012), and was an active participant in the Regional Plenary Oversight Group process established by the Office of Ratepayer Advocates to determine whether the Regional Desalination Project, a predecessor project to the Project, would be a source of supply for Castroville.
- HH. In the Planning Term Sheet, CCSD submits that many of CCSD's customers contribute significantly to agricultural and hospitality industries in the Salinas Valley and on the Monterey Peninsula.
- II. In the Planning Term Sheet, CCSD submits that it is actively pursuing alternative water supplies and has applied to the State for funding to develop deeper groundwater wells and other projects to serve its customer demands.
- JJ. In the Planning Term Sheet, CCSD submits that it is interested in taking delivery of a Return Water supply from the Project to replace all or part of CCSD's current reliance on groundwater from the SRGB.
- KK. Cal Am contemplated two separate pipelines delivering Return Water from the Project desalination plant, one to CSIP ponds and one to CCSD's wellsite #3 ("CCSD Wellsite"). Through negotiations and discussions, the Parties determined the cost of new infrastructure could be decreased by connecting with existing CSIP infrastructure. That connection allows a single pipeline, rather than two pipelines, to be constructed from the desalination plant to the CCSD Wellsite that will connect with an existing CSIP pipeline ("CSIP Connection"). The elimination of a separate pipeline to the CSIP ponds avoids certain pipeline and pump station costs and results in an estimated cost savings to Cal Am of approximately \$1,300,000. A preliminary cost estimate for a pipeline and ancillary facilities necessary to convey water from the Project desalination plant to the CCSD Wellsite ("Delivery Pipeline") is approximately \$6,500,000. Cal Am believes that if the Delivery Pipeline is constructed by Cal Am there will economies of scale achieved which may reduce the cost of the Delivery Pipeline to approximately \$4,400,000, assuming that Cal Am will secure contracts for construction of the pipeline and that environmental review and permitting will be performed in conjunction with the Project. CCSD estimates its cost to construct a new deep well with treatment facilities would cost approximately \$2,800,000. Thus, CCSD submits that it may not be able to prudently fund the Delivery Pipeline for more than \$2,800,000, and that capital obligations for the Delivery Pipeline would necessitate long-term commitments by CCSD and certainty of source water supply for CCSD.

LL. The SVWC, MCFB, and Landwatch support Cal Am's delivering Return Water to CCSD and to CSIP for use in lieu of existing groundwater pumping in the SRGB.

MM. The Parties submit that Cal Am's delivery of Return Water to CCSD and CSIP pursuant to the terms of this Settlement Agreement is a fair and equitable resolution of the disputed matters described above, and is consistent with the law and policy controlling the CPUC's approval of the Project, and therefore desire to settle the differences between and among them discussed in the preceding Recitals by entry into this Settlement Agreement.

AGREEMENT

NOW, THEREFORE, as a COMPROMISE and SETTLEMENT of the above-stated dispute, and to provide for an efficient and effective resolution of this dispute, the Parties do hereby AGREE to the following terms:

1. The recitals are hereby incorporated in this Settlement Agreement as if fully set forth herein.
2. Cal Am will deliver Return Water to the SRGB for use in lieu of existing groundwater production as follows:
 - a. Subject to Cal Am's Return Water obligations under this Settlement Agreement, Cal Am anticipates delivering Return Water pursuant to two Return Water Purchase Agreements, attached hereto in draft form as Appendix C, and Cal Am, CCSD and the Agency intend to enter into the Return Water Purchase Agreements.¹
 - b. In order to ensure Cal Am's compliance with the Agency Act, the Parties agree that upon start-up of the Project, the first 175 acre-feet of Return Water delivered by Cal Am pursuant to this Settlement Agreement ("Reserve Water") shall be delivered to CSIP.
 - c. Cal Am shall have annual Return Water requirements ("Annual Return Water Obligation") that shall be calculated based on the percentage of SRGB groundwater in the total Project Source Water Production. Cal Am's Annual Return Water Obligation under this Settlement Agreement shall not begin until the day after the full

¹ Cal Am is in discussions with the Monterey Regional Waste Management District ("MRWMD") regarding the potential for potable water supply delivery by Cal Am to MRWMD's landfill site that is contiguous to the desalination plant facilities in an amount not to exceed MRWMD's historical average pumping amount estimated at 6 afa. The landfill site cannot use its existing wells for human consumption due to nitrate contamination and, currently, potable water is trucked-in to provide service. In addition, Cal Am is also in discussions with MRWPCA regarding the potential for potable water supply delivery by Cal Am to MRWPCA's site located near the desalination plant facilities in an amount not to exceed MRWPCA's historical averaging pumping amount estimated at 11.9 afa. MRWPCA is currently pumping SRGB groundwater for use at its site and any such potable water supply provided by Cal Am would directly reduce the corresponding amount of groundwater pumping by MRWPCA. The Parties agree that if Cal Am delivers potable water supply to MRWMD's landfill site and/or MRWPCA's site, such water (a) will be counted toward Cal Am satisfying its return water obligations under the Agency Act and this Settlement Agreement, (b) will be subject to Cal Am's applicable commercial customer tariff for its Monterey District, (c) will be included in Cal Am's reporting of Return Water delivered by Cal Am as contemplated by Section 2.h. of this Settlement Agreement, and (d) will be in lieu of existing groundwater pumping from the SRGB.

amount of Reserve Water has been delivered to CSIP (the “Obligation Start Date”).

- i. During the first three months after the Obligation Start Date, the Annual Return Water Obligation shall be 7% of total Project Source Water Production during that period. For the remainder of the water year after the first three months have passed, the Annual Return Water Obligation shall be the percentage of SRGB groundwater in the total Project Source Water Production calculated during the first three months after the Obligation Start Date.
- ii. Beginning in the first full water year after the time period set forth in subsection i. above expires, the Annual Return Water Obligation in any given year shall be the sum of (a) the Base Return Water Obligation for that year, as determined pursuant to subsection iii. below, plus (b) any Return Water Shortfall for the prior year, as determined pursuant to subsection iv. below, minus (c) any Return Water Surplus for the prior year, as determined pursuant to subsection v. below.
- iii. The volume of the Base Return Water Obligation shall be initially calculated each year by Cal Am based on the methodology set forth in Appendix D and Cal Am shall notify the other Parties, in writing, of the result of such calculation by December 1 of each year. Such notification shall include all calculations leading to such result. Within 14 days following receipt of such notification, the Agency shall notify the other Parties, in writing, of its determination regarding the accuracy of Cal Am’s calculation of the volume of the Base Return Water Obligation. If the Agency determines the result is not accurate, its notification shall explain the reason for such determination. Within 21 days after any written notification by the Agency that it has determined that Cal Am’s calculation is not accurate, the Parties shall meet to seek to reach agreement regarding the volume of the Base Return Water Obligation for that year. If the Parties do not reach agreement within 30 days after the initial meeting, any Party may on or after the 31st day, but no later than the 91st day, invoke the provisions of Section 9.
- iv. The volume of any Return Water Shortfall for a given year shall be determined by subtracting the amount of Return Water made available by Cal Am in that year from the amount of the Annual Return Water Obligation for that year. If the amount of Return Water made available by Cal Am in that year equals or exceeds the Annual Return Water Obligation, the Return Water Shortfall for that year shall be equal to zero.

- v. The volume of any Return Water Surplus for a given year shall be determined by subtracting the amount of the Annual Return Water Obligation for that year from the amount of Return Water provided by Cal Am to CCSD and the Agency in that year. If the amount of Annual Return Water Obligation in that year equals or exceeds the amount of Return Water provided by Cal Am to CCSD and the Agency, the Return Water Surplus for that year shall be equal to zero.
- d. Subject to Section 8, Cal Am's obligation to make Return Water available for use in lieu of existing groundwater pumping in the SRGB to meet its Annual Return Water Obligation shall survive for a period of 30 years following start-up of the Project even if the Return Water Purchase Agreements are not executed, do not become effective, or are otherwise amended or terminated.
- e. Cal Am shall make available for delivery to CCSD 690 afa of Return Water ("CCSD Delivery Volume").
- f. If the Annual Return Water Obligation is less than the CCSD Delivery Volume, Cal Am shall make available for delivery potable water in an amount equal to the difference between the Annual Return Water Obligation for that year and the CCSD Delivery Volume ("Excess Water").
- g. Cal Am shall make available for delivery to CSIP any Annual Return Water Obligation in excess of the CCSD Delivery Volume, according to procedures agreed to in the Return Water Purchase Agreement by and between the Agency and Cal Am.
- h. For the first two years that Cal Am is delivering Return Water pursuant to this Settlement Agreement, Cal Am will report to the Parties on a quarterly basis the quantity of Return Water delivered to each recipient under this Settlement Agreement. Such reports shall be issued by Cal Am on or about December 1 (for the quarter July 1 to September 30), March 1 (for the quarter October 1 to December 31), June 1 (for the quarter January 1 to March 31), and September 1 (for the quarter April 1 to June 30) of each year. For the following three years that Cal Am is delivering Return Water pursuant to this Settlement Agreement, Cal Am will report to the Parties on a semi-annual basis (on or about December 1 for the period April 1 to September 30, and on or about June 1 for the period October 1 to March 31) the quantity of Return Water delivered to each recipient under this Settlement Agreement. Thereafter, Cal Am will report to the Parties on an annual basis (on or about December 1 for the period October 1 the previous year to September 30 the current year) the quantity of Return Water delivered to each recipient under this Settlement Agreement.
- i. All references in this Settlement Agreement to a "year" shall mean a "water year," and all references to a "water year" shall mean the 12-month period beginning on October 1 of a given year and ending on September 30 of the following year. All calculations herein based on the period of a year shall be prorated to account for any time frame that is less than a 12-month period.

3. Cal Am shall comply with the Agency Act. Notwithstanding any other provisions of this Settlement Agreement, the Agency will retain all rights, discretion and authority conferred on the Agency under the Agency Act to ensure that the pumping, production, desalination, and distribution of project source water from the SRGB for the selected desalination plant complies with the Agency Act, and to protect the long-term viability of the SRGB as a water supply for water for agricultural, domestic and municipal use. Neither this Section 3 nor any other provision of this Settlement Agreement shall be interpreted: (a) to affect, diminish, or enhance the Agency's regulatory authority under the Agency Act; (b) to affect, diminish, excuse, or forgive Cal Am's obligation to comply with the Agency Act; or (c) to preclude any argument by any Party to this Settlement Agreement that there is no violation of the Agency Act.
4. The Parties acknowledge that Cal Am could be legally required by a regulatory agency, including the CPUC in this proceeding, or by a court, to make water deliveries to other locations in the SRGB to the extent necessary to mitigate any groundwater impacts from the Project that were demonstrated in relation to a specific location overlying the SRGB ("Other Return Water Obligation"). Such Other Return Water Obligation could also serve to satisfy Cal Am's obligations to return water to the SRGB under the Act, CEQA, or common-law water law principles. Under such circumstances, the Parties agree that it would be inequitable to Cal Am and its ratepayers to fund both the Other Return Water Obligation and the Return Water obligations specified herein as this would result in a duplicative liability to Cal Am and its ratepayers. Cal Am's obligation to make available the CCSD Delivery Volume shall be reduced in the event and to the extent that a regulatory agency or court has required Cal Am to deliver Return Water in a manner or to a location different than as specified in the Settlement Agreement. CCSD shall not be obliged to purchase Return Water if it determines that the reduced amount of Return Water would not be sufficient to justify a Water Purchase Agreement as contemplated herein. In the event that CCSD determines that its water purchase is not justified due to an Other Return Water Obligation, the Parties to this Settlement Agreement will meet and confer in good faith to effect other arrangements to make the remaining Return Water, net of the Other Return Water Obligation, available for use in lieu of existing groundwater pumping in the SRGB in order to ensure that Cal Am will meet its Annual Return Water Obligation under this Settlement Agreement.

The Parties further acknowledge that the CCSD must be assured of a specific volume of Return Water to justify investment in the capital facilities necessary to convey the Return Water from the Project to the CCSD (the "CCSD Facilities"), and therefore Cal Am's obligation to the CCSD Delivery Volume specified herein cannot be terminated during the term of the anticipated Return Water Purchase Agreements after such time as CCSD has obligated itself to finance such capital facilities. To afford the best foresight in relation to potentially competing Return Water obligations, while also facilitating the certainty relating to Return Water deliveries required by CCSD, Cal Am's obligation to make available the CCSD Delivery Volume under the terms of the CCSD Return Water Purchase Agreement shall become unconditional on the date that is the latest of the following dates:

- a. the date on which the CPUC has issued a CPCN for the Project and the period to challenge the legality of the CPUC's issuance of the CPCN (based on CEQA compliance or otherwise) has expired and no challenge has been brought;
- b. the date on which any challenge against the CPUC's issuance of the CPCN is resolved with finality following all available appeals and petitions; or
- c. 60 days following the date on which the CCSD provides notification to Cal Am that it has secured financing, acceptable to CCSD, to acquire the CCSD Facilities.

In the event of any challenge against the CPUC's issuance of the CPCN, the Parties to this Settlement Agreement shall meet and confer in good faith to effect other arrangements to make the total amount of the Return Water, as adjusted by any Other Return Water Obligation, available for use in lieu of existing groundwater pumping in the SRGB in order to ensure that Cal Am will meet its Annual Return Water Obligation under this Settlement Agreement during the pendency of that litigation.

After the above dates, Cal Am may not terminate its obligation to deliver the CCSD Delivery Volume in the event Cal Am is subsequently required to meet Other Return Water Obligations. Cal Am and CCSD shall meet and confer as necessary within a reasonable amount of time before or after any of the above dates if it appears that Cal Am's obligation to make available the CCSD Delivery Volume may not become unconditional. Due to the urgent nature of the Project and other regulatory pressures to implement the Project, Cal Am and CCSD may mutually agree at any time to amend and move forward with the CCSD Water Purchase Agreement, notwithstanding Other Return Water Obligations, provided all other required approvals have been attained and provided that Cal Am will meet its Annual Return Water Obligation under this Settlement Agreement through some combination of some or all of the CCSD Water Purchase Agreement, the CSIP Water Purchase Agreement, Other Return Water Obligations, or arrangements made pursuant to Section 7 of the Settlement Agreement.

5. Return Water and Excess Water pricing shall be as follows:
 - a. CCSD: For each acre-foot of Return Water or Excess Water made available for delivery to CCSD:
 - i. CCSD shall pay a rate intended to represent its avoided cost to produce groundwater to meet customer demand, currently estimated to be \$110 per acre-foot, which will be the rate as of the Obligation Start Date, for Return Water made available for delivery to meet the Annual Return Water Obligation. CCSD plans to continue operation of its existing wells so they may be available in emergency circumstances. This continuing operation will enable CCSD to provide future updates to the avoided cost of pumping. If CCSD is unable to provide such updated avoided costs of pumping, then the percentage increase of PG&E's A-6 tariff for off-peak summer distribution

rate (with a base of \$0.07311 / kWh as of the tariff existing on March 24, 2016) will be used as the escalation factor for the increase in avoided cost of pumping in the future. After the Obligation Start Date, the rate will be reviewed annually and updated, if necessary, via Tier 2 advice letter filing with the CPUC.

- ii. CCSD shall pay a rate intended to represent the marginal operation and maintenance costs for the Project to produce one acre-foot of potable water, currently estimated to be \$580 per acre-foot, which will be the rate as of the Obligation Start Date, for any Excess Water calculated as set forth in Appendix F. After the Obligation Start Date, the rate will be reviewed annually and updated, if necessary, via Tier 2 advice letter filing with the CPUC.
 - b. CSIP: Subject to rights to terminate established in Section 10 of the Return Water Purchase Agreement between the Agency and Cal Am, for each acre-foot of Return Water delivered by Cal Am, the Agency shall pay a rate intended to represent the CSIP customers' marginal avoided cost for groundwater produced for use by the CSIP customers, currently estimated to be \$102 per acre-foot which will be the rate as of the Obligation Start Date. After the Obligation Start Date, the rate will be reviewed annually and updated, if necessary, via Tier 2 advice letter filing with the CPUC.
6. The Parties support Cal Am negotiating and entering into Return Water Purchase Agreements substantially in the form attached in Appendix C to this Settlement Agreement. To the extent any conflict is noted or alleged to exist between the terms of this Settlement Agreement and the terms of either Return Water Purchase Agreement, the Parties agree to meet and confer to seek to arrive at a mutually-agreeable reconciliation of the terms of the three agreements.
- a. The Return Water Purchase Agreements shall have an initial term of at least 30 years.
 - b. Prior to the expiration of the Return Water Purchase Agreements contemplated herein, CCSD and CSIP shall have a right of first refusal to enter into new water purchase agreements on terms to be negotiated at the time.
7. If the Return Water Purchase Agreements are not executed, do not become effective, or are otherwise amended or terminated, the Parties to this Settlement Agreement shall meet and confer in good faith to effect other arrangements to make the total amount of the Return Water reduced by any Other Return Water Obligation available for use in lieu of existing groundwater pumping in the SRGB in order to ensure that Cal-Am will meet its Annual Return Water Obligation under this Settlement Agreement. Regardless of whether the Return Water Purchase Agreements are not executed, do not become effective, or are otherwise amended or terminated, Cal Am shall not be excused from meeting its Annual Return Water Obligation under this Settlement Agreement.
8. Upon termination, expiration or non-renewal of the Return Water Purchase Agreements,

Cal Am shall continue to make Return Water available for delivery to the SRGB for use in lieu of existing groundwater production, unless Cal Am demonstrates that Return Water is not needed to prevent legal injury to prior groundwater rights holders in the SRGB or to avoid significant adverse effects to SRGB groundwater resources. If Cal Am desires to make such a showing, it shall initially do so by providing a demonstration in writing to all Parties to this Settlement Agreement using the notice provisions of Section 24. Within 21 days thereafter, the Parties shall meet to seek to reach agreement regarding whether Cal Am has made the requisite demonstration. If the Parties do not reach agreement within 30 days after the initial meeting, any Party may on or after the 31st day, but no later than the 91st day, invoke the provisions of Section 9. For the avoidance of doubt, nothing in this section 8 in any way affects the provisions, scope and application of Section 3.

9. If a dispute arises concerning any controversy or claim arising out of or relating to this Settlement Agreement or the breach thereof, or relating to its application or interpretation, such dispute shall be resolved as follows:
 - a. Disputes. The aggrieved Party will notify the other Parties of the dispute in writing within twenty (20) days after such dispute arises. If the Parties fail to resolve the dispute within sixty (60) days after delivery of such notice, each Party will promptly nominate a senior officer of its organization to meet at any mutually-agreed time and location to resolve the dispute. The Parties shall use their best efforts to reach a just and equitable solution satisfactory to all Parties. If the Parties are unable to resolve the dispute to their satisfaction within sixty (60) days thereafter, the dispute will be subject to mediation, as described below in Section 9.b. The time periods set forth in this section are subject to extension if agreed to by the Parties.
 - b. Mandatory Non-binding Mediation. If a dispute is not resolved pursuant to Section 9.a., the Parties agree to first endeavor to settle the dispute in an amicable manner, using mandatory non-binding mediation initiated and conducted under the applicable rules of the American Arbitration Association in effect as of the Effective Date or other rules agreed to in writing by the Parties, before having recourse in a court of law or equity. Each Party shall bear its own legal expenses, and the expenses of witnesses for either side shall be paid by the Party producing such witnesses. All expenses of the mediator, including required travel, and the cost of any proofs or expert advice produced at the direct request of the mediator, shall be borne equally by the Parties, unless they agree otherwise. Any resultant agreements from mediation shall be documented in writing. All mediation proceedings, results, and documentation, including without limitation any materials prepared or submitted or any positions taken by or on behalf of any Party, shall be confidential and inadmissible for any purpose in any legal proceeding (pursuant to California Evidence Codes sections 1115 through 1128), unless such admission is otherwise agreed upon in writing by the Parties. Mediators shall not be subject to any subpoena or liability, and their actions shall not be subject to discovery. The mediation shall be completed within sixty (60) days after selection of the mediator, unless the Parties agree to extend the mediation period.

- c. Judicial Relief. If mediation pursuant to Section 9.b. does not resolve a dispute, any Party may seek relief in a court of competent jurisdiction.
 - d. Limitations on Damages. No Party shall be entitled to consequential damages, incidental damages, or punitive or exemplary damages from any other Party in any action or proceeding in connection with this Settlement Agreement.
 - e. Attorneys' Fees and Costs. In any action or proceeding to enforce a term or condition of this Settlement Agreement, in any disputes relating to this Settlement Agreement, and in any actions for breaches, defaults, or misrepresentations in connection with the Settlement Agreement, a prevailing Party (as determined by a court of competent jurisdiction) shall be entitled to recover its reasonable costs and expenses, including without limitation reasonable attorneys' fees and costs.
- 10. The Parties agree that Cal Am's certificated service area for the Monterey County District shall be extended to include: (1) a delivery point near the intersection of Nashua Road and Monte Road (located between Cal Am's desalination plant facilities and the CCSD service area) that is necessary for Cal Am to serve CCSD and the Agency at the delivery point set forth in the anticipated Return Water Purchase Agreements; (2) the territory contiguous to the desalination plant facilities that is necessary for Cal Am to deliver water to Monterey Regional Waste Management District ("MRWMD"); and (3) to MRWPCA's wastewater treatment plant site which is located next to the MRWMD site, and that Cal Am shall update its service area map accordingly through a Tier 2 advice letter filing to describe the territory served on the utility's tariffs. The Parties further agree to support Cal Am's ability to implement and update its tariffs accordingly through a Tier 2 advice letter.
 - 11. The Parties agree that the proposed tariff set forth in Appendix E, which may be modified from time to time with CPUC approval to reflect adjustments to the terms of service as set forth herein, shall govern the rates and provision of service to CCSD and the Agency, subject, however, to rights to terminate established in Section 10 of the Return Water Purchase Agreements between Cal Am and each of CCSD and the Agency.
 - 12. Pursuant to the Return Water Purchase Agreements, Cal Am would collect revenue from CCSD and the Agency. All revenue collected under the Return Water Purchase Agreements would be through an approved tariff with the CPUC and would be used to offset the operations and maintenance costs of the Project to customers in the Monterey District in accordance with Section 8.3 of the document known as the "Large Settlement Agreement." Revenues collected from MRWMD would be under an existing General Metered Non-Residential tariff that is subject to regulation by the CPUC.
 - 13. Cal Am shall provide notice of advice letters filed pursuant to this Settlement Agreement to the Parties and to CCSD upon their filing and in accordance with applicable CPUC requirements.
 - 14. This Settlement Agreement reflects a settlement and compromise of putative claims and remedies of the Parties hereto.
 - 15. If the Return Water settlement described in this Settlement Agreement is not approved by

the CPUC and implemented by Cal Am, the Agency, SVWC, MCFB and Landwatch reserve their rights to challenge Cal Am's production of water from the SRGB in any appropriate forum.

16. The Parties agree to expeditiously, substantively and in good faith support this Settlement Agreement and cooperate with Cal Am in any administrative or judicial proceeding challenging this Settlement Agreement and/or Cal Am's obligations and responsibilities with respect to Return Water.
17. Among other things, this Settlement Agreement helps to define a stable and finite project description that will facilitate the CPUC's completion of CEQA review for the Project. The legal effectiveness of this Settlement Agreement is contingent on the completion of CEQA review and this Settlement Agreement does not irretrievably commit the Parties to carrying out any physical activities that would be required for Cal Am to meet the Annual Return Water Obligation or would otherwise be required for the Parties to comply with the terms of this Settlement Agreement, including through the anticipated Return Water Purchase Agreements whose future approval will be conditioned upon the completion of CEQA review by the CPUC as lead agency for the Project and by those Parties playing the role of a responsible agency with respect to the anticipated Water Supply Agreements. The Parties acknowledge and intend that the lead agency and responsible agencies will retain full discretion with respect to deciding whether to approve the Return Water Supply Agreements or any other commitments necessary or convenient for Cal Am to meet the Annual Return Water Obligation, including discretion to modify commitments to avoid or reduce any significant adverse physical environmental effects (i) from Return Water activities that are within their jurisdiction, and (ii) from the Parties' compliance with other terms of this Settlement Agreement.
18. If the CPUC approves the Settlement Agreement with modifications, the Parties request the CPUC to provide a reasonable period for the Parties to consider and respond to such modification.
19. If the CPUC approves the Settlement Agreement with modifications, each Party shall determine no later than two business days before the deadline imposed by the CPUC for acceptance of the modification whether it will accept the modification and shall notify the other Parties of its determination.
20. If any Party declines to accept the CPUC's modification, the other Parties may still accept the modification and request the CPUC to approve the revised Settlement Agreement in the absence of the agreement of the Party or Parties who decline to accept the CPUC's modification; provided, however, that Parties who accept the modification and request approval of a revised Settlement Agreement may not accept the modification and request the CPUC to approve the revised Settlement Agreement if the applicant Cal Am is among the Parties who decline to accept the CPUC's modification. If the CPUC's proposed modification of this Settlement Agreement is not consented to by Cal Am, the Settlement Agreement shall be void and the CPUC will establish a procedural schedule to address the disputed issues.

21. This Settlement Agreement does not currently impact the terms of section 3.1(b) of the document known as the Large Settlement Agreement. To the extent later binding agreements may specifically do so, they will not impact the Agency's authority and responsibilities under or Cal Am's obligation to comply with the Agency Act.
22. This Agreement shall be binding upon, and shall inure to the benefit of and be enforceable by, the Parties hereto and their respective successors and assigns permitted hereunder.
23. Nothing in this Settlement Agreement is intended, either expressly or by implication, to confer any rights or remedies under or by reason of this Settlement Agreement on any persons other than the Parties hereto; nothing in this Agreement is intended, either expressly or by implication, to relieve or discharge the obligation or liability of any third person to any Party; and nothing in this Settlement Agreement creates, either expressly or by implication, any duty, liability or standard of care to any person who is not a Party.
24. All notifications, notices, demands, requests and other communications herein provided for or made pursuant hereto shall be in writing and shall be sent by: (i) registered or certified mail, return receipt requested, and the giving of such communication shall be deemed complete on the third (3rd) business day after the same is deposited in a United States Post Office with postage charges prepaid; or (ii) reputable overnight delivery service, and the giving of such communication shall be deemed complete on the immediately succeeding business day after the same is deposited with such delivery service; and (iii) so long as a Party has notified the other Party by means of a method described in clauses (i) or (ii) above of such Party's email address for notification purposes, email transmission of notices to such Party are also permitted provided an original is also sent via one of the other permitted means and the giving of such communication shall be complete when such email is received if such email is received on a business day before 3:00 pm Pacific Time; otherwise, such communication shall be deemed complete the next business day. The date on which notifications, notices, demands, requests and other communications are deemed complete shall be the earliest date arising under subsections (i), (ii) or (iii) of this Section 24. All notifications, notices, demands, requests and other communications shall be sent to the Parties as follows:

To Agency:

David E. Chardavoyne
General Manager
Monterey County Water Resources Agency
893 Blanco Circle
Salinas, CA 93901

To Authority:

Bill Kampe
Acting President
Monterey Peninsula Regional Water Authority

580 Pacific Street, Room 6
Monterey, CA 93940

To Cal Am:

Eric J. Sabolsice
Director, Operations
Coastal Division
California-American Water Company
511 Forest Lodge Road, Suite 100
Pacific Grove, CA 93950

To CPB:

Bob McKenzie
Water Issues Consultant
Coalition of Peninsula Businesses
P.O. Box 223542
Carmel, CA 93922

To Landwatch:

Chris Fitz
LandWatch Monterey County
P.O. Box 1876
Salinas, CA 93902-1876

To MCFB:

Norman C. Groot
Monterey County Farm Bureau
P.O. Box 1449
1140 Abbott Street, Suite C
Salinas, CA 93902-1449

To MPWMD:

David J. Stoldt
General Manager

Monterey Peninsula Water Management District
PO Box 85
Monterey, CA 93942

To MRWPCA:

Paul Sciuto
General Manager
Monterey Regional Water Pollution Control Agency
5 Harris Court, Bldg D
Monterey, CA 3940

To PCL:

Jonas Minton
Planning and Conservation League Foundation
1107 – 9th Street, Suite 901
Sacramento, CA 95814

To SVWC:

Nancy Isakson
President
Salinas Valley Water Coalition
3203 Playa Court
Marina, CA 93933

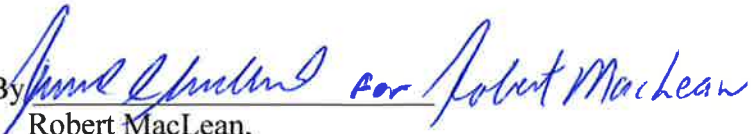
A Party may change the person and/or address for provision of notice by delivering written notice to the other Parties.

25. Each Party to this Settlement Agreement represents and warrants that it has the capability and authority to carry out the rights and obligations of this Settlement Agreement. Each person whose signature appears hereon represents and warrants that he/she has been duly authorized and has full authority to execute this Settlement Agreement on behalf of the Party on whose behalf this Settlement Agreement is executed.
26. This Settlement Agreement may be executed in any number of counterparts, each of which shall be an original, and such counterparts together shall constitute but one and the same instrument.

Respectfully submitted,

Dated: 6/13/16

CALIFORNIA-AMERICAN WATER COMPANY

By 
Robert MacLean,
President

Dated:

COALITION OF PENINSULA BUSINESSES

By _____
Bob McKenzie,
Water Issues Consultant

Dated:

LANDWATCH MONTEREY COUNTY

By _____
Chris Fitz,

Dated:

MONTEREY COUNTY FARM BUREAU

By _____
Norman C. Groot,
Executive Director

Dated:

MONTEREY COUNTY WATER RESOURCES AGENCY


By _____
David Chardavoyne,
General Manager

Respectfully submitted,

Dated: CALIFORNIA-AMERICAN WATER COMPANY

By _____
Robert MacLean,
President

Dated: June 14, 2016 COALITION OF PENINSULA BUSINESSES


By _____
Bob McKenzie,
Water Issues Consultant

Dated: LANDWATCH MONTEREY COUNTY

By _____
Chris Fitz,

Dated: MONTEREY COUNTY FARM BUREAU

By _____
Norman C. Groot,
Executive Director

Dated: MONTEREY COUNTY WATER RESOURCES AGENCY

By _____
David Chardavoyne,
General Manager

Respectfully submitted,

Dated: CALIFORNIA-AMERICAN WATER COMPANY

By _____
Robert MacLean,
President

Dated: COALITION OF PENINSULA BUSINESSES

By _____
Bob McKenzie,
Water Issues Consultant

Dated: 6/13/16 LANDWATCH MONTEREY COUNTY

By 
Chris Fitz,

Dated: MONTEREY COUNTY FARM BUREAU

By _____
Norman C. Groot,
Executive Director

Dated: MONTEREY COUNTY WATER RESOURCES AGENCY

By _____
David Chardavoyne,
General Manager

Respectfully submitted,

Dated: CALIFORNIA-AMERICAN WATER COMPANY

By _____
Robert MacLean,
President

Dated: COALITION OF PENINSULA BUSINESSES

By _____
Bob McKenzie,
Water Issues Consultant

Dated: LANDWATCH MONTEREY COUNTY

By _____
Chris Fitz,

Dated: June 14, 2016 MONTEREY COUNTY FARM BUREAU

By _____
Norman C. Groot,
Executive Director

Dated: MONTEREY COUNTY WATER RESOURCES AGENCY

By _____
David Chardavoyne,
General Manager

Respectfully submitted,

Dated:

CALIFORNIA-AMERICAN WATER COMPANY

By _____
Robert MacLean,
President

Dated:

COALITION OF PENINSULA BUSINESSES

By _____
Bob McKenzie,
Water Issues Consultant

Dated:

LANDWATCH MONTEREY COUNTY

By _____
Chris Fitz,

Dated:

MONTEREY COUNTY FARM BUREAU

By _____
Norman C. Groot,
Executive Director

Dated:

10 June 2016

MONTEREY COUNTY WATER RESOURCES AGENCY

By *David E. Chardavoyne*
David Chardavoyne,
General Manager

Dated: 6/11/16

MONTEREY PENINSULA REGIONAL WATER AUTHORITY

By Bill Kampe
Bill Kampe,
Acting President

Dated:

MONTEREY PENINSULA WATER MANAGEMENT
DISTRICT

By _____
David J. Stoldt,
General Manager

Dated:

MONTEREY REGIONAL WATER POLLUTION CONTROL
AGENCY

By _____
Paul Sciuto,
General Manager

Dated:

PLANNING AND CONSERVATION LEAGUE FOUNDATION

By _____
Jonas Minton,
Water Policy Adviser

Dated:

SALINAS VALLEY WATER COALITION

By _____
Nancy Isakson,
President

Dated: MONTEREY PENINSULA REGIONAL WATER AUTHORITY

By _____
Bill Kampe,
Acting President


Dated: MONTEREY PENINSULA WATER MANAGEMENT
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David J. Stoldt,
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Paul Sciuto,
General Manager

Dated: June 14, 2016 PLANNING AND CONSERVATION LEAGUE FOUNDATION


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Jonas Minton,
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Dated: SALINAS VALLEY WATER COALITION

By _____
Nancy Isakson,
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AGENCY

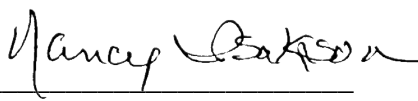
By _____
Paul Sciuto,
General Manager

Dated: PLANNING AND CONSERVATION LEAGUE FOUNDATION

By _____
Jonas Minton,
Water Policy Adviser

Dated: June 14, 2016

SALINAS VALLEY WATER COALITION

By  _____
Nancy Isakson,
President

**SETTLEMENT AGREEMENT
ON MPWSP DESALINATION PLANT
RETURN WATER**

APPENDIX A

PLANNING TERM SHEET

RETURN WATER PLANNING TERM SHEET

This PLANNING TERM SHEET (the "Term Sheet") is made as of January 22nd, 2016, by and among CALIFORNIA-AMERICAN WATER COMPANY ("CAW"), the SALINAS VALLEY WATER COALITION ("SVWC"), the MONTEREY COUNTY FARM BUREAU ("MCFB"), the MONTEREY PENINSULA REGIONAL WATER AUTHORITY ("Authority"), LANDWATCH MONTEREY COUNTY, the CASTROVILLE COMMUNITY SERVICES DISTRICT ("CCSD"), and the MONTEREY COUNTY WATER RESOURCES AGENCY ("Agency") (individually, "Party"; collectively, "Parties").

RECITALS

- A. CAW is seeking permits and approvals for the Monterey Peninsula Water Supply Project ("MPWSP"), including a certificate of public convenience and necessity from the California Public Utilities Commission ("CPUC");
- B. The MPWSP includes a desalination plant that will provide a potable water supply for CAW's Monterey Peninsula service area. Rather than using an open-ocean intake that would produce only seawater as source water for the desalination plant, the MPWSP desalination plant will produce its source water from subterranean slant wells drilled adjacent to the ocean, which will draw water from strata underlying the ocean. The location of the wells overlies the western portion of the Salinas River Groundwater Basin ("SRGB").
- C. CAW characterizes its MPWSP as proposing to develop seawater and brackish groundwater originating from the SRGB to produce source water that would be desalinated to provide a potable water supply for CAW's Monterey Peninsula service area.
- D. The SVWC, MCFB and Landwatch contend that—rather than proposing to use an open-ocean intake that would produce only seawater—CAW's MPWSP proposes to use wells developed in the SRGB to produce source water for desalination to provide CAW's Monterey Peninsula service area with a new source of water supply.
- E. The ratio of seawater to brackish SRGB groundwater in the MPWSP source water is anticipated to change over time, with more seawater and less SRGB groundwater anticipated later in the MPWSP's life;
- F. CAW contends that source water production by the MPWSP is unlikely to cause significant adverse environmental effects with respect to SRGB groundwater resources and is unlikely to cause injury to prior groundwater rights in the SRGB but submits that the Monterey County Water Resources Agency Act ("Agency Act") authorizes the Monterey County Water Resources Agency ("Agency") to obtain an injunction prohibiting the export and use of SRGB groundwater outside of the SRGB and certain areas of Fort Ord;
- G. The SVWC, MCFB and Landwatch submit that the Agency Act directly prohibits the export and use of SRGB groundwater outside of the SRGB and certain areas of Fort Ord without the need for the Agency to obtain an injunction;

- H. To meet applicable requirements of the Agency Act, CAW has proposed as part of the MPWSP to make available for delivery to groundwater users overlying the SRGB a volume of water equal to the percentage of SRGB groundwater in the total MPWSP source water production, as determined by the Agency ("Return Water");
- I. The SVWC, MCFB and Landwatch contend there is no surplus SRGB groundwater available for CAW's use in providing public water service within or outside of the SRGB and that the law of California groundwater rights requires that any production and use of SRGB groundwater by the MPWSP must be returned for use within the SRGB in lieu of existing groundwater pumping;
- J. For MPWSP planning and engineering purposes, CAW submits that the MPWSP source water wells have been designed so that approximately 4% of the source water produced by the MPWSP will originate as brackish groundwater from the SRGB;
- K. For planning purposes, CAW has assumed that the Return Water volume for the large desalination plant will be 1,080 afa, and for the small plant 690 afa;
- L. The CPUC is conducting environmental review of the MPWSP under the California Environmental Quality Act ("CEQA"), and the Monterey Bay National Marine Sanctuary is conducting environmental review of the MPWSP under the National Environmental Policy Act ("NEPA");
- M. The modeling used in the CPUC's April 2015 CalAm Monterey Peninsula Water Supply Project Draft Environmental Impact Report ("DEIR") estimates that the volume of SRGB groundwater produced as source water for the large-scale (9.6 million gallons per day) MPWSP would be approximately 7 percent, or 1,889 afa, under existing land-use conditions and would be approximately 4 percent, or 1,080 afa, under projected future 2060 land-use conditions, and would average approximately 5.5 percent, or 1,485 afa, over the life of the MPWSP. (DEIR at 4.4-67.)
- N. Note C to the CPUC's DEIR Table 2-5 states that "groundwater modeling indicates that as much as 1,080 afa may need to be returned to the Salinas Valley Groundwater Basin (based on 4 percent of total source water intake being drawn from the Salinas Valley Groundwater Basin[[]])" and states that "MPWSP supply would be sufficient to provide this larger quantity of return water."
- O. The CPUC is preparing a revised DEIR/Environmental Impact Statement (RDEIR/DEIS) for the MPWSP that will assess the significance of effects to SRGB groundwater resources, and the modeling in the revised RDEIR/DEIS will be updated and calibrated to include test well production data obtained to date (over 100 days of pumping). CAW also is working to gather additional (up to two years) test well production data to inform analysis of those effects. The full data set is not expected to be available before the CPUC's completion of CEQA/NEPA review and its decision whether to approve a certificate of convenience and necessity for the MPWSP;
- P. The Parties and the State Water Resources Control Board are in agreement, and the DEIR

concludes, that injecting desalinated water from the MPWSP into the SRGB is less desirable than delivering the Return Water for beneficial use in the SRGB;

- Q. Prior environmental analyses reveal that there may be limitations in the capacity of the Castroville Seawater Intrusion Project ("CSIP") to accommodate all of the MPWSP Return Water under some conditions. (DEIR, p. 2-45, 6-4, 6-114; Pure Water Monterey, GWR DEIR, Appendix Q, Table B-3);
- R. CSIP is an Agency project that provides recycled water and diverted Salinas River water for use in lieu of groundwater pumping for irrigated agricultural use in the Castroville area of the SRGB;
- S. The CPUC Administrative Law Judge has requested additional testimony from the Joint Settling Parties regarding Return Water options, and that testimony must be submitted to the CPUC by January 22, 2016;
- T. The SVWC, MCFB and Landwatch contend that the MPWSP's well production may cause injury to the SRGB and senior groundwater rights holders in the SRGB under California groundwater law, even if the RDEIR/DEIS concludes that the well production would not cause a significant adverse effect under CEQA.
- U. MCFB, SVWC and Landwatch oppose any scenario where Return Water would be used outside the SRGB, rather than for use in lieu of existing groundwater pumping in the SRGB;
- V. In the July 31, 2013 Settlement Agreement among 16 parties to Proceeding A1204019, MCFB, SVWC, Landwatch, the Agency, and Citizens for Public Water reserved all rights to challenge production of water from the SRGB by CAW in any appropriate forum based on their concerns for potential harm to the SRGB and users thereof;
- W. MCFB and SVWC have stated they will litigate these issues if they are not resolved through agreement;
- X. CAW and the Authority maintain that any obligation to return SRGB groundwater to the SRGB arises only as a requirement of the Agency Act, except to the extent that Return Water is necessary as part of a physical solution to avoid harm to the SRGB and senior groundwater rights holders in the SRGB under California groundwater law or to mitigate significant adverse effects to the SRGB or particular groundwater users pursuant to CEQA;
- Y. CAW, with the encouragement of the Authority, also desires to maximize revenue for Return Water to offset water costs and water rates for CAW customers on the Monterey Peninsula;
- Z. CAW must obtain CPUC approval to deliver or sell any Return Water for use outside of CAW's service area;
- AA. A controversy has now arisen as to CAW's obligation to deliver Return Water to the SRGB, and as to the responsibility for the costs of producing the Return Water, and the Parties to this Term Sheet desire to resolve these issues and to reach agreement on a framework to satisfy Return Water requirements;

- BB. Pursuant to the terms of this Term Sheet, the Parties propose that CAW deliver Return Water to the CCSD and to the CSIP to satisfy Return Water requirements that may arise out of the Agency Act, CEQA, or California groundwater law, in accordance with terms and conditions to be agreed upon based on the general principles contained in this Term Sheet;
- CC. CCSD submits that it provides municipal and domestic water service to the Town of Castroville, which overlies the SRGB in an area north of the City of Marina and west of the City of Salinas;
- DD. CCSD submits that it currently relies on groundwater from the SRGB to meet Castroville's water demands, which average approximately 800 afa;
- EE. CCSD submits that it increasingly has experienced water supply challenges due to water quality degradation of its water supplies, primarily from increased salinity;
- FF. CCSD submits that poor water quality, including elevated sodium levels extant in CCSD's groundwater supplies, can contribute to health risks of individuals susceptible to high sodium;
- GG. CCSD submits that it has been identified as a disadvantaged community (Greater Monterey County IRWM Regional Water Management Group Disadvantaged Community Outreach Plan, Prepared for the Environmental Justice Coalition for Water by Nilsen & Associates, Approved April 18, 2012), and was an active participant in the Regional Plenary Oversight Group process established by the Office of Ratepayer Advocates to determine whether the Regional Desalination Project, a predecessor project to the MPWSP, would be a source of supply for Castroville;
- HH. CCSD submits that many of CCSD's customers contribute significantly to agricultural and hospitality industries in the Salinas Valley and on the Monterey Peninsula;
- II. CCSD submits that it is actively pursuing alternative water supplies and has applied to the State for funding to develop deeper groundwater wells and other projects to serve its customer demands;
- JJ. CCSD submits that it is interested in taking delivery of a Return Water supply from the MPWSP to replace or supplement CCSD's current reliance on groundwater from the SRGB;
- KK. Preliminary cost estimates for a pipeline to convey water from the MPWSP plant to CCSD are approximately \$6,500,000, which may be reduced to approximately \$4,400,000, assuming that CAW will secure contracts for construction of the pipeline and that environmental review and permitting will be performed in conjunction with the MPWSP. CCSD submits that it may not be able to prudently fund a pipeline for more than \$2,800,000, and that capital obligations for the pipeline would necessitate long-term commitments by CCSD and certainty of source water supply for CCSD;
- LL. The SVWC, MCFB, and Landwatch support CAW's delivering Return Water to CCSD and to CSIP for use in lieu of existing groundwater pumping in the SRGB; and

MM. CAW's delivery of Return Water to CCSD pursuant to the terms of this Term Sheet is a fair and equitable resolution of the disputed matters described above, and is consistent with the law and policy controlling the CPUC's approval of the MPWSP.

NN. The foregoing Recitals are included to provide background regarding this Term Sheet but are neither part of nor incorporated into its terms.

NOW, THEREFORE, as a COMPROMISE and SETTLEMENT of the above-stated dispute, and to provide for an efficient and effective resolution of this dispute, the Parties do hereby AGREE to negotiate appropriate binding agreements on the following terms:

1. Notwithstanding any other provision of this Term Sheet, this Term Sheet sets forth agreements in principle concerning its subject matter, but does not at this time constitute binding covenants or conditions with respect to the issue of Return Water.
2. It is anticipated that certain Parties to this terms sheet will negotiate and enter into water purchase agreements under which CAW will deliver Return Water to the SRGB during the term of the anticipated water purchase agreements for use in lieu of existing groundwater production as follows:
 - a. CAW shall have annual Return Water requirements that shall be calculated based on the percentage of SRGB groundwater in the total MPWSP source water production for the prior calendar year ("Annual Return Water Obligation").
 - i. During the first three months after start-up of the MPWSP, the Annual Return Water Obligation shall be 7% of total source water production during that period, and for the remainder of that year shall be the percentage of SRGB groundwater in the total MPWSP source water production calculated during the first three months in which the MPWSP started up and then operated.
 - ii. Thereafter, CAW shall make available for delivery to the SRGB for beneficial use each year the Annual Return Water Obligation.
 - iii. The volume of the Annual Return Water Obligation shall be determined by the Agency based on the methodology set forth in Exhibit A [parties analyzing], which may include annual averaging and other operational parameters appropriate to the circumstances.
 - b. CAW shall make available for delivery to CCSD 800 afa of Return Water if the large desalination plant is constructed or 690 afa if the smaller desalination plant is constructed ("CCSD Delivery Volume").
 - c. If the Annual Return Water Obligation is less than the CCSD Delivery Volume, CAW shall make available for delivery potable water in addition to the amount of the Annual Return Water Obligation sufficient to satisfy the CCSD Delivery Volume ("Excess Water").
 - d. CAW shall make available for delivery to CSIP any Annual Return Water Obligation

in excess of the CCSD Delivery Volume, according to procedures agreed to in the Water Purchase Agreement.

3. The Parties acknowledge that CAW could be legally required by a regulatory agency, including the CPUC in this proceeding, or by a court, to make water deliveries to other locations in the SRGB to the extent necessary to mitigate any groundwater impacts from the MPWSP that were demonstrated in relation to a specific location overlying the SRGB ("Other Return Water Obligation"). Such Other Return Water Obligation could also serve to satisfy CAW's obligations to return water to the SRGB under the Act, CEQA, or common-law water law principle. Under such circumstances, the Parties agree that it may be inequitable to CAW and its ratepayers to fund both the Other Return Water Obligation and the Return Water obligations specified herein as this would result in a duplicative liability to CAW and its ratepayers. CAW's obligation to make available the CCSD Delivery Volume shall be reduced in the event and to the extent that a regulatory agency or court has required CAW to deliver Return Water in a manner or location different than as specified in the Term Sheet. CCSD shall not be obliged to purchase Return Water if it determines that the reduced amount of Return Water would not be sufficient to justify a Water Purchase Agreement as contemplated herein. In the event that CCSD determines that its water purchase is not justified due to an Other Return Water Obligation, the parties to this Term Sheet will meet and confer in good faith to effect other arrangements to make the remaining Return Water, net of the Other Return Water Obligation, available for use in lieu of existing groundwater pumping in the SRGB in order to ensure that CAW will meet its Annual Return Water Obligation under this Term Sheet.

The Parties further acknowledge that the CCSD must be assured of a specific volume of Return Water to justify investment in the capital facilities necessary to convey the Return Water from the Project to the CCSD (the "CCSD Facilities"), and therefore CAW's obligation to the CCSD Delivery Volume specified herein cannot be terminated during the term of the anticipated water purchase agreements after such time as CCSD has obligated itself to finance such capital facilities. To afford the best foresight in relation to potentially competing Return Water obligations, while also facilitating the certainty relating to Return Water deliveries required by CCSD, CAW's obligation to make available the CCSD Delivery Volume under the terms of that water purchase agreement shall become unconditional on the date that is the latest of the following dates:

- a. the date on which the CPUC has issued a CPCN for the Project and the period to challenge the legality of the CPUC's issuance of the CPCN (based on CEQA compliance or otherwise) has expired and no challenge has been brought;
- b. the date on which any challenge against the CPUC's issuance of the CPCN is resolved with finality following all available appeals and petitions; or
- c. 60 days following the date on which the CCSD provides notification to CAW that it has secured financing, acceptable to CCSD, to construct the CCSD Facilities.

In the event of any challenge against the CPUC's issuance of the CPCN, the Parties to this Agreement shall meet and confer in good faith to effect other arrangements to make the total amount of the Return Water, as adjusted by any Other Return Water Obligation, available for use in lieu of existing groundwater pumping in the SRGB in order to ensure that CAW will meet its Annual Return Water Obligation under this Agreement during the pendency of that litigation.

After the above dates, Cal Am may not terminate its obligation to deliver the CCSD Delivery Volume in the event CAW is subsequently required to make Other Return Water Obligations. CAW and CCSD shall meet and confer as necessary within a reasonable amount of time before or after any of the above dates if it appears that CAW's obligation to make available the CCSD Delivery Volume may not become unconditional. Due to the urgent nature of the MPWSP and other regulatory pressures to implement the MPWSP, CAW and CCSD may mutually agree at any time to amend and move forward with the CCSD Water Purchase Agreement, notwithstanding Other Return Water Obligations, provided all other required approvals have been attained and provided that CAW will meet its Annual Return Water Obligation under this Term Sheet through some combination of the CCSD Water Purchase Agreement, the CSIP Water Purchase Agreement, Other Return Water Obligations, or arrangements made pursuant to paragraph 6 of the Term Sheet.

4. Return Water and Excess Water pricing shall be as follows:
 - a. **CCSD:** For each acre-foot of Return Water or Excess Water made available for delivery to CCSD:
 - i. CCSD shall pay \$110 per acre-foot, as currently estimated, for Return Water made available for delivery to meet the Annual Return Water Obligation, which reflects its avoided cost to produce groundwater to meet customer demand.
 - ii. CCSD shall pay \$580 per acre-foot, as currently estimated, for any Excess Water, which reflects the operations and maintenance cost for the MPWSP to produce one acre-foot of potable water.
 - b. **CSIP:** For each acre-foot of Return Water delivered by CAW, CSIP shall pay \$xxx per acre-foot, as currently estimated, which reflects the CSIP customers' marginal avoided cost for recycled water produced for use by the CSIP in lieu recharge project's customers.
 - c. Payment for Return Water and Excess Water shall be subject to standard financing provisions, including appropriate price adjustments. The pricing set forth in this Term Sheet is for illustrative purposes only, and actual prices have not been determined.
5. The Parties support CAW negotiating and entering into Water Purchase Agreements with CCSD and the Agency (for CSIP) consistent with the terms of this Term Sheet.

- a. The Water Purchase Agreements shall have an initial term of at least 30 years.
 - b. Prior to the expiration of the Water Purchase Agreements contemplated herein, CCSD and CSIP shall have a right of first refusal to enter into new water purchase agreements on terms to be negotiated at the time.
6. CAW's obligation to make Return Water available for use in lieu of existing groundwater pumping in the SRGB to meet its Annual Return Water Obligation shall survive for a period of 30 years if the initial Water Purchase Agreements do not become effective or are otherwise amended or terminated. In that event, the Parties to this Term Sheet shall meet and confer in good faith to effect other arrangements to make the total amount of the Return Water reduced by any Other Return Water Obligation available for use in lieu of existing groundwater pumping in the SRGB in order to ensure that Cal-Am will meet its Annual Return Water Obligation under this Term Sheet.
7. Upon expiration or non-renewal of the Water Purchase Agreements: (a) CAW shall comply with the Agency Act; and (b) unless CAW demonstrates that Return Water is not needed to prevent legal injury to prior groundwater rights holders in the SRGB or to avoid significant adverse effects to SRGB groundwater resources pursuant to procedures to be agreed upon in future negotiations, CAW shall continue to make Return Water available for delivery to the SRGB for use in lieu of existing groundwater production. In the event of a dispute among any of the parties to this Term Sheet with respect to CAW's need to continue providing Return Water, such dispute shall be resolved by a dispute resolution procedure to be agreed upon in future negotiations.
8. This Term Sheet reflects a settlement and compromise of putative claims and remedies of the Parties hereto.
9. If the Return Water settlement described in this Term Sheet is not approved by the CPUC and implemented by CAW, the SVWC, MCFB and Landwatch reserve their rights to challenge CAW's production of water from the SRGB in any appropriate forum.
10. The Parties agree to support CPUC approval of MPWSP consistent with the compromise and settlement reflected in this Term Sheet, and agree to defend and support this Return Water settlement Term Sheet in any administrative or judicial proceedings concerning this Term Sheet and/or CAW's obligations and responsibilities with respect to Return Water.
11. Among other things, this Term Sheet helps to define a stable and finite project description that will facilitate the CPUC's completion of CEQA review for the MPWSP. The legal effectiveness of this Term Sheet is contingent on the completion of CEQA review and does not irretrievably commit the Parties to carrying out any physical activities that would be required for CAW to meet the Annual Return Water Obligation, including through the anticipated Water Purchase Agreements whose future approval will be conditioned upon the completion of CEQA review by the CPUC as lead agency for the MPWSP and by those Parties playing the role of a responsible agency with respect to the anticipated Water Supply Agreements. The lead agency and responsible agencies will retain full discretion with respect to deciding whether to approve Water Supply Agreements or any other commitments

necessary or convenient for CAW to meet the Annual Return Water Obligation, including discretion to modify commitments to avoid or reduce any significant adverse physical environmental effects from Return Water activities that are within their jurisdiction.

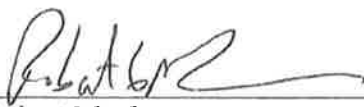
12. This Term Sheet does not currently impact the terms of sections 3.1(b) of the document known as the Large Settlement Agreement. To the extent later binding agreements may specifically do so, they will not impact the Agency's authority and responsibilities under the Agency Act.

13. This Term Sheet may be executed in any number of counterparts.

Dated:

CALIFORNIA-AMERICAN WATER COMPANY

1/22/16

By 
Robert MacLean,
President

Dated:

SALINAS VALLEY WATER COALITION

By _____
Nancy Isakson,
President

Dated:

MONTEREY COUNTY FARM BUREAU

By _____
Norm Groot,
Executive Director

Dated:

MONTEREY PENINSULA REGIONAL WATER AUTHORITY

By _____
Jason Burnett,
President

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By _____
Robert MacLean,
President

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1/22/16

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Nancy Isakson,
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Dated: MONTEREY COUNTY FARM BUREAU

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Norm Groot,
Executive Director

Dated: MONTEREY PENINSULA REGIONAL WATER AUTHORITY

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President

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Nancy Isakson,
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Dated: MONTEREY COUNTY FARM BUREAU

1/22/16

By _____
Norm Groot,
Executive Director

Dated: MONTEREY PENINSULA REGIONAL WATER AUTHORITY

By _____
Jason Burnett,
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Robert MacLean,
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Dated: SALINAS VALLEY WATER COALITION

By _____
Nancy Isakson,
President

Dated: MONTEREY COUNTY FARM BUREAU

By _____
Norm Groot,
Executive Director

Dated: MONTEREY PENINSULA REGIONAL WATER AUTHORITY

January 21, 2016

By Jason Burnett
Jason Burnett,
President


January 21, 2016

Dated:

1/22/16

LANDWATCH MONTEREY COUNTY

By



John H. Farrow,
Counsel

Dated:

CASTROVILLE COMMUNITY SERVICES DISTRICT

By

J. Eric Tynan,
General Manager

Dated:

MONTEREY COUNTY WATER RESOURCES AGENCY

By

David Chardavoyne,
General Manager

January 21, 2016

Dated: LANDWATCH MONTEREY COUNTY

By _____
John H. Farrow,
Counsel

Dated: CASTROVILLE COMMUNITY SERVICES DISTRICT

1/22/16

By  _____
J. Eric Tynan,
General Manager

Dated: MONTEREY COUNTY WATER RESOURCES AGENCY

By _____
David Chardavoyne,
General Manager

Dated: LANDWATCH MONTEREY COUNTY

By _____
John H. Farrow,
Counsel

Dated: CASTROVILLE COMMUNITY SERVICES DISTRICT

By _____
J. Eric Tynan,
General Manager

Dated: 2/2/16 MONTEREY COUNTY WATER RESOURCES AGENCY

By David F. Chardavoyne
David Chardavoyne,
General Manager

**SETTLEMENT AGREEMENT
ON MPWSP DESALINATION PLANT
RETURN WATER**

APPENDIX B

CCSD RESOLUTION NO. 16-2 and NO. 16-4

RESOLUTION NO. 16-2

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CASTROVILLE COMMUNITY SERVICES DISTRICT APPROVING RETURN WATER PLANNING TERM SHEET

RESOLVED by the Board of Directors ("Board") of the Castroville Community Services District ("District"), at a regular meeting called and held on January 19, 2016, at the business office of the District, 111499 Geil Street, Castroville, California as follows:

WHEREAS, the Board makes the following findings of fact:

A. California-American Water Company ("CAW") is seeking permits and approvals for the Monterey Peninsula Water Supply Project ("MPWSP"), including a certificate of public convenience and necessity from the California Public Utilities Commission ("CPUC").

B. The MPWSP includes a desalination plant that will provide a potable water supply for CAW's Monterey Peninsula service area. Rather than using an open-ocean intake that would produce only seawater as source water for the desalination plant, the MPWSP desalination plant will produce its source water from subterranean slant wells drilled adjacent to the ocean, which will draw water from strata underlying the ocean. The location of the wells overlies the western portion of the Salinas River Groundwater Basin ("SRGB").

C. To meet applicable requirements of the Monterey County Water Resources Agency Act ("Agency Act", CAW has proposed as part of the MPWSP to make available for delivery to groundwater users overlying the SRGB a volume of water equal to the percentage of SRGB groundwater in the total MPWSP source water production, as determined by the Agency ("Return Water").

D. A controversy has arisen as to CAW's obligation to deliver Return Water to the SRGB, and as to the responsibility for the costs of producing the Return Water, and a Draft Return Water Planning Term Sheet ("Term Sheet") has been proposed to resolve these issues and to reach agreement on a framework to satisfy Return Water requirements. A copy of the January 12, 2016 Draft of the Term Sheet is attached to this Resolution as Exhibit "A".

E. Pursuant to the terms of this Term Sheet, the Parties propose that CAW deliver Return Water to the District, which is designated "CCSD" in the Term Sheet, and to the Castroville Seawater Intrusion Project ("CSIP") to satisfy Return Water requirements that may arise out of the Agency Act, CEQA, or California groundwater law, in accordance with terms and conditions to be agreed upon based on the general principles contained in the Term Sheet.

F. The Salinas Valley Water Coalition, Monterey County Farm Bureau, and Landwatch Monterey County support CAW's delivering Return Water to the District and to CSIP for use in lieu of existing groundwater pumping in the SRGB.

G. The District currently relies on groundwater from the SRGB to meet water demands within the District's service area, which average approximately 800 acre-feet annually ("afa").

H. The District increasingly has experienced water supply challenges due to water quality degradation of its water supplies, primarily from increased salinity. The District is actively pursuing alternative water supplies and has applied to the State for funding to develop deeper groundwater wells and other projects to serve its customer demands.

I. The District is interested in taking delivery of a Return Water supply from the MPWSP to replace or supplement the District's current reliance on groundwater from the SRGB.

J. The District understands from its engineer and from CAW that preliminary cost estimates for a pipeline to convey water from the MPWSP plant to the District are approximately \$6,500,000, which may be reduced to approximately \$4,400,000, assuming that CAW will secure contracts for construction of the pipeline and that environmental review and permitting will be performed in conjunction with the MPWSP.

K. The District may not be able to prudently fund a pipeline for more than \$2,800,000.

L. Capital obligations for the pipeline would necessitate long-term commitments by the District and certainty of source water supply for the District. The Term Sheet addresses these issues.

M. The Term Sheet provides that the legal effectiveness of the Term Sheet is contingent on the completion of CEQA review and does not irretrievably commit the Parties to the Term Sheet to carrying out any physical activities that would be required to implement the terms of the Term Sheet and that the lead agency, and responsible agencies like the District will retain full discretion with respect to deciding whether to approve Water Supply Agreements or any other commitments necessary or convenient for CAW to meet the Annual Return Water Obligation under the Term Sheet, including discretion to modify commitments to avoid or reduce any significant adverse physical environmental effects from Return Water activities that are within their jurisdiction.

N. District Counsel advises that approval of the Term Sheet by the District Board does not require prior review under the California Environmental Quality Act, because approval of the Term Sheet will not constitute action that significantly furthers a project "in a manner that forecloses alternatives or mitigation measures that would ordinarily be part of CEQA review of that public project," as required by Cal.CodeRegs., tit. 14, § 15004, subd. (b)(2)(B) and the decision of the California Supreme Court in *Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116, 138.

O. The District's General Manager recommends approval of the Term Sheet.

NOW THEREFORE, BE IT RESOLVED by the Board of Directors of the Castroville Community Services District, as follows:

1. Approval of Return Water Planning Term Sheet. The Board approves execution by the Board President of the Return Water Term Sheet, a copy of which is attached to this Resolution 16-2 as Exhibit "A".

2. Authority to Implement Term Sheet. The District, acting through the General Manager and the Board President, are authorized to meet and confer with such persons, including representatives of other Parties to the Term Sheet and the District's engineering and legal advisors to carry out the activities necessary to comply with the Term Sheet and with applicable law.

3. Limitation on Authority to Implement Term Sheet. Prior to compliance with the California Environmental Quality Act ("CEQA"), the District and persons acting on behalf of the District shall not take any action or commit the District to any action to implement the Term Sheet that would as a practical matter under the circumstances effectively preclude any alternatives or mitigation measures that would otherwise require to be considered, including the alternative of not going forward with the project outlined in the Term Sheet.

The foregoing resolution was duly and properly introduced at a regular meeting of the Castroville Community Services District Board of Directors duly held on January 19, 2016, and passed and adopted by the following vote:

AYES: Stefani, Montejano, MacMillan, Lewis
NOES: 0
ABSENT: Melgoza
ABSTAIN: 0



President of the Board

Attest:



Secretary of the Board

EXHIBIT A

DRAFT RETURN WATER PLANNING TERM SHEET
Dated January 12, 2016

DRAFT RETURN WATER PLANNING TERM SHEET

This PLANNING TERM SHEET (the “Term Sheet”) is made as of _____, 2016, by and among CALIFORNIA-AMERICAN WATER COMPANY (“CAW”), the SALINAS VALLEY WATER COALITION (“SVWC”), the MONTEREY COUNTY FARM BUREAU (“MCFB”), the MONTEREY PENINSULA REGIONAL WATER AUTHORITY (“Authority”), LANDWATCH MONTEREY COUNTY, the CASTROVILLE COMMUNITY SERVICES DISTRICT (“CCSD”), and [OTHER PARTIES] (individually, “Party”; collectively, “Parties”).

RECITALS

- A. CAW is seeking permits and approvals for the Monterey Peninsula Water Supply Project (“MPWSP”), including a certificate of public convenience and necessity from the California Public Utilities Commission (“CPUC”);
- B. The MPWSP includes a desalination plant that will provide a potable water supply for CAW’s Monterey Peninsula service area. Rather than using an open-ocean intake that would produce only seawater as source water for the desalination plant, the MPWSP desalination plant will produce its source water from subterranean slant wells drilled adjacent to the ocean, which will draw water from strata underlying the ocean. The location of the wells overlies the western portion of the Salinas River Groundwater Basin (“SRGB”).
- C. CAW characterizes its MPWSP as proposing to develop seawater and brackish groundwater originating from the SRGB to produce source water that would be desalinated to provide a potable water supply for CAW’s Monterey Peninsula service area.
- D. The SVWC, MCFB and Landwatch contend that—rather than proposing to use an open-ocean intake that would produce only seawater—CAW’s MPWSP proposes to use wells developed in the SRGB to produce source water for desalination to provide CAW’s Monterey Peninsula service area with a new source of water supply.
- E. The ratio of seawater to brackish SRGB groundwater in the MPWSP source water is anticipated to change over time, with more seawater and less SRGB groundwater anticipated later in the MPWSP’s life;
- F. CAW contends that source water production by the MPWSP is unlikely to cause significant adverse environmental effects with respect to SRGB groundwater resources and is unlikely to cause injury to prior groundwater rights in the SRGB but submits that the Monterey County Water Resources Agency Act (“Agency Act”) authorizes the Monterey County Water Resources Agency (“Agency”) to obtain an injunction prohibiting the export and use of SRGB groundwater outside of the SRGB and certain areas of Fort Ord;
- G. The SVWC, MCFB and Landwatch submit that the Agency Act directly prohibits the

export and use of SRGB groundwater outside of the SRGB and certain areas of Fort Ord without the need for the Agency to obtain an injunction;

- H. To meet applicable requirements of the Agency Act, CAW has proposed as part of the MPWSP to make available for delivery to groundwater users overlying the SRGB a volume of water equal to the percentage of SRGB groundwater in the total MPWSP source water production, as determined by the Agency (“Return Water”);
- I. The SVWC, MCFB and Landwatch contend there is no surplus SRGB groundwater available for CAW’s use in providing public water service within or outside of the SRGB and that the law of California groundwater rights requires that any production and use of SRGB groundwater by the MPWSP must be returned for use within the SRGB in lieu of existing groundwater pumping;
- J. For MPWSP planning and engineering purposes, CAW submits that the MPWSP source water wells have been designed so that approximately 4% of the source water produced by the MPWSP will originate as brackish groundwater from the SRGB;
- K. For planning purposes, CAW has assumed that the Return Water volume for the large desalination plant will be 1,080 afa, and for the small plant 690 afa;
- L. The CPUC is conducting environmental review of the MPWSP under the California Environmental Quality Act (“CEQA”), and the Monterey Bay National Marine Sanctuary is conducting environmental review of the MPWSP under the National Environmental Policy Act (“NEPA”);
- M. The modeling used in the CPUC’s April 2015 CalAm Monterey Peninsula Water Supply Project Draft Environmental Impact Report (“DEIR”) estimates that the volume of SRGB groundwater produced as source water for the large-scale (9.6 million gallons per day) MPWSP would be approximately 7 percent, or 1,889 afa, under existing land-use conditions and would be approximately 4 percent, or 1,080 afa, under projected future 2060 land-use conditions, and would average approximately 5.5 percent, or 1,485 afa, over the life of the MPWSP. (DEIR at 4.4-67.)
- N. Note C to the CPUC’s DEIR Table 2-5 states that “groundwater modeling indicates that as much as 1,080 afa may need to be returned to the Salinas Valley Groundwater Basin (based on 4 percent of total source water intake being drawn from the Salinas Valley Groundwater Basin[])” and states that “MPWSP supply would be sufficient to provide this larger quantity of return water.”
- O. The CPUC is preparing a revised DEIR/Environmental Impact Statement (RDEIR/DEIS) for the MPWSP that will assess the significance of effects to SRGB groundwater resources, and the modeling in the revised RDEIR/DEIS will be updated and calibrated to include test well production data obtained to date (over 100 days of pumping). CAW also is working to gather additional (up to two years) test well production data to inform analysis of those effects. The full data set is not expected to be available before the CPUC’s completion of CEQA/NEPA review and its

decision whether to approve a certificate of convenience and necessity for the MPWSP;

- P. The Parties and the State Water Resources Control Board are in agreement, and the DEIR concludes, that injecting desalinated water from the MPWSP into the SRGB is less desirable than delivering the Return Water for beneficial use in the SRGB;
- Q. Prior environmental analyses reveal that there may be limitations in the capacity of the Castroville Seawater Intrusion Project ("CSIP") to accommodate all of the MPWSP Return Water under some conditions. (DEIR, p. 2-45, 6-4, 6-114; Pure Water Monterey, GWR DEIR, Appendix Q, Table B-3);
- R. CSIP is an Agency project that provides recycled water and diverted Salinas River water for use in lieu of groundwater pumping for irrigated agricultural use in the Castroville area of the SRGB;
- S. The CPUC Administrative Law Judge has requested additional testimony from the Joint Settling Parties regarding Return Water options, and that testimony must be submitted to the CPUC by January 22, 2016;
- T. The SVWC, MCFB and Landwatch contend that the MPWSP's well production may cause injury to the SRGB and senior groundwater rights holders in the SRGB under California groundwater law, even if the RDEIR/DEIS concludes that the well production would not cause a significant adverse effect under CEQA.
- U. MCFB, SVWC and Landwatch oppose any scenario where Return Water would be used outside the SRGB, rather than for use in lieu of existing groundwater pumping in the SRGB;
- V. In the July 31, 2013 Settlement Agreement among 16 parties to Proceeding A1204019, MCFB, SVWC, Landwatch, the Agency, and Citizens for Public Water reserved all rights to challenge production of water from the SRGB by CAW in any appropriate forum based on their concerns for potential harm to the SRGB and users thereof;
- W. MCFB and SVWC have stated they will litigate these issues if they are not resolved through agreement;
- X. CAW and the Authority maintain that any obligation to return SRGB groundwater to the SRGB arises only as a requirement of the Agency Act, except to the extent that Return Water is necessary as part of a physical solution to avoid harm to the SRGB and senior groundwater rights holders in the SRGB under California groundwater law or to mitigate significant adverse effects to the SRGB or particular groundwater users pursuant to CEQA;
- Y. CAW, with the encouragement of the Authority, also desires to maximize revenue for Return Water to offset water costs and water rates for CAW customers on the Monterey Peninsula;

- Z. CAW must obtain CPUC approval to deliver or sell any Return Water for use outside of CAW's service area;
- AA. A controversy has now arisen as to CAW's obligation to deliver Return Water to the SRGB, and as to the responsibility for the costs of producing the Return Water, and the Parties to this Term Sheet desire to resolve these issues and to reach agreement on a framework to satisfy Return Water requirements;
- BB. Pursuant to the terms of this Term Sheet, the Parties propose that CAW deliver Return Water to the CCSD and to the CSIP to satisfy Return Water requirements that may arise out of the Agency Act, CEQA, or California groundwater law, in accordance with terms and conditions to be agreed upon based on the general principles contained in this Term Sheet;
- CC. CCSD submits that it provides municipal and domestic water service to the Town of Castroville, which overlies the SRGB in an area north of the City of Marina and west of the City of Salinas;
- DD. CCSD submits that it currently relies on groundwater from the SRGB to meet Castroville's water demands, which average approximately 800 afa;
- EE. CCSD submits that it increasingly has experienced water supply challenges due to water quality degradation of its water supplies, primarily from increased salinity;
- FF. CCSD submits that poor water quality, including elevated sodium levels extant in CCSD's groundwater supplies, can contribute to health risks of individuals susceptible to high sodium;
- GG. CCSD submits that it has been identified as a disadvantaged community (Greater Monterey County IRWM Regional Water Management Group Disadvantaged Community Outreach Plan, Prepared for the Environmental Justice Coalition for Water by Nilsen & Associates, Approved April 18, 2012), and was an active participant in the Regional Plenary Oversight Group process established by the Office of Ratepayer Advocates to determine whether the Regional Desalination Project, a predecessor project to the MPWSP, would be a source of supply for Castroville;
- HH. CCSD submits that many of CCSD's customers contribute significantly to agricultural and hospitality industries in the Salinas Valley and on the Monterey Peninsula;
- II. CCSD submits that it is actively pursuing alternative water supplies and has applied to the State for funding to develop deeper groundwater wells and other projects to serve its customer demands;
- JJ. CCSD submits that it is interested in taking delivery of a Return Water supply from the MPWSP to replace or supplement CCSD's current reliance on groundwater from the SRGB;

KK. Preliminary cost estimates for a pipeline to convey water from the MPWSP plant to CCSD are approximately \$6,500,000, which may be reduced to approximately \$4,400,000, assuming that CAW will secure contracts for construction of the pipeline and that environmental review and permitting will be performed in conjunction with the MPWSP. CCSD submits that it may not be able to prudently fund a pipeline for more than \$2,800,000, and that capital obligations for the pipeline would necessitate long-term commitments by CCSD and certainty of source water supply for CCSD;

LL. The SVWC, MCFB, and Landwatch support CAW's delivering Return Water to CCSD and to CSIP for use in lieu of existing groundwater pumping in the SRGB; and

MM. CAW's delivery of Return Water to CCSD pursuant to the terms of this Term Sheet is a fair and equitable resolution of the disputed matters described above, and is consistent with the law and policy controlling the CPUC's approval of the MPWSP.

NN. The foregoing Recitals are included to provide background regarding this Term Sheet but are neither part of nor incorporated into its terms.

NOW, THEREFORE, as a COMPROMISE and SETTLEMENT of the above-stated dispute, and to provide for an efficient and effective resolution of this dispute, the Parties do hereby AGREE to negotiate appropriate binding agreements on the following terms:

1. Notwithstanding any other provision of this Term Sheet, this Term Sheet sets forth agreements in principle concerning its subject matter, but does not at this time constitute binding covenants or conditions with respect to the issue of Return Water.
2. It is anticipated that certain Parties to this terms sheet will negotiate and enter into water purchase agreements under which CAW will deliver Return Water to the SRGB during the term of the anticipated water purchase agreements for use in lieu of existing groundwater production as follows:
 - a. CAW shall have annual Return Water requirements that shall be calculated based on the percentage of SRGB groundwater in the total MPWSP source water production for the prior calendar year ("Annual Return Water Obligation").
 - i. During the first three months after start-up of the MPWSP, the Annual Return Water Obligation shall be 7% of total source water production during that period, and for the remainder of that year shall be the percentage of SRGB groundwater in the total MPWSP source water production calculated during the first three months in which the MPWSP started up and then operated.
 - ii. Thereafter, CAW shall make available for delivery to the SRGB for beneficial use each year the Annual Return Water Obligation.

- iii. The volume of the Annual Return Water Obligation shall be determined by the Agency based on the methodology set forth in Exhibit A [parties analyzing], which may include annual averaging and other operational parameters appropriate to the circumstances.
 - b. CAW shall make available for delivery to CCSD 800 afa of Return Water if the large desalination plant is constructed or 690 afa if the smaller desalination plant is constructed ("CCSD Delivery Volume").
 - c. If the Annual Return Water Obligation is less than the CCSD Delivery Volume, CAW shall make available for delivery potable water in addition to the amount of the Annual Return Water Obligation sufficient to satisfy the CCSD Delivery Volume ("Excess Water").
 - d. CAW shall make available for delivery to CSIP any Annual Return Water Obligation in excess of the CCSD Delivery Volume, according to procedures agreed to in the Water Purchase Agreement.
3. The Parties acknowledge that CAW could be legally required by a regulatory agency, including the CPUC in this proceeding, or by a court, to make water deliveries to other locations in the SRGB to the extent necessary to mitigate any groundwater impacts from the MPWSP that were demonstrated in relation to a specific location overlying the SRGB ("Other Return Water Obligation"). Such Other Return Water Obligation could also serve to satisfy CAW's obligations to return water to the SRGB under the Act, CEQA, or common-law water law principle. Under such circumstances, the Parties agree that it may be inequitable to CAW and its ratepayers to fund both the Other Return Water Obligation and the Return Water obligations specified herein as this would result in a duplicative liability to CAW and its ratepayers. CAW's obligation to make available the CCSD Delivery Volume shall be reduced in the event and to the extent that a regulatory agency or court has required CAW to deliver Return Water in a manner or location different than as specified in the Term Sheet. CCSD shall not be obliged to purchase Return Water if it determines that the reduced amount of Return Water would not be sufficient to justify a Water Purchase Agreement as contemplated herein. In the event that CCSD determines that its water purchase is not justified due to an Other Return Water Obligation, the parties to this Term Sheet will meet and confer in good faith to effect other arrangements to make the remaining Return Water, net of the Other Return Water Obligation, available for use in lieu of existing groundwater pumping in the SRGB in order to ensure that CAW will meet its Annual Return Water Obligation under this Term Sheet.

The Parties further acknowledge that the CCSD must be assured of a specific volume of Return Water to justify investment in the capital facilities necessary to convey the Return Water from the Project to the CCSD (the "CCSD Facilities"), and therefore CAW's obligation to the CCSD Delivery Volume specified herein cannot be terminated during the term of the anticipated water purchase agreements after such time as CCSD has obligated itself to finance such capital facilities. To afford the best foresight in

relation to potentially competing Return Water obligations, while also facilitating the certainty relating to Return Water deliveries required by CCSD, CAW's obligation to make available the CCSD Delivery Volume under the terms of that water purchase agreement shall become unconditional on the date that is the latest of the following dates:

- a. the date on which the CPUC has issued a CPCN for the Project and the period to challenge the legality of the CPUC's issuance of the CPCN (based on CEQA compliance or otherwise) has expired and no challenge has been brought;
- b. the date on which any challenge against the CPUC's issuance of the CPCN is resolved with finality following all available appeals and petitions; or
- c. 60 days following the date on which the CCSD provides notification to CAW that it has secured financing, acceptable to CCSD, to construct the CCSD Facilities.

In the event of any challenge against the CPUC's issuance of the CPCN, the Parties to this Agreement shall meet and confer in good faith to effect other arrangements to make the total amount of the Return Water, as adjusted by any Other Return Water Obligation, available for use in lieu of existing groundwater pumping in the SRGB in order to ensure that CAW will meet its Annual Return Water Obligation under this Agreement during the pendency of that litigation.

After the above dates, Cal Am may not terminate its obligation to deliver the CCSD Delivery Volume in the event CAW is subsequently required to make Other Return Water Obligations. CAW and CCSD shall meet and confer as necessary within a reasonable amount of time before or after any of the above dates if it appears that CAW's obligation to make available the CCSD Delivery Volume may not become unconditional. Due to the urgent nature of the MPWSP and other regulatory pressures to implement the MPWSP, CAW and CCSD may mutually agree at any time to amend and move forward with the CCSD Water Purchase Agreement, notwithstanding Other Return Water Obligations, provided all other required approvals have been attained and provided that CAW will meet its Annual Return Water Obligation under this Term Sheet through some combination of the CCSD Water Purchase Agreement, the CSIP Water Purchase Agreement, Other Return Water Obligations, or arrangements made pursuant to paragraph 6 of the Term Sheet.

4. Return Water and Excess Water pricing shall be as follows:

- a. **CCSD:** For each acre-foot of Return Water or Excess Water made available for delivery to CCSD:
 - i. CCSD shall pay \$110 per acre-foot, as currently estimated, for Return Water made available for delivery to meet the Annual Return Water Obligation, which reflects its avoided cost to produce groundwater to

meet customer demand.

- ii. CCSD shall pay \$580 per acre-foot, as currently estimated, for any Excess Water, which reflects the operations and maintenance cost for the MPWSP to produce one acre-foot of potable water.
 - b. **CSIP:** For each acre-foot of Return Water delivered by CAW, CSIP shall pay \$xxx per acre-foot, as currently estimated, which reflects the CSIP customers' marginal avoided cost for recycled water produced for use by the CSIP in lieu recharge project's customers.
 - c. Payment for Return Water and Excess Water shall be subject to standard financing provisions, including appropriate price adjustments. The pricing set forth in this Term Sheet is for illustrative purposes only, and actual prices have not been determined.
5. The Parties support CAW negotiating and entering into Water Purchase Agreements with CCSD and the Agency (for CSIP) consistent with the terms of this Term Sheet.
- a. The Water Purchase Agreements shall have an initial term of at least 30 years.
 - b. Prior to the expiration of the Water Purchase Agreements contemplated herein, CCSD and CSIP shall have a right of first refusal to enter into new water purchase agreements on terms to be negotiated at the time.
6. CAW's obligation to make Return Water available for use in lieu of existing groundwater pumping in the SRGB to meet its Annual Return Water Obligation shall survive for a period of 30 years if the initial Water Purchase Agreements do not become effective or are otherwise amended or terminated. In that event, the Parties to this Term Sheet shall meet and confer in good faith to effect other arrangements to make the total amount of the Return Water reduced by any Other Return Water Obligation available for use in lieu of existing groundwater pumping in the SRGB in order to ensure that Cal-Am will meet its Annual Return Water Obligation under this Term Sheet.
7. Upon expiration or non-renewal of the Water Purchase Agreements: (a) CAW shall comply with the Agency Act; and (b) unless CAW demonstrates that Return Water is not needed to prevent legal injury to prior groundwater rights holders in the SRGB or to avoid significant adverse effects to SRGB groundwater resources pursuant to procedures to be agreed upon in future negotiations, CAW shall continue to make Return Water available for delivery to the SRGB for use in lieu of existing groundwater production. In the event of a dispute among any of the parties to this Term Sheet with respect to CAW's need to continue providing Return Water, such dispute shall be resolved by a dispute resolution procedure to be agreed upon in future negotiations.

8. This Term Sheet reflects a settlement and compromise of putative claims and remedies of the Parties hereto.
9. If the Return Water settlement described in this Term Sheet is not approved by the CPUC and implemented by CAW, the SVWC, MCFB and Landwatch reserve their rights to challenge CAW's production of water from the SRGB in any appropriate forum.
10. The Parties agree to support CPUC approval of MPWSP consistent with the compromise and settlement reflected in this Term Sheet, and agree to defend and support this Return Water settlement Term Sheet in any administrative or judicial proceedings concerning this Term Sheet and/or CAW's obligations and responsibilities with respect to Return Water.
11. Among other things, this Term Sheet helps to define a stable and finite project description that will facilitate the CPUC's completion of CEQA review for the MPWSP. The legal effectiveness of this Term Sheet is contingent on the completion of CEQA review and does not irretrievably commit the Parties to carrying out any physical activities that would be required for CAW to meet the Annual Return Water Obligation, including through the anticipated Water Purchase Agreements whose future approval will be conditioned upon the completion of CEQA review by the CPUC as lead agency for the MPWSP and by those Parties playing the role of a responsible agency with respect to the anticipated Water Supply Agreements. The lead agency and responsible agencies will retain full discretion with respect to deciding whether to approve Water Supply Agreements or any other commitments necessary or convenient for CAW to meet the Annual Return Water Obligation, including discretion to modify commitments to avoid or reduce any significant adverse physical environmental effects from Return Water activities that are within their jurisdiction.
12. This Term Sheet does not currently impact the terms of sections 3.1(b) of the document known as the Large Settlement Agreement. To the extent later binding agreements may specifically do so, they will not impact the Agency's authority and responsibilities under the Agency Act.
13. This Term Sheet may be executed in any number of counterparts.

[Signatures to be added]

RESOLUTION NO. 16-4

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CASTROVILLE COMMUNITY SERVICES DISTRICT APPROVING SUBMITTAL TO CPUC OF DRAFT "IN CONCEPT" RETURN WATER PURCHASE AGREEMENT

RESOLVED by the Board of Directors ("Board") of the Castroville Community Services District ("District"), at a regular meeting called and held on April 19, 2016, at the business office of the District, 111499 Geil Street, Castroville, California as follows:

WHEREAS, the Board makes the following findings of fact:

A. California-American Water Company ("Cal Am") is seeking permits and approvals for the Monterey Peninsula Water Supply Project ("MPWSP"), including a certificate of public convenience and necessity from the California Public Utilities Commission ("CPUC").

B. The MPWSP includes a desalination plant that will provide a potable water supply for Cal Am's Monterey Peninsula service area. Rather than using an open-ocean intake that would produce only seawater as source water for the desalination plant, the MPWSP desalination plant will produce its source water from subterranean slant wells drilled adjacent to the ocean, which will draw water from strata underlying the ocean. The location of the wells overlies the western portion of the Salinas River Groundwater Basin ("SRGB").

C. To meet applicable requirements of the Monterey County Water Resources Agency Act ("Agency Act"), Cal Am has proposed as part of the MPWSP to make available for delivery to groundwater users overlying the SRGB a volume of water equal to the percentage of SRGB groundwater in the total MPWSP source water production, as determined by the Agency ("Return Water").

D. On January 22, Cal Am, other parties to CPUC proceeding A.12-04-019 and the District signed a Return Water Planning Term Sheet ("Term Sheet") for a framework to satisfy Return Water requirements. The Board approved Resolution 16-2 on December 15, 2015, authorizing execution of the Term Sheet for the District.

E. The Term Sheet provides that Cal Am deliver Return Water to the District, which is designated "CCSD" in the Term Sheet, and to the Castroville Seawater Intrusion Project ("CSIP") to satisfy Return Water requirements that may arise out of the Agency Act, CEQA, or California groundwater law, in accordance with terms and conditions to be agreed upon based on the general principles contained in the Term Sheet. The Monterey County Water Resources Agency ("MCWRA"), the Salinas Valley Water Coalition, Monterey County Farm Bureau, and Landwatch Monterey County support Cal Am's delivering Return Water to the District and to CSIP for use in lieu of existing groundwater pumping in the SRGB.

F. The District currently relies on groundwater from the SRGB to meet water demands within the District's service area, which are currently 780 acre-feet annually ("afa").

G. The District increasingly has experienced water supply challenges due to water quality degradation of its water supplies, primarily from increased salinity. The District is actively pursuing alternative water supplies and has applied to the State for funding to develop deeper groundwater wells and other projects to serve its customer demands.

H. The District is interested in taking delivery of a Return Water supply from the MPWSP to replace or supplement the District's current reliance on groundwater from the SRGB at a cost equivalent to the cost for the District to drill and outfit a new deep well, currently estimated to be \$2,800,000.

I. The parties to the Term Sheet have met and conferred and negotiated draft agreements consistent with the Term Sheet. A draft Settlement Agreement is proposed for the parties to the Term Sheet who are also parties to CPUC proceeding A.12-04-019. Draft Return Water Purchase Agreements consistent with the Term Sheet and the draft Settlement Agreement are proposed for the District and for the Monterey County Water Resources Agency for CSIP.

J. A 20,000-foot pipe line is proposed to deliver return water from the MPWSP to CSIP and to the District. Cal Am will build the entire pipe line and will retain ownership of the 12,000 feet from the plant to Nashua Rd, where meters will be set for CSIP and the District. The portion of the return water delivery pipeline and appurtenances from the meter to Castroville, about 8,000 feet, is proposed to be acquired by the District from Cal Am for \$2.8 million dollars. Financing obligations for the District's acquisition of this portion of the pipeline would necessitate long-term commitments by the District and Cal Am and certainty of source water supply for the District. The draft Return Water Purchase Agreement for the District addresses these issues.

K. The draft Return Water Purchase Agreement allows for Castroville to receive this high quality, long term and drought proof Desalinated water in-lieu of pumping the District's wells. The price per acre foot would be approximately the same as the cost per acre foot to pump from our wells, about \$110 per acre foot. Under certain conditions, including if the source water becomes 100% salt water, the price would be Cal Am's marginal production cost for the return water, approximately \$580 per acre foot.

L. The draft Return Water Purchase Agreement provides that the legal effectiveness of the Return Water Purchase Agreement is contingent on the completion of CEQA review and does not irretrievably commit the Parties to carrying out any physical activities that would be required to implement the terms of the Return Water Purchase Agreement and that the lead agency, and responsible agencies like the District will retain full discretion with respect to deciding whether to approve commitments necessary or convenient for Cal Am to meet the Annual Return Water Obligation under the Return Water Purchase Agreement, including discretion to modify commitments to avoid or reduce any significant adverse physical environmental effects from Return Water activities that are within their jurisdiction.

M. District Counsel advises that the District Board's approval of the draft Return Water Purchase Agreement for submittal by Cal Am to the CPUC for planning purposes and review by

the CPUC does not require prior review under the California Environmental Quality Act, because such approval will not constitute action that significantly furthers a project “in a manner that forecloses alternatives or mitigation measures that would ordinarily be part of CEQA review of that public project,” as required by Cal.Code Regs., tit. 14, § 15004, subd. (b)(2)(B) and the decision of the California Supreme Court in *Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116, 138.

N. Recital BB of the Settlement Agreement recites that the District submits that the District would sign a Return Water Purchase Agreement after expiration of the statute of limitations for challenging a decision by the CPUC certifying the Project environmental impact report and approving the Settlement Agreement.

O. The District’s General Manager recommends approval of the draft Return Water Purchase Agreement for submittal by Cal Am to the CPUC for planning purposes and review by the CPUC.

NOW THEREFORE, BE IT RESOLVED by the Board of Directors of the Castroville Community Services District, as follows:

1. Approval for Cal Am to Submit draft Return Water Purchase Agreement Between Cal Am and the District to the CPUC for Planning Purposes and Review. The Board approves the draft Return Water Purchase Agreement, copy of which is attached to this Resolution 16-4 as Exhibit “A”, for submittal by California-American Water Company to the California Public Utilities Commission for planning purposes and review in proceeding number A.12-04-019. The General Manager shall keep the Board apprised of the status of the submittal of the draft Return Water Purchase Agreement to the CPUC and of the CPUC’s review of the draft Return Water Purchase Agreement.

2. Authority to Implement Resolution. The District, acting through the General Manager and the Board President, are authorized to meet and confer with such persons, including representatives of other Parties to the Term Sheet and the District’s engineering and legal advisors to carry out the activities consistent with implementing this Resolution 16-4 in accordance with applicable law.

3. Limitation on Authority to execute Return Water Purchase Agreement. Prior to compliance with the California Environmental Quality Act (“CEQA”), the District and persons acting on behalf of the District shall not take any action or commit the District to any action to implement the draft Return Water Purchase Agreement that would as a practical matter under the circumstances effectively preclude any alternatives or mitigation measures that would otherwise require to be considered, including the alternative of not going forward with the project outlined in the draft Return Water Purchase Agreement.

The foregoing resolution was duly and properly introduced at a regular meeting of the Castroville Community Services District Board of Directors duly held on April 19, 2016, and passed and adopted by the following vote:

AYES: Mac Millan, Melgoza, Montejano + Stefani

NOES: 0


ABSENT: Lewis

ABSTAIN: 0



President of the Board

Attest:



Secretary of the Board

EXHIBIT A

DRAFT RETURN WATER PURCHASE AGREEMENT
Draft Dated 4/13/16

RETURN WATER PURCHASE AGREEMENT

By and Between

CASTROVILLE COMMUNITY SERVICES DISTRICT

and

CALIFORNIA-AMERICAN WATER COMPANY

THIS RETURN WATER PURCHASE AGREEMENT ("Agreement") is made as of _____, 2017 (the "Effective Date") by and between the CASTROVILLE COMMUNITY SERVICES DISTRICT, a Special District formed pursuant to the Community Services District Law found at California Government Code Sections 61000 – 61226.5 ("CCSD"), and CALIFORNIA-AMERICAN WATER COMPANY, a California corporation ("Cal Am"). CCSD and Cal Am are referred to herein individually as a "Party" and collectively as the "Parties."

RECITALS:

A. CCSD is a public agency providing services to customers within its jurisdictional boundaries in the Castroville area located in Monterey County north of the City of Marina and west of the City of Salinas ("CCSD Service Area"), and is responsible for, among other things, providing municipal and domestic water service to the CCSD Service Area, which overlies the Salinas River Groundwater Basin ("SRGB").

B. Cal Am is a public utility regulated by the California Public Utilities Commission ("CPUC") and provides water service in various areas within California, including a service area in Monterey County (as it may be subsequently amended or revised from time to time without the approval of the other Party) ("Cal Am Service Area").

C. Cal Am submitted an application to the CPUC on April 23, 2012, in Proceeding A.12-04-019 for approval of the Monterey Peninsula Water Supply Project ("Project"). The Project as proposed would consist of slant intake wells, brackish water pipelines, a desalination plant, product water pipelines, brine disposal facilities and related appurtenant facilities. Depending on the availability of water from the Monterey Regional Water Pollution Control Agency's proposed publicly-owned Groundwater Replenishment Project and on the CPUC's decision on the application, the desalination plant is expected to be sized at either 9.6 million gallons per day ("mgd") ("Large Plant") or 6.4 mgd ("Small Plant") to supply water for municipal use in the Cal Am Service Area.

D. The Project's slant intake wells are designed to pump seawater and to avoid or minimize the capture of groundwater from the SRGB in the process of producing source water for treatment by the selected desalination plant ("Project Source Water Production"). To meet applicable requirements of the Monterey County Water Resources Agency ("Agency") Act ("Agency Act"), Cal Am has proposed as part of the Project to make available for delivery to groundwater users overlying the SRGB a volume of water equal to the percentage of SRGB groundwater in the total Project Source Water Production ("Return Water").

E. CCSD currently relies on groundwater from the SRGB to meet the CCSD Service Area water demands, which average approximately 780 acre feet annually ("afa"), however, CCSD increasingly has experienced water supply challenges due to water quality degradation of its water supplies, primarily from increased salinity. As such, CCSD desires to purchase Return Water to replace or supplement CCSD's current reliance on groundwater from the SRGB.

F. Cal Am intends to seek any CPUC approval necessary to allow for the sale of Return Water to CCSD consistent with the terms of this Agreement, and CCSD intends to

support Cal Am's request for any CPUC approval necessary to allow for the sale of Return Water to CCSD pursuant to the terms of this Agreement.

G. Cal Am contemplated two separate pipelines delivering Return Water from the Project desalination plant, one to CSIP ponds and one to CCSD's wellsite #3 ("CCSD Wellsite"). Through negotiations and discussions, the Parties determined the cost of new infrastructure could be decreased by connecting with existing CSIP infrastructure. That connection allows a single pipeline, rather than two pipelines, to be constructed from the desalination plant to the CCSD Wellsite that will connect with an existing CSIP pipeline ("CSIP Connection"). The elimination of a separate pipeline to the CSIP ponds avoids certain pipeline and pump station costs and results in an estimated cost savings to Cal Am of approximately \$1,300,000. A preliminary cost estimate for a pipeline and ancillary facilities necessary to convey water from the Project desalination plant to the CCSD Wellsite ("Delivery Pipeline") is approximately \$6,500,000. Cal Am believes that if the Delivery Pipeline is constructed by Cal Am there will be economies of scale achieved which may reduce the cost of the Delivery Pipeline to approximately \$4,400,000, assuming that Cal Am will secure contracts for construction of the pipeline and that environmental review and permitting will be performed in conjunction with the Project. CCSD estimates its cost to construct a new deep well with treatment facilities would cost approximately \$2,800,000. Thus, CCSD submits that it may not be able to prudently fund the Delivery Pipeline for more than \$2,800,000, and that capital obligations for the Delivery Pipeline would necessitate long-term commitments by CCSD and certainty of source water supply for CCSD.

NOW THEREFORE, in consideration of the foregoing recitals and the mutual covenants set forth in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, CCSD and Cal Am hereby agree as follows:

AGREEMENT

1. Governing Terms.

1.1 Recitals. The recitals are hereby incorporated in this Agreement as if fully set forth herein.

1.2 Interpretation. The following rules of interpretation shall apply:

(a) Capitalized terms used in this Agreement, including the exhibits hereto, shall have their respective meanings as set forth in this Agreement.

(b) Unless otherwise specified herein, references in the singular shall include references in the plural and vice versa; and pronouns having masculine or feminine gender will be deemed to include the other.

(c) Any act required to occur by or on a certain day is required to occur before or on that day unless the day falls on a Saturday, Sunday or federal holiday, in which case the act must occur before or on the next day this is not a Saturday, Sunday or federal holiday.

(d) The headings in this Agreement are included for convenience only and shall not be deemed to modify or explain any of the terms of this Agreement.

(e) This Agreement is the product of negotiation between the Parties, no Party is to be deemed the drafter of this Agreement, and any ambiguities in this Agreement shall not be read against any Party to the Agreement.

(f) All references in this Agreement to a “year” shall mean a “water year,” and all references to a “water year” shall mean the 12-month period beginning on October 1 of a given year and ending on September 30 of the following year. All calculations herein based on the period of a year shall be prorated to account for any time frame that is less than a 12-month period.

1.3 Agency Act Compliance. Cal Am shall comply with the Agency Act. Notwithstanding any other provisions of this Agreement, the Agency will retain all rights, discretion and authority conferred on the Agency under the Agency Act to ensure that the pumping, production, desalination, and distribution of project source water from the SRGB for the selected desalination plant complies with the Agency Act, and the long-term viability of the SRGB as a water supply for water for agricultural, domestic and municipal use. Neither this Section 1.3 nor any other provision of this Agreement shall be interpreted: (a) to affect, diminish, or enhance the Agency’s regulatory authority under the Agency Act; (b) to affect, diminish, excuse, or forgive Cal Am’s obligation to comply with the Agency Act; or (c) to preclude any argument by Cal Am or CCSD that there is no violation of the Agency Act.

2. Term.

2.1 Effective Date. This Agreement shall be effective on the Effective Date and shall continue in effect until expiration of the Delivery Term (defined in Section 2.2 below) or until earlier termination as provided for in Section 10.

2.2 Delivery Term. The “Delivery Term” shall begin on the date on which Cal Am has determined that it is ready to deliver Return Water to the Delivery Point (defined in Section 3.1 below), the anticipated location of which is depicted on Exhibit A, and shall continue for a period of thirty (30) years thereafter. Cal Am shall provide CCSD with written notice of the commencement date of the Delivery Term, promptly upon Cal Am’s determination of such date.

2.3 Right of First Refusal. If this Agreement has not been terminated as provided for in Section 10, CCSD shall have a right of first refusal to enter into a new return water purchase agreement on terms to be negotiated by the Parties at the time the right is exercised. In order to exercise the right, CCSD shall provide Cal Am written notice of its intent to do so no earlier than 730 days and no later than 365 days prior to expiration of this Agreement. CCSD acknowledges that Agency also has a right of first refusal to enter into a new return water purchase agreement with respect to its agreement with Cal Am pursuant to that certain Return Water Purchase Agreement By and Between MONTEREY COUNTY WATER RESOURCES AGENCY and CALIFORNIA-AMERICAN WATER COMPANY dated _____.

2.4 Expiration or Non-Renewal. Upon termination, expiration or non-renewal of this Agreement, Cal Am shall continue to make Return Water available for delivery to the SRGB

for use in lieu of existing groundwater production, unless Cal Am demonstrates that Return Water is not needed to prevent legal injury to prior groundwater rights holders in the SRGB or to avoid significant adverse effects to SRGB groundwater resources. If Cal Am desires to make such a showing, it shall initially do so by providing a demonstration in writing to all parties to that certain Settlement Agreement on MPWSP Desalination Plant Return Water, dated _____, 2016, (the "Settlement Agreement") using the notice provisions of Section 11 of this Agreement. Within 21 days thereafter, the Parties shall meet to seek to reach agreement regarding whether Cal Am has made the requisite demonstration. If the Parties do not reach agreement within 30 days after the initial meeting, any Party may on or after the 31st day, but no later than the 91st day, invoke the provisions of Section 9. For the avoidance of doubt, nothing in this Section 2.4 in any way affects the provisions, scope and application of Section 1.3.

3. Delivery of Return Water

3.1 Priority of Return Water for In-Lieu Use. Unless prevented by circumstances outside the control of CCSD and so long as such use is permitted by law, CCSD will use the water purchased from Cal Am under Section 3.5.1 of this Agreement to serve the water supply demand of persons served by CCSD, before using water from the SRGB. CCSD shall measure and record the amount of water received under this Agreement and produced from other groundwater sources within the SRGB and shall make such information available to the public upon written request. CCSD will report to the parties to the Settlement Agreement within 90 days after executing this Agreement, and annually thereafter by March 31, the following information for the prior 12 months: the amount of water served to, and the current number of, its residential, commercial, and industrial service connections; the amount of water produced from groundwater wells to serve these connections; the amount of Return Water to serve these connections; and the amount of water from other sources to serve these connections. This provision is not intended and shall not be interpreted to limit either CCSD's statutory authority under Section 61100 of the California Government Code to supply water for any beneficial uses within CCSD's boundaries or CCSD's discretion in the use of best management practices to operate CCSD's water system facilities in performing CCSD's obligations under the law and this Agreement, or to impose new or additional requirements for analysis under the California Environmental Quality Act ("CEQA"), Public Resource Code Sections 21000 and following for water service and supply by CCSD.

3.2 Cal Am Return Water Pipeline. Subject to satisfaction of the Conditions Precedent set forth in Sections 3.3(a), (b), (c), (d), (e) and (f), Cal Am will design and construct (in consultation with CCSD) the Delivery Pipeline including a metered delivery point ("Delivery Point") as set forth in Exhibit A. Cal Am will install, operate, and maintain the meter in accordance with CPUC General Order 103-A or other applicable CPUC or water industry standards which will measure the volume of Return Water delivered to the Delivery Point ("Cal Am Meter"). CCSD shall use best efforts to ensure it has the ability to take such delivery. All pipeline facilities from the desalination plant up to and including the Cal Am Meter shall be owned, operated and maintained by Cal Am. All pipeline facilities downstream of the Cal Am Meter shall be owned, operated, and maintained by CCSD upon payment by CCSD to Cal Am of the CCSD Pipeline Contribution as set forth in this Agreement.

3.3 Conditions Precedent. Any delivery of Return Water pursuant to this Agreement is subject to the following conditions precedent:

- (a) any required CPUC approval to amend Cal Am's Service Area to allow for the sale of Return Water consistent with the terms of this Agreement; and,
- (b) any required CPUC approval of a tariff to allow for the sale of Return Water consistent with the terms of this Agreement, which tariff may change from time to time with the approval of the CPUC and shall govern over any inconsistent terms or conditions set forth in this Agreement; and,
- (c) the completion of CEQA review by the CPUC as lead agency for the Project; and
- (d) the CPUC's issuance of a Certificate of Public Convenience and Necessity ("CPCN") for the Project; and,
- (e) the total cost of the Delivery Pipeline ("Delivery Pipeline Cost") is estimated by Cal Am to be no more than \$4.4 million; and,
- (f) CCSD and Cal Am have reached an agreement concerning the capacity, construction by Cal Am, implementation, acquisition by CCSD, ownership, financing, and operation and maintenance costs of the Delivery Pipeline; and,
- (g) completion of construction, and acceptance by Cal Am, of the Project desalination plant such that it is able to produce and transport Return Water to the Delivery Point; and
- (h) CCSD's ability to take delivery of the Return Water at the Delivery Point.

With respect to Sections 3.2(a), (b), (c) and (d), Cal Am shall use good faith diligent efforts to seek any such required CPUC approval as is reasonably possible following the Effective Date. CCSD shall use good faith diligent efforts to support Cal Am's efforts to obtain any such CPUC approval.

3.4 Delivery Pipeline Cost.

3.4.1 Upon completion and acceptance by Cal Am of the Delivery Pipeline, CCSD will pay to Cal Am the Delivery Pipeline Cost, subject to a cap of \$2.8 million ("CCSD Pipeline Contribution").

3.4.2 The Parties shall cooperate in good faith to seek grants to offset the Delivery Pipeline Cost.

3.4.3 Cal Am will reimburse CCSD for its CCSD Pipeline Contribution in proportion to any reduction to the CCSD Delivery Volume as a result of the occurrence of an Other Return Water Obligation pursuant to Section 3.5.2 ("Conditional Pipeline Reimbursement"), which Conditional Pipeline Reimbursement shall be prorated by that

percentage of the outstanding 30-year Delivery Term remaining at the time the Other Return Water Obligation occurs. The foregoing concept is represented in the following equation:
Conditional Pipeline Reimbursement = ([Other Return Water Obligation/CCSD Delivery Volume] x \$2.8 million) x (remaining Delivery Term/30-year term).

3.5 Delivery Requirements. Cal Am shall have annual Return Water requirements (“Annual Return Water Obligation”) that shall be calculated based on the percentage of SRGB groundwater in the total Project Source Water Production. CCSD agrees that the volume of the Annual Return Water Obligation will be determined as set forth in Section 2.c. of the Settlement Agreement. For reference purposes, Section 2.c. of the Settlement Agreement is attached as Exhibit C hereto.

3.5.1 On an annual basis during the Delivery Term, Cal Am shall make available for delivery to CCSD 690 afa of Return Water (“CCSD Delivery Volume”). In any given year, if the CCSD Delivery Volume is less than the Annual Return Water Obligation for that year, CCSD shall purchase Return Water from Cal Am in an amount equal to the CCSD Delivery Volume. In any given year, if the Annual Return Water Obligation is less than the CCSD Delivery Volume, CCSD shall purchase Return Water from Cal Am in an amount equal to the Annual Return Water Obligation for that year and may elect to purchase from Cal Am potable water in an amount equal to the difference between the Annual Return Water Obligation for that year and the CCSD Delivery Volume (“Excess Water”). In other words, CCSD shall purchase from Cal Am each year the lesser of the CCWD Delivery Volume or the Annual Return Water Obligation, and may purchase from Cal Am each year Excess Water, in accordance with pricing terms addressed in Section 4.2. Notwithstanding any other provision of this Agreement, if CCSD purchases any Excess Water in any given year, it may not purchase a total of more than 690 afa of Return Water in that year.

3.5.2 The Parties acknowledge that Cal Am could be legally required by a regulatory agency, including the CPUC in this proceeding, or by a court, to make water deliveries to other locations in the SRGB to the extent necessary to mitigate any groundwater impacts from the Project that were demonstrated in relation to a specific location overlying the SRGB (“Other Return Water Obligation”). Such Other Return Water Obligation could also serve to satisfy Cal Am’s obligations to return water to the SRGB under the Agency Act, the CEQA, or common-law water law principles. Under such circumstances, the Parties agree that it would be inequitable to Cal Am and its ratepayers to fund both the Other Return Water Obligation and the Return Water obligations specified herein as this would result in a duplicative liability to Cal Am and its ratepayers. Cal Am’s obligation to make available the CCSD Delivery Volume shall be reduced in the event and to the extent that a regulatory agency or court has required Cal Am to deliver Return Water in a manner or location different than as specified in this Agreement. CCSD shall have the right to terminate this Agreement as set forth in Section 10.3 if it determines that the reduced amount of Return Water would not be sufficient to justify its water purchase as contemplated herein.

3.6 Scheduling of Deliveries. Subject to CCSD’s obligation to purchase Return Water set forth in Section 3.5.1, Cal Am will deliver Return Water to the Delivery Point in quantities and at times determined by the Parties. Cal Am will endeavor to cooperate with

CCSD to deliver Return Water to the Delivery Point in volumes and at times requested by CCSD.

4. **Payment Provisions.**

4.1 **Generally.** Cal Am will invoice CCSD for deliveries of Return Water to the Delivery Point based on the volumes measured at the Cal Am Meter. CCSD shall pay such invoices within 30 days of receipt.

(a) **Pricing.** CCSD shall pay its avoided cost to produce groundwater to meet customer demand, currently estimated to be \$110 per acre-foot, for Return Water made available for delivery to meet the Annual Return Water Obligation. CCSD plans to continue operation of its existing wells so they may be available in emergency circumstances. This continuing operation will enable CCSD to provide future updates to the avoided cost of pumping to Cal Am upon Cal Am's reasonable request, but not more than once per year. If CCSD is unable to provide such updated avoided costs of pumping, then the percentage increase of PG&E's A-6 tariff for off-peak summer distribution rate (with a base of \$0.07311 / kWh as of the tariff existing on March 24, 2016) will be used as the escalation factor for the increase in avoided cost of pumping in the future.

(b) CCSD shall pay the operations and maintenance cost for the MPWSP to produce one acre-foot of potable water, currently estimated to be \$580 per acre-foot for any Excess Water; provided, however, that as to Excess Water, CCSD shall pay the prices that are approved by the CPUC and included in Cal Am's tariffs, as they may be modified from time to time as approved by the CPUC, if such CPUC-approved prices differ from a price of \$580 per acre foot.

5. **Compliance with Laws/Cooperation.** The Parties shall comply with all applicable laws in their respective performance under this Agreement and shall cooperate to take the actions and execute the documents necessary to perform under this Agreement.

6. **Indemnification; Fees and Expenses**

6.1 **Indemnification.**

(a) To the fullest extent permitted by law, Cal Am shall indemnify and hold harmless CCSD and its respective directors, officers, agents and employees, from any claims, actions or liability for any damages (including reasonable attorneys' fees, expert fees and litigation costs), any injury to persons or property, or any violation of any law or regulation, occurring by reason of anything done or omitted to be done by Cal Am, its officers, employees, contractors or agents under this Agreement, except and only to the extent such damages, injury, or violation resulted from the negligent acts or willful misconduct of CCSD or its respective directors, officers, agents and employees.

(b) To the fullest extent permitted by law, CCSD shall indemnify and hold harmless Cal Am and its respective directors, officers, agents and employees from any claims, actions or liability for any damages (including reasonable attorneys' fees, expert fees and litigation costs), any injury to persons or property, or any violation of any law or regulation, occurring by

reason of anything done or omitted to be done by CCSD, its officers, employees, contractors or agents under this Agreement, except and only to the extent such damages, injury, or violation resulted from the negligent acts or willful misconduct of Cal Am or its respective directors, officers, agents and employees.

7. **Insurance.** The Parties will keep in full force and effect the insurance coverage described in Exhibit B.

8. **Assignment.** A Party may not assign its rights or obligations under this Agreement without the written consent of the other Party, which consent may not be unreasonably withheld.

9. **Dispute Resolution**

9.1 **Scope of Article.** This Article governs the resolution of all disputes that arise under this Agreement.

9.2 **Disputes.** If a dispute arises concerning any controversy or claim arising out of or relating to this Agreement or the breach thereof, or relating to its application or interpretation, the aggrieved Party will notify the other Party of the dispute in writing within twenty (20) days after such dispute arises. If the Parties fail to resolve the dispute within sixty (60) days after delivery of such notice, each Party will promptly nominate a senior officer of its organization to meet at any mutually-agreed time and location to resolve the dispute. The Parties shall use their best efforts to reach a just and equitable solution satisfactory to both Parties. If the Parties are unable to resolve the dispute to their mutual satisfaction within sixty (60) days thereafter, the dispute will be subject to mediation, pursuant to Section 9.3. The time periods set forth in this Section 9.2 are subject to extension as agreed to by the Parties.

9.3 **Mandatory Non-binding Mediation.** If a dispute is not resolved pursuant to Section 9.2, the Parties agree to first endeavor to settle the dispute in an amicable manner, using mandatory non-binding mediation initiated and conducted under the applicable rules of the American Arbitration Association in effect as of the Effective Date or other rules agreed to in writing by the Parties, before having recourse in a court of law. Each Party shall bear its own legal expenses, and the expenses of witnesses for either side shall be paid by the Party producing such witnesses. All expenses of the mediator, including required travel, and the cost of any proofs or expert advice produced at the direct request of the mediator, shall be borne equally by the Parties, unless they agree otherwise. Any resultant agreements from mediation shall be documented in writing. All mediation proceedings, results, and documentation, including without limitation any materials prepared or submitted or any positions taken by or on behalf of either Party, shall be confidential and inadmissible for any purpose in any legal proceeding (pursuant to California Evidence Codes sections 1115 through 1128), unless such admission is otherwise agreed upon in writing by the Parties. Mediators shall not be subject to any subpoena or liability, and their actions shall not be subject to discovery. The mediation shall be completed within sixty (60) days after selection of the mediator, unless the Parties agree to extend the mediation period.

9.4 **Judicial Relief.** If mediation pursuant to Section 9.3 does not resolve a dispute, either Party may seek relief in a court of competent jurisdiction.

9.5 Limitations on Damages. No Party shall be entitled to consequential damages, incidental damages, or punitive or exemplary damages from the other Party in any action or proceeding in connection with this Agreement.

9.6 Attorneys' Fees and Costs. In any action or proceeding to enforce a term or condition of this Agreement, in any disputes relating to the Agreement, and in any actions for breaches, defaults, or misrepresentations in connection with any the Agreement, a prevailing Party (as determined by a court of competent jurisdiction) shall be entitled to recover its reasonable costs and expenses, including without limitation reasonable attorneys' fees and costs.

10. **Termination.**

10.1 Termination for Non-Performance. Either Party may terminate this Agreement if the other Party fails to perform a material provision of this Agreement as required herein, provided that the Party seeking termination shall provide prior written notice of its intention to terminate to the other Party, which notice shall fully describe how the other Party failed to perform a material provision of this Agreement, and provided further that the dispute has not been resolved by following the procedures set forth in Section 9 above. If the Parties are unable to resolve the dispute following the procedures set forth in Section 9, the Party seeking termination may provide a written notification of termination to the other Party, and such termination shall become effective thirty (30) days after the other Party has received such written notification. The procedures of this Section 10.1 shall not apply to terminations under Section 10.2 and 10.3 of this Agreement.

10.2 Termination for Failure of Conditions Precedent. Either Party may terminate this Agreement if, by January 1, 2025, Cal Am has not obtained any and all required CPUC approval of the matters described as conditions precedent in Sections 3.2(a), (b), (c) and (d) by providing a written notification of termination to the other Party, and such termination shall become effective thirty (30) days after the other Party has received such written notification.

10.3 Termination Based on Regulatory Requirements. CCSD may terminate this Agreement if: (a) Cal Am is legally required by a regulatory agency, including the CPUC, or by a court, to make water deliveries to locations in the SRGB other than the CCSD Service Area which result in reduced deliveries to CCSD; and (b) CCSD determines that the reduced amount of Return Water would not be sufficient to justify its water purchase hereunder. Such termination must be effected by providing a written notification of termination to Cal Am, and such termination shall become effective thirty (30) days after Cal Am has received such written notification.

10.4 Agency Act. Termination of this Agreement does not excuse or delay Cal Am's obligation to comply with the Agency Act.

10.5 Ending of Right to Terminate. The Parties acknowledge that the CCSD must be assured of a specific volume of Return Water to justify investment in the capital facilities necessary to convey the Return Water to the CCSD ("CCSD Facilities"), and therefore Cal Am's obligation under this Agreement to make available the CCSD Delivery Volume shall become unconditional on the latest of the following dates, on and after which date the Agreement may not be terminated prior to its expiration:

10.5.1 The date on which the CPUC has issued a CPCN for the Project and the period to challenge the legality of the CPUC's issuance of the CPCN (based on CEQA compliance or otherwise) has expired and no challenge has been brought; or

10.5.2 The date on which any challenge against the CPUC's issuance of the CPCN is resolved with finality following all available appeals and petitions; or

10.5.3 Sixty (60) days following the date on which the CCSD provides notification to Cal Am that it has secured financing, acceptable to CCSD, to construct the CCSD Facilities.

Nothing in this Section 10.4 shall prohibit Cal Am from temporarily suspending delivery of Return Water or Excess Water to CCSD if CCSD fails to make payments when due and such failure continues for a time period in excess of sixty (60) calendar days.

11. **Representatives; Notices.**

11.1 **Authorized Representatives.** Each Party will designate at least one individual officer or employee who will be its representative and will be authorized to act on behalf of the Party for all purposes in performing the provisions of this Agreement ("**Representative**"). The designation may be changed from time to time. The designation and changes to a designation must be made in a writing delivered to the other Party.

11.2 **No Release.** Each Party is responsible for the acts or omissions of its Representative(s). The designation of a Representative by a Party does not release the Party from responsibility for performance of its obligations under this Agreement.

11.3 **Notice.** All notifications, notices, demands, requests and other communications herein provided for or made pursuant hereto shall be in writing and shall be sent by: (i) registered or certified mail, return receipt requested, and the giving of such communication shall be deemed complete on the third (3rd) business day after the same is deposited in a United States Post Office with postage charges prepaid; (ii) reputable overnight delivery service, and the giving of such communication shall be deemed complete on the immediately succeeding business day after the same is deposited with such delivery service; or (iii) so long as a Party has notified the other Party by means of a method described in clauses (i) or (ii) above of such Party's email address for notification purposes, email transmission of notices to such Party are also permitted provided an original is also sent via one of the other permitted means and the giving of such communication shall be complete when such email is received if such email is received on a business day before 3:00 pm Pacific Time; otherwise, such communication shall be deemed complete the next business day. The date on which notifications, notices, demands, requests and other communications are deemed complete shall be the earliest date arising under subsections (i), (ii) or (iii) of this Section 11.3. All notifications, notices, demands, requests and other communications shall be sent to the Parties as follows:

To CCSD:

J. Eric Tynan
General Manager
Castroville Community Services District
11499 Geil Street
Castroville, CA 95012

To Cal Am:

Eric J. Sabolsice
Director, Operations
Coastal Division
California-American Water Company
511 Forest Lodge Road, Suite 100
Pacific Grove, CA 93950

12. **Force Majeure.** If by reason of Force Majeure (defined below), a Party is rendered unable, wholly or in part, to carry out its obligations under this Agreement, and if such Party gives notice and reasonably describes the particulars of such Force Majeure in writing to the other Party as promptly as possible after the occurrence of the cause relied on, then the affected Party shall be excused from performance hereunder without liability, but only so far as and to the extent that it is affected by such Force Majeure; provided, however, such cause shall be remedied with all reasonable dispatch. Upon occurrence of the Force Majeure, the affected Party, in addition to notifying the other Party as provided above, shall as promptly as possible provide such Party a written description of the Force Majeure, the cause thereof (to the extent known), the date the Force Majeure began, its expected duration, and an estimate of the specific relief requested or to be requested by such Party. Furthermore, the Party affected by such Force Majeure shall use diligent efforts to reduce costs resulting from the occurrence of the Force Majeure, fulfill its performance obligations under this Agreement and otherwise mitigate the adverse effects of the Force Majeure. While the Force Majeure continues, the affected Party shall give the other Party regular updates of the information previously submitted. The affected Party shall also provide prompt written notice to the other Party of the cessation of the Force Majeure. Notwithstanding anything to the contrary contained herein, the occurrence of a Force Majeure shall not, however, (i) excuse or delay any obligation to pay monies previously accrued and owing to another Party under this Agreement, or for the Party to perform any obligation under this Agreement not affected by the occurrence of the Force Majeure; or (ii) excuse or delay Cal Am's obligation to comply with the Agency Act.

For purposes of this Section 12, "Force Majeure" means any act, event, condition or circumstance that (A) is beyond the reasonable control of a Party, (B) by itself or in combination with other acts, events, conditions or circumstances adversely affects, interferes with or delays a Party's ability to perform its obligations under this Agreement, expands the scope of a Party's obligations under this Agreement, or increases a Party's cost of performing its obligations under this Agreement, and (C) is not the direct result of the willful or negligent act, intentional misconduct, or breach of this Agreement by the affected Party.

13. **Other Provisions.**

13.1 **Integration.** This Agreement embodies the entire agreement between the Parties relating to the subject matter hereof and supersedes all prior agreements and understandings, written or oral, relating to such subject matter.

13.2 **Successor and Assigns.** This Agreement shall be binding upon, and shall inure to the benefit of and be enforceable by, the Parties hereto and their respective successors and assigns permitted hereunder.

13.3 **Relationship of Parties.** Each Party is an independent entity. This Agreement will not constitute any Party as the agent of the other Party. This Agreement will not constitute the Parties as partners or joint venturers (or as co-owners of a business entity) for common law purposes, federal, state or local income tax purposes, or otherwise.

13.4 **Amendments or Waivers.** No term or provision hereof or Exhibit hereto may be amended, changed, waived, discharged, terminated or replaced except by a writing executed by each of the Parties hereto.

13.5 **No Waiver by Failure to Act.** No failure, delay, forbearance or indulgence on the part of any Party in insisting upon the strict performance of any provision, or in exercising any option, right, power, privilege or remedy hereunder, shall operate or be construed as a waiver or relinquishment thereof, or as an acquiescence in any breach, nor shall any single or partial exercise of any option, right, power, privilege or remedy hereunder preclude any other or further exercise thereof or the exercise of any other option, right, power, privilege or remedy.

13.6 **Controlling Law; Conflicts of Law.** This Agreement shall be construed, governed and applied in accordance with the laws of the State of California, without regard to the conflicts of law principles thereof.

13.7 **CEQA.** This Agreement helps to define a stable and finite project description that will facilitate the CPUC's completion of CEQA review for the Project. The legal effectiveness of this Agreement is contingent on the completion of CEQA review and this Agreement does not irretrievably commit the Parties to carrying out any physical activities that would be required for Cal Am to meet the Annual Return Water Obligation or would otherwise be required for the Parties to comply with the terms of this Agreement. The Parties acknowledge and intend that the CPUC as lead agency and other responsible agencies under CEQA will retain full discretion with respect to deciding whether to approve water purchase or any other commitments necessary or convenient for Cal Am to meet the Annual Return Water Obligation, including discretion to modify commitments to avoid or reduce any significant adverse physical environmental effects (i) from Return Water activities that are within their jurisdiction, and (ii) from the Parties' compliance with other terms of this Agreement.

13.8 **Severability.** Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any

such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

13.9 No Third Party Beneficiaries. Nothing in this Agreement, express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the Parties hereto; nothing in this Agreement is intended to relieve or discharge the obligation or liability of any third person to any Party; and, this Agreement does not create any duty, liability or standard of care to any person who is not a Party.

13.10 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, and such counterparts together shall constitute but one and the same instrument.

13.11 Consents and Approvals. Except as otherwise expressly set forth in this Agreement, all consents and approvals which may be given under this Agreement shall be in writing and shall not be unreasonably withheld or delayed unless otherwise expressly provided herein.

[SIGNATURE PAGE TO FOLLOW]

DRAFT

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed and delivered in their name and on their behalf.

CASTROVILLE COMMUNITY SERVICES DISTRICT

By: _____

Printed Name: _____

Title: _____

Approved as to Form:

By: _____

Printed Name: _____

Title: _____

CALIFORNIA-AMERICAN WATER COMPANY

By: _____

Printed Name: _____

Title: _____

EXHIBIT A

Depiction of Anticipated Location of Delivery Pipeline and Delivery Point

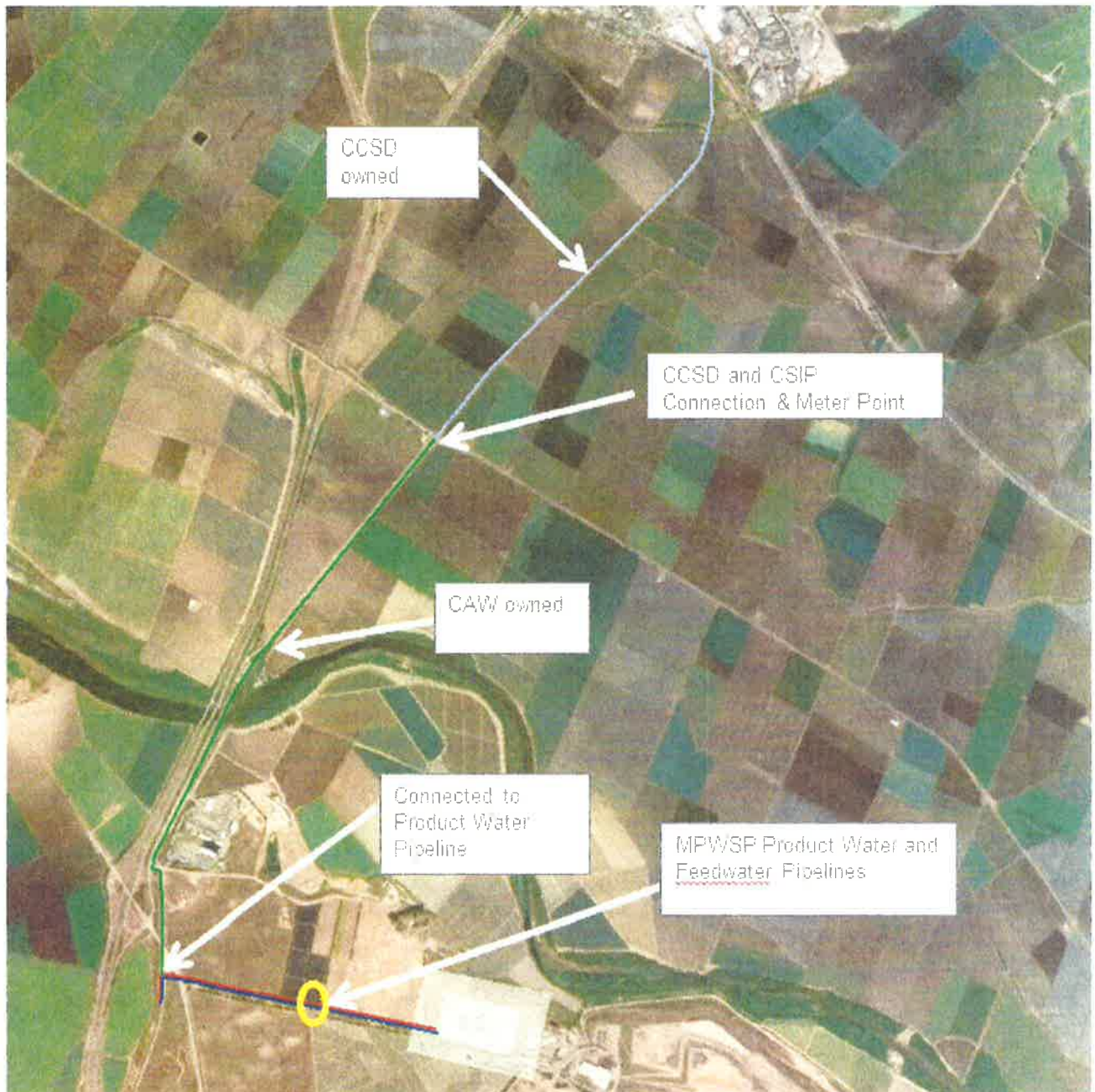


EXHIBIT B

INSURANCE REQUIREMENTS

[CCSD TO PROVIDE]

DRAFT

EXHIBIT C

SECTION 2.C. OF SETTLEMENT AGREEMENT

[TO BE PROVIDED UPON FINALIZATION OF SETTLEMENT AGREEMENT]

**SETTLEMENT AGREEMENT
ON MPWSP DESALINATION PLANT
RETURN WATER**

APPENDIX C

RETURN WATER PURCHASE AGREEMENTS

RETURN WATER PURCHASE AGREEMENT

By and Between

CASTROVILLE COMMUNITY SERVICES DISTRICT

and

CALIFORNIA-AMERICAN WATER COMPANY

THIS RETURN WATER PURCHASE AGREEMENT ("Agreement") is made as of _____, 2017 (the "Effective Date") by and between the CASTROVILLE COMMUNITY SERVICES DISTRICT, a Special District formed pursuant to the Community Services District Law found at California Government Code Sections 61000 – 61226.5 ("CCSD"), and CALIFORNIA-AMERICAN WATER COMPANY, a California corporation ("Cal Am"). CCSD and Cal Am are referred to herein individually as a "Party" and collectively as the "Parties."

RECITALS:

A. CCSD is a public agency providing services to customers within its jurisdictional boundaries in the Castroville area located in Monterey County north of the City of Marina and west of the City of Salinas ("CCSD Service Area"), and is responsible for, among other things, providing municipal and domestic water service to the CCSD Service Area, which overlies the Salinas River Groundwater Basin ("SRGB").

B. Cal Am is a public utility regulated by the California Public Utilities Commission ("CPUC") and provides water service in various areas within California, including a service area in Monterey County (as it may be subsequently amended or revised from time to time without the approval of the other Party) ("Cal Am Service Area").

C. Cal Am submitted an application to the CPUC on April 23, 2012, in Proceeding A.12-04-019 for approval of the Monterey Peninsula Water Supply Project ("Project"). The Project as proposed would consist of slant intake wells, brackish water pipelines, a desalination plant, product water pipelines, brine disposal facilities and related appurtenant facilities. Depending on the availability of water from the Monterey Regional Water Pollution Control Agency's proposed publicly-owned Groundwater Replenishment Project and on the CPUC's decision on the application, the desalination plant is expected to be sized at either 9.6 million gallons per day ("mgd") ("Large Plant") or 6.4 mgd ("Small Plant") to supply water for municipal use in the Cal Am Service Area.

D. The Project's slant intake wells are designed to pump seawater and to avoid or minimize the capture of groundwater from the SRGB in the process of producing source water for treatment by the selected desalination plant ("Project Source Water Production"). To meet applicable requirements of the Monterey County Water Resources Agency ("Agency") Act ("Agency Act"), Cal Am has proposed as part of the Project to make available for delivery to groundwater users overlying the SRGB a volume of water equal to the percentage of SRGB groundwater in the total Project Source Water Production ("Return Water").

E. CCSD currently relies on groundwater from the SRGB to meet the CCSD Service Area water demands, which average approximately 780 acre feet annually ("afa"), however, CCSD increasingly has experienced water supply challenges due to water quality degradation of its water supplies, primarily from increased salinity. As such, CCSD desires to purchase Return Water to replace or supplement CCSD's current reliance on groundwater from the SRGB.

F. Cal Am intends to seek any CPUC approval necessary to allow for the sale of Return Water to CCSD consistent with the terms of this Agreement, and CCSD intends to

support Cal Am's request for any CPUC approval necessary to allow for the sale of Return Water to CCSD pursuant to the terms of this Agreement.

G. Cal Am's performance of its Return Water obligations under this Agreement and its Return Water Purchase Agreement with the Agency is intended to advance fulfillment of Cal Am's Return Water obligations under that certain SETTLEMENT AGREEMENT ON MPWSP DESALINATION PLANT RETURN WATER, dated _____, 2016 ("Settlement Agreement").

H. Cal Am contemplated two separate pipelines delivering Return Water from the Project desalination plant, one to CSIP ponds and one to CCSD's wellsite #3 ("CCSD Wellsite"). Through negotiations and discussions, the Parties determined the cost of new infrastructure could be decreased by connecting with existing CSIP infrastructure. That connection allows a single pipeline, rather than two pipelines, to be constructed from the desalination plant to the CCSD Wellsite that will connect with an existing CSIP pipeline ("CSIP Connection"). The elimination of a separate pipeline to the CSIP ponds avoids certain pipeline and pump station costs and results in an estimated cost savings to Cal Am of approximately \$1,300,000. A preliminary cost estimate for a pipeline and ancillary facilities necessary to convey water from the Project desalination plant to the CCSD Wellsite ("Delivery Pipeline") is approximately \$6,500,000. Cal Am believes that if the Delivery Pipeline is constructed by Cal Am there will be economies of scale achieved which may reduce the cost of the Delivery Pipeline to approximately \$4,400,000, assuming that Cal Am will secure contracts for construction of the pipeline and that environmental review and permitting will be performed in conjunction with the Project. CCSD estimates its cost to construct a new deep well with treatment facilities would cost approximately \$2,800,000. Thus, CCSD submits that it may not be able to prudently fund the Delivery Pipeline for more than \$2,800,000, and that capital obligations for the Delivery Pipeline would necessitate long-term commitments by CCSD and certainty of source water supply for CCSD.

NOW THEREFORE, in consideration of the foregoing recitals and the mutual covenants set forth in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, CCSD and Cal Am hereby agree as follows:

AGREEMENT

1. Governing Terms.

1.1 Recitals. The recitals are hereby incorporated in this Agreement as if fully set forth herein.

1.2 Interpretation. The following rules of interpretation shall apply:

(a) Capitalized terms used in this Agreement, including the exhibits hereto, shall have their respective meanings as set forth in this Agreement.

(b) Unless otherwise specified herein, references in the singular shall include references in the plural and vice versa; and pronouns having masculine or feminine gender will be deemed to include the other.

(c) Any act required to occur by or on a certain day is required to occur before or on that day unless the day falls on a Saturday, Sunday or federal holiday, in which case the act must occur before or on the next day this is not a Saturday, Sunday or federal holiday.

(d) The headings in this Agreement are included for convenience only and shall not be deemed to modify or explain any of the terms of this Agreement.

(e) This Agreement is the product of negotiation between the Parties, no Party is to be deemed the drafter of this Agreement, and any ambiguities in this Agreement shall not be read against any Party to the Agreement.

(f) All references in this Agreement to a “year” shall mean a “water year,” and all references to a “water year” shall mean the 12-month period beginning on October 1 of a given year and ending on September 30 of the following year. All calculations herein based on the period of a year shall be prorated to account for any time frame that is less than a 12-month period.

1.3 Agency Act Compliance. Cal Am shall comply with the Agency Act. Notwithstanding any other provisions of this Agreement, the Agency will retain all rights, discretion and authority conferred on the Agency under the Agency Act to ensure that the pumping, production, desalination, and distribution of project source water from the SRGB for the selected desalination plant complies with the Agency Act, and the long-term viability of the SRGB as a water supply for water for agricultural, domestic and municipal use. Neither this Section 1.3 nor any other provision of this Agreement shall be interpreted: (a) to affect, diminish, or enhance the Agency’s regulatory authority under the Agency Act; (b) to affect, diminish, excuse, or forgive Cal Am’s obligation to comply with the Agency Act; or (c) to preclude any argument by Cal Am or CCSD that there is no violation of the Agency Act.

2. Term.

2.1 Effective Date. This Agreement shall be effective on the Effective Date and shall continue in effect until expiration of the Delivery Term (defined in Section 2.2 below) or until earlier termination as provided for in Section 10.

2.2 Delivery Term. The “Delivery Term” shall begin on the date on which Cal Am has determined that it is ready to deliver Return Water to the Delivery Point (defined in Section 3.2 below), the anticipated location of which is depicted on Exhibit A, and shall continue for a period of thirty (30) years thereafter. Cal Am shall provide CCSD with written notice of the commencement date of the Delivery Term, promptly upon Cal Am’s determination of such date.

2.3 Right of First Refusal. If this Agreement has not been terminated as provided for in Section 10, CCSD shall have a right of first refusal to enter into a new return water purchase agreement on terms to be negotiated by the Parties at the time the right is exercised. In order to exercise the right, CCSD shall provide Cal Am written notice of its intent to do so no earlier than 730 days and no later than 365 days prior to expiration of this Agreement. CCSD acknowledges that Agency also has a right of first refusal to enter into a new

return water purchase agreement with respect to its agreement with Cal Am pursuant to that certain Return Water Purchase Agreement By and Between MONTEREY COUNTY WATER RESOURCES AGENCY and CALIFORNIA-AMERICAN WATER COMPANY dated _____.

2.4 Expiration or Non-Renewal. Upon termination, expiration or non-renewal of this Agreement, Cal Am shall continue to make Return Water available for delivery to the SRGB for use in lieu of existing groundwater production, unless Cal Am demonstrates that Return Water is not needed to prevent legal injury to prior groundwater rights holders in the SRGB or to avoid significant adverse effects to SRGB groundwater resources. If Cal Am desires to make such a showing, it shall initially do so by providing a demonstration in writing to all parties to the Settlement Agreement using the notice provisions of Section 11 of this Agreement. Within 21 days thereafter, the Parties shall meet to seek to reach agreement regarding whether Cal Am has made the requisite demonstration. If the Parties do not reach agreement within 30 days after the initial meeting, any Party may on or after the 31st day, but no later than the 91st day, invoke the provisions of Section 9. For the avoidance of doubt, nothing in this Section 2.4 in any way affects the provisions, scope and application of Section 1.3.

3. Delivery of Return Water

3.1 Priority of Return Water for In-Lieu Use. Unless prevented by circumstances outside the control of CCSD and so long as such use is permitted by law, CCSD will use the water purchased from Cal Am under Section 3.5.1 of this Agreement to serve the water supply demand of persons served by CCSD, before using water from the SRGB. CCSD shall measure and record the amount of water received under this Agreement and produced from other groundwater sources within the SRGB and shall make such information available to the public upon written request. CCSD will report to the parties to the Settlement Agreement within 90 days after executing this Agreement, and annually thereafter by March 31, the following information for the prior 12 months: the amount of water served to, and the current number of, its residential, commercial, and industrial service connections; the amount of water produced from groundwater wells to serve these connections; the amount of Return Water to serve these connections; and the amount of water from other sources to serve these connections. This provision is not intended and shall not be interpreted to limit either CCSD's statutory authority under Section 61100 of the California Government Code to supply water for any beneficial uses within CCSD's boundaries or CCSD's discretion in the use of best management practices to operate CCSD's water system facilities in performing CCSD's obligations under the law and this Agreement, or to impose new or additional requirements for analysis under the California Environmental Quality Act ("CEQA"), Public Resource Code Sections 21000 and following for water service and supply by CCSD.

3.2 Cal Am Return Water Pipeline. Subject to satisfaction of the Conditions Precedent set forth in Sections 3.3(a), (b), (c), (d), (e) and (f), Cal Am will design and construct (in consultation with CCSD) the Delivery Pipeline including a metered delivery point ("Delivery Point") as set forth in Exhibit A. Cal Am will install, operate, and maintain the meter in accordance with CPUC General Order 103-A or other applicable CPUC or water industry standards which will measure the volume of Return Water delivered to the Delivery Point ("Cal Am Meter"). CCSD shall use best efforts to ensure it has the ability to take such delivery. All pipeline facilities from the desalination plant up to and including the Cal Am Meter shall be

owned, operated and maintained by Cal Am. All pipeline facilities downstream of the Cal Am Meter shall be owned, operated, and maintained by CCSD upon payment by CCSD to Cal Am of the CCSD Pipeline Contribution as set forth in this Agreement.

3.3 Conditions Precedent. Any delivery of Return Water pursuant to this Agreement is subject to the following conditions precedent:

- (a) any required CPUC approval to amend Cal Am's Service Area to allow for the sale of Return Water consistent with the terms of this Agreement; and,
- (b) any required CPUC approval of a tariff to allow for the sale of Return Water consistent with the terms of this Agreement, which tariff may change from time to time with the approval of the CPUC and shall govern over any inconsistent terms or conditions set forth in this Agreement; and,
- (c) the completion of CEQA review by the CPUC as lead agency for the Project; and
- (d) the CPUC's issuance of a Certificate of Public Convenience and Necessity ("CPCN") for the Project; and,
- (e) the total cost of the Delivery Pipeline ("Delivery Pipeline Cost") is estimated by Cal Am to be no more than \$4.4 million; and,
- (f) CCSD and Cal Am have reached an agreement concerning the capacity, construction by Cal Am, implementation, acquisition by CCSD, ownership, financing, and operation and maintenance costs of the Delivery Pipeline; and,
- (g) completion of construction, and acceptance by Cal Am, of the Project desalination plant such that it is able to produce and transport Return Water to the Delivery Point; and
- (h) CCSD's ability to take delivery of the Return Water at the Delivery Point.

With respect to Sections 3.3(a), (b), (c) and (d), Cal Am shall use good faith diligent efforts to seek any such required CPUC approval as is reasonably possible following the Effective Date. CCSD shall use good faith diligent efforts to support Cal Am's efforts to obtain any such CPUC approval.

3.4 Delivery Pipeline Cost.

3.4.1 Upon completion and acceptance by Cal Am of the Delivery Pipeline, CCSD will pay to Cal Am the Delivery Pipeline Cost, subject to a cap of \$2.8 million ("CCSD Pipeline Contribution").

3.4.2 The Parties shall cooperate in good faith to seek grants to offset the Delivery Pipeline Cost.

3.4.3 Cal Am will reimburse CCSD for its CCSD Pipeline Contribution in proportion to any reduction to the CCSD Delivery Volume as a result of the occurrence of an Other Return Water Obligation pursuant to Section 3.5.2 (“Conditional Pipeline Reimbursement”), which Conditional Pipeline Reimbursement shall be prorated by that percentage of the outstanding 30-year Delivery Term remaining at the time the Other Return Water Obligation occurs. The foregoing concept is represented in the following equation: Conditional Pipeline Reimbursement = ([Other Return Water Obligation/CCSD Delivery Volume] x \$2.8 million) x (remaining Delivery Term/30-year term).

3.5 Delivery Requirements. Cal Am shall have annual Return Water requirements (“Annual Return Water Obligation”) that shall be calculated based on the percentage of SRGB groundwater in the total Project Source Water Production. CCSD agrees that the volume of the Annual Return Water Obligation will be determined as set forth in Section 2.c. of the Settlement Agreement. For reference purposes, Section 2.c. of the Settlement Agreement is attached as Exhibit C hereto.

3.5.1 On an annual basis during the Delivery Term, Cal Am shall make available for delivery to CCSD 690 afa of Return Water (“CCSD Delivery Volume”). In any given year, if the CCSD Delivery Volume is less than the Annual Return Water Obligation for that year, CCSD shall purchase Return Water from Cal Am in an amount equal to the CCSD Delivery Volume. In any given year, if the Annual Return Water Obligation is less than the CCSD Delivery Volume, CCSD shall purchase Return Water from Cal Am in an amount equal to the Annual Return Water Obligation for that year and may elect to purchase from Cal Am potable water in an amount equal to the difference between the Annual Return Water Obligation for that year and the CCSD Delivery Volume (“Excess Water”). In other words, CCSD shall purchase from Cal Am each year the lesser of the CCWD Delivery Volume or the Annual Return Water Obligation, and may purchase from Cal Am each year Excess Water, in accordance with pricing terms addressed in Section 4. Notwithstanding any other provision of this Agreement, if CCSD purchases any Excess Water in any given year, it may not purchase a total of more than 690 afa of Return Water in that year.

3.5.2 The Parties acknowledge that Cal Am could be legally required by a regulatory agency, including the CPUC in this proceeding, or by a court, to make water deliveries to other locations in the SRGB to the extent necessary to mitigate any groundwater impacts from the Project that were demonstrated in relation to a specific location overlying the SRGB (“Other Return Water Obligation”). Such Other Return Water Obligation could also serve to satisfy Cal Am’s obligations to return water to the SRGB under the Agency Act, the CEQA, or common-law water law principles. Under such circumstances, the Parties agree that it would be inequitable to Cal Am and its ratepayers to fund both the Other Return Water Obligation and the Return Water obligations specified herein as this would result in a duplicative liability to Cal Am and its ratepayers. Cal Am’s obligation to make available the CCSD Delivery Volume shall be reduced in the event and to the extent that a regulatory agency or court has required Cal Am to deliver Return Water in a manner or location different than as specified in this Agreement. CCSD shall have the right to terminate this Agreement as set forth in Section

10.3 if it determines that the reduced amount of Return Water would not be sufficient to justify its water purchase as contemplated herein.

3.6 Scheduling of Deliveries. Subject to CCSD's obligation to purchase Return Water set forth in Section 3.5.1, Cal Am will deliver Return Water to the Delivery Point in quantities and at times determined by the Parties. Cal Am will endeavor to cooperate with CCSD to deliver Return Water to the Delivery Point in volumes and at times requested by CCSD. CCSD will give at least 30 days' advance written notice to Cal Am by email, facsimile or U.S. Mail before any changes to CCSD's water demand during any water year.

4. Payment Provisions.

4.1 Generally. Cal Am will invoice CCSD for deliveries of Return Water to the Delivery Point based on the volumes measured at the Cal Am Meter. CCSD shall pay such invoices within 30 days of receipt.

(a) Pricing. CCSD shall pay a rate intended to represent its avoided cost to produce groundwater to meet customer demand, currently estimated to be \$110 per acre-foot, which will be the rate as of the beginning of the Delivery Term, for Return Water made available for delivery to meet the Annual Return Water Obligation. CCSD plans to continue operation of its existing wells so they may be available in emergency circumstances. This continuing operation will enable CCSD to provide future updates to the avoided cost of pumping to Cal Am upon Cal Am's reasonable request, but not more than once per year. If CCSD is unable to provide such updated avoided costs of pumping, then the percentage increase of PG&E's A-6 tariff for off-peak summer distribution rate (with a base of \$0.07311 / kWh as of the tariff existing on March 24, 2016) will be used as the escalation factor for the increase in avoided cost of pumping in the future. During the Delivery Term, the rate will be reviewed annually and updated, if necessary, via Tier 2 advice letter filing with the CPUC. If at any time the CPUC approves or imposes a price for Return Water that exceeds CCSD's marginal avoided cost for groundwater pumping, CCSD may terminate this Agreement, but Cal Am's obligation to provide Return Water shall not be affected by such termination. Such termination must be effected by providing a written notification of termination to Cal Am, and such termination shall become effective thirty (30) days after Cal Am has received such written notification.

(b) CCSD shall pay a rate intended to represent the marginal operation and maintenance costs for the Project to produce one acre-foot of potable water, currently estimated to be \$580 per acre-foot, which will be the rate as of the beginning of the Delivery Term, for any Excess Water; provided, however, that as to Excess Water, CCSD shall pay the prices that are approved by the CPUC and included in Cal Am's tariffs, as they may be modified from time to time as approved by the CPUC. During the Delivery Term, the rate will be reviewed annually and updated, if necessary, via Tier 2 advice letter filing with the CPUC.

5. Compliance with Laws/Cooperation. The Parties shall comply with all applicable laws in their respective performance under this Agreement and shall cooperate to take the actions and execute the documents necessary to perform under this Agreement.

6. **Indemnification; Fees and Expenses**

6.1 **Indemnification.**

(a) To the fullest extent permitted by law, Cal Am shall indemnify and hold harmless, but shall have no obligation to defend, CCSD and its directors, officers, agents and employees, from any claims, actions or liability for any damages or costs (including reasonable attorneys' fees and costs of defense) arising either from any injury to persons or property or from any violation of any law or regulation, which damages result from either the negligent acts, errors, or omissions, or the willful misconduct, of Cal Am, its directors, officers, employees, or agents in performing under this Agreement, but only to the extent such damages resulted from such negligent acts, errors, or omissions, or from such willful misconduct, of Cal Am or its directors, officers, agents and employees, such that Cal Am's indemnity obligation shall only apply to its percentage of fault multiplied by the total damages in issue.

(b) To the fullest extent permitted by law, CCSD shall indemnify and hold harmless, but shall have no obligation to defend, Cal Am and its directors, officers, agents and employees from any claims, actions or liability for any damages or costs (including reasonable attorneys' fees and costs of defense) arising either from any injury to persons or property or from any violation of any law or regulation, which damages result from either the negligent acts, errors, or omissions, or the willful misconduct, of CCSD, its directors, officers, employees, contractors or agents in performing under this Agreement, but only to the extent such damages resulted from such negligent acts, errors, or omissions, or from such willful misconduct, of CCSD or its directors, officers, agents and employees, such that CCSD's indemnity obligation shall only apply to its percentage of fault multiplied by the total damages in issue. Notwithstanding the foregoing, the Parties acknowledge and agree that nothing in this Section 6.1(b) or otherwise contained in this Agreement constitutes or shall be asserted to constitute a waiver of any defense CCSD possesses or may possess, including but not limited to any defense of sovereign or statutory immunity, to liability at law or in equity.

7. **Insurance.** The Parties will keep in full force and effect the insurance coverage described in Exhibit B.

8. **Assignment.** A Party may not assign its rights or obligations under this Agreement without the written consent of the other Party, which consent may not be unreasonably withheld.

9. **Dispute Resolution**

9.1 **Scope of Article.** This Article governs the resolution of all disputes that arise under this Agreement.

9.2 **Disputes.** If a dispute arises concerning any controversy or claim arising out of or relating to this Agreement or the breach thereof, or relating to its application or interpretation, the aggrieved Party will notify the other Party of the dispute in writing within twenty (20) days after such dispute arises. If the Parties fail to resolve the dispute within sixty (60) days after delivery of such notice, each Party will promptly nominate a senior officer of its organization to meet at any mutually-agreed time and location to resolve the dispute. The Parties

shall use their best efforts to reach a just and equitable solution satisfactory to both Parties. If the Parties are unable to resolve the dispute to their mutual satisfaction within sixty (60) days thereafter, the dispute will be subject to mediation, pursuant to Section 9.3. The time periods set forth in this Section 9.2 are subject to extension as agreed to by the Parties.

9.3 Mandatory Non-binding Mediation. If a dispute is not resolved pursuant to Section 9.2, the Parties agree to first endeavor to settle the dispute in an amicable manner, using mandatory non-binding mediation initiated and conducted under the applicable rules of the American Arbitration Association in effect as of the Effective Date or other rules agreed to in writing by the Parties, before having recourse in a court of law. Each Party shall bear its own legal expenses, and the expenses of witnesses for either side shall be paid by the Party producing such witnesses. All expenses of the mediator, including required travel, and the cost of any proofs or expert advice produced at the direct request of the mediator, shall be borne equally by the Parties, unless they agree otherwise. Any resultant agreements from mediation shall be documented in writing. All mediation proceedings, results, and documentation, including without limitation any materials prepared or submitted or any positions taken by or on behalf of either Party, shall be confidential and inadmissible for any purpose in any legal proceeding (pursuant to California Evidence Codes sections 1115 through 1128), unless such admission is otherwise agreed upon in writing by the Parties. Mediators shall not be subject to any subpoena or liability, and their actions shall not be subject to discovery. The mediation shall be completed within sixty (60) days after selection of the mediator, unless the Parties agree to extend the mediation period.

9.4 Judicial Relief. If mediation pursuant to Section 9.3 does not resolve a dispute, either Party may seek relief in a court of competent jurisdiction.

9.5 Limitations on Damages. No Party shall be entitled to consequential damages, incidental damages, or punitive or exemplary damages from the other Party in any action or proceeding in connection with this Agreement.

9.6 Attorneys' Fees and Costs. In any action or proceeding to enforce a term or condition of this Agreement, in any disputes relating to the Agreement, and in any actions for breaches, defaults, or misrepresentations in connection with any the Agreement, a prevailing Party (as determined by a court of competent jurisdiction) shall be entitled to recover its reasonable costs and expenses, including without limitation reasonable attorneys' fees and costs.

10. Termination.

10.1 Termination for Non-Performance. Either Party may terminate this Agreement if the other Party fails to perform a material provision of this Agreement as required herein, provided that the Party seeking termination shall provide prior written notice of its intention to terminate to the other Party, which notice shall fully describe how the other Party failed to perform a material provision of this Agreement, and provided further that the dispute has not been resolved by following the procedures set forth in Section 9 above. If the Parties are unable to resolve the dispute following the procedures set forth in Section 9, the Party seeking termination may provide a written notification of termination to the other Party, and such termination shall become effective thirty (30) days after the other Party has received such written

notification. The procedures of this Section 10.1 shall not apply to terminations under Section 10.2 and 10.3 of this Agreement.

10.2 Termination for Failure of Conditions Precedent. Either Party may terminate this Agreement if, by January 1, 2025, Cal Am has not obtained any and all required CPUC approval of the matters described as conditions precedent in Sections 3.2(a), (b), (c) and (d) by providing a written notification of termination to the other Party, and such termination shall become effective thirty (30) days after the other Party has received such written notification.

10.3 Termination Based on Regulatory Requirements. CCSD may terminate this Agreement if: (a) Cal Am is legally required by a regulatory agency, including the CPUC, or by a court, to make water deliveries to locations in the SRGB other than the CCSD Service Area which result in reduced deliveries to CCSD; and (b) CCSD determines that the reduced amount of Return Water would not be sufficient to justify its water purchase hereunder. Such termination must be effected by providing a written notification of termination to Cal Am, and such termination shall become effective thirty (30) days after Cal Am has received such written notification.

10.4 Agency Act. Termination of this Agreement does not excuse or delay Cal Am's obligation to comply with the Agency Act.

10.5 Ending of Right to Terminate. The Parties acknowledge that the CCSD must be assured of a specific volume of Return Water to justify investment in the capital facilities necessary to convey the Return Water to the CCSD ("CCSD Facilities"), and therefore Cal Am's obligation under this Agreement to make available the CCSD Delivery Volume shall become unconditional on the latest of the following dates, on and after which date the Agreement may not be terminated prior to its expiration:

10.5.1 The date on which the CPUC has issued a CPCN for the Project and the period to challenge the legality of the CPUC's issuance of the CPCN (based on CEQA compliance or otherwise) has expired and no challenge has been brought; or

10.5.2 The date on which any challenge against the CPUC's issuance of the CPCN is resolved with finality following all available appeals and petitions; or

10.5.3 Sixty (60) days following the date on which the CCSD provides notification to Cal Am that it has secured financing, acceptable to CCSD, to acquire the CCSD Facilities.

| Nothing in this Section 10.54 shall prohibit Cal Am from temporarily suspending delivery of Return Water or Excess Water to CCSD if CCSD fails to make payments when due and such failure continues for a time period in excess of sixty (60) calendar days.

11. **Representatives; Notices.**

11.1 **Authorized Representatives.** Each Party will designate at least one individual officer or employee who will be its representative and will be authorized to act on behalf of the Party for all purposes in performing the provisions of this Agreement (“Representative”). The designation may be changed from time to time. The designation and changes to a designation must be made in a writing delivered to the other Party.

11.2 **No Release.** Each Party is responsible for the acts or omissions of its Representative(s). The designation of a Representative by a Party does not release the Party from responsibility for performance of its obligations under this Agreement.

11.3 **Notice.** All notifications, notices, demands, requests and other communications herein provided for or made pursuant hereto shall be in writing and shall be sent by: (i) registered or certified mail, return receipt requested, and the giving of such communication shall be deemed complete on the third (3rd) business day after the same is deposited in a United States Post Office with postage charges prepaid; (ii) reputable overnight delivery service, and the giving of such communication shall be deemed complete on the immediately succeeding business day after the same is deposited with such delivery service; or (iii) so long as a Party has notified the other Party by means of a method described in clauses (i) or (ii) above of such Party's email address for notification purposes, email transmission of notices to such Party are also permitted provided an original is also sent via one of the other permitted means and the giving of such communication shall be complete when such email is received if such email is received on a business day before 3:00 pm Pacific Time; otherwise, such communication shall be deemed complete the next business day. The date on which notifications, notices, demands, requests and other communications are deemed complete shall be the earliest date arising under subsections (i), (ii) or (iii) of this Section 11.3. All notifications, notices, demands, requests and other communications shall be sent to the Parties as follows:

To CCSD:

J. Eric Tynan
General Manager
Castroville Community Services District
11499 Geil Street
Castroville, CA 95012

To Cal Am:

Eric J. Sabolsice
Director, Operations
Coastal Division
California-American Water Company
511 Forest Lodge Road, Suite 100
Pacific Grove, CA 93950

12. **Force Majeure.** If by reason of Force Majeure (defined below), a Party is rendered unable, wholly or in part, to carry out its obligations under this Agreement, and if such Party gives notice and reasonably describes the particulars of such Force Majeure in writing to the other Party as promptly as possible after the occurrence of the cause relied on, then the affected Party shall be excused from performance hereunder without liability, but only so far as and to the extent that it is affected by such Force Majeure; provided, however, such cause shall be remedied with all reasonable dispatch. Upon occurrence of the Force Majeure, the affected Party, in addition to notifying the other Party as provided above, shall as promptly as possible provide such Party a written description of the Force Majeure, the cause thereof (to the extent known), the date the Force Majeure began, its expected duration, and an estimate of the specific relief requested or to be requested by such Party. Furthermore, the Party affected by such Force Majeure shall use diligent efforts to reduce costs resulting from the occurrence of the Force Majeure, fulfill its performance obligations under this Agreement and otherwise mitigate the adverse effects of the Force Majeure. While the Force Majeure continues, the affected Party shall give the other Party regular updates of the information previously submitted. The affected Party shall also provide prompt written notice to the other Party of the cessation of the Force Majeure. Notwithstanding anything to the contrary contained herein, the occurrence of a Force Majeure shall not, however, (i) excuse or delay any obligation to pay monies previously accrued and owing to another Party under this Agreement, or for the Party to perform any obligation under this Agreement not affected by the occurrence of the Force Majeure; or (ii) excuse or delay Cal Am's obligation to comply with the Agency Act.

For purposes of this Section 12, "Force Majeure" means any act, event, condition or circumstance that (A) is beyond the reasonable control of a Party, (B) by itself or in combination with other acts, events, conditions or circumstances adversely affects, interferes with or delays a Party's ability to perform its obligations under this Agreement, expands the scope of a Party's obligations under this Agreement, or increases a Party's cost of performing its obligations under this Agreement, and (C) is not the direct result of the willful or negligent act, intentional misconduct, or breach of this Agreement by the affected Party.

13. **Other Provisions.**

13.1 **Integration.** This Agreement embodies the entire agreement between the Parties relating to the subject matter hereof and supersedes all prior agreements and understandings, written or oral, relating to such subject matter.

13.2 **Successor and Assigns.** This Agreement shall be binding upon, and shall inure to the benefit of and be enforceable by, the Parties hereto and their respective successors and assigns permitted hereunder.

13.3 **Relationship of Parties.** Each Party is an independent entity. This Agreement will not constitute any Party as the agent of the other Party. This Agreement will not constitute the Parties as partners or joint venturers (or as co-owners of a business entity) for common law purposes, federal, state or local income tax purposes, or otherwise.

13.4 Amendments or Waivers. No term or provision hereof or Exhibit hereto may be amended, changed, waived, discharged, terminated or replaced except by a writing executed by each of the Parties hereto.

13.5 No Waiver by Failure to Act. No failure, delay, forbearance or indulgence on the part of any Party in insisting upon the strict performance of any provision, or in exercising any option, right, power, privilege or remedy hereunder, shall operate or be construed as a waiver or relinquishment thereof, or as an acquiescence in any breach, nor shall any single or partial exercise of any option, right, power, privilege or remedy hereunder preclude any other or further exercise thereof or the exercise of any other option, right, power, privilege or remedy.

13.6 Controlling Law; Conflicts of Law. This Agreement shall be construed, governed and applied in accordance with the laws of the State of California, without regard to the conflicts of law principles thereof.

13.7 CEQA. This Agreement helps to define a stable and finite project description that will facilitate the CPUC's completion of CEQA review for the Project. The legal effectiveness of this Agreement is contingent on the completion of CEQA review and this Agreement does not irretrievably commit the Parties to carrying out any physical activities that would be required for Cal Am to meet the Annual Return Water Obligation or would otherwise be required for the Parties to comply with the terms of this Agreement. The Parties acknowledge and intend that the CPUC as lead agency and other responsible agencies under CEQA will retain full discretion with respect to deciding whether to approve water purchase or any other commitments necessary or convenient for Cal Am to meet the Annual Return Water Obligation, including discretion to modify commitments to avoid or reduce any significant adverse physical environmental effects (i) from Return Water activities that are within their jurisdiction, and (ii) from the Parties' compliance with other terms of this Agreement.

13.8 Severability. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

13.9 No Third Party Beneficiaries. Nothing in this Agreement, express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the Parties hereto; nothing in this Agreement is intended to relieve or discharge the obligation or liability of any third person to any Party; and, this Agreement does not create any duty, liability or standard of care to any person who is not a Party. However, this Section 13.9 is not intended to, and shall not, limit the right of Settlement Agreement Parties to meet and confer under Section 6 of the Settlement Agreement in response to any conflict that is noted or alleged to exist between the terms of this Agreement and the terms of the Settlement Agreement.

13.10 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, and such counterparts together shall constitute but one and the same instrument.

13.11 Consents and Approvals. Except as otherwise expressly set forth in this Agreement, all consents and approvals which may be given under this Agreement shall be in writing and shall not be unreasonably withheld or delayed unless otherwise expressly provided herein.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed and delivered in their name and on their behalf.

CASTROVILLE COMMUNITY SERVICES DISTRICT

By: _____

Printed Name: _____

Title: _____

Approved as to Form:

By: _____

Printed Name: _____

Title: _____

CALIFORNIA-AMERICAN WATER COMPANY

By: _____

Printed Name: _____

Title: _____

EXHIBIT A

Depiction of Anticipated Location of Delivery Pipeline and Delivery Point



EXHIBIT B

INSURANCE REQUIREMENTS

Each Party to this Agreement shall initially provide information regarding and thereafter at all times maintain Commercial General Liability (“CGL”) insurance, or be analogously self-insured or insured through a pooling arrangement, in the minimum amount of \$1,000,000 per occurrence with an aggregate limit of \$2,000,000. Subject to the immediately preceding sentence, each Party may change insurance and/or insurers, and if a Party does so, it shall provide notice to the other Party within seven (7) days of such change.

Cal Am declares that it currently has a CGL policy with limits of \$2,000,000 per occurrence with an aggregate limit of \$25,000,000 and a \$2,000,000 deductible. Coverage is issued through Travelers Property Casualty Company of America.

CCSD declares that it participates in pooled coverage through the Association of California Water Agency Joint Powers Insurance Authority (ACWA/JPIA) for acts and omissions that would be covered by a CGL policy issued by a private insurer. The limits of such pooled coverage equal or exceed \$1,000,000 per occurrence and an aggregate limit of \$2,000,000.

EXHIBIT C

SECTION 2.C. OF SETTLEMENT AGREEMENT

[TO BE PROVIDED UPON FINALIZATION OF SETTLEMENT AGREEMENT]

RETURN WATER PURCHASE AGREEMENT

By and Between

MONTEREY COUNTY WATER RESOURCES AGENCY

and

CALIFORNIA-AMERICAN WATER COMPANY

THIS RETURN WATER PURCHASE AGREEMENT (“Agreement”) is made as of _____, 2017 (the “Effective Date”) by and between the MONTEREY COUNTY WATER RESOURCES AGENCY, a Water Resources Agency created pursuant to the Monterey County Water Resources Agency Act found at California Water Code Appendix Chapter 52 (“Agency”), and CALIFORNIA-AMERICAN WATER COMPANY, a California corporation (“Cal Am”). Agency and Cal Am are referred to herein individually as a “Party” and collectively as the “Parties.”

RECITALS:

A. The Agency is a public agency with jurisdictional boundaries that are coextensive with the boundaries of the County of Monterey and, under the Monterey County Water Resources Agency Act (“Agency Act”), Agency is responsible for, among other things, controlling groundwater extractions as required to prevent or deter the loss of usable groundwater through intrusion of seawater and prohibiting groundwater exportation from the Salinas River Groundwater Basin (“SRGB”).

B. Cal Am is a public utility regulated by the California Public Utilities Commission (“CPUC”) and provides water service in various areas within California, including a service area in Monterey County (as it may be subsequently amended or revised from time to time without the approval of the other Party) (“Cal Am Service Area”).

C. Cal Am submitted an application to the CPUC on April 23, 2012, in Proceeding A.12-04-019 for approval of the Monterey Peninsula Water Supply Project (“Project”). The Project as proposed would consist of slant intake wells, brackish water pipelines, a desalination plant, product water pipelines, brine disposal facilities and related appurtenant facilities. Depending on the availability of water from the Monterey Regional Water Pollution Control Agency’s proposed publicly-owned Groundwater Replenishment Project and on the CPUC’s decision on the application, the desalination plant is expected to be sized at either 9.6 million gallons per day (“mgd”) or 6.4 mgd to supply water for municipal use in the Cal Am Service Area.

D. The Project’s slant intake wells are designed to pump seawater and to avoid or minimize the capture of groundwater from the SRGB in the process of producing source water for treatment by the selected desalination plant (“Project Source Water Production”). To meet applicable requirements of the Agency Act, Cal Am has proposed as part of the Project to make available for delivery to groundwater users overlying the SRGB a volume of water equal to the percentage of SRGB groundwater in the total Project Source Water Production (“Return Water”).

E. The Castroville Seawater Intrusion Project (“CSIP”) is an Agency project that provides recycled water and diverted Salinas River water for use in lieu of groundwater pumping for irrigated agricultural use in the Castroville area of the SRGB. Agency desires to purchase Return Water for ultimate distribution to CSIP agricultural users; however, prior environmental analyses reveal that there may be limitations in the capacity of CSIP to accommodate all of the Return Water under some conditions.

F. Cal Am intends to seek any CPUC approval necessary to allow for the sale of Return Water to Agency consistent with the terms of this Agreement, and Agency intends to support Cal Am's request for any CPUC approval necessary to allow the sale of Return Water to Agency pursuant to the terms of this Agreement.

G. Pursuant to a separate agreement with Castroville Community Services District ("CCSD") dated _____ and entitled Return Water Purchase Agreement By and Between CASTROVILLE COMMUNITY SERVICES DISTRICT and CALIFORNIA-AMERICAN WATER COMPANY ("CCSD Return WPA"), Cal Am is required to make available for delivery to CCSD 690 acre feet annually ("afa") of Return Water ("CCSD Delivery Volume").

H. Cal Am's performance of its Return Water obligations under this Agreement and the CCSD Return WPA is intended to advance fulfillment of Cal Am's Return Water obligations under that certain SETTLEMENT AGREEMENT ON MPWSP DESALINATION PLANT RETURN WATER, dated _____, 2016 ("Settlement Agreement").

I. Cal Am contemplated two separate pipelines delivering Return Water from the Project desalination plant, one to CSIP ponds and one to CCSD's wellsite #3 ("CCSD Wellsite"). Through negotiations and discussions, the Parties determined the cost of new infrastructure could be decreased by connecting with existing CSIP infrastructure. That connection allows a single pipeline, rather than two pipelines, to be constructed from the desalination plant to the CCSD Wellsite that will connect with an existing CSIP pipeline ("CSIP Connection"). The elimination of a separate pipeline to the CSIP ponds avoids certain pipeline and pump station costs and results in an estimated cost savings to Cal Am of approximately \$1,300,000. A preliminary cost estimate for a pipeline and ancillary facilities necessary to convey water from the Project desalination plant to the CCSD Wellsite ("Delivery Pipeline") is approximately \$6,500,000. Cal Am believes that if the Delivery Pipeline is constructed by Cal Am there will economies of scale achieved which may reduce the cost of the Delivery Pipeline to approximately \$4,400,000, assuming that Cal Am will secure contracts for construction of the pipeline and that environmental review and permitting will be performed in conjunction with the Project. CCSD estimates its cost to construct a new deep well with treatment facilities would cost approximately \$2,800,000. Thus, CCSD submits that it may not be able to prudently fund the Delivery Pipeline for more than \$2,800,000, and that capital obligations for the Delivery Pipeline would necessitate long-term commitments by CCSD and certainty of source water supply for CCSD.

NOW THEREFORE, in consideration of the foregoing recitals and the mutual covenants set forth in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Agency and Cal Am hereby agree as follows:

AGREEMENT

1. Governing Terms.

1.1 Recitals. The recitals are hereby incorporated in this Agreement as if fully set forth herein.

1.2 Interpretation. The following rules of interpretation shall apply:

(a) Capitalized terms used in this Agreement, including the exhibits hereto, shall have their respective meanings as set forth in this Agreement.

(b) Unless otherwise specified herein, references in the singular shall include references in the plural and vice versa; and pronouns having masculine or feminine gender will be deemed to include the other.

(c) Any act required to occur by or on a certain day is required to occur before or on that day unless the day falls on a Saturday, Sunday or federal holiday, in which case the act must occur before or on the next day this is not a Saturday, Sunday or federal holiday.

(d) The headings in this Agreement are included for convenience only and shall not be deemed to modify or explain any of the terms of this Agreement.

(e) This Agreement is the product of negotiation between the Parties, no Party is to be deemed the drafter of this Agreement, and any ambiguities in this Agreement shall not be read against any Party to the Agreement.

(f) All references in this Agreement to a “year” shall mean a “water year,” and all references to a “water year” shall mean the 12-month period beginning on October 1 of a given year and ending on September 30 of the following year. All calculations herein based on the period of a year shall be prorated to account for any time frame that is less than a 12-month period.

1.3 Agency Act Compliance. Cal Am shall comply with the Agency Act. Notwithstanding any other provisions of this Agreement, the Agency will retain all rights, discretion and authority conferred on the Agency under the Agency Act to ensure that the pumping, production, desalination, and distribution of project source water from the SRGB for the selected desalination plant complies with the Agency Act, and the long-term viability of the SRGB as a water supply for water for agricultural, domestic and municipal use. Neither this Section 1.3 nor any other provision of this Agreement shall be interpreted: (a) to affect, diminish, or enhance the Agency’s regulatory authority under the Agency Act; (b) to affect, diminish, excuse, or forgive Cal Am’s obligation to comply with the Agency Act; or (c) to preclude any argument by Cal Am that there is no violation of the Agency Act.

2. Term.

2.1 Effective Date. This Agreement shall be effective on the Effective Date and shall continue in effect until expiration of the Delivery Term (defined in Section 2.2 below) or until earlier termination as provided for in Section 10.

2.2 Delivery Term. The “Delivery Term” shall begin on the date on which Cal Am has determined that it is ready to deliver Return Water to the Delivery Point (defined in Section 3.2 below), the anticipated location of which is depicted on Exhibit A, and shall continue for a period of thirty (30) years thereafter. Cal Am shall provide Agency with written notice of

the commencement date of the Delivery Term, promptly upon Cal Am's determination of such date.

2.3 Right of First Refusal. If this Agreement has not been terminated as provided for in Section 10, Agency shall have a right of first refusal to enter into a new return water purchase agreement on terms to be negotiated by the Parties at the time the right is exercised. In order to exercise the right, Agency shall provide Cal Am written notice of its intent to do so no earlier than 730 days and no later than 365 days prior to expiration of this Agreement. Agency acknowledges that pursuant to the CCSD Return WPA CCSD also has a right of first refusal to enter into a new return water purchase agreement with respect to its agreement with Cal Am.

2.4 Expiration or Non-Renewal. Upon termination, expiration or non-renewal of this Agreement, Cal Am shall continue to make Return Water available for delivery to the SRGB for use in lieu of existing groundwater production, unless Cal Am demonstrates that Return Water is not needed to prevent legal injury to prior groundwater rights holders in the SRGB or to avoid significant adverse effects to SRGB groundwater resources. If Cal Am desires to make such a showing, it shall initially do so by providing a demonstration in writing to all parties to the Settlement Agreement using the notice provisions of Section 11. Within 21 days thereafter, the Parties shall meet to seek to reach agreement regarding whether Cal Am has made the requisite demonstration. If the Parties do not reach agreement within 30 days after the initial meeting, any Party may on or after the 31st day, but no later than the 91st day, invoke the provisions of Section 9. For the avoidance of doubt, nothing in this Section 2.4 in any way affects the provisions, scope and application of Section 1.3.

3. Delivery of Return Water

3.1 Priority of Return Water for In-Lieu Use. Agency will use the Return Water only within the existing CSIP service area and will use it to the greatest extent possible to offset existing groundwater pumping. Unless the amounts of groundwater pumped and Return Water purchased are not publicly available through routine Agency reports, Agency will annually report to the parties to the Settlement Agreement the amount of groundwater pumped and Return Water purchased for use within the CSIP service area, delivery of which report shall occur under the notice provisions of Section 11 of this Agreement.

3.2 Cal Am Return Water Pipeline. Subject to satisfaction of the Conditions Precedent set forth in Sections 3.3(a), (b), (c), (d), (e), and (f), Cal Am will design and construct (in consultation with Agency) the Delivery Pipeline including a metered delivery point ("Delivery Point") as set forth in Exhibit A. Cal Am will install, operate, and maintain the meter at the Delivery Point in accordance with CPUC General Order 103-A or other applicable CPUC or water industry standards which will measure the volume of Return Water delivered at the Delivery Point ("Cal Am Meter"). Agency shall use good faith diligent efforts to support Cal Am's efforts to obtain any such CPUC approval. The Parties shall cooperate in good faith to seek grants to offset the costs of the Delivery Pipeline.

3.3 Conditions Precedent. Any delivery of Return Water pursuant to this Agreement is subject to the following conditions precedent:

(a) any required CPUC approval to amend Cal Am's Service Area to allow for the sale of Return Water consistent with the terms of this Agreement; and

(b) any required CPUC approval of a tariff to allow for the sale of Return Water consistent with the terms of this Agreement, which tariff may change from time to time with the approval of the CPUC and shall govern over any inconsistent terms or conditions set forth in this Agreement; and

(c) the completion of California Environmental Quality Act ("CEQA") review by the CPUC as lead agency for the Project; and

(d) the CPUC's issuance of a Certificate of Public Convenience and Necessity ("CPCN") for the Project; and

(e) completion of construction, and acceptance by Cal Am, of the Project desalination plant such that it is able to produce and transport Return Water to the Delivery Point; and

(f) A Cal Am Annual Return Water Obligation in any given year (defined in Section 3.4 below) in excess of the CCSO Delivery Volume; and

(g) Agency's ability to take delivery of the Return Water at the Delivery Point. Agency shall use best efforts to ensure it has the ability to take such delivery.

With respect to Sections 3.3(a), (b), (c) and (d), Cal Am shall use good faith diligent efforts to seek any such required CPUC approval as is reasonably possible following the Effective Date.

3.4 Annual Return Water Obligation. Cal Am shall have an annual Return Water obligation ("Annual Return Water Obligation") that shall be calculated based on the percentage of SRGB groundwater in the total Project Source Water Production. Agency agrees that any Return Water delivered by Cal Am to the Delivery Point as contemplated by this Agreement, any Return Water delivered to CCSO as contemplated by the CCSO Return WPA, and any Return Water delivered to Monterey Regional Waste Management District and Monterey Regional Water Pollution Control Agency, should such delivery occur as discussed in the Settlement Agreement, shall be applied to satisfy Cal Am's Annual Return Water Obligation.

3.4.1 The volume of the Annual Return Water Obligation will be determined as set forth in Section 2.c. of the Settlement Agreement. For reference purposes, Section 2.c. of the Settlement Agreement is attached as Exhibit C hereto.

3.4.2 The Parties acknowledge that Cal Am could be legally required by a regulatory agency, including the CPUC in this proceeding, or by a court, to make water deliveries to other locations in the SRGB to the extent necessary to mitigate any groundwater impacts from the Project that were demonstrated in relation to a specific location overlying the SRGB ("Other Return Water Obligation"). Such Other Return Water Obligation could also serve to satisfy Cal Am's obligations to return water to the SRGB under the Agency Act, the

CEQA, or common-law water law principles. Under such circumstances, the Parties agree that it would be inequitable to Cal Am and its ratepayers to fund both the Other Return Water Obligation and the Return Water obligations specified herein as this would result in a duplicative liability to Cal Am and its ratepayers. Cal Am's obligation to make available the CCSD Delivery Volume shall be reduced in the event and to the extent that a regulatory agency or court has required Cal Am to deliver Return Water in a manner or location different than as specified in this Agreement. Agency shall have the right to terminate this Agreement as set forth in Section 10.3 if it determines that the reduced amount of Return Water would not be sufficient to justify its water purchase as contemplated herein.

3.5 Scheduling of Deliveries. On an annual basis during the Delivery Term, Cal Am shall make available for delivery to Agency for CSIP use the volume of Cal Am's Annual Return Water Obligation in excess of the CCSD Delivery Volume, if any. If available and requested by Agency, Cal Am will endeavor to cooperate with Agency to deliver Return Water to the Delivery Point in volumes and at times that satisfy Agency's needs.

4. **Payment Provisions.**

4.1 Generally. Cal Am will invoice Agency for deliveries of Return Water to the Delivery Point based on the volumes measured at the Cal Am Meter. Agency shall pay such invoices within 30 days of receipt.

4.2 Pricing. For each acre-foot of Return Water delivered by Cal Am, the Agency shall pay a rate intended to represent the CSIP customers' marginal avoided cost for groundwater produced for use by the CSIP customers, currently estimated to be \$102 per acre foot, which will be the rate as of the beginning of the Delivery Term. Upon Cal Am's reasonable request, and not more than once per year, Agency shall provide Cal Am with all information relating to CSIP customers' marginal avoided cost for groundwater pumping reasonably requested by Cal Am to support Agency's calculation of CSIP customers' marginal avoided cost for groundwater pumping. Using Agency's calculation and information provided under this Section 4.2, Cal Am will annually review the rate and following such review, if necessary, update its CPUC tariff through a Tier 2 advice letter filing with the CPUC. If at any time the CPUC approves or imposes a price for Return Water that exceeds CSIP customers' marginal avoided cost for groundwater pumping, Agency may terminate this Agreement as provided in Section 10.3, but Cal Am's obligation to provide Return Water shall not be affected by such termination.

5. **Compliance with Laws/Cooperation**. The Parties shall comply with all applicable laws in their respective performance under this Agreement and shall cooperate to take the actions and execute the documents necessary to perform under this Agreement.

6. **Indemnification; Fees and Expenses**

6.1 Indemnification.

(a) To the fullest extent permitted by law, Cal Am shall indemnify and hold harmless, but shall have no obligation to defend, Agency and its directors, officers, agents and employees, from any claims, actions or liability for any damages or costs (including

reasonable attorneys' fees and costs of defense) arising either from any injury to persons or property or from any violation of any law or regulation, which damages result from either the negligent acts, errors, or omissions, or the willful misconduct, of Cal Am, its directors, officers, employees, or agents in performing under this Agreement, but only to the extent such damages resulted from such negligent acts, errors, or omissions, or from such willful misconduct, of Cal Am or its directors, officers, agents and employees, such that Cal Am's indemnity obligation shall only apply to its percentage of fault multiplied by the total damages in issue.

(b) To the fullest extent permitted by law, Agency shall indemnify and hold harmless, but shall have no obligation to defend, Cal Am and its directors, officers, agents and employees from any claims, actions or liability for any damages or costs (including reasonable attorneys' fees and costs of defense) arising either from any injury to persons or property or from any violation of any law or regulation, which damages result from either the negligent acts, errors, or omissions, or the willful misconduct, of Agency, its directors, officers, employees, or agents in performing under this Agreement, but only to the extent such damages resulted from such negligent acts, errors, or omissions, or from such willful misconduct, of Agency or its directors, officers, agents and employees, such that Agency's indemnity obligation shall only apply to its percentage of fault multiplied by the total damages in issue. Notwithstanding the foregoing, the Parties acknowledge and agree that nothing in this Section 6.1(b) or otherwise contained in this Agreement constitutes or shall be asserted to constitute a waiver of any defense Agency possesses or may possess, including but not limited to any defense of sovereign or statutory immunity, to liability at law or in equity.

7. **Insurance.** The Parties will keep in full force and effect the insurance coverage described in Exhibit B.

8. **Assignment.** A Party may not assign its rights or obligations under this Agreement without the written consent of the other Party, which consent may not be unreasonably withheld.

9. **Dispute Resolution**

9.1 **Scope of Article.** This Article governs the resolution of all disputes that arise under this Agreement

9.2 **Disputes.** If a dispute arises concerning any controversy or claim arising out of or relating to this Agreement or the breach thereof, or relating to its application or interpretation, the aggrieved Party will notify the other Party of the dispute in writing within twenty (20) days after such dispute arises. If the Parties fail to resolve the dispute within sixty (60) days after delivery of such notice, each Party will promptly nominate a senior officer of its organization to meet at any mutually-agreed time and location to resolve the dispute. The Parties shall use their best efforts to reach a just and equitable solution satisfactory to both Parties. If the Parties are unable to resolve the dispute to their mutual satisfaction within sixty (60) days thereafter, the dispute will be subject to mediation, pursuant to Section 9.3. The time periods set forth in this Section 9.2 are subject to extension as agreed to by the Parties.

9.3 **Mandatory Non-binding Mediation.** If a dispute is not resolved pursuant to Section 9.2, the Parties agree to first endeavor to settle the dispute in an amicable manner,

using mandatory non-binding mediation initiated and conducted under the applicable rules of the American Arbitration Association in effect as of the Effective Date or other rules agreed to in writing by the Parties, before having recourse in a court of law. Each Party shall bear its own legal expenses, and the expenses of witnesses for either side shall be paid by the Party producing such witnesses. All expenses of the mediator, including required travel, and the cost of any proofs or expert advice produced at the direct request of the mediator, shall be borne equally by the Parties, unless they agree otherwise. Any resultant agreements from mediation shall be documented in writing. All mediation proceedings, results, and documentation, including without limitation any materials prepared or submitted or any positions taken by or on behalf of either Party, shall be confidential and inadmissible for any purpose in any legal proceeding (pursuant to California Evidence Codes sections 1115 through 1128), unless such admission is otherwise agreed upon in writing by the Parties. Mediators shall not be subject to any subpoena or liability, and their actions shall not be subject to discovery. The mediation shall be completed within sixty (60) days after selection of the mediator, unless the Parties agree to extend the mediation period.

9.4 Judicial Relief. If mediation pursuant to Section 9.3 does not resolve a dispute, either Party may seek relief in a court of competent jurisdiction.

9.5 Limitations on Damages. No Party shall be entitled to consequential damages, incidental damages, or punitive or exemplary damages from the other Party in any action or proceeding in connection with this Agreement.

9.6 Attorneys' Fees and Costs. In any action or proceeding to enforce a term or condition of this Agreement, in any disputes relating to the Agreement, and in any actions for breaches, defaults, or misrepresentations in connection with any the Agreement, a prevailing Party (as determined by a court of competent jurisdiction) shall be entitled to recover its reasonable costs and expenses, including without limitation reasonable attorneys' fees and costs.

10. Termination.

10.1 Termination for Non-Performance. A Party may terminate this Agreement if the other Party fails to perform a material provision of this Agreement as required herein, provided that the Party seeking termination shall provide prior written notice of its intention to terminate to the other Party, which notice shall fully describe how the other Party failed to perform a material provision of this Agreement, and provided further that the dispute has not been resolved by following the procedures set forth in Section 9 above. If the Parties are unable to resolve the dispute following the procedures set forth in Section 9, the Party seeking termination may provide a written notification of termination to the other Party, and such termination shall become effective thirty (30) days after the other Party has received such written notification. The procedures of this Section 10.1 shall not apply to terminations under Section 10.2 and 10.3 of this Agreement.

10.2 Termination for Failure of Conditions Precedent. Either Party may terminate this Agreement if, by January 1, 2025, Cal Am has not obtained any and all required CPUC approval of the matters described as conditions precedent in Sections 3.2(a), (b), (c) and (d) by providing a written notification of termination to the other Party, and such termination

shall become effective thirty (30) days after the other Party has received such written notification.

10.3 Termination Based on Regulatory Requirements. Either Party may terminate this Agreement if Cal Am is legally required by a regulatory agency, including the CPUC, or by a court, to make water deliveries to locations in the SRGB other than CSIP or CCSD by providing a written notification of termination to the other Party, and Agency may terminate this Agreement if at any time the CPUC approves a price for Return Water to be included in Cal Am's tariffs that exceeds CSIP customers' marginal avoided cost for groundwater pumping. Any termination under the preceding sentence shall be preceded by thirty (30) days' written notice, and such termination shall become effective thirty (30) days after the other Party has received such written notification. Cal Am's obligation to provide Return Water shall not be affected by such termination.

11. **Representatives; Notices.**

11.1 Authorized Representatives. Each Party will designate at least one individual officer or employee who will be its representative and will be authorized to act on behalf of the Party for all purposes in performing the provisions of this Agreement ("Representative"). The designation may be changed from time to time. The designation and changes to a designation must be made in a writing delivered to the other Party.

11.2 No Release. Each Party is responsible for the acts or omissions of its Representative(s). The designation of a Representative by a Party does not release the Party from responsibility for performance of its obligations under this Agreement.

11.3 Notice. All notifications, notices, demands, requests and other communications herein provided for or made pursuant hereto shall be in writing and shall be sent by: (i) registered or certified mail, return receipt requested, and the giving of such communication shall be deemed complete on the third (3rd) business day after the same is deposited in a United States Post Office with postage charges prepaid; (ii) reputable overnight delivery service, and the giving of such communication shall be deemed complete on the immediately succeeding business day after the same is deposited with such delivery service; or (iii) so long as a Party has notified the other Party by means of a method described in clauses (i) or (ii) above of such Party's email address for notification purposes, email transmission of notices to such Party are also permitted provided an original is also sent via one of the other permitted means and the giving of such communication shall be complete when such email is received if such email is received on a business day before 3:00 pm Pacific Time; otherwise, such communication shall be deemed complete the next business day. The date on which notifications, notices, demands, requests and other communications are deemed complete shall be the earliest date arising under subsections (i), (ii) or (iii) of this Section 11.3. All notifications, notices, demands, requests and other communications shall be sent to the Parties as follows:

To Agency:

David E. Chardavoyne

General Manager
Monterey County Water Resources Agency
893 Blanco Circle
Salinas, CA 93901

To Cal Am:

Eric J. Sabolsice
Director, Operations
Coastal Division
California-American Water Company
511 Forest Lodge Road, Suite 100
Pacific Grove, CA 93950

12. **Force Majeure.** If by reason of Force Majeure (defined below), a Party is rendered unable, wholly or in part, to carry out its obligations under this Agreement, and if such Party gives notice and reasonably describes the particulars of such Force Majeure in writing to the other Party as promptly as possible after the occurrence of the cause relied on, then the affected Party shall be excused from performance hereunder without liability, but only so far as and to the extent that it is affected by such Force Majeure; provided, however, such cause shall be remedied with all reasonable dispatch. Upon occurrence of the Force Majeure, the affected Party, in addition to notifying the other Party as provided above, shall as promptly as possible provide such Party a written description of the Force Majeure, the cause thereof (to the extent known), the date the Force Majeure began, its expected duration, and an estimate of the specific relief requested or to be requested by such Party. Furthermore, the Party affected by such Force Majeure shall use diligent efforts to reduce costs resulting from the occurrence of the Force Majeure, fulfill its performance obligations under this Agreement and otherwise mitigate the adverse effects of the Force Majeure. While the Force Majeure continues, the affected Party shall give the other Party regular updates of the information previously submitted. The affected Party shall also provide prompt written notice to the other Party of the cessation of the Force Majeure. Notwithstanding anything to the contrary contained herein, the occurrence of a Force Majeure shall not, however, (i) excuse or delay any obligation to pay monies previously accrued and owing to another Party under this Agreement, or for the Party to perform any obligation under this Agreement not affected by the occurrence of the Force Majeure; or (ii) excuse or delay Cal Am's obligation to comply with the Agency Act.

For purposes of this Section 12, "Force Majeure" means any act, event, condition or circumstance that (A) is beyond the reasonable control of a Party, (B) by itself or in combination with other acts, events, conditions or circumstances adversely affects, interferes with or delays a Party's ability to perform its obligations under this Agreement, expands the scope of a Party's obligations under this Agreement, or increases a Party's cost of performing its obligations under this Agreement, and (C) is not the direct result of the willful or negligent act, intentional misconduct, or breach of this Agreement by the affected Party.

13. **Other Provisions.**

13.1 **Integration.** This Agreement embodies the entire agreement between the Parties relating to the subject matter hereof and supersedes all prior agreements and understandings, written or oral, relating to such subject matter.

13.2 **Successor and Assigns.** This Agreement shall be binding upon, and shall inure to the benefit of and be enforceable by, the Parties hereto and their respective successors and assigns permitted hereunder.

13.3 **Relationship of Parties.** Each Party is an independent entity. This Agreement will not constitute any Party as the agent of the other Party. This Agreement will not constitute the Parties as partners or joint venturers (or as co-owners of a business entity) for common law purposes, federal, state or local income tax purposes, or otherwise.

13.4 **Amendments or Waivers.** No term or provision hereof or Exhibit hereto may be amended, changed, waived, discharged, terminated or replaced except by a writing executed by each of the Parties hereto.

13.5 **No Waiver by Failure to Act.** No failure, delay, forbearance or indulgence on the part of any Party in insisting upon the strict performance of any provision, or in exercising any option, right, power, privilege or remedy hereunder, shall operate or be construed as a waiver or relinquishment thereof, or as an acquiescence in any breach, nor shall any single or partial exercise of any option, right, power, privilege or remedy hereunder preclude any other or further exercise thereof or the exercise of any other option, right, power, privilege or remedy.

13.6 **Controlling Law; Conflicts of Law.** This Agreement shall be construed, governed and applied in accordance with the laws of the State of California, without regard to the conflicts of law principles thereof.

13.7 **CEQA.** This Agreement helps to define a stable and finite project description that will facilitate the CPUC's completion of CEQA review for the Project. The legal effectiveness of this Agreement is contingent on the completion of CEQA review and this Agreement does not irretrievably commit the Parties to carrying out any physical activities that would be required for Cal Am to meet the Annual Return Water Obligation or would otherwise be required for the Parties to comply with the terms of this Agreement. The Parties acknowledge and intend that the CPUC as lead agency and other responsible agencies under CEQA will retain full discretion with respect to deciding whether to approve water purchase or any other commitments necessary or convenient for Cal Am to meet the Annual Return Water Obligation, including discretion to modify commitments to avoid or reduce any significant adverse physical environmental effects (i) from Return Water activities that are within their jurisdiction, and (ii) from the Parties' compliance with other terms of this Agreement.

13.8 **Severability.** Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any

such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

13.9 No Third Party Beneficiaries. Nothing in this Agreement, express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the Parties hereto; nothing in this Agreement is intended to relieve or discharge the obligation or liability of any third person to any Party; and, this Agreement does not create any duty, liability or standard of care to any person who is not a Party. However, this Section 13.9 is not intended to, and shall not, limit the right of Settlement Agreement Parties to meet and confer under Section 6 of the Settlement Agreement in response to any conflict that is noted or alleged to exist between the terms of this Agreement and the terms of the Settlement Agreement.

13.10 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, and such counterparts together shall constitute but one and the same instrument.

13.11 Consents and Approvals. Except as otherwise expressly set forth in this Agreement, all consents and approvals which may be given under this Agreement shall be in writing and shall not be unreasonably withheld or delayed unless otherwise expressly provided herein.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed and delivered in their name and on their behalf.

MONTEREY COUNTY WATER RESOURCES AGENCY

By: _____

Printed Name: _____

Title: _____

Approved as to Form:

By: _____

Printed Name: _____

Title: _____

CALIFORNIA-AMERICAN WATER COMPANY

By: _____

Printed Name: _____

Title: _____

EXHIBIT A

Depiction of Anticipated Location of Delivery Pipeline and Delivery Point



EXHIBIT B

INSURANCE REQUIREMENTS

Each Party to this Agreement shall initially provide information regarding and thereafter at all times maintain Commercial General Liability (“CGL”) insurance, or be analogously self-insured or insured through a pooling arrangement, in the minimum amount of \$1,000,000 per occurrence with an aggregate limit of \$2,000,000. Subject to the immediately preceding sentence, each Party may change insurance and/or insurers, and if a Party does so, it shall provide notice to the other Party within seven (7) days of such change.

Cal Am declares that it currently has a CGL policy with limits of \$2,000,000 per occurrence with an aggregate limit of \$25,000,000 and a \$2,000,000 deductible. Coverage is issued through Travelers Property Casualty Company of America.

The Agency declares that it is self-insured through the County of Monterey for acts and omissions that would be covered by a CGL policy issued by a private insurer. The limits of such self-insurance are \$1,000,000 per occurrence with an aggregate limit of \$2,000,000.

EXHIBIT C

SECTION 2.C. OF SETTLEMENT AGREEMENT

[TO BE PROVIDED UPON FINALIZATION OF SETTLEMENT AGREEMENT]

**SETTLEMENT AGREEMENT
ON MPWSP DESALINATION PLANT
RETURN WATER**

APPENDIX D

**BASE RETURN WATER OBLIGATION
METHODOLOGY**

APPENDIX D

BASE RETURN WATER OBLIGATION METHODOLOGY

Example of Calculation of Percentage of Salinas Basin Water in Brackish Water using current Monterey Bay salinity levels (33,500 mg/L) and current and projected test well results (~31,076 mg/L → 31,950 mg/L)

$$(seawater\ salinity) \times (Percentage\ of\ seawater) + (inland\ water\ salinity) \times (Percentage\ of\ Salinas\ Basin\ water) = (brackish\ water\ salinity)$$

EXAMPLE #1

Assumed Data for Example #1 Purposes Only:

33,500 mg/L = Measured seawater TDS ("seawater salinity")¹

500 mg/L = Measured Salinas Basin water TDS ("inland water salinity")¹

31,076 mg/L = Measured Brackish Source Water TDS ("brackish water salinity")¹ (Test Well)

Unknowns:

Percentage of seawater = x

Percentage of Salinas Basin Water (inland water) = y

The sum of the percentage must equal 100% or 1. Therefore: $x+y=1$ or $y=1-x$

$$\begin{aligned} 33,500x + 500y &= 31,076 \\ 33,500x + 500(1-x) &= 31,076 \\ 33,500x + 500 - 500x &= 31,076 \\ 33,000x + 500 &= 31,076 \\ 33,000x &= 30,576 \\ x &= \frac{30,576}{33,000} \\ x &= 0.926 \text{ or } 92.6\% \end{aligned}$$

Thus,

$$\begin{aligned} y &= 1 - x \\ y &= 1 - 0.926 \\ y &= 0.074 \text{ or } 7.4\% \end{aligned}$$

Therefore,

Percentage of seawater = 92.6% and Percentage of Salinas Basin water (inland water) = 7.4%

¹ TDS values for the seawater, Basin water, and Brackish Source water will be determined by analysis by an accredited laboratory, using appropriate methodology – **SM 2540C**

EXAMPLE #2

Assumed Data for Example #2 Purposes Only:

33,500 mg/L = Measured seawater TDS ("seawater salinity")¹

500 mg/L = Measured Salinas Basin water TDS ("inland water salinity")¹

31,950 mg/L = Measured Brackish Source Water TDS ("brackish water salinity")¹

Unknowns:

Percentage of seawater = x

Percentage of Salinas Basin Water (inland water) = y

The sum of the percentage must equal 100% or 1. Therefore: $x+y=1$ or $y=1-x$

$$\begin{aligned}33,500x + 500y &= 31,950 \\33,500x + 500(1 - x) &= 31,950 \\33,500x + 500 - 500x &= 31,950 \\33,000x + 500 &= 31,950 \\33,000x &= 31,450 \\x &= \frac{31,450}{33,000} \\x &= 0.953 \text{ or } 95.3\%\end{aligned}$$

Thus,

$$\begin{aligned}y &= 1 - x \\y &= 1 - 0.953 \\y &= 0.047 \text{ or } 4.7\%\end{aligned}$$

Therefore,

Percentage of seawater = 95.3% and Percentage of Salinas Basin water (inland water) = 4.7%

¹ TDS values for the seawater, Basin water, and Brackish Source water will be determined by analysis by an accredited laboratory, using appropriate methodology – **SM 2540C**

Example of Calculation of Return to Basin Allocation:

Return to Basin Allocation

$$= (\text{Percentage of Salinas Basin water}) \\ \times (\text{Total Actual Source Water Quantity})$$

EXAMPLE #1

Assumed Data for Example #1 Purposes Only:

26,992 AFY = Total Actual Source Water Quantity (i.e. 24.1 MGD)

92.6% = Percentage of Seawater = x

7.4% = Percentage of Salinas Basin water = y

Unknowns:

Return to Basin Allocation = z

So, substituting the equation with the assumed data for example#1:

$$z = (y) \times (26,992) \\ z = (0.074) \times (26,992) = 1,997 \text{ AFY}$$

EXAMPLE #2

Assumed Data for Example #2 Purposes Only:

26,992 AFY = Total Actual Source Water Quantity

95.3% = Percentage of Seawater = x

4.7% = Percentage of Salinas Basin water = y

Unknowns:

Return to Basin Allocation = z

So, substituting the equation with the assumed data for example#2:

$$z = (y) \times (26,992) \\ z = (0.047) \times (26,992) = 1,268 \text{ AFY}$$

**SETTLEMENT AGREEMENT
ON MPWSP DESALINATION PLANT
RETURN WATER**

APPENDIX E

PROPOSED TARIFF

CALIFORNIA-AMERICAN WATER COMPANY

1033 B Avenue, Suite 200

Coronado, CA 92118

C.P.U.C. Sheet No. _____

Cancelling _____

Schedule No. MO-XX
Monterey County District Tariff Area
MPWSP RETURN WATER

APPLICABILITY

Applicable to water provided pursuant to Return Water Purchase Agreements between California American Water and: (1) the Castroville Community Services District ("CCSD") and (2) the Monterey County Water Resources Agency ("MCWRA").

TERRITORY

The delivery point near the intersection of Nashua Road and Monte Road in Castroville.

RATES**Return Water:**

For CCSD, per acre-foot (see Special Condition 11)	\$110	(I)
For MCWRA, per acre-foot (see Special Condition 13)	\$102	

Excess Water:

For CCSD, per acre-foot (see Special Condition 12)	\$580	(I)
---	-------	-----

SPECIAL CONDITIONS

1. The Castroville Seawater Intrusion Project ("CSIP") is a MCWRA project that provides recycled water and diverted Salinas River water for use in lieu of groundwater pumping for irrigated agricultural use in the Castroville area of the Salinas River Groundwater Basin ("SRGB").
2. California American Water will make available for delivery to CCSD and CSIP a volume of water ("Return Water") equal to the percentage of SRGB in the total source water produced from slant intake wells for the MPWSP ("Project Source Water Production"), as calculated on a water year basis ("Base Return Water Obligation"). ("MPWSP" refers to California American Water's Monterey Peninsula Water Supply Project.)
3. Upon start-up of the MPWSP, the first 175 acre-feet of Return Water delivered by California American Water ("Reserve Water") shall be delivered to CSIP.
4. California American Water has annual Return Water requirements ("Annual Return Water Obligation"). Beginning in the first full water year after the full amount of Reserve Water has been delivered to CSIP (the "Obligation Start Date"), the Annual Return Water Obligation in any given year shall be the sum of (a) the Base Return Water Obligation for that year, plus (b) any Return Water Shortfall (as defined in Special Condition 7) for the prior year, minus (c) any Return Water Surplus Shortfall (as defined in Special Condition 7) for the prior year. California American Water's Annual Return Water Obligation shall not begin until the "Obligation Start Date".

(To be inserted by utility)

Advice Letter No. _____

Decision No. _____

*Issued By**Name Here**Title Here*

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

Date Filed _____

Effective _____

Resolution No. _____

CALIFORNIA-AMERICAN WATER COMPANY

1033 B Avenue, Suite 200
Coronado, CA 92118

C.P.U.C. Sheet No. _____

Cancelling _____

5. During the first three months after the Obligation Start Date, the Annual Return Water Obligation shall be 7% of total Project Source Water Production during that period. For the remainder of the water year after the first three months have passed, the Annual Return Water Obligation shall be the percentage of SRGB groundwater in the total Project Source Water Production calculated during the first three months after the Obligation Start Date.
6. The volume of any Return Water Shortfall for a given year shall be determined by subtracting the amount of Return Water made available by California American Water in that year from the amount of the Annual Return Water Obligation for that year. If the amount of Return Water made available by California American Water in that year equals or exceeds the Annual Return Water Obligation, the Return Water Shortfall for that year shall be equal to zero.
7. The volume of any Return Water Surplus for a given year shall be determined by subtracting the amount of the Annual Return Water Obligation for that year from the amount of Return Water provided by California American Water to CCSD and MCWRA in that year. If the amount of Annual Return Water Obligation in that year equals or exceeds the amount of Return Water provided by California American Water to CCSD and MCWRA, the Return Water Surplus for that year shall be equal to zero.
8. California American Water shall make available for delivery to CCSD 690 afa of Return Water ("CCSD Delivery Volume").
9. If the Annual Return Water Obligation is less than the CCSD Delivery Volume, California American Water shall make available for delivery potable water in an amount equal to the difference between the Annual Return Water Obligation for that year and the CCSD Delivery Volume ("Excess Water").
10. California American Water shall make available for delivery to CSIP any Annual Return Water Obligation in excess of the CCSD Delivery Volume, according to procedures agreed to in the Return Water Purchase Agreement by and between MCWRA and California American Water.
11. For Return Water made available for delivery to meet the Annual Return Water Obligation, CCSD shall pay a rate intended to represent its avoided cost to produce groundwater to meet customer demand, currently estimated to be \$110 per acre-foot, which will be the rate as of the Obligation Start Date. CCSD plans to continue operation of its existing wells so they may be available in emergency circumstances. This continuing operation will enable CCSD to provide future updates to the avoided cost of pumping. If CCSD is unable to provide such updated avoided costs of pumping, then the percentage increase of PG&E's A-6 tariff for off-peak summer distribution rate (with a base of \$0.07311 / kWh as of the tariff existing on March 24, 2016) will be used as the escalation factor for the increase in avoided cost of pumping in the future. After the Obligation Start Date, the rate will be reviewed annually and updated, if necessary, via a Tier 2 advice letter filing with the CPUC.
12. For any Excess Water California American Water makes available as described in Special Condition 9, CCSD shall pay a rate intended to represent the marginal operation and maintenance costs for the MPWSP to produce one acre-foot of potable water, currently estimated to be \$580 per acre-foot, which will be the rate as of the Obligation Start Date. After the Obligation Start Date, the rate will be reviewed annually and updated, if necessary, via Tier 2 advice letter filing with the CPUC.
13. MCWRA shall pay a rate for Return Water intended to represent the CSIP customers'

(To be inserted by utility)

Advice Letter No. _____

Decision No. _____

*Issued By****Name Here******Title Here***

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

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Effective _____

Resolution No. _____

CALIFORNIA-AMERICAN WATER COMPANY

1033 B Avenue, Suite 200

Coronado, CA 92118

C.P.U.C. Sheet No. _____

Cancelling _____

marginal avoided cost for groundwater produced for use by the CSIP customers, currently estimated to be \$102 per acre-foot, which will be the rate as of the Obligation Start Date. After the Obligation Start Date, the rate will be reviewed annually and updated, if necessary, via Tier 2 advice letter filing with the CPUC.

14. Upon termination of either or both Return Water Purchase Agreements in accordance with their terms, this tariff will cease to be effective as to the parties to the terminated Return Water Purchase Agreement.

(To be inserted by utility)

Advice Letter No. _____

Decision No. _____

*Issued By****Name Here******Title Here*****(To be inserted by P.U.C.)**

Date Filed _____

Effective _____

Resolution No. _____

**SETTLEMENT AGREEMENT
ON MPWSP DESALINATION PLANT
RETURN WATER**

APPENDIX F

**PROJECT MARGINAL OPERATION AND
MAINTENANCE COSTS CALCULATION**

APPENDIX F

Project MARGINAL OPERATION AND MAINTENANCE COSTS CALCULATION

Calculation of the marginal cost of water at either the 6.4 MGD or 9.6 MGD desalination plant proposed as part of the Project. Items that are part of the cost computation include:

1. **Power Costs (PC)**: related to the slant intake wells and the desalination plant. The costs shall be computed annually based on the sum of the power bills for the intake wells and the desalination plant including the high service pump station.
2. **Chemical Costs (CC)**: related to the production the potable water. The costs shall be computed annually based on the sum of the chemical bills for the desalination plant.
3. **Membrane and Media Replacement Costs (MMRC)**: related to production the potable water. The costs shall be computed annually based on the sum of the invoices for replacement membranes and media.
4. **Production Volume (AF)**: related to the total amount of water produced from the desalination plant.
5. **Marginal Cost of Water**: Cost per acre-foot of water.

The formula for the marginal cost of water shall be:

$$\frac{PC + CC + MMRC}{AF} = \frac{\$}{AF} = \text{Marginal Cost of Water}$$

EXAMPLE #1 – First Years Cost - \$580 / AF

Summary of Updated 6.4 MGD O&M Costs (Dec. 15, 2015)

Item	6.4 MGD MPWSP	AFY	Desal Plant Only	Cost per AF
Power	\$4,580,000	7,168	\$3,323,160	\$463.6
Chemicals	\$920,000	7,168	\$750,871	\$104.8
Membrane/Media Replacement	\$90,000	7,168	\$88,240	\$12.3
R&R	\$1,570,000		Total	\$580.7
Purchased Recharge Water	\$8,750,000			
Labor & Misc	\$3,360,000			
Total	\$19,270,000			

Nov. 11, 2022

Donne Brownsey, Chair
California Coastal Commission
455 Market Street, Suite 300
San Francisco, CA 94105

RE: California American Water Company's ("CalAm") CDP Application #9-20-0603 – OPPOSE

Dear Chair Brownsey and Members of the Commission,

I write on behalf of LandWatch Monterey County, and our board of directors chaired by longtime environmental leader Ann Notthoff. LandWatch is a regional group working to combat climate change through sensible land use, transportation and water policy.

CalAm's dogged pursuit of a desalination plant in Marina, despite the availability of a quicker, reliable, less environmentally damaging alternative water supply project, remains perplexing. The desalination plant water is exorbitantly costly. Its high cost discriminates against low-income customers. The water is unneeded given the approved and operating PureWater advanced wastewater recycling plant and its soon to be approved extension. The plant's economic and environmental impacts are socially unjust, with benefits accruing to privately owned CalAm and costs imposed on the citizens of Marina and CalAm ratepayers in general. CalAm's proposal benefits its private investors since its goal is to maximize asset value and shareholder returns prior to a public condemnation. However, the California Coastal Act prioritizes public benefits over private interests. In the case of CalAm's desalination plant consistency with the Coastal Act, this isn't even a close call.

Available Information Does Not Support Action at This Time. The Coastal Commission should not take action on a Coastal Development Permit (CDP) for the CalAm desalination facility at this time because it lacks critical information about the project and its feasible alternative, the Pure Water Monterey Expansion. If the Commission decides it cannot delay action, it must deny the CDP because it does not have the information the Coastal Act requires to make findings under Section 30260 and 30013 of the Act, which require the Commission to determine the feasibility, public welfare, and environmental justice effects of the alternatives.

Critical Decision by the California Public Utilities Commission is Unfinished. The California Public Utilities Commission (CPUC) has jurisdiction over CalAm as a privately regulated utility. The CPUC supported Pure Water Monterey's Expansion, but has not yet adjudicated critical water supply and demand assumptions needed for the Coastal Commission to take action. Last month, a CPUC

Administrative Law Judge issued a Proposed Decision that would direct CalAm to purchase 2,250 AFY from the Pure Water Monterey Expansion. Under the CPUC's 2018 decision, this increase in water supply requires the CPUC to reassess operating restrictions for any desalination facility to protect ratepayers. Changes in supply and demand should also require the CPUC to reassess the need, timing, and size of a desalination facility. The Coastal Commission will lack essential information to make required findings until the CPUC completes its reassessment.

New “Phased” Approach Has Already Been Rejected. CalAm *admits* that the project must be changed by proposing a new “phased” approach that starts with a 4.8 MGD facility.¹ However, in 2018, *the CPUC specifically rejected both the 4.8 MGD facility and the phased approach as more costly and more environmentally damaging*, based on submissions and argument from CalAm. Also based on CalAm's submissions and arguments, the CPUC rejected a proposal to reduce the number of wells and well pads for a 4.8 MGD facility, which is precisely what CalAm now proposes to do.

The Coastal Commission is not in position to evaluate CalAm's changing stories and, in any event, it lacks authority to direct or permit CalAm to construct any facility other than the one approved by the CPUC. If the project must be changed, the Coastal Commission must wait for the CPUC to evaluate and approve the changed project before making required Section 30260 findings about the availability of a feasible alternative and the relative effects of the desalination project and its alternative on public welfare and environmental justice.

Commission Cannot Make Findings Because Rate Effects Are Unknown. The Coastal Commission is also not in position to adjudicate competing claims about supply and demand, which are now being litigated before the CPUC with a decision not expected before March 2023. Nor can the Commission determine how changes in supply and demand affect the need, timing, size, or operating restrictions for a desalination facility or how changes will affect previously assumed water rates. Yet the Coastal Commission must draw conclusions about all of these matters in order to make its required Section 30260 findings about feasibility, public welfare, and environmental justice. In light of the missing information, that's an impossible task, inconsistent with the letter and intent of the Coastal Act.

LandWatch identifies here three key issues that would substantially increase water rates or substantially decrease the desalination project's economic feasibility. The Coastal Commission staff report does not evaluate these issues and only the CPUC can resolve them.

First, as the Staff Report acknowledges, based on what it characterizes as an independent assessment of supply and demand, **there will likely be no demand for water in excess of expected supply until at least 2040**, and the growth in demand from 2040 to 2050 is likely to be about 800 acre-feet per year (AFY). CalAm's proposal to construct a 4.8 MGD facility by 2026 would provide 5,280 AFY of additional capacity, none of which would be needed before 2040 and only 16% of which would be needed by 2050. As discussed below, analysis by David Stoldt, the General Manager of the Monterey Peninsula Water Management District, demonstrates that *running a*

¹ MGD stands for a million gallons per day.

desalination facility at 20% of its full capacity would quadruple the unit costs for water, from at least \$7,981 to \$32,398 per acre-foot. It is inequitable to expect ratepayers to pay these excess capacity costs. It is equally burdensome to allow CalAm to source water from its desalination facility when water is available from the Pure Water Monterey Expansion at a fraction of the unit cost, only \$2,808 per acre-foot. But unless CalAm is permitted to run its desalination facility at full capacity and to make ratepayers absorb unit water costs much higher than necessary, the desalination project would not be viable for shareholders. Staff and CalAm have not evaluated the issue of premature and excess capacity. The Coastal Commission should not act until the CPUC does so.

Second, as the Staff Report acknowledges, **changes in sea level rise assumptions and new modeling of dune recession show that there may be no place to relocate CalAm's wells at the end of their 25 year lives.** Because CalAm does not control the necessary inland sites to continue operating its project, it may need to amortize the project over a 25-year period instead of a 60-year period. Either ratepayers would be on the hook for this accelerated cost recovery or the project would not be economically feasible for CalAm's shareholders. Although the Staff Report acknowledges that Cal-Am may seek to recover its costs in a much shorter time than the anticipated 60 years, the Staff Report does not estimate the rate effects. The Coastal Commission should not act until the CPUC does so.

Third, as the staff Report acknowledges, **CalAm's new proposal to build only a 4.8 MGD facility initially will result in the loss of economies of scale, forcing CalAm to recover its fixed costs over a smaller volume of water.** Again, the Staff Report admits this rate impact, but fails to estimate it. The Coastal Commission should not act until the CPUC does so.

To move forward now, without information about potential water charges, would mean giving CalAm a blank check for an undefined future desalination project that could harm the public welfare, thwart environmental justice, and violate the Coastal Act.

The Coastal Commission should not proceed without the CPUC's adjudication of supply and demand and its reassessment of the desalination facility. And there is no *reason* for the Coastal Commission to act prematurely. The CPUC's imminent approval of the Pure Water Monterey Expansion will result in new water availability well before a desalination facility could provide new water, and it will allow the State Water Resources Control Board (SWRCB) to lift its Cease and Desist Order (CDO).

Special Conditions Are Insufficient Protection. If the Coastal Commission nonetheless decides to issue a conditional CDP before the CPUC completes its reassessment, it should clarify the proposed conditions and add new conditions to address the changed project and water rates increases.

- Special Condition 1 should be revised to clarify that at the conclusion of the current proceedings adjudicating supply and demand, CalAm must apply to the CPUC for permission to modify the previously approved project and that the CDP will not issue unless and until the CPUC reconsiders the need, timing, rates, and operating restrictions for the desalination facility.

- Additional conditions should provide that the CDP will not issue unless and until the CPUC adds enforceable conditions that
 - rates be set on the assumption that the desalination facility is operating at full capacity and that CalAm must source less expensive available water before sourcing desalinated water so that shareholders, not ratepayers, absorb the cost of premature or excess capacity;
 - rates be based on the assumption that CalAm will amortize the project over 60 years so that shareholders, not ratepayers, absorb the cost of a shorter project life in case dune recession and sea level rise preclude relocation of source water wells; and
 - rates not exceed the rates assumed in the 2018 CPUC approval. Any excess costs must be borne by CalAm shareholders.

For these reasons, and as explained further in the detailed comments below, LandWatch Monterey County respectfully requests a “no” vote on the decision to approve a CDP for CalAm’s desalination plant application #9-20-0603. Thank you for your careful consideration of our views.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Delapa", with a stylized flourish at the end.

Michael Delapa, Executive Director
LandWatch Monterey County

**LandWatch Comments Opposing California American Water
Company's CDP Application #9-20-0603**

A. The Coastal Commission should not permit a 4.8 MGD project or a phased implementation of a 6.4 MGD project because the CPUC expressly denied authorization for these alternatives.

1. The CPUC expressly rejected the project CalAm now proposes because the CPUC found that it would be more costly and environmentally damaging.

The CPUC has broad constitutional and statutory authority to regulate investor-owned utilities and the Coastal Commission does not have authority to override that authority. Yet the proposed CDP would permit the very project alternatives that the CPUC rejected in 2018.

Special Condition 2 would authorize CalAm to proceed with a 4.8 MGD project but to build a 6.4 MGD project as a second phase at some future date. Special Condition 2 purports to condition the second phase on CalAm getting “authorization from the CPUC for the 6.4 MGD facility.” In fact, CalAm has that authorization already. *What CalAm does not have is any authorization for a smaller facility or for the phased approach assumed in the Staff Report.*

The CPUC’s 2018 approval of the desalination project was for a 6.4 MGD facility, i.e., Alternative 5a.² The 2018 decision directs CalAm to implement the 6.4 MGD facility.³ The CPUC specifically found that the 6.4 MGD facility is the “environmentally superior alternative” and that “no other alternatives are feasible, are capable of meeting project objectives, or would reduce significant impacts of the project.”

The CPUC specifically rejected a 4.8 MGD facility based on its findings that there would be “little or no cost differential.”⁴

Decision D.18-09-017 found that “a 4.8 MGD desalination plant would not avoid or substantially lessen any significant impacts of the project: the significant impacts that would result from construction would be the same as the plant would have the same footprint, and require the same pipelines, and while one fewer well would be drilled, it would still require five well pads at the CEMEX site.”⁵ Indeed, the CPUC found that a phased implementation of a 4.8 MGD facility followed

² CPUC Decision D.18-09-017, pp. 72, 79, 206, 207.

³ *Id.*, p. 207.

⁴ *Id.*, p. 69.

⁵ *Id.*, pp. 69-70.

by a 6.4 MGD facility would “increase environmental impacts, face additional scrutiny in the permitting review process, and increase costs to ratepayers.”⁶

Environmental impacts would be increased by the phased approach because construction impacts would occur twice; for example, “[d]rilling all wells at once will likely result in fewer environmental effects than drilling six wells now and returning in the future to disturb the area to drill the seventh well.”⁷ These findings were based on argument and data submitted by CalAm.

The CPUC found that the “reduction in the size of the desalination plant from 6.4 MGD to 4.8 MGD would *increase* the annual Operations and Maintenance (O&M) costs by \$340,000”(in 2018 dollars) and that these increased O&M costs would “would offset the increased one-time capital costs for the larger 6.4 MGD plant within only a few years.”⁸ The Commission found “we cannot identify significant, if any, cost savings to ratepayers associated with construction of a 4.8 MGD size plant compared with the construction of a 6.4 MGD size plant.”⁹ Again, these findings were based on argument and data submitted by CalAm.

Also based on CalAm’s arguments and data, the CPUC found that the smaller plant would still require six slant wells, four for source water and two “for back-up and peaking capacity,” so only one well could be deferred.¹⁰ The CPUC found that

the cost savings for deferring one slant well to initially operate the facility at 4.8 MGD is small in comparison to the risks associated with eliminating the well. [footnote omitted] For example, drilling all seven wells at once reduces overall costs spent on each well (due to economies of scale) while the cost to drill only one well in the future is significantly higher. Drilling all wells at once will likely result in fewer environmental effects than drilling six wells now and returning in the future to disturb the area to drill the seventh well. Also, delay in drilling just one well increases overall project risks.”¹¹

The CPUC concluded “[w]e therefore do not find a benefit to ratepayers in deffering [sic] the drilling of one well.”¹² Again, these findings were based on argument and data submitted by CalAm.

⁶ *Id.*

⁷ *Id.*, pp. 129-130.

⁸ *Id.*, pp. 128-129.

⁹ *Id.*, p. 129.

¹⁰ *Id.*, pp. 129-130, quoting CalAm.

¹¹ *Id.*, p. 130.

¹² *Id.*

In sum, based on cost and environmental considerations, the CPUC's 2018 decision rejected both the 4.8 MGD alternative and the alternative that would commence with a 4.8 MGD facility and subsequently phase in the 6.4 MGD facility.

Despite the 2018 CPUC decision and CalAm's 2018 position that the 4.8 MGD plant would require six slant wells to ensure back-up and peaking capacity, the Staff Report reports that, "[i]n October 2022, Cal-Am modified its Project" to include only four slant wells and, potentially, only two well pads. (SR, p. 39.) This proposal is flatly inconsistent with the CPUC's 2018 findings, which were based on CalAm's submissions and arguments.

Furthermore, the new project description is uncertain. The Staff Reports admits that the smaller footprint may not actually occur because it may turn out that the well pads cannot eventually accommodate three wells, necessitating construction of the five well pads originally proposed. (SR, p. 39.)

The Coastal Commission cannot simply override the CPUC's previous findings that the project CalAm now proposes would be infeasible, more costly, and more environmentally damaging and its express decision *not* to approve this alternative.

2. The Coastal Commission has not complied with CEQA's requirements for a subsequent EIR to address more severe significant impacts from changes to the project.

The CPUC's CEQA findings that there would be overriding considerations that justify approving a project with unmitigated significant impacts were based on its finding that the 6.4 MGD facility is the environmentally superior project and that its benefits "outweigh the benefits of any of the other alternatives examined, including the alternatives deemed infeasible. . ."¹³

CalAm's proposed 4.8 MGD phased project is a change to the project that the CPUC approved, and the CPUC found that it would have more severe significant impacts. CEQA requires that if there are more severe significant impacts due to changes in the project or changes in circumstances, or based on significant new information becoming available after the lead agency certified the EIR for the project, the responsible agency must prepare a subsequent or supplemental EIR before making a new discretionary approval like issuing a CDP.¹⁴

The Coast Commissions' proposed findings in the Staff Report do not provide facts and analysis to justify a complete reversal of the CPUC's CEQA findings that 4.8 MGD project or the phased implementation of a 6.4 MGD project would not result in more severe significant impacts. The Staff Report simply takes CalAm's word for the proposition that fewer wells and well pads would be required than CalAm previously argued, and the CPUC found, would be required in 2018. The Staff Report does not justify a reversal of the CPUC's findings that six wells would be required for a 4.8

¹³ *Id.*, p. 207.

¹⁴ CEQA, § 21166; 14 Cal Code Regs §§ 15052(a)(2), 15096(e)(3), 15162.

MGD project. Nor does the Staff Report justify the reversal of the CPUC's findings that two construction periods for a phased project would increase the severity of significant impacts to habitat. The Staff Report simply fails to address the direct conflicts in CalAm's current position regarding the footprint and impacts of a smaller or phased project and the CPUC's findings regarding CEQA and project feasibility in its 2018 Decision D.18-09-017.

Furthermore, the Staff Report identifies new information and/or a changed circumstances that the CPUC's CEQA document did not assess. For example, the Staff Report discloses greater and more rapid projected sea level rises leading to an ocean hazard, groundwater impacts to local aquifers, and impacts to a vernal pool. These, too, require subsequent environmental review.

Where a project has significant unmitigated impacts, CEQA requires that the approving agency adopt a feasible alternative that reduces that impact.¹⁵ Here, the record does not support adoption of a phased project as a reduced impact alternative. To the contrary, the CPUC found that it would increase significant construction-related environmental impacts and that it was not feasible.

The Coastal Commission should deny the CDP because it lacks authority to alter the project and has not provided an adequate subsequent environmental review of the changes to the project and its circumstances.

3. Special Condition 1 should be revised to require CalAm to reapply to the CPUC to obtain authorization for the changed 4.8 MGD project and for the proposed phasing plan.

Because the CPUC must review and approve changes to the project and the associated effects on rates and project feasibility, and the CPUC may decide not to approve the proposed changes or to approve different changes, no purpose is served by the Coastal Commission's "conditional" approval of a project that may very likely not be approved as conditioned.

However, if the Coastal Commission decides to approve some form of conditional CDP, it should at least revise Special Condition 1 to clarify what constitutes "final CPUC approval" to proceed with the 4.8 MGD facility. As drafted, Special Condition 1 requires CalAm to obtain

final CPUC approval for construction of the Project, including but not limited to a final and binding CPUC determination in the pending proceeding (A.21-024) of water supply and demand estimates for the Monterey Peninsula Water Supply Project (MPWSP) that there is projected demand for additional water supply beyond the Pure Water Market [sic, Monterey] Project Expansion (i.e., the project that would increase the capacity of the previously CPUC-approved Pure Water Market [sic] project from 3,500 AFY to 5,750 AFY) by or before 2050.

(SR, p. 13.) But Special Condition 1 references only the current CPUC proceeding to determine water supply and demand. As the Staff Report admits, the CPUC has not decided to conduct any

¹⁵ CEQA, § 21002.

further proceedings to reconsider the size and timing of the desalination project. (SR, p. 51.) Thus, it is unclear what would constitute the “final CPUC approval” referenced by Condition 1. In particular, it is not clear if Special Condition 1 would be satisfied if the CPUC made findings with regard to supply and demand in the current proceedings but did not hold a Phase 3 and CalAm did not initiate proceedings to reconsider the need, sizing, timing, and operating restrictions for a desalination facility.

Special Condition 1 should be revised to condition the CDP on the CPUC approval of each substantive change to the project that affects rates or environmental impacts in light of the results of the CPUC findings regarding supply and demand in its proceedings for A.21-11-024.

For example, the CPUC should review all of the proposed changes to the project that affect rates, including a shorter amortization period, the loss of scale economies due to a smaller facility, and the allocation of the costs of excess capacity to shareholders rather than ratepayers, each of which is discussed below. Or, for example, the CPUC should review and approve Special Condition 11 to extend project wells to increase the volume of seawater and decrease the volume of inland water. Or, for example, the CPUC should review and address the substance of Special Condition 13, which acknowledges a previously unanalyzed impact to wetlands and a vernal pond. The proposed mitigation for this newly disclosed significant impact in Special Condition 13 does not meet CEQA’s requirements for deferred mitigation because (1) no reason is given for deferral; (2) Special Condition 13 contains no performance standards for the a future “Wetlands Resiliency, Enhancement, Restoration, and Monitoring Plan”; (3) there is no evidence that mitigation is feasible.

B. The Commission cannot make required findings because it lacks any analysis of the increased costs for desalinated water due to substantial excess capacity.

SECTION 30260 FINDINGS OBLIGATION: Because the project is inconsistent with policies for protection of biological resources, Coastal Act Section 30260 requires specific findings in order to issue a CDP for a coastal-dependent industrial facility. The Coastal Commission must make findings that (1) there is no feasible alternative with lesser environmental impacts; (2) denial of the permit would adversely affect public welfare; and (3) environmental impacts are mitigated to the maximum extent feasible.

To find there is no feasible alternative, the Coastal Commission must have accurate information about supply and demand to assess the actual need for the project and the feasibility of the alternative.

To assess public welfare effects of the project, the Coastal Commission must have accurate and stable information about the desalination project size, its timing in relation to water supply and demand, its utilization and costs, and the resulting water rates for the project and its alternative.

ENVIRONMENTAL JUSTICE OBLIGATIONS: The Coastal Act also requires the Commission to take environmental justice impacts into account. Coastal Act Section 30013 requires the Coastal Commission to “advance the principles of environmental justice and equality.” Applicable

environmental justice considerations include ensuring “availability of a healthy environment for all people” and ensuring that “the effects of the pollution are not disproportionately borne” by communities already experiencing such impacts.¹⁶ The Coastal Commission’s stated policy is “to integrate the principles of environmental justice, equality, and social equity into all aspects of the Commission’s program and operations.”¹⁷

To assess environmental justice effects of the project and its alternative, the Coastal Commission must have the same information it needs to assess the public welfare effects: accurate and stable information about the project size, its timing in relation to demand, its capacity utilization, its costs, and the resulting water rates for the project and its alternative.

NO ANALYSIS OF EXCESS CAPACITY EFFECT ON RATES: The Staff Report repeatedly cites the supply and demand projection prepared by the California Public Advocates (Cal Advocates) as the basis for its conclusion that the desalination facility is needed, characterizing the Cal Advocates projections as “independent,” as if the supply and demand projects by local public agencies like MPWMD and MCWD were somehow not independent. (SR, pp. 144-147; see pp. 4, 136, 139, 147 [additional water supply needed in “next 20 years”].)

In particular, the Staff Report uses the Cal Advocates projections as the basis of its conclusion that “there would be a demand for *the* additional supply by 2040.” (SR, p.144, italics added.) But the Cal Advocates projection does not show that there is a demand for “the” additional supply by 2040, if “the” supply is CalAm’s proposed 4.8 MGD desalination facility. Cal Advocates’ projections show only that supply and demand projections intersect in 2040, i.e., there would be demand for *some* amount of additional water *after* 2040. How much? Not that much. *Cal Advocates projects that demand would exceed supply by only 819 AFY by 2050, yet CalAm proposes a 4.8 MGD facility to meet that demand, i.e., a facility that would provide 5,280 AFY.*¹⁸ That is, CalAm proposes to provide more than six times the purportedly unmet demand. Under the Cal Advocates projections adopted by the Staff Report, the 4.8 MGD desalination facility would need to operate at only 16% of capacity in 2050 to meet foreseeable demand.

Given the mismatch in the foreseeable water demand over the next 30 years and the size of the project CalAm wants to build, two key questions determine the rate impacts. First, will CalAm be permitted to source and recover in its rates the desalination water instead of the much less expensive alternative water supplies? Second, if not, will CalAm be permitted to recover in its rates the unproductive fixed costs for its idle desalination capacity simply to earn its expected return on an oversized facility? In short, who would pay the enormous fixed costs associated with the excess desalination capacity for decades to come, ratepayers of shareholders?

¹⁶ Coastal Act, § 30107.3(b)(1), (2); see also Coastal Act, § 30604(h).

¹⁷ Coastal Commission Environmental Justice Policy, March 8, 2019, available at https://documents.coastal.ca.gov/assets/env-justice/CCC_EJ_Policy_FINAL.pdf.

¹⁸ A million gallons per day is 1,100 AFY. (SR, p. 38.)

Unfortunately, the CPUC's 2018 Decision D.18-09-017 does not resolve these questions. The decision contemplated that the desalination facility would run at full capacity¹⁹ based on expected demand levels that have not materialized. Thus, the 2018 decision does not clarify the lower bound of the operating capacity level at which the CPUC would allow CalAm to recover all of its costs from ratepayers.²⁰ For example, it is unclear whether CalAm would be permitted to recover all of its costs if the desalination facility operated at only 60% or 40%, or even just 16%, of its capacity. Nor is it clear whether CalAm would be required to source the least expensive water even if that meant operating the desalination plant at less than full capacity. However, if the CPUC does not permit premature capacity and excess capacity costs to be passed on to ratepayers, and does not permit CalAm to source desalinated water when less expensive supplies are available, the desalination project could not be a viable investment for CalAm's shareholders. So, who pays for excess capacity, shareholders or ratepayers? Instead of resolving this question, the CPUC's 2018 decision punts. The 2018 decision states that the CPUC would somehow act to protect ratepayers from "excessive costs" if the Pure Water Monterey Expansion supplies water to CalAm customers, as is now almost certain to occur with the CPUC's Proposed Decision:

If . . . Cal-Am seeks approval of a WPA for water from an expanded PWM project to serve customers in Cal-Am's Monterey service territory, *the Commission will consider, and would likely, impose as enforceable conditions additional operational restrictions on the desalination project approved by this decision.* These restrictions, if adopted, would avoid excessive costs being charged to Cal-Am ratepayers by ensuring that the total water supply available to Cal-Am customers from the desalination plant plus the PWM expansion WPA would not exceed the water that would be available by virtue of operating the desalination project alone, absent further Commission discretionary action. In any application for a PWM expansion WPA, *Cal-Am shall include information concerning such water amounts and potential operational restrictions to meet this operational parameter.*²¹

These to-be-determined-later "operational restriction" *should* include requirements that (1) CalAm not substitute much higher cost desalinated water for less expensive available alternative water supplies and (2) shareholders rather than the ratepayers absorb the fixed costs of the unused desalination facility capacity.

¹⁹ Full capacity was assumed to be about 86% of the nominal 6.4 MGD, based on CalAm's testimony regarding the need for periodic routine maintenance, etc.

²⁰ Ordering Paragraph 36 provides: "Three cost factors will be considered by the Commission when reviewing the advice letters submitted pursuant to this decision. These cost factors are: 1) costs are for facilities that are used and useful; 2) costs must be reasonable; and 3) costs are for facilities that operate at an appropriate capacity to minimize costs for ratepayers." (CPUC Decision 18-09-017, p. 214.) The Decision does not clarify how these factors, which may pull in different directions, would be balanced or how the Commission would determine what operating capacity is "appropriate" or would "minimize costs for ratepayers." (CPUC Decision 18-09-017.)

²¹ CPUC Decision 18-09-017, p. 44, emphasis added.

Critically, CalAm's application for the Water Purchase Agreement failed to propose operating restrictions despite the requirement in the 2018 Decision that it do so. Participants in the current CPUC proceedings A.21-11-024 asked that the CPUC address excess capacity concerns, requesting that the CPUC reconsider the need, size, timing, and operating restrictions for the desalination facility as part of the second phase of the current proceedings.²² Despite this, the CPUC has limited Phase 2 to reassessment of supply and demand. As the Staff Report acknowledges, at the conclusion of Phase 2, the CPUC *might* decide on additional proceedings, or a Phase 3 to the current proceedings, to consider these issues. However, the CPUC has neither scoped nor considered operational restrictions to protect ratepayers from excessive capacity. And the Coastal Commission cannot resolve the issue because it lacks authority over rates and because its Staff Report does not even *identify* the issue of excess capacity and who would pay for it.

Meanwhile, CalAm appears to be planning to substitute more expensive desalination water for less expensive alternative supplies and/or to make ratepayers pay for excess capacity. For example, CalAm has most recently proposed to the Coastal Commission that it would construct and put the 4.8 MGD facility into operation by December 2026.²³ Not even CalAm's supply and demand projections require this capacity in 2026. Presumably the desalination facility would either sit idle until 2040 when demand materializes or, alternatively, displace the use of lower cost water, substantially increasing rates.

Even if Special Condition 1 is intended to prevent premature construction of the desalination facility, nothing in that condition addresses the ongoing and fundamental problem that a 4.8 MGD facility is six times larger than the additional demand that might materialize between 2040 and 2050.

As the rate-setting authority, the CPUC, not the Coastal Commission, must address this critical ratepayer impact issue. The CPUC must clarify that shareholders, not ratepayers, would be responsible for the costs of premature capacity and excess capacity, including the enormous fixed

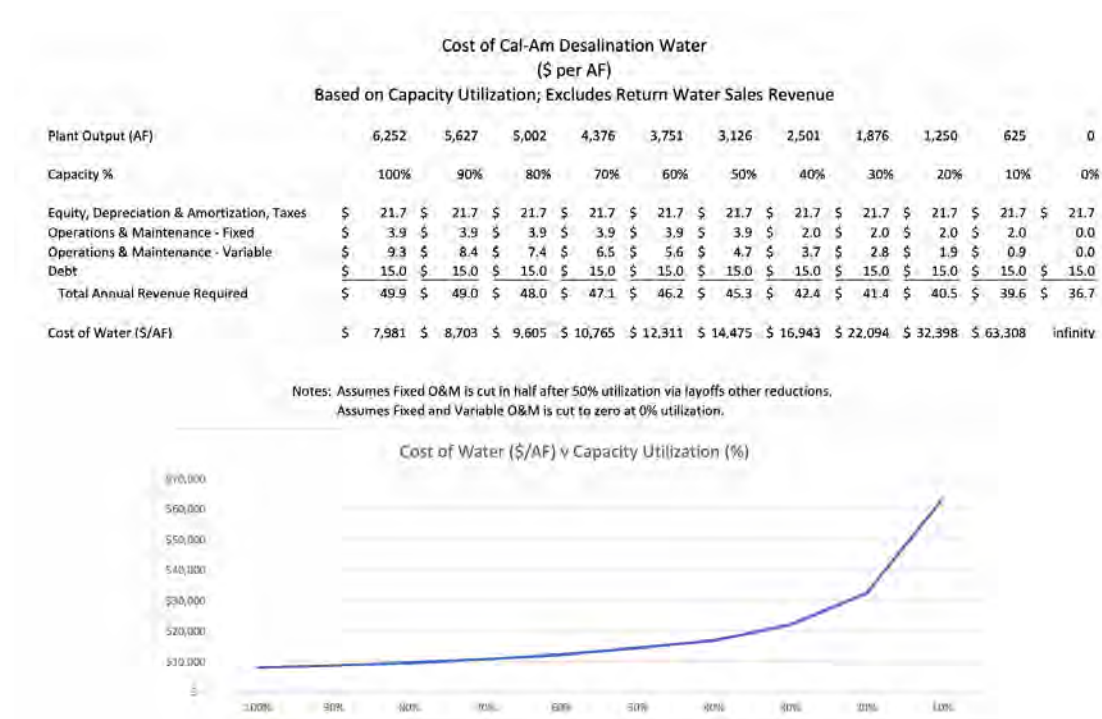
²² See, e.g., CPUC, Prehearing Conference Reporter's Transcript, Vol. 1, January 25, 2022, pp. 27-40, available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M444/K124/444124005.PDF>; Motion Of The Monterey Peninsula Water Management District For Party Status, Jan. 3, 2022, p. 4 [proceeding should consider "whether Cal-Am's MPWSP is needed, when it is needed, at what size, and at what cost"]; [Response Of The City Of Marina To Application 21-11-024, Jan. 3, 2022, pp. 14-16](#) [proceedings should include, inter alia, rate impacts, operating restrictions, updated costs, construction timeline, and whether desalination facility is still needed and consistent with community values and environmental justice]; [Response Of Marina Coast Water District In Support Of Approval Of Amended And Restated Water Purchase Agreement For The Pure Water Monterey Groundwater Replenishment Project](#), Jan. 3, 2022, pp. 8-9 [proceedings should consider modifications to desalination facility to ensure ratepayers are not overburdened by oversized or unnecessary facilities]; [LandWatch Monterey County's Motion For Party Status](#), Jan. 14, 2022, p. 2, [proceedings should include assessment of continuing need for and appropriate sizing of desalination facility].

²³ Ian Crooks, letter to Tom Luster, Oct. 27, 2022, available at <https://documents.coastal.ca.gov/reports/2022/11/Th7a8a/Th7a8a-11-2022-exhibits.pdf>.

costs that will be incurred to build even the 4.8 MGD capital facility. Variable O&M costs are a very small portion of the total cost of desalinated water; the bulk of the water costs are the fixed costs for equity, depreciation & amortization, taxes, and the fixed cost portion of O&M. Yet those fixed costs must be covered, regardless of the volume of water produced, either by ratepayers or shareholders.

The excess capacity costs are significant. David Stoldt, General Manager of the Monterey Peninsula Water Management District, has evaluated the construction and financing cost increases since 2018 for the originally proposed 6.4 MGD facility, demonstrating that the unit water cost at full capacity would now be \$7,981 per acre-foot.²⁴ This figure is itself a substantial increase over the \$6,100 per acre-foot cost cited by the Staff Report, which is based on a now-dated 2018 CalAm estimate.²⁵ Critically, Stoldt has also evaluated the unit water cost if the 6.4 MGD facility is operated at less than 100% capacity. For example, if the facility were operated at 20% (producing 1,250 AFY), the unit cost would quadruple, going from \$7,981 per acre-foot to \$32,398 per acre-foot.

Stoldt's analysis is set out below.



²⁴ David Stoldt, Monterey County Herald Guest Opinion, When Did the Cost of New Water Become a Secret, Nov. 4, 2022, available at <https://www.montereyherald.com/2022/11/04/guest-commentary-the-cost-of-new-water/>.

²⁵ See Staff Report at 111, citing CPUC Proposed Decision in Proceeding No. A-21-11-024 (modified October 31, 2022), in turn citing City of Marina Exhibit MARINA-01 at 9, in turn citing CCC Staff Report (dated August 2020), in turn citing Cal-Am's Advice Letter 1220, Attachment C-3, December 31, 2018.

CalAm has not provided cost data for its newly proposed 4.8 MGD facility. As discussed below, the unit water cost at full capacity would be higher for the 4.8 MGD plant than the 6.4 MGD plant due to lost economies of scale. But even if the increase in unit water cost for the smaller plant running at full capacity were small, the increase in unit costs from running *any* desalination plant at less than full capacity would be large, because fixed costs represent the great majority of unit water costs. Again, running the 6.4 MGD facility at 20% quadruples the unit water cost; and there is no reason to expect that running a 4.8 MGD facility at 20% would not also quadruple its unit water cost.

In sum, it is patently unreasonable to expect ratepayers to absorb the unit cost of at least \$7,681 for desalinated water when water is available from the Pure Water Monterey Expansion at \$2,808 per acre-foot. (SR, p. 141.) It is equally unreasonable to expect ratepayers to absorb the excess capacity costs of running a desalination facility at the 16% capacity that Cal Advocates' supply and demand projections indicate is all that would be needed by 2050.

The Coastal Commission is neither competent nor authorized to restrict operations of a desalination facility, or to assess the rate impacts from such changes, which will substantially affect the validity of the public welfare and environmental justice findings the Commission must make. Because CalAm is likely understating the cost of water and the rate increases by a factor of four, the Coastal Commission should defer consideration of a CDP until the CPUC addresses these issues.

If the Coastal Commission is unwilling to defer its consideration of the CDP, it should impose an additional condition that requires CalAm to reapply to the CPUC for the smaller desalination facility with operating restrictions that ensure that no excess capacity costs are passed on to ratepayers. It is no longer reasonable to expect that a desalination facility, even the smaller 4.8 MGD facility now proposed, would operate at anywhere near full capacity for at least its first ten years, and likely not for many years thereafter.

C. The Commission cannot make required findings because it lacks any analysis of the increased costs for desalinated water due to (1) a shorter amortization period in light of expected dune recession and (2) lost scale economies due to a smaller facility.

The Coastal Commission cannot make findings regarding environmental justice, public welfare, or project feasibility without reasonable project cost and rate information. Not only does the Commission lack any analysis of the effect of excess capacity on rates, it also lacks analysis of the effects of a shorter amortization period and a smaller project.

AMORTIZATION PERIOD LIMITED BY DUNE RECESSION: As the Staff report admits, CalAm may not be able to relocate its wells inland to avoid sea level rise and dune recession after the initial term because it lacks any legal interest in inland property. (SR, pp. 8, 92-97.) Current policy requires planning for a greater sea level rise than was assessed by the CPUC. (SR, p. 94.) Current modeling projects the need to relocate wells inland within about 25 years. (SR, p. 97.) CalAm does not own or control the necessary land. Thus, the Staff Report's discussion of Special Condition 6, limiting the

CDP term to 25 years or 2050, admits that the shorter amortization period may substantially increase water rates:

Special Condition 6 is based on Cal-Am's characterization that the wells have an approximately 20- to 25-year economic life and limits the term of this permit for 25 years after installation or until January 1, 2050. This latter date is in recognition of the increased uncertainty about our current projections of sea level rise and climate change after 2050. Special Condition 6 also requires Cal-Am to apply for a new or amended CDP to remove or relocate the wells at least two years before the end of this permit term. While this Special Condition removes the project's inconsistency with the LCP provision that specifies a 50-year economic life, it creates a different concern that *Cal-Am's desalination facility may not be able to operate for its overall expected 60-year operating life since Cal-Am does not currently have a legal interest in locations further inland where Cal-Am might be able to relocate its wells*. Additionally, much of that inland area is expected to be restored as a result of the above-referenced Settlement Agreement. ***A shorter operating life of the desalination facility may also create substantial changes in the Project's financing and water rates, since Cal-Am may seek to recover its costs in a much shorter time than the anticipated 60 years.*** These issues are described in more detail below and in Section IV.I – Assessment of Alternatives and in Section IV.O – Environmental Justice.

(SR, p. 95.)

LOSS OF SCALE ECONOMIES: The Staff Report also admits that water rates would be affected by the loss of scale economics from forgoing or deferring the larger 6.4 MGD facility. All of the publicly available previous rate analysis was predicated on the assumption that the fixed costs would be spread over a 6.4 MGD facility. As the CPUC found in 2018, there are few fixed cost savings in the 4.8 MGD facility, and these savings are offset by increased O&M costs for the smaller facility.²⁶ With the proposed 4.8 MGD facility, CalAm would need to spread essentially the same fixed costs over a smaller water volume. (SR, p. 142.) The Staff Report admits that this would increase unit water costs. (*Id.*)

NO ANALYSIS: The Staff Report admits that neither staff nor CalAm have evaluated the rate effects of the shorter amortization period and the loss of scale economies in the smaller project:

Cal-Am has not provided an assessment of how its recently proposed Project phasing might affect the expected costs. Although the first phase would involve reduced initial capital costs for construction and some reduction in operations and maintenance costs, the overall cost per unit of water could be higher than expected, especially when it is not certain if and when additional water from the second phase might be made available to spread costs over a larger volume of water to be produced. As noted above, Cal-Am will also likely need to either account for recouping its Project costs over a shorter Project operating life - i.e., the 25 years it expects its wells to operate - or account for the additional costs to relocate or rehabilitate those wells if they are to continue operating beyond that period.

²⁶ CPUC Decision D.18-09-017, pp. 69, 128-129

(SR, p. 142.)

The Coastal Commission cannot make informed decisions about economic feasibility, public welfare, or environmental justice without knowing how the changes to the previously proposed project will affect rates. The Coastal Commission should defer consideration of a CDP until the CPUC addresses these issues.

If the Coastal Commission is unwilling to defer its consideration of the CDP, it should impose an additional condition that requires CalAm to reapply to the CPUC for the smaller desalination facility and to demonstrate in that application that water rates will not be higher than the rates assumed in the CPUC's 2018 decision.

D. The Commission cannot make required findings because CalAm's plan to address environmental justice is not enforceable and fails to address long term rate impacts.

Environmental justice communities of concern include limited English proficiency households, communities of color, low-income households and households in poverty, and housing-burdened households. The Staff Report admits that rate impacts to these communities of concern constitute an environmental justice issue that has not been resolved and that remains "contentious." (SR, pp. 99-115.)

The Staff Report does not and cannot disclose the magnitude of the environmental justice issue because it does not evaluate changes to the rates assumed in the 2018 Decision. The Staff Report uncritically accepts CalAm's estimate that the desalination project would raise average single family household rates by \$47 to \$50 per month without disclosing the "current modeling"²⁷ on which CalAm bases this claim. (SR, pp. 107, 111, 141.) As discussed above, there is no evidence that this analysis takes into account the substantial costs of excess capacity, the loss of scale economies, or the shortened amortization period, because neither Commission staff nor CalAm have provided any analysis of these factors.²⁸

The Staff Report admits that "without updated cost and rate increase estimates" it is impossible to determine if CalAm's proposals for rate relief "will be enough to assist ratepayers who may experience financial hardship." (SR, p. 110.)

CalAm admits that its Customer Assistance Program (CAP) for low-income households cannot assist all low-income ratepayers due to barriers to eligibility such as lack of individual meters or failure to meet the strict income requirements. However, CalAm's various proposals to rectify the defects

²⁷ Ian Crooks, letter to Tom Luster, Oct. 27, 2022.

²⁸ The Staff Report does not even try to describe a consistent or complete economic model. It provides unit water costs of \$6,100 per acre-foot assuming a 6.4 MGD facility, but, based on CalAm's undisclosed "current modeling," purports to provide average rate increases assuming a 4.8 MGD facility. The Staff Report does not provide any analysis of the capacity utilization assumptions for either alternative.

in its CAP and to address environmental justice suffer from two key defects. First, they are not enforceable by the Coastal Commission, which has no jurisdiction over CalAm rates and subsidy proposals. Only the CPUC can approve and enforce these. Second, CalAm's proposal would not address long-term environmental justice concerns because CalAm only proposes to cap rate increases at \$10 per month for five years.

Special Condition 16 cannot address these two defects because it merely requires CalAm to *report* its efforts to address rate impacts to the Coastal Commission each year. The Coastal Commission would have no authority to act on this information. Mere reporting is meaningless.

The Coastal Commission cannot make informed decisions about environmental justice without knowing how the changes to the previously proposed project will affect rates to lower-income households. The Coastal Commission should defer consideration of a CDP until the CPUC addresses these issues and requires CalAm to provide substantive, long-term rate protections for lower-income households.

If the Coastal Commission is unwilling to defer its consideration of the CDP, it should impose an additional condition that requires CalAm to reapply to the CPUC for the smaller desalination facility and to demonstrate in that application that water rates to lower income households will not increase more than \$10 per month over the life of the desalination project.

Coastal Commissioners,

As an environmentalist and a Cal Am customer struggling to afford necessary water for my family each month in addition to all other rising costs of living on the Monterey Peninsula, I strongly oppose Cal Am's desal project. There is an environmentally superior and affordable alternative in the expansion of Pure Water Monterey that the Coastal Commission must consider. The Expansion will provide all the water needed for housing and reasonable growth for the next 30 years without any of the negative environmental impacts of the proposed desal plant, even in times of drought and at a fraction of the cost that would result from the proposed desalination plant.

Pure Water Monterey has been providing us with water for over two years now, and it has allowed Cal Am to stop over drafting the Carmel River.

The Peninsula does not need this desal plant. The Monterey Peninsula Water Management District (MPWMD), using the Association of Monterey Bay Area Governments (AMBAG) population and economic growth forecast, estimates that by 2045 we will need 786 acre-feet a year more water than we use today. The expansion of Pure Water Monterey will provide an additional 2,250 acre-feet a year. How can Cal Am claim we need another 5,000 to 6,000 acre-feet?

Cal Am's investor-owned desal plant would produce water costing more than \$7,000 an acre-foot. How can any company justify this cost? This desal plant only enriches American Water shareholders, it is not in the interest of our community. I cannot afford to add the cost of this extraordinarily expensive desal water to the extremely high Cal Am water bill I already pay.

I also oppose the siting of these desal slant wells in a neighboring water district. Marina would get none of this water, but it would bear the environmental damage to its beaches and the risk to its aquifer from more seawater intrusion. This is a social justice issue for all concerned especially for Marina residents and those with limited incomes.

As a coastal Californian, I cannot agree to the massive greenhouse gas emissions this plant would produce and the power it would consume. I am alarmed by Governor Newsom's pressure on the Coastal Commission to approve all desal projects, whether they are needed or not and regardless

of environmental impacts the Coastal Commission is required to avoid if better alternatives exist.

Please read additional reasons listed below that have contributed to my decision to oppose Cal Am's Desal project. Please do your job, and protect the coastal environment from the unnecessary damage and added water cost that will result from approval of the desal option.

Mark Farina
Monterey Resident

The Coastal Commission must consider feasible alternatives like the expansion of Pure Water Monterey.

- No need for desal. The Pure Water Monterey Expansion will provide water for housing and growth for the next 30 years at a fraction of the cost.
- The Expansion will cost \$60 million. Cal Am's desal will cost an estimated \$426 million.
- Pure Water Monterey is a proven project. It has been providing us with water for over two years now, and it has allowed Cal Am to stop over drafting the Carmel River.
- According to the Monterey Peninsula Water Management District's Water Supply and Demand Report we will need 786 acre-feet of water for new growth by 2045. The Pure Water Monterey Expansion will give us 2,250 acre-feet of water. MPWMD's report used the Association of Monterey Bay Area Governments (AMBAG) population and economic growth forecast to determine how much water we will need for housing and growth.
- The Peninsula currently uses 9,725 AFY. Our use has dropped from 15,000 AFY in 2004. Common usage on the Peninsula is 5,000 to 6,000 gallons per month. The common usage for California is 7,200 gallons a month. It is doubtful that consumption will increase with the state asking for more conservation and the price of water on the Peninsula already prohibitively expensive.
- Recycled water is drought proof – since 2014, during some of the driest years on record the municipal wastewater supply to Monterey One Water that

creates our recycled water has only dropped 5%. New growth will bring more recycled water.

The cost of water is an Environmental Justice issue. According to current CPUC data, Cal Am's desal project is estimated to increase water bills by 50% to 70%. Common usage on the Peninsula is 5,500 gallons, which currently costs \$150 a month. A 70% increase would raise the typical water bills by \$105 a month.

- The Return Water Agreement for Cal Am's desal is a fundamental Environmental Justice issue. To get around the prohibition on exporting water from the over drafted Salinas River Groundwater Basin Cal Am proposes to return 700 AFY of desalinated water to Castroville at \$110 an acre-foot. But this water would cost \$7,000 or more per acre-foot to produce. Who pays the difference? This agreement would force Cal Am's Monterey Peninsula customers to subsidize the cost of water to Castroville at a cost of millions of dollars a year added to Peninsula water bills.
- Desal is energy intensive and creates higher water costs per household driving low-income wage earners out of the region.
- Pure Water Monterey expansion will not harm low-income communities and individuals with drastic rate increases. This option is favored by the community. The cost of Pure Water Monterey is estimated at \$3,500 an acre-foot, half of the expected cost for desal.
- Our community does not trust Cal Am for good reason. They've over drafted both our natural water resources and charge us the highest water costs in the country. Local ballot initiative, Measure J, passed by 56% in 2018 mandating that our Water Management District pursue a buyout of Cal Am. The buyout is moving ahead.
- Monterey Peninsula residents currently pay the highest water costs in California for a system serving 90,000 people or more.
- Pure Water Monterey's water treatment process helps the environment by eliminating pollutants that might otherwise contaminate the Monterey Bay Marine Sanctuary.
- Pure Water Monterey is an innovative and sustainable model of water re-use and conservation in a time when water supplies are becoming more scarce.
- The process of desalinization requires substantially more energy than other forms of water purification.

- Cal Am's desal energy consumption is 52,000 megawatt hours per year. It produces 8,000 metric tons of CO2 per year.
- Draws 17,300 AFY of groundwater from the over drafted Salinas River Groundwater Basin.
- Adds 8 million gallons of brine discharge per day to the Monterey Bay Marine Sanctuary.
- Project must create seawater intrusion to work.
- Cal Am's desal could threaten the city of Marina's groundwater supply with more seawater intrusion.
- Will the CPUC Phase 2 hearing authorize Cal Am to build desal on top of the Pure Water Monterey Expansion? The CPUC's proposed decision to approve the Expansion was issued on September 30, 2022.
- Will Cal Am ever gets the water rights it needs to operate this desal plant? The Cemex lawsuit has not been heard or decided yet. We could pay for this desal plant and never see a drop of water. When Cal Am fails, its customers pay the bill.

Sent from my iPad