

Th3a & 4a

A-3-MRA-19-0034 / 9-19-0918

California-American Water

CORRESPONDENCE – APPLICANT

Packet 2
Updated
September 11, 2020

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September 11, 2020

Th3a & 4a

VIA EMAIL AND FEDEX

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

Re: September 17, 2020, Special Meeting Agenda Items Th3a & 4a:
Monterey Peninsula Water Supply Project, Coastal Development Permit
Application No. 9-19-0918, and Appeal No. A-3-MRA-19-0034

Dear Chair Padilla and Honorable Commissioners:

On behalf of California-American Water Company (“Cal-Am”), this letter responds to Coastal Commission (“Commission”) staff’s August 25, 2020, Staff Report regarding the coastal development permit (“CDP”) application for and local CDP appeal of the Monterey Peninsula Water Supply Project (“Project”), which are Agenda Items Th3a and 4a at the Commission’s upcoming September 17, 2020, special meeting.

While we appreciate Commission staff’s efforts in reviewing the Project and preparing the Staff Report, we fundamentally disagree with its overarching conclusion that the Pure Water Monterey Groundwater Replenishment Project (“PWM Expansion”) is a feasible alternative to the Project. Staff’s conclusion overlooks a number of viability issues with the PWM Expansion most significantly that ***a water supply with the PWM Expansion but without the Project simply will not provide sufficient water supply to the Monterey Peninsula even utilizing the most conservative demand estimates submitted to the Commission by the Monterey Peninsula Water Management District*** (“MPWMD”). Only the Project provides a long-term water supply for the Monterey Peninsula that will meet even MPWMD’s low projections of customer demand, provide for the development of affordable housing, avoid water rationing and ongoing service connection moratoria, and boost the region’s economic vitality by substantially enhancing the reliability of water resources and water infrastructure. The Monterey Peninsula needs this Project now, and we urge you to approve the Project.

The Staff Report’s denial recommendation is based on its determination that the PWM Expansion is feasible. But without the PWM Expansion it is clear from the Staff Report that by imposing Special Conditions the Project would be consistent with the Coastal Act and the City of Marina’s Local Coastal Program (“LCP”). While the Project would result in an inconsistency with some Coastal Act and LCP policies related to ESHA, Cal-Am is proposing Special Conditions over and above the already robust mitigation measures included in the Project’s

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EIR/EIS that will mitigate impacts to ESHA to the maximum extent feasible. Accordingly this inconsistency can be overcome with the override provision in Coastal Act section 30260, which allows coastal-dependent industrial facilities like the Project to be approved despite any Coastal Act or LCP inconsistencies.

To ensure that the Commission has an accurate record upon which to assess the Project in advance of the September 17, 2020, special meeting, and a mechanism to approve the Project at the meeting, we have provided an alternate Staff Report with proposed Special Conditions and Findings (“Applicant’s Staff Report”) as **Attachment A** to this letter.¹ **Attachment A** also provides a series of proposed Special Conditions in an effort to help address several of Commission staff’s stated concerns regarding the Project and Coastal Act consistency. We also have provided fulsome responses to the Staff Report and Marina Coast Water District’s (“MCWD”) August 14, 2020, submittal, which are provided as **Attachments B and C**, respectively, to this letter. **Attachment D** is a standalone document containing the Applicant’s proposed motions and resolutions, recommending approval of the Project. Immediately on the following page we have summarized our positions on the major issue areas identified in the Staff Report.

We appreciate the Commission’s consideration of Cal-Am’s CDPs for this critically important Project. We respectfully request that the Commission examine Cal-Am’s CDP application and Appeal No. A-3-MRA-19-0034 objectively and approve the CDPs at its special meeting on September 17, 2020 using the motions and resolutions in **Attachment D**. 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: Rich Svindland, Ian Crooks and Kathryn Horning, California-American Water Company
Alison Dettmer, California Coastal Commission
Tom Luster, California Coastal Commission

¹ The Applicant’s Staff Report is a redline against the August 25, 2020, Staff Report.

SUMMARY OF CAL-AM POSITIONS

The Staff Report reaches several incorrect conclusions regarding the Project's impacts and consistency with the Coastal Act and the City of Marina LCP, which are addressed in detail in the Attachments and summarized below.

- **Alternatives:** While Cal-Am disagrees with the position that the Commission can evaluate wholesale project alternatives located outside of its jurisdiction, the PWM Expansion is not a feasible alternative to the Project because (a) *there is not an adequate supply of source water for the PWM Expansion* to produce its promised 2,250 acre-feet per year; and (b) even with PWM Expansion operating at 100% capacity *there is insufficient supply due to the unreliability of Aquifer Storage and Recovery ("ASR")*, particularly in drought years. If the PWM Expansion were constructed in the absence of the Project, the Peninsula would experience *a significant water supply deficit*, even under the most conservative future demand estimates presented by MPWMD. This supply deficit would be staggering in drought periods, the implications of which are entirely overlooked by the Staff Report. Simply put, only the Project is capable of meeting the Peninsula's water demand needs.

In concluding that the PWM Expansion is a feasible alternative, the Staff Report also ignores significant ongoing technical issues faced by the first phase of the Pure Water Monterey project that raise additional questions regarding the PWM Expansion's viability and timing. Further, the Staff Report ignores that the M1W Board of Directors' denied certification of the PWM Expansion's Final Supplemental Environmental Impact Report due to *an inadequate environmental impacts analysis*, and work on the PWM Expansion has been ordered to halt. For all of these reasons, the PWM Expansion cannot meet the basic objectives set forth for the Project by the CPUC, and cannot constitute a feasible alternative to the Project.

- **Environmentally Sensitive Habitat Areas ("ESHA"):** The Staff Report concludes that the Project could impact 35 acres of ESHA. Based on a more detailed biological assessment including changes resulting from the California Public Utilities Commission's ("CPUC") approval of a smaller sized project than was studied in the Final Environmental Impact Report/Environmental Impact Statement ("EIR/EIS"), AECOM has confirmed Project construction and maintenance will permanently impact only 2.2 acres of ESHA and temporarily impact 15.3 acres, for a total of 17.5 acres—*half the amount* identified in the Staff Report. Further, Cal-Am has submitted a proposed Habitat Mitigation and Monitoring Plan ("HMMP") through which it proposes to restore approximately 23.7 acres on the CEMEX site, including 1.8 acres beyond the amount required to benefit the success of the restoration. Although staff determined that the Project would be inconsistent with Marina LCP's Habitat Protection Policies regarding development in primary habitat, with the implementation of the mitigation identified in the EIR/EIS, Cal-Am's HMMP, and the Special Conditions proposed in Attachment A, potential impacts to ESHA would be mitigated to the maximum extent feasible. Thus, the Commission may approve

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the Project under Coastal Act section 30260, which allows for coastal-dependent industrial facilities like the Project to be approved despite potential LCP inconsistencies.

- **Wetlands and Vernal Ponds ESHA:** The Staff Report determines that Project pumping would “likely” impact vernal ponds in Marina, but staff’s conclusion relies entirely on information provided by Marina. The Staff Report does not address the robust analysis that Cal-Am provided, which demonstrates that the vernal ponds at issue are unlikely to be impacted by Project pumping. Nonetheless, through a Special Condition set forth in Attachment A, Cal-Am proposes to implement a comprehensive Adaptive Management Program in which the ponds would continue to be evaluated before Project operations begin. If it is determined that there would be potential impacts from Project pumping, the Adaptive Management Program requires Cal-Am to implement wetland resiliency, enhancement, or restoration activities approved by the Commission to ensure that there would be no adverse effects associated with the Project.
- **Coastal Hazards:** The Staff Report determines that the existing test slant well site could be impacted by coastal erosion by 2060, but staff’s conclusion fails to consider any reduction in coastal erosion as a result of the CEMEX site closure and an end to existing sand mining operations. Using reasonable estimates of reduction in coastal erosion, AECOM’s analysis confirms that the *Project’s slant wells, including the test slant well, will not be impacted by coastal erosion until near the 2120 planning horizon*. Moreover, AECOM’s analysis of dune recession confirms that only two of the Project’s seven slant wells could be at risk from sand burial within their economic lives of 20 to 25 years, but through a Special Condition proposed in Attachment A, that risk would be mitigated. Because the slant wells would be protected for their economic lives from both coastal erosion and dune recession, staff does correctly conclude that the Project is consistent with the LCP and Coastal Act policies. Further, although staff raises concerns about relocation of the wells after their expected economic lives, such speculation is premature and does not affect a finding of LCP and Coastal Act consistency.
- **Coastal Waters and Marine Resources:** The Staff Report wrongly characterizes the potential diffuser retrofit to the Monterey One Water (“M1W”) ocean outfall, the Project’s installation of monitoring buoys, and the replacement of clamps on the nearshore portion of the outfall as involving the placement of “fill” in coastal waters, providing no justification for this conclusion. As Cal-Am has repeatedly explained, potential modifications to the M1W outfall to retrofit its existing diffuser are not part of Cal-Am’s CDP application and would be addressed through a separate CDP application to be submitted by M1W. Moreover, the proposed monitoring equipment and buoy would be temporarily attached to the seafloor by anchor and installation would be complete in a matter of hours, involving minimal seafloor disturbance. Further, the WEKO clamp replacement would occur roughly 100 feet from the shoreline and the Staff Report has not identified any aspect of the work that would occur in coastal waters. Accordingly, the Staff Report incorrectly determined that

- these project components would involve placing fill in coastal waters. Additionally, the Staff Report erroneously contends that it is unclear what effects the desalination plant would have on water quality or marine life. These issues were extensively analyzed in the Final EIR/EIS and any potential environmental impacts would be less than significant with mitigation. Nonetheless, as a further precaution, Cal-Am proposes a Special Condition in **Attachment A** that would require Cal-Am to demonstrate that all discharges comply with the California Ocean Plan and applicable water quality requirements.
- **Groundwater:** The Staff Report’s analysis of potential groundwater impacts is not properly focused on the requirements of Coastal Act Section 30231. Rather, staff alleges that because Project pumping could potentially capture a higher percentage of groundwater than was determined in the EIR/EIS, Cal-Am could be required to return more water to the Salinas Valley Groundwater Basin (“SVGB”), thereby increasing the costs of water and resulting in public welfare impacts. First, that conclusion is incorrect. The evidence demonstrates that under reasonable assumptions, the EIR/EIS’ conclusions on the amount of return water were correct. Second, even in the unlikely scenario where larger amounts of return water are required, Cal-Am’s customers would not be charged higher rates; pursuant to the CPUC’s decision, Cal-Am would be required to absorb those added costs. With respect to the Project’s potential environmental impacts to groundwater supplies in SVGB, the Project will both prevent further seawater intrusion in the SVGB and help protect water levels in the Seaside Groundwater Basin against seawater intrusion and the irreversible loss of basin storage. Further, the Staff Report confirms that “*neither the Final EIR/EIS nor the Commission’s independent hydrogeologist found evidence that impacts [to MCWD’s water supply wells] are reasonably foreseeable.*” (Staff Report, p. 68 [emphasis added].) Because the Project will not adversely affect or deplete groundwater supplies in the SVGB—and in fact would *benefit* both the SVGB and Seaside Groundwater Basin—the Project is consistent with Coastal Act Section 30231.
 - **Public Access:** The Staff Report asserts that Project operation could result in adverse effects to public access and recreation, but the Project footprint will be *de minimis* and would not impede beach use or access at any time. Specifically, under regular operations, Project infrastructure within fenced areas will occupy only about 0.06 percent (approximately 0.25 acres) of the CEMEX site (approximately 400+ acres) and during recommended maintenance activities (occurring approximately every five years over a period of 9 to 18 weeks) an additional approximately 0.25 acres would be occupied. Despite this *de minimis* presence, to further minimize any public access or recreation impacts, Cal-Am proposes a Special Condition in **Attachment A** requiring the preparation and approval of a Public Access Plan that would be subject to modification at the direction of the Executive Director, depending on the final approved use of the remainder of the CEMEX site.
 - **Environmental Justice:** The Staff Report contends that the Project would disproportionately burden communities of concern through higher water rates and that

a feasible alternative could provide water without such impacts. Staff inappropriately disregards many Project benefits to low income communities—including the severely disadvantaged community of Castroville—and to the Monterey Peninsula generally. The Project will provide a reliable drought-proof water supply necessary for economic growth and much-needed affordable residential development to meet State-mandate housing goals. Moreover, staff does not consider that the CPUC carefully evaluated Cal-Am’s water rates throughout its six-year administrative process and determined the rates to be just and reasonable. To further offset costs to low income customers, Cal-Am has proposed a Special Condition in **Attachment A** to increase the discount afforded to eligible low income Monterey Peninsula customers through its Customer Assistance Program (“CAP”)² from 30% to 50%, to increase enrollment in the CAP by launching a pilot program to enroll residents of multi-family housing to ensure more eligible customers can participate in the CAP, and to contribute up to \$250,000 to the United Way to assist customers in Cal-Am’s Monterey service territory who may have financial difficulties paying monthly bills if the additional CAP discount is not approved before desalination facility costs affect Cal-Am’s ratepayers. As conditioned, the Project is consistent with the Commission’s Environmental Justice Policy.

- **Coastal Dependent Override:** Notwithstanding any potential inconsistencies with the City of Marina LCP or Coastal Act policies, the Commission can approve the Project under Coastal Act section 30260. The Project is a coastal-dependent industrial facility and, as demonstrated in **Attachment A**, (1) alternative locations of the Project are infeasible or more environmentally damaging; (2) to not permit the Project would adversely affect the public welfare; and (3) the Project’s environmental impacts have been mitigated to the maximum extent feasible.

² Previously referenced as the Low-Income Ratepayer Assistance (“LIRA”) program.

CALIFORNIA COASTAL COMMISSION

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Th3a & 4a

Appeal Filed:	May 22, 2019
49th Day:	Waived
Permit Filed:	October 28, 2019
180th Day:	April 25, 2020
Extension ¹	September 25, 2020
Staff:	T. Luster-SF
Staff Report:	August 25, 2020
Hearing Date:	September 17, 2020

**STAFF REPORT: DE NOVO APPEAL
and
CONSOLIDATED COASTAL DEVELOPMENT PERMIT**

Appeal No:	A-3-MRA-19-0034
Local Government:	City of Marina
Decision:	Denial
Application No.:	9-19-0198
Applicant:	California American Water Company
Applicants:	California American Water Company, Brian LeNeve, Castroville Community Services District, and Commissioners Howell and Uranga
Project Location:	Wellfield at the site of the CEMEX, Incorporated sand mining facility in the City of Marina, Monterey County, and pipelines and associated infrastructure within the Cities of Marina and Seaside, the County of Monterey, and the Commission's retained jurisdiction.
Project Description:	Construct and operate a slant well field, associated water transmission pipelines and related infrastructure

¹ On April 16, 2020, Governor Newsom signed Executive Order N-52-20, which, among other things, suspended certain Coastal Act and Permit Streamlining Act deadlines for a period of 60 calendar days. Cal-Am also provided a 90-day extension, as allowed under the state's Permit Streamlining Act.

within the coastal zone to support a proposed desalination facility located inland of the coastal zone.

Staff Recommendation:

~~Denial~~[Approval with conditions](#) of De Novo Permit;
~~Denial~~[Approval with conditions](#) of Regular Permit

Note: These are not Commission staff's Recommended Findings

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EXHIBITS

[SEE ATTACHED INDEX](#)

[SUBSTANTIVE FILE DOCUMENTS](#)

[SEE ATTACHED INDEX](#)

I. MOTIONS & RESOLUTIONS

A. DETERMINATION FOR APPEAL A-3-MRA-19-0034

Motion

I move that the Commission approve Coastal Development Permit A-3-MRA-19-0034 for the development proposed by the applicant subject to conditions.

Staff recommends a YES vote. Passage of this motion will result in conditional approval of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve with Conditions CDP on Appeal

The Commission hereby approves Coastal Development Permit A-3-MRA-19-0034 and adopts the findings set forth below on the ground that the development as conditioned will be in conformity with the City of Marina Local Coastal Program and Coastal Act access and recreation policies. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

B. DETERMINATION FOR CDP 9-19-0918

Motion

I move that the Commission approve Coastal Development Permit Application No. 9-19-0918 for the development proposed by the applicant subject to conditions.

Staff recommends a YES vote. Passage of this motion will result in conditional approval of the permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution

The Commission hereby approves Coastal Development Permit 9-19-0918 and adopts the findings set forth below on the ground that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgement. The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

1. Evidence of Other Agency Approvals. The Permittee shall provide to the Executive Director a copy of each of the following approvals or documentation from the relevant agency that such approval is not needed:
 - a. PRIOR TO COMMENCEMENT OF PROJECT OPERATION, a negotiated agreement or memorandum of understanding between the Permittee and Monterey One Water regarding the connection, use, and repair and maintenance of the ocean outfall for discharge of water produced from the project.
 - b. PRIOR TO COMMENCEMENT OF PROJECT OPERATION, an amendment to Monterey One Water's NPDES permit allowing discharges through the ocean outfall and, if necessary, any modifications to the outfall required to satisfy Ocean Plan water quality objectives.
 - c. PRIOR TO COMMENCEMENT OF CONSTRUCTION BENEATH STATE TIDELANDS, a lease from the California State Lands Commission.
2. Final Plans. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval final plans for the project components located in the coastal zone. The Permittee shall undertake development in accordance with the approved

plans and any changes shall be reported to the Executive Director. No material changes within the coastal zone shall occur without a Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

3. Outfall Construction. PRIOR TO THE COMMENCEMENT OF PROJECT OPERATION, Permittee shall demonstrate that discharges from the outfall would comply with the Ocean Plan and applicable water quality requirements by demonstrating that (1) a Coastal Development Permit or Amendment has been obtained and implemented for any necessary work on the Monterey One Water outfall; and/or (2) Permittee has implemented other measures consistent with Final EIR/EIS Mitigation Measures 4.3-5, as necessary, outside of the Commission's jurisdiction.
4. Outfall Lining. PRIOR TO THE COMMENCEMENT OF PROJECT OPERATION, Permittee shall demonstrate that it or its designee has obtained all approvals authorizing Project-related repair and maintenance work on the Monterey One Water outfall, including, but not limited to, excavation permits from the County, and has implemented such repair and maintenance work on the portion of the outfall within the coastal zone. Permittee shall ensure the installation of a protective liner within the Monterey One Water outfall by application of a spray liner throughout the pipeline's interior from an access point outside of the coastal zone and extending to the beach junction box. The work shall not involve any groundbreaking activities within the coastal zone or result in the discharge or disposal of waste through the Monterey One Water outfall. Permittee shall submit a complete application for a new or amended permit for any alternative installation method for the outfall liner that would involve groundbreaking activities or disturbance within the coastal zone, which must be reviewed and approved by the Commission prior to the commencement of operation of the Project.
5. CEMEX Site HMMP Implementation. PRIOR TO PERMIT ISSUANCE, Permittee shall prepare and submit a final plan providing for the implementation of the HMMP, which shall be reviewed and approved by the Executive Director. The final plan shall select one of the following options:

 - a. Cal-Am shall develop, fund and cause the HMMP to be implemented on the CEMEX site. Cal-Am would begin to implement the HMMP's restoration and monitoring work prior to the transfer of the CEMEX site to a Commission-approved entity with the approval of CEMEX and the Executive Director. Once the CEMEX site is transferred to an entity approved by the Commission pursuant to the CEMEX Settlement Agreement, and subject to approval by that entity, Cal-Am may either continue to implement the HMMP restoration and monitoring work or may establish an endowment to fund the remaining HMMP restoration and monitoring work at the CEMEX site, including long-term mitigation efforts. If Cal-Am continues to implement the HMMP, as part of the Commission's approval of the future purchaser of the CEMEX site pursuant to the CEMEX Settlement Agreement, the Commission shall ensure that the future

purchaser consents to Cal-Am's continued implementation of the HMMP. If Cal-Am establishes an endowment to fund the remaining HMMP restoration and monitoring work, then as part of the Commission's approval of the future purchaser of the CEMEX site pursuant to the CEMEX Settlement Agreement, the Commission shall ensure that the purchaser continues implementation of the HMMP on the CEMEX site as a condition of purchase;

b. Cal-Am would fund the HMMP implementation, but actual HMMP implementation would be undertaken by a Commission-approved entity. Cal-Am funding would cover full implementation of the HMMP, inclusive of long-term mitigation efforts. As part of the Commission's approval of an entity to undertake HMMP implementation, the Commission shall ensure that the Commission-approved entity shall implement the HMMP on the CEMEX site. In addition, as part of the Commission's approval of the future purchaser of the CEMEX site pursuant to the CEMEX Settlement Agreement, the Commission shall ensure that the purchaser consents to implementation of the HMMP on the CEMEX site by the Commission-approved entity as a condition of purchase; or

c. Cal-Am would fund an endowment, equal to the cost of HMMP implementation (full implementation of the HMMP, inclusive of long-term mitigation efforts), to contribute to the purchase of the CEMEX site by a Commission-approved entity. As part of the Commission's approval of the future purchaser of the CEMEX site pursuant to the CEMEX Settlement Agreement, the Commission shall ensure that the purchaser implements the HMMP on the CEMEX site as a condition of purchase.

6. Agricultural Runoff Plan. PRIOR TO PERMIT ISSUANCE, Permittee shall prepare and submit a final plan for Executive Director review and approval providing for the discontinuation or alternative management for the agricultural runoff drainage on the CEMEX site to ensure such runoff does not adversely affect or interfere with restoration activities on the site.

7. Vernal Pond Adaptive Management Program: PRIOR TO PERMIT ISSUANCE, the Permittee shall submit to the Executive Director for review and approval a Vernal Pond Adaptive Management Program that includes the following:

a. Stage 1: Supplemental data collection and near-term monitoring to determine whether there is a connection between vernal ponds within the drawdown zone of the Project and the Dune Sand Aquifer. The results of Stage 1 shall be submitted to the Executive Director for review and approval;

b. Stage 2: If the results of Stage 1 determine that there is a connection between the vernal ponds within the drawdown zone of the Project and the Dune Sand Aquifer, the program would evaluate the degree to which the Project's pumping would affect the ponds. The results

of Stage 2 shall be submitted to the Executive Director for review and approval; and

c. Stage 3: Based on the results of Stage 1 and Stage 2, Stage 3 would develop a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan (Plan). If Stage 3 is necessary, the Permittee shall apply for and obtain the Commission's approval of the Plan in the form of an amendment to this permit. The Plan would require compensation for potential impacts and would include the following:

- i. The Plan would provide no less than 1:1 mitigation if impacts can be mitigated on-site. If off-site mitigation is necessary the Plan would provide for 1:1 mitigation for wetland creation; 3:1 mitigation for wetland restoration; and 4:1 mitigation for wetland enhancement.
- ii. The specific creation, restoration, or enhancement measures that will be used at each site, including grading and planting plans, the timing of the mitigation measures, monitoring that will be implemented to establish baseline conditions and to determine whether the sites are meeting the applicable site specific success criteria. The Plan shall also identify contingency measures that will be implemented should any of the sites not meet the site specific success criteria. The success criteria developed for specific sites will ensure that the mitigation ratios in Section (c)(i) are achieved.
- iii. "As-built" plans for each site and annual monitoring reports for no less than five years or until the sites meet performance criteria.
- iv. Legal mechanism(s) proposed to ensure permanent protection of each site – e.g., conservation easements, deed restriction, or other methods.

8. Dune Migration and Wind Blown Sand. By acceptance of this permit, the Permittee agrees to monitor and report on the risk of impacts to the wellheads at the CEMEX site from dune migration and wind-blown sand to the Executive Director as follows and shall implement corrective measures as reviewed and approved by the Executive Director:

- a. Permittee shall conduct annual monitoring of the rate of dune migration and risk from wind-blown sand to the wellheads at the CEMEX site. An annual monitoring report shall be provided no later than June 30 each year to the Executive Director.
- b. As necessary, the annual monitoring report shall include recommendations for the implementation of dune restoration and/or stabilization efforts which could include, but are not limited to, measures such as: the removal of invasive non-native plants; the reestablishment of native dune species; recontouring and

stabilization of blowout areas; redirecting/consolidating footpaths; and sand removal. Any proposed dune restoration and stabilization activities must be reviewed and approved by the Executive Director prior to implementation by the Permittee.

c. If based on the annual monitoring report it is determined that dune restoration and stabilization efforts will not eliminate impacts from dune migration and wind-blown sand during the useful life of the wellheads at the CEMEX site, and the Permittee determines that the at-risk well(s) are necessary for the continued operations of the project, beginning at least 5 years prior to the anticipated exposure of the wellheads to such risks, Permittee shall implement the planning and permitting necessary to propose one or more of the following measures:

- i. Sand fencing;
- ii. Constructing physical protective barriers;
- iii. Raising or relocating the impacted well head structures; or
- iv. Other measures as may be agreed upon with the Executive Director.

If any of these measures employed would result in impacts to ESHA, ESHA impacts shall be fully mitigated at a 3:1 ratio consistent with the project's HMMP.

d. If the Permittee determines that an at risk wellhead is no longer necessary for the project, instead of permitting any of the measures identified in subsection (c), the Permittee may abandon the well in accordance with Mitigation Measure 4.2-10.

9. Slant Well Permit Amendment. In conjunction with Permittee's obligation to submit to the Executive Director an annual monitoring report as specified in Special Condition 8, the Permittee shall inform the Executive Director of the projected need to relocate or replace the slant wells due to risk from coastal hazards. An amendment to this Permit shall be required for relocation or replacement of the permitted slant wells. The Permittee shall return to the Commission for an amendment concerning well relocation or replacement 24 years from the commencement of operations, unless the Executive Director determines that no amendment is required. The amendment application shall identify the proposed plan for any replacement or relocation of the permitted slant wells.

10. Public Access Plan. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director for review and written approval a Public Access Plan indicating the location of construction and maintenance areas, staging areas, and access corridors on the CEMEX site. The Public Access Plan shall indicate:

- a. The specific location of all construction areas, all staging areas, and all access corridors, to be used for both construction and ongoing maintenance for those Project components within the Permittee's easement areas on the CEMEX site. All such areas within which construction or maintenance activities are to take place shall be minimized to the maximum extent feasible in order to minimize potential impacts on public access, including by using, as feasible, inland areas for staging and storing heavy equipment and materials.
- b. Construction and maintenance equipment, materials, or activity shall not occur outside the staging area and construction corridors identified in the plan required by this condition.
- c. Except for as specifically authorized by the plan, no overnight storage of equipment or materials shall occur on sandy beach or within public parking areas. During construction associated with the outfall clamps, for larger materials that would be too difficult to move off of the beach on a daily basis, the Permittee shall submit as part of the plan a list of all materials that would be too difficult to move. For such materials, the Permittee shall include within the Public Access Plan a contingency plan for moving the materials in the event of a tidal surge. The Public Access Plan will provide for tidal monitoring during construction associated with the outfall clamps. In addition, no motorized equipment will be allowed on the sandy beach at any time, except for as needed for construction associated with the outfall clamps. During the construction stages of the Project, the Permittee shall not store any construction materials or waste where it will be or could potentially be subject to wave, wind, rain, or tidal erosion and dispersion (subject to the provision above regarding construction of the outfall clamps).
- d. The specific area to remain as open space following completion of construction, showing how and where public access will be possible. Following completion of construction and during Project operations, the Permittee shall ensure the area enclosed by Project fencing does not occupy more than approximately 0.25 acres aboveground.
- e. The requirement that the Permittee modify this plan, as may be required by the Executive Director, to address any future restoration and access plan prepared pursuant to the CEMEX Settlement Agreement and ensure that public access impacts are minimized to the maximum extent feasible while ensuring Project operations.

11. Visual Resources. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval a Facility Design and Screening Plan. The Facility Design and Screening Plan shall include the following:

- a. Identifies all structures and fencing in the coastal zone, including heights and dimensions. Project components within the coastal

zone shall be no taller than 10 feet in height;

- b. Provides the color palette and material specifications for all structures and fences in the coastal zone, which shall conform to the following:
 - i. structures shall be muted in color with earth-tone finishes to reduce contrast with the ground surface and increase compatibility with the visual setting and ensure that that structures blend in with the surrounding landscape; and
 - ii. fencing shall be used to screen project components and shall be designed to be minimally intrusive, and blend in with the surrounding habitat;
- c. Native plants, trees, or shrubs shall be used whenever practicable to screen views and shall be designed to be consistent with the Project's HMMP.

The Permittee shall implement the Facility Design and Screening Plan approved by the Executive Director.

12. Lighting Plan. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit for Executive Director review and approval a Lighting Plan prepared by a qualified engineer that includes the following:

- a. Identifies all lighting and associated infrastructure proposed for use during the project, such as towers, poles, electrical lines, etc. The Lighting Plan shall identify the locations, heights, dimensions, and intensity of the lighting and associated lighting infrastructure.
- b. Evaluates the effects of project lighting and associated infrastructure on wildlife in the project area and describes proposed measures to avoid or minimize any adverse effects. These measures may include shielding project lighting from off-site locations, directing lighting downward, using the minimum amount of lighting necessary to ensure project safety, and other similar measures.
- c. Affirms that all lighting structures and fixtures installed for use during the project and visible from public areas, including shoreline areas of Monterey Bay, will be painted or finished in neutral tones that minimize their visibility from those public areas.

The Permittee shall implement the Lighting Plan as approved by the Executive Director.

13. Enhanced Monterey Customer Assistance Program. PRIOR TO PROJECT CONSTRUCTION, the Permittee shall:

- a. Develop and submit for approval to the California Public Utilities Commission an increase from the current 30% discount to a 50% discount on water bills for Permittee's Monterey Main Service Territory customers enrolled in the Permittee's Customer Assistance Program (previously known as the Low-Income Ratepayer Assistance program).
- b. If the California Public Utilities Commission's approval of the increased discount described in Special Condition 13(a) is not granted by the time Permittee's customer bills are impacted by costs related to the Project, then Permittee shall make an additional contribution of up to \$250,000 to the United Way to enhance the United Way's Hardship Benefit Program that assists Permittee's customers who face difficulties making water bill payments.
- c. Seek approval from the California Public Utility Commission to participate in the Commission's multi-family pilot program that is designed to enroll residents of master-metered multi-family housing in qualifying customer assistance programs like Permittee's Customer Assistance Program.

14. Liability for Costs and Attorneys Fees. The Permittee shall reimburse the Commission in full for all Commission costs and attorneys fees – including (a) those charged by the Office of the Attorney General; and (b) any court costs and attorneys fees that the Commission may be required by a court to pay – that the Commission incurs in connection with the defense of any action brought by a party other than the Permittee against the Commission, its officers, employees, agents, successors, and assigns challenging the approval or issuance of this permit, the interpretation and/or enforcement of permit conditions or any other matter related to this permit. The Commission retains complete authority to conduct and direct the defense of any such action against the Commission.

15. Assumption of Risk, Waiver of Liability and Indemnity by the Permittee.

- a. By acceptance of this permit, the Permittee acknowledge and agrees: (i) that the site may be subject to hazards, including but not limited to waves, storms, flooding, landslide, erosion, and earth movement, all of which will worsen with future sea level rise; (ii) to assume the risks to the permittee 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; (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; and (v) that the mean high tide line is ambulatory in nature and may migrate inland

due to sea level rise; thus, the development and associated shoreline protection may become located on public trust lands at some point in the future and, if so, may require a lease from the State Lands Commission and/or may need to be removed if it substantially interferes with public access or other public trust resources.

- b. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.

Note: These are not Commission staff's Recommended Findings

IV. FINDINGS & DECLARATIONS

A. PROJECT DESCRIPTION, LOCATION, AND OBJECTIVES

California American Water Company (“Cal-Am”) proposes to construct and operate the Monterey Peninsula Water Supply Project (“MPWSP,” or “Project”) which would consist of a desalination facility, a well field, water transmission pipelines, pump station, and other related infrastructure to provide approximately 6,250 acre-feet per year (or about

6.4 million gallons per day)² of potable water to its customers in the Monterey Peninsula area (see Exhibit 1 – Project Location). The desalination facility itself would be located outside the coastal zone at a site about two miles inland within the jurisdiction of Monterey County. As described below in Section II.C – Jurisdiction and Consolidated Permit Review, these Findings include Commission consideration of several actions, including a consolidated CDP application for portions of the Project within the City of Seaside, the County of Monterey, and the Commission’s retained jurisdiction within a portion of the County that does not have a certified Local Coastal Program (“LCP”), along with de novo review of an appeal of the City of Marina’s decision to deny a CDP for portions of the Project within its certified LCP jurisdiction.

Project description

As described by Cal-Am and in the proposed Project’s Final Environmental Impact Report/Environmental Impact Statement (“Final EIR/EIS”) prepared by the California Public Utilities Commission (“CPUC”) and Monterey Bay National Marine Sanctuary (“MBNMS”), the primary components of the proposed Project within the coastal zone include a well field that would be located at the site of the CEMEX sand mining facility on the shore of Monterey Bay within the City of Marina’s LCP jurisdiction, several water transmission pipelines that would be located within the LCP jurisdictions of the Cities of Marina and Seaside and the County of Monterey, and an existing outfall that Cal-Am would modify, which is located within the City of Marina’s LCP jurisdiction and the Commission’s retained jurisdiction (see Exhibit 2 – Project Layout). All of these main components would be located in whole or in part within environmentally sensitive habitat areas (“ESHAs”) or would result in effects on other coastal resources, as described in the Findings below.

Well field: The well field would consist of seven slant wells that would extract up to about 16 million gallons per day (“mgd”) of a mix of seawater from beneath the bay floor, intruded seawater from beneath the shoreline, and brackish water that includes a blend of seawater and freshwater from the underlying aquifer system. The proposed well field is within an approximately 30-acre easement Cal-Am purchased within the CEMEX sand mining facility, which is located in an extensive area of coastal dunes along the shoreline of Monterey Bay in the northern portion of the City of Marina (see Exhibit 3 – Proposed Project Well Field). Parts of the site have been used for sand mining since 1906, though the site continues to provide some significant areas of sensitive habitat along with areas disturbed due to mining activities.

² Water planning documents generally refer to water use as measured in acre-feet per year or in gallons per day. A million gallons per day equals about 1,100 acre-feet per year. In the Monterey area, which has one of the lowest rates of residential water use in the state, water use averages about 0.2 acre-feet per year, or under 200 gallons per day, for a single-family home. For purposes of these Findings, water supply and demand figures will be presented in acre-feet per year and well field operations will be presented as million gallons per day.

The wells would be located on several fenced well pads, each containing one or two wells. Each location would include a concrete well pad, an enclosure for electrical equipment, mechanical piping, and a rip-rap basin for disposing of pumped water during maintenance activities. Each location would be within a graded area of between about 5,200 and 6,000 square feet. The well field would also include two surge tanks. The overall developed area for these components would total ~~up to just under an~~ approximately 0.25 acre within the CEMEX site. The well field would also include about 2,000 linear feet of graded but unpaved access road providing access to each well pad from the existing CEMEX access road.

Desalination facility: Cal-Am would transport water from the well field through its proposed Source Water Pipeline to its desalination facility that would be located outside the coastal zone and adjacent to a regional wastewater treatment facility operated by Monterey One Water (formerly the Monterey Regional Water Pollution Control Agency). Cal-Am would treat the source water from the well field to create two main streams of potable water – the majority would be sent several miles south in new and existing pipelines to Cal-Am's customers in the Monterey Peninsula area, and up to several hundred acre-feet per year could be sent several miles north to the community of Castroville.³ The facility would also create an approximately 10 mgd brine discharge that would be routed to an existing ocean outfall currently used by the wastewater treatment facility.

Water delivery pipelines: The proposed Project includes four new pipelines within the coastal zone:

- The Source Water Pipeline would extend east from the well field at the CEMEX site, which is within the City of Marina's LCP jurisdiction, and enter the County's LCP jurisdiction. It would run parallel to the CEMEX access road to the intersection with Lapis Road, where it would turn north to the intersection of Del Monte Boulevard, where it would turn to the southeast and run about 800 feet to the intersection of Charles Benson Road. Most of these pipeline segments would be within the ~~right-of-way~~ right-of-way of the Transportation Agency for Monterey County ("TAMC"). The pipeline would then turn east and exit the coastal zone and continue to the desalination facility. A total of 5,365 linear feet of this 42-inch pipeline would be within the County's coastal zone.
- The Desalination Water Pipeline would be constructed along part of the same route as the Source Water Pipeline. Starting at the desalination facility, it would run west along Charles Benson Road and then enter the County's coastal zone at the same location described above and follow the same alignment as the Source Water Pipeline along Del Monte Boulevard and Lapis Road and continue further south to the City of Marina. About 7,207 linear feet of this pipeline would be within the coastal zone.
- The Transmission Main Pipeline would connect to the Desalination Water Pipeline to transport water further south to an existing pipeline in the City of Seaside that ~~Cal-Am~~ Cal-Am would rely on to transport the water to its customers in the Monterey Peninsula area.⁴ Several thousand feet of this Transmission Main Pipeline would be within the coastal zone.

³ Part of the potable water would also be sent north through a new pipeline to the City of Castroville pursuant to a Settlement Agreement that ensures any "non-seawater" – i.e., the proportion of water the slant wells remove from the aquifer that is not fully seawater – is returned to the groundwater basin. This project component is described in more detail ~~in Sections II.J and II.O~~ below.

⁴ A dispute exists over whether Cal-Am currently has approval to use this existing pipeline. ~~The pipeline's majority owner, the Marina Coast Water District, has determined that the pipeline does not have sufficient capacity for Cal-Am's proposed use, though Cal-Am disagrees with that determination and asserts that it has the authority to use the pipeline. This issue is described further in the Assessment of Alternatives in Section II.O below, which is discussed in Section~~

- The Castroville Pipeline would connect to the Desalination Water Pipeline at Lapis Road and run to the north until it leaves the coastal zone. A portion of the pipeline would be attached to the Monte Road Bridge to cross the Salinas River. This location is just outside the coastal zone, though construction would occur within the coastal zone.⁵

Outfall modifications: Cal-Am would direct its brine discharge from the desalination facility through an outfall owned by Monterey One Water, a public agency in Monterey County. The outfall is currently used to discharge treated wastewater from Monterey One's regional wastewater treatment facility in northern Monterey County to about 11,000 feet offshore in Monterey Bay. The outfall terminates at a diffuser that is about 1,000 feet long and that has over 100 ports through which the discharge reaches ocean waters. Cal-Am may be required to modify the diffuser system so that its discharge conforms to Ocean Plan requirements, however, this modification is not currently before the Commission and would instead come before the Commission as part of an application from Monterey One Water.⁶ Cal-Am would also install monitoring buoys anchored to the seafloor to provide baseline and ongoing data related to water quality and biological resources in the area of the discharge.

Cal-Am must also install, prior to starting desalination facility operations, about 20 corrosion-resistant clamps within the nearshore portion of the outfall to replace existing clamps that would not provide sufficient protection to the outfall from the desalination brine. This installation would involve work on the beach ~~and possible placement of fill in coastal waters.~~ Additionally, Cal-Am must install an approximately two-mile long liner within the existing wastewater outfall to prevent its facility's discharge from corroding the outfall line. Pursuant to an agreement between Cal-Am and Monterey One Water, the liner would be installed by Monterey One Water. The CPUC included this Project component as a required mitigation measure in its Final EIR/EIS and analyzed the foreseeable impacts of the liner work. ~~However, Cal-Am did not include this aspect of the work needed for this Project in its, however, this work is not under consideration in this CDP application. Because it is not certain how Monterey One would undertake this liner work, there is not a complete, final description of the work at this point. However, the~~ Final EIR/EIS for the Project described and analyzed the probable impacts of this liner work, and before concluding that it would result in less-than significant impacts with mitigation. Cal-Am has since provided information to the Commission showing ~~another potential~~ an alternative, less-impactful method for completing the outfall liner work. In order to ensure that these Findings describe all potential aspects of and impacts from the Project, the potential impacts of this work, ~~based on currently known information,~~ is generally described herein. The outfall liner ~~would~~ work may need further approvals from Monterey One Water and possibly other agencies, ~~including the City of Marina.~~

Project timing

IV.O. In any case, Cal-Am has indicated that, if needed, it could construct another pipeline parallel to this shared pipeline, in order to convey project water, which would be located outside of the coastal zone.

⁵ The coastal zone boundary runs along the centerline of the bridge, and the pipeline would be installed inland of the boundary.

⁶ The Regional Water Quality Control Board is reviewing Cal-Am's proposed project to determine whether it would be consistent with Ocean Plan requirements applicable to seawater desalination facilities. See Section III.V.I of these Findings.

Project construction would occur over an approximately two-year period. Cal-Am anticipates that its desalination facility would have an operating life of about 60 years (until about 2080) and that the slant wells would have economic/operational lives of 20 to 25 years (until about 2040 to 2045), ~~at which point Cal-Am anticipates drilling new.~~ Near the end of the economic/operational lives of the slant wells, Cal-Am may need to pursue approval from the Commission of modifications to the existing wells or alternate wells to continue supplying source water for its facility as specified in Special Condition 9. Coastal resource issues related to the slant wells' expected operating life are described below in Sections ~~IIIV~~.H and ~~IIIV~~.O of these Findings.

Project objectives

The Project's primary purpose is to provide Cal-Am a source of water to serve its customers' current and future demands while reducing Cal-Am's reliance on water from the Carmel River.

As stated in the Final EIR/EIS, the primary Project objectives are:

- 1) Develop water supplies for Cal-Am's Monterey District service area to replace existing Carmel River diversions in excess of Cal-Am's legal entitlement of 3,376 acre-feet per year, in accordance with SWRCB Orders 95-10 and 2016-0016;
- 2) Develop water supplies to enable Cal-Am to reduce pumping from the Seaside Groundwater Basin from approximately 4,000 to 1,474 acre-feet per year, consistent with adjudication of the groundwater basin, natural yield, and improvement of groundwater quality;
- 3) Provide water supplies to allow Cal-Am to meet its obligation to pay back the Seaside Groundwater Basin by approximately 700 acre-feet per year over 25 years as established by the Seaside Groundwater Basin Watermaster;
- 4) Develop a reliable water supply for the Cal-Am Monterey District service area, accounting for the peak month demand of existing customers;
- 5) Develop a reliable water supply that meets fire flow requirements for public safety;
- 6) Provide sufficient water supplies to serve existing vacant legal lots of record;
- 7) Accommodate tourism demand under recovered economic conditions;
- 8) Minimize energy requirements and greenhouse gas emissions per unit of water delivered; and
- 9) Minimize project costs and associated water rate increases.

The Final EIR/EIS also included the following Secondary Project objectives:

- 1) Locate key project facilities in areas that are protected against predicted future ~~sea-level~~sea level rise in a manner that maximizes efficiency for construction and operation and minimizes environmental impacts;
- 2) Provide sufficient conveyance capacity to accommodate supplemental water supplies that may be developed at some point in the future to meet build out demand in accordance with adopted General Plans; and
- 3) Improve the ability to convey water to the Monterey Peninsula cities by improving the existing interconnections at satellite water systems and by providing additional pressure to move water over the Segunda Grade.

B. PROJECT BACKGROUND

This section discusses two main components of the area's history and background relevant to the proposed Project – a recent history of water issues in the Monterey area and background on the site of Cal-Am's proposed well field at the CEMEX sand mining facility. It refers to several entities involved in the area's relatively complex water management and delivery systems, including the following:

- **California-American Water Company ("Cal-Am"):** Cal-Am, the applicant and one of the appellants in this matter, is a private, investor-owned company that supplies water for areas on and near the Monterey Peninsula. Its service area includes the Cities of Monterey, Seaside, Sand City, Carmel-by-the-Sea, and Del Rey Oaks, and nearby portions of Monterey County. Cal-Am's rates are regulated by the California Public Utilities Commission ("CPUC"), which in 2018 approved Cal-Am's request to include the costs of its proposed desalination project in its water rates.
- **Monterey Peninsula Water Management District ("MPWMD"):** MPWMD is a public agency whose main functions are to augment the regional water supply through integrated management of surface and ground water, conservation, and water reuse and reclamation. MPWMD's service area overlaps Cal-Am's to a large degree, and includes areas within the Cities of Carmel-by-the-Sea, Del Ray Oaks, Monterey, Pacific Grove, Seaside, and Sand City, along with other nearby areas. ~~For purposes of these Findings, one of MPWMD's important functions is to assist Cal-Am in developing a legal water supply.~~⁷
- **Monterey One Water:** Monterey One Water is a regional, public agency primarily involved with collection, conveyance, and treatment of waste water 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 purposes of these Findings, one of Monterey One Water's important roles is its management of the Pure Water project, which ~~provides the foundation for the Pure Water Expansion that the Commission has identified as a feasible alternative to Cal-Am's proposed Project~~ was designed to provide 3,500 afy to Cal-Am.
- **Marina Coast Water District ("MCWD"):** MCWD provides potable water to about 35,000 people in and near the City of Marina. Over the next several decades, it is projected to serve about twice that number of people, due to the expected development of the nearby former Fort Ord Army Base. MCWD obtains its water from wells within the Salinas Valley Groundwater Basin, ~~the same aquifer system that~~ but from deeper aquifers than the aquifers Cal-Am would use as the source for its proposed well field.
- **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. This is more fully described in Sections II.V.N and II.O of these Findings.

⁷ See MPWMD's website at <https://www.mpwmd.net> (accessed August 6, 2020).

- **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.⁷ 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 Monterey recycled water project, and the place of storage for Carmel River water diverted under the Aquifer Storage and Recovery program.](#)

Recent History of Water Issues in Monterey Area

The Monterey area has had long-standing difficulties with its water supply. The area has no imported water sources, and local supplies have sometimes been insufficient to provide the expected amount of water. [a problem the desalination Project is designed to address](#). Over the past several decades, a number of water supply projects have been proposed, but for various reasons have not reached fruition.

Cal-Am has provided water to the Monterey Peninsula area since 1966. Its primary source of water has been a series of wells along the Carmel River that draw water from the aquifer underlying the river. Cal-Am also shares a network of wells in the Seaside Groundwater Basin with other water users.

In 1995, the State Water Resources Control Board (“State Water Board”) issued an order (Order 95-10)⁸ that substantially reduced the amount of water Cal-Am was able to legally withdraw from the Carmel River. Cal-Am had previously been pumping an annual average of about 10,370 acre-feet per year from the river, but the State Water Board determined that Cal-Am had a legal right to withdraw no more than 3,376 ~~acre-feet~~ acre-feet annually. The State Water Board’s Order required Cal-Am to take any of several steps to address this issue – obtain the necessary appropriative rights, obtain water from other sources that would allow it to reduce its use of Carmel River water, and/or obtain water from other entities that have the rights to use Carmel River water. The Order also directed Cal-Am to reduce its Carmel River Basin water use in part by maximizing its use of water from the Seaside Groundwater Basin.

⁷ [October 4, 2019, Seaside Groundwater Basin Watermaster letter to Coastal Commission.](#)

⁸ See State Water Resources Control Board, Order No. WR 95-10, Order on Four Complaints Filed Against the California-American Water Company, Carmel River, Monterey County, July 6, 1995.

Around the same time, ~~the Monterey Peninsula Water Management District (MPWMD)~~ proposed constructing a new dam on the Carmel River; however, local voters rejected the dam's financing plan and the dam was not built. Shortly thereafter, two species in the Carmel River watershed were listed as "threatened" under the federal Endangered Species Act – the red-legged frog in 1996 and the steelhead trout in 1997, which severely limited any future consideration of dams on the river.

In 1998, state legislation directed the CPUC to develop a water supply plan for the Monterey Peninsula that did not include a dam.⁹ 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 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, transmission pipelines from Moss Landing to the Monterey Peninsula, a reservoir, pump stations, and ASR facilities. During the CPUC's review, the State Water Board's Division of Water Rights in 2009 issued a Cease-and-Desist Order to Cal-Am that required Cal-Am to significantly reduce its Carmel River withdrawals by 2016, thereby increasing the urgency of selecting and constructing a water supply project.¹⁰ Nonetheless, several concerns were raised about the desalination facility's proposed use of a power plant 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 ~~and disputes,~~ including a dispute over whether project-related agreements, including the project's Water Purchase Agreement, were void due to a MCWD 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.¹¹

In ~~2013~~2012, Cal-Am and other stakeholders proposed the initial version of the currently proposed Project, the Monterey Peninsula Water Supply Project (MPWSP or Project) as a replacement for the defunct Regional Water Project. In April 2013, Cal-Am filed an application with the CPUC for the MPWSP, which included slant wells that would be located at the CEMEX site, a desalination facility to be located about two miles inland adjacent to a regional

⁹ 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.

¹⁰ The Order established a schedule for Cal-Am to reduce its Carmel River well water withdrawals from its 2009 volume of 10,730 acre-feet per year to no more than 3,376 acre-feet per year by 2016.

¹¹ California-American Water Co. v. Marina Coast Water Dist., (2016) 2 Cal. App. 5th 748, 764-66.

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 ("Final EIR/EIS") to meet requirements of the California Environmental Quality Act and National Environmental Policy Act. In September 2018, the CPUC certified the Final EIR and issued its Certificate of Public Convenience and Necessity for the proposed Project (see Exhibit 4). Throughout this process, the CPUC engaged federal, state, and local agencies, members of the public, and other stakeholders.

After the CPUC issued the its decision, MCWD and Marina applied for rehearing of the CPUC decision. In January 2019, the CPUC denied the rehearing applications in full, concluding that MCWD and Marina had failed to demonstrate legal error. In February 2019, MCWD and the City of Marina petitioned for writs of review before the California Supreme Court, challenging the CPUC's decision and the Final EIR/EIS. On August 28, 2019, the Supreme Court denied the petitions for writs of review and affirmed the CPUC's decision.¹² The CPUC's decision and Final EIR/EIS are therefore final and valid and not subject to further challenge.

The CPUC's decision allowed Cal-Am to recover reasonable construction and operational costs of its proposed Project from ratepayers. It also required Cal-Am to construct a smaller desalination facility than it had initially proposed – a 6.4 mgd facility instead of a 9.6 mgd facility – and to purchase water from the Pure Water project, a water recycling and aquifer recovery and storage project that was being developed by two public water agencies, the Monterey Peninsula Regional Water District and Monterey One Water. This Pure Water project is now technically operating, although at reduced capacity due to technical challenges with its deep and shallow injection wells, and as described below in Section **IV.O—Assessment of Alternatives**, would serve as the base project for the Pure Water Expansion ~~that the Commission has identified as a feasible and less environmentally damaging alternative to Cal-Am's proposed Project, which is also described below.~~ The Pure Water project was delayed about 8 months in its water deliveries.

Cal-Am then submitted two CDP applications: one to the City of Marina for Project components proposed within the City's coastal zone, and another, consolidated CDP application for components of the proposed Project within the Commission's retained jurisdiction and those within the coastal zone of the County of Monterey and the City of Seaside. In March 2019, the City denied Cal-Am's request for a permit and Cal-Am and others appealed that decision to the Commission. In November 2019, the Commission found substantial issue existed with respect to the appeal, but continued both the de novo appeal and the consolidated permit review until a subsequent hearing, now scheduled for September 17, 2020.

Background and history of the CEMEX sand mining facility: As noted above, the location of Cal-Am's proposed well field has been used for sand mining for over a century, most recently by its current owner, CEMEX. The site includes sedimentation ponds, sand mining equipment and related infrastructure, accessways, and stockpile areas, some of which have remained in relatively the same location for several decades and some of which have moved within the site due to changing production levels, shifts in the surrounding dunes, changes in sand delivery to

¹² Order Denying Petitions for Writ of Review, Marina Coast Water District, et al. v. Public Utilities Commission, Case No. S253585 (Aug. 28, 2019).

the site from the Bay, and other factors. In the mid-1980s, the Monterey Peninsula Water Pollution Control Agency (now Monterey One Water) constructed the outfall Cal-Am proposes to now use along the southern portion of the CEMEX site.

In July 2017, the Commission, CEMEX, the City of Marina, and the State Lands Commission approved a Settlement Agreement that will result in an end to sand mining at the site, transfer of the site to another entity, ~~and development and implementation of a plan to conduct extensive removal and~~ restoration ~~at the site to improve dune habitat and provide activities~~, and public access opportunities. This Agreement acknowledges that existing legal interests on the site would remain in effect, which at the time included Cal-Am's option to purchase or obtain an easement over the portion of the site needed for Cal-Am's proposed well field and pipelines. Cal-Am has since exercised its option and has obtained an approximately 30-acre easement on the CEMEX site.

Note: These are not Commission staff's Recommended Findings

C. JURISDICTION AND CONSOLIDATED PERMIT REVIEW

Project components would be located in several local jurisdictions both within and outside of the coastal zone, as well as within the Commission's retained permit jurisdiction. As noted above, the desalination facility and segments of the water transmission pipelines would be located outside the coastal zone within the County of Monterey's jurisdiction. The pipelines would be located within the certified LCP jurisdictions of Monterey County and the Cities of Seaside and Marina, and within an area of deferred certification where the Commission has permit jurisdiction. The Project's proposed well field would be located largely within the City of Marina's LCP jurisdiction, while those subsurface portions of the wells that extend seaward beyond the mean high tide line, along with modifications to the existing outfall, would be within the Commission's retained permit jurisdiction. All Project components within the coastal zone and outside the City of Marina are being evaluated herein pursuant to consolidated permit review, as provided by Coastal Act Section 30601.3. The standard of review for these components is Chapter 3 of the Coastal Act.

The other Project components that are within the City of Marina's LCP jurisdiction are evaluated herein pursuant to appeals of the City's decision denying Cal-Am's CDP application to construct and operate slant wells, a water transmission pipeline, and associated infrastructure that would be located within the City's LCP jurisdiction.⁴⁴¹³ On November 14, 2019, the Commission found that substantial issue existed with respect to these appeals. The standard of review for these Project components is the City's certified LCP, which consists of its Local Coastal Land Use Plan (LCLUP) and its Local Coastal Program Implementation Plan (LCPIP). The relevant policies and measures of these documents are codified in the Chapter 17.41 of the City's Municipal Code under "Coastal Zoning" and are implemented through requirements and development standards identified in the Ordinance.¹⁴ In addition, the Commission analyzes whether Project components located between the first public road and the sea are consistent with the public access and recreation policies of the Coastal Act.

Cal-Am and some other commenters have questioned the Coastal Commission's jurisdiction to analyze, as part of its Coastal Act review, water rights, water supply and demand, the public need for the Project, and some related issues. Cal-Am asserts that "only the CPUC has the authority to make binding determinations as to the levels of supply and demand within Cal-Am's service area." It also asserts that "the issue of water rights is not for the Commission to decide," and that the Commission should defer to the State Water Board on questions related to water

⁴⁴¹³ On March 7, 2019, the City's Planning Department denied Cal-Am's CDP application. Cal-Am appealed the decision to the City Council, but then withdrew that appeal and instead appealed directly to the Commission. On May 13, 2019, the City issued its Final Local Action Notice, which started a 10-working day appeal period, during which the Commission received five valid appeals. Pursuant to Coastal Act Section 30621, the Commission must hear an appeal within 49 days of the date an appeal is filed, unless the applicant waives that 49-day period, which Cal-Am did on May 30, 2019.

¹⁴ Chapter 17.41 of the City's Municipal Code has never been certified by the Commission. In 2008, the City submitted an LCP amendment to repackage the LCP's existing ordinance chapters into a stand-alone "Coastal Zoning" chapter, and modify specific LCP provisions for coastal development, referred to as LCP Amendment No. MAR-MAJ-1-06 Part 2. On April 10, 2008, the Commission extended the deadline to act for one year, to April 11, 2009. (<https://documents.coastal.ca.gov/reports/2008/4/Th13c-4-2008.pdf>.) On March 20, 2009, the City withdrew LCP Amendment No. MAR-MAJ-1-06 Part 2. See June 1, 2009, Letter from M. Watson to C. di Iorio.

rights and water quality. As explained below, the Commission, CPUC, and State Water Board all have separate, but sometimes overlapping roles, with regard to Cal-Am's proposed Project.

The Commission has the authority and duty to analyze whether aspects of the Project within the coastal zone are consistent with the Coastal Act and/or the City of Marina's LCP. As a responsible agency under CEQA, the Commission must also consider the Final EIR/EIS certified by the CPUC, analyze the environmental effects of the portions of the Project within the coastal zone, and consider whether there are feasible mitigation measures or alternatives available within the Commission's jurisdiction that would lessen or avoid any such significant impacts.¹²¹⁵ As part of its Coastal Act review in this case, the Commission must consider whether the Project will have groundwater effects, whether there are feasible project alternatives, whether denial of the Project would adversely affect the public welfare, and whether the Project would cause an unequal distribution of environmental burdens. (See Coastal Act §§ ~~30231, 30233, 30260, 30604~~ 30231, 30260, 30604 (h).) To make these findings—and particularly the public welfare and feasibility findings—certain interested parties have argued that the Commission needs to consider whether the Project's full water supply is needed and whether an alternative water supply project is feasible and would provide sufficient water. ~~These parties have argued that the Commission~~ also must consider whether there are uncertainties regarding Cal-Am's water rights or other issues that might cause Cal-Am's Project to be unsuccessful or significantly delayed, thereby affecting whether approval of the Project, versus an alternative, would truly benefit the public welfare.

In analyzing these issues, the Commission should consider, and may rely on, information and conclusions reached by the CPUC in its ratemaking proceeding for ~~Cal-Am~~ Cal-Am, and on advice provided by the State Water Board. The CPUC has exclusive jurisdiction to set rates for regulated water utilities, and also has expertise in water supply and demand issues as well as the fairness of water customers' rates. ~~The~~ However, since the CPUC issued its determinations of water supply and demand in Cal-Am's Monterey service area in 2018, various interested parties, including the MPWMD and MCWD, have put forward revised projections of supply and demand. As a result, the Commission considers these revised estimates of supply and demand for purposes of examining potential feasible alternatives to the Cal-Am Project.

Further, the State Water Board has expertise in water rights and water quality issues, and it advised the CPUC on water rights issues during the CPUC's proceedings. The ~~Commission, however, is not legally required to accept and use the CPUC's water supply and demand numbers; rather, the Commission has independent authority to review the issues above based on current evidence in order to make the necessary findings under the Coastal Act. Unlike some energy projects within the jurisdiction of the State Energy Commission,~~

~~¹² On March 7, 2019, the City's Planning Department denied Cal-Am's GDP application. Cal-Am appealed the decision to the City Council, but then withdrew that appeal and instead appealed directly to the Commission. On May 13, 2019, the City issued its Final Local Action Notice, which started a 10-working day appeal period, during which the Commission received five valid appeals. Pursuant to Coastal Act Section 30621, the Commission must hear an appeal within 49 days of the date an appeal is filed, unless the applicant waives that 49-day period, which Cal-Am did on May 30, 2019.¹⁵ The Commission need not create a separate document to carry out its CEQA obligations; rather, the Commission uses its certified regulatory program in lieu of needing to adopt a separate environmental impact report or other CEQA document. (See Pub. Res. Code § 21080.5; 14 Cal. Code Regs. § 15251(c).) Thus, the analysis in these Findings satisfies the Commission's CEQA obligations.~~

~~over which the Commission has a statutorily prescribed, and more limited, role (see Coastal Act § 30413), the Coastal Act does not limit the Commission's role with respect to projects that also fall under the CPUC's jurisdiction. The CPUC has exclusive jurisdiction to determine whether to issue a certificate of public convenience and necessity and permit Cal-Am to recover certain rates from its customers if it builds this project. However, other agencies, including the Commission, may conduct their own analyses of water demand and supply if it is pertinent to their own decision-making pursuant to their own authority.~~¹³ ~~The~~ Coastal Act does prescribe limits on the Commission's jurisdiction ~~vis-a-vis~~ vis-à-vis the State Water Board, stating that the Commission may not act in a manner that conflicts with any determination by the State or a Regional Water Board "in matters relating to water quality or the administration of water rights." (Coastal Act § 30412(b).) ~~However~~ As such, the Commission generally defers to the State Water Board on matters of water quality and water rights. Therefore, the Commission's discussion of Cal-Am's ability to develop water rights for the Project is intended for informational purposes in developing a complete understanding of the Project. Similarly, the Commission's discussion of the Project's impact on water quality is intended to inform the Commission's findings regarding Project consistency with the Coastal Act and Marina LCP policies regarding coastal waters. Therefore, the Commission's action here complies with ~~that provision~~ Coastal Act section 30412, as it does not impose a conflicting water quality limit on Cal-Am's Project nor ~~deal with~~ contradict the State Water Board's administration of water rights. ~~Indeed, as~~ As the State Water Board acknowledged in its advice letter to the CPUC, the Board does not issue permits for projects that seek to obtain ocean water or percolating groundwater, nor does it adjudicate appropriative groundwater rights.¹⁴¹⁶ At the CPUC's request, it did issue an opinion regarding Cal-Am's potential to obtain groundwater rights, but that was provided in an advisory capacity and "is not binding on any party or entity."¹⁵ ~~In any event, the~~¹⁷ The Commission's ~~discussion of Cal-Am's potential ability to obtain groundwater rights does not conflict with~~ findings here are not intended to contradict the State Water Board's ~~advisory opinion on that issue, as both agencies acknowledge there is uncertainty regarding the extent to which Cal-Am will be able to develop such rights.~~ authority in this respect.

The Regional Water Board also has not yet issued any permit that would authorize ~~Cal-Am's~~ Cal-Am's proposed ocean discharge, so Commission ~~denial~~ approval of the Project does not conflict with any such permit.

Other Agency Approvals & Consultations

The Project would be additionally subject to the following discretionary permits and approvals:

- **Monterey One Water:** Cal-Am will need to obtain authorization from Monterey One Water

¹³ ~~For example, the Monterey Peninsula Water Management District is responsible for water supply and demand planning on the Monterey Peninsula and has written a letter to the Coastal Commission encouraging it to deny Cal-Am's Project in part because it disagrees that the region's demand is as high as stated in the CPUC's proceedings.~~

¹⁴¹⁶ See https://www.cpuc.ca.gov/Environment/info/esa/mpwsp/feir-eis/Individual_Appendices/Appendix_B2.pdf, [feir-eis/Individual_Appendices/Appendix_B2.pdf](https://www.cpuc.ca.gov/Environment/info/esa/mpwsp/feir-eis/Individual_Appendices/Appendix_B2.pdf), pp. 33, 35, 53, 116.

¹⁵ ~~Id., p. 53.~~

¹⁷ Id., p. 53.

for connection to, and use of, the agency's ocean outfall.

- **Monterey County:** Cal-Am obtained an encroachment permit from the County for construction of its pipelines within County jurisdiction. It also received a use permit from the County that allowed Cal-Am to start construction of the desalination facility; however, that permit has been stayed by the County Superior Court.
- **State Lands Commission:** Cal-Am will need to obtain a lease of state tidelands from the State Lands Commission. Cal-Am has submitted a lease application that is currently under review by State Lands Commission staff.
- **Central Coast Regional Water Quality Control Board ("Regional Water Board"):** Cal-Am will need to obtain a National Pollution Discharge Elimination System ("NPDES") Permit allowing it to discharge brine through the [MRWPCA Monterey One Water](#) outfall and to modify that outfall to allow the discharge. Cal-Am will also need to obtain approval from the Regional Water Board to ensure Cal-Am's use of groundwater from the Salinas Groundwater Basin is consistent with the Regional Water Board's adopted Basin Plan.
- **California Department of Transportation ("CalTrans"):** Cal-Am has obtained encroachment permits from CalTrans for the segments of its pipelines that would be constructed within CalTrans rights-of-way.
- **Transportation Agency of Monterey County ("TAMC"):** TAMC has approved an Easement Purchase Agreement with Cal-Am for portions of the pipelines within TAMC rights-of-way.
- **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.¹⁶¹⁸
- **Other landowners:** Cal-Am is negotiating with several private landowners along sections of its proposed pipeline routes, several of whom have stated that they would not consider providing approval until after the Coastal Commission's decision on the proposed Project.

Tribal consultation: During the Project's CEQA review, the CPUC requested information from the Native American Heritage Commission ("NAHC") regarding potential tribal cultural resources that the Project might affect. The NAHC did not identify any such resources, though [it](#) provided a list of Native American contacts that might have additional information about such resources. The Project area is within the traditional lands of the Ohlone/Costanoan-Esselen Nation. Coastal Commission staff contacted the Nation requesting consultation, though did not receive a response. The Final EIR/EIS notes, however, that consultation would be ongoing throughout the Project.

[D.](#) [\[OMITTED IN ORIGINAL\]](#)

[E.](#) **FINDINGS ON COASTAL DEVELOPMENT PERMIT DETERMINATION AND DE NOVO HEARING**

Because the Commission found, in November 2019, that the appeal of the City of Marina's denial of Cal-Am's CDP application for portions of the proposed Project within the City's LCP jurisdiction raises substantial issue, the Commission now reviews that portion of the Project de novo. Cal-Am has also applied for a consolidated CDP for portions of its proposed Project within the Commission's retained jurisdiction and within the certified LCP jurisdictions of the City of

¹⁶¹⁸ The Sanctuary also served as lead agency under the National Environmental Policy Act ("NEPA") for the project's Environmental Impact Statement.

Seaside and the County of Monterey. The findings below address all portions of the Project within these jurisdictions, using the Coastal Act as the standard of review for those Project components within the Commission's consolidated permit jurisdiction and using the City of Marina's certified LCP and Coastal Act public access and recreation policies as the standard of review for Project components within the City's LCP jurisdiction.

Note: These are not Commission staff's Recommended Findings

E. ENVIRONMENTALLY SENSITIVE HABITAT AREAS – TERRESTRIAL

Coastal Act Section 30240 states:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Coastal Act Section 30107.5 states:

Environmentally sensitive area” means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Relevant City of Marina LCP Provisions

LCLUP Policy 19:

Promote reclamation and protection of native dune habitat and vegetation.

LCLUP Policy 25:

Protect the habitat of recognized rare and endangered species found in the Coastal dune area.

LCLUP Policy 26:

Regulate development in areas adjacent to recognized rare and endangered species or their habitats so that they will not threaten continuation of the species or its habitat.

LCLUP Policy 41:

Give priority to coastal-dependent development on or near the shoreline and to ensure environmental effects are mitigated to the greatest extent possible.

LCLUP Exhibit A states:

Primary habitat. This term includes all of the environmentally sensitive habitat areas in Marina. These are as follows:

1. ~~4.~~ Habitat for all identified plant and animal species which are rare, endangered, threatened, or are necessary for the survival of an endangered species. These species will be collectively referred to as “rare and endangered.”
3. ~~3.~~ All native dune vegetation, where such vegetation is extensive enough to perform the special role of stabilizing Marina’s natural sand dune formations.
4. ~~4.~~ Areas otherwise defined as secondary habitat that have an especially

valuable role in an ecosystem for sensitive plant or animal life., as determined by a qualified biologist approved by the City. [Resolution No. 2001-118 (October 16, 2001); approved by CCC November 14, 2001]

Secondary habitat. This term refers to areas adjacent to primary habitat areas within which development must be sited and designed to prevent impacts which would significantly degrade the primary habitat. The secondary habitat area will be presumed to include the following, subject to more precise determination upon individual site investigation:

1. ~~1.~~ The potential/known localities of rare and endangered plant species as shown on LUP p. 71 ("Disturbed Vegetation" map).
2. ~~2.~~ The potential wildlife habitats as shown on LUP p. 75 ("Potential Wildlife" map).
3. ~~3.~~ Any area within 100 feet of the landward boundary of a wetland primary habitat area.

Rare and endangered species. This term will apply to those plant and animal species which are rare, endangered, threatened or are necessary for the survival of such species. The Environmental Analysis Report prepared for the Marina Local Coastal Program identified such species in the dune habitat areas. While future scientific studies may result in addition or deletion of species, the list presently includes:

1. ~~1.~~ Smith's Blue Butterfly (*Shijimiaeoides enoptes smithi*)¹⁷¹⁹
2. ~~2.~~ Globose Dune Beetle (*Coelus globosus*)
3. ~~3.~~ Black Legless Lizard (*Anniella pulchra nigra*)
4. ~~4.~~ Salinas Kangaroo Rat (*Dipodomys Heermanni Goldmani*)
5. ~~5.~~ Seaside Painted Cup (*Castilleja latifolia* ssp. *Latifolia*)
6. ~~6.~~ Monterey Spine Flower (*Chorizanthe pungens* var. *pungens*)
7. ~~7.~~ Eastwood's *Ericameria* (*Ericameria fasciculata*)[sic]¹⁸²⁰
8. ~~8.~~ Coast Wallflower (*Erysimum ammodophilum*)
9. ~~9.~~ Menzies' Wallflower (*Erysimum menziesii*)
10. ~~10.~~ Coastal Dunes Milk Vetch (*Astragalus tener* var. *titi*)
11. ~~11.~~ Dune Gilia (*Gilia tenuiflora* var. *arenaria*)
12. ~~12.~~ Wild Buckwheat (*Eriogonum latifolium*)*
13. ~~13.~~ Wild Buckwheat (*Eriogonum parvifolium*)*
14. ~~14.~~ Bush Lupine (*Lupinus* ssp.)+

* only within the range of Smith's Blue Butterfly.

+ only within the range of the Black Legless Lizard.

LCLUP Habitat Protection Policies include:

- Before any use or change in use, areas identified as potential habitat for rare and endangered plant or animal species shall be investigated by a qualified biologist to determine the physical extent of the primary habitat areas for the specific rare and endangered plants and animals on that site.

¹⁷¹⁹ This name has been updated since publication of the LCP – it is now *Euphilotes enoptes smithi*.

¹⁸²⁰ The correct spelling is *Ericameria fasciculata*.

- Primary habitat areas shall be protected and preserved against any significant disruption of habitat values and only uses dependent on those resources shall be allowed within those areas. All development must be sited and designed so as not to interfere with the natural functions of such habitat areas. Management and enhancement opportunities should be incorporated into use or development proposals; potential impacts shall be fully mitigated, including the assurance of long-term mitigation and maintenance of habitat through the use of appropriate acreage replacement/restoration ratios for any unavoidable direct impacts to habitat areas.
- Potential secondary or support habitat areas to the primary habitats identified on the site should also be defined. Secondary habitat investigation should include identification of the role and importance of the secondary area to the primary habitat area and should stress the impact of use or development in the secondary area on the primary habitat. All development in this area must be designed to prevent significant adverse impacts on the primary habitat areas. In concert with State law, City ordinances shall require environmental review and appropriate mitigation of identified impacts for all development in the ~~Coastal Zone~~coastal zone, including the assurance of long term mitigation and maintenance of habitat through the use of appropriate acreage replacement/restoration ratios for any unavoidable direct impacts to habitat areas.
- Available evidence indicates that dune vegetation is more resilient than previously thought, and areas damaged by illegal use or negligence shall be considered restorable and eligible for restoration.
- Where habitats of rare and endangered species are located on any parcel, owners and/or operators shall, at such time that development is proposed, develop and execute a Management Plan which will protect identified rare and endangered plant and animal communities. Each plan shall be drawn up by a qualified biologist in co-operation with the property owner/developer.

LCLIP Regulations for Coastal Conservation and Development District Policy (b)(2):

Regulations for coastal conservation and development uses shall be specified in the Coastal Development Permit. The permit-issuing body may approve Permit applications if the following factors, where relevant, are found to apply: ...

- b. ~~b.~~ Development is limited to already-disturbed areas.
- c. ~~c.~~ Rare and endangered plant and animal habitats are adequately protected
- d. ~~d.~~ Grading and roadway construction and are the minimum necessary for the development. ...
- g. All significant adverse environmental effects are either avoided or adequately mitigated.

Summary

Summary

Cal-Am's proposed Project would disturb up to ~~several dozen~~ 17.5²¹ acres of ESHA or would

²¹ Impact acreages have been updated since the Final EIR/EIS based on subsequent design drawings prepared for the smaller desalination project that was selected as well as the completion of more detailed design for the Project's components. In additional, subsequent biological resources assessments have been conducted as provided in the Habitat Mitigation and

otherwise adversely affect, or have the potential to adversely affect, a number of sensitive plant and animal species (see Exhibit 5 – Special Status Species and Natural Communities That Could Be Significantly Impacted During Construction of the Proposed Facilities). The project's primary area of long-term ESHA disturbance would be at the site of Cal-Am's proposed well field on the CEMEX site within the City of Marina's LCP jurisdiction, where the initial construction activities would result in adverse effects to up to about ~~nine~~^{8.4} acres of coastal dune habitat (2.2 acres of permanent impacts and 6.2 acres of temporary impacts), all of which is considered ESHA. ~~There would also be included within the 2.2 acres of permanent impacts are~~ post-construction and operational impacts resulting from building concrete pads at the six well head locations ~~that would cover a total of about an acre of that habitat,~~ along with the ongoing activities needed to maintain those well sites every few years, ~~which would disturb about six acres of ESHA.~~ Cal-Am expects the wells to have economic/operating lives of about 20 to 25 years, as well operations generally result in lower yields over time. ~~They would also eventually be affected by coastal erosion and dune recession and would need to be relocated at that time, likely further from the shoreline, which~~ At present, it is too speculative to assess where or how Cal-Am would replace or relocate its wells after their 25-year operating life. For example, technological advancements over the next 25 years could enable the location of alternative wells in locations that are not feasible today, such as further from the coast. At the time Cal-Am needs to decommission the wells authorized by this permit, Cal-Am would need to apply to the Commission for authorization to replace or relocate the wells, and the Commission would need to consider whether the proposal would result in additional ESHA impacts, ~~as the ESHA at the site currently extends several thousand feet further inland. Changing the locations in response to lower yield could allow Cal-Am to move the wells close to their current positions, but parallel to the shoreline instead of further inland, but that, too, would result in additional ESHA impacts and would subject them to higher risk of coastal erosion and dune recession.~~ based on the proposed well locations (see Special Condition 9).

In other parts of the Project footprint within the Commission's consolidated permit jurisdiction in the County of Monterey, City of Seaside, and the area of deferred certification, Cal-Am's installation of its various pipelines could result in temporary construction-related impacts to up to about ~~two dozen~~^{9.1} acres of ESHA and other areas that include known or potential occurrences of sensitive plant and animal species, their habitats, and/or communities.⁴⁹²²

The Findings below first assess impacts to terrestrial ESHA within the City of Marina, where the standard of review, for purposes of the appeal of the City's denial of Cal-Am's CDP application, is the City's LCP. The Findings next assess other affected areas within the coastal zone of Monterey County, the City of Seaside, and the Commission's retained jurisdiction, where the standard of review, under the Commission's consolidated permit review, is Chapter 3 of the Coastal Act and specifically Section 30240, which establishes allowable and prohibited uses in ESHA and areas adjacent to ESHA. The Findings then separately evaluate expected and

Monitoring Plan Monterey Peninsula Water Supply Project Part One – Coastal Zone, prepared by AECOM (June 2020) ("HMMP").

⁴⁹²² The project's Final EIR/EIS included mitigation measures meant to avoid ~~some of or reduce~~ these impacts, ~~but they allow for the impacts to occur if project activities cannot avoid affecting these sensitive areas and species that may be identified during.~~ Some of the measures include pre-construction surveys. ~~Until those detailed studies occur, it is not known how extensive the, which will inform the extent of~~ actual impacts to ESHA ~~would be.~~

potential impacts to vernal ponds within the City of Marina, which the City's LCP includes in its definition of ESHA.

The Commission's Findings below show that the Project components both within the City of Marina and within the Commission's consolidated permit review jurisdiction are ~~not consistent~~inconsistent with Coastal Act and LCP provisions that require development within ESHA to be dependent on the protected habitat resources. ~~Proposed project components within the City are additionally not consistent with LCP provisions requiring that habitat of rare and endangered species be protected, that development be designed to avoid impacts to ESHA, and that the adverse effects of allowable development~~Through Special Conditions 5 and 6, the Project's potential impacts to ESHA would be mitigated to the ~~greatest extent possible~~maximum extent feasible, but the Project would nonetheless remain inconsistent with the habitat protection policies in the LCP and Coastal Act.

However, because the proposed Project is a coastal-dependent industrial facility, the Commission finds that the Project can be considered for approval, despite its non-conformity to these ESHA policies, pursuant to Coastal Act Section 30260, which allows for approval of such facilities that are otherwise inconsistent with relevant Coastal Act policies. The LCP similarly allows for approval of otherwise non-consistent coastal-dependent industrial development if it is a use allowed pursuant to Coastal Act 30260.²⁰²³ The Findings regarding ESHA are provided immediately below and Section II.P of these Findings provides the Commission's determination regarding Coastal Act 30260.

ESHA within the City of Marina

Cal-Am's proposed well field and a portion of its Source Water Pipeline would be located on a 30-acre easement and an access easement within the CEMEX site in the City of Marina (see Exhibit 3 – Proposed Project Well Field). The Commission's 2014 Findings regarding Cal-Am's test well project at this same location determined that this area consisted of Environmentally Sensitive Habitat Area ("ESHA"). More recent surveys conducted pursuant to the CPUC's CEQA review confirmed the continuing presence of several special-status species within the proposed well field, and a July 2017 site visit by the Commission's ecologist concluded with a recommendation that the full site be considered ESHA.

ESHA determination under the LCP: The City's LCP establishes two types of habitat – "primary" and "secondary" – and describes the different levels of required habitat protection and allowable uses in each. The LCP states that primary habitat "includes all of the environmentally sensitive habitat areas in Marina" and defines it as being the "potential locale for rare and endangered plant [sic] and animal species and identified, at the time of development, by a qualified biologist as supporting rare and endangered plant and animal species." The LCP further states that "primary habitat areas shall be protected and preserved against any significant disruption of habitat values and only uses dependent on those resources shall be allowed within those areas." The LCP's "primary habitat" definition and its related provisions are similar to the Coastal Act's definition of ESHA, which is "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."²⁴²⁴ The LCP's use limitations in those primary habitat areas are also similar to

²⁰²³ In an unpublished decision stemming from a challenge to the Commission's approval of Cal-Am's test wells, the Sixth District Court of Appeal upheld the Commission's finding that Section 30260 is incorporated in the City's LCP.

²⁴²⁴ See Coastal Act Section 30107.5.

the Coastal Act's, in that both allow only those uses that are dependent on the habitat resources. Because the LCP's policies derive from the authority of the Coastal Act, we read its policies regarding primary habitat to be consistent with those of the Coastal Act.²²²⁵

The LCP's other category – secondary habitat – is defined as those areas “adjacent to primary habitat on which the primary habitat area is dependent or from which the primary area can be influenced by drainage, erosion, human, equestrian or vehicle use or other factors.” The LCP requires that direct and potential impacts to both primary and secondary habitat be fully mitigated. While the LCP includes maps of areas presumed to be primary or secondary habitat, it notes that the actual determination of habitat type and category for a particular location must be based on a site-specific biological study.²³²⁶

For several reasons, the area of coastal dune habitat where the proposed well field would be located is conservatively considered an area of primary habitat, and therefore ESHA. First, and as detailed below, although it would be in a previously disturbed area of the CEMEX site that consists largely of compacted and sparsely vegetated sand dunes, it nonetheless provides habitat for at least three threatened or endangered species, as described below. Additionally, a number of other special-status species are known to exist or have the potential to exist within the footprint or in adjacent areas of the dunes. The presence of these special-status species confirms that the proposed Project footprint includes primary habitat and is therefore ESHA.

This type of dune habitat is easily disturbed by human activity. Nonetheless, and as described herein, even though this area is disturbed, degraded dune habitat generally has the ability to restore itself or be restored. The proposed well field area consists of the same substrate as the rest of the dune habitat and is contiguous to less disturbed or undisturbed areas. Barring ongoing disturbance or development, the well field site would could soon be colonized by dune biota, either from the adjacent areas or from buried seed stock. The presence of the above-noted threatened or endangered species in the proposed Project area provides further evidence that this degraded and historically manipulated area still provides valuable coastal dune habitat and could likely support other rare or threatened species if not further disturbed.

Further, the City's LCP acknowledges that disturbed dune habitat is resilient and relatively easy to restore.²⁴²⁷ The LCP also requires that the reclamation and protection of native dune habitat be promoted, and that habitat for rare and endangered species, such as this dune habitat, be protected (see LUP Policies 19 and 25). The Commission, too, has previously found that even degraded dunes can provide habitat for rare and threatened dune species and that degraded

²²²⁵ The LCP derives its statutory authority from the Coastal Act, and all of its provisions, including the policies above, must be read consistent with and understood to conform to the Coastal Act as a matter of law (*McAllister v. California Coastal Commission* (2009) 169 Cal.App.4th 912, 931).

²³²⁶ The LCLUP policies regarding Rare and Endangered Species – Habitat Protection includes the following statement: “In Marina's Coastal Zone, the foredune, dune and grassy inland areas all contain potential habitat for rare and endangered plants and animals. The precise range for each plant and animal is not known because intensive site-specific study throughout the area was not financially possible. However, the potential for various rare and endangered habitats has been identified and mapped (see Environmental Capability section) to provide a guide to the locations where more intensive study is required. Because site-specific study is needed in many areas before any development can take place the following policies apply to all of the areas indicated on the map or meeting the definitions of Exhibit “A” as being potential habitats for rare and endangered plants and animals.”

²⁴²⁷ See the fourth paragraph of the LCLUP Habitat Protection Policies.

dune areas can constitute ESHA.²⁵²⁸ Thus, interpreting the LCP's definition of primary habitat consistent with the Coastal Act, the Commission finds that the coastal dune area in which the well head portions of the proposed Project would be located ~~constitutes~~could constitute ESHA and generally meets the description of primary habitat under the LCP.

As noted above, the LCP limits uses within primary habitat to those dependent on the resources,²⁶²⁹ and any development within those areas is limited to that which is sited and designed to not interfere with the natural functions of the habitat. The LCP also requires that all adverse effects in primary habitat be fully mitigated. Although the project is proposed to be located in portions of the CEMEX site that have been subject to disturbance, the entire area in which the well field would be located ~~is~~could be considered primary habitat and ESHA under the LCP. ~~The~~Although the proposed Project is not a resource-dependent use, ~~so it cannot be approved consistent as described below, Cal-Am would implement the CPUA's Mitigation Monitoring and Reporting Program and the Habitat Mitigation and Monitoring Plan required by Mitigation Measures 4.6-1n. The Habitat Mitigation and Monitoring Plan for the Coastal Zone prepared by AECOM (June 2020) ("HMMP") would ensure that the proposed Project would not result in substantial adverse effects on sensitive natural communities in the Coastal Zone, including ESHA, during Project construction and operation. Nonetheless, the proposed Project remains inconsistent~~ with the LCP's habitat protection policies. Importantly, the Final EIR/EIS identified the project's inconsistency with these LCP provisions as a significant and unavoidable impact.²⁷³⁰ As described in Section IV.P of these Findings, the proposed Project can be considered for approval, despite its non-conformity to these ESHA policies, pursuant to Coastal Act Section 30260.

Site background and habitat characteristics: 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," this qualifying it as ESHA.²⁸³¹ Dunes form only under certain conditions where adequate sand supply and appropriate wind energy and direction allow. They are a dynamic habitat subject to extremes of physical disturbance, drying, and salt spray. The winds and shifting sands in dune habitat can cause the habitat characteristics and the species at any given location to change on a relatively short or shifting timescale, so a particular area of dune habitat may have relatively higher or lower resource values over time. The changing and often harsh conditions found in coastal dune habitat support plant and animal species that have evolved strategies adapted to these conditions – for example, many dune plants have seeds that can remain dormant for extended periods of time until conditions allow for them to germinate. Many of the plant and animal species adapted to these geographically constrained and relatively harsh conditions have become uncommon and are considered rare, endangered, or have a similar special status. At the same time, their ability to withstand these conditions or to remain dormant for long periods, allows dune habitat, even severely disturbed dune habitat, to either be restored or to restore itself relatively easily. The

²⁵²⁸ See, for example, Commission actions in the Asilomar Dunes system (including Youssef (CDP ~~3-11-0683-11-68~~) and Goins (CDP 3-11-020)), City of Grover Beach LCP Amendment 1-12, Part 1 (Grover Beach Lodge), Koligian (Commission denial of CDP application A-3-PSB-10-062), and California Department of Parks and Recreation (CDP 3-11-003).

²⁶²⁹ LCLUP Habitat Protection Policy, paragraph 2.

²⁷³⁰ See Final EIR/EIS, Section 4.6 – Terrestrial Biological Resources.

²⁸³¹ The CNDDDB ranks this habitat type as G1 S1.2, which makes it "critically imperiled" both globally and within the state.

habitat values in dune areas are therefore best understood in terms of the overall complex of dunes of which they are a part, and the Commission has typically found coastal dune habitat to be ESHA even when it is disturbed, due to its rarity, its important ecosystem functions, and its support of sensitive species.²⁹³²

Despite more than 100 years of active sand mining, the coastal dune habitat at the CEMEX site provides habitat for over two dozen sensitive species, including several listed as endangered or threatened. The habitat within and adjacent to Cal-Am's proposed well field and pipeline route primarily includes the Central Dune Scrub vegetation community, which also qualifies as ESHA in part due to its CNDDDB ranking,³⁰³³ and which includes a number of plant and animal species of special concern that have evolved and adapted to the desiccating, salt-laden winds and nutrient poor soils of this area. Between 2012 and 2016, consultants for Cal-Am and the CPUC conducted several biological surveys of the site.³⁴³⁴ These biological investigations, along with a 2017 site visit by the Commission's ecologist, identified several special-status plant and animal species present within or adjacent to the proposed Project area.³²³⁵ Species present on the site that are listed as threatened or endangered include:

- **Monterey spineflower** (*Chorizanthe pungens* var. *pungens*), an annual herb listed as federally-threatened under the Endangered Species Act (ESA). It also has a California Rare Plant Rank of 1B.2. It has been observed throughout the CEMEX site, including the proposed well field area.
- **Smith's blue butterfly** (*Euphilotes enoptes smithi*), a ~~federally-endangered~~federally-endangered species, also ranked by CDFW as S1, is obligate to two host plant species throughout its life cycle – coast buckwheat (*Eriogonum latifolium*) and seacliff buckwheat (*E. parvifolium*) – that grow in these coastal dunes. While the butterfly's flight season is only from mid-June to early September each year, larvae consume the plants' flowers and seeds and pupate directly on or beneath the plants, where they overwinter until the following flight season. The surveys identified both the butterfly and coast buckwheat within the CEMEX site, including along the access road where Cal-Am's Source Water Pipeline would be built.
- **Western snowy plover** (*Charadrius nivosus nivosus*), is listed as threatened under the federal ESA and is considered a Species of Special Concern and ranked S2 by the CDFW. The shoreline along the CEMEX site is within designated critical habitat for the species 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.

²⁹³² This has been the Commission's approach to dune protection at other locations, for example, in the Asilomar Dunes area in Pacific Grove and the in the Del Monte Forest.

³⁰³³ The CNDDDB ranks this habitat type as G2 S2.2, which is "imperiled" at both the global and state levels.

³⁴³⁴ See survey dates and findings in Section 4.6 – Terrestrial Biological Resources of the project's Draft EIR/EIS.

³²³⁵ Along with direct observation during site visits, the presence of sensitive species was supported by historical documentation describing the presence of various sensitive species and communities at the site.

The site also serves as habitat for a number of other special-status species, including several plants on California's Rare Plant Inventory. The sand-loving wallflower (*Erysimum ammophilum*) is eligible for state listing and is considered rare, with a moderate to high degree and immediacy of extirpation (California Rare Plant Rating [CRPR] of 1B.2). It has been observed within the proposed well field area. The site also includes ocean bluff milkvetch (*Astragalus nuttallii* var. *nuttallii*; CRPR 4.2) and branching beach aster (*Corethrogyne leucophylla*; CRPR 3.2), which are included on the California Rare Plant Inventory as species of concern. Other special-status species are known to occupy nearby areas or have the potential to occur at the project site, though they were not identified within the project footprint during these surveys. Plant species include the federally-endangered Robust spineflower (*Chorizanthe robusta* var. *robusta*; CRPR 1B.1), the state- and federally-endangered Menzies' wallflower (*Erysimum menziesii*; CRPR 1B.1), the federally-endangered and state-threatened Sand gilia (*Gilia tenuiflora* ssp. *arenaria*; CRPR 1B.2), and the state-endangered Seaside bird's-beak (*Cordylanthus rigidus* var. *littoralis*; CRPR 1B.1). Two reptiles – the California legless lizard (*Anniella pulchra*; S2) and the coast horned lizard (*Phrynosoma coronatum*; S3), which are considered Species of Special Concern – could also be present. Most recently, Cal-Am reported occurrences of Peninsula coast range shoulderband snail (*Helminthoglypta nickliniana awania* – S1), globose dune beetle (*Coelus globosus* – G1G2/S1S2), and American badger [burrows] (*Taxidea taxus* – S3; CDFW SSC).³³³⁶

Native plants found within the area include California sagebrush (*Artemisia californica*), coast buckwheat (*Eriogonum latifolium*), deerweed (*Acmispon glaber*), California lilac (*Ceanothus* spp.), mock heather (*Ericameria ericoides*), silver dune lupine (*Lupinus chamissonis*), and sandmat manzanita (*Arctostaphylos pumila*; CRPR 1B.2). The site also includes native foredune species, such as beach evening primrose (*Camissonia cheiranthifolia*), yellow sand verbenia (*Abronia latifolia*) and beach bur (*Ambrosia chamissonis*). The access road to the CEMEX site has adjacent stands of Coyote Brush Scrub (*Baccharis pilularis* Shrubland Alliance), which is not necessarily considered a rare plant community though particular vegetation associations within it can meet that designation. 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.

Location and impacts of proposed Project components within ESHA: Cal-Am's well field would be located on an area of this coastal dune habitat immediately landward of the foredunes that separate the well sites from the shoreline. This habitat had been disturbed during earlier sand mining activities at CEMEX when this area had been used for storage. The mining activities are now confined to a much smaller area and are scheduled to end this year, pursuant to provisions of a 2017 Settlement Agreement between CEMEX, the Coastal Commission, State Lands Commission, and the City of Marina (Order CCC-17-CD-02, or "Settlement Agreement").

This Settlement Agreement requires CEMEX to stop sand mining by December 31, 2020, conduct reclamation activities [in specified areas of the site](#), and transfer the property to a non-profit or government entity with a deed restriction that ensures protection of the site for public access, open space, and habitat. The future uses anticipated at the site are restoration, low-impact passive recreation, public access, and public education. The Settlement Agreement also recognized existing legal rights at the site, which included a recorded easement and option for Cal-Am to use and eventually purchase or acquire an easement over the approximately 30-acre area on which it planned to build the well field, along with a 30-foot wide easement along the

³³³⁶ See Exhibit 8 – Cal-Am's proposed Habitat Mitigation and Monitoring Plan, June 2020.

CEMEX access road for the Source Water Pipeline. In 2018, Cal-Am exercised this option to obtain a permanent 30-acre easement and the access easement.

Within this 30-acre easement, Cal-Am would disturb about ~~nine~~^{8.4} acres during construction of six separate well pads, an access road, and part of the Source Water Pipeline, which would continue inland along the easement. Cal-Am expects that ~~several~~^{6.2} of these acres – those that would be used for staging and materials storage – would be ~~restored within five years after areas where restoration work would begin concurrent with Project~~ construction ~~is complete~~. Cal-Am has suggested these be considered temporary impacts and be subject to a reduced mitigation requirement. ~~However, the~~^{The} Commission generally considers ~~such~~ impacts to be temporary ~~only~~ where 1) the vegetation is recovered to a comparable age, size, structure, and cover relative to pre-construction conditions within 12 months of disturbance, and 2) the proposed activities do not include significant ground disturbance such as grading, trenching, or others that would kill vegetation, disrupt native seedbanks, alter topography or soil horizons, etc. Cal-Am proposes that temporary impacts be defined as construction impacts that can be fully restored to pre-disturbance conditions for most species following completion of construction, such as impacts from construction staging, laydown, trenching areas, and other work space that will not be occupied by permanent facilities during Project operation. Due to the type of proposed activities and the ~~expected five-year recovery period,~~^{fact that restoration will begin concurrent with Project construction, sequencing work to ensure that impacts are temporally limited, in this particular instance the Commission finds that} these impacts would ~~not~~ be considered temporary. ~~Additionally, the~~^{The well head sites and 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. Further, there would likely be more future losses due to the need to relocate the wells after their expected 20- to 25-year operating lives or due to sea level rise and coastal erosion occur within areas identified as permanent impacts which would occur over 2.2 acres.~~ These impacts are further detailed below:

- **Well and access road construction:** This work would involve use of heavy equipment, including drill rigs and motor vehicles, that ~~would~~^{could} cause soil compaction, noise effects, potential for fuel spills, crushing of native vegetation, and disturbance of seed banks within the work site. Each well site would be developed within a graded area of a few thousand square feet and would include concrete pads, electrical equipment, and other similar project components. Cal-Am would grade, but not pave, a road to allow access to the well sites. As noted above, ~~the Commission generally considers impacts to be temporary if the affected area is restored within about 12 months; however,~~ in this instance, ~~these~~ adverse construction-related effects that are not in areas of permanent impacts would be ~~more than~~^{considered} temporary, ~~as they are expected to take about 15 months, with the follow-up restoration expected to take up to five years.~~³⁴ because restoration will begin concurrent with Project construction and work will be sequenced to ensure that impacts are temporally limited.³⁷

³⁴ ~~Mitigation measures in the Final EIR/EIS would require temporary impacts to be restored within a five-year period following the impact.~~

³⁷ Mitigation measures in the Final EIR/EIS require temporary impacts to be restored within a five-year period following the impact.

Additionally, ~~because~~ although the drilling work for each well needs to be done continuously, ~~Cal-Am would likely need to meet its expected project deadlines by doing some of this well construction has been designed to occur outside of western snowy plover critical habitat. The Final EIR/EIS concluded that Project construction would not result in direct impacts to such habitat.~~³⁸ Further, ~~Cal-Am cannot perform construction or maintenance~~ work during ~~all or parts of~~ the breeding and nesting season of the Western snowy plover, ~~thereby disturbing individuals that may be close to the construction area or preventing individuals from using nearby areas for nesting. While these direct and indirect impacts to plovers could be avoided by conducting all work during non-breeding/nesting season (i.e., from October 1 to February 28), the Final EIR/EIS anticipates that Cal-Am would be conducting work during breeding/nesting seasons and includes a number of mitigation measures meant to reduce potential impacts that could occur to nearby plovers or active nest sites.~~³⁵ without first obtaining approval from the U.S. Fish and Wildlife Service and subject to conditions.³⁹ If Cal-Am applies for and obtains that approval, the Commission anticipates that the U.S. Fish and Wildlife Service would condition the proposed Project construct and maintenance work to avoid or minimize impacts to western snowy plover.

—Smith's blue butterflies similarly ~~stand to~~ could be subjected to disturbance and impacts across all stages of their life history (larvae, pupae and adult) given their obligation to their sessile host plants. However, the Final EIR/EIS identifies Mitigation Measure 4.6-1f to avoid and minimize potential impacts to Smith's blue butterflies during proposed Project construction and maintenance.

- **Spoils from well drilling:** Cal-Am expects to remove about 1,000 cubic yards of spoils during well drilling and its CDP application had initially proposed spreading the spoils evenly in an approximately two-inch thick layer throughout eight nearby acres of ESHA. However, Commission staff identified this spoils spreading as an avoidable impact and recommended that Cal-Am consider transporting the spoils offsite to an appropriate disposal location. Cal-Am's June 30, 2020 letter to Commission staff modified this spoils spreading approach and confirmed that ~~Cal-Am~~ Cal-Am would dispose of these spoils at the nearby Monterey Peninsula Landfill. This would represent a de minimus reduction in the Landfill's capacity, as Cal-Am has calculated the 1,000 cubic yards as being less than two one-thousandth of one percent of the Landfill's remaining capacity. This modification would require additional truck trips, though Cal-Am estimates no more than one trip every two to three days during the expected seven-month well construction period, for a total of between 70 and 105 total trips.

³⁸ See Final EIR/EIS, p. 4.6-197.

³⁵ ~~The Final EIR/EIS provides that well construction should be conducted during non-breeding season unless otherwise allowed by the U.S. Fish and Wildlife Service. It presumes, though, that construction will occur during that season and includes a number of mitigation measures such as conducting nesting surveys, providing visual barriers between construction and any nests, etc.~~

³⁹ The Final EIR/EIS provides that well construction should be conducted during non-breeding season unless otherwise allowed by the U.S. Fish and Wildlife Service. It presumes, though, that construction will occur during that season and includes a number of mitigation measures such as conducting nesting surveys, providing visual barriers between construction and any nests, etc.

- **Maintaining or relocating well sites:** Cal-Am anticipates having to conduct maintenance at the well sites about every five years and that the area of disturbance – for access, staging, presence of construction equipment, etc. – would ~~total about six acres for each event. This is the same area that would be significantly disturbed and characterized as a permanent impact during the initial construction phase. And even if the latter were not the case, although each maintenance event could be considered relatively short-term, the overall effect would be ongoing, re-disturbance of the area that would prevent adequate restoration and natural community successional processes from occurring between events, which would represent a greater than temporary adverse effect to these areas of habitat be~~ located within a 1.2 acre area—which is included within the 2.2 acres identified as an area of permanent impacts.

An additional ~~adverse~~ impact ~~would~~could result from the need for Cal-Am to protect or relocate its well sites due to the effects of sea level rise and coastal erosion. As the nearby shoreline erodes inland, the beach and foredunes at the CEMEX site ~~would~~could also move inland and ~~would be expected to~~could maintain approximately the same profile as they now have. In response to a study done early during the CPUC's CEQA review that showed coastal erosion likely affecting the proposed well sites during their operating life, Cal-Am located them several hundred feet further inland than initially proposed. However, because that study was based on earlier versions of state guidance and science on sea level rise, Commission staff requested that Cal-Am provide an updated study using currently applicable guidance and projections. This more recent study, which Cal-Am provided in October 2019, showed that the well sites would likely be protected from the direct effects of coastal erosion over their proposed 25-year operating economic life, ~~though it also showed that those well sites could be affected by the. The risk from~~ inland recession of the foredunes occurring in response to erosion and sea level rise is expected to be relatively minor (this is further detailed in these Findings' Section IV.H—Coastal Hazards). ~~Essentially, as~~ As the shoreline erodes inland, the beach profile, including the foredunes, ~~would~~could also move inland, resulting in the well sites being potentially buried beneath the dune sands. ~~When or before this occurs, Cal-Am would need to protect those sites by erecting barriers around the well pad, conduct grading to keep the sands away from the well pads, or relocate the wells further inland to areas that also constitute ESHA. Those areas inland of the currently proposed well sites are also within the area slated for restoration under the above-referenced CEMEX Settlement and are outside of Cal-Am's 30-acre easement, so relocation would require Cal-Am to obtain additional legal interest to any sites further inland—which is something it is not clear that Cal-Am will be able to do—and would likely interfere with restoration efforts expected in those areas as part of the CEMEX Settlement. As noted above, Cal-Am could possibly move the wells parallel to their currently proposed locations, which could allow them to maintain their expected yield, but would also result in additional ESHA impacts, as well as subject them to higher risks from coastal erosion and dune recession. Either of these approaches—protection or relocation—would therefore cause additional and longer-term, though unquantified, disturbance of ESHA. However, because expected dune recession due to sea level rise would not impact the well sites during their 25-year operating/economic life, Cal-Am would not need to relocate the wells further inland during that period. As discussed above, at present it is too speculative to assess where or how Cal-Am would replace or relocate its wells after their 25-year operating/economic life. Potential future ESHA impacts would need to be assessed when Cal-Am seeks approval from the Commission for well replacement or relocation based on the selected alternative well locations. Such locations may depend on~~

technological advancements for subsurface intakes that could occur over the next 25 years and enable alternative wells in alternate locations that are not feasible today.

In May 2020, the Commission adopted new principles that direct regulatory agencies to consider, for planning purposes, a scenario of 3.5 feet of sea level rise occurring by 2050. ~~This is about 25% higher than the highest of the Commission's other sea level rise scenarios and would likely result in the wells being buried or subject to erosion several years sooner than previously anticipated.~~ Using those projections and recommendations, the slant wells will be unaffected by 3.5 feet of sea-level rise in 2050 and therefore the Project is consistent with the new state principle (see also the coastal hazards analyses provided in Section IV.H of these Findings).

Other terrestrial ESHA within the City of Marina: As noted above, Cal-Am would construct a Source Water Pipeline from the well field to the desalination facility. This pipeline would be installed mostly within undeveloped lands along the CEMEX access road and Lapis Road. The Final EIR/EIS notes that this construction could result in temporary impacts to up to about 11.8 acres of ESHA. Cal-Am would also construct a Desalination Water Pipeline from the desalination facility to its Transmission Main Pipeline to the south. The Final EIR/EIS states that the Desalination Water Pipeline could result in construction impacts in the City of up to 16.9 acres of ESHA in the coastal zone, though some of this area of impact would likely overlap with some of the areas affected by the Source Water Pipeline construction. Cal-Am's further evaluation of potential ESHA impacts within the City based on subsequent design drawings and additional biological resource assessments that were reviewed for the HMMP determined that the impact areas had been reduced in size and determined that pipeline construction within the Marina coastal zone could impact up to 4.5 acres of ESHA (an additional 4.6 acres of ESHA could be impacted associated with pipeline construction outside of the City of Marina for a total temporary impact from pipeline construction of 9.1 acres). Details of these ESHA impacts are further described below as part of a fuller description of the various pipeline routes and their effects.

ESHA within the Commission's consolidated permit jurisdiction

Project components within the coastal zone but outside of the City of Marina (and therefore within the Commission's consolidated permit review jurisdiction) consist primarily of sections of Cal-Am's several water distribution pipelines, most of which would be built in undeveloped areas along existing transportation routes in the City of Seaside and the County of Monterey. ~~The~~ In the absence of a more detailed assessment of ESHA, the Final EIR/EIS ~~notes assumed~~ that all of ~~these~~ the undeveloped areas within the coastal zone ~~should be assumed to be considered~~ were potential ESHA, due to the known or potential presence of rare or sensitive species or due to their habitat types.³⁶⁴⁰ Subsequently, more detailed biological assessments were prepared, which were utilized for the HMMP and show the specific areas of ESHA in these undeveloped areas. The Findings below describe these areas more specifically to better characterize locations of ESHA within these areas likely to be disturbed during pipeline construction.

The Final EIR/EIS evaluated biological resources within the pipeline route corridors and mapped areas of sensitive species and communities or special habitats within those corridors. The mapped corridors include a "project area" in which construction-related activities would be

³⁶⁴⁰ Final EIR/EIS p. 4.6-36. Additionally, the County of Monterey's LCP, which the Commission may use for guidance, also identifies some of the habitat types that ~~would~~ could be affected by pipeline construction as sensitive habitats – for example, maritime chaparral, coastal dunes, and others.

expected to occur, and a “study area,” which is a 50-foot buffer around the project area. Depending on the location, the full mapped corridor could be up to about 250 feet wide. Many of the habitats within these areas ~~readily~~ qualify as ESHA – for example, the Commission has generally found that areas of central dune scrub, silver dune lupine-mock heather scrub, dune mat, sandmat manzanita chaparral, and oak woodland are ESHA. As noted above, subsequent to the completion of the Final EIR/EIS additional biological assessments, surveys, and reports were prepared which were utilized for the HMMP. These pipeline segments and the expected effects on habitat and terrestrial biological resources within the pipeline ~~study~~ areas based on the HMMP acreages are described below. ~~The acreage figures provided below are based on potential impacts to areas of ESHA within these corridors, and while the actual location of the pipelines would not necessarily affect all the areas of ESHA within the full Study Area corridor width, there are some segments where the ESHA characteristics extend across the entire corridor, making direct impacts unavoidable.~~ Additionally, most of the pipelines would be installed using conventional open trench methods, which due to equipment access, sidelaying or stockpiling of soil, and other factors, ~~would~~ could result in a larger area being affected than just the width of the pipeline trenches. ~~Some pipeline components, such as access or egress pits, would be wider than the trenches – up to about 35 feet in width. The Final EIR/EIS identifies some, but not all, of the effects expected from these associated activities, which, in some areas of the corridors, would result in greater direct and indirect adverse effects on ESHA than just the actual pipeline location.~~ Accordingly, the Project area provided for in the HMMP includes the locations where pipelines and facilities will be installed, proposed staging areas, access routes, and a 25-foot work area on both sides of the centerline of most pipelines and around facilities. The Project work area limits along the proposed Castroville pipeline segment are larger and set at 30 feet from the centerline on each side.

Four pipeline segments would be within the County of Monterey’s coastal zone, including: as described below. Cal-Am’s further evaluation of the potential ESHA impacts within the County’s coastal zone as part of its HMMP determined that pipeline construction could impact up to a total of 4.6 acres of ESHA within this area.

- **Source Water Pipeline:** About 5,365 linear feet of this pipeline would be within the County’s coastal zone, including sections along the easternmost portion of the CEMEX access road, and along Lapis Road, Del Monte Boulevard, and part of Charles Benson Road. Pipeline Portions of pipeline construction along the CEMEX access road and Lapis Road would be within areas of disturbed coastal dune habitat and has the potential to disturb several special-status species, including Monterey spineflower, branching beach aster, ocean bluff milkvetch, and coast buckwheat. ~~The Final EIR/EIS identifies ESHA impacts of up to 11.8 acres during construction, though some of these overlap with areas within the City of Marina’s LCP jurisdiction.~~
- **Desalination Water Pipeline:** About 7,207 linear feet of this pipeline would be within the County’s coastal zone, including sections along Charles Benson Road, Del Monte Boulevard, and Lapis Road, where it would enter the City of Marina. The route traverses areas of disturbed coastal dunes, including areas of central dune scrub and coyote brush scrub as well as ruderal habitat and developed areas. The Final EIR/EIS notes that pipeline construction could adversely affect at least three special-status species

observed along the route – Monterey spineflower, Kellogg's horkelia,³⁷⁴¹ and coast buckwheat. ~~The Final EIR/EIS identifies construction impacts of up to 16.9 acres of ESHA, though similar to the Source Water Pipeline above, some of this would occur within the City of Marina's LCP jurisdiction.~~ The Final EIR/EIS also states that the Source Water and ~~the~~ Desalinated Water pipelines could potentially impact ~~about 0.2 acres of this~~ Smith's blue butterfly habitat, which it notes would be a significant adverse effect.

- **Transmission Main Pipeline:** Several thousand linear feet of this pipeline would be located within the coastal zone. It would traverse areas of coastal dune that include stands of central dune scrub, coyote brush scrub, coast live oak woodland, and northern coastal scrub. The Commission generally recognizes oak woodlands as ESHA. Construction could adversely affect a number of special-status species observed along the route, including sandmat manzanita, the federally-threatened Monterey spineflower, Menzies' wallflower, Kellogg's horkelia, Monterey Coast paintbrush, branching beach aster, south coast branching phacelia, Michael's rein orchid, and Monterey ceanothus.³⁸ ~~The Final EIR/EIS identifies pipeline construction as resulting in up to about 5.4 acres of ESHA impacts (including some within the City of Marina).~~³⁹⁴²
- **Castroville Pipeline:** A short segment of this pipeline would be located within the County's coastal zone. Most of the area traversed by the pipeline consists of agricultural land, non-native grassland, developed areas, and ruderal habitat, though it also includes areas of central dune habitat and coyote brush scrub. The Final EIR/EIS notes that construction could adversely affect Monterey spineflower and branch beach aster, ~~and could result in construction impacts to about 0.4 acres of ESHA.~~

In the City of Seaside, about 320 linear feet of the Transmission Main Pipeline would be located within the City's coastal zone. The habitat along the route includes relatively small and discontinuous areas of coyote brush scrub, silver dune lupine-mock heather scrub, and Monterey pine woodland, along with areas of landscape plantings and ruderal vegetation.

Within the Commission's retained jurisdiction, there would be about 1,290 linear feet of the Transmission Main Pipeline bordering the Fort Ord Dunes State Park, which is an area of deferred certification within Monterey County and an area for which the Commission has

³⁷⁴¹ Kellogg's horkelia (*Horkelia cuneata* var. *sericea*) has a California Native Plant Society Rare Plant Ranking of 1B.1, meaning that it is rare throughout its range and seriously threatened.

³⁸ ~~Monterey Coast paintbrush (*Castilleja latifolia* ssp. *latifolia*) has a California Rare Plant Ranking (CRPR) of 4.3; south coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*) ranks 3.2; Michael's rein orchid (*Piperia michaelii*) ranks 4.2; and Monterey ceanothus (*Ceanothus rigidus*) ranks 4.2. These species are currently either on the California Native Plant Society's Review or Watch Lists.~~

³⁹ ~~The Final EIR/EIS also describes an optional alignment for this Transmission Main Pipeline that would affect up to 5.7 acres of ESHA.~~⁴² Monterey Coast paintbrush (*Castilleja latifolia* ssp. *latifolia*) has a California Rare Plant Ranking (CRPR) of 4.3; south coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*) ranks 3.2; Michael's rein orchid (*Piperia michaelii*) ranks 4.2; and Monterey ceanothus (*Ceanothus rigidus*) ranks 4.2. These species are currently either on the California Native Plant Society's Review or Watch Lists.

previously determined to be ESHA.⁴⁰⁴³ The Final EIR/EIS identified areas of ESHA within this Study Area corridor.

As part of pipeline installation, Cal-Am would establish several construction staging areas ~~covering a total of 6.6 acres~~. Most of ~~these~~ the staging areas ~~are~~ would occur in paved areas but ~~are adjacent to~~ some staging would also occur within the 9.1 acres of pipeline construction areas that ~~have~~ Cal-Am's HMMP identified as having the potential to provide habitat for special-status species, ~~though they have not yet been described as ESHA~~. Exhibit 6 (which is Table 4.6-3 from the Final EIR/EIS) provides a description of ~~these~~ construction staging areas and the potentially affected species.

In sum, a total of up to about ~~two dozen~~ 4.6 acres of ESHA could be affected by pipeline construction within areas of the Commission's consolidated permit review jurisdiction. ~~The actual area of direct and indirect impact would likely be less, though, as noted above, some areas would unavoidably be subject to direct impacts resulting from pipeline construction. Cal-Am has since provided a June 2020 Habitat Mitigation and Monitoring Plan ("HMMP")⁴⁴ that suggests the Project's ESHA impacts would be somewhat lower—approximately two acres of permanent impacts and about 15 acres of temporary impacts, though as noted elsewhere herein, the actual extent of impacts would likely require additional field investigation closer to project implementation. Additionally, while some of the construction impacts might be able to qualify as temporary—i.e., not be subject to significant ground disturbance and able to be restored adequately within 12 months—many areas would not meet these criteria, including those affected by trenching and other areas including more mature vegetation that would not be fully restored within that period. Such impacts would therefore be considered “greater than temporary” or permanent. The HMMP, for example, uses a different threshold to distinguish between the two categories, so it is likely the actual permanent impacts would be greater than it describes~~ and 4.5 acres within the City of Marina's jurisdiction for a total of 9.1 acres of temporary impacts. Similar to the well field described above, these pipelines are not dependent on the habitat resources within the ESHA and are therefore inconsistent with the Coastal Act's Section 30240 ESHA provision that requires development within ESHA be dependent on those resources. However, because the proposed Project is a coastal-dependent industrial facility, the Commission may consider approving the project despite this non-conformity, if it meets the three-part test of Coastal Act Section 30260. This review is provided in Section IIIV.P of these Findings.

Additional project impacts

Additional project impacts

Replacement of WEKO seal clamps: One other aspect of the Project is the replacement of some clamps ~~on~~ located at joints in the nearshore portion of the existing outfall line, which is necessary to protect the offshore portion of the outfall from corrosion. The clamp

⁴⁰⁴³ See CDP 3-14-1613, California Department of Parks and Recreation. The Commission's Findings (at page 28) stated: "...three habitats [central foredune, central dune scrub & central maritime chaparral] and the areas occupied or likely to be occupied by the various rare or otherwise sensitive species described occur within the proposed project area, which as a whole constitutes ESHA under the Coastal Act. Despite a legacy of past military use and the presently degraded state, the site continues to demonstrate significant ecological value."

⁴⁴ ~~See AECOM, Habitat Mitigation and Monitoring Plan—Monterey Peninsula Water Supply Project, Part One—Coastal Zone, prepared for California American Water, June 2020.~~

replacement is included as one of the mitigation measures required by the Final EIR/EIS and must occur before Cal-Am begins its facility operations. This 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. However, this ~~would~~could be during the Western snowy plover breeding and nesting season and ~~would~~could occur within the plover's critical habitat area on the beach. But as described in Cal-Am's local CDP application, the work would be performed late in the snowy plover nesting season when eggs would have already hatched. As described in the Final EIR/EIS and Cal-Am's local CDP application, 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 6 – 8 week period ~~during a critical time period for the species~~. The activities could temporarily disturb ~~approximate~~approximately a half acre between the dunes and the beach. However, beach access would remain open, except during extreme high tide events. Any clamp replacement materials and equipment placed on the beach would be removed by sunset each day that work occurs, with the exception of limited larger equipment for which daily removal would be impracticable. All accessways impacted by construction activities would be restored to pre-construction condition or better within 3 days of construction completion.

The Final EIR/EIS analyzed the potential secondary impacts of the clamp replacement work. The Final EIR/EIS identified all feasible mitigation measures, the implementation of which would reduce each potential impact of the clamp replacement work to less-than-significant levels. These mitigation measures include, for example, utilization of a lead biologist to oversee the implementation of protective measures, environmental awareness training for construction workers, and additional measures to protect a variety of local species, including the Western Snowy Plover. The mitigation measures avoid or limit the proposed Project's potential impacts to Primary and Secondary Habitats by avoiding or minimizing the amount and duration of habitat disturbance, and the work would not conflict with existing adjacent land uses. Such activities 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 that would occur in ESHA. Nonetheless, because the proposed Project is a coastal-dependent industrial facility, the Commission may approve the Project under Coastal Act Section 30260. This review is provided in Section IV.P of these Findings.

~~One necessary Project component that Cal-Am did not include in its~~ Installation of protective outfall liner: Although it is not a part of this CDP application ~~and that it has not yet fully described is, a related Project component involves the installation of~~ an approximately two-mile long liner ~~that must be installed~~ within the existing ocean outfall pipeline to prevent the desalination facility discharge from corroding the outfall line (see description in Section ~~III.V.1A~~). The liner is included as one of the mitigation measures required by the Final EIR/EIS and must be installed before Cal-Am begins its facility operations.⁴²⁴⁴ Pursuant to an agreement between Cal-Am and Monterey One Water, the operator of the wastewater treatment plant, the liner is to be installed by Monterey One Water; ~~however,~~

⁴²⁴⁴ The Final EIR/EIS imposed Mitigation Measure 4.13-5b requiring Cal-Am to install the liner to protect the outfall from corrosion, described some of the potential impacts that might occur during installation, and noted that the work would be subject to other mitigation measures meant to reduce impacts to terrestrial biological resources.

~~neither entity has committed to a final design or applied for the needed permits for this work.~~

~~Although not yet fully described or evaluated, preliminary analysis provided in the~~The Final EIR/EIS 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. 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 need to occur during low-flow times for the wastewater plant, it would need to happen in late summer, which would be during the Western ~~snowy plover~~Snowy Plover breeding and nesting season and might occur 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 ~~temporarily~~ result in noise, disturbance, and occupancy of this ~~critical~~ habitat area ~~during a critical time period~~. However, the work at any given portion of the pipeline would not exceed 7 to 10 days.

~~for the species. Such activities~~As part of the proposed Project's CEQA review, the Final EIR/EIS analyzed the potential secondary impacts of the outfall liner work. The Final EIR/EIS identified all feasible mitigation measures, the implementation of which would reduce each potential impact of the outfall liner work to less-than-significant levels. These mitigation measures include, for example, utilization of a lead biologist to oversee the implementation of protective measures, environmental awareness training for construction workers, and additional measures to protect a variety of local species, including the Western Snowy Plover. The mitigation measures avoid or limit the proposed Project's potential impacts to Primary and Secondary Habitats by avoiding or minimizing the amount and duration of habitat disturbance, and the work would not conflict with existing adjacent land uses. Nonetheless, the Commission finds that the outfall liner work considered in the Final EIR/EIS 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 ~~they~~ it would be non-resource-dependent activity that would occur in ESHA. However, because the proposed Project is a coastal-dependent industrial facility, the Commission may approve the Project under Coastal Act Section 30260. This review is provided in Section IV.P of these Findings.

~~On~~Nevertheless, on August 18, 2020, ~~Commission staff received a letter from Cal-Am describing a possible~~Cal-Am provided information to the Commission regarding a feasible, less-impactful alternative method for completing the outfall liner work. The alternative liner installation method ~~that~~ would be done almost entirely within the outfall pipe and would involve no ground disturbance within the coastal zone of the City or the County. Cal-Am has obtained preliminary engineering and design work for this option, which would involve digging an access pit outside of the coastal zone and having workers enter the 60- inch diameter pipeline from there, with no need to access the pipeline anywhere within the coastal zone. Workers would install a smaller, bypass pipeline inside of the main pipe, clean the pipe and replace existing seals with concrete, and then spray on a resin coating. They would vacuum

out any waste product so that it would not enter the ocean through the outfall. ~~Because Monterey One Water has not chosen a final design for lining the outfall, nor has it applied for or received any necessary permits, it is unknown whether this option will ultimately be feasible. If it was feasible, it would appear to avoid any impacts related to ESHA and would avoid having the liner work cause a non-resource dependent use in ESHA.~~ Under this proposed spray-lining method, Cal-Am would not build or expand any existing structure related to the outfall pipeline.

Because there is a less impactful feasible alternative, Special Condition 4 requires Cal-Am to implement the proposed spray-lining method prior to the commencement of Project operations or to obtain an amendment to this CDP or a new CDP should Cal-Am need to implement a different method to install the outfall liner. Because operation of the proposed Project may not commence until Cal-Am has obtained all authorizations and approvals for work on the outfall, Special Condition 4 guarantees that approval of the current CDP application will not result in any adverse impacts to ESHA from the installation of the outfall liner.

Mitigation measures

The Final EIR/EIS includes a number of mitigation measures meant to avoid or reduce ~~some of~~ these known or potential impacts to ESHA (see Exhibit 7 – Summary of Final EIR/EIS Terrestrial Biology Mitigation Measures). ~~However, they would not result in mitigation “to the greatest extent possible,” as required by the LCP.~~ They include several commonly required measures, such as requiring the presence of a biologist to oversee implementation of protective measures, conducting environmental awareness training and education to construction personnel, conducting pre-construction surveys and ongoing monitoring, and numerous best management practices. They also include Mitigation Measure 4.6-1n that requires Cal-Am to submit, prior to construction, a comprehensive Habitat Mitigation and Monitoring Plan (“HMMP”) that describes ~~Cal-Am’s~~ Cal-Am’s proposed mitigation, including providing mitigation success criteria, implementation plans, maintenance, monitoring, and reporting plans, and contingency measures needed to address restoration and compensatory mitigation on all sensitive habitats and species affected by the project. It also anticipates that Cal-Am would coordinate with several resource agencies (including staff of the Commission, California Department of Fish and Wildlife, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service) to determine the full suite of mitigation measures that would ultimately be needed.

To ensure mitigation “to the greatest extent possible,” as required by the LCP, Cal-Am submitted in June 2020 a draft HMMP (see Exhibit 8 – Cal-Am proposed Habitat Mitigation and Monitoring Plan, June 2020)⁴³⁴⁵ that describes several alternative proposed mitigation approaches, including:

- restoration to be conducted by Cal-Am prior to property transfer to a Commission-approved entity, and, subsequent to transfer, funding an endowment to continue the restoration work;
- funding for a Commission-approved entity to implement the HMMP; or,
- funding an endowment comparable to HMMP implementation cost to put towards

⁴³⁴⁵ Cal-Am previously submitted an October 2, 2019 “Mitigation Strategy Overview for CalAm Monterey Peninsula Water Supply Project,” which provided a preliminary proposal of mitigation measures proposed for its expected impacts at the CEMEX site. The current HMMP supersedes this previous document.

purchase of the site with implementation of the HMMP a requirement of the purchase.

~~Elements of these alternatives could provide some acceptable mitigation for Cal-Am's Project impacts, but at this time, they involve a number of uncertainties that make it difficult to evaluate potential mitigation success. For example, it is not clear whether any mitigation actions that occur before the upcoming property transfer would coordinate appropriately with the expected site-wide restoration program contemplated in the Settlement Agreement. Similarly, neither the timing nor the funding needed for these proposed future mitigation approaches can be predicted at this time.~~

Because the CEMEX site has not yet been purchased by an approved entity, Cal-Am proposed alternatives for HMMP implementation. Each of these alternatives provides acceptable mitigation for Cal-Am's Project impacts. Because there is some uncertainty at this time regarding the closure of the CEMEX site and subsequent transfer to a purchaser, Special Condition 5 requires that Cal-Am prepare and submit a final plan selecting one of the alternatives to implement the HMMP at the CEMEX site. Selection of the final implementation approach shall occur in consultation with the Executive Director.

More specifically, the HMMP ~~proposes a number of measures that are not consistent with past Commission-approved mitigation plans. For example, along with the above-referenced concerns about many of Cal-Am's proposed "temporary" impacts actually falling within the Commission's category of "permanent" or "long-term" impacts, it does not include adequate mitigation for those impacts — e.g., it treats the loss of woody vegetation such as oaks and manzanita as temporary rather than permanent. It also proposes 1:1 restoration of sensitive plants, such as spineflower, despite the lack of demonstrated success in restoring that species. Additionally, instead of proposing the use of relevant reference sites to determine whether the proposed mitigation is meeting success standards, it proposes using a success criterion of 70% of site baseline conditions. This is problematic, since the site is already somewhat disturbed and not providing the habitat values that would be expected of a fully functioning reference site. The HMMP also proposes what are primarily "semi-quantitative" monitoring methods that are presented without a statistical framework and are based on relatively lenient performance criteria.~~ provides for approximately 6.6 acres of restoration for 2.2 acres of potential permanent impacts, at a 3:1 mitigation ratio, and in-kind and in-place mitigation at a 1:1 ratio for approximately 15.306 acres of potential temporary impacts. In addition, Cal-Am has proposed to remove an additional 1.825 acres of iceplant on the CEMEX site and restore the area with native vegetation. The HMMP further provides that restoration at the CEMEX site would include re-establishment, rehabilitation, and enhancement of habitats through the removal of existing invasive species populations and reintroduction of native species indigenous to dune habitat. The HMMP also requires Cal-Am to implement long-term management activities to remove newly emerging invasive vegetation and protect the restored and existing native habitats.

~~Importantly, the HMMP proposes that most of the restoration activities take place within the CEMEX North Mitigation Area, which is already expected to benefit from preservation~~

~~pursuant to the aforementioned Settlement Agreement. While Cal-Am's proposed mitigation in that area would result in restoration of degraded dune habitat and could provide significant improvements to that area of dune ecosystem, its location in an already preserved area would result in a net loss of dune habitat footprint.~~

Some commenters suggest that the areas in which the HMMP proposes restoration activities – that is, the CEMEX North Mitigation Area – is already expected to benefit from preservation pursuant to the aforementioned Settlement Agreement. Cal-Am's proposed mitigation in this area would result in restoration of degraded dune habitat and would provide significant improvements to that area of dune ecosystem because no restoration or enhancement of the area is otherwise proposed, required or funded under the Settlement Agreement. The Settlement Agreement requires CEMEX to transfer title to a Commission-approved entity to either manage the property for conservation uses or use the property for allowable activities, such as the proposed Project. The Settlement Agreement does not require the future purchaser to use or manage the property for ESHA preservation or restoration. However, in its HMMP, Cal-Am has proposed areas for restoration that have not been identified for restoration under the Settlement Agreement.

Another key concern is the proposed restoration of an area described as a “valley” within the dunes, which is primarily covered by invasive species such as iceplant and non-native grasses supported by soils high in organics, and surrounded by more typical dune habitat with the potential to support sensitive native species. This valley's invasive species appear to be a result of, and supported by, sustained agricultural runoff being pumped through a pipeline from a nearby farm into the dunes, which has created a nearly foot-deep layer of organic soil on top of the dune habitat. ~~The HMMP proposes that it would use this water supply as necessary to irrigate the dune vegetation it plants as part of its dune restoration; however, this raises concerns about using that water (and any contaminants that may be in it) to restore dune ESHA, an ecosystem that has evolved to function with minimal hydrologic input in a low-nutrient substrate. The HMMP does not provide adequate support for such a proposal and it is not clear that, if used, it would be sustainable. It may also bring with it adverse impacts of its own, including the potential presence of contaminants in the water and continual support for non-native or invasive species in the restoration area.~~ In a memorandum dated August 19, 2020, AECOM provided some additional information regarding the valley and agricultural runoff.⁴⁶ As explained in AECOM's memorandum, the HMMP proposes that the agricultural runoff into the dunes be discontinued, that all the invasive vegetation associated with the agricultural runoff be removed, and the entire dune area impacted by the agricultural runoff be restored with coastal dune habitat. AECOM notes that discontinuation or alternative management strategies for the agricultural runoff would occur as part of implementation of the HMMP. Because there is some uncertainty regarding the discontinuation or alternative management strategies for the agricultural runoff, Special Condition 6 requires Cal-Am to submit a plan for Executive Director review and approval prior to permit issuance, which will detail the

⁴⁶ Monterey Peninsula Water Supply Project: CEMEX North Dunes – Agricultural Runoff Drainage System Observations and Options. AECOM (August 19, 2020).

plan for the discontinuation or alternative management for the agricultural runoff.

~~Were it not for the Coastal Act and LCP nonconformity noted above, the Commission could require additional mitigation to allow the project to conform to other relevant LCP policies and Coastal Act requirements. However, because this nonconformity results in no ability for the project to be fully consistent with the LCP's ESHA provisions, there is no need to identify special conditions in this section of the Findings that would allow it to be only partially consistent.~~ Although the Commission has identified and imposed all feasible mitigation measures to avoid or reduce impacts to ESHA to the maximum extent feasible, the City's LCP and Coastal Act Section 30240 limit uses within ESHA, including primary habitat, to those dependent on the resources. As described throughout these Findings, the proposed Project is not a resource-dependent use, so it cannot be approved consistent with the City's LCP habitat protection policies and Coastal Act Section 30240. Nonetheless, because the proposed Project is considered a coastal-dependent industrial facility, the Commission has the discretion to apply the three tests of Coastal Act Section 30260 and approve the project notwithstanding its inconsistencies with ~~Coastal Act and the City's~~ LCP provisions. ~~However, as~~ As described in the section of these Findings regarding Section 30260, the Commission has concluded that the project ~~does not meet~~ meets the ~~first two~~ tests of Section 30260; and thus, ~~there is no need to determine whether the project's ESHA impacts could, pursuant to the third test of that section, be mitigated to the maximum extent feasible~~ can be approved under Section 30260.

Conclusion

Based on the discussion above, the Commission finds that, with Special Conditions 5 and 6, the Project components, as proposed in the City's jurisdiction, ~~do not conform to~~ remain inconsistent with 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. The Commission also finds that, with Special Conditions 5 and 6, the Project components, as proposed in the Commission's consolidated permit jurisdiction, ~~do not conform to~~ remain inconsistent with the Coastal Act's ESHA policies.

However, with implementation of the HMMP, potential impacts to ESHA would be mitigated to the maximum extent feasible. Further, because the proposed Project is considered a coastal-dependent industrial facility, the Commission has discretion to approve the project notwithstanding its inconsistencies with the City's LCP under Coastal Act Section 30260.

G. WETLANDS AND VERNAL POND ESHA

Section 30231 Biological productivity; water quality

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

LCLUP Exhibit A states:

Primary habitat. This term includes all of the environmentally sensitive habitat areas in Marina. These are as follows:

- 21.** Habitat for all identified plant and animal species which are rare, endangered, threatened, or are necessary for the survival of an endangered species. These species will be collectively referred to as “rare and endangered.”
2. Vernal ponds and their associated wetland vegetation. The Statewide Interpretive Guideline for Wetlands and Other Wet Environmentally Sensitive Habitat Areas (California Coastal Commission, February 14, 1981) contains technical criteria for establishing the inland boundary of wetland vegetation...

Secondary habitat. This term refers to areas adjacent to primary habitat areas within which development must be sited and designed to prevent impacts which would significantly degrade the primary habitat. The secondary habitat area will be presumed to include the following, subject to more precise determination upon individual site investigation:

- 21.** The potential/known localities of rare and endangered plant species as shown on LUP p. 71 (“Disturbed Vegetation” map).
2. The potential wildlife habitats as shown on LUP p. 75 (“Potential Wildlife” map).
3. Any area within 100 feet of the landward boundary of a wetland primary habitat area.

Rare and endangered species. This term will apply to those plant and animal species which are rare, endangered, threatened or are necessary for the survival of such species. The Environmental Analysis Report prepared for the Marina Local Coastal Program identified such species in the dune habitat areas. While future scientific studies may result in addition or deletion of species, the list presently includes:

1. Smith’s Blue Butterfly (*Shijimiaeoides enoptes smithi*)⁴⁴⁴⁷
2. Globose Dune Beetle (*Coelus globosus*)
3. Black Legless Lizard (*Anniella pulchra nigra*)
4. Salinas Kangaroo Rat (*Dipodomys Heermanni Goldmani*)
5. Seaside Painted Cup (*Castilleja latifolia* ssp. *Latifolia*)
6. Monterey Spine Flower (*Chorizanthe pungens* var. *pungens*)

⁴⁴⁴⁷ This name has been updated since publication of the LCP – it is now *Euphilotes enoptes smithi*.

7. Eastwood's Ericameria (*Ericameria fasciculata*)[sic]⁴⁵⁴⁸
 8. Coast Wallflower (*Erysimum ammodendrum*)
 9. Menzies' Wallflower (*Erysimum menziesii*)
 10. Coastal Dunes Milk Vetch (*Astragalus tener* var. *titi*)
 11. Dune Gilia (*Gilia tenuiflora* var. *arenaria*)
 12. Wild Buckwheat (*Eriogonum latifolium*)*
 13. Wild Buckwheat (*Eriogonum parvifolium*)*
 14. Bush Lupine (*Lupinus* ssp.)+
- * only within the range of Smith's Blue Butterfly.
 + only within the range of the Black Legless Lizard.

LCLUP Habitat Protection Policies include:

Before any use or change in use, areas identified as potential habitat for rare and endangered plant or animal species shall be investigated by a qualified biologist to determine the physical extent of the primary habitat areas for the specific rare and endangered plants and animals on that site.

Primary habitat areas shall be protected and preserved against any significant disruption of habitat values and only uses dependent on those resources shall be allowed within those areas. All development must be sited and designed so as not to interfere with the natural functions of such habitat areas. Management and enhancement opportunities should be incorporated into use or development proposals; potential impacts shall be fully mitigated, including the assurance of long term mitigation and maintenance of habitat through the use of appropriate acreage replacement/restoration ratios for any unavoidable direct impacts to habitat areas.

LCP Policy 24 states:

To protect and encourage the restoration of the vernal ponds to their original state and allow only those uses adjacent which will reinforce and conserve the unique habitat qualities of these ponds

Summary

The Coastal Act and the City's LCP include provisions that require protection of wetlands. Coastal Act Section 30231, for example, requires that biological productivity in wetlands and other coastal waters be maintained and restored through various means, including preventing the depletion of groundwater. Vernal ponds are generally considered wetlands for purposes of the Coastal Act; however, the City's LCP further specifies that vernal ponds are a type of primary habitat and are thereby considered ESHA. Vernal ponds are relatively rare and often biologically important seasonal wetlands used during avian migration and amphibian breeding seasons. The LCP also includes wetland areas associated with vernal ponds as primary habitat, and therefore ESHA.

The LCP requires that these vernal ponds and their associated wetland areas be protected against any significant disruption, that development be sited and designed to prevent significant degradation of those areas, and that all development be sited and designed to not interfere with the natural functions of these habitat areas. Further, the City's Comprehensive Management Plan, which it developed in conjunction with the Commission as part of developing its Local

⁴⁵⁴⁸ The correct spelling is *Ericameria fasciculata*.

Coastal Program, clarifies the importance of these areas by stating: “Seasonal and permanent wetlands are critical habitat for a variety of wildlife species, and the near-coastal proximity of the ponds promotes use by species associated with the bay shoreline and other coastal wetlands.”²

The LCP and other City and County planning documents identify several areas within the expected groundwater drawdown zone of Cal-Am’s well field as vernal ponds and wetlands (see Exhibit 9 – Map of Area Wetlands). Among the closest, approximately 1,000 feet from the nearest the well field, are several dozen acres on either side of Highway One south of Lapis Road, known as the Armstrong Ranch Ponds. They are within the County’s coastal zone and are designated “Habitat Reserve and Other Open Space.” This complex of vernal ponds is generally dry at the surface for part of the year and floods in the spring during periods of precipitation, though they are occupied ~~year-round~~year-round by marsh vegetation species. They also represent an important habitat feature for a number of avian species, particularly during migration season, and provide breeding habitat for any of several amphibian species. Other smaller biologically important vernal ponds are in the drawdown zone and within the City of Marina, though somewhat further from the well field.

The Final EIR/EIS identified several vernal ponds and wetlands at and near the CEMEX site and near the various project pipeline routes. It acknowledged that some construction activities, such as inadequate runoff or dust control measures, could adversely affect some of ~~these~~the vernal pond/wetland areas, but noted that the document’s mitigation measures would reduce potential adverse impacts to less than significant. It also presumed that, while several of ~~these areas~~the vernal ponds and wetlands were in areas that would experience a drawdown of groundwater levels resulting from Cal-Am’s pumping from its well field, ~~these areas~~the vernal ponds and wetlands were “hydrologically disconnected” from the underlying groundwater and would therefore not be affected by the pumping.

After the conclusion of the CEQA review, and after the Commission’s November 2019 hearing, Commission staff received an April 2020 analysis provided by the City of Marina that described many of these wetland areas as “groundwater dependent ecosystems” (“GDEs”) and identified potential adverse effects to them due to the groundwater drawdown.³ GDEs include various types of wetland areas with hydrology supported entirely or in part by underlying groundwater. They include permanent, seasonal, and temporary wetlands (including vernal ponds) that change in extent and depth in response to changes in underlying groundwater elevations.

The City’s GDE review identified several previously unknown potential adverse effects on several nearby vernal ponds and their associated wetlands. It included data and analyses indicating that several of these areas do not appear to be the “perched” wetlands presumed during CEQA review, but appear to be connected to the underlying groundwater within the shallow Dune ~~Sands~~Sand Aquifer that underlies this area. The GDE review described data collected from Cal-Am’s monitoring wells closest to some of these areas during Cal-Am’s approximately two-year pump test, which included about two dozen events where groundwater drawdown and recovery was correlated with the start and stop of pumping activities. At the Armstrong Ranch vernal pond complex, the City’s review identified a relatively immediate groundwater drawdown/response of about one foot. The review also notes that the groundwater underlying these areas has variable salinity levels (from slightly brackish to nearly the same as seawater), suggesting it has sources other than the primarily fresh water that would be expected from precipitation. It also notes that the overlying habitat includes vegetative species that have adapted to this range of salinity variation.

Later, in June 2020, Commission staff received a report from the Commission's independent hydrogeologist that described additional groundwater modeling conducted in addition to that done previously as part of CEQA review and by Cal-Am (this report is more thoroughly described in Section [III.V.J](#) of these Findings). Part of the additional modeling was meant to identify expected groundwater drawdown levels beneath nearby vernal ponds and wetlands that could result from Cal-Am's longer-term pumping operations. This report identified such drawdowns of between about two to four feet beneath the closest of these features – at the Armstrong Ranch Ponds – and attenuating at more distant features – for example, to just under one foot drawdown at the Lake Drive Pond within the City. These drawdown levels appear to be fairly consistent with those the City identified in its above-referenced GDE review; for example, Cal-Am's test well pumping at about three mgd showed a one-foot drawdown at the Armstrong Ranch vernal pond complex, whereas modeling based on Cal-Am's full proposed 16 mgd shows about a four-foot drawdown.

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.⁴⁶⁴⁹ 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 CVCMP. **Importantly, it** [The report](#) 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.

[Finally, Cal-Am provided an August 2020 report that analyzed the vernal ponds and concluded that the vernal ponds are likely not groundwater dependent or if they are groundwater dependent they are supported from a perched source and not from the Dune Sand Aquifer from which the Project will pump source water.⁵⁰ The analysis evaluated existing monitoring wells, conducted water quality sampling, researched surface water conditions, examined historical aerial imagery, and reviewed previously prepared analyses regarding the vernal ponds. The analysis explained that the urban development that has occurred adjacent to many of the vernal ponds has altered the existing functions of the ponds. The analysis also described how the Armstrong Ranch Ponds have been affected by agricultural irrigation and historic use as a cattle pasture. In addition, the analysis found that none of the vernal ponds showed any influence of tidal changes, which would be expected if the ponds were hydrologically connected to the Dune Sand Aquifer. Based on this analysis, the August 2020 report concludes that the source of water for the vernal ponds is most likely surface water and not the Dune Sand Aquifer.](#)

[While the August 2020 report submitted by Cal-Am concludes that the vernal ponds are unlikely to be dependent on the Dune Sand Aquifer and therefore unlikely to be affected by Project pumping, the report nevertheless proposes an Adaptive Management Program that would include ongoing evaluation of the ponds to more conclusively determine](#)

⁴⁶⁴⁹ See WRA Environmental Consultants, Biological Resource and Groundwater Dependency Analysis of Marina Vernal Ponds, prepared for City of Marina, July 30, 2020.

⁵⁰ [See Geoscience and AECOM, Understanding the Influence of Subsurface Aquifer Drawdown Upon Surface Waters and Wetlands for the Proposed Monterey Peninsula Water Supply Project, prepared for Cal-Am, August 18, 2020.](#)

whether the ponds are hydrologically connected to the Dune Sand Aquifer and to what extent Project pumping might affect the ponds. Under the Adaptive Management Program, if Project pumping were determined to have an impact on the vernal ponds, the program proposes a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan that would mitigate and/or offset for any potential adverse effects to the ponds.

Effects of drawdowns

Conclusion

~~These~~The recent analyses, ~~although not comprehensive, strongly suggest that the identified drawdowns are inconclusive regarding whether groundwater drawdowns from Project pumping~~ could adversely affect the functions and values ~~at up to several dozen acres of these of the~~ vernal ponds and wetlands, ~~primarily at the Armstrong Ranch Ponds, and possibly at other nearby wetlands. It~~. If drawdowns were to adversely affect the vernal ponds, it is difficult to ~~precisely~~ determine the specific nature and magnitude of expected effects, 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. ~~Nonetheless, the~~If there were a hydraulic connection between the Dune Sand Aquifer and the vernal ponds, groundwater drawdowns would most likely result in the following types of adverse effects:

- Reduction of surface water extent and depth. This would reduce the habitat functions and values that would be present absent Cal-Am's pumping.
- Temporal losses of vernal pond functions and values, including shifts in the timing of surface flooding as well as reduced durations of flooding. ~~Drawdown would likely result in a groundwater-supported vernal pond that normally would exist for six or eight weeks during breeding and nesting season might instead last for two or four weeks, and/or shift to later in the season, thereby reducing available habitat and food sources during periods that many resident and migratory species would otherwise rely on.~~
- Reduction of wetted area around the root zones of marsh or aquatic vegetation. Some vegetative species in these areas may have relatively shallow roots and may rely on groundwater being available within a certain elevation range. Others may have deeper roots but be dependent on natural and gradual fluctuations in groundwater elevations. ~~More rapid declines in groundwater elevations may leave some root systems "stranded" and lead to reduced plant vitality or even death.~~
- Reduction in species diversity. Less surface area and more confined root zones could also lead to fewer microhabitats and niches for associated plant species to occupy, contributing to increased competition for limited resources and likely, reduced opportunities for dependent wildlife species as well.
- Reduction in habitat resilience. When a system is already stressed, it becomes less capable of absorbing further stress including environmental change. For example, drought could have devastating effects on a compromised system that is already suffering from reduced water availability.

~~Cal-Am has suggested that it could monitor some of these areas to determine first, whether they were groundwater dependent, and if so, what changes might be associated with any pumping-related drawdowns. However, and 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.⁵ 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.~~

~~With these likely impacts resulting from Cal-Am's pumping of groundwater, the proposed Project cannot be found consistent with the provisions of Coastal Act Section 30231 and the above-referenced provisions of the LCP. Specifically, due to the reasonably foreseeable groundwater drawdowns, the evidence does not demonstrate that the Project would ensure that "[p]rimary habitat areas [will] be protected and preserved against any significant disruption of habitat values," or that it will ensure the maintenance of the biological productivity and the quality of coastal wetlands.~~

To address potential wetland and vernal pond impacts, Special Condition 7 requires Cal-Am to implement an Adaptive Management Program that would ensure the monitoring of the vernal ponds to determine first, whether they are groundwater dependent, and if so, what changes might be associated with any Project pumping-related drawdowns. If the additional analysis determines that there would be adverse effects from pumping-related drawdowns, Special Condition 7 requires Cal-Am to implement a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan to mitigate and/or offset those effects to the vernal ponds. For each stage of the Adaptive Management Program, Cal-Am would be required to submit the required analysis to the Executive Director for review. In addition, if the Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan is necessary Cal-Am would be required to apply for and obtain the Commission's approval of an amendment to this Coastal Development Permit prior to implementation of the Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan. If possible the Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan would address impacts entirely on-site. On-site measures could include providing supplementary water, supplementing infiltration, modifying pond outlet or overflow to encourage deeper ponding, or enhancing the ponds with a vegetation management program. If it is not possible to entirely mitigate and/or offset potential effects on-site (e.g. lack of access or site control, site constraints, etc.) Cal-Am would implement measures off-site to mitigate and/or offset any remaining impacts that could not be addressed on-site. For off-site mitigation the following mitigation ratios would apply depending upon whether creation, restoration, or enhancement is proposed: off-site wetland creation 1:1 ratio; off-site wetland restoration 3:1 ratio; and/or off-site wetland enhancement 4:1 ratio.

While implementation of Special Condition 7 ensures that any impacts to vernal ponds are mitigated to the maximum extent feasible, at this time it cannot be concluded whether mitigation could be implemented that would entirely avoid impacts to the vernal ponds. As noted as part of the Adaptive Management Program, it is possible that impacts would need to be mitigated off-site. Therefore, the Project could be inconsistent with the Coastal Act and LCP's provisions that require the protection of existing vernal ponds and wetlands. Accordingly, for the reasons described above, the Commission finds that the Project, as conditioned, will be inconsistent with the provisions of Coastal Act Section 30231 and the above-referenced provisions of the LCP. Nevertheless, because the proposed Project is a coastal-dependent industrial facility, the Commission finds that

the Project can be considered for approval despite its potential non-conformity to these Coastal Act policies, pursuant to Coastal Act Section 30260, which allows for approval of such facilities that are otherwise inconsistent with relevant Coastal Act policies. The LCP similarly allows for approval of otherwise non-consistent coastal-dependent industrial development if it is a use allowed pursuant to Coastal Act 30260. Section IV.P of these Findings provides the Commission's determination regarding Coastal Act 30260.

Note: These are not Commission staff's Recommended Findings

H. COASTAL HAZARDS

Coastal Act Section 30253 states, in relevant part:

New development shall do all of the following:

(a) ~~(a)~~ Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(b) ~~(b)~~ Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. ~~---~~ ---

The LCLUP states:

Before development is permitted in the Coastal Zone, a geotechnical report appropriate to the specific proposal shall be prepared for that development in the dunes or in the vicinity of any vernal pond. The report shall include at least geologic and seismic stability, liquefaction potential, identification of an appropriate hazard setback to protect the economic life of structures, and specific recommendations on drainage, irrigation and mitigation of identified problems.

Report contents shall comply with guidelines of the California Division of Mines and Geology.

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No new development shall be permitted which will require the construction of shoreline protection structures unless such development is in accordance with the provisions of the "Small Boat Harbor" section of this Land Use Plan, or when such structures are necessary to serve coastal dependent uses (as defined in the Coastal Act) or to protect publicly owned beaches from erosion.

The LCLUP states:

Tsunami Hazard: Tsunamis are seismic sea waves, often erroneously called "tidal waves." Because of the height and depth of the Coastal dunes in Marina, inland areas are not within the tsunami hazard zone. The areas most subject to tsunami in Marina are the sandy beaches and dunes. With an adequate tsunami warning system, there is no significant tsunami threat to beach users. Since there is little development within the tsunami run-up zone, there is little present threat. Future development should not occur in the tsunami run-up zone (on the sandy beaches and foredune area).

The LCP's North of Reservation Road Planning Area requires proposed development consider:

Public safety and vulnerability to wave erosion.

Tsunami and other coastal hazards.

The LCLIP states:

Standards for Coastal Protection Structures: Except for a few facilities associated with sand mining, there currently is little capital investment to be threatened by erosion along Marina's shoreline. The face of the dunes is subject to wave erosion, so future development shall be placed beyond the area vulnerable both to wave erosion and tsunami hazard. This setback shall be great enough to protect the economic life of the proposed development (at least 50 years) and be east of the tsunami hazard zone. The exact extent of this setback shall be determined by a qualified geologist, selected from an approved list compiled and maintained by the City. Because of variation from site to site, the setback line shall be determined at the time development of a site or parcel is proposed.

Protective structures are not recommended in Marina; however, if they should ever be necessary, standards shall be established to insure that the type of protection, location, design and other factors are considered. In determining if it is suitable to issue a coastal permit for a shoreline structure, the following shall be addressed: (1) alternatives to a protective structure shall be determined and evaluated by appropriate specialists first; and (2) an EIR/EIS shall be required on the proposed structure. The EIR/EIS shall address specific issues of Local Coastal Land Use Plan concern, construction and maintenance. The environmental evaluation and mitigations shall be prepared by qualified specialists and shall address at a minimum the following specific issues and design considerations.

Summary

Both the Coastal Act and the LCP generally require that development be sited and designed to avoid and minimize risks associated with coastal hazards, and specifically requires that development be sited with the setback needed to provide protection from these hazards for the full expected economic life of any structures. Although Cal-Am's desalination facility would be located outside of the coastal zone and away from these hazards, Cal-Am's proposed wells could be subject to several of them, including coastal erosion and dune recession, both of which would be exacerbated by sea level rise and climate change. However, with the wells' limited 20- to 25-year expected operating economic lives and distance from the shoreline, the risk from these hazards would be expected to be relatively minor. These hazards are addressed below.

Coastal erosion and sea level rise

Background: The well field would be just inland of the actively eroding shoreline of Monterey Bay, with the existing test well located about 600 feet inland and the other proposed wells to be located about 800 feet inland. The Bay shoreline near Cal-Am's proposed well field has exhibited some of the highest annual erosion rates in the state, due in part to relatively high levels of wave energy and the easily erodible sand that makes up most of the Bay shoreline. The area has experienced, and will likely continue to experience, storm-driven erosion that results in losses of as much as 100 feet of beach during a single event. Erosion along this stretch of shoreline also results in the recession inland of the dune system located adjacent to the beach. As the beach erodes, the dune profile moves inland, though not necessarily at the same rate as the shoreline or with the same dune profile.

Along with the natural shoreline processes that drive coastal erosion in this area, a substantial additional contributor has been the sand mining that has occurred at the CEMEX facility for many decades. 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~~ In 2017, the Commission approved the CEMEX Settlement which will result in the end of sand mining operations ~~have ended, the shoreline is expected to continue having a relatively high erosion rate at the site in 2020. A major factor in seeking to end sand mining operations at the site was based on the Commission's finding that the rate of shoreline retreat and dune erosion within the area would likely reduce significantly once sand mining operations ceased.~~

In recognition of the area's historically high erosion potential, the LCP requires that development be located inland of areas near the shoreline that are vulnerable to erosion. The Final EIR/EIS included an assessment of the effects of sea level rise and coastal erosion on the proposed well field and the most seaward sections of the Source Water Pipeline.

Coastal erosion studies during early stages of the project's environmental review showed that the then-proposed well field could be affected by coastal erosion expected during the project's operating life. Cal-Am then relocated the proposed well heads about 400 feet further inland to their currently proposed location. For these new locations, the Final EIR/EIS modeled "stand-alone" expected erosion rates as well as those same rates when accompanied by 100-year storm events. It found that expected erosion by 2060 would remove about 300 feet of the beach and dune profile and that adding a 100-year storm event would remove an additional 130 feet for a total of 430 feet. This analysis showed that most of the well field would escape erosion until 2060, although the existing test well that Cal-Am proposes to convert to a permanent well would likely be affected sooner, as it is about 200 feet closer to the current shoreline than the other wells.

To address the anticipated erosion hazard, the Final EIR/EIS included a mitigation measure requiring Cal-Am to monitor the rate of coastal retreat and to determine, based on the identified and expected annual erosion rate, when there are no more than five years before the wells would become exposed due to erosion.⁴⁷⁵¹ At that point, Cal-Am would be required to start the planning and permitting needed to abandon the wells in accordance with state well destruction requirements, and upon receipt of the necessary approvals, Cal-Am would remove the wells. As noted above, Cal-Am expects its wells to have useful lives of only about 20 to 25 years before they need to be replaced or relocated, so it does not expect that they would be affected by erosion.⁴⁸⁵²

However, this analysis was done in 2016 and was based on sea level rise guidance and scenarios that have been superseded by more recent state and Commission guidance that anticipates more rapid, and greater, sea level rise.⁴⁹⁵³ For example, the projections used in the Final EIR/EIS anticipated sea level rise of 15 inches by 2040 and 28 inches by 2060, whereas the currently applicable projections for the Monterey Bay area anticipate a range of sea level rise in 2040 of between about 15 and 20 inches and a 2060 range of 31 and 46 inches (increases of up to 33% and 64%, respectively). The assessments were also done before completion of the CEMEX Settlement, which requires CEMEX to permanently stop its sand

⁴⁷⁵¹ See Final EIR/EIS Mitigation Measure 4.2-10.

⁴⁸⁵² The limited operating life is due to wells such as these experiencing reduced yields due to a slow build-up of fine sediments in or near the screened intake portion of the well casing.

⁴⁹⁵³ See the Ocean Protection Council's State of California Sea-Level Rise Guidance 2018 Update and the Coastal Commission's 2018 Sea Level Rise Policy Guidance and November 7, 2018 Science Update.

mining operations by the end of 2020, so they do not reflect what the expected erosion rates will be after CEMEX ceases removing large amounts of sand from this stretch of shoreline.

Prior to the Commission's November 2019 hearing on this proposed Project, Commission staff requested that Cal-Am provide an updated assessment of expected sea level rise and coastal erosion based on current state guidance and projections and on site conditions expected without sand mining. In response, Cal-Am provided an October 2, 2019 technical memorandum – *Updated Coastal Erosion Hazard Analysis for CalAm Monterey Peninsula Water Supply Project*, prepared by AECOM. This technical memorandum assesses expected sea level rise and coastal erosion effects on Cal-Am's proposed well field and Source Water Pipeline using low, medium-high, and extreme risk aversion scenarios for the years 2040, 2060, and 2120. It includes the high GHG emission scenario for each to provide a more conservative assessment of expected effects. It also considers the effects of both a 100-year and 500-year storm event on site erosion to provide additional conservatism. To reflect the expected site conditions resulting from the closure of the CEMEX sand mining operations, it assumed a 60% reduction in the historical retreat rate along the stretch of shoreline.⁵⁰⁵⁴ 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 of the 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.

The Commission's coastal engineer reviewed the Final EIR/EIS and Cal-Am assessments and prepared a technical memorandum describing that review and its conclusions (see Exhibit 10 – Coastal Hazards Technical Memorandum). The review concluded that under the above extreme scenarios, both the test well site and the other well sites would likely be safe from erosion through 2040, that the test well site could be at risk by 2060 from a 100-year storm event, and that both the test well site and other well sites would likely be at risk by 2120. 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 the October 2, 2019 technical memorandum prepared by AECOM, the well field is projected to be safe using the extreme risk aversion scenario and 500-year storm event until near the 2120 planning horizon.

Since ~~then, however~~ these analyses were prepared, 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 2050.⁵¹ ~~Compared to the Commission's above-referenced current sea level rise~~

⁵⁰⁵⁴ This assumed 60% reduction is derived from studies and a sand budget analysis presented in two documents prepared, in part, to identify the effects of those mining operations on erosion along the Monterey Bay ~~Shoreline~~ shoreline. See ~~Environmental~~ environmental Science Associates and Phillip Williams and Associates, Evaluation of Erosion Mitigation Alternatives for Southern Monterey Bay, prepared for the Monterey Bay Sanctuary Foundation and the Southern Monterey Bay Coastal Erosion Working Group, May 30, ~~2020~~ 2012, and Young, Robert, An evaluation of the ongoing impacts of sand mining at the CEMEX Lapis Sand Plant in Marina, California on the Southern Monterey Bay Shoreline, 2017.

⁵¹ ~~See Ocean Protection Council, Strategic Plan to Protect California's Coast and Ocean 2020–2025, February 2020.~~

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. However, with Cal-Am's ⁵⁵ 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 staff to evaluate the potential impacts to the Project. Using those projections and recommendations, the slant wells will be unaffected by 3.5 feet of sea-level rise in 2050, and therefore the Project is consistent with the new state principle. Further, with Cal-Am's reliance on an expected 20- to 25-year operating life for the wells, this accelerated timeline is not likely to result in a substantial change to the expected risks from coastal erosion.

~~With the test well site~~ In addition, when accounting for reductions in coastal erosion from the cessation of sand mining at the CEMEX site, none of the well sites would be at risk from ~~these expected long-term coastal~~ erosion scenarios, the project could include development in an area subject to wave erosion during ~~within~~ the next 50 years. This presents some tension Accordingly, the Project is consistent 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, this component of the proposed~~ Even without accounting for reductions in coastal erosion from the cessation of sand mining the wells sites would not be at risk during their 20-25 year economic life.

The Project ~~could be inconsistent~~ is also consistent with LCP policies related to coastal erosion ~~unless because~~ there is a requirement to remove the ~~test well when it becomes threatened.~~ slant wells when they become threatened. Mitigation Measure 4.2-10 requires Cal-Am to monitor and remove the slant wells five years prior to any anticipated exposure. For reliability purposes, the Project will be constructed with seven wells, but does not need all seven to be operating in order to maintain the Project's permitted water deliveries. Operation of five is sufficient. Thus, in the event that wells need to be decommissioned early due to coastal hazards, the Project could continue to supply water to the Monterey Peninsula.

Cal-Am expects that its wells would operate for ~~no more than about~~ 20 to 25 years and then may need to be replaced or relocated, which would ~~presumably~~ allow them to avoid coastal hazards related to erosion. ~~Although this~~ This allows for conformity with the LCP's coastal hazards provision related to the expected economic life of the development, ~~it creates a~~

⁵⁵ See Ocean Protection Council, Strategic Plan to Protect California's Coast and Ocean 2020 – 2025, February 2020.

~~concern that Cal-Am's desalination facility may not be able to operate for its expected 60-year operating life because 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. These issues are described in more detail below and in Section II.O – Assessment of Alternatives.~~

The Commission also considered the effects of expected dune recession on the well sites.⁵² As noted above, the site's foredunes will recede inland as a consequence of shoreline erosion, and at some point will occupy the same area as the well sites. The initial review, conducted in October 2019, concluded that the risk of this occurring would be low before 2040, but would increase thereafter. Additionally, dune height is likely to increase along with the increases in sea level – for example, as sea level elevates by its expected 15 to 20 inches by 2040, the duneface could experience a similar height increase and an inland migration of the profile. The issue of well site burial was examined not as a risk in itself, but since it could lead to the need for greater maintenance of the well heads and thus greater site disturbance. It is difficult to estimate exactly when these backshore adjustments would occur as there would very likely be a lag time between changes in sea level and changes to the beach and then changes to the back shore. With these uncertainties it is difficult to estimate when the dune profile might shift inland; however, the well sites have been located inland of and at a lower elevation than the dune crests, and inland migration of the profile could eventually cover the well sites. The review concluded that risk is low that any of the well sites could be buried by 2040 but that the risk would increase over time. This review did not consider that the risk of dune recession will be reduced by the cessation of sand mining at the CEMEX site, did not include any modeling of the back profile, and covered the potential for burial only in general terms. Because of differences in the elevations of the well heads and variations in the dune profile – i.e., the dunes seaward of some well sites are higher or contain greater volumes of sand than those seaward of other well sites – the timing and amount of burial would likely vary among the well sites. The review ~~concludes~~concluded that the test well head would experience the greatest risk from dune erosion; however, since the more inland well field is 12 to 15 feet lower than the frontal dune, the well field might be more at risk from the inland shift of the dune profile.

Overall, when considering reductions in coastal erosion from the end of sand mining at the CEMEX site, no appreciable erosion risks are anticipated to occur at the test well or the well field areas by 2040. ~~There are small risks to the test well site from storm-related erosion between 2040 and 2060. There are also~~fields until near 2120. Based on the Commission's initial review, there are small risks to the test well site and the well field site from possible sand burial that would be minimal through 2040. There is a small chance that some of the well field site might experience ~~several feet of~~ sand burial between 2040 and 2060. Beyond 2060, it becomes more likely that significant burial could occur. ~~Again, however, this October 2019 review was completed before the state's adoption of the recent planning principle of expecting 3.5 feet of sea level rise by 2050, so any expected risks would happen several years sooner. These effects may be much less severe after sand mining operations at the CEMEX site end.~~

~~In June 2020, Cal-Am~~To supplement the Commission's initial analysis of sand burial, AECOM provided an updated analysis of expected dune recession that further details and

⁵² ~~Neither the Final EIR/EIS nor the AECOM technical memorandum assessed risk from this hazard.~~

clarifies the various mechanisms involved in this type of sand movement.⁵⁶ It concluded that the primary mechanism – dune blowouts, which involves the wind being funneled through gaps in the dune and causing higher rates of erosion in and near those gaps – could result in two of the seven proposed well head sites being affected by sand burial within about 20 to 25 years. It also found, though, that this effect could be reduced or delayed through measures such as removal of invasive vegetation and re-establishment of native dune vegetation to stabilize the dunes, installing sand fences or elevating the well head sites, either of which would likely require additional CDP review and approval. ~~Cal-Am also proposed a special condition that would include~~ Special Condition 8 is included to require the “soft” measures referenced above – removal of invasive species and re-establishment of native vegetation – along with annual monitoring of the dunes and well heads to identify the rate of dune recession. Once the identified rate of recession showed that the well heads could be buried within five years, Cal-Am ~~would~~ shall return to the Commission with any proposed development, such as sand fencing, elevating or relocating the wells, etc., for additional review and permitting.

Similar to the above coastal erosion scenarios, the risk to the wells from this erosive process of dune recession could create some tension regarding conformity to the LCP provision that requires identification of an adequate hazard setback to protect the economic life of the structures (for a 50 year minimum) and specific recommendations to mitigate any identified problems. However, Cal-Am has estimated that these proposed wells would operate for about 25 years (i.e., until about 2045) but ~~would~~ could then need to be replaced or 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 to site the wells after this expected initial 25 years of operations. This expected operating life of 20-25 years 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 II.O – Assessment of Alternatives). It also makes the currently proposed locations inconsistent with the previously referenced Final EIR/EIS project objective to “locate key project facilities in areas that are protected against predicted future sea-level rise in a manner that maximizes efficiency for construction and operation and minimizes environmental impacts,” which is also described Section II.O below.~~

~~It is not clear that Cal-Am would be able to obtain the additional legal interest needed to move its wells further inland. However, the areas of CEMEX inland of Cal-Am’s current proposed well sites are largely slated for reclamation and restoration as dune habitat. With~~ At present, it is too speculative to assess where or how Cal-Am may relocate its wells after their 25-year operating life. Within this 25-year operating period ~~and no,~~ technical advancements may be made that would allow the replacement of the wells or development of alternative wells in alternative locations ~~known to be available that are not feasible today. Thus, with this 25-year operating period,~~ future well sites and operations beyond that period would be considered speculative. However, to ensure that the Project remains consistent with the LCP’s coastal hazards provisions, Special Condition 9 requires Cal-Am to return to the Commission for a permit amendment should there be a

⁵⁶ 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 Coastal Zone, p. 3 (Exhibit 9 in Latham and Watkins Letter to Tom Luster, dated June 30, 2020).

need to replace or relocate any slant wells, no later than 24 years from the commencement of operations, unless the Executive Director deems it unnecessary.

Regarding tsunami hazards, the LCP recognizes the area's high erosion potential and requires that development be located inland of areas near the shoreline that are vulnerable to tsunami runup. Cal-Am has proposed locating the well heads inland of the tsunami runup zone identified in the LCP and at an elevation of approximately 30 feet (NAVD88), which would be above the most recently identified maximum tsunami runup estimate of about 18 feet, both now and under projections of several feet of sea level rise.⁵³⁵⁷

Conclusion

The above-referenced analyses show that the proposed well site locations would allow the wells to avoid hazards from coastal erosion during their expected operating economic life and are therefore consistent with the above-referenced LCP provisions. However, ~~the currently proposed locations are near the most inland extent of Cal-Am's easement and could not be moved out of the hazard zone unless Cal-Am was able to obtain additional legal interest for areas further inland. The terms of the above-referenced CEMEX Settlement may prevent Cal-Am from obtaining additional legal interest on the CEMEX lands, which include the area immediately inland of Cal-Am's property at the site. Thus, although the Project is consistent with the hazard policies of the LCP, this uncertainty about the Project's long-term feasibility is considered in the analysis of alternatives and the Section 30260 override analysis regarding the public welfare finding.~~ two of the wells could be subject to sand burial from the erosive process of dune recession due to blowouts. Special Condition 8 would avoid any potential sand burial by requiring Cal-Am to implement various soft measures as well as a monitoring program.

For the reasons described above, the Commission finds that the Project, as conditioned, will be carried out in a manner that is consistent with the relevant coastal hazards provisions of the LCP.

⁵³⁵⁷ See Wood, et. al., Community Exposure to Tsunami Hazards in California: U.S. ~~Geology~~Geological Survey Scientific Investigations Report 2012-5222, 2013.

L

PROTECTION OF COASTAL WATERS AND MARINE RESOURCES

Coastal Act Section 30230 states:

Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act Section 30231 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Coastal Act Section 30233 states, in relevant part:

(a) ~~(a)~~ The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities ~~...~~

LCLUP Policy 16:

To insure the protection of marine resources for long-term commercial, recreational, scientific and educational purposes.

LCLUP Policy 17:

To insure protection and restoration of the ocean's water quality and biological productivity.

These Coastal Act and LCP policies require generally that development protect marine resources, ocean water quality and biological productivity. These findings separately address the proposed Project's expected effects on coastal waters and marine biological resources resulting from its source water intakes and its discharges. **Additionally, because the proposed Project would involve placement of structures in coastal waters, these Findings address the Project's conformity to the alternatives analysis required pursuant to Coastal Act Section 30233.**

Effects of intake on coastal water quality and marine biology

Cal-Am has specifically selected subsurface slant wells to obtain source water for its proposed desalination facility. The state's Ocean Plan includes provisions applicable to seawater desalination facilities that require, where feasible, that those facilities use wells or other types of subsurface intakes instead of open water intakes to avoid the adverse entrainment and impingement effects on marine life caused by open water intakes.⁵⁴⁵⁸

Cal-Am's proposed slant wells would extend beneath coastal dunes and the beach to extract primarily seawater from the underlying aquifers. Cal-Am's The hydrogeological modeling conducted as part of the site CPUC's EIR/EIS for the Project and its proposed wells shows that the expected area of drawdown from its wells Project pumping would extend some distance offshore and would be expected to induce seawater to be drawn into the wells through the overlying sand and sediments. The depth of the wells – down to about 200 feet below the seafloor – and the relatively large area from which they would induce this drawdown, along with the maximum pumping rate of about 2,500 gallons per minute from each well, would result in the seawater being drawn through the seafloor at an essentially undetectable rate, so any effects that might occur to marine life in the overlying ocean water column or benthic habitat would be imperceptible (see Section III.V.1 for a separate discussion on the proposed Project's expected effects on nearby groundwater resources).⁵⁵⁵⁹ Importantly staff of the Central Coast Regional Water Quality Control Board has determined that Cal-Am's proposed slant well system meets the Ocean Plan requirement that the proposed Project's intakes constitute the "best intake technology feasible to minimize the intake and mortality of all forms of marine life."⁵⁶⁶⁰

Effects of discharge on coastal water quality and marine biology

Cal-Am would direct the brine discharge from its desalination facility through an outfall owned by Monterey One Water. The outfall is currently used to discharge treated wastewater from Monterey One's regional wastewater treatment facility in northern Monterey County to about 11,000 feet offshore in Monterey Bay. The outfall terminates at a diffuser that is about 1,000 feet long and that has over 100 ports through which the discharge reaches ocean waters.

For its proposed discharge, Cal-Am would first route the brine from its facility to an approximately three-million-gallon mixing tank at the wastewater treatment facility where it would blend with treated wastewater before being discharged through the outfall. The current rate of discharge of treated wastewater through the outfall varies significantly over the course of a year – from close to zero gallons per day during the summer months to up to about 17 mgd in the winter – as the treatment facility uses the wastewater to produce recycled water that is

⁵⁴⁵⁸ Entrainment occurs when small organisms, such as plankton, fish eggs, larvae, etc., are pulled into an open-water intake. It results in essentially 100% mortality due to the organisms being subjected to filters and high pressures within the facilities facility's pre-treatment or treatment systems. Impingement occurs when larger fish or other organisms are caught on an intake's screening system and are either killed or injured.

⁵⁵⁵⁹ See State Water Resources Control Board, Water Quality Control Plan – Ocean Waters of California, revised 2019. Available at:

https://www.waterboards.ca.gov/water_issues/programs/ocean/docs/oceanplan2019.pdf
(accessed

https://www.waterboards.ca.gov/water_issues/programs/ocean/docs/oceanplan2019.pdf
(accessed August 10, 2020).

⁵⁶⁶⁰ See January 15, 2019 letter from John Robertson, Executive Officer of the Central Coast Regional Water Quality Control Board to Coastal Commission's Tom Luster regarding Cal-Am's conformity to Ocean Plan provisions Chapter III.M.2.b and III.M.2.d(1) and Water Code section 13142.5(b) regarding intakes.

routed to agricultural operations for irrigation during much of the growing season. At the desalination facility's expected production capacity of 6.4 mgd of potable water, it would contribute about **409** mgd of brine to these discharge flows. Depending on the time of year, that volume would represent anywhere from about not quite half to 100% of the volume of total effluent conveyed through the outfall. Nevertheless, the Final EIR/EIS confirmed that both the "brine only" discharges and the combined discharges would comply with Ocean Plan water quality objectives for all assessed constituents.

The treatment facility's discharge is currently regulated through a National Pollutant Discharge Elimination System ("NPDES") permit that would need to be amended to allow Cal-Am to use the outfall for its discharge.⁵⁷⁶¹ Regional Water Board staff is currently reviewing Cal-Am's proposed discharge to determine what requirements are needed to ensure that the characteristics of the combined discharges under the various flow regimes would meet water quality objectives and be protective of water quality and marine life. Regional Water Board staff is also reviewing what measures are needed for the discharge to be consistent with the state's Ocean Plan Amendment applicable to discharges from seawater desalination facilities. ~~One potential requirement still being evaluated is whether Cal-Am or Monterey One Water would need to modify the outfall's existing diffuser~~ Mitigation Measure 4.3-5, discussed in further detail below, presents multiple potential strategies⁶² that may be employed to ensure that the expected salinity concentrations from both the stand-alone brine discharge and the combined brine and treatment plant discharges conform to the Ocean Plan standard that requires seawater desalination facility discharges into ocean waters to not exceed two parts per thousand over natural background salinity levels as measured no further than 100 meters from the discharge points.⁵⁸⁶³ Modeling conducted to date shows that this area would likely be much smaller, with the 100% brine discharge expected to meet this salinity standard just a few dozen feet from the discharge points, well within the allowable distance.⁶⁴

The discharge would also be limited in its allowable concentrations of other constituents, such as metals, dissolved oxygen, and various contaminants. The Final EIR/EIS identified potential exceedances of several contaminants under certain operational scenarios and uncertainty about whether some constituents would meet the necessary Ocean Plan objectives.⁵⁹ ~~It is therefore unclear at this time as to what effects the proposed desalination facility would have on water quality and marine life and what structural or operational changes might be needed to ensure Cal-Am's discharge would meet the relevant Ocean Plan objectives, and~~

⁵⁷⁶¹ Order No. R3-2018-0017, approved on December 6, 2018 by the Central Coast Regional Water Quality Control Board, acknowledges that Monterey One Water anticipates discharging Cal-Am's brine waste through its outfall, but states that Monterey One Water will need to submit a new application for the Board's consideration and approval prior to any such discharge.

⁶² One potential strategy under consideration is retrofitting the existing outfall diffuser.

⁵⁸⁶³ Natural background salinity in ocean water generally ranges from about 30 to 35 parts per thousand.

⁶⁴ See Final EIR/EIS, p. 4.3-79 ("In all cases, the Ocean Plan salinity limit of 2 ppt is met at the edge of the ZID, the length of which ranges from approximately 10 to 39 feet for the dense discharge scenarios... well within the Ocean Plan receiving water limitation for salinity of 2 ppt at a distance of 328 feet from the diffuser.").

⁵⁹ ~~The Final EIR/EIS noted that under certain operating scenarios, the project could result in exceedances of water quality standards for ammonia and cyanide, along with possible exceedances for up to 10 other constituents of the brine discharge.~~

thereby minimize its potential adverse effects. It is also not clear at this time as to the type and extent of mitigation that may be needed to ⁶⁵

To address these potential ~~adverse effects, exceedances~~ Cal-Am, in its June 30, 2020 letter, acknowledges that the Final EIR/EIS ~~determined that the brine discharge could result in exceedances of several of the state's water quality standards, though Cal-Am also contends that the Final EIR/EIS's~~ imposes Mitigation Measures 4.3-4 and 4.3-5. Consistent with Ocean Plan requirements, Mitigation Measure 4.3-4 requires Cal-Am to implement a monitoring and reporting plan that will ensure that operational discharges from the Project are in compliance with applicable Ocean Plan water quality objectives and salinity standards. The plan will be approved by the Regional Water Board and MBNMS prior to implementation. Additionally, monitoring will be conducted for one year prior to the commencement of operational discharges and will continue until at least five years after operational discharges commence. A draft of this Plan is currently under review by the Regional Water Board, as discussed further below. As a further precaution, Mitigation Measure 4.3-5 ~~would ensure that the discharge meets those standards. This mitigation measure~~ prevents Cal-Am from discharging brine into coastal waters until it can demonstrate that it has implemented any additional design features, engineering solutions, and/or operational measures needed to ensure compliance, ~~which Cal-Am notes could include additional design features, operational changes, diffuser retrofits, or other similar measures. Cal-Am's letter also notes that any potential structural changes are not included in this CDP application, but would be addressed through a separate CDP application to be submitted by Monterey One Water, the owner of the outfall, with Ocean Plan water quality objectives. With implementation of these mitigation measures, the Final EIR/EIS determined that impacts relating to water quality standards, waste discharge requirements, or ocean water quality, as a result of brine discharges from the Project, would be less than significant.~~

~~The Ocean Plan requires dischargers to prepare for Regional Board approval a~~ As noted above, a draft of the monitoring and reporting plan is under review that describes measures that would be implemented to ensure ~~the that~~ discharges are meeting all relevant requirements. ~~A draft of this Plan is currently under review, along with consideration of~~ In addition, the Regional Water Board is considering what operational or design changes might allow the discharges to meet the required objectives. Potential operational changes include modifying the treatment methods, treating the discharges before they are routed to the outfall, or augmenting the flows to increase dilution prior to discharge (although the Ocean Plan Amendment generally prohibits flow augmentation for seawater desalination discharges). Potential design changes include retrofitting the existing diffuser system to allow additional dilution of the discharge, which would involve adding one or more additional structures to the existing outfall. Construction impacts associated with these changes are expected to be minor and temporary. The Final EIR/EIS described these changes to the diffuser as the most effective and reasonable strategy for ensuring compliance. The Final EIR/EIS additionally concluded that secondary construction and operational impacts of the diffuser retrofit would be less than significant.

Potential retrofitting of the existing diffuser, which may be necessary to implement Mitigation Measure 4.3-5, is not included in this CDP application, but would be addressed

⁶⁵ The Final EIR/EIS noted that under certain operating scenarios, the project could result in exceedances of water quality standards for ammonia and cyanide, along with possible exceedances for up to 10 other constituents of the brine discharge.

through a separate CDP application to be submitted by Monterey One Water, the owner of the outfall. In order to ensure that construction of the outfall complies with applicable Coastal Act requirements, the Commission imposes Special Condition 3, which requires, prior to operation of the Project, that the applicant demonstrate that discharges from the outfall would comply with the Ocean Plan and applicable water quality requirements through obtaining and implementing a Coastal Development Permit or Amendment for work on the Monterey One Water outfall, and/or implementing other measures consistent with Final EIR/EIS Mitigation Measure 4.3-5, as necessary, outside of the Commission's jurisdiction.

~~Determining whether~~ Ensuring that the proposed Project ~~can~~ would conform to Ocean Plan requirements would also require that Cal-Am install several monitoring buoys offshore before Cal-Am starts discharging its effluent. This is needed to establish baseline conditions on which to evaluate potential effects of the discharge. The currently proposed plan would include four buoys to be located at different distances from the outfall to measure salinity and other water quality parameters. They would include a seafloor anchor, a package of sensors, floats, and other equipment, all of which would extend about ten feet above the seafloor. Cal-Am would also install a telemetry buoy consisting of a seafloor mooring, ballast chain, a cable riser, and necessary instrumentation, which would extend through the water column to the water surface. It would transmit data from the other buoys to allow near real-time monitoring.

Cal-Am is ~~would~~ also ~~required to~~ replace the existing clamps within the nearshore portion of the outfall with corrosion-resistant clamps that would prevent its brine discharge from damaging the outfall. Although these clamps would be inside the outfall, Cal-Am would need to conduct installation activities on the beach ~~and possibly within coastal waters, at a distance of roughly 100 feet from the shoreline.~~ Work is expected to involve heavy equipment on the beach, as well as a generator, 20-foot container box for equipment storage, a staging and work area, temporary fencing, and possibly excavation around the outfall's existing junction box on the beach. Work would be scheduled during the outfall's low flow summer season, but would require installation of a bypass line that would reroute outfall flows at the junction box for discharge into the nearby coastal waters for the 6 – 8 week period of time that the work would take. ~~Although this installation is generally described in~~ According to the Final EIR/EIS, ~~it is not clear what effects the concentrated direct discharge would have in the flows in the outfall during this period would be de minimis. As such, any adverse impacts to nearshore waters, as the discharge would normally be routed through the outfall's numerous offshore diffusers. However, that discharge would occur for only 6—8 weeks during the treatment plant's lowest flow time of year resulting from temporary discharge during the 6-8 week construction period would be negligible. The Final EIR/EIS additionally includes a mitigation measure to ensure that impacts from clamp replacement would be less than significant.~~⁶⁶ The mitigation measure includes generally avoiding construction work seaward of the mean high water line and keeping construction vehicles as high on the upper beach as possible to avoid contact with ocean waters and intertidal areas. As a further precaution, construction activities that result in a discharge of materials, polluted runoff, or wastes to the beach of the adjacent marine environment would also be prohibited. The need to conduct work during the low flow summer period would also coincide with the end of the Western snowy plover ~~breeding and nesting season. As noted previously, this area of beach is designated as critical habitat for the plover, and work would represent a significant disturbance during a critical period~~

⁶⁶ See Final EIR/EIS Mitigation Measure 4.13-5a.

~~of the plover's life cycle. Finally, and although specific work plans have not been provided, the installation may include placement of fill in coastal waters via grading, placement of the bypass discharge line, or other components of the installation activities.~~ nesting season. Construction is designed to occur during late summer/early fall, when snowy plover eggs are expected to have hatched. This timing would limit the extent to which construction work would interfere with the snowy plover's breeding and nesting season, and minimize any associated adverse impacts.

~~Any of these Project aspects—a potential diffuser retrofit, the~~ In light of the foregoing, the Commission concludes that neither the proposed buoy installation, ~~or nor~~ the WEKO clamp replacement ~~—would involve placing fill in coastal waters in.~~ ⁶⁷ Public Resources Code section 30108.2 defines “fill” as “earth or any other substance or material, including pilings placed for the purposes of erecting structures thereon, placed in a submerged area.” In considering whether Coastal Act Section 30233 applies, the Commission typically considers projects installing permanent structures or placement of sediment or similar material on the seafloor, not temporary anchors, and assesses whether those structures can be modified or arranged differently to avoid impacts on the chosen project site. ⁶⁸ Of particular relevance, the Commission previously elected not to invoke Coastal Act section 30233 under similar circumstances when considering the use of temporary anchors for the recommissioning of the Charles E. Meyer Desalination Facility in Santa Barbara. ⁶⁹ As described above, the work required for each of these Project aspects is temporary in nature and limited in scope, and potential impacts to receiving coastal waters, if any, would be minimal. Accordingly, the Commission concludes that diffuser retrofit, buoy installation, and the WEKO clamp replacement would not involve placing fill in coastal waters.

~~the form of new or modified structures~~ Even if these Project aspects were to involve the placement of fill in coastal waters, as some commenters have suggested, they would be consistent with applicable Coastal Act requirements. Pursuant to Coastal Act Section 30233, ~~any such~~ fill is allowed only if it meets a three-part test: 1) that there is no feasible less environmentally damaging alternative, 2) that feasible mitigation measures have been provided to minimize adverse environmental effects, 3) and that it be for certain specified purposes, including a new or expanded port, energy, or coastal-dependent industrial facility. The two tests related to alternatives and mitigation are similar to tests found in Coastal Act Section 30260, which is applied in Section III.V.P of these Findings. ~~Those Findings include the analysis and conclusions needed to determine conformity to these Section 30233 tests. For the reasons described in those Findings, the Project does not conform to Section 30233 because there is a~~ As discussed therein, there is no feasible ~~and~~ less environmentally

⁶⁷ Any other work on the M1W outfall within the Commission's retained jurisdiction, including potential diffuser retrofit, would be subject to a separate CDP process through M1W.

⁶⁸ See, e.g., Staff Report, Application No. 5-10-293, available at <https://documents.coastal.ca.gov/reports/2011/6/W10b-6-2011.pdf> [applying Section 30233 to installation of new piles, pier, gangway, and platform and assessing alternative configurations of the piles]; Staff Report, Consistency Certification No. CC-0006-14, available at <https://documents.coastal.ca.gov/reports/2014/12/F11b-12-2014.pdf> [applying Section 30233 to the placement of riprap and excavated sediments and assessing alternative dredging and structural improvements at the proposed project site].

⁶⁹ See Staff Report, Application No. 9-14-1781 (Jan. 30, 2015), available at <https://documents.coastal.ca.gov/reports/2015/2/f12b-2-2015.pdf>.

damaging alternative ~~project that will not require fill in coastal waters and because not all mitigation has been identified and imposed.~~available and the Project has identified and implemented all feasible mitigation measures to minimize adverse environmental effects. Further, the Project aspects are for certain specified purposes in support of a coastal-dependent industrial facility. Therefore, even if Project aspects were considered fill as argued by some commenters, the Project would comply with Coastal Act Section 30233.

Conclusion

Based on the analyses above, and on those in Section ~~III~~IV.P of these Findings, the Commission finds that, with implementation of Special Condition 3, the proposed Project components within the Commission's retained jurisdiction ~~do not~~ conform to Coastal Act Section 30233. ~~Were it not for the other Coastal Act and LCP nonconformities noted elsewhere herein—e.g., the Project's nonconformity with Coastal Act and LCP ESHA policies and its nonconformity with Coastal Act Section 30231's provisions for groundwater protection—the Commission could consider adopting special conditions to bring this component of the proposed Project into conformity with Section 30233's requirement for mitigation. However, because the Project is being denied for other reasons, there is no need to identify special conditions that would be needed to ensure conformity to the above-referenced provision regarding placement of fill in coastal waters and applicable LCP provisions.~~ Because the Project would be required to meet water quality objectives and be protective of water quality and marine life, per state Ocean Plan standards, the Project is consistent with Sections 30230 and 30231.⁶⁰

as well as applicable LCP provisions.⁷⁰

⁶⁰ ~~The Commission would also defer to the Regional Water Board with regard to effluent limitations (see Coastal Act Section 30412), though if the Board required changes to the outfall, it might trigger the need for a CDP amendment or new CDP to address those changes.~~

⁷⁰ The Commission would also defer to the Regional Water Board with regard to effluent limitations (see Coastal Act Section 30412).

J. PROTECTION OF GROUNDWATER RESOURCES

Coastal Act Section 30231 states, in relevant part:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, **preventing depletion of ground water supplies** ...
...[emphasis added]

Summary

This Coastal Act provision requires that biological productivity and water quality be maintained, in part, by preventing depletion of groundwater supplies. Cal-Am's proposed Project would extract water from beneath an area near the shoreline that includes several aquifer systems that extend from areas further inland and that contain a blend of intruded seawater and fresh or brackish water. The aquifers are within the Salinas Valley Groundwater Basin **and provide drinking water supplies, support extensive agricultural operations, and serve the nearby wetlands and vernal pool complexes described in Section II.G of these Findings ("SVGB")**. The coastal areas of these aquifers **from which Cal-Am have been heavily intruded by seawater for decades. Project pumping** would extract **its source water are largely seawater-intruded primarily seawater**, though **they include areas of predominantly Cal-Am may extract some** brackish water, **including some areas that may be considered useful for that nonetheless requires treatment before use in** irrigation or as **potential drinking water sources potable use**.

Although Extensive studies **done have been performed** as part of **Cal-Am's the Project's** CEQA review **before the CPUC. Those studies, incorporated into the Final EIR/EIS,** concluded that the proposed Project's well field would have relatively limited effects on nearby groundwater **resources, subsequent evaluations and updated studies have identified some more potential and substantial adverse project impacts, including likely impacts to nearby vernal ponds (described in Section II.F—ESHA). The updated modeling also shows an increased likelihood conditions in the SVGB, and negligible or no effect on regional groundwater supplies. Subsequent evaluations and studies recently performed by the Commission's independent hydrogeologist are generally consistent with the conclusions reached in the studies and groundwater modeling in the Project's Final EIR/EIS. The subsequent studies confirm** that Cal-Am would be required to return **more** water to the **basin than SVGB in the range** previously anticipated in **the Final EIR/EIS and** the Project's Return Water Agreement described elsewhere in these Findings. **This would substantially increase costs to Cal-Am's ratepayers, as described in Section II.N—Environmental Justice and Section II.O—Assessment of Alternatives.** Although some commenters have expressed concern that the Project would adversely affect the water supply wells of the Marina Coast Water District, which are located about two miles from the Project's proposed well field, neither the Final EIR/EIS nor the Commission's independent hydrogeologist found evidence that such impacts are reasonably foreseeable, **though the Commission's consultant has recommended additional modeling and data may be needed to more fully**

characterize the Project's likely effects on groundwater.⁷¹ Therefore, no adverse effects to Marina Coast Water District's water supply wells would occur.

Background and Analysis: The CEQA review of Cal-Am's proposed Project included extensive groundwater monitoring and modeling, along with installation and operation of a test well, to determine what effects its proposed well field would have on the area's underlying aquifers. The CEQA review included establishment of a ~~Hydrologic~~Hydrogeologic Working Group ("HWG") to help develop these monitoring and modeling methods and to assess the resulting studies.⁶⁴~~Those~~As part of the CPUC's CEQA process, the EIR/EIS consultant team performed over six years of fieldwork, data analysis, and groundwater modeling. The EIR/EIS consultant team's groundwater modeling was peer-reviewed by the Lawrence Berkeley National Labs ("LBNL") and revised in response to LBNL's comments. Further, the HWG's modeling and conclusions were subject to peer review by certified hydrogeologists from Environmental Science Associates and hydrogeologists/groundwater modelers from HydroFocus, Inc. The resulting studies and pump tests at the test well identified a relatively limited "zone of influence" around Cal-Am's proposed well field, and the CEQA review concluded that Cal-Am's proposed extraction of ~~groundwater~~source water from ~~this area~~Project pumping would have less than significant effects ~~with regards to~~to groundwater supplies, including groundwater depletion or recharge. These findings and conclusions were incorporated into the CPUC's Final EIR/EIS and its final decision regarding the proposed Project.

Other interested parties conducted additional studies or reviewed the studies conducted during the CEQA review. Some of these studies and reviews reached competing conclusions about the type and extent of the likely effects that Cal-Am's intake wells would have on area groundwater supplies. Some conclusions asserted that Cal-Am's proposed ~~use of groundwater from this area~~Project would have substantially greater adverse effects on groundwater than had been identified during the CEQA review. A key area of concern was whether Cal-Am's ~~groundwater extraction proposed Project~~ would remove greater volumes of "non-seawater" – that is, ~~fresh or brackish water in the Basin that may be of~~groundwater in the SVGB that could be put to beneficial use ~~to others by other groundwater users~~ – than ~~Cal-Am's~~the EIR/EIS's models had predicted.⁷³

⁷¹ 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.) Marina's production wells are screened in the 400-Foot and Deeper Aquifers. (Final EIR/EIS, p. 4.4-75.)

⁶⁴ ~~See documentation provided on Cal-Am's MPWSP website at <http://www.watersupplyproject.org/test-well> (accessed August 14, 2020). The HWG is comprised of two hydrogeologists working on behalf of Cal-Am and one each working for the Salinas Valley Water Coalition and the Monterey County Farm Bureau.~~

⁷² See documentation provided on Cal-Am's MPWSP website at <https://www.watersupplyproject.org/test-well> (accessed August 14, 2020). The HWG is comprised of two hydrogeologists working on behalf of Cal-Am and one each working for the Salinas Valley Water Coalition and the Monterey County Farm Bureau.

⁷³ Cal-Am does not need a permit or water right for its withdrawal of seawater. However, Cal-Am would need to develop appropriative rights for the percentage of groundwater that is not intruded seawater that it would extract and export from the SVGB. To obtain those rights, Cal-Am would have to establish that its use of that water does not harm other existing lawful water users in the

Groundwater modeling and studies, by their very nature, involve some level of uncertainty, as their assumptions and conclusions rely on partial data about the hydrogeologic characteristics of aquifer systems. The set of studies and reviews developed as part of this Project ~~presented a relatively~~included a wide range of ~~interpretations — ranging from Cal-Am’s Project expected to have little or no effect on the local or regional~~reasonably foreseeable scenarios. Based on substantial evidence in the CPUC’s record, the Final EIR/EIS concluded that the Project would have a less than significant impact on groundwater supplies ~~to the Project having substantial and extensive effects on water in the Basin that could be useful to others.~~in the SVGB. As described below, subsequent studies performed by the Commission’s independent hydrogeologist confirm the Final EIR/EIS’s conclusions, particularly as to the projected makeup of the proposed Project’s source water extracted from the SVGB.

Other key areas of concern or disagreement ~~were~~are: 1) whether the data used in ~~Cal-Am’s~~the Final EIR/EIS’s modeling and studies were adequate to characterize conditions of the affected aquifers or the likely or potential effects of Cal-Am’s water extractions from those aquifers; 2) whether Cal-Am’s proposed extractions would induce seawater intrusion or adversely affect any water in those aquifers that may be suitable to treat as fresh water or drinking water; and 3) whether ~~design changes — such as extending~~ Cal-Am’s slant wells could extend further offshore than currently proposed ~~— would eliminate or reduce all or some of any identified adverse effects.~~

Some of the main reasons for disagreement among the studies were their use of different baseline standards, data collection methods, and modeling approaches. For example, Cal-Am’s studies were As described below, the data and analytical framework used in the EIR/EIS’s modeling sufficiently characterizes the SVGB and its aquifers for purposes of evaluating the Project’s potential impacts to groundwater resources. Further, Cal-Am’s proposed Project would not exacerbate seawater intrusion or otherwise adversely affect groundwater in the SVGB. Finally, Cal-Am’s proposed slant wells do not need to be relocated in order to potentially capture more seawater.

Ocean Water Percentage

The Final EIR/EIS’s analysis was focused in part on determining how much ~~“non-seawater”~~seawater Cal-Am’s wells would extract (“ocean water percentage” or “OWP”), as opposed to “non-seawater” — that is, what proportion of the water withdrawn through Cal-Am’s wells would not be fully seawater, but would include ~~fresh or~~ brackish watergroundwater that could be considered an element of the treatable groundwater within the ~~Salinas Valley Basin. The Basin has a prohibition of exporting such water~~SVGB. Under the Monterey County Water Resources Agency Act (“Agency Act”), the SVGB has a restriction on exporting groundwater outside the ~~Basin~~SVGB boundaries, ~~and Cal-Am would essentially have.~~ As such, pursuant to an agreement reached during the CPUC’s review, Cal-Am

SVGB. See Final EIR/EIS, Chapter 2 – Water Demand, Supplies, and Water Rights. The State Water Resources Control Board has determined that Cal-Am could lawfully obtain the necessary groundwater rights to operate the proposed Project.

agreed to return to the SVGB any such portion that is not considered seawater.⁶² ~~Cal-Am's ("return water").~~⁷⁴

The Final EIR/EIS estimated OWP after one year of Project pumping to be 87 to 95%. After two years of Project pumping, the OWP estimate increases to 92-97%. Long-term equilibrium OWP would ultimately fall between 96-99%. In other words, from year one to long-term, the Project's OWP could range from 87 to 99%.⁷⁵

The EIR/EIS's modeling efforts described its analyzed Cal-Am's expected "fresh" OWP and return water withdrawals using a threshold of 500 milligrams per liter ("mg/l") of Total Dissolved Solids ("TDS") – that is, the model considered water groundwater in the aquifers that had TDS concentrations below that threshold as an indicator of how much non-seawater Cal-Am would extract.⁶³⁷⁶ Some of the other studies conducted by third parties such as the Marina Coast Water District used a different threshold – (3,000 mg/l TDS⁶⁴ – and a ⁷⁷), a different data collection method – Airborne Electromagnetic ("AEM")⁷⁸ – and different

~~⁶² A Return Water Agreement established during the CPUC's review provides that Cal-Am would have to monitor the water extracted from its wells, determine the proportion that is not fully seawater (by calculating the salinity of its extracted water as compared to that of seawater), and then return that volume to the Basin at substantially reduced prices, in the form of potable water to be supplied to the Castroville Community Services District. See CPUC Final Decision 18-09-17, Appendix H – Return Water Settlement.~~

⁷⁴ A Return Water Agreement established during the CPUC's review requires that Cal-Am monitor the water extracted from its wells, determine the OWP and corresponding return water component, and then return that volume to the SVGB in the form of potable water to be supplied to the Castroville Community Services District ("CCSD") at CCSD's avoided cost of groundwater pumping. See CPUC Final Decision 18-09-17, Appendix H – Return Water Settlement.

⁷⁵ Final EIR/EIS, p. 4.4-56; see also Final EIR/EIS, Appx. E3.

⁶³⁷⁶ This threshold was established by MCWRA during the CPUC process and is based on California's recommended drinking water objective of no greater than 500 mg/L. See California Code of Regulations, title 22, division 4, chapter 15, article 16, section 64449, Table 64449-B (Consumer Acceptance Contaminant Level Ranges).

~~⁶⁴ This threshold is based on the State Water Board's Resolution 88-63 – Sources of Drinking Water, which identifies groundwater with TDS concentrations of less than 3,000 mg/L to be suitable for drinking water, if treated.~~

⁷⁷ This threshold is based on the State Water Board's Resolution 88-63 – Adoption of Policy Entitled "Sources of Drinking Water," which targets water quality control plans and identifies all surface and groundwaters of the State as "suitable, or potentially suitable," for municipal or domestic water supply, with certain exceptions, including groundwater with TDS concentrations greater than 3,000 mg/L. The policy does not protect groundwater with TDS levels of 3,000 mg/L TDS as actually suitable for agricultural or domestic use, and groundwater with such TDS levels is unfit for beneficial use without treatment. The CPUC therefore evaluated the Project's potential impacts to groundwater and its OWP using regulations under the Safe Drinking Water Act, as described above in footnote 76.

⁷⁸ The CPUC considered the AEM studies as part of its CEQA review and found the studies to be technically flawed. (See CPUC Final Decision 18-09-017, Appendix J, pp. 15, 19-21.) The AEM studies identify claimed "fresh" water that could be extracted by the Project, but a comparison of groundwater monitoring well data and the AEM data shows that the "fresh" water that the studies claim exist is unfit for use without treatment because it exceeds applicable water quality standards. Marina Coast Water District has suggested that a 2019 AEM study fixes any concerns with the prior AEM studies. As described below, the Commission finds the 2019 AEM study is

groundwater gradients that slope toward the Pacific Ocean to conclude that Cal-Am's wells would extract substantially greater volumes of "non-seawater" – and, thus, a lower OWP – than ~~Cal-Am's~~the EIR/EIS's models had shown.

Some of these issues and areas of disagreement would not be fully resolved without additional modeling, and some won't be determined unless and until Cal-Am actually undertook pumping. Cal-Am does not need a permit or water ~~right~~rights for its withdrawal of seawater. However, Cal-Am would need to obtain appropriative rights for the percentage of groundwater that is not intruded seawater that it would extract and export from the Basin. To obtain those rights, it would have to establish that its use of that water was not harming other existing lawful water users in the Basin.⁶⁵⁷⁹ Nonetheless, ~~and~~ with the intent of ~~reducing the existing uncertainties~~ ~~and~~ evaluating some of these areas of concern to determine whether the proposed Project would conform to the groundwater protection provision of Coastal Act Section 30231, Commission staff contracted with an independent licensed hydrogeologist to review some of these studies and conclusions, to conduct additional analyses, and to reach independent conclusions about these issues. The initial review, prepared in November 2019,⁶⁶⁸⁰ concluded that there were several ~~substantial~~ remaining uncertainties about how Cal-Am's extraction of groundwater would affect the groundwater basin and the amount of potentially usable groundwater within the area (see Exhibit 11 – November 2019 Independent Hydrogeological Review). That review concluded that ~~the prior modeling did not adequately characterize some aspects of the underlying aquifers and some of Cal-Am's potential effects on those aquifers. It also concluded that~~ while Cal-Am's proposed groundwater extraction would likely have limited to negligible effects on the rate of seawater intrusion in the area, it appears that Cal-Am's wells ~~would~~could, under certain limited scenarios, extract greater volumes of ~~non-seawater~~return water than had been previously identified. ~~It also in the EIR/EIS. The initial review recognized that any predictions from its proposed modeling would likely be in the range already evaluated in the Final EIR/EIS. Using a larger capture zone assumption, the initial review conservatively determined that the low end of the OWP estimates could be 85 to 90%, and that this low value is likely to underestimate the true OWP. Further, the initial review concluded that changes in groundwater gradients would not likely result in an OWP outside the 90-99% range, and thus, the Project will not extract greater amounts of non-seawater than identified in prior modeling. Nonetheless, the initial review~~ recommended that additional data collection and modeling were needed to further reduce the degree of uncertainty about expected impacts, though it also suggested that some of ~~that~~the uncertainty could be reduced by ensuring that the screened areas of Cal-Am's wells extended further seaward so that there would be a shorter flow path between the wells and the seawater beneath the floor of Monterey Bay.

After the Commission's November 2019 hearing, Cal-Am agreed to fund some of these additional recommended analyses to allow for further reduction in the uncertainties about the proposed Project's effects on groundwater and to better determine the ~~amount of "non-seawater" likely to be extracted by Cal-Am's wells~~proposed Project's OWP. The second review, provided in June 2020 (see Exhibit 12 – Independent Evaluation, Modification, and Use of the North Marina Groundwater Model to Estimate Potential Aquifer Impacts, July 2020)

flawed in its interpretation and use of the AEM data. (See Exhibit 14 – HWG Critique of 2019 AEM Study.)

⁶⁵⁷⁹ See Final EIR/EIS, Chapter 2 – Water Demand, Supplies, ~~and~~ Water Rights.

⁶⁶⁸⁰ See Weiss Associates, Independent Hydrogeological Review of Recent Data and Studies Related to California American Water's Proposed Monterey Regional Water Supply Project, November 1, 2019.

included additional, evaluated modeling and results for various hypothetical scenarios.
The second review concluded the following:

- The additional modeling suggests the amount of recharge into the aquifers – from precipitation, irrigation water percolating downward, etc. – ~~would~~ may affect the percentage of seawater extracted by the wells. The previous modeling ~~did not include this~~ included a recharge component and showed that the wells would initially pump about 85-90% seawater after one year and that the percentage would increase to about 96-99% after the first three years of operation. ~~This updated modeling shows that the amount of seawater withdrawn would not reach that expected steady state of 96-99%, but would vary based on whether it was a wet or dry season, how much irrigation occurred, etc. As described below, this aquifer characteristic is likely to result in Cal-Am needing to return more water to the Salinas Valley Groundwater Basin during wet years, pursuant to the aforementioned Return Water Agreement.~~ The additional modeling included scenarios with various recharge assumptions. The scenarios using reasonable assumptions, including recharge, resulted in OWP estimates of 88% or greater.
- This most recent modeling also concluded that the amount of seawater extracted would vary due to the direction and slope of the groundwater gradient in the Dune Sand and 180-Foot Aquifers; that is, ~~an aquifer~~ a gradient from the shoreline to inland areas, which is currently the most common condition, would result in extraction of a higher ~~percentage of seawater~~ OWP, while a flat ~~gradient~~ or shoreward gradient would result in extraction of a ~~higher percentage of non-seawater. This latter condition could be developed through the upcoming implementation of the Salinas Valley Groundwater Management Plan; however, even with a flat or shoreward gradient~~ lower OWP. The Final EIR/EIS assumed landward gradients in both the Dune Sand and 180-Foot Aquifer in evaluating OWP based on data trends. The additional modeling evaluated different combinations of gradients in the Dune Sand and 180-Foot Aquifers.
- A seaward gradient in the Dune Sand Aquifer does not result in OWP ranges that are significantly different from those evaluated in the Final EIR/EIS. Using the most reasonably foreseeable inputs and assumptions for the groundwater modeling, the additional modeling shows that OWP exceeds 88% even for scenarios in which the Dune Sand Aquifer gradient is seaward.
- While the amount of seawater extracted would vary due to the direction and slope of the groundwater gradient in the 180-Foot Aquifer, the modeling showed that it could assuming a flat or seaward groundwater gradient in the 180-Foot Aquifer is achieved at some point in the future it would still take several decades to ~~increase the percentage of non-seawater~~ centuries to decrease OWP to 75% or lower, due to the large volumes of seawater that have already intruded to inland areas of the aquifer system. The modeling confirmed that, until such time as all the seawater is flushed from the 180-Foot Aquifer, the resulting average OWP would be greater than 91.5%.
- Further, the additional modeling confirmed that it would take decades to centuries to achieve a flat or seaward groundwater gradient in the 180-Foot Aquifer through the implementation of the Salinas Valley Groundwater Management Plan pursuant to the Sustainable Groundwater Management Act (“SGMA”), if at all. “The

landward gradient due to inland pumping that has caused seawater intrusion into the 180-Foot Aquifer is quite steep and has been for more than 60 to 80 years. It is highly unlikely that a similarly steep seaward gradient could be achieved under SGMA. If it could, it would take a similar period of 60 to 80 years to reverse seawater intrusion impacts and bring fresh water from the 180-Foot Aquifer to the Project wellfield. Under a more realistic flat or gentle seaward gradient, it would take far longer than 60 to 80 years to reverse seawater intrusion impacts.” (Exhibit 12, Independent Evaluation, July 2020, p. 4-4, fn. 7.)⁸¹

- The additional modeling results demonstrate OWP exceeds 88% for the assumed seaward gradient in the Dune Sand Aquifer using reasonable assumptions for rainfall recharge. Average annual rainfall for the area is 14.8 inches. However, only a fraction of total annual rainfall actually becomes groundwater recharge – typically 30%. While the additional modeling included scenarios in which annual rainfall recharge inputs were 10-15 inches per year, the scenarios using reasonable assumptions of less than 50% of average total rainfall resulted in OWP ranging from 88-99%.
- The modeling determined that the “capture area” from which Cal-Am’s wells could capture non-seawater from the upper Dune Sand Aquifer, could cover up to about 2.5 square miles. under certain assumed groundwater gradient scenarios. The proposed Project’s capture zone is influenced by the slope and direction of the groundwater gradient.
- The recent modeling also identified areas of expected groundwater drawdown beneath several nearby wetland and vernal pond areas. As described in Section III.V.G of these Findings, ~~this represents a previously unknown and unanalyzed potential impact of the proposed Project that could result in the spatial and/or temporal loss of up to several dozen acres of those wetland areas.~~ these wetlands and vernal pond areas have not been conclusively determined to be dependent on the Dune Sand Aquifer.
- This second review also ~~recommended~~ suggested that additional modeling could be done to further refine ~~and describe potential groundwater impacts. For example, some of these conclusions are derived from use of a “steady state” model rather than a “transient” model that incorporates more dynamic modeling aspects, such as relatively short-term aquifer changes that result from seasonal changes in rainfall or irrigation, and can better account for the amount of groundwater storage in the aquifers. The review also includes several specific recommendations on various components of that transient model to help adequately capture some of the expected reduction in uncertainty.~~ Cal-Am’s expected return water obligations if deemed necessary.

In ~~July~~ August 2020, the above-referenced ~~Hydrogeologic Working Group~~ HWG submitted a ~~critique~~ an evaluation of this most recent review (see Exhibit 13 – ~~Hydrogeologic Working Group~~ HWG Comments on Weiss Report, ~~July 10~~ August 13, 2020). Although this

⁸¹ It should be noted that SGMA does not require seaward gradients in the SVGB aquifers. Rather, SGMA requires that the extent and magnitude of existing seawater intrusion not be exacerbated. (See Cal. Water Code, §§ 10721, 10727.2, 10727.4.)

~~critique evaluation~~ identified several concerns related to this recent modeling, it concurred that the Commission's independent reviewer reached a reasonable conclusion that the amount of seawater in the water withdrawn from Cal-Am's well field would range from about 88 to 99% and would vary in response to precipitation, agricultural pumping rates further inland, and other considerations. ~~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%. Pursuant to the above-referenced Return Water Agreement, this would result in Cal-Am needing to return no more than about 700 acre-feet of water per year to the Salinas Valley Groundwater Basin. The updated modeling, however, shows that during years with higher precipitation rates, lower inland pumping rates, or other reasonably foreseeable conditions, Cal-Am would need to return up to about 2,100 acre-feet per year to the Basin.~~

~~From a perspective of protecting groundwater resources, the CPUC's requirement that Cal-Am return any non-seawater to the Basin through the Return Water Agreement is meant to ensure that groundwater is not exported. In addition, if any party was harmed by Cal-Am's pumping of larger than expected quantities of non-seawater, they could challenge Cal-Am's ability to obtain appropriate rights to that groundwater. However, for purposes of these Findings, this increased return water requirement would affect Project feasibility and cost, as described in Section II.N – Environmental Justice and Section II.O – Assessment of Alternatives. Essentially, because any higher return water volumes would either be subsidized by Cal-Am's ratepayers or would result in additional costs to Cal-Am that it may cover 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. If one or two wet years result in Cal-Am's return water requirements increasing from the expected 700 acre-feet per year to a possible 2,100 acre-feet per year, this would represent a need to subsidize about a third of Cal-Am's total proposed water production of 6,250 acre-feet per year. That subsidy, which could range from about \$3,000 to \$5,000 per acre-foot, would substantially increase the costs for Cal-Am to produce and distribute each unit of water it provides. As described in Section II.N – Environmental Justice – the CPUC required that Cal-Am's investors, not its ratepayers, take on some of the risk that the Project would pump higher volumes of non-seawater; however, its analysis was based on lower assumptions regarding the probable volumes of non-seawater that would be pumped, and the CPUC acknowledged that Cal-Am would be able to ask for rate adjustments in the future if conditions were different than anticipated. Presumably, this higher return water volume would also reduce the water Cal-Am and its customers would be able to use for future growth.~~

Moreover, the additional modeling results for scenarios that used reasonable assumptions and model inputs are consistent with the ranges evaluated in the Final EIR/EIS of 87-99%. The Final EIR/EIS modeling appropriately accounted for rainfall recharge and recognized that "seasonal changes in rainfall will result in a non-steady (i.e., fluctuating) increase in salinity from year-to-year, with some higher rainfall years showing a decrease in salinity and some lower rainfall years showing an increase in salinity."⁸² Thus, the EIR/EIS presented a range of estimated OWPs to account for varying inputs of 87-99%.⁸³ Because the second review confirmed this range under the

⁸² Final EIR/EIS, Appx. E3, p. 65.

⁸³ Final EIR/EIS, p. 4.4-56.

most reasonably foreseeable scenarios with reasonable assumptions, no additional modeling is necessary to refine the Project's estimated OWP and Cal-Am's corresponding return water obligation.

Even if Cal-Am's proposed Project withdraws greater volumes of non-seawater than predicted in the EIR/EIS and confirmed by the updated modeling, the Commission finds that there are no resulting environmental impacts to the SVGB under Coastal Act section 30231. Cal-Am's return water obligations are not mitigation measures designed to reduce or avoid environmental impacts. Cal-Am's return water obligations derive from the Agency Act, which restricts the exportation of groundwater for any use outside the SVGB, and the Return Water Agreement approved by the CPUC and agreed to by CCSD and other stakeholders, as described in Section IV.N of these Findings. The Monterey County Water Resources Agency will implement and enforce Cal-Am's compliance with the Agency Act. Moreover, the CPUC determined that Cal-Am would incur the costs for meeting its return water obligation if "increased due to a greater OWP than that estimated in the FEIR/EIS."⁸⁴ As described in Section IV.N, the CPUC required that Cal-Am's investors, not its ratepayers, assume much of the risk that the Project would pump higher volumes of non-seawater.

Adequacy of the EIR/EIS Data and Modeling

The groundwater modeling for the Final EIR/EIS involved a multi-year, peer-reviewed effort that conservatively analyzed the proposed Project's potential impacts to groundwater supplies in the SVGB.

Beginning in 2013, as part of the CPUC's CEQA review, subsurface soil and groundwater investigations were performed to better understand the hydrogeology of the SVGB and proposed slant well locations. This investigation included installing monitoring wells and Cal-Am's test slant well, subsurface lithologic logging, soil and groundwater sampling and analyses, aquifer testing, and aquifer condition modeling.⁸⁵ Long-term pump testing of Cal-Am's test slant well commenced on April 22, 2015, and ran until February 2018. The results of this testing informed the CPUC's review of the proposed Project, including the EIR/EIS's groundwater modeling. The salinity in the test slant well was also monitored to inform the CPUC's evaluation of the proposed Project's OWP. The EIR/EIS determined that there was generally good agreement between the modeling and test slant well data.⁸⁶

To evaluate the Project's potential impacts to groundwater levels and supplies, the EIR/EIS consultant team used the "superposition" approach to isolate the impact of the proposed Project's pumping on the SVGB. The superposition approach used in the groundwater model is a well-established analytical tool that allows modelers to isolate the effects of a single action, removing all other stressors from the model.⁸⁷ Under the superposition approach, certain inputs – initial groundwater levels and background groundwater recharge – are set to zero to isolate the impact of the proposed Project's

⁸⁴ CPUC Final Decision 18-09-017, p. 192.

⁸⁵ Final EIR/EIS, p. 4.4-24.

⁸⁶ Final EIR/EIS, p. 8.2-73.

⁸⁷ Final EIR/EIS, p. 4.4-55.

pumping on the SVGB. This allowed the CPUC to “determine the incremental drawdown due solely to the proposed groundwater extraction by the slant wells. In other words, superposition is employed to isolate the expected change in groundwater levels and fluxes due solely to the project.”⁸⁸ Changes to regional groundwater aquifers from Project pumping become “independent of the effects from the other stresses on the basin such as seasonal climate and agricultural pumping trends, other pumping wells, injection wells, land use, or contributions from rivers.”⁸⁹

As noted in the Final EIR/EIS, the superposition method increases the reliability of groundwater modeling. By using the superposition method, the CPUC’s consultant team could isolate discrepancies and unquantifiable stresses introduced by initial water levels, boundary conditions, and bias attributed to certain groundwater recharge and pumping.⁹⁰ “In this case, pumping and recharge are not well quantified for the [SVGB], and future climate, pumping, and recharge are predicted with even less accuracy. Thus, superposition is a superior approach compared to attempts at calibrating a regional model because the simulation of these unquantified stresses is unnecessary.”⁹¹ The Commission agrees with the CPUC’s use of the superposition approach to evaluate the proposed Project’s groundwater impacts.

Some commenters have further suggested that the Commission needs to consider and incorporate the AEM data, as well as Fort Ord salinity data from 2019, into groundwater modeling for the Project. As described below, the AEM studies – a 2017 AEM study submitted to and rejected by the CPUC, and a 2019 AEM study – are flawed in their characterization of SVGB groundwater, and the Fort Ord data came from monitoring wells outside the Project area and, thus, are not relevant to the Commission’s evaluation of the proposed Project’s groundwater impacts. The HWG reviewed the AEM studies and Fort Ord data and submitted critiques to the CPUC, City of Marina, and the Commission.⁹² The HWG concurred that the AEM studies conducted in the Marina area do not identify or quantify the occurrence of fresh water, and that the Fort Ord data is irrelevant to the proposed Project.

- 2017 and 2019 AEM Studies: The 2017 and 2019 AEM studies evaluate the SVGB using AEM data to define TDS levels and areas of claimed “fresh water” in the study area. The CPUC evaluated the 2017 AEM study as part of the proposed Project’s CEQA review. The CPUC determined that the 2017 AEM study did not demonstrate that fresh or potable water exists in the Project area and that the 2017 AEM study incorrectly relied on a 3,000 mg/L TDS standard to delineate fresh

⁸⁸ Final EIR/EIS, pp. 8.2-93 to 8.2-94; see also *id.*, p. 8.2-80.

⁸⁹ Final EIR/EIS, pp. 8.2-93 to 8.2-94.

⁹⁰ Final EIR/EIS, pp. 8.2-93, 8.5-646, 8.5-750.

⁹¹ Final EIR/EIS, p. 8.5-750.

⁹² See HWG Comments on Technical Appendices/Attachments to Letters Submitted by MCWD and City of Marina, August 15, 2018; HWG Comments on Technical Presentations and Letters/Memorandum Prepared by HGC, EKI, and MCWD, January 25, 2019; HWG Responses to Dr. Knight Letter Addressed to HWG, March 6, 2019; HWG Comments on Remy Moose Manley Letter Attachments Prepared by HGC, EKI, and AGF, April 12, 2019; Exhibit 14 – HWG Comments on AGF Final Report on the 2019 AEM Survey, June 26, 2020.

water.⁹³ The CPUC further concluded that the 2017 AEM data collection effort represented a single snapshot in time (May 2017) with maximum input of fresh water following a record wet year (2016-2017), and, therefore, was not representative of existing SVGB conditions. Finally, the CPUC found that the 2017 AEM study was not calibrated with data collected from groundwater monitoring wells in the area, and that the study's control points were not made public or provided to the CPUC for review. As a result, the CPUC concluded that the "lack of adherence to standard protocols for the presentation, data analysis, and technical peer review calls into question whether the report can be used as a reliable, unbiased technical source."⁹⁴ The Commission agrees with the CPUC's conclusions regarding the reliability and sufficiency of the 2017 AEM study.

The Commission further finds that there are uncertainties in the 2019 AEM study, as it does not incorporate all valid monitoring well data. The study uses only seven of 36 geophysical logs from the MPWSP monitoring wells. In addition, the study estimates chloride and TDS concentrations in the area based on measured data for only 12 of 24 MPWSP monitoring wells. Therefore in both cases, an incomplete set of available data is used. Further, the study does not describe the lithology and potential ranges of water quality that impact groundwater conductivity and resistivity. This creates uncertainty in the distribution of water quality in aquifers with widely varied salinity levels due to seawater intrusion. Moreover, the study uses data from the in-situ transducers that only measure electrical conductivity without accounting for the depth setting within the well. (See Exhibit 14 – HWG Comments on AGE Final Report on the 2019 AEM Survey, June 26, 2020.) Because the use and interpretations of data in the 2019 AEM study is severely flawed, the Commission finds that additional modeling to account for the AEM data is not required or appropriate.

- Fort Ord Data: The Fort Ord salinity data is not relevant to the analysis of the proposed Project's potential groundwater impacts. The data is collected from monitoring wells outside the Project's potential impact area. Therefore, the Commission finds that additional modeling to incorporate the Fort Ord data is not required or appropriate.

Some commenters also suggest that CEMEX's operations during the test slant well pumping could have impacted the Final EIR/EIS's modeling of OWP by increasing the predicted OWP. These comments were considered and rejected during the CPUC's CEQA review of the proposed Project. The HWG's Final Report (2017), incorporated into the EIR/EIS, included and analyzed regional groundwater data and the impact of CEMEX's operations on the modeling.⁹⁵ Dredge pond salinity is similar to groundwater salinity along the coast – both are near seawater salinity – including beneath the CEMEX percolation ponds near Cal-Am's test slant well. However, CEMEX well water was approximately half the salinity of seawater and was used to wash sand during CEMEX operations. That well water was then discharged to the percolation ponds, thereby

⁹³ See footnote 77 above.

⁹⁴ See CPUC Final Decision 18-09-017, Appendix J.

⁹⁵ See also HWG Comments on MCWD/Marina Technical Appendices/Attachments, August 25, 2018, pp. 30-31.

lowering the overall salinity of the water in the ponds. The net effect of the percolation pond water was to lower salinity in the test slant well.

The Final EIR/EIS's data and modeling accurately characterized the SVGB and the proposed Project's potential impacts to groundwater supplies in the SVGB. Therefore, additional data collection and monitoring are not necessary or appropriate.

Preventing Further Seawater Intrusion

Cal-Am's proposed Project will benefit the SVGB by halting further seawater intrusion into the Basin. As a result of extensive pumping of groundwater from the SVGB since the 1940s, the SVGB has experienced significant seawater intrusion. The proposed Project's pumping will draw seawater and contaminated groundwater from the coastal aquifers of the SVGB, halting or reversing the current landward movement of seawater intrusion further into the SVGB. Based on the Final EIR/EIS and CPUC's record, the CPUC's final decision determined that Cal-Am's proposed Project would "be expected to regard future inland migration of the seawater intrusion front, by intercepting and capturing some of the seawater that currently migrates inland across the coastline."⁹⁶ The Commission's independent hydrogeologist confirmed that the proposed Project would prevent, rather than exacerbate, further seawater intrusion beyond the Project's capture zone.⁹⁷

Relocation or Extension of the Slant Wells

A number of commenters have suggested that many of the above-referenced effects could be reduced or eliminated by having Cal-Am install longer slant wells that would draw water almost entirely from beneath the seafloor instead of from the proposed location within the aquifer system. However, while other types of wells can be drilled to greater distances, the drilling technology involved in installing slant wells generally limits them to a maximum length of several hundred feet. As Further, locating or extending the slant wells further seaward would not make a material difference to the OWP, and would have no effect on regional groundwater conditions. The ocean provides a significant volume of seawater at the recharge boundary in the Dune Sand Aquifer, making wells screened just beneath the beach as effective in extracting high volumes of seawater as those screened hundreds of feet further under the seafloor.⁹⁸ Moreover, as noted elsewhere in these Findings, the proposed well head locations were selected to reduce potential effects of coastal erosion and sea level rise, so moving them closer to the shoreline to allow the wells to reach beneath the seafloor would increase the risks from those hazards.

Some commenters suggest that the slant wells could be moved further inland and outside of the Coastal Zone. At the coast, seawater entering the slant wells has the shortest and least restricted pathway through the overlying seafloor deposits. Further, in their proposed location, the slant wells would have a cone of depression with a western extent just offshore where the drawdown would be deepest, creating more flow of seawater to the slant wells. In other words, the slant wells would experience a higher

⁹⁶ CPUC Final Decision 18-09-017, p. C-75.

⁹⁷ Weiss Associates, Independent Hydrogeological Review of Recent Data and Studies Related to California American Water's Proposed Monterey Regional Water Supply Project, November 1, 2019, pp. 2, 7.

⁹⁸ Final EIR/EIS, Appx. E3, p. 23; Final EIR/EIS, p. 8.5-730.

yield of seawater if located near the coast.⁹⁹ The CPUC also determined that the current location and configuration of the proposed Project's slant well network is the environmentally superior design to capture groundwater contaminated by seawater intrusion and prevent further inland migration of seawater.¹⁰⁰

Conclusion

Based on the analysis set forth above, in the Commission's record, and in the Final EIR/EIS, the Commission has determined that ~~additional modeling and analysis is needed to identify the extent of~~ Cal-Am's ~~likely or potential effects on possible~~ proposed Project will not result in significant depletion of groundwater supplies, ~~including the effects of the expected depletion on nearby wetlands and vernal ponds~~ and that additional modeling is unnecessary to refine further Cal-Am's return water obligations under the Return Water Agreement. The Commission therefore finds ~~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.

Note: These are not Commission staff's Recommended Findings

⁹⁹ See Final EIR/EIS, p. 4.4-65.

¹⁰⁰ See CPUC Final Decision 18-09-017, p. 173.

K. ENERGY CONSUMPTION & CLIMATE CHANGE

LCP Policy 39 states that the City's intent is:

To encourage development which keeps energy consumption to the lowest level possible.

Coastal Act Section 30253 states, in relevant part:

New development shall do all of the following:

c) Be consistent with the requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.

d) Minimize energy consumption and vehicle miles traveled.

Constructing and operating major water, energy, telecommunication, and transportation projects can use a significant amount of energy, thereby significantly increasing emissions of greenhouse gases ("GHGs").⁶⁷¹⁰¹ These emissions exacerbate climate change caused by global warming, which, in turn can cause significant adverse impacts to coastal resources of California. The Coastal Act has a number of provisions that provide authority to take steps to reduce causes and effects of climate change and to adapt to the effects of global warming. These include the Coastal Act's public access and recreation policies (Sections 30220 and 30211), marine resource and water quality policies (Sections 30230 and 30231), the environmentally sensitive habitat area protection policy (Section 30240), and the coastal hazards policy (Section 30253(1) and (2)). Further, Section 30253 requires, in part, that development be consistent with the state's air pollution control requirements and that it minimize energy consumption.

The state has long recognized the threats of climate change and the importance of taking steps to reduce those threats. In 2006, for example, the California Legislature adopted the state's 2006 Global Warming Solutions Act and found:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems. (California Health & Safety Code, Division 25.5, Part 1).

⁶⁷¹⁰¹ Greenhouse gases are any gas, both natural and anthropogenic, that absorbs infrared radiation in the atmosphere and include water vapor, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). These greenhouse gases lead to the trapping and buildup of heat in the atmosphere near the earth's surface. Carbon dioxide is the major anthropogenic greenhouse gas. All greenhouse gases are quantified collectively by the carbon dioxide equivalent ("CO₂e"), or the amount of CO₂ that would have the same global warming potential, when measured over a specific time period.

Climate change covers a broad range of impacts that can occur due to GHG emissions, such as increased sea level rise, changes in the frequency, intensity or occurrence of heavy precipitation and droughts, changes in the frequency and intensity of extreme temperature events, and changes in ocean water chemistry. California's and the Coastal Commission's current guidance documents – *Rising Seas in California: An Update on Sea-Level Rise Science*, the *State of California Sea-Level Rise Guidance: 2018 Update*, and the Commission's *Sea Level Rise Policy Guidance* – build on several previous assessments and projections⁶⁸¹⁰² that describe and recognize that within the coming century potentially severe impacts will likely occur in the areas of sea level, water resources, agriculture, forests and landscapes, and public health. Many of these effects will impact the coastal zone and resources specifically protected by the Coastal Act, including impacts to air quality, species distribution and diversity, agriculture, expansion of invasive species, increase in plant pathogens, alteration of sensitive habitat, wildfires, rising sea level, coastal flooding, and coastal erosion. In addition, absorption of carbon dioxide by the ocean leads to a decrease in ocean pH with concomitant consumption of dissolved carbonate ions, which adversely impacts ~~calcite-secreting~~calcite-secreting marine organisms (including many species of phytoplankton, zooplankton, clams, snails, sea stars, sea urchins, crabs, shrimp, and others). The most direct impacts of global warming focused on the coastal zone are sea level rise and its associated impacts, ocean warming, and ocean acidification.

Expected Direct and Indirect CO₂e Emissions

Cal-Am's Project would result in direct GHG emissions during Project construction, primarily due to use of motorized equipment, and would result in ongoing indirect GHG emissions during facility operations due to its use of purchased electricity. Regarding Project construction, the Final EIR/EIS calculated expected construction-related emissions based on the presumed equipment use over a 24-month construction period. It determined that total direct construction emissions would be about 13,680 tonnes CO₂e, which when annualized over the then-expected 40-year Project life, would equal about 342 tonnes CO₂e per year.⁶⁹¹⁰³ This does not include emissions that would result from the required installation of the outfall liner described in Section ~~III~~IV.A above, which ~~would~~could potentially make these total and annualized emissions somewhat higher. ~~As described elsewhere in these Findings, if the Project operates for just 25 years due to Cal-Am being unable to relocate its wells after their expected operating life, the annualized emissions would be about 547 tonnes CO₂e per year.~~

Regarding Project operations, the facility would be expected to use approximately ~~63,000~~38,000 megawatt-hours of electricity per year, which would be an increase of almost ~~52,000~~27,000 megawatt-hours per year over Cal-Am's existing baseline electrical use for its water portfolio (based on the 2015 baseline used in the Final EIR/EIS). The total indirect annual emissions resulting from that electrical use would depend on what sources of energy (fossil fuels, wind, sun, etc.) are used to generate the electricity supplied to the Project. These indirect emissions would be expected to decrease over time as PG&E and the energy producers it purchases electricity from are able to institute emission reduction measures required pursuant to AB 32 and other state laws, such as increasing the use of lower emitting energy sources, such as solar

⁶⁸¹⁰² See, for example, California's 2006 Climate Change Impacts Assessment, 2009 Climate Adaptation Strategy and 2013 Indicators of Climate Change in California reports, and reports by the Intergovernmental Panel on Climate Change (IPCC Reports in 1990, 1995, 2001, 2007 and 2013) and various climate research centers (such as the Pew Center on Global Climate Change and the Heinz Center), and the Commission's own 2015 Sea-Level Rise Policy Guidance.

⁶⁹¹⁰³ Note: Standard guidance for air districts includes annualizing construction emissions over the expected operating life of the project.

or wind instead of natural gas. Additionally, and as stated in the Final EIR/EIS, there would also be some emissions – in the range of about 63 to 490 tonnes per year – resulting from the release of carbon dioxide caused by pulling seawater and groundwater from depth, where atmospheric pressure is much higher than at the ground surface. There would ~~be~~ also be other emissions resulting from vehicle use needed for Project operations and maintenance, use and testing of an emergency generator, etc. The Final EIR/EIS amortized these emissions over an expected 40-year operating life for the facility to determine that these operationally-related emissions would total just over 5,188 tonnes per year, which would be well above the 2,000-tonne per year significance threshold identified in the Final EIR/EIS.⁷⁰¹⁰⁴

Cal-Am's desalination facility, which would use the great majority of the overall Project's energy, would be located outside of the coastal zone. Coastal Act Section 30604(d) states that "[n]o development or any portion thereof which is outside the coastal zone shall be subject to the coastal development permit requirements of this division." Accordingly, this analysis only considers whether the portions of the Project inside the coastal zone comply with the relevant LCP and Coastal Act policies, though the Findings discuss overall Project energy use for context. The portions of the Project within the coastal zone would use energy for construction of those components and would use electricity for running the slant well pumps.

To address the Project's emissions, the Final EIR/EIS includes a mitigation measure meant to ensure that Cal-Am's proposed GHG Emissions Reductions Plan results in net zero operational emissions. This measure requires Cal-Am to identify state-of-the-art energy recovery and conservation technologies that it can include as part of its Project, ~~and requires Cal-Am to use. The measure provides the following loading order: 1) obtain renewable energy to the extent possible and to from on-site solar panels and/or the an 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 Credits, Carbon Offsets, and other similar instruments that are meant to offset emissions and that are acceptable to any of several state-approved carbon registries.⁷⁴ Certificates for projects or activities in California; and 4) procure and retire Carbon Offsets.¹⁰⁵ Based on the loading order, Cal-Am is most likely to purchase renewable energy since it is a less expensive option than purchasing and retiring carbon offsets.~~ The measure also includes reporting requirements to ensure that Cal-Am achieves net zero emissions for each year's operations. In addition, the Final EIR/EIS 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. With the

⁷⁰¹⁰⁴ The Final EIR/EIS used a threshold of 2,000 tonnes of CO₂e per year to determine if the proposed project's emissions would represent a significant adverse environmental effect.

⁷⁴ ~~Per the Final EIR/EIS, these include the Climate Action Reserve, the American Carbon Registry, the Verified Carbon Standard, or the Clean Development Mechanism; or (ii) any other entity approved by the California Air Resources Board to act as an "offset project registry" under the state's Cap-and-Trade Program.~~

¹⁰⁵ Per the Final EIR/EIS, these include the Climate Action Reserve, the American Carbon Registry, the Verified Carbon Standard, or the Clean Development Mechanism; or (ii) any other entity approved by the California Air Resources Board to act as an "offset project registry" under the state's Cap-and-Trade Program.

designs and mitigation measures incorporated in the EIR/EIS and the Project, the Project would minimize energy consumption, consistent with the LCP and Coastal Act requirements.

Conclusion

~~The~~ For the reasons described above, the Commission finds that the portions of the Project in the coastal zone appropriately minimize energy consumption, consistent with LCP and Coastal Act policies. ~~However, as described in Section II.O of these Findings regarding alternatives, there is a feasible alternative to the Project that would use significantly less energy than Cal-Am's proposed Project, albeit while producing only about a third of the water, and would operate entirely on renewable energy, as opposed to Cal-Am's proposal to use renewable energy, purchase emission credits, or a combination of both. As a recent court opinion described, purchasing offsets and carbon credits does not necessarily result in real, permanent, verifiable, and enforceable greenhouse gas mitigation. *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal.App.5th 467. If Cal-Am was not able to operate entirely on renewable energy, it would result in higher GHG emissions than the alternative project.~~

Note: These are not Commission staff's Recommended Findings

L PUBLIC ACCESS AND RECREATION

LCLUP Policy 1 is:

To insure access to and along the beach, consistent with the recreational needs and environmental sensitivity of Marina's Coastal area.

LCLUP Policy 2 is:

To provide beach access and recreational opportunities consistent with public safety and with the protection of the rights of the general public and of private property owners.

LCLUP Policy 3 is:

To provide beach access in conjunction with the new development where it is compatible with public safety, military security and natural resources protection; and does not duplicate similar access nearby.

The LCLUP's "North of Reservation Road Planning Area" requires that proposed development consider:

Retention of uninterrupted lateral access along the sandy beach frontage.

Protect and continue to provide public access from the nearest public roadway to the ocean.

Structures necessary for the functioning of any Coastal Conservation and Development use (e.g., dredgelines, sewer outfall lines) may cross the sandy beach designated Park and Open Space provided lateral beach access is not significantly blocked.

Coastal Act Section 30210 states:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Coastal Act Section 30211 states:

Development shall not interfere with the ~~public's~~public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Coastal Act Section 30212(a) states:

Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) It is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) Adequate access exists nearby, or, (3) Agriculture would be adversely

affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Coastal Act Section 30214 states, in relevant part:

- (a) ~~(a)~~ The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to the following:
- (1) ~~(1)~~ Topographic and geologic site characteristics.
 - (2) ~~(2)~~ The capacity of the site to sustain use and at what level of intensity.
 - (3) ~~(3)~~ The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.
 - (4) ~~(4)~~ The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

Coastal Act Section 30221 states:

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Because most Project components in the coastal zone, including the well field and portions of the Source Water Pipeline, would be located between the first public road and the sea, the Coastal Act's public access and recreation provisions apply to all such development in both the consolidated permit action as well as the de novo permit in the City's LCP jurisdiction.

LCP and Coastal Act policies require generally that development located adjacent to the shoreline in areas with public use not interfere with that use and that they provide access to the shoreline. Most Project components – including the desalination facility and most of the pipelines – would be located some distance from the shoreline or even outside the coastal zone and would cause few, if any, effects on public access to the shoreline or public recreation. There would likely be short-term effects resulting from temporary traffic closures or detours needed during pipeline construction in some of the rights-of-way Cal-Am plans to use, but those effects would be relatively temporary and minimal. However, Project construction and operations at the well field and outfall area on the CEMEX site ~~would~~could potentially have greater adverse impacts, as described below.

Effects during construction

The CEMEX site is currently an active industrial facility that does not provide vertical access to the shoreline. Coastal access at the site is primarily available as lateral access along the beach from access points to the north and south. During construction, work to develop the well field and the Project's Source Water Pipeline would occur several hundred feet from the shoreline and would not be expected to affect access to or along the beach and would have little, if any, effect on public access or recreational use. Cal-Am's installation offshore of the modified diffuser components needed to allow its use of the existing wastewater outfall would involve boats and divers working in coastal waters and would result in temporary and minor effects to use of those coastal ~~waters~~water for fishing or other uses. These construction-

related activities would be expected to be consistent with, and not conflict with, the above policies, as they would not require activities or structures on the beach that would inhibit public access or impede beach users.

One component of the Project's construction – replacement of some clamps on the nearshore area of the outfall line – would occur on the beach at the CEMEX site and ~~would likely could~~ result in temporary ~~adverse~~ effects on public access during ~~the six to eight week~~ construction ~~period~~. Installation would involve heavy equipment operating on the beach, placement of barriers and protective work zones around the installation, and other measures ~~that could prevent lateral access along the shoreline during extreme high tide events for a period of six to eight weeks during the summer. The aforementioned installation of an outfall liner, if done as described in the Final EIR/EIS, could also involve these types of activities and effects on the beach.~~ Lateral beach access would remain open during the six to eight weeks of construction with the potential exception of extreme high tide events. The Final EIR/EIS includes a mitigation measure to ensure that impacts from clamp replacement would be less than significant.¹⁰⁶ Specifically, the mitigation measure 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 work occurs. The mitigation measure 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.¹⁰⁷ 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. With implementation of the mitigation measure and Special Condition 10, which would require Cal-Am to prepare a Public Access Plan to further minimize public access impacts from construction and would include a contingency plan for moving construction materials in the event of a tidal surge, the clamp replacement would not significantly affect lateral access to the beach and would be consistent with applicable LCP and Coastal Act policies.

Effects during Project operations

The existing sand mining operations at the CEMEX site will end within a few years and the site will generally be made available for public access, habitat restoration, and passive recreational uses. Pursuant to the above-referenced CEMEX Settlement Agreement, the CEMEX site will be transferred to another owner at some point, though this is expected to take several years, and may be after Cal-Am's well field construction would be complete.

~~During Project operations, Cal-Am's 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.~~ The site is currently privately owned and operated for purposes of sand mining, and there is not public access at the site of the proposed wellheads. Project operations therefore would not cause public access or recreation impacts compared to currently existing conditions. ~~However, the~~ The CEMEX Settlement Agreement anticipates that most of approved by the Commission restricts future development on the CEMEX site ~~will be used for~~ to habitat restoration, public access,

¹⁰⁶ See Final EIR/EIS Mitigation Measure 4.13-5a.

¹⁰⁷ This requirement has been incorporated into Special Condition 10.

~~and low-impact~~ passive recreation opportunities. ~~Because this is a known change in environmental conditions that would occur before or during Project construction and operation, it is also appropriate to consider how the Project would affect public access under those future conditions. 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.~~ public education, and activities consistent with Cal-Am's existing 30-acre permanent easement. Prior to the site becoming open for public access, a government agency or non-profit entity must purchase the property and the purchase must be approved by the Commission. There is no current timeline for such a purchase. Further, while the CEMEX Settlement Agreement requires CEMEX to transfer title in the property to the 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 or for certain activities such as ESHA restoration and does not provide funding for such activities. As noted above, the CEMEX Settlement Agreement also provides for uses consistent with Cal-Am's existing easement, which remains binding on any future owner or manager of the CEMEX site. The proposed Project's well field and maintenance activities would be located entirely within Cal-Am's 30-acre easement area.

Thus, although the Commission may adopt a restoration and access plan for the entire CEMEX site pursuant to the CEMEX Settlement Agreement in the future, it is uncertain when that would occur or what exact scope of uses would be permitted on various components of the site.

~~It is unclear at this time how these aspects of the Project would affect or prevent public access over this part of the CEMEX site in the future. Until the Commission approves a restoration and access plan pursuant to the Agreement, it is difficult to know exactly how much of an effect Cal-Am's Project would have on future public access and recreation within the CEMEX site or along the shoreline. However, the Project would, at a minimum,~~ Regardless, the Project's proposed development on the site and operations would remain the same. 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~~ approximately every five years for recommended maintenance, and result in use of vehicles and other equipment over an approximately ~~62.2~~ 62.2 acre area over ~~time. This would prevent at least some portion of the overall area used by Cal-Am from being restored and used for public access or recreation. This~~ the Project's lifetime on the 400+ acre CEMEX site, though not all of that acreage would be used at once. The area is a relatively small portion of the overall CEMEX site, and there is significant beach and coastal area available nearby for coastal access and recreation. ~~However, allowing an industrial use to occupy and use up to six acres of prime coastal land that could otherwise be used for coastal~~ Although there are no expected impacts to public access and recreation ~~does not maximize public access, as required by the Coastal Act. As noted elsewhere in these Findings, any adverse effects on access and recreation would likely be experienced disproportionately by members of the nearby communities described in Section II.N—Environmental Justice.~~ from the proposed operations, Special Condition 10 would ensure no interference with public access, and allow the Commission to require Cal-Am to make changes to the Public Access Plan depending on the final approved use of the remainder of the CEMEX site.

In a letter it submitted to the Coastal Commission on June 30, 2020, Cal-Am asserts that the Commission should not consider Cal-Am's use of this area to be a public access impact because the Commission's Settlement Agreement anticipated that Cal-Am might use this area for its Project. It is true that the Settlement Agreement acknowledges that Cal-Am has rights to its easement area and permits uses consistent with Cal-Am's anticipated operations in that area. However, the Settlement Agreement merely stated that it did not interfere with any existing property rights that Cal-Am had on the CEMEX property; it did not guarantee Commission approval of a later GDP for the desalination project or state or imply that it would not analyze or require mitigation for public access or other impacts of any future Cal-Am project on the CEMEX property. Thus, there would not be public access impacts from Project operations compared with existing conditions, nor compared to one set of possible future conditions as allowed for in the Settlement Agreement, but there would be a reduction in access and recreational opportunities compared to what would occur without the Project.

Conclusion

Conclusion

The development, as proposed, ~~would~~could result in minor temporary adverse impacts to public access and recreation during construction related to clamp replacement. It would also result in ~~relatively modest, but by no means insignificant, long-term loss of public access and recreation opportunities. Were it not for the Coastal Act and LCP nonconformities noted elsewhere in these findings — e.g., the Project's nonconformity with Coastal Act and LCP ESHA policies — the Commission could require special conditions requiring Cal-Am to implement measures to reduce and mitigate for public access impacts and ensure its proposed Project would be consistent with the above-referenced Coastal Act and LCP provisions related to public access and recreation~~a small permanent project footprint on the CEMEX site during operations. To address potential public access related impacts during construction and operations, Special Condition 10 requires Cal-Am to prepare a Public Access Plan for Executive Director review and approval, which will: (1) minimize construction and maintenance activities to the maximum extent feasible in order to minimize potential impacts on public access; (2) prohibit construction and maintenance equipment or any related activity outside an identified staging area and construction corridors; (3) limit impacts to the sandy beach area and provide a contingency plan for moving large materials associated with the outfall clamp work in the event of a tidal surge; (4) maintain the limited permanent project footprint of approximately 0.25 acres; and (5) commit Cal-Am to modification of the Public Access Plan as required by the Executive Director in light of any future restoration and access plan prepared pursuant to the CEMEX Settlement Agreement. With these conditions, there would not be public access impacts from Project construction or operations.

~~However, because these areas of nonconformity do not allow the Project to be fully consistent with the relevant Coastal Act or LCP provisions, there is no need to identify special conditions in this section of the Findings that would result in it being only partially consistent with the Coastal Act and LCP. Because the proposed Project is considered a coastal-dependent industrial facility, the Commission has the discretion to apply the three tests of Coastal Act Section 30260 and approve the Project notwithstanding its inconsistencies with Coastal Act and LCP provisions. However, as described in Section II.P of these Findings~~For the reasons described above, the Commission finds that the Project ~~does not meet any of those three tests and therefore denies the GDP application and appeal. As a result, there is no need to identify special conditions that may be needed to ensure conformity to the above-referenced~~as

conditioned, will be carried out in a manner that is protective of public access and recreation and is therefore consistent with the relevant LCP and Coastal Act provisions.

Note: These are not Commission staff's Recommended Findings

M. VISUAL RESOURCES

The LCP's Preservation and Enhancement of Coastal Views policy states:

Views of the dunes from Highway 1 and the beach shall be protected by keeping development off of the primary ridgeline. Development below the ridgelines shall be limited in height and mass to blend into the face of the dunes: generally structures should be hidden from public view where physical and habitat constraints allow. Where this is not possible, structures shall be clustered and sited to be as inconspicuous as possible.

In areas where mining activity or blowouts have removed sand dune landforms, new development shall not extend above the height of the nearest adjacent sand dunes and shall be clustered so as to preserve access views across its site from Highway One.

The LCP's North of Reservation Road Planning Area requires proposed development consider:

Visibility of new uses from Highway 1 and from the water's edge.

Coastal Act Section 30251 states:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Project components within the coastal zone would consist primarily of pipelines and subgrade components that would have little, if any, visual impact once construction and installation would be completed. Within the City of Marina, the Project's well field would include above-grade well heads and electrical boxes surrounded by fences, with no completed Project components exceeding about ten feet in height. The City's LCP generally requires that permitted development protect views to and along the coast and specifically requires that views of the dune area from Highway 1 and the beach be protected by keeping development below the dune ridgelines, limiting its height, and clustering structures to the extent allowed by physical and habitat constraints.

Some Project construction would occur on or near the Monterey Bay shoreline and would be visible from other nearby publicly accessible shoreline areas, including the highly scenic Marina Dune Complex. These areas are valued in part for their views of the Bay, for wildlife and bird watching, and for recreational activities. During construction, the main Project activities that would affect visual resources would be staging and operating the drilling equipment needed to install the wells. These activities would result in visual impacts over the approximately 15 months of well installation. Most of these activities, such as the use of large construction equipment, are similar to those currently occurring as part of the sand mining activities at the site and are expected to be visually equivalent to those of the mining operations. Some of the Project's activities – e.g., ingress and egress, and the higher drill rigs – may be viewed by passing motorists on Highway 1 or by beach users, though most would have distant views that

would be partially blocked by intervening dune formations and vegetation. The most visible construction activities would be the lighting associated with the Project, and ~~construction of replacement of clamps on the outfall liner, which would be on the beach during summer months of higher public use.~~

During operations, the visual impacts of the well heads, surge tanks, and fences at the site would be relatively minimal, ~~though their effects would depend in part on the eventual surrounding uses at the site.~~ Preliminary site designs show that most of these components would be completed in muted tones to blend into the appearance of the ~~dune habitat. For example, the infrastructure could look relatively innocuous in an area used for public access but could look out of place in the midst of an area of restored~~ dune habitat. Visual impacts would be more substantial during Cal-Am's ongoing maintenance at the well field, which would involve vehicles, heavy equipment, and maintenance activities at a time when similar industrial uses on the rest of the CEMEX site have ended.

To address potential visual impacts of the well heads, the Final EIR/EIS includes a mitigation measure requiring that the well heads be treated with earth-tone finishes to reduce contrast with the ground setting and increase compatibility with the visual setting (see MM 4.14-3a). Further, to address potential lighting impacts associated with construction of the Project, the Final EIR/EIS includes a mitigation measure to prevent exterior lighting from affecting nighttime views, including use of low-intensity exterior lighting, and ensuring lighting fixtures are cast downward and shielded to prevent light spillage (see MM 4.14-2). This measure applies to both the construction and operation of the Project in the coastal zone, including the well heads and pipelines.

Conclusion

The development, as proposed, would not be on prominent ridgelines, and permanent development would mainly be hidden from public view. Although ongoing maintenance activity at the well head sites might be visible from nearby public locations, it would ~~likely~~ be limited in extent so that it would not conflict with the LCP's requirement that development below the ridgelines be limited in height and mass to blend into the face of the dunes. Construction activities would have several temporary adverse visual impacts, but none that conflict with the LCP's or Coastal Act's visual resource policies. ~~Were it not for the Coastal Act and LCP nonconformities noted elsewhere in these Findings, the Commission could adopt special conditions requiring that Cal-Am implement any additional measures needed to ensure its proposed Project would conform to the above-referenced visual resource-related provisions. These could include special conditions that would limit the height of Project components, require muted color tones that blend with the surrounding habitat, and others.~~

~~Because those areas of nonconformity do not allow the Project to be fully consistent with the relevant Coastal Act or LCP provisions, there is no need to identify special conditions in this section of the Findings that would result in it being only partially consistent with the Coastal Act or LCP. However, because the proposed Project is considered a coastal-dependent industrial facility, the Commission has the discretion to apply the three tests of Coastal Act Section 30260 and approve the Project notwithstanding its inconsistencies with Coastal Act and LCP provisions. As described in Section II.P of these Findings, the Commission finds that the Project does not meet any of those three tests and therefore denies the GDP application and appeal. As a result, there is no need to identify special conditions that may be needed to ensure conformity to the above-referenced visual resource provisions.~~

To address potential visual resources related impacts, Special Condition 11 requires Cal-Am to prepare a facility design and screening plan for Executive Director review and approval, which limits the height of Project components to 10 feet within the coastal zone and requires muted color tones that blend with the surrounding habitat. In addition, to address potential lighting related impacts, Special Condition 12 requires Cal-Am to produce a lighting plan for Executive Director review and approval that identifies all lighting to be used during the Project and describe all measures that will avoid or reduce effects of lighting on nearby public areas, such as using the minimum lighting necessary for safety purposes, directing all necessary lighting downward, ensuring light fixtures and poles are painted or colored to blend in with the area, and others.

For the reasons described above, the Commission finds that the Project, as conditioned, will be carried out in a manner that is protective of scenic and visual resources and is therefore consistent with the relevant LCP provisions and Coastal Act Section 30251.

Note: These are not Commission staff's Recommended Findings

N. ENVIRONMENTAL JUSTICE

Coastal Act Section 30604(h) states:

When acting on a coastal development permit, the issuing agency, or the Commission on appeal, may consider environmental justice, or the equitable distribution of environmental benefits throughout the state.

Section 30604(h) provides for the Commission to evaluate environmental justice considerations when making permit decisions. As defined in Section 30107.3 (a) of the Coastal Act, “environmental justice” means “the fair treatment and meaningful involvement of people of all races, cultures, incomes and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.”⁷²¹⁰⁸ Section 30107.3(b)(4) states that environmental justice includes, “[a]t a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions.”⁷³¹⁰⁹

In March 2019, the Commission adopted an environmental justice policy (“EJ Policy”) to guide and inform its implementation of Section 30604(h) in a manner that is fully consistent with the standards in, and furthers the goals of, Chapter 3 of the Coastal Act and certified local coastal programs. The EJ Policy further articulates environmental justice as the following:

The term ‘environmental justice’ is currently understood to include both substantive and procedural rights, meaning that in addition to the equitable distribution of environmental benefits, underserved communities also deserve equitable access to the process where significant environmental and land use decisions are made.

Ensuring access to the Commission’s proceedings means making sure that those who are affected by proposed development have a meaningful and equitable opportunity to voice concerns in an open and transparent public process. Substantively, the EJ Policy describes how the Commission will work to ensure equitable access to the coast, support measures that protect existing affordable housing, and ensure that disadvantaged communities are not disproportionately affected by water contamination or overuse.

Opponents of the proposed Project have raised both procedural and substantive concerns about the Project’s impacts on communities of color and low-income communities located near the proposed Project in the City of Marina, as well as on those who presently purchase water from Cal-Am in the Cal-Am service area. Project proponents have asserted the Project would benefit one the region’s water supplies, including protecting supplies from seawater intrusion and providing supplies to one particularly underserved community, as well as provide for economic growth and much-needed residential development, including State-mandated affordable housing. The Commission addresses these concerns in this section.

⁷²¹⁰⁸ Coastal Act Section 30013, which provides that the Commission is to advance the principles of environmental justice and equality, references California Government Code section 65040.12(e), which defines “environmental justice” as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.”

⁷³¹⁰⁹ Added by AB 1628 (Rivas), Chapter 360, Statutes of 2019.

Identifying Communities of Concern

In order to evaluate the distribution of the project's environmental burdens and benefits and cumulative impacts on communities of concern, it is critical to understand the existing socioeconomic and demographic profiles of those communities as well as the environmental burdens among them. Here, the term "communities of concern" refers to low-income communities, communities of color, and other populations with higher exposure and/or sensitivity to adverse project impacts due to historical marginalization, discriminatory land use practices, and/or less capacity to mitigate adverse impacts. To identify these communities, staff evaluated various quantitative and qualitative sources of information for the City of Marina, which is where the ~~physical project is~~ project's slant wells are physically located, as well as some of the proposed pipelines; jurisdictions in the Cal-Am service area (Seaside, Sand City, Carmel-by-the-Sea, Del Monte, Pacific Grove, and Monterey); and the inland ~~city~~ community of Castroville, which is part of a water rights settlement agreement and will be affected by the Project outcomes. Quantitative indicators used to identify communities of concern include the percentage of low-income households, housing burdened low-income households, population of color,⁷⁴¹¹⁰ and linguistically isolated households. Staff also used the SB 535⁷⁵¹¹¹ disadvantaged community metric by CalEPA, which are census tracts in the top 25 percent of the CalEnviroScreen 3.0 index with multiple sources of pollution and a population with high sensitivity to pollution.

The demographic and socioeconomic indicators establish a high percentage of communities of concern in Castroville, Seaside, Sand City, and Marina that would be affected by the proposed Project. More than half the population in Castroville, Marina, and Seaside identifies as a person of color, and in Castroville a large portion of the population does not speak English very well (see Table 1 below). While all of the jurisdictions in Cal-Am's service area have individuals living under 200 percent of the federal poverty level, Castroville, Marina, Seaside, and Sand City have a much higher proportion of their population living under this threshold (see Table 1). These communities have median household incomes below the Department of Housing and Community Development's (HCD) state income limit for a low-income household⁷⁶¹¹² in Monterey County, which is \$69,750 for a family of three⁷⁷. ~~A number of low-income~~

⁷⁴¹¹⁰ Population of color refers to anyone that identifies as Hispanic (of any race) and anyone who identifies as non-Hispanic but as a race other than white on the Census, such as Black or African American, Asian, or American Indian.

⁷⁵¹¹¹ SB 535 (De Leon) Chapter 830, Statutes of 2012, required that 25% of available monies from the Greenhouse Gas Reduction Fund be allocated to disadvantaged communities, as defined. Although the focus of SB 535 was to ensure the equitable distribution GGRF investments, the criteria used to determine the location of these communities is instructive for the purposes of this analysis.

⁷⁶¹¹² This definition of low-income households is from AB 1550 (Gomez) Chapter 369, Statutes of 2016, which identifies low-income households according to the definition below: "Low-income households" are those with household incomes at or below 80 percent of the statewide median income or with household incomes at or below the threshold designated as low-income by the Department of Housing and Community Development's (HCD) State Income Limits adopted pursuant to Section 50093. A household would also be considered low-income if it had a household income at or below 80% of the state median household income for California, which is \$56,982 based on the state median household income from most recently available data presented in Table 1. However, staff used HCD's 2020 State Income Limits since it provides a more regionally specific assessment of median household income and is more recent.

⁷⁷ ~~Since the average household size in Monterey County is 3.30, staff used the thresholds for a household of three. See U.S. Census Bureau Monterey County Quick Facts.~~

~~households in Marina, Seaside, and Monterey pay more than 50% of their~~¹¹³ In particular, Castroville has a median household income towards housing (see Table 1 below) of between \$35,000 and \$52,846.¹¹⁴ Increasing utility rates ~~would~~could exacerbate these existing cost burdens, unless programs are implemented to assist low-income ratepayers. For a more detailed explanation of methodologies and standards considered for this analysis, see Exhibit ~~14~~15 – Methodology for Identifying Communities of Concern.

Table 1: Demographic Characteristics

Geography	Total population	Population of color		Total Households	Limited English Households	
		Population	percentage		Households	Percentage
Cal-Am Service Area						
Carmel-by-the-Sea	3855	679	18%	1,873	0	0%
Del Monte Forest	4197	1084	26%	1,760	84	5%
Del Rey Oaks	1596	413	26%	642	4	1%
Monterey (city)	28512	9815	34%	11,596	465	4%
Pacific Grove	15567	3231	21%	6,835	153	2%
Sand City	318	138	43%	148	2	1%
Seaside	34077	23547	69%	10,458	895	9%
Other Geographies						
Marina	21608	14237	66%	7,549	755	10%
Castroville CDP	6686	6142	92%	1,524	614	40%
Monterey County	433,212	301,974	70%	126,052	16,783	13%
State of California	39,148,760	24,452,924	39%	12,965,435	1,179,753	9%

~~Source: U.S. Census Bureau 2014-2018 American Community Survey Data, 5-year estimate.~~

Source: U.S. Census Bureau 2014-2018 American Community Survey Data, 5-year estimate.

¹¹³ Since the average household size in Monterey County is 3.30, staff used the thresholds for a household of three. See U.S. Census Bureau Monterey County Quick Facts.

¹¹⁴ See Rural Community Assistance Corporation Letter to State Water Resources Control Board – Division of Financial Assistance, Subject: Castroville Community Services District Median Household Income Survey Results, March 30, 2017 – Exhibit 16. See also Table 2.

Table 2: Income Characteristics

Geography	Total population ⁷⁸¹¹⁵	Individuals with income below 200 percent the federal poverty level		Median household income
		Individuals	Percent	
Cal-Am Service Area				
Carmel-by-the-Sea	3,825	596	16%	\$90,734.00
Del Monte Forest CDP	3,901	481	12%	\$138,889.00
Del Rey Oaks	1,592	239	15%	\$90,795.00
Monterey (City)	25,949	5,146	20%	\$77,562.00
Pacific Grove	15,464	2,363	15%	\$81,623.00
Sand City	318	114	36%	\$62,667.00
Seaside	32,904	11,716	36%	\$61,434.00
Other Geographies				
Marina	20,841	6,870	33%	\$62,803.00
Castroville CDP	6,674	3,742	56%	\$52,846.00 ¹¹⁶
Monterey County	416,002	156,606	38%	\$66,676.00
State of California	38,407,403	12,496,818	33%	\$71,228.00

Source: U.S. Census Bureau 2014-2018 American Community Survey Data, 5-year estimate.

In addition to gathering and evaluating quantitative information from online sources, staff traveled to the area in September 2019 to understand the lived experiences of residents, and to ground truth quantitative information. Staff met with residents from Marina and Seaside, including subsistence fishers, single parents living in Section 8 (federally subsidized) housing, retirees on fixed incomes, recent immigrants caring for extended families and head-of-household wage earners working multiple jobs to support their families. In early 2020, because COVID-19 travel restrictions made travel infeasible, staff conducted outreach by email and phone with Castroville residents including Community Services District staff, social justice advocates, a county representative, water experts, and other stakeholders.

⁷⁸¹¹⁵ The total population in Table 2 does not include individuals for whom poverty status cannot be determined, which includes people living in institutional group quarters (i.e. prisons, nursing homes), college dormitories, military barracks, and living situations without conventional housing (and who are not in shelters). See U.S. Census Bureau for more information: <https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html>–<https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html>

¹¹⁶ [According to the Rural Community Assistance Corporation, Castroville has a median household income of \\$35,000. \(See Exhibit 16 – Rural Community Assistance Corporation Letter to State Water Resources Control Board – Division of Financial Assistance, Subject: Castroville Community Services District Median Household Income Survey Results, March 30, 2017.\)](#)

The City of Marina, located eight miles north of Monterey, includes a modest downtown dotted with Asian and Mexican markets and family-owned restaurants. In linguistically isolated households within this area, the top three non-English languages spoken include Spanish, Vietnamese, and Korean. The ~~city has a disproportionate amount of nearby industrial development including~~ City is near a regional landfill, regional composting facility, and regional sewage plant, ~~all of which serve areas. However, this industrial development is outside of Marina~~ the City's boundaries, adjacent to the City's municipal airport. Nearby Fort Ord is a contaminated site listed on the U.S. EPA's national priorities list,⁷⁹ ~~but the City is working to develop Fort Ord with housing.~~¹¹⁷ Marina is also home to the CEMEX sand mining facility, the last coastal sand mining operation in the country, which is now scheduled to close later this year pursuant to Coastal Commission Consent Order CCC-17-CD-02. ~~In spite of bearing the greatest amount of industrial development of any coastal community in the Monterey area,~~ Marina also has a thriving culture of committed public engagement, and many residents care deeply about the future of their town.

Although not within Cal-Am's service area, Marina's residents ~~would be adversely~~ could be affected by the project because the proposed slant well field is within city limits at a site that ~~would otherwise~~ has generally been proposed to be set aside for public access, passive recreation, and coastal resource protection, ~~and the~~ though the project would only involve permanent development on 0.25 acres of the approximately 400-acre site (0.06 percent). The proposed Project ~~may also have an adverse effect on Marina's groundwater resources, by lowering ground water tables and potentially affecting the City's important~~ could potentially have an effect on wetland and vernal pond areas ~~and inviting salt water intrusion within the City. As described elsewhere in these Findings, impacts to public access, wetlands, and vernal pond areas are projected to be minimal, as the Commission has identified Special Conditions 5, 6, 7, 9, and 10 to compensate for any impacts to the maximum extent feasible (see Sections IV.L.IV.G).~~

Seaside is a city on the southern end of the Monterey Bay, similar in many ways to neighboring Marina, with a modest downtown and housing stock primarily consisting of small, older homes, despite its proximity to the ocean. Over two thirds (69%) of its residents are non-white, and slightly more than a third (36%) have income below 200 percent of the federal poverty level. Seaside is home to the largest population (7%) of African American residents in the project area or the region. Many Black soldiers came to Seaside for training at Fort Ord, and over time Seaside became a center for African American settlement.⁸⁰¹¹⁸ Over the years, other non-white and Latino populations have settled in Seaside as well. Hospitality and food service is the

⁷⁹ ~~The U.S. EPA describes the National Priorities List (NPL) as sites of national priority among the known or threatened releases of hazardous substances and contaminants throughout the United States and its territories. The NPL guides the EPA in determining which sites warrant further investigations and potential remediation.~~

¹¹⁷ The U.S. EPA describes the National Priorities List (NPL) as sites of national priority among the known or threatened releases of hazardous substances and contaminants throughout the United States and its territories. The NPL guides the EPA in determining which sites warrant further investigations and potential remediation. Regarding proposed housing projects in Fort Ord, see <http://fora.org/Projects.html>.

⁸⁰ ~~<https://www.blackpast.org/african-american-history/race-and-color-california-coastal-community-seaside-story/>~~¹¹⁸ <https://www.blackpast.org/african-american-history/race-and-color-california-coastal-community-seaside-story/>

largest employment sector (22.5%)⁸⁴,¹¹⁹ which was part of why Seaside was hit hard economically by the military base closures in the 1990s. Some Seaside residents say they would be impacted by the project's increased water rates, resulting in part from subsidizing Castroville's lower rates.

Castroville is an agricultural area, known in particular for artichoke production. Much of its economic activities center around agricultural support services, and many of its residents work directly or indirectly in agricultural production. Farms, farm stands, and restaurants specializing in locally produced food demonstrate the direct connection between growers and consumers. Castroville's population is 92% non-white, 56% living under 200 percent of the federal poverty level, and slightly less than half of the population has a high school education. With a total population of 6,481, the entire community is contained within a single census tract, the entirety of which is classified as disadvantaged according to the Department of Water Resources.⁸²¹²⁰

The groundwater aquifer system beneath Castroville is the town's main source of its drinking water and has been overdrafted by decades of intensive agricultural use. The Castroville Community Services District ("CCSD") was able to secure a long-term source of new water through a Return Water Agreement developed during the CPUC's review of Cal-Am's Project. The development of the Return Water Agreement was a long and collaborative effort by many parties to the CPUC's review of the Project, including Cal-Am, Coalition of Peninsula Businesses, Landwatch Monterey County, the Monterey County Farm Bureau, the Monterey County Water Resources Agency, the Monterey Peninsula Regional Water Authority, MPWMD, Monterey Regional Water Pollution Control Agency (now Monterey One Water), Planning and Conservation League Foundation, and the Salinas Valley Water Coalition.¹²¹ Through this agreement, Cal-Am would return a portion of the water it extracts and exports from the Salinas Valley Groundwater Basin back into the Basin via pipeline in the form of reduced-cost potable water for the CCSD.⁸⁶¹²² As a result, Castroville would benefit from the Cal-Am project because the agreement will help to maintain existing low water rates (approximately \$20.45 per month¹²³) and stakeholders say it would also help with the development of critical affordable housing projects and agricultural jobs. That is important because the community of Castroville relies heavily on the agricultural industry; according to data from the US Census Bureau, approximately 29.4% of employed residents in Castroville work in agriculture, which is much higher than both the state (2.3%) and national (1.8%) average.¹²⁴

⁸⁴ <https://www.neighborhoodscout.com/ca/seaside/demographics>

¹¹⁹ <https://www.neighborhoodscout.com/ca/seaside/demographics>

⁸²¹²⁰ The Department of Water Resources defines "disadvantaged community" as community with an annual median household income that is less than 80 percent of the Statewide annual median household income as directed by Water Code §79702(j) which refers to Water Code §79505.5. This definition differs from the SB 535 definition of disadvantaged community which considers pollution burden in addition to population characteristics.

¹²¹ See CPUC Final Decision 18-09-17, Appendix H. Separately, Cal-Am and CCSD agreed to a water purchase agreement. See CPUC Final Decision 18-09-17, pp. 105-109.

⁸³¹²² See CPUC Final Decision 18-09-17, Appendix H.

¹²³ See August 31, 2020, correspondence from E. Tynan.

¹²⁴ Industry by Occupation for the Civilian Employed Population 16 Years and Over, ACS 5-Year Estimates, available at <http://data.census.gov>.

While the Monterey Peninsula, and Castroville in particular, would benefit from the desalination project, Marina and Seaside are potentially at ~~high~~-risk for bearing disproportionate burdens associated with it. Additionally, although other jurisdictions do not have a high proportion of low-income households, there are still many low-income households throughout the service area that ~~would be adversely~~could be impacted by increasing water rates. Potential impacts to those communities and the Commission's ability to mitigate those impacts warrant additional consideration pursuant to Section 30604(h) of the Coastal Act. As described below, Cal-Am has existing mechanisms in place to assist low-income ratepayers and, pursuant to Special Condition 13, will be required to take action to secure additional ratepayer assistance programs to address potential environmental justice concerns.

Environmental Justice Coastal Act Analysis

Procedural Concerns

Some Marina residents also raised procedural environmental justice concerns, including that Cal-Am did not fully engage with them because they are not ratepayers. They expressed a sense of being excluded by the CPUC proceeding because they felt that it analyzed only the proposed Project's effects on ratepayers, not on the impacts to communities living near the proposed Project. Seaside residents have received notices and fliers from Cal-Am letting them know about upcoming rate increases, but ~~they~~some residents also felt the company did not do enough to engage with them about the proposed Project through community meetings. Cal-Am disputes these concerns because they say residents from Marina and the service area actively participated via comment letters, organizing, and formal participation in the CPUC administrative hearings and NEPA/CEQA EIR process. Cal-Am maintained a dedicated project website with information and updates for the public, sent bill inserts and direct mail pieces to customers, and engaged in a social media awareness campaign regarding the proposed Project. In addition, since 2013, Cal-Am has published a quarterly newsletter that discusses project status and need, the permitting process, financing, and schedule. The newsletter was advertised in local print media and circulated via email. Cal-Am also contributed guest editorials to help inform the public on issues of concern and interest.¹²⁵

A number of Marina and Seaside residents have also told Commission staff that they felt they were at a disadvantage engaging in the project development and permitting process. For example, many said they could not take a day off of work to make the 100- mile journey to and from their communities to the Coastal Commission's November 2019 meeting location in Half Moon Bay. In some cases, these residents said they work multiple jobs in order to make rent, so they felt they would need to choose between having a place to live or testifying before the Commission.

In response to these concerns and to a written request from the City of Marina requesting greater avenues for public engagement, the Commission agreed to several additional approaches to encourage the widest possible involvement from underserved members of the public in consideration of the current project. Commission staff scheduled the Cal-Am matter early on the November 14, 2019 agenda so members of the public would have more certainty about when, if they were able to attend, they should plan to participate. Commission staff also provided an opportunity for livestream testimony to the Commission from the City of Marina's

¹²⁵ See Exhibit 1 in Latham and Watkins Letter to Tom Luster, dated August 13, 2020.

City Hall so members of the public who could not travel to Half Moon Bay could still participate. More recently, because the COVID-19 pandemic has shut down in-person hearings, Commission staff has engaged with community members by phone to try to accommodate concerns about the move to online meetings.

The Commission recognizes that a core component of its Environmental Justice Policy, and of the Coastal Act more broadly, is to maximize public participation, and claims that such participation is inadequate or being hampered are given careful consideration. Indeed, public participation is a cornerstone of California's coastal management program. As described above, based on the actions the CPUC, Cal-Am, and the Commission have taken to foster participation and outreach, the Commission finds that the proposed Project's procedural aspects are not in conflict with the Coastal Act's environmental justice objectives.

Substantive ~~concerns~~Concerns

Along with the quantitative data collected, qualitative information and the lived experience of the community members is key to understanding existing environmental justice burdens on a community and the potential for new development to inadvertently exacerbate those impacts. Staff toured the affected area and spoke with residents and city officials from both Marina and Seaside, as part of the Commission's ongoing commitment to foster meaningful involvement consistent with 30107.3(a) and increase outreach consistent with its environmental justice policy. Following the November 2019 hearing, staff reached out to community members and public officials in Castroville and Seaside. Residents from these communities shared various environmental concerns and community burdens, providing additional relevant information to consider.

The main substantive issues identified relate to three main areas: 1) increased costs for water, 2) benefits to Castroville's water supply through the return water agreement, 3) direct and indirect environmental burdens that will contribute to cumulative impacts to the City of Marina.

1) ~~1)~~Water costs: One of the primary concerns residents had is the disproportionate burden that low income ratepayers in Cal-Am's service would experience as a result of increasing water rates due to the construction and operation of the proposed 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.⁸⁴¹²⁶ According to a 2017 Food & Water Watch survey,⁸⁵¹²⁷ ratepayers in Cal-Am's service area on the Monterey Peninsula currently pay among the highest water rates in the country, which Cal-Am disputes.⁸⁶ ~~A 2019 Monterey Peninsula Water Management District~~

⁸⁴¹²⁶ See State Water Resources Control Board. Options for Implementation of a Low-Income Water Rate Assistance Program at

https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/assistance/docs/2019/draft_report_ab401.pdf

https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/assistance/docs/2019/draft_report_ab401.pdf

⁸⁵¹²⁷ See *Top Ten Most Expensive Water Providers in the Country: 2017 Update*, accessed at:

https://www.foodandwaterwatch.org/sites/default/files/top_ten_most_expensive_water_providers-web.pdf.

https://www.foodandwaterwatch.org/sites/default/files/top_ten_most_expensive_water_providers-web.pdf.

⁸⁶ ~~See Latham and Watkins Letter to T. Luster, June 30, 2020, page 92.~~

as being based on an inflated average water use and inconsistent with actual figures.¹²⁸
A 2019 MPWMD report found that costs of the proposed Project's water and other expected rate increases from Cal-Am could nearly double an average residential ratepayer's water bill by 2023.⁸⁷¹²⁹ However, after Project implementation, based on current information, the average monthly cost for water for a single-family residence would increase by approximately \$37 to \$40.¹³⁰ Although a final determination of rates will be made by the CPUC when the Project goes into service, the Commission last year approved a project that would result in a \$41 increase in water bills – the Morro Bay Water Reclamation Facility (CDP App. No. 3-19-0463).¹³¹

Currently, ratepayers in Cal-Am's service area are paying new water rates approved in 2018 by the CPUC (Decision D. 18-12-021), which increased monthly service charge rates 12.3% cumulatively and increased water usage rates 11.9% cumulatively from 2018 to 2020. In 2019, Cal-Am applied for a general rate case increase for 2021 to 2023,⁸⁸¹³² which the CPUC is still reviewing. The CPUC's Public Advocates Office ("PAO"), an independent organization within the agency that advocates on behalf of utility ratepayers, protested this recent rate case. The PAO identifies that Cal-Am has been adding additional surcharges through alternate rulemaking procedures, and thus, the rates approved in general rate cases do not reflect the true cost that ratepayers will have to pay in their final water bills.⁸⁹¹³³ Over the course of 10 years, surcharges accounted for an average of 41% of the total water bill paid by residential ratepayers in the Monterey region.⁹⁰¹³⁴ The PAO identified that the surcharge percentage of the residential monthly bill in Cal-Am's Monterey Service Area has been anywhere from 19% to as high as 53% from 2008 to 2018. Resolution on this issue is likely to be reached in November 2020. It should be noted that these surcharges are part of the current base water rates and are specifically identified on customer bills for transparency. Certain surcharges will also be expiring in the next few years.

¹²⁸ See Latham and Watkins Letter to T. Luster, June 30, 2020, page 92; Latham and Watkins Letter to T. Luster, August 13, 2020.

⁸⁷¹²⁹ See ~~Monterey Peninsula Water Management District~~ MPWMD, Supply and Demand for Water on the Monterey Peninsula, September 2019.

¹³⁰ See Dudek's Environmental Justice Analysis for the Monterey Peninsula Water Supply Project, pg. 3 (Exhibit 1 to Latham and Watkins Letter to T. Luster, August 13, 2020).

¹³¹ In July 2019, the Commission approved the Morro Bay Water Reclamation Facility even though the project would result in a \$41 monthly surcharge to Morro Bay ratepayers. The Commission found that, although the project would be expensive and disproportionately impact low-income ratepayers, the project was nonetheless consistent with the Commission's EJ Policy and needed to provide a safe and reliable water supply to Morro Bay.

⁸⁸¹³² CPUC Application No A.19-07-004 - Application of California-American Water Company (U210W) for Authorization to Increase its Revenues for Water Service by \$25,999,900 or 10.60% in the year 2021, by \$9,752,500 or 3.59% in the year 2022, and by \$10,754,500 or 3.82% in the year 2023.

⁸⁹¹³³ Surcharges can be approved and added to customer bills in between general rate cases, and as a result, the full impact of rate increases are not reflected in general rate case proceedings. See CPUC Office of Public Advocates Report on Recommendations on Rates and Surcharges, Report on Recommendations on Rates and Surcharges, protest of Application 19-07-004.

⁹⁰¹³⁴ See Attachment 2 in Office of Public Advocates Report on Recommendations on Rates and Surcharges, Report on Recommendations on Rates and Surcharges, protest of Application 19-07-004.

Although rates will increase for all ratepayers in the service area, the implementation of Special Condition 13 will minimize the potential for higher rates ~~resulting from the proposed desalination facility would~~ disproportionately impact low-income ratepayers in Seaside and other jurisdictions in the service area. Cal-Am currently offers several customer assistance programs to offset cost burdens for low income ratepayers,⁹⁴¹³⁵ including its ~~Low Income Ratepayer~~ Customer Assistance (“LIRA”) program, where eligible customers can apply for a monthly discount of up to 30% on their charges.⁹² ~~LIRA~~ ¹³⁶ The Customer Assistance Program has several eligibility requirements including having an individually metered or flat-rate residential meter, having the water or sewer bill held in the name of program participants, and having household income below the required thresholds for participation in other assistance programs.⁹³¹³⁷ Cal-Am has stated that it extends its ~~LIRA program~~ Customer Assistance Program to Migrant Farm Worker Housing Centers and nonprofit group living centers. Cal-Am also offers payment arrangement plans and a Hardship Benefit Program in partnership with United Way Monterey County to help qualifying customers facing financial hardship cover an outstanding balance on their water bill.¹³⁸ Finally, Cal-Am provides water conservation assistance that can also help ratepayers reduce consumption.⁹⁴¹³⁹ To mitigate the adverse effects of increased costs on disadvantaged communities within its service area, Special Condition 13 would require Cal-Am to (a) seek approval from the CPUC to increase Cal-Am’s Customer Assistance Program discount for its Monterey Main Service Territory from 30% to 50%, and (b) contribute up to an additional \$250,000 in funds to the United Way to assist customers in Cal-Am’s service territory who are having difficulties paying monthly bills if the CPUC does not approve the additional Customer Assistance Program discount before customer bills are affected by Project costs.

However, while Cal-Am’s ~~LIRA~~ Customer Assistance Program follows CPUC’s recommendation for rates, it currently has not reached all low-income customers and has not fully offset the ~~disproportionate~~ burden they bear from rate increases. Cal-Am states that as of June ~~30, 2020, 18~~ 30, 2020, 18 % of its residential customers in the City of Seaside and 6% of all customers in its overall service area use its ~~LIRA program. However,~~ Customer Assistance

⁹⁴¹³⁵ The CPUC EIR also identifies this as an environmental justice concern, but in their analysis identify these measures as sufficient to offset burdens to low income rate payers and make the impact less than significant. The Office of Public Advocates also supports Cal-Am’s ~~LIRA program~~ Customer Assistance Program and implementation to provide additional protections for low income ratepayers.

⁹² ~~The LIRA program does not discount water usage in excess of 17,200 gallons in a single month. See Latham and Watkins Letter to T. Luster, 6/30/2020, pg 39.~~

¹³⁶ The Customer Assistance Program does not discount water usage in excess of 17,200 gallons in a single month. See Latham and Watkins Letter to T. Luster, 6/30/2020, pg 39.

⁹³¹³⁷ Application for Assistance for Low Income Customers -

https://dnnh3qht4.blob.core.windows.net/portals/2/2019%20Documents/CA_LowIncomeApp-2019_FINAL2.pdf?sr=b&si=DNNFileManagerPolicy&sig=i34kUIWVhiUIqA3UaT9wMTI%2FDNycyQzgBEefDPKy1RI%3D

https://dnnh3qht4.blob.core.windows.net/portals/2/2019%20Documents/CA_LowIncomeApp-2019_FINAL2.pdf?sr=b&si=DNNFileManagerPolicy&sig=i34kUIWVhiUIqA3UaT9wMTI%2FDNycyQzgBEefDPKy1RI%3D

¹³⁸ See Exhibit 1 to Latham and Watkins Letter to T. Luster, August 13, 2020, pg. 5.

⁹⁴ ~~<https://amwater.com/caaw/conservation/district-resources/monterey>~~ ¹³⁹ <https://amwater.com/caaw/conservation/district-resources/monterey>

Program. Cal-Am publicizes the Customer Assistance Program by sending physical mailers, bill inserts, and email notices to all of its customers. Cal-Am also reported that the program is advertised on Cal-Am's website and customer web portal. Additionally, notice of the program is provided to customers who have bill payments 30 days or more outstanding. Customers can opt into the Customer Assistance Program by filling out an application, and enrollment lasts for two years. Prior to expiration, customers receive a renewal letter informing them that they need to reenroll if they are still eligible for participation. In addition, a CPUC order requires that Pacific Gas & Electric ("PG&E") share data with Cal-Am every six months regarding customers enrolled in PG&E's corresponding program for electrical service.¹⁴⁰ Cal-Am uses this data to determine whether customers within its service district would qualify for Cal-Am's Customer Assistance Program. Cal-Am automatically enrolls customers who match or likely match the PG&E data in Cal-Am's Customer Assistance Program, sending those customers opt-out letters. For matches that are not complete, Cal-Am provides the customers the ability to opt-in to the Program. However, despite these substantial outreach efforts, many eligible customers do not participate in the program.⁹⁵~~The eligibility requirements themselves create barriers to access. Many~~¹⁴¹

With the implementation of Special Condition 13, Cal-Am would be required to seek to expand the number of eligible customers who can be enrolled in its low-income assistance programs. These efforts would include seek approval from the CPUC to participate in the CPUC's pilot program to enroll residents of master-metered multi-family housing that have not previously been able to enroll. After Project implementation, monthly water costs may rise to between approximately \$37 to \$40 per month. With the increased 50% discount provided in Special Condition 13, average bills for eligible customers would only be expected to increase \$10 to \$12 per month for desalination facility costs and financing, as compared to \$37 to \$40 per month for non-CAP customers.

Unfortunately, many otherwise eligible ratepayers live in multi-family structures, where the water bill is in the name of a landlord or management company and not individually metered. ~~Some landlords of single-family residences that rent to low-income tenants prefer to keep the water and sewer bill in their own name. In both cases~~in such a case, increases in ~~utilities are~~utility costs may be passed through from the landlord to the tenants, without any options for the tenants to request assistance. As stated above, Special Condition 13 would require Cal-Am seek approval from the CPUC to participate in a pilot program that would seek to enroll such residents who are currently unable to participate in the Customer Assistance Program.

¹⁴⁰ See CPUC Decision D.09-12-017 (issued May 10, 2011).

⁹⁵ ~~According to a Dudek analysis of CalEnviroScreen and EPA EJSCREEN data prepared for Cal Am, the numbers of residents who are eligible for the LIRA program are higher: approximately 43% of residential customers in Seaside, 16% in Carmel-by-the-Sea, 20% in Del Monte, 16% in Pacific Grove, and 20% in Monterey. See Exhibit 1 in Latham and Watkins Letter to Tom Luster, dated August 13, 2020.~~

¹⁴¹ According to a Dudek analysis of CalEnviroScreen and EPA EJSCREEN data prepared for Cal Am, the numbers of residents who are eligible for the Customer Assistance Program are higher: approximately 43% of residential customers in Seaside, 16% in Carmel-by-the-Sea, 20% in Del Monte, 16% in Pacific Grove, and 20% in Monterey. See Exhibit 1 in Latham and Watkins Letter to Tom Luster, dated August 13, 2020.

While individuals may qualify as low income based on the standards set by other similar programs, they do not necessarily meet the eligibility criteria for Cal-Am's ~~LIRA program.~~⁹⁶ Customer Assistance Program.¹⁴² For example, using an average household of three,⁹⁷¹⁴³ state income limits set by Housing and Community Development (HCD) in 2020 identifies low income households with a median household income of below \$69,750 and very low income households with a median income below \$43,650 in Monterey County.⁹⁸¹⁴⁴ The Department of Water Resources identifies disadvantaged households as those with a median household income below \$51,026 and severely disadvantaged households as those with a median household income of \$38,270.⁹⁹ ~~The LIRA.~~¹⁴⁵ The Customer Assistance Program threshold for a household of three, however, is \$43,440, which means there are households experiencing housing or rent burden that may not benefit from the program.

Staff spoke to various ratepayers in the area to understand concerns with the proposed Project. Some Seaside residents are concerned that the economic hardship caused by these rate increases would eventually push them out of this currently affordable coastal community. Ratepayers say they have gone to great lengths to save water over the years including using their dishwashers only to dry dishes, flushing toilets only once a day, taking showers at municipal facilities instead of at home, not washing clothes as often, removing gardens, or using graywater for irrigation, but their bills have continued to increase. Residents participating in the ~~LIRA program~~ Customer Assistance Program who were interviewed also stated the discount does not offset the impacts of increasing rates still. However, because there is a fixed cost to operate the existing water system, it should be noted that increased conservation does not necessarily result in reduced monthly water bills.

Based on a review of the available programs for low-income ratepayers and meetings with local residents, the Commission believes that without special conditions, the project ~~will~~ could exacerbate the disproportionate burdens on low-income ratepayers as a result of rising rates from the construction and operation of the ~~Proposed Project. As described in Sections II.N and II.O of these Findings, these burdens would be reduced by the identified feasible alternative—the Pure Water Expansion project—that would provide water at about one-third to one-half the cost of water from Cal-Am's~~ proposed Project. For low-income households experiencing the burden of high housing costs and now COVID-related job insecurity, increased water rates could make it ~~infeasible~~ challenging to continue living on the

⁹⁶ ~~Eligibility thresholds for the LIRA program is based on whether household income is below 200 percent of the federal poverty level.~~

¹⁴² Eligibility thresholds for the Customer Assistance Program is based on whether household income is below 200 percent of the federal poverty level.

⁹⁷¹⁴³ According to the most recent figures, the average household size in Monterey County is 3.30. <https://www.census.gov/quickfacts/fact/table/montereycountycalifornia/PST045219>.

⁹⁸¹⁴⁴ State Income Limits - <https://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits/docs/Income-Limits-2020.pdf>—<https://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits/docs/Income-Limits-2020.pdf>.

⁹⁹ ~~As of August 16, 2020, the DWR mapping tool identified disadvantaged and severely disadvantaged communities using 2012-2016 American Community Survey data The statewide median household income for this dataset is \$63,783.~~

¹⁴⁵ As of August 16, 2020, the DWR mapping tool identified disadvantaged and severely disadvantaged communities using 2012-2016 American Community Survey data The statewide median household income for this dataset is \$63,783.

Monterey Peninsula. If an unintended, but foreseeable consequence of the project is to displace existing residents from their homes in formerly affordable coastal communities, this raises serious coastal access questions. Although coastal access is typically viewed through the lens of providing and protecting recreational infrastructure and other amenities for the public to visit and enjoy, viewing it through an environmental justice lens illustrates that an affordable cost of living is a fundamental part of coastal access for nearby residents. In this case, Seaside residents' coastal access hinges on their ability to economically ~~survive~~remain in their communities. The Commission would not achieve maximum consistency with the Coastal Act's Chapter 3 public access policies if it only implemented these policies to protect the amenities that enhance visitor access to the coast without also considering how permitting decisions might negatively affect community-wide affordability for those living within the coastal zone. Historically, communities of color have been excluded from or driven out of coastal areas by intimidation, exclusionary lending practices, racist covenants, eminent domain and other instruments. Because of this troubling history, it is incumbent on the Commission to scrutinize the project with a focused perspective grounded in this wider context. The implementation of Special Condition 13 would prevent the Project from having such unintended effects on vulnerable communities, by offering reduced rates to the disadvantaged communities and improving Cal-Am's ability to enroll eligible customers. As a result of this Special Condition, many residents in these communities could see their rates drop rather than increase after the Project begins operations.

~~Cal-Am has asserted that the Commission may not consider the affordability of housing in its decision because the Legislature removed the Commission's prior authority—which used to be contained in Section 30213 of the Coastal Act—to regulate affordable housing in the coastal zone. However, the Commission remains under a mandate “to encourage the protection of existing and the provision of new affordable housing opportunities for persons of low and moderate income in the coastal zone.” (Coastal Act §30604(g).) It may also consider questions of affordability pursuant to its mandate to maximize access to the coast, consider environmental justice issues, and decide whether the public welfare would be harmed by denial of this Project.~~

Cal-Am, some Monterey businesses, and others have ~~also asserted that~~described the necessity of the Project to the Peninsula. Without the Project there will be insufficient water to construct affordable housing and to allow the hospitality industry to rebound on the Monterey Peninsula if Cal-Am's desalination plant is not constructed. ~~They say this~~This, in turn, could drive up housing costs on the Peninsula and affect employees in the service industry, many of whom come from disadvantaged communities. ~~However, as described elsewhere in these Findings, there is a feasible alternative method (the Pure Water Expansion recycled water project) to supply Cal-Am's customers with sufficient water with fewer EJ impacts. This alternative is scaled to provide adequate water supply for planned affordable and market rate housing starts, protect the Carmel River, provide a more affordable~~

As described elsewhere in these Findings, burdens related to water costs would not be reduced by the Pure Water Expansion project. Projections of Pure Water Expansion water costs are entirely speculative at this time. Expected water costs from the initial phase of the Pure Water project have recently increased drastically due to technological difficulties and needed repairs. Monterey One Water estimates that initial Pure Water costs may range between \$2,508 and \$3,678 per acre foot – at minimum, more than double the rate of \$1,720 per acre-foot approved by the CPUC. The projected costs for Pure Water Expansion water could see similar increases.

Moreover, as described in Section IV.O, the Final Supplemental Environmental Impact Report for the Pure Water Expansion was denied certification by the Monterey One Water. Notably, the Pure Water Expansion could fall short of meeting water demand, and will result in its own significant environmental justice impacts.¹⁴⁶ Local groups representing farmers and communities of concern, such as the Monterey County Farm Bureau, the City of Salinas, and others, have voiced concerns regarding these significant environmental justice issues related to the Pure Water Expansion, including its proposed use of Salinas Valley water sources to benefit the Monterey Peninsula. For example, as explained further below, the community of Castroville has raised concerns that the Pure Water Expansion would take wastewater treatment plant flows from the Castroville Seawater Intrusion Program, which would in turn disproportionately affect the disadvantaged residents of Castroville. (See also Section IV.N.) Similarly, the City of Salinas, a community of concern with approximately 20.5% of its residents living below the federal poverty level and 49% qualifying as low-income, has taken serious issue with the potential for the Pure Water Expansion to take water belonging to the City and provide it to the Peninsula at the expense of the Salinas Valley agricultural community.¹⁴⁷ Further, without adequate water supply, the Monterey Peninsula could face potential severe rationing of and restrictions on water usage that would necessarily and disproportionately be borne by disadvantaged communities. Without sufficient water, the Peninsula's affordable housing goals would remain unmet and workers would be forced to live further from the communities they serve. This would reduce coastal access by preventing workers from living on the Peninsula, forcing them to live in less expensive jurisdictions further inland, and result in continued economic burdens in the form of gas and transportation costs necessary to make a longer commute. For those reasons, among others, the Pure Water Expansion is not a feasible alternative.

~~water supply for residents who are at risk of economic displacement, avoid harm to~~ Ultimately, as the CPUC recognized in its final decision to approve the proposed Project's Final EIR/EIS, it is important to recognize that desalinated water is relatively expensive. However, when balancing the potential costs and alternatives against the need to achieve a sufficient supply of reliable potable water for the Peninsula, the Commission finds that the proposed Project is the best option for all residents – including those living in communities of concern, ~~and also better protect public access and sensitive dune habitat. As such, that alternative is more fully.~~ As such, the proposed Project, as conditioned is consistent with the Commission's Environmental Justice Policy as well as Coastal Act Sections 30604(h), and 30107.3.

2) ~~2)~~ Return Water Agreement to Castroville Community Services District (CCSD) ~~Part~~ As described above, part of Cal-Am's proposed Project would provide up to about 690 acre-feet of potable water, at a discounted price, to Castroville, which would constitute a benefit to a community of concern. ~~The cost of providing the water would be recovered through ratepayer fees in Cal-Am's service area.~~ In order to address a prohibition against exporting groundwater from the Salinas Valley Groundwater Basin, as part of the Return Water Agreement agreed to by many parties and approved by the CPUC, Cal-Am agreed to provide potable water to Castroville at about \$110 per acre-foot for the return water.¹⁴⁸ If CCSD wants to purchase additional desalinated water, the cost would be about \$580 per

¹⁴⁶ See Exhibit 1, pp. 12-17 in Latham and Watkins Letter to Tom Luster, dated August 13, 2020.

¹⁴⁷ *Id.*, p. 16; see also <https://www.cityofsalinas.org/visitors/community-profile>.

¹⁴⁸ See CPUC Final Decision 18-09-017, Appendix H, § 5.a.i.

acre-foot.¹⁴⁹ The Agreement also contemplates that return water in excess of that provided to Castroville would be directed to the Castroville Seawater Intrusion Program (“CSIP”) at a cost of about \$~~140~~¹⁰² per acre-foot to help reduce seawater intrusion in the Basin.¹⁵⁰ Without this Return Water Agreement, the ~~project~~proposed Project could ~~not~~ be considered ~~consistent~~inconsistent with Basin management requirements, since it would export groundwater to communities throughout the Monterey Peninsula that are outside the Basin boundaries. ~~The~~Although the prices per acre-foot for Castroville and CSIP would be far less – ~~i.e., no more than several hundred per acre-foot~~ – compared to the ~~\$6,000 per acre-foot~~per-acre-foot cost that Cal-Am’s ratepayers are likely to pay for water from Cal-Am’s Project. ~~the CPUC approved the rates for both CCSD/CSIP and Cal-Am’s ratepayers. As stated above, CCSD and CSIP’s return water costs represent their avoided costs to produce groundwater from the SVGB to meet customer demands.~~¹⁵¹ This would keep Castroville’s water rates affordable (at approximately \$~~20~~⁴⁵ per month according to stakeholders), while providing a new source of water for affordable housing projects, agricultural jobs, and other types of new development. Depending on the amount of water Cal-Am returns to the Basin, the agreement could partially replenish Castroville’s over drafted groundwater basin that has been depleted in part by decades of agricultural pumping.

~~However, as noted in Section II.J above, 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 previous modeling and 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 about 2,100 acre-feet per year during years with higher recharge to the Basin.¹⁰⁰ This would represent about a third of its desalination facility’s overall production volume and could result in Cal-Am needing to return to the CPUC for approval of additional rate recovery for the increased expenses. The cost of this additional return water could be as much as \$3,000 to \$6,000 more per acre-foot than currently anticipated, which, if added to the rates, would represent an even greater burden on all of Cal-Am’s ratepayers and especially members of these disadvantaged communities.~~

As noted above in Section IV.J, to limit liability and costs to ratepayers, the CPUC imposed any costs associated with noncompliance with the Return Water Agreement on Cal-Am. In its decision, the CPUC acknowledged that higher return water percentages could affect rates, stating: “The cost of the MPWSP desalinated water is relatively expensive and becomes more so the greater the return water obligation. The authorized plant is reasonable as long as the desalination plant does not become a vehicle for unreasonable amounts of return water at increasing costs to Cal-Am ratepayers.” To address this risk, it required Cal-Am’s shareholders, not ratepayers, to pay excess costs if return water obligations exceeded certain percentages identified by the ~~Hydrologic Working Group~~HWG, which had advised the CPUC on hydrologic issues. However, the CPUC acknowledged that return water amounts could vary and that the CPUC could revisit the issue, and Cal-Am’s rates, in the future as necessary. ~~Additionally, and as~~As described above in Section ~~II~~IV.J, ~~given~~ the new analysis provided by the Commission’s independent hydrogeologist regarding ~~the likelihood of higher~~estimated

¹⁴⁹ See CPUC Final Decision 18-09-017, Appendix H, § 5.a.ii.

¹⁵⁰ See CPUC Final Decision 18-09-017, Appendix H, § 5.b.

¹⁵¹ See CPUC Final Decision 18-09-017, Appendix H.

¹⁰⁰ ~~As noted in Section II.J above, the Hydrogeologic Working Group, which conducted the previous modeling, concurs that this range of potential return water requirements is reasonable.~~

return water percentages (and with which the HWG agrees), ~~it appears that there is a significant risk that confirms the~~ return water ~~obligations will further increase the costs of~~ Cal-Am's water.

percentages estimated in the CPUC's Final EIR/EIS. Castroville residents would therefore be afforded a discounted rate on the desalinated water. ~~But~~ to represent their avoided costs to produce groundwater from the SVGB.

Some commenters suggest that other Cal-Am ratepayers, many of whom are similarly disadvantaged, would absorb ~~that cost. These~~ the costs of providing discounted water to Castroville, and that those higher rates would disproportionately burden low-income ratepayers in Cal-Am's service area, including Seaside. The commenters also suggest that the discount to Castroville would ~~also~~ not offset impacts to ~~the underserved communities of~~ Marina, as well as Seaside, and others throughout the service area. ~~Although~~ However, the CPUC reviewed the proposed rates during its six-year long review of the proposed Project and determined that Cal-Am's proposed rates were reasonable.

Further, potential impacts to Cal-Am ratepayers from providing return water to Castroville would be offset as described below.

- Pursuant to the Return Water Agreement, CCSD's costs for the return water generally represent CCSD's avoided costs to produce groundwater from the SVGB in response to customer demand – that is, approximately \$110 per acre-foot. Further, if CCSD wants to purchase desalinated water in excess of Cal-Am's return water obligations, the cost per acre-foot is \$580, which incorporates Project infrastructure costs.
- If CCSD did not agree to purchase the return water, Cal-Am would be required to build or use the infrastructure necessary to inject excess desalinated water into the SVGB in order to comply with the Agency Act because the return water could not be sent to the Peninsula. This could result in additional Project costs. CCSD's agreement to purchase the return water avoids those costs for Cal-Am and its ratepayers.
- By reducing Castroville's need to pump groundwater from the SVGB, the return water component benefits the entire region in the form of additional water to Castroville and CSIP and reduced potential for seawater intrusion from inland groundwater pumping.

Moreover, pursuant to the Return Water Agreement approved by the CPUC, Cal-Am shareholders, not ratepayers, would absorb any costs associated with Cal-Am's return water obligations if the proposed Project extracts more non-seawater than the Final EIR/EIS estimates. Additionally, Castroville has 3,742 individuals with income below 200 percent of the federal poverty level, ~~the~~ approximately 56% of Castroville's population. ~~The~~ number of individuals with income below the same poverty guideline in ~~Marina and the Cal~~ Am Cal-Am's service area is ~~27,525, or approximately 7 times greater~~ 20,655—ranging from 12% to 36% of those communities' populations (see Table 2). Similarly, ~~while~~ Castroville has a larger proportion of people of color living in its jurisdiction, ~~a greater number of people of color live throughout the~~ (92%), as compared to other communities in Cal-Am's service area ~~and Marina combined~~ (ranging from 18-69%) (see Table 1). ~~In other words,~~ Nonetheless, as described above, Cal-Am offers several customer assistance

programs to offset cost burdens for low-income ratepayers in its service area. Because the proposed Project would benefit Castroville, and because Cal-Am has mechanisms in place to assist low-income ratepayers in its service area, the Commission finds that the benefits of this project going to one community of concern would not come at the expense of the other underserved communities. ~~For comparison, the feasible alternative would reduce the cost burdens to Seaside, Marina, and other Cal-Am ratepayers, though would not include the above-referenced benefits to Castroville.~~

3) ~~3)~~ Cumulative Environmental Impacts

The proposed Project ~~results could result~~ in environmental impacts in the City of Marina's coastal zone that will increase the overall cumulative environmental burdens in the area. The City of Marina and many of its residents believe the desalination proposal places some of the burdens of the proposed Project on their community but provides none of the benefits. The slant wells for this desalination project would be placed within on a quarter-acre of the soon-to-be-shuttered, 400+ acre CEMEX sand mining property in Marina's coastal zone and would its construction could affect several acres of ~~beach and~~ dune habitat that currently supports a variety of rare or sensitive plant and animal species. ~~If not for this project, this area would be available for public access, habitat restoration, and passive public recreational use after the CEMEX closure. Cal-Am asserts that it is improper for the Commission to consider such impacts when its Consent Settlement Agreement acknowledged that Cal-Am had certain rights on the CEMEX property that might allow it to build this project. However, nothing in the Settlement guaranteed that Cal-Am would be able to construct this project, nor did the Settlement state or imply that the Commission would not analyze public access or other impacts associated with a desalination facility if and when such a facility was proposed. The CEMEX site has been used for industrial sand mining for over a century. Pursuant to the CEMEX Settlement Agreement, future development on the CEMEX site is restricted to habitat restoration, public access, low-impact passive recreation opportunities, public education, and activities consistent with Cal-Am's 30-acre permanent easement. The CEMEX Settlement Agreement, which was approved by the Commission, expressly provides for uses consistent with Cal-Am's easement. This permanent easement would remain regardless of any future restoration plan for the site.~~

Marina is already located near several industrial uses both within and outside of the coastal zone. According to CalEnviroScreen 3.0 data, Marina has one census tract designated as an SB 535 Disadvantaged Community and ranks above the 75th percentile among other tracts in the state for groundwater threats, impaired water, solid waste, pesticides, and cleanups (see Table 3 and Figure 7 below).

Within the coastal zone, industrial uses include the CEMEX sand mining site (which will cease operations in 2020). ~~Some~~ When compared to these existing conditions, the Project's permanent footprint is fractional, representing only 0.06% of the CEMEX site. However, some members of the community raised concerns that some of the access to the site anticipated through the Settlement Agreement could be lost due to limitations Cal-Am may impose around its well field. ~~(Section II.K of these Findings provides a more detailed assessment of the proposed 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. ~~While the project's adverse~~ If the site is eventually purchased and made available for public access, the Project's quarter-acre permanent footprint will not significantly impact the public's ability to access the shoreline. Recommended maintenance activities would occupy an additional quarter-acre for a period of nine to 18 weeks approximately every five years. The result in periodic use of vehicles and other equipment for

maintenance could disturb approximately 2.2 over the Project's lifetime, though not all at once. These impacts are expected to be relatively minor. Nonetheless, Special Condition 10 would require Cal-Am to prepare a Public Access Plan that would, among other things, allow the Executive Director to require further public access protections once a restoration and access plan is adopted for the CEMEX site some point in the future. Thus, the Project's presence, on a 400+ acre site that may eventually be made available for public use, will be limited (Section IV.L of these Findings provides a more detailed assessment of the proposed Project's effects on public access~~are likely to be relatively limited, they would affect Marina residents' ability to fully access this section of the coast).~~

Although the community's concerns regarding cumulative impacts are understandable, the Project is consistent with the Commission's Environmental Justice Policy and applicable Coastal Act provisions.

Note: These are not Commission staff's Recommended Findings

Table 3: SB 535 Disadvantaged Community Census Tract 6053014102
in the City of Marina

<i>Demographic Indicators</i>	Percentile Relative to State
Linguistic Isolation	62
Poverty	73
Unemployment	65
Housing Burden	88
<i>Environmental Indicators</i>	Percentile Relative to State
Pollution Burden	71
Pesticides	83
Drinking Water	65
Cleanups	84
Groundwater Threats	95
Impaired Water	96
Solid Waste	85

Note: These are not Commission staff's Recommended Findings

(Modified graphics)

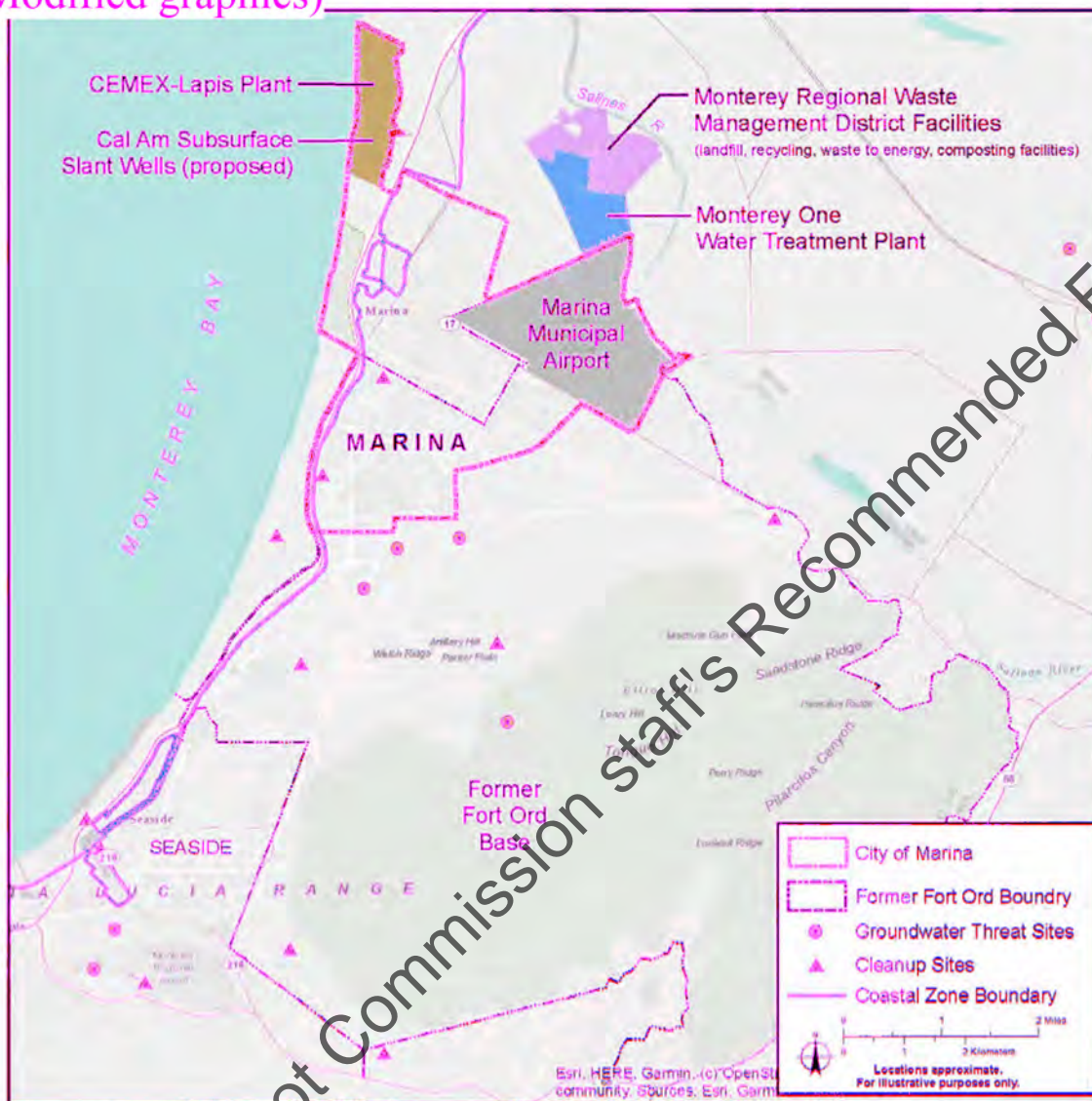


Figure 1 – Map of industrial uses/existing sites of pollution

Outside of the coastal zone, existing industrial facilities near Marina include a regional wastewater treatment plant, the Marina Municipal Airport, and Monterey Regional Waste Management District facility, which includes a landfill, materials recovery facility, food and yard waste composting facilities, a landfill gas-to-energy conversion facility, and a hazardous waste collection site. Marina is also near the former Fort Ord military base, which is on the Superfund National Priorities List. **While** **However**, Cal-Am's slant well won't ~~—on its own—~~ cause the level of pollution as existing facilities, ~~this project would be one more industrial development in a community already dealing with the cumulative impacts of a disproportionate number of industrial facilities. The Cal Am project would be another industrial development that and~~ would take up only a quarter-acre of land on the 400+ acre CEMEX site that could otherwise be used for public access or environmental stewardship purposes.

The City of Marina and its residents also are concerned about the potential impacts of the proposed slant wells on their own aquifer and groundwater supply. ~~These are detailed in Section II.J of these Findings. It remains inconclusive whether these potential impacts would occur or what their extent would be should they occur, as neither the Final EIR/EIS nor the Commission's independent hydrogeological analysis provided evidence showing such impacts were reasonably foreseeable. However, the~~ The City has staunchly opposed the proposed Project due in part to the potential that the impacts would be extensive enough to adversely affect its current and future water supply and could require the City to construct new water supply facilities. However, as described in Section IV.J of these Findings, the analysis provided in Final EIR/EIS, the analysis from the HWG, and the Commission's independent hydrogeological analysis all reach the conclusion that no adverse groundwater impacts would occur, including impacts to Marina's wells, and none of those analyses provided evidence that such impacts would be reasonably foreseeable. The State Water Board agreed that the Project's groundwater impacts have been resolved by the CPUC.¹⁵²

Additionally, the Project will provide much needed protections to the Seaside Groundwater Basin, which is another critical water supply source for the Peninsula. The Seaside Groundwater Basin provides groundwater storage for ASR and Pure Water Monterey. Cal-Am is currently obligated to replenish approximately 700 afy of water to the Seaside Basin over a 25-year period, and the Seaside Basin Watermaster expects Cal-Am to deliver this replenishment water from the proposed Project. In addition, the Seaside Basin Watermaster has provided evidence to the Commission that an additional 1,000 afy of replenishment is necessary to achieve and maintain protective water levels for the Seaside Basin to prevent seawater intrusion and irreversible loss of basin storage. The Seaside Basin Watermaster has determined that the Project is the only possible water supply project capable of supplying the water needed to allow the Watermaster to sustain water levels in the Seaside Basin. If Seaside Basin storage is lost or reduced as a result of seawater intrusion, other existing water supplies – that is, ASR and Pure Water Monterey – would be in jeopardy because seawater intruded aquifers cannot be used for groundwater storage.¹⁵³

While 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. As described throughout these Findings, the Commission has evaluated the proposed Project's potential impacts to the City of Marina and finds that the proposed Project will not adversely affect or disproportionately burden the City.

~~Importantly Further, and as discussed in Section II.V.O – Alternatives Analysis, the Pure Water Expansion project would not provide a feasible project alternative exists that would avoid or reduce these to Cal-Am's proposed project, and the Pure Water Expansion raises its own environmental justice concerns and would reduce the general public cost burdens while providing ratepayers with an adequate water supply. For the impacts to~~

¹⁵² Letter from Eileen Sobeck, State Water Resources Control Board, to John Ainsworth, Coastal Commission, May 8, 2020.

¹⁵³ See Exhibit 26 – Letter from Seaside Groundwater Basin Watermaster to John Ainsworth, Coastal Commission, August 12, 2020.

~~communities of concern in Marina, the feasible alternative would avoid all of the above-referenced impacts. Regarding the disproportionate burdens on low-income residential rate payers and costs to all ratepayers, this alternative is projected to provide water at about \$2,000 to \$3,000 per acre-foot in comparison to the \$6,000 or more per acre foot for the proposed Project, resulting in a significantly lower rate increase. This would reduce the burden on low-income ratepayers in the service area and provide cost savings to all ratepayers. This alternative will also meet water supply needs for regional economic and population growth, including affordable housing.~~discussed above.

Conclusion

For the reasons described above, the Commission finds that ~~although the~~as conditioned, the proposed Project, both procedurally and substantively, aligns with the goals of the Environmental Justice Policy, the Commission's environmental justice authority, and Coastal Act Sections 30604(h) and 30107.3. Cal-Am's proposed Project would benefit the communities on the Monterey Peninsula by providing a reliable, drought-proof water supply, preventing further seawater intrusion in the Salinas Valley Groundwater Basin, and protecting the Seaside Groundwater Basin. In addition, the proposed Project would particularly benefit one underserved community, Castroville, ~~it will~~by providing potable water at a discounted rate pursuant to the Return Water Agreement and Agency Act. With the implementation of Special Condition 13, the proposed Project will not disproportionately burden ~~a greater number of~~ residents within communities of concern in Seaside and elsewhere within Cal-Am's service area ~~by increasing potable~~because Cal-Am has low-income ratepayer assistance programs to help defray increased water costs ~~significantly more than the identified alternative water supply project. The~~. Further, the proposed Project ~~also results in adverse~~would not adversely affect coastal ~~resource effects~~resources 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.~~

. As described elsewhere in these Findings, any potential Project impacts to coastal resources would be mitigated to the maximum extent feasible.

~~As addressed in Section II.O this report, the Commission finds that the Pure Water Expansion Project is a feasible alternative to the proposed Project with fewer environmental justice impacts than Cal-Am's Project. It would provide adequate current and future water supplies to meet the area's water needs in a more affordable manner and would also eliminate adverse coastal impacts and reduce environmental justice concerns consistent with the Commission's Environmental Justice Policy and Coastal Act Sections 30604(h) and 30107.3.~~

O. ASSESSMENT OF ALTERNATIVES

Coastal Act Section 30233 states, in relevant part:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities ~~---~~ ---

Coastal Act Section 30260 states:

Coastal-dependent industrial facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with this division. However, where new or expanded ~~coastal-dependent~~ coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this section and Sections 30261 and 30262 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.

Summary

As noted previously, Coastal Act Section 30233 does not apply to the proposed Cal-Am Project because the Project does not propose diking, filling, or dredging of coastal waters. Nevertheless, the proposed Project is subject to ~~two~~ Coastal Act ~~provisions~~ Section 30260 and an LCP provision that explicitly require the Commission to determine whether there are feasible and less environmentally damaging alternatives to the proposed Project. As described below, the Commission has evaluated an alternative project – the Pure Water Expansion project – to determine whether it would be feasible, whether it would conform to the same project objectives and criteria applied to Cal-Am's proposed Project during its CEQA review, whether it would provide adequate water, and whether it would have fewer adverse environmental effects. Based on the analysis provided below, the Commission concludes that the Pure Water Expansion project provides is not a feasible ~~and less environmentally damaging~~ alternative to the proposed Project.

The Commission also considered another potential alternative – a smaller desalination facility that would produce about half as much drinking water as Cal-Am's currently proposed facility. However, a smaller facility would result in only slightly reduced impacts to ESHA and potentially reduced impacts to nearby wetlands and vernal ponds due to less groundwater drawdown if it is determined that those wetlands and vernal ponds are hydraulically connected to the

Dune Sand Aquifer. It is also likely that a smaller facility would have higher costs for each unit of water produced.

Overview

~~The~~ While the proposed Project is not subject to Coastal Act Section 30233, the Project is subject to two Coastal Act provisions Section 30260 and an LCP provision requiring an assessment of alternatives. One of the tests of Coastal Act Section 30233 is to determine, for ~~proposed Projects such as this~~ projects that involve filling coastal waters or wetlands, whether there is a feasible and less environmentally damaging alternative.¹⁰⁴¹⁵⁴ The first test of Coastal Act Section 30260 requires a similar, though slightly different test: a coastal-dependent industrial project that does not comply with other Coastal Act policies may be approved if alternative locations are infeasible or more environmentally damaging. In addition, the second test of Section 30260 requires a finding that denial of a ~~coastal-dependent~~ coastal dependent industrial facility would adversely affect the public welfare. ~~As detailed herein, the question of whether there is a feasible alternative is relevant to the Commission's finding that denial of the project would not adversely affect the public welfare~~ The third and final test of Section 30260 requires a finding that adverse environmental effects are mitigated to the maximum extent feasible. Furthermore, and as noted in Section ~~III~~ IV of these Findings, the City of Marina LCP includes provisions that incorporate Coastal Act Section 30260. The alternatives assessment herein applies to the proposed Project components both in the Commission's consolidated permit jurisdiction (i.e., components in its original jurisdiction and in areas within the County's and Seaside's jurisdiction that the Commission is reviewing pursuant to the consolidated permit) and in the City's LCP jurisdiction (i.e., components that are now before the Commission on appeal).

The California Environmental Quality Act ("CEQA") provides additional guidance regarding consideration of alternatives. The Commission's regulations require staff reports to include findings evaluating the conformity of a proposed development with the requirements of Public Resource Code (CEQA) section 21080.5(d)(2)(A), which, in turn, requires 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." As a CEQA responsible agency, the Commission's role is more limited than that of the CEQA lead agency, in that the Commission is responsible "for mitigating or avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve."¹⁵⁵

As part of its consideration of Cal-Am's Project under its own authority, the CPUC acted as the lead agency in drafting and certifying an Environmental Impact Report (EIR) under CEQA. Pursuant to both its CEQA authority and its authority to determine whether to issue a certificate of public convenience and necessity to Cal-Am for the proposed Project, the CPUC defined the project objectives and analyzed various alternatives.¹⁰²¹⁵⁶ As the CPUC explained:

¹⁰⁴¹⁵⁴ Coastal Act Section 30108 defines "feasible" **as:**
accordingly: "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

¹⁵⁵ CEQA Guidelines, § 15096, subd. (g)(1); Pub. Resources Code, § 21002.1, subd. (d).

¹⁰²¹⁵⁶ See the following for the ~~PUC's~~ CPUC's decision and CEQA documents:
https://www.cpuc.ca.gov/Environment/info/esa/mpwsp/comms_n_docs.html.

The primary purpose of the MPWSP is to replace existing water supplies that have been constrained by legal decisions affecting the Carmel River and Seaside Groundwater Basin water resources. SWRCB Order 95-10 requires CalAm to reduce surface water diversions from the Carmel River in excess of its legal entitlement of 3,376 acre-feet per year (afy), and SWRCB Order 2016-0016 ("Cease and Desist Order") requires CalAm to develop replacement supplies for the Monterey District service area by December 2021. In 2006, the Monterey County Superior Court adjudicated the Seaside Groundwater Basin, effectively reducing CalAm's CalAm's yield from the Seaside Groundwater Basin from approximately 4,000 afy to 1,474 afy.¹⁰³¹⁵⁷

The CPUC analyzed a variety of alternatives to the project that would meet most of the basic project objectives. One alternative that the PUC CPUC analyzed in detail was the Pure Water project. As described more fully below, the Pure Water project is a water recycling and aquifer storage and recovery project that will treat existing streams of wastewater and inject the water into the ground for later use. Cal-Am initially proposed constructing a 9.6 mgd desalination facility; however, as an alternative to the 9.6-mgd desalination facility, Cal-Am's application also included a 6.4-mgd desalination facility coupled with a water purchase agreement for 3,500 acre-feet per year of treated water from the Pure Water project. The CPUC found that it would be feasible, less expensive, and less environmentally damaging for Cal-Am to build the smaller desalination plant and purchase 3,500 acre-feet per year of treated water from the Pure Water project. It therefore required that Cal-Am implement that project alternative.

Alternatives Analysis and the Public Trust Doctrine

Underlying the Commission's consideration and decision on this proposed Project are its responsibilities to protect public trust resources and to ensure any approved use of those resources does not harm them. For this proposed Project, public trust resources to be considered are those held in common by society and are associated with tidal and submerged lands, including the seawater this desalination facility proposes to use, the fish and wildlife that rely on those lands, public access to the beach and public trust lands, as well as the quality of, and the ecological and aesthetic values associated with, these resources.¹⁰⁴¹⁵⁸ When considering whether to approve projects that may affect public trust lands, agencies must consider the effects that the projects will have on interests protected by the public trust, and attempt, so far as feasible, to avoid or minimize any harm to those interests. Because the Coastal Act requires protection of public access, coastal habitats, recreation, and other public trust-related resources, analysis of a project's consistency with the Coastal Act (and, by extension, an LCP) generally serves as an adequate analysis of a project's consistency with public trust principles. However, these Coastal Act and LCP policies should be interpreted

¹⁰³¹⁵⁷ See <https://www.cpuc.ca.gov/Environment/info/esa/mpwsp/PD.html>

¹⁰⁴¹⁵⁸ The Public Trust Doctrine is a long-held legal construct of American property law. The essence of the Public Trust Doctrine is that the public has the right to use and enjoy lands underlying navigable waterbodies. Its most common historic uses have been to ensure the public has access to navigable waters and tidelands for navigation, commerce, fishing, and shellfish harvest. However, the doctrine is flexible enough to encompass changing public needs, and over time courts have recognized that the doctrine encompasses other resources and uses, including boating, swimming, fishing, hunting, and all recreational purposes, as well as other ecological and aesthetic values.

consistent with public trust principles, and given the resources at stake in this case, it is appropriate to briefly address public trust issues directly here.

Cal-Am's proposed Project would entail the use of seawater, a public trust resource, in a manner that would not harm that particular resource, ~~but could result in adverse effects to others. For example, the proposed Project's construction is likely to adversely affect several. Further, with the implementation of the Final EIR/EIS mitigation measures and the Commission's Special Conditions, Cal-Am's Project is protective of other public trust resources as well. For example, adequate measures have been taken to protect~~ sensitive species ~~(particularly Western snowy plovers)~~ and their habitat along the shoreline, ~~both of which are public trust resources. It is not clear at this point whether during construction. Additionally,~~ the discharge from Cal-Am's facility will adequately protect ocean water quality, another public trust resource, ~~although which the Regional Water Board will regulate that discharge and is also required to consider the public trust in its decisions.~~ Cal-Am's Project will not take up space on, or affect, tidelands that provide public access, except perhaps for short-term impacts during some work on the wastewater outfall. Its proposed method of intake for seawater appropriately protects marine water and wildlife public trust resources, as well.

Importantly, Cal-Am's proposed Project is intended in part to correct an ongoing harm to other public trust resources – the fish, water flows, and water quality of the Carmel River. Cal-Am's Project would end the ongoing overwithdrawal of water from the Carmel River that have reduced the value and benefits of those resources for several decades. ~~as required by the CDO from the State Water Board. Therefore, for the reasons discussed herein,~~ Cal-Am's proposal ~~therefore requires consideration of how to balance the harm and benefits to the public trust from this Project. As described in this Alternatives section and 30260 Override section, however, there is an alternative project that would protect the would not harm and instead would benefit~~ public trust resources ~~in the Carmel River and that would not involve as many impacts to coastal and public trust resources as this proposed Project.~~

Background on the Pure Water project: The Pure Water project is operated by Monterey One Water and was funded by Monterey One Water, along with Cal-Am and ~~the Monterey Peninsula Water Management District ("MPWMD").~~ It has also received support from both the state and federal governments, including \$88 million in grants from the U.S. EPA and a \$15 million construction grant from the State Water Resources Control Board.

The Pure Water project has been designed and built to recycle and treat water from several sources, including treated wastewater, stormwater, agricultural runoff, and food processing water. It includes four separate treatment methods – ozone, membrane filtration, reverse osmosis (similar to that done in desalination facilities), and disinfection with ultraviolet and hydrogen peroxide. These treatments occur after most of its source water has already undergone primary and secondary treatment at the Monterey One Water wastewater treatment facility.

After treatment, the Pure Water project injects the water into the Seaside Groundwater Basin for use by Cal-Am and for longer-term storage in the event of drought. The project was designed to have up to eight wells – up to four deep injection wells and up to four shallower wells – with initial production of up to about 1,000 acre-feet per year, short-term (i.e., first three years of operation) production of 3,950 acre-feet per year, and longer-term production of about 3,700 acre-feet per year. The Pure Water project started operating in March 2020 with two deep and

two shallow wells and is now injecting approximately 170 acre-feet per month of water into the Basin for later use by Cal-Am's customers.

On June 18, 2020, Monterey One Water provided a project status report that described operations and production to date, which include lower than expected injection volumes. The report also recommended several modifications to increase those injection volumes and to repair small surface sinkholes at two of the well sites. The expected corrective work involves well cleaning and sinkhole-related repairs, expected to be completed by this upcoming winter, and installing an additional deep well, which would be done by the end of 2021. ~~These types of initial issues are not unusual for water treatment and desalination facilities, as they must contend with, and adjust to, variations in water sources, chemical treatments, processing methods, and other concerns. For example, during its first year of operations, the Orange County Water District's Groundwater Replenishment System—one of the world's largest and most advanced—produced about 55% of its expected yield.¹⁰⁵ Similarly, the Carlsbad desalination facility produced about 80% of its expected production during its first year of operations and about 72% of its expected production during its first three years of operations.¹⁰⁶~~ At this time, it is not clear whether these proposed measures will enable the Pure Water project to perform as planned, and it is speculative to assume that the project will be able to provide its promised production. Monterey One Water estimates that the Pure Water project is currently capable of annual injection rates of 2,030 acre-feet per year, amounting to less than 58 percent of the 3,500 acre-feet per year allocated to Cal-Am under its existing Water Purchase Agreement with Monterey One Water and MPWMD for Pure Water project water.

Relatively late in the CPUC's multi-year hearing process, some parties to the proceeding raised the possibility that the Pure Water project could be further expanded to supply an additional 2,250 acre-feet per year of water beyond the 3,500 acre-feet per year originally proposed. The CPUC declined to open a new phase of the proceeding to consider this alternative in detail, citing the need to complete the already lengthy ~~PUC~~ CPUC process, the then-existing uncertainties about the proposed Pure Water Expansion, and the need for Cal-Am to meet mandatory deadlines for ending its excess withdrawals from the Carmel River and Seaside Groundwater Basin. Nonetheless, the CPUC ~~briefly considered~~ evaluated the Pure Water Expansion alternative, and ~~found, based on the information available at the time, that the~~ determined that the proposed Expansion was not developed in enough detail and did not yet provide enough certainty for the CPUC to determine that it was a reliable, affordable, and concrete alternative that could be implemented in a timely fashion. It also found that the Pure Water Expansion would not produce enough water to obviate the need for some desalination, and that a smaller desalination facility (that would have produced 4.8 mgd) was not reasonable, in part because it would have virtually the same costs as a larger plant and would not avoid or substantially lessen any significant impacts. Although it did not require Cal-Am to pursue the Pure Water Expansion as part of its project, the CPUC required Cal-Am to provide later updates on the progress of the Pure Water Expansion and stated that purchase of water from the Expansion might be required if the desalination project was delayed. The baseline Pure Water project was designed and built so that it could readily accommodate the additional equipment and components needed for the Pure Water Expansion.

¹⁰⁵ ~~See, for example, The Orange County Groundwater Replenishment System, in Water Conditioning & Purification Magazine, May 10, 2009 (at <http://wcponline.com/2009/05/10/orange-county-groundwater-replenishment-system/>).~~

¹⁰⁶ ~~Available at San Diego County Water Authority: <https://www.sdcwa.org/>~~

Consideration of Alternatives – Pure Water Expansion

The Coastal 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 pursuant to CEQA, now ~~has an independent obligation to consider~~considers alternatives to the project based on current information. Notably, during the approximately two years since the CPUC last collected water supply and demand data and the CPUC issued its Final EIR, there is new information about the Pure Water Expansion, including available source water for the Expansion, and about water demand in Cal-Am's service area ~~that support the Commission's consideration of a feasible and less environmentally damaging alternative.~~ Recent analyses of water supply in Cal-Am's Monterey District service area demonstrate that Cal-Am's supply, with implementation of the Pure Water Expansion, but without the additional supply to be provided by the Project, cannot meet even the most conservative demand scenarios proposed to the Commission.

~~Cal-Am has contended, in a June 30, 2020 letter to Commission staff, that the above-referenced Coastal Act provisions do not allow the Commission to consider whether the Pure Water Expansion is a feasible alternative to its proposed Project. It states that~~As noted above, because the proposed Project would not include any "fill"¹⁰⁷¹⁵⁹ for purposes of Section 30233, ~~and that the Commission therefore has no ability to conduct the~~is not conducting an alternatives analysis ~~required by that section~~ to determine whether there are alternatives to placing fill in coastal waters. ~~Cal-Am contends that the~~The anchors of the temporary monitoring buoys required for the project do not constitute fill and ~~further notes that these~~the anchors would not be permanent. ~~However, these concrete anchors clearly fall within the Coastal Act's "fill" definition, as they are a "substance or material" that would be "placed in a submerged area." Further, the definition does not distinguish between temporary and permanent fill, though in this case, the anchors would be in place for at least six years, which the Commission generally considers to be more than a "temporary" period of time. Additionally, the proposed retrofit of the existing outfall, involving the placement of inclined nozzles to up to 172 diffuser ports on the outfall and replacing the existing outfall end gate with a check valve, would similarly constitute fill, as these represent a "substance or material" to be "placed in a submerged area" (and further, would represent permanent fill, needed for the operational life of the proposed Project).~~ When considering the use of temporary anchors for the recommissioning of the Charles E. Meyer Desalination Facility in Santa Barbara, the Commission did not invoke Coastal Act section 30233 at all.¹⁶⁰ This issue is discussed further in Section IV.H above.

With respect to any potential fill associated with potential modifications to the Monterey One Water diffuser, as described above, the potential modifications to the Monterey One Water outfall are not part of Cal-Am's CDP application, and will be separately considered when Monterey One Water seeks to complete that work.

~~Cal-Am also contends that~~In addition, the alternatives analysis required under Section 30260 allows the Commission to only consider alternative locations for ~~its project~~the proposed Project, not entirely different alternative projects. ~~Cal-Am states that it is not aware of instances when the Commission has interpreted Section 30260 to allow consideration of~~

¹⁰⁷¹⁵⁹ Coastal Act Section 30108.2 defines "fill" as: "earth or any other substance or material, including pilings placed for the purposes of erecting structures thereon, placed in a submerged area."

¹⁶⁰ See Staff Report, Application No. 9-14-1781 (Jan. 30, 2015), available at <https://documents.coastal.ca.gov/reports/2015/2/f12b-2-2015.pdf>.

~~alternative projects. However, the~~ Although the Commission has previously interpreted Section 30260 to allow consideration of a wide variety of different alternatives, including alternative technologies and methods for accomplishing a project's objectives. ~~Examples include the Commission's consideration of alternative intake technologies for a desalination facility¹⁰⁸ and alternative methods to obtain information related to seismic risks.¹⁰⁹ Allowing the Commission to broadly consider various types of alternatives helps carry out Section 30260, which is an override provision that permits construction of development that has impacts that are inconsistent with Coastal Act protection standards. If there is another way to fulfill the main objectives of a coastal-dependent industrial facility—whether it is through an alternative location or alternative technologies or facilities—then the override should not be used. it has not previously interpreted Section 30260 to allow consideration of wholly separate alternative projects outside of the Coastal Zone.¹⁶¹~~

~~Cal-Am also incorrectly asserts that the Commission, as a responsible agency under CEQA, may only consider alternative project locations within the coastal zone. First, this is incorrect, as courts emphasize that, pursuant to CEQA, agencies "may not ignore the regional impacts of a project proposal, including those impacts that occur outside of its borders; on the contrary, a regional perspective is required." *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal. 3d 553, 575. Although an agency may consider jurisdictional issues in determining whether an alternative is feasible and could actually be approved by that agency, agencies are not precluded from considering potentially feasible alternatives that are outside of their jurisdiction. Of course, a responsible agency could not itself approve an alternative that is outside of its jurisdiction or otherwise not within its power to approve. But that fact is not relevant here, where the Commission is only determining whether a potentially feasible alternative exists and whether denial of the project would not harm the public welfare.~~

~~Second, the Commission's duty to consider alternatives in this case does not arise solely due to CEQA, and Cal-Am cites no Coastal Act provision that limits the Commission's consideration of alternatives to those inside the coastal zone.¹⁴⁰ In practice, the Commission has often considered alternatives that are outside of the coastal zone. Examples include the Commission's findings for the three spent nuclear facilities located within the coastal zone at Humboldt Bay, Diablo Canyon, and San Onofre. In each instance, the Commission evaluated whether there was an alternative onsite location, but also whether there was an alternative storage facility elsewhere, including outside the coastal zone and, in fact, outside of California. In each instance, the Commission found that there were no feasible alternatives to the proposed projects that~~

¹⁰⁸ <https://documents.coastal.ca.gov/reports/2008/6/Th17a-6-2008.pdf>

¹⁰⁹ <https://documents.coastal.ca.gov/reports/2012/11/W13b-11-2012.pdf>

¹⁶¹ See, e.g., Staff Report for Test Slant Well, App. No. 9-14-1735, A-3-MRA-14-0050, pp. 3, 57 (evaluating on- and off-site alternative locations for the test slant well).

¹⁴⁰ ~~Cal-Am cites *Sierra Club v. Cal. Coastal Com.* (2005) 35 Cal.4th 839, 860, claiming that it holds that neither the Coastal Act nor CEQA allow the Commission to consider impacts of projects located outside the Coastal Zone. But that case is not on point; it merely held that development outside of the coastal zone is not subject to CDP requirements and that the Commission may not deny a CDP for development in the coastal zone due to effects it will have outside of the coastal zone. See Pub. Res. Code § 30604(d). These situations are not present here.~~

~~could be located elsewhere, which was a determination it could only reach by conducting the analysis Cal-Am contends the Commission cannot do.~~

~~Further, Cal-Am bases part of its contention on the CPUC's previous, but now outdated, determination that the Pure Water Expansion was too speculative. As noted elsewhere in these Findings, the Pure Water Expansion has been designed to be integrated into the existing Pure Water project and has undergone significant CEQA review, so it has advanced sufficiently to be considered an adequately reliable water supply project.~~

Nevertheless, the parties have engaged in extensive alternative analyses of the Pure Water Monterey Expansion project, and an alternatives assessment of the Pure Water Monterey Expansion is being provided herein.¹⁶² The Findings below describe the Pure Water Expansion ~~and demonstrate that the Expansion is not a feasible alternative and its feasibility, ability to meet~~ capable of meeting project objectives, ~~and ability to protect or protecting~~ the public welfare.

Fundamentally, Cal-Am's proposed Project is a water supply project that, when combined with the other water sources in Cal-Am's water supply portfolio, would allow Cal-Am to reduce its withdrawals from the Carmel River to no more than its maximum legal limit, while providing enough water for Cal-Am's existing and future water demands. As described below, the Pure Water Expansion ~~provides~~ does not provide a feasible ~~and~~ or less environmentally damaging alternative to Cal-Am's proposed Project – ~~that would nor could it~~ protect the public welfare by providing adequate regional water supplies for the coming decades. The Pure Water Expansion would be located at the same site and would use the same water sources, treatment methods, and aquifer injection/extraction methods as the Pure Water project ~~to, but it is speculative to assume that the Expansion can~~ supply an additional 2,250 acre-feet per year, ~~all of which would be available to Cal-Am. Further, even under the lowest estimates of demand for Cal-Am's service territory (10,855 acre-feet per year) provided to the Commission by MPWMD, supply in Cal-Am's service area with the Pure Water Expansion, but without the Project, would not be sufficient to meet demand. Reliance on the Expansion without the Project would result in a water supply deficit on the Peninsula, and the Pure Water Expansion is therefore incapable of meeting basic project objectives. Therefore, it cannot be considered a feasible alternative to the Project.~~

The Findings below evaluate and compare the Pure Water Expansion and Cal-Am's proposed Project in five main ways:

- 1) ~~4)~~ **Feasibility:** The Pure Water Expansion is evaluated using the criteria of the Coastal Act's definition of "feasible."
- 2) ~~2)~~ **Water supply and demand:** Each project is evaluated as to whether it would provide the expected amount of water needed for current and future demands.

¹⁶² The Commission also acknowledges Cal-Am's argument that the Commission, as a responsible agency under CEQA, may only consider alternative project locations within the coastal zone. An agency may consider jurisdictional issues in determining whether an alternative is feasible and could actually be approved by that agency. In practice, however, the Commission has in certain instances considered alternatives outside of the coastal zone. In any case, the Commission need not resolve this issue. Even if the Commission could consider alternatives beyond the coastal zone, the Pure Water Expansion Project is not a feasible alternative, as discussed below.

- 3) 3) Project objectives and criteria:** Each project is described as to how it meets the project objectives developed for Cal-Am by the CPUC in its Decision and Final EIR/EIS. Additionally, the Pure Water Expansion is described in relation to the nine criteria the CPUC used to evaluate the initial Pure Water project and to determine ~~that~~whether it would be a suitable and reasonable component of ~~Cal-Am's~~Cal-Am's water supply portfolio.
- 4) 4) Adverse environmental effects:** The two projects are compared as to what overall adverse environmental effects they would cause.
- 5) 5) Areas of Uncertainty:** Both projects involve some degree of uncertainty, though not in the same issue areas.

1) Feasibility

Each project is briefly evaluated for conformity to the criteria of the Coastal Act Section 30108 definition of feasibility – i.e., *“Feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.*”

- **“Capable of being accomplished in a successful manner~~Both~~”:** ~~While Cal-Am's desalination facility and the Pure Water Expansion~~While Cal-Am's would use proven technology to produce and deliver drinking water. ~~Just as Cal-Am is proposing to use treatment processes common to other seawater desalination facilities in operation around the world, the Pure Water~~ter, there remain serious concerns regarding the Pure Water Expansion's ability to deliver a reliable water supply.

—Pure Water Project Technological Issues. The Pure Water Expansion would use the same treatment processes now being used by the baseline Pure Water project and ~~by other water recycling projects in California and elsewhere. The Pure Water Expansion~~is essentially a largeran expanded version of the same Pure Water project that Cal-Am is relying on for a part of its expected water supply. ~~Given that the Pure Water Expansion would use the same processes as PWM and would be located at the Pure Water facility, which is designed to include this expansion, it is therefore capable of being successfully accomplished from a technological standpoint.~~However, the Pure Water project itself is currently facing significant technological barriers that call into question Monterey One Water's ability to utilize this same technology for the Pure Water Expansion. Monterey One Water is currently unable to inject treated water at rates originally promised for the Pure Water project. The existing Pure Water project shallow injection wells are being affected by sinkholes and/or subsidence, and are not currently injecting any water—indeed Monterey One Water believes the shallow wells may only ever be capable of operating at 25 percent of planned capacity.¹⁶³ Additionally, the Pure Water project deep injection wells are experiencing injection refusal and are only operating at injection rates of 70 percent or less. Monterey One Water has stated that the deep wells may only ever inject treated water at 1,600 to 1,800 gpm, out of a planned 2,000 gpm. As such, Monterey One Water estimates that the Pure Water project is currently capable of annual injection rates of only 2,030 acre-feet per

¹⁶³ August 12, 2020 Cal-Am Letter to Commission, p. 2.

year—this is less than 58 percent of the 3,500 acre-feet per year allocated to Cal-Am under the existing Water Purchase Agreement for Pure Water project water.

~~In its June 30, 2020 letter to the Commission, Cal-Am contends that the Pure Water Expansion would not meet this criterion of feasibility because of the above-referenced start-up problems with its wells and injection rates and because of uncertainties about the quality of its source waters, particularly from agricultural operations. However, as noted above, the start-up problems are of a type that can readily be resolved, and in fact, Monterey One Water has developed the methods and schedule for adding a new well and improving conditions at the existing wells to allow for the full expected production. Regarding the quantity of the Pure Water project's source water supply, Monterey One Water has contracts and agreements in place for more than enough water actually needed to provide the Pure Water project's expected production volumes, which would allow it to operate even if some sources are not available or are available in lesser amounts, and the Final Supplemental Environmental Impact Report ("FSEIR") prepared for the Pure Water Expansion concludes that there is adequate water for the facility. Regarding the quality of source water, and as noted above, the Pure Water project is designed to take already treated water from Monterey One Water's other treatment facility and then apply four additional treatment methods designed to handle the expected source waters. The Pure Water project's treatment methods are similar to those used in other recycled water treatment facilities in California and elsewhere. An August 20, 2020 letter from Monterey One Water addresses Cal-Am's contentions and clarifies that Cal-Am's concern about inadequate wastewater was based on incorrect analyses and that its concern about source water quality is misplaced because the Pure Water project has already successfully treated water from agricultural operations, as it is approved to do so by the State Water Board's Department of Drinking Water.¹⁴⁴~~

In order to address these issues with the Pure Water project, Monterey One Water is proposing a series of remedies, including repairs to the shallow wells, final commissioning of the deep injection wells, and construction of a third deep well beginning in November.¹⁶⁴ Monterey One Water also has proposed the potential addition of a fourth deep well in an attempt to address injection refusal issues.¹⁶⁵ The FSEIR for the Pure Water Expansion analyzed a total of five deep wells for both components of the Pure Water project,¹⁶⁶ including two deep wells for the initial Pure Water project and three deep wells for the Pure Water Expansion. Now that up to four deep wells may be necessary for the Pure Water project, and three deep wells still appear to be needed for the Pure Water Expansion, this will exceed the number of wells the FSEIR analyzed. Any more than five deep wells will require additional environmental analysis that has not been conducted or

¹⁴⁴ See August 20, 2020 letter from Monterey One Water to Tom Luster re: Response to Requests for Clarification regarding Latham & Watkins, LLP letter dated August 13 regarding Monterey Peninsula Water Supply Project GDP Application No. 9-19-0918 and Appeal No. A-3-MRA-19-0034.

¹⁶⁴ August 12, 2020 Cal-Am Letter to Commission, p. 2.

¹⁶⁵ See August 31, 2020 M1W Board of Directors Meeting, at 1:14:20 to 1:22:10 (discussing amending bid request for the third deep injection well to include construction of a fourth deep injection well), available at <https://montereyonewater.org/290/Audio-Recordings-of-Board>.

¹⁶⁶ PWM Expansion Draft SEIR, p. 2-22.

circulated for public review and comment.

In total, Monterey One Water estimates that these remedies will increase Pure Water project costs by roughly \$13 million—however, it is not certain that Monterey One Water’s proposed actions will allow it to deliver the promised quantities of Pure Water project water to Cal-Am. It is also unclear when or if Monterey One Water will resolve these issues, and it is speculative to assume that these issues will be resolved by CDO deadline of December 31, 2021. It appears likely that the proposed Pure Water Expansion could face similar barriers to implementation. Importantly, to achieve the MPWMD’s lowest demand estimate of 10,855 acre-feet per year, 100 percent of the promised water supply from the Pure Water project (3,500 acre-feet per year) plus 100 percent of the promised water supply from the Expansion (2,250 acre-feet per year) would be required.

Pure Water Expansion Source Water. There also remains significant uncertainty regarding the availability of source water for the Pure Water Expansion. At the moment, many of the water rights that Monterey One Water states are available for the Pure Water Expansion are in fact not permanent water rights, but instead are interruptible use entitlements, many of which are also disputed by the owners of the corresponding water rights.¹⁶⁷ For instance, the Amended and Restated Water Recycling Agreement (“ARWRA”) between Monterey One Water and MCWRA contains multiple requirements and conditions regarding the construction, operation, and financing of new source water for the Pure Water project.¹⁶⁸ The ARWRA sets forth multiple outstanding conditions that are required to be completed before the ARWRA can become effective, which was acknowledged by the SEIR for the Pure Water Expansion.¹⁶⁹ Monterey One Water and MCWRA amended the agreement in June 2019 to allow additional time to address the conditions while allowing M1W to use the new source waters for the PWM Project until the conditions are met. However, the conditions to the ARWRA have yet to be satisfied and it is speculative to assume when the agreement will become effective. Therefore, the reliability of certain ARWRA source waters for even the Pure Water project are speculative due to the dispute concerning unmet conditions that must be satisfied before sources of water become fully secured.¹⁷⁰ Additionally, reliance on agricultural produce wash water as a source for the Pure Water Expansion is speculative because the City of Salinas disputes Monterey One Water’s ability to use that water for the Expansion and asserts that the ARWRA only permits Monterey One Water to use agricultural produce wash water for the original Pure Water project.¹⁷¹ Salinas explains that these water sources are not available for the Pure Water Expansion because “the City fully intends to use available Agricultural Wash Water for its own purposes, including to support farmers, ranchers and the City’s agriculture industry, as determined by the City in its sole and absolute discretion.” Therefore, these sources cannot be relied upon

¹⁶⁷ August 12, 2020 Cal-Am Letter to Commission, p. 4.

¹⁶⁸ June 30, 2020, Cal-Am Letter to Commission, p. 50.

¹⁶⁹ PWM Expansion Draft SEIR, p. 4.18-5.

¹⁷⁰ June 30, 2020, Cal-Am Letter to Commission, p. 50.

¹⁷¹ Exhibit 27 – April 27, 2020 City of Salinas Letter to M1W; June 30, 2020, Cal-Am Letter to Commission, p. 51.

in determining the available source waters for the Pure Water Expansion.

Further, Monterey One Water's source water projections for the Pure Water Expansion do not account for the inherent uncertainty in utilizing wastewater as source water for the Expansion, given the variability in wastewater availability from year-to-year and under drought conditions.¹⁷² As drafted, Appendix I to the Pure Water Expansion Final Supplemental EIR ("FSEIR"), which describes source water availability for the Expansion, does not consider wastewater treatment plant ("WWTP") flows since 2013, or the fact that WWTP flows generally correlate to area water demand and use, which have been decreasing on the Monterey Peninsula over time. As such, Appendix I overstates the availability of WWTP flows for use as Expansion source water.

The Pure Water Expansion FSEIR specifically asserts that WWTP flows should be based on 2009 to 2013, when WWTP flows were 21,764 af, or a worst case flow of 20,090 acre-feet per year based on the 2013 drought year.¹⁷³ However, a separate appendix to the FSEIR indicates that WWTP flows were reduced to 18,810 acre-feet per year in 2018.¹⁷⁴ This number was not utilized in the FSEIR to calculate available WWTP flows as source water for either the Pure Water project or Pure Water Expansion. Further, Monterey One Water presented additional data regarding WWTP flows to its Ad-Hoc JPA Revision Committee on July 20, 2020, indicating that since the beginning of 2020, WWTP flows are reduced to 17,980 acre-feet per year.¹⁷⁵

Monterey One Water recently provided the Commission with post-2013 WWTP flow data in an August 20, 2020 letter that confirms WWTP flows have continued to decrease since 2013 and were 18,875 in 2019. Therefore, this post-2013 flow data demonstrates that WWTP source water supplies for the Pure Water Expansion in Normal/Wet years are significantly less than as stated in the FSEIR and are unavailable to the Pure Water Expansion during Dry years.¹⁷⁶ Moreover, this newly-available WWTP flow data may constitute significant new information regarding the Expansion's impacts, thereby requiring recirculation of the Pure Water Expansion FSEIR for renewed notice and comment. (CEQA Guidelines, § 15088.5, subd. (a); *Laurel Heights Improvement Assn.*, *supra*, 6 Cal.4th at p. 1129.)

In addition, the Pure Water projects also depend heavily on surface water flows for their projected source water. However, the most recent data available from the

¹⁷² See Exhibit 25, pp. 6-7 – California American Water Peer Review of Supply and Demand for Water on the Monterey Peninsula, Hazen and Sawyer, August 11, 2020 ("August 11, 2020 Hazen Memo").

¹⁷³ Pure Water Expansion SEIR, April 2020, Appendix I – Source Water Availability, Yield, and Use Technical Memorandum, Tables 8-11.

¹⁷⁴ Pure Water Expansion SEIR, April 2020, Appendices to the M1W Draft Supplemental EIR 11-7-2019 -Appendix E - Water Quality and Statutory Compliance Report-Appendix C – Projected Monthly Flows of Source Waters to the Regional Treatment Plant Influent.

¹⁷⁵ Exhibit 25 – August 11, 2020 Hazen Memo, p. 7, Exhibit 5.

¹⁷⁶ See See Exhibit 24, p. 6 – California American Water Peer Review of Peer Review of August 20, 2020 Letter from M1W to CCC, Hazen and Sawyer, August 23, 2020 ("August 23, 2020 Hazen Memo").

U.S. Geological Survey (“USGS”) shows that average surface water flows from the Reclamation Ditch are lower than assumed in the FSEIR, and therefore the FSEIR overstates the availability of this source water.¹⁷⁷ Further, agricultural flows have decreased by 1/3 in recent years, meaning that monthly flows to the Blanco Drain and the Agricultural Wash Water are also below what is projected in the FSEIR, and further limiting available sources for the Pure Water Expansion.

Accounting for these lower WWTP flows and decreased supply from the Reclamation Ditch, the existing demands for the source waters listed in the FSEIR for the Pure Water Expansion far exceed available supplies in both Normal Water years and Dry years.¹⁷⁸ Without an adequate source water supply, Peninsula water users will be forced to choose between supplying source water for the Pure Water Expansion or the Castroville Seawater Intrusion Project (“CSIP”), the reduction of which may cause significant environmental impacts, such as additional seawater intrusion, which have not been analyzed.¹⁷⁹

Pure Water Expansion EIR. Finally, Monterey One Water is not moving forward with the development of the Pure Water Expansion and does not appear to have resources dedicated to the project, such that the Pure Water Expansion would be capable of being accomplished in a successful manner.¹⁸⁰ On April 27, 2020, the Monterey One Water Board of Directors denied certification of the FSEIR for the Pure Water Expansion.¹⁸¹ The Monterey One Water Board acknowledged that major deficiencies remain unaddressed in the FSEIR related to its analysis of Expansion source water, Peninsula water supply and demand, impacts to agricultural water supplies, and the FSEIR’s failure to evaluate the Pure Water Expansion as either an alternative to or a cumulative project with the Cal-Am project. Monterey One Water acknowledges that it does not possess the funding to fix the gaps in the Pure Water Expansion FSEIR, and as such, the Monterey One Water Board has ordered its staff to stop all work on the Expansion. The impact of limited funding to complete adequate environmental review also will affect Monterey One Water’s ability to recirculate the SEIR, as may be required under CEQA.

~~Cal-Am and other commenters have also recently asserted that Monterey One Water will not have enough source water for the Pure Water Expansion because some of water would be directed to other uses or that the above-referenced contracts and agreements did not contemplate use of the water for the Expansion, just for the Baseline Pure Water project. However, the above-referenced Monterey One Water letter refers to the Pure Water Expansion project’s Final SEIR analysis that showed, using conservative assumptions about these expected source water supplies, sufficient quantities will be available for the combined projects (see additional discussion below).¹⁴²~~

¹⁷⁷ Exhibit 25 – August 11, 2020 Hazen Memo, Exhibit 7.

¹⁷⁸ Exhibit 24 – August 23, 2020 Hazen Memo, p. 6.

¹⁷⁹ Exhibit 25 – August 11, 2020 Hazen Memo, pp. 13-14.

¹⁸⁰ See June 30, 2020 Cal-Am Letter to Commission, pp. 47-48.

¹⁸¹ See May 20, 2020 Monterey One Water Board of Directors Staff Report.

¹⁴² ~~See Final Supplemental EIR—Proposed Modifications to the PWM/GWR Project, and Appendix M: M1W Source Water Technical Memorandum, April 2020.~~

Unless and until the Monterey One Water Board chooses to move forward with correcting and thereafter certifying the FSEIR, the Pure Water Expansion is on indefinite hold. Moreover, without a certified SEIR, Monterey One Water cannot obtain any discretionary permits necessary to construct the Pure Water Expansion. As such, the Pure Water Expansion is not currently capable of being accomplished in a successful manner.

- **“Within a reasonable period of time”:** Cal-Am’s facility is expected to take about 21 months to construct and about six months to commission and begin operations. The Pure Water Expansion has a projected construction and start-up schedule of about 24 to 27 months total. If each project received all final approvals and started construction today, ~~Cal-Am’s facility could be providing both projects would be on similar timelines and would be expected to provide~~ water by early ~~2024, whereas the Pure Water Expansion could provide water by late 2022~~ 2023. At this point, neither project can anticipate being online and able to provide water by ~~the~~ December 2021 CDO deadline, which is the date by which Cal-Am is required to end its overpumping of the Carmel River. ~~However, Cal-Am has sufficient water in storage that would allow it to end its overpumping by that deadline without reducing supplies to its customers.~~
- For either project, the actual timeline to produce drinking water is likely to take somewhat longer, as complex water treatment facilities such as these often require several months of adjustment to achieve their expected production level or needed level of treatment. An additional consideration is that both projects have additional approvals necessary before they can begin operation, as well as other potential obstacles that could adversely affect their feasibility and schedule. The main issues that could affect the timing of each project are briefly discussed below, and these and other issues are also further addressed at the end of the Alternatives section in the subsection regarding Areas of Uncertainty.

The primary remaining elements needed for the Pure Water Expansion are certification of its ~~Final Supplemental EIR (FSEIR)~~, approval by the CPUC of a Water Purchase Agreement, and final state and federal approval for its modified discharge into coastal waters. ~~The Monterey One Water Board considered certifying the FSEIR at its April 27, 2020 meeting. The vote to certify it failed by a vote of 10 to 11. There was then a motion to deny certification of the FSEIR and terminate any further action on the Expansion project, which also failed on a vote of 10 to 11. The effect is that the FSEIR was not certified but that the Board remains free to reconsider the FSEIR and project approval at a future hearing, if it so chooses. The main area of controversy that was raised during the FSEIR public comment period relates to whether there is an adequate water supply for the Expansion. As noted above, the FSEIR concludes that the water supply is adequate for the Expansion, and some evidence and arguments submitted by parties to this proceeding have not demonstrated otherwise. As noted above, the Monterey One Water Board has denied certification of the Pure Water Expansion FSEIR due to ongoing flaws in the FSEIR’s analysis, including the availability of source waters. Monterey One Water does not currently possess the funding to fix these deficiencies, and has therefore ordered its staff to suspend work on any part of the Pure Water Expansion.~~

Moreover, if the flaws in the FSEIR are corrected, Monterey One Water would be expected to recirculate the FSEIR for additional notice and comment to account for the significant new information related to the post-2013 WWTP flows recently

made publicly available, including the identification of alternate and verifiable source waters as necessary.¹⁸² Further, should Monterey One Water choose to construct a fourth deep injection well for the Pure Water project, it would also be required to recirculate the Pure Water Expansion FSEIR to allow for additional notice and comment on the addition of this well and the likely need to add further wells for the Expansion. In total, this recirculation process will likely add an additional six to twelve months to the Pure Water Expansion's timeline—demonstrating that the Pure Water Expansion cannot be completed in a "reasonable period of time."

In terms of the Water Purchase Agreement, the Pure Water Expansion ~~would not~~cannot proceed until such an Agreement in place, because that Agreement ~~would be~~is needed to secure funding for the project. As the FSEIR states: "Without knowing when or whether a Water Purchase Agreement will be negotiated, it is currently not possible to estimate when the Proposed Modifications would be completed." ~~However, Cal-Am is the party that would need to pursue the~~Moreover, any Water Purchase Agreement, ~~and it could likely do so expeditiously if it so desired. Given that the main barrier to securing that Agreement is a barrier that Cal-Am largely has control over, any uncertainty related to when an Agreement can be reached should not be considered when analyzing the timing and feasibility of the Pure Water Expansion. Finally, while the Pure Water Expansion will require additional review and permits for its expected discharge, that discharge will be similar to the discharge of the already permitted baseline Pure Water project, so much of the necessary analysis has already been completed.~~for Pure Water Expansion water would need to incorporate additional terms beyond those included in the Pure Water project Water Purchase Agreement, including guarantees from Monterey One Water of the full production volume for the Expansion, and a full indemnification for Cal-Am against any risk, liability, or penalties in the event that the Expansion fails to provide an adequate supply.¹⁸³

Further, with respect to the Water Purchase Agreement for the original Pure Water project, "Significant Events of Default" may have already occurred with respect to the Delivery Start Date and the Performance Start Date for the Pure Water project.¹⁸⁴ Monterey One Water has repeatedly delayed the Performance Start Date for the Pure Water project.

As noted by the State Water Resources Control Board, the timeline for the Pure Water Expansion has been delayed beyond the CDO deadline of December 31, 2021, and the Expansion requires "approvals and funding for which the details are uncertain and the timeline is indefinite"—as such, "[i]t is uncertain whether or

¹⁸² Pub. Resources Code, § 21092.1; CEQA Guidelines, § 15088.5; *Cadiz Land Co. v Rail Cycle* (2000) 83 Cal.App.4th 74, 95 (holding that an EIR required revision and circulation to incorporate important new information about a project's potential impacts identified in expert reports submitted after the final EIR was completed); *Save Our Peninsula Committee v. Monterey Cty. Board of Supervisors* (2001) 87 Cal.App.4th 99, 131 (holding that information regarding a new mitigation measure, which was only added to the record after the EIR was completed, should have been included in the EIR and recirculated for public review and comment).

¹⁸³ See Exhibit 28 – May 9, 2020 Cal-Am Letter to Monterey One Water, p. 5.

¹⁸⁴ See August 12, 2020 Cal-Am Letter to Commission, p. 1.

when the proposed [PWM Expansion] may proceed beyond its currently pending environmental review . . .”¹⁸⁵ Accordingly, it does not appear that the Pure Water Expansion could be constructed and operational within a reasonable period of time as compared to the Cal-Am project.

For its part, Cal-Am faces a variety of hurdles that could delay construction and operation of its project. First, it ~~needs to design, and likely must~~ obtain one or more permits to install the outfall liner in Monterey One Water’s outfall line. The CPUC analyzed the potential environmental effects of such work, including likely impacts to ESHA and potential impacts to endangered species (specifically the Western snowy plover), and assumed that an additional CDP would be needed to undertake this work. It is possible that CDPs would be needed from Monterey County, the City of Marina, and the Commission to allow installation of the outfall liner. ~~If that ends up needing to occur, it could take significant time for the City and others to analyze the impacts of such a project and act on a permit.~~ However, Cal-Am ~~is investigating whether it may be able~~ has proposed to install the needed liner entirely from inside the outfall without any ground-disturbing activity in the coastal zone, which may allow the installation to occur without all or some of the above requirements for permits. (See Special Condition 4.)

Cal-Am also needs to either obtain approval by the Marina Coast Water District to allow Cal-Am to use a shared water delivery pipeline or else design, conduct environmental review for, and obtain needed permits for Cal-Am to construct a new section of water delivery pipeline between its facility and its service area, which would lie outside the coastal zone. On October 17, 2019, the Marina Coast Water District determined that the pipeline did not have sufficient capacity to accommodate Cal-Am’s expected water volumes, and ~~it has rejected Cal-Am’s assertion that~~ although it appears that existing agreements permit Cal-Am ~~has to utilize~~ the right to use the shared pipeline ~~to convey product water from the desalination plant.~~ To help resolve this issue, ~~the Monterey Peninsula Water Management District~~ MPWMD, on July 30, 2020, considered approving an addendum to a CEQA document that would have allowed Cal-Am to construct a parallel pipeline that would serve the jointly managed Aquifer Storage and Recovery water supply system and would have also allowed Cal-Am to transport water to its service area. However, ~~the District declined to approve that~~ MPWMD’s decision on addendum, ~~so it is unclear whether that option will be available to Cal-Am~~ has been delayed until its October Board meeting. Additionally, the pipeline construction would occur outside of the coastal zone but within an area that may have unexploded ordinance from the former Fort Ord, so it would be subject to additional review through completion of a Munitions Response Remedial Investigation/Feasibility Study (“MR RI/FS”) and approval by Monterey County of an excavation permit.¹⁴³

There is also ongoing litigation related to various aspects of Cal-Am’s proposed Project. This includes litigation filed by the City of Marina and later joined by Marina Coast Water District contending that Cal-Am is not able to use more than 500 ~~acre-feet~~ acre- feet per

¹⁸⁵ See May 8, 2020 State Water Board Letter to John Ainsworth, Coastal Commission, pp. 4-5.

¹⁴³ ~~See July 2020 Addendum No. 6 to the Aquifer Storage and Recovery Project Environmental Impact Report/Environmental Assessment for the Bypass Pipeline & De-Chlorination Facility Modification, available at: <https://www.mpwmd.net/wp-content/uploads/ASR-Addendum-No.6-July-2020.pdf> (accessed July 17, 2020).~~

year of groundwater from the CEMEX site.¹⁴⁴ The CPUC analyzed the same claims that have now been made in the litigation and, after consulting with the State Water Board, determined that it was reasonably foreseeable that Cal-Am had a path forward to obtain the necessary water rights. The CPUC recognized that its proceeding was not an adjudication of water rights and that such rights would likely have to be definitively resolved at a future time by the appropriate body, such as a court. However, its conclusion was that questions regarding water rights were not so serious as to compromise project feasibility. It does not appear that this framework through which Cal-Am may appropriate groundwater rights can be modified by this litigation. There is also litigation challenging Monterey County's environmental review of the desalination facility and some pipelines outside of the coastal zone that are a part of the desalination project. As of the publication date of these Findings (August 24, 2020), there is a temporary stay on construction, which, ~~as imposed by the Superior Court in mid-September 2019, is in effect until August 25, 2020, at which time the court will consider extending or modifying the stay.~~ will likely be lifted following the Commission's decision on the Cal-Am Project. On balance, it does not appear that the Cal-Am's Project faces more significant delays in implementation than would be faced by the Pure Water Expansion.

"... and taking into account the following factors":

- "Economic": There remains significant uncertainty regarding the costs for Pure Water Expansion water, given the significant cost overruns that have been experienced during implementation of the Pure Water project.¹⁸⁶ The CPUC has previously approved a rate of \$1,720 or less per-acre-foot for water produced by the Pure Water project. In June 2020, Monterey One Water stated that at the current projected delivery rate of 2,030 acre-feet per year, Pure Water project water costs would increase to \$9,678 per-acre-foot—a 115 percent increase over the approved rate.¹⁸⁷ Even under the best case scenario put forward by Monterey One Water under which delivery of the promised 3,500 acre-feet per year is achieved, after the aforementioned fixes to the Pure Water project, including repairs to the shallow wells, commissioning of deep wells, and the addition of a third deep well, costs would be 2,508 per-acre-foot – representing a 50 percent increase from the rate approved by the CPUC.¹⁸⁸ Moreover, Monterey One Water may decide to install a fourth, costly deep injection well.¹⁸⁹ It appears likely that Pure Water project costs will continue to rise, and it is reasonable to assume that the Pure Water Expansion would face similar cost overruns. As such, there is uncertainty regarding final construction and water costs for the Pure Water Expansion.

~~"Economic":~~ The expected costs of Cal-Am's proposed Project are much higher than those of the Pure Water Expansion. Cal-Am and its ratepayers would be paying an

¹⁴⁴ See Monterey County Superior Court Case No. 20CV001387, filed by the City of Marina against RMC Lonestar and RMC Pacific Materials, LLC (together known as "CEMEX") and Cal-Am.

¹⁸⁶ See June 30, 2020 Cal-Am Letter to Commission, p. 52.

¹⁸⁷ See Pure Water Monterey Status Update Presentation.

¹⁸⁸ August 12, 2020 Cal-Am Letter, p. 3.

¹⁸⁹ See August 31, 2020 M1W Board of Directors Meeting, at 1:14:20 to 1:22:10.

estimated \$400 million in initial capital costs for the overall project, along with operational and maintenance costs of about \$1 billion or more during its initial 30 years of operations. The Pure Water Expansion is estimated to have about \$60 million in initial capital costs and about \$190 million in operational and maintenance costs over a 30-year operating life. although as discussed above, such costs are expected to increase.

Although the desalination facility would produce more water than the Pure Water Expansion, its cost per unit of water would be much higher. ~~At current expected costs, ratepayers would pay about \$6,000 to \$8,000 per acre-foot for Cal-Am's water and about \$2,300 per acre-foot for the Pure Water Expansion supply. However, current costs projections for Pure Water Expansion do not account for costs already spent on the Cal-Am desalination facility, which will be recovered via water rate increases that could increase customer bills by approximately \$10 to \$20 per month even if the desalination facility is never built. Further, regardless of the cost per acre-foot for desalination facility water, that cost is not going to materially affect the costs for the desalination facility on the water bills of Cal-Am's customers. This is because the CPUC already determined the rate increase for Cal-Am's customers for the desalination facility based on a calculation of the annual revenue required to repay capital costs to build the facility, including set financing repayment requirements, and the annual facility operations and maintenance. How much water the facility ultimately produces (or does not produce) is not a material variable in rates that customers are charged, except for minor, incremental operating and maintenance costs. Thus, whether the project produces 2,000 acre feet or 10,000 acre feet of water each year, the amount needed to be recovered annually from customers for physical construction and operation of the facility and for financing/loans essentially remains the same. Based on available information, the CPUC approved a rate increase of about \$37-\$40 per month for the average Cal-Am customer in a single family residence for the desalination facility, and that increase is not tied to per acre foot water costs.¹⁹⁰ That is why the CPUC found that approving a smaller 4.8 MGD desalination facility would not result in any "significant, if any, cost savings to ratepayers" and determined that alternative was not feasible. (CPUC Decision 18-09-017, p. 129.) As a result, the speculative per acre foot water costs being projected by Commission staff and Pure Water Expansion proponents are not relevant to any consideration by the Commission of how rates for the desalination facility will impact Cal-Am's customers.~~

~~In its June 30, 2020 letter, Cal-Am pointed out that the above-referenced Monterey One Water status report on the Pure Water project identified higher than expected first year operating costs – instead of about \$2,442 per acre-foot, Monterey One Water expects the first year's costs to be about \$3,678 per acre-foot. Cal-Am contended that the Pure Water Expansion would likely experience a similar increase. However, that same Pure Water project status report noted that Monterey One Water expects that once repairs are complete and a new well is~~

¹⁹⁰ See August 13, 2020 Latham Letter to Commission, p. 1, Exhibit 1, p. 3 n.4 (citing Attachment C-1 to Advice Letter No. 1220-A from California-American Water Company to CPUC). As noted above, the Commission recently approved a project – the Morro Bay Water Reclamation Facility – that would result in a \$41 increase in water bills.

~~installed, costs will be about \$2,508 per acre-foot, still substantially less than Cal-Am's costs. In addition, the costs of Cal-Am's Project have risen and are likely to continue to rise.~~ Over the last several years, costs to construct ~~the plant~~ Cal-Am's Project have increased from about \$223 million to \$279 million. Its expected cost per acre-foot of water have increased from an estimated \$5,100 in 2012 to a recent estimate of about \$6,100.¹⁴⁵ The desalination cost per acre-foot would be even higher for some period of time, since Cal-Am would be operating at less than full capacity, which results in higher per unit costs. As discussed in Section IV.N, *supra*, the average single-family Cal-Am customer's monthly water bills are expected to increase by approximately \$37 to \$40 once the Project begins producing desalinated water.¹⁹¹ However, as discussed above, there remains significant uncertainty regarding construction costs and water rates for the Pure Water Expansion.

- **“Environmental”:** This factor is discussed in more detail below, under the comparison of the projects' environmental effects, and elsewhere in these Findings. ~~In general, however, and as~~ Certain commenters have raised concerns regarding the Cal-Am Project's potential impacts to environmentally sensitive habitat areas and groundwater, and its effects on marine life related to brine discharge. As noted in the Findings above, Cal-Am's proposed Project would ~~result in several significant adverse effects on coastal resources—including environmentally~~ be inconsistent with Coastal Act and Marina LCP policies regarding sensitive habitat ~~areas, groundwater, and effects on marine life from its brine discharge—whereas the Pure Water Expansion would be built entirely outside the coastal zone (though would discharge effluent in the coastal zone) and have relatively few environmental impacts compared to Cal-Am's Project, including wetland/vernal pond ESHA; however the Project would incorporate mitigation to the maximum extent feasible. (See Sections IV.F, G, *supra*.) In addition the Project would be consistent with Coastal Act and Marina LCP policies regarding coastal waters with the implementation of Special Conditions. (See Section IV.I, *supra*.) Further, the Cal-Am Project will be consistent with policies regarding groundwater without Special Conditions. (See Section IV.J, *supra*.)~~ “Social”: ~~As described more below and in the report's Findings on Section 30260's public welfare test, both projects would provide sufficient water for the Cal-Am's service area, though Cal-Am's would have far greater environmental justice-related effects on low-income ratepayers and other communities of interest (see Section II.N—Environmental Justice). Significant questions remain unresolved regarding the environmental impacts of the Pure Water Expansion, and the FSEIR for the Expansion requires additional analysis as discussed above. As a result of these flaws, the Monterey One Water Board denied certification of the FSEIR for the Expansion. Moreover, Monterey One Water has not evaluated the potential impacts from seawater intrusion to the Salinas Valley Groundwater Basin, should the Pure Water Expansion be constructed in place of the Cal-Am Project.~~¹⁹² Thus, substantial evidence does not

¹⁴⁵ See California-American Water, “Monterey Supply Project Scenarios,” CPUC workshop for A.12-04-019, December 11-13, 2012. Current cost estimates are based on Cal-Am's Advice Letter 1220, Attachment C-3, December 31, 2018.

¹⁹¹ As noted above, the Commission recently approved a project – the Morro Bay Water Reclamation Facility – that would result in a \$41 increase in water bills.

¹⁹² See January 30, 2020 Cal- Am Comments on Pure Water Expansion DSEIR, pp. 17-18.

demonstrate that the Pure Water Expansion will have fewer environmental impacts compared to the Cal-Am Project.

- “Social”: It is likely that the proposed Project would result in increased costs of water for Cal-Am ratepayers, and thereby may involve environmental justice-related effects on low income ratepayers and other communities of interest. (See Section IV.N, *supra*.) However, as described above, Cal-Am offers rate assistance programs for low-income ratepayers, and as required in Special Condition 13, Cal-Am must develop and submit for CPUC approval additional ratepayer assistance programs to address possible barriers to access, customer outreach, and the need to offset rate increases for low-income customers. Moreover, Cal-Am intends to offer discounted water rates to Castroville, a community of concern whose water supply has diminished in recent decades due to overpumping; the Commission has imposed conditions to ensure that Cal-Am’s customers in other nearby disadvantaged communities will not be required to absorb the costs of providing this discounted water.

The Pure Water Expansion is likely to cause a series of environmental justice impacts to communities on the Monterey Peninsula. First, Monterey One Water currently proposes to utilize upwards of 3,700 acre-feet per year in agricultural produce wash water generated in the City of Salinas in order to produce the 2,250 acre-feet per year planned for the Expansion. However, the City of Salinas disputes Monterey One Water’s rights to use these agricultural wash waters, which the City argues is needed to “support farmers, ranchers, and the City’s agriculture industry.”¹⁹³ (See Section IV.N *supra*.) Second, as discussed below, implementation of the Pure Water Expansion, without the proposed Cal-Am Project, will not allow Cal-Am to provide sufficient water to meet even MPWMD’s lowest projections of demand within its Monterey Service Area. As discussed in Section IV.N, *supra*, without a sufficient water supply, there will be insufficient water to construct affordable housing on the Monterey Peninsula, which will in turn drive up current housing costs, forcing employees in the service industry on the Peninsula to reside in more affordable inland communities and contend with lengthy commutes to their jobs on the Peninsula. These workers will then have to bear additional economic burdens, including the cost of gasoline or other transportation, in order to travel to the Peninsula. Third, as noted above, because WWTP flows that Monterey One Water relies upon as Pure Water Expansion source water are continuing to decline, in most situations there would be insufficient source waters to supply both the Expansion and the CSIP. Without sufficient source water to supply CSIP, seawater intrusion in the Salinas Valley Groundwater Basin will continue to progress, disproportionately affecting the residents of the disadvantaged community of Castroville. (See Section IV.N, *supra*.)

• “Technological”: ~~As noted above, both projects would generally use proven technology for treating and distributing water.~~ The Cal-Am project would use a slant well system to provide its source water, and although there are no other operating desalination facilities known to use this system, there are at least two projects ~~here~~ in California where slant wells were successfully tested as a method to supply source

¹⁹³ See January 29, 2020 City of Salinas Letter to Monterey One water, pp. 1-2.

water to desalination facilities.¹⁴⁶¹⁹⁴ Moreover, subsurface slant wells are the type of intake technology preferred by the state resources agencies, including the Commission, for desalination facilities under the California Ocean Plan.¹⁹⁵ The Pure Water ~~project uses a train of~~ Expansion would utilize four different treatment methods ~~commonly used in water treatment facilities. Cal-Am, which are currently being used by~~ the Pure Water project ~~and the Pure Water Expansion all rely in part on an Aquifer Storage and Recovery (“ASR”) system that is being used in numerous locations as a proven method to store and provide water supplies. As~~ However, as noted above, the Pure Water project ~~has experienced some start-up issues, which are relatively common during the initial operations of water treatment facilities, and Monterey One Water has identified proposed solutions and a schedule to implement them.~~ is currently facing significant technological and logistical difficulties in both construction and startup, including failures in the Pure Water project injection wells. Given that the Pure Water Expansion will rely on the same technologies currently being used by the Pure Water project and is proposed for the same location as the Pure Water project, it is likely that the Pure Water Expansion would face similar barriers to construction and implementation. As such, the Cal-Am Project’s use of the preferred slant well technology renders it the more technologically feasible water supply solution for addressing demand on the Peninsula.

2) Water supply and demand – would the Pure Water Expansion provide sufficient amounts of water to allow Cal-Am’s ~~water~~ portfolio to meet expected demands?

In comparing the Pure Water Expansion with Cal-Am’s Project, key issues include: 1) whether either project would provide an adequate and reliable water supply to meet current and future demands; 2) whether either would be consistent with state requirements regarding the design and capacity of water supply facilities; and 3) whether they would allow Cal-Am to meet conditions of the State Water Board’s cease and desist order for reducing withdrawals from the Carmel River.

~~Although~~ Cal-Am’s desalination facility would provide more reliable and drought resilient water supply than would the Pure Water Expansion, ~~either project, when~~ When combined with Cal-Am’s other available water sources, ~~would provide more than~~ and when considering the most conservative projections of demand from the MPWMD (10,855 acre-feet per year), only Cal-Am’s Project is capable of providing adequate water supplies for current and expected future demands and ~~would allow~~ allowing the water system to conform to the state’s design and capacity requirements. ~~Adding either project~~ Only the addition of the Project to Cal-Am’s water portfolio would ~~also~~ allow Cal-Am to reduce its withdrawals from the Carmel River in accordance with requirements of the State Water Board’s ~~cease-and-desist order. Importantly, although~~ CDO. While the CPUC’s 2018 decision described the Pure Water Expansion as speculative, it recognized that, if built, it would satisfy ~~projectsome~~ objectives and could provide sufficient water if the desalination facility was delayed for five to fifteen

¹⁴⁶¹⁹⁴ Along with Cal-Am’s test slant well, the South Coast Water District in Orange County conducted successful slant well tests and has proposed using them for its full-scale desalination facility in Dana Point.

¹⁹⁵ See California Ocean Plan, section III.M.2.d(1)(a).

years.¹⁴⁷ ~~With~~¹⁹⁶ Nevertheless, the CPUC concluded that a desalination would be necessary to meet the Peninsula's long term water supply needs. Now that more information is available concerning the Pure Water Expansion based on its SEIR and subsequent expert analysis, it is now evident that despite the currently lower baseline demand described below, the Pure Water Expansion ~~can be expected to provide~~ is not capable of providing the necessary amount of water ~~for at least 20 to 25 years to meet that demand~~ without the desalination facility in place.

The CPUC's 2018 Final EIR/EIS and its Final Decision described Cal-Am's current and future expected water needs and available supplies. However, the baselines and assumptions used in those analyses have since been updated with new data and projections. In September 2019, ~~the Monterey Peninsula Water Management District ("MPWMD")~~ published its *Supply and Demand for Water on the Monterey Peninsula* (see Exhibit ~~1517~~ – "MPWMD 2019 Update"), which was supported by recent data that were not available at the time of the CPUC review.¹⁴⁸¹⁹⁷ In March 2020, the MPWMD provided an additional update ("MPWMD 2020 Update" – see Exhibit ~~1618~~) that incorporates more recent data and responds to comments received on its September 2019 report. Cal-Am, through its expert Hazen and Sawyer, provided updated data on water supply and demand on January 22, 2020, August 11, 2020 and August 23, 2020. Monterey One Water also provide an update as to the availability of source water for the Pure Water Expansion Project on August 20, 2020. The evaluation below compares the earlier CPUC projections with those of the 2019 and 2020 Updates and the Hazen analyses using the same criteria that were used in the CPUC analysis, along with several others, to identify how either the Pure Water Expansion or the Cal-Am desalination facility would provide for the expected water supply and demand needs for Cal-Am's service area. The CPUC's analyses and projections showed that adding Cal-Am's desalination facility to its water supply portfolio would provide about 109% of its identified needed future water supplies – about ~~15,296~~ 15,296 acre-feet of supply versus 14,000 acre-feet of demand. The most recent analyses and projections, which start at a lower baseline but include a relatively high growth rate, show that adding the Pure Water Expansion instead of the desalination facility to the portfolio would, in most cases, ~~result in a similar "overage" of~~

¹⁴⁷ ~~The CPUC decision states: "...the PWM Expansion would satisfy the basic and key purposes of the Project (i.e., sufficient and reliable water supply) only in conjunction with construction of a desalination plant of some size within five to fifteen years." See CPUC Decision D.18-09-017, Appendix C, p. C-71.~~

¹⁹⁶ The CPUC decision states: "...the PWM Expansion would satisfy the basic and key purposes of the Project (i.e., sufficient and reliable water supply) only in conjunction with construction of a desalination plant of some size within five to fifteen years." See CPUC Decision D.18-09-017, Appendix C, p. C-71.

¹⁴⁸¹⁹⁷ According to the ~~District's~~ MPWMD's website statement, it serves over 100,000 people within the cities of ~~Carmel-by-the-Sea~~ Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Seaside, and Sand City, the Monterey Peninsula Airport District, and portions of unincorporated Monterey County including Pebble Beach, Carmel Highlands and Carmel Valley. It is a public agency funded largely by property taxes, user fees, water connection charges, investments, grants, permit fees and project reimbursements. ~~The District~~ MPWMD operates pursuant to five main goals:

- 1) Increase the water supply to meet community and environmental needs.
- 2) Assist California American Water in developing a legal water supply.
- 3) Protect the quality of surface and groundwater resources and continue the restoration of the Carmel River environment.
- 4) Instill public trust and confidence.
- 5) Manage and allocate available water supplies and promote water conservation.

~~water supply, which provides a measure of reliability~~fail to provide adequate water supplies to meet demand.

Determining the amount of water needed for current and future demands involves three main steps: 1) identify existing water use; 2) identify the expected rates of growth; and 3) identify the sources of water needed to serve that growth. As acknowledged in the CPUC's Final EIR/EIS, "[f]orecasting future demand and supply is not an exact science," and "estimating future water demand necessarily entails the use of assumptions about demand factors that cannot be predicted with absolute certainty."¹¹⁹¹⁹⁸ This uncertainty leads to analyses of future water needs often being based on relatively conservative assumptions to ensure that errors are generally on the side of ensuring more water is available rather than not enough.¹²⁰~~The~~¹⁹⁹

First the Findings ~~below first~~ describe the basis for the CPUC's projection of Cal-Am's expected water supply and demands, which served as the basis for the CPUC's approval of a 6.4 mgd desalination facility.¹²¹~~They then~~²⁰⁰ Second, the Findings describe new information related to ~~those~~ expected ~~water supplies and~~ demands as evaluated in the 2019 and 2020 Updates, both of which show that current actual demand is substantially lower than identified during the CPUC's proceedings. Third, the Findings describe the availability of Cal-Am water sources and the reliability of supply sources to feed the Pure Water Project. The Findings then compare how much water Cal-Am would have available in its current and future water portfolio with the proposed desalination facility or with the Pure Water Expansion project. These Findings also consider a key issue fundamental to Cal-Am's expected water supplies and demands – the need for Cal-Am to meet the obligations of the State Water Board's cease-and-desist order that requires Cal-Am to stop its excess water withdrawals from the Carmel River by December 2021. In sum, the Findings below show that Cal-Am could not meet its expected water needs by including ~~either the desalination facility or~~only the Pure Water Expansion, without the desalination facility, in its overall water portfolio.

CPUC's current and projected water demand

As part of the CPUC's review, it identified ~~Cal-Am's~~Cal-Am's existing and projected future water demands, relying, in part, on state regulatory requirements used to identify baseline water requirements. This regulation – the California Waterworks Standards – requires that water supply systems have the capacity to meet maximum day demand and peak hourly demand, as based on the most recent 10 years of a water system's operations.¹²²²⁰¹ The CPUC determined

¹¹⁹¹⁹⁸ See Section 8.2.13 – Master Response 13: Demand (Project Need) and Growth.

¹²⁰ ~~See, for example, the Pacific Institute's "An Assessment of Urban Water Demand Forecasts in California," August 2020, which describes common patterns and reasons that result in water districts often overestimating expected water demands.~~

¹⁹⁹ See, for example, the Pacific Institute's "An Assessment of Urban Water Demand Forecasts in California," August 2020, which describes common patterns and reasons that result in water districts often overestimating expected water demands.

¹²¹ ~~Those analyses are provided in greater detail in Section 2.6 of the Final EIR/EIS and in the CPUC's September 13, 2018 Final Decision on the proposed project.~~

²⁰⁰ Those analyses are provided in greater detail in Section 2.6 of the Final EIR/EIS and in the CPUC's September 13, 2018 Final Decision on the proposed project.

¹²²²⁰¹ See Title 22, CCR Division 4, Chapter 16, Section 64554. Maximum day demand is determined by selecting the month with the highest water use during the past ten years ~~of~~of service, dividing by the number of days in that month, and multiplying the average daily use by a peaking factor of at least 1.5.

that, for Cal-Am, using the peak month demand would be the critical determinant as to whether the proposed Project could meet its maximum day and peak hour demand, as peak month represents an elevated demand sustained over multiple days.¹²³²⁰² At the time of the CPUC review, the peak month during the 10-year period from 2006 to 2015 was July of 2010 when Cal-Am's ratepayers used 1,111 ~~acre-feet~~acre- feet. The average annual demand during that 10-year period was 12,351 acre-feet.

The CPUC also considered several events that occurred before, during, and after that 10-year period that had affected the area's rate of water use. It recognized that water demand in the area had been somewhat higher long before that particular 10-year period and that it had declined in part due to reduced visitation to the Monterey Peninsula after the events of September 11, 2001 and due to the recession that occurred between 2007 and 2009. It also recognized that California, including Cal-Am's service area, had experienced several years of drought conditions that had further reduced water use and led to implementation of a number of water conservation measures, many of which were still in place and likely represent permanent reductions in the expected water use per capita in the Monterey area and elsewhere. This was accompanied by behavior changes by water users that led to additional reductions, which may or may not be as long-lived as the structural conservation measures but may nonetheless continue to some degree beyond the period of drought conditions due, in part, to continued changes in behavior, increases in the price of water, and other factors. The CPUC also acknowledged that by the time the desalination facility would be operating, Cal-Am's average 10-year and maximum year demands would be lower than the above-referenced 10-year period. Based on these considerations, the CPUC concluded that the existing annual demand was about 12,000 acre-feet per year.¹²⁴²⁰³

Along with identifying these existing water system demands, the CPUC considered several expected future demands that it noted would increase that existing demand by about 2,000 acre-feet per year for a total expected demand of about 14,000 acre-feet per year. Table 4 below shows the expected existing demand and these expected future demands, which are described below.

Table 4: CPUC identified existing and future demand

	CPUC review (totals in acre-feet <u>acre-</u> <u>feet</u> per year)
Existing demand (10-year annual average):	12,000

Peak hourly demand is determined by calculating the average hourly rate for the maximum day demand and multiplying by a peaking factor of 1.5.

¹²³²⁰² This was also reflected in the CPUC's inclusion of a project objective in the Final EIR/EIS that was to ensure the water supply would be able to serve peak month demands. The CPUC's September 13, 2018 Final Decision on the project notes that "[t]his is consistent with Cal-Am's assertion that peak month demand is a more critical consideration for its operations than peak day demand. This appears undisputed, as all of the parties presented their demand projections in a similar method (see, E.g., Exhibit SF-12 Attachment A) and we use monthly and annual figures throughout in our consideration of the standard."

¹²⁴²⁰³ The CPUC's Final Decision states that "[a] projection of demand for existing customers of approximately 12,000 afy is appropriately conservative and reasonable."

Future demand:	
● ▲ Pebble Beach water entitlements	325
● ▲ Hospitality industry rebound	500
● ▲ Lots of record	1,181
Total:	14,006

- Pebble Beach water entitlements:** As part of a water reclamation project funding agreement between the ~~Monterey Peninsula Water Management District~~MPWMD and the Pebble Beach Company, the ~~District~~MPWMD granted water entitlements totaling 380 ~~acre-feet~~acre- feet per year to the Company. The funded reclamation project provides reclaimed water for use on golf courses in the Del Monte Forest area. Because that water would have otherwise come from Cal-Am's use of Carmel River water, the State Water Board recognized in its cease-and-desist order to Cal-Am that those entitlements could be considered part of Cal-Am's expected additional water demands for proposed development in this area. As of the time of the CPUC's decision, about 325 acre-feet per year of these entitlements had not been used and were therefore considered part of potential future growth.
- Hospitality industry rebound:** As noted above, the CPUC acknowledged that water demand in Cal-Am's service area had declined post-2001 and during the 2006-2009 recession, due in part to a reduction in visitation rates. Cal-Am had proposed as part of the CPUC's review that an additional 500 acre-feet per year be added to the projected future demand to reflect an expected rebound in visitation to the area. ~~The Monterey Peninsula Water Management District~~MPWMD conducted a 2013 study that determined that 500 acre-feet per year was a reasonable expectation. The CPUC accepted this figure, though it acknowledged that part of the rebound dependent on these 500 acre-feet per year had already occurred and that some of that supply would therefore be available for other uses.
- Water for lots of record:** Cal-Am's service area has several hundred undeveloped "lots of record," and it proposed that the CPUC include 1,181 acre-feet per year of water for the expected development of those parcels.

During its review, the CPUC also requested and received alternative water demand/supply scenarios proposed by intervenors. These included the same demand categories identified above, though they varied in the current and expected volumes in each category.¹²⁵²⁰⁴ These alternative scenarios proposed that the CPUC consider that expected future demands could range from about 9,700 to 15,000 acre-feet per year. In comparing and evaluating the above demand categories and the scenarios presented by intervenors, the CPUC concluded that ~~Cal-Am's~~Cal-Am's existing demands along with the above expected future demands would total about 14,000 acre-feet per year.

~~CPUC's projected available water supplies~~

¹²⁵²⁰⁴ Scenarios were provided by Cal-Am, the City of Marina, the Marina Coast Water District, the Monterey Peninsula Regional Water Authority, ~~Monterey Peninsula Water Management District~~MPWMD, the Planning and Conservation League, Surfrider Foundation, the Coalition of Peninsula Businesses, and Water Plus.

The CPUC also showed that Cal-Am's water portfolio, including production from the proposed desalination facility, would provide about 1,300 acre-feet more water than needed to serve the then-expected 14,000 acre-foot per year demand. The components of the expected water portfolio are shown in Table 5 and described below.

Table 5: CPUC identified available water supplies

Source:	Amount Available (in acre-feet per year):
Carmel River	3,376
Seaside Groundwater Basin	774
Aquifer Storage and Recovery	1,300
Sand City Desalination Facility	94
Pure Water Monterey Groundwater	
Replenishment Project	3,500
Total:	9,044
Total when including a 6.4 mgd (6,252 afy) desalination facility:	15,296

The water supply sources included:

- Carmel River: Although Cal-Am is required to reduce its withdrawals from the Carmel River, it continues to have the legal right to withdraw 3,376 acre-feet per year from the river.
- Seaside Groundwater Basin: Cal-Am has also relied on past withdrawals from the Seaside Groundwater Basin. As part of the Basin's adjudication in 2006, Cal-Am was determined to have rights to 1,474 acre-feet per year from the Basin; however, based on its overwithdrawals from past years, Cal-Am is required to replenish the Basin at a rate of 700 acre-feet per year over a 25-year period, which limits its allowable withdrawals to 774 acre-feet per year. On August 12, 2020, the Commission received a letter from the Seaside Groundwater Basin Watermaster, who expressed concern that the Basin would need additional water — about 1,000 acre-feet per year over and above the currently proposed 700 acre-feet per year — to provide protective groundwater elevations in the Basin, and that the proposed Cal-Am facility is the only possible source for this additional supply. It appears, however, that the Basin management considered this measure in 2009 and 2013 but took no action to implement the associated infrastructure that would be needed or to fund the approximately \$6,000,000 per year needed to purchase that amount of desalinated water. Nor did the CPUC consider this large, potential additional demand for water in its proceeding. Accordingly, any such new demand for water appears to be speculative and is not considered a reason that the Pure Water Expansion would be infeasible.
- Aquifer Storage and Recovery ("ASR"): Cal-Am and the Monterey Peninsula Water Management District together implemented an ASR project that provides a water supply based on using available storage capacity in the Seaside Basin. The project involves diverting high winter flows of Carmel River water into the Basin for later recovery, treatment, and delivery to customers during summer months to help reduce summer withdrawals from the river. The winter flows it diverts are only those identified as excess to the flows needed to support the river's

~~threatened steelhead population. The first ASR phase was completed in 2008 and allows a maximum annual diversion of about 2,400 acre-feet per year from the Carmel River, and an average yield of approximately 920 acre-feet per year. The second phase, completed in 2013, allows storage of up to 2,900 acre-feet per year and provides an average yield of 1,050 acre-feet of additional water supply. For water supply planning purposes, ASR is estimated to produce an average of 1,300 acre-feet annually.~~

- ~~—Sand City Desalination Facility: This facility is owned by Sand City but operated by Cal-Am. Of the facility's 300 acre-feet per year capacity, Cal-Am has available to it a long-term supply of 94 acre-feet per year.~~
- ~~—Pure Water Monterey Groundwater Replenishment Project: At the time of the CPUC's review, the first phase of this project—a joint proposal by the Monterey Regional Water Pollution Control Agency and the Monterey Peninsula Water Management District—had just undergone environmental review. The project involves treating several water sources—including treated wastewater, agricultural runoff water, and stormwater—and injecting the treated water into the Seaside Groundwater Basin for later additional treatment and use as a potable water supply. The CPUC's decision to approve Cal-Am's desalination facility relied on Cal-Am being able to purchase 3,500 acre-feet per year from the Pure Water project, which allowed the CPUC to reduce the size of Cal-Am's desalination facility from its initially proposed 10,700 acre-feet per year to its currently proposed 6,252 acre-feet per year (i.e., from 9.6 to 6.4 mgd).~~

~~A common principle in water planning is that having more water sources is preferred to having fewer, as more sources generally allow for more overall reliability. Most areas rely on one or two main sources (along with conservation) to meet their water needs. As shown above, Cal-Am currently has five (not counting conservation). Adding the Pure Water Expansion and including it as part of the existing Pure Water project would keep Cal-Am with five sources, while adding desalination would increase sources to six.~~

~~In summary, the CPUC identified a current baseline use of 12,000 acre-feet per year, an expected future demand of about 14,000 acre-feet per year, and an available supply, including Cal-Am's proposed desalination facility, of 15,296 acre-feet per year.~~

2019 and 2020 Updates of water supply and demand

As noted above, MPWMD prepared two updated assessments of expected water demands and supplies for Cal-Am's service area (see Exhibits [1517](#) and [1618](#)), which are collectively referred to as the "Updates" herein. The more recent Update was included as part of the Final SEIR for the Pure Water Expansion project. These MPWMD assessments updated the CPUC's evaluation of the total water demands and supplies available with Cal-Am's desalination facility as compared with supplies that would be available with the Pure Water Expansion project. Table [65](#) below provides the 2020 Update's comparison of these two supply scenarios showing that the scenario with the Pure Water Expansion would provide about 4,000 acre-feet per year less than the scenario with Cal-Am's desalination facility:

Table [65](#): Comparison of water supply portfolio with Cal-Am desalination or Pure Water Expansion

Supply Source	With Cal-Am desalination (in afy)	With Pure Water Monterey Expansion (in afy)
Cal-Am Desalination	6,252	0
Pure Water Monterey	3,500	3,500
Pure Water Monterey		
<u>Pure Water Monterey</u> Expansion	0	2,250
Carmel River	3,376	3,376
Seaside Basin	774	774
Aquifer Storage and		
<u>Aquifer Storage and</u> Recovery	1,300	1,300
Sand City Desalination	94	94
Total Available Supply	15,296	11,294
Other Available Supply	406	406
Total Available Supply w/Other	15,702	11,700

Note: to ensure a more conservative assessment of available supplies, the “Other Available Supply” category above is not included in the analyses immediately below, as that category includes some less certain water sources, such as increased production from the Sand City desalination facility, and “Carryover Credits” that Cal-Am has available to it based on unused capacity in the Seaside Groundwater Basin. However, this category is included later under “Additional considerations for projecting future demand.”

Importantly, the MPWMD also updated the current and expected future water demands the CPUC had identified during its proceedings, using the same demand categories as the CPUC had used, but including more recently available data and some modified assumptions. The Updates show that Cal-Am’s current baseline demand is substantially lower than identified by the CPUC. Using the average annual use for the past 10-year, five-year, and three-year periods, the Updates calculated the current baseline demand to be 10,863, 9,825, and 9,817 acre-feet per year, respectively – or between about 1,100 and 2,300 acre-feet less than the previously assumed 12,000 acre-feet. The Updates had the benefit of about two years of more recent data, starting in January 2018, that show continued reductions in existing water demand compared to the demand figures available to the CPUC. The Updates also show ~~that the~~ expected future demand ~~is as~~ substantially lower than had been identified previously and hypothesize that demand could be met for the next twenty years or more by adding either Cal-Am’s desalination facility or the Pure Water Expansion project to the water supply portfolio. Importantly, these Updates also evaluated the expected rate of growth in water demand, a consideration absent from Cal-Am’s Final EIR/EIS. The Updates conclude that, although the Pure Water Expansion scenario would not provide as much water as the desalination facility scenario, that scenario would provide sufficient water for twenty years or more, even when considering substantially higher growth rates than the area has ever experienced during the past several decades. ~~If~~ The Updates concluded that if growth actually occurs at closer to historic rates, then the Pure Water Expansion could provide sufficient water for approximately forty years. The two sets of demand scenarios are provided in Table 76 below. The Updates also conclude that the Pure Water Expansion could meet the maximum daily demand and peak day flows as required by the state’s Waterworks standards. Finally, they evaluate how a Cal-Am water supply portfolio that

included the Pure Water Expansion instead of the desalination facility could provide adequate water supplies during multiple years of drought.

Importantly, and as shown in Table 76, the Updates' lower demand numbers for the ~~five-year~~five-year and three-year average annual demands are supported by data Cal-Am provided to the CPUC in July 2019. The table includes Cal-Am's 2019 existing demand as identified in its July 1, 2019 General Rate Case application to the CPUC.¹²⁶²⁰⁵ For purposes of this ongoing rate case, Cal-Am reports that its 2018 water demand was 9,679.1 acre-feet, much less than the 12,000 acre-feet estimate in the 2018 Final EIR/EIS and even less than the lowest of the calculated baseline volumes in the ~~above-referenced~~above-referenced Updates. Cal-Am also reports that its expected demand from 2019 through 2022 is 9,789.4 acre-feet per year, which also remains below those lowest calculated baseline amounts. Cal-Am's current CPUC proceeding also includes testimony from a Cal-Am expert witness, who anticipates somewhat lower demand during these immediately upcoming years – from 9,338 in 2021 to 9,610 in 2023.

Table 76: Comparison of existing and future demand scenarios

	2018 CPUC review	MPWMD 2020 Update	2019 Cal-Am
Existing demand:	12,000	9,817 – 9,825	9,338 – 9,789 <u>9,338-9,789</u> (through 2023)
Future demand:			
Pebble Beach entitlements	325	103 to 160	
Hospitality industry rebound	500	100 to 250	
Lots of record	1,181	864 to 1,014	
Total:	~14,000 at an unspecified future date	10,884 – 11,249	

This range of current demand numbers – 9,338 to 9,825 acre-feet per year – is further supported by two recent evaluations conducted on behalf of the City of Marina and the Marina Coast Water District, which are detailed below under Other Reviews.

Future demand: The Updates also show lower expected future demands in each of the categories that the CPUC study had used, as shown below:

- **Pebble Beach entitlements:** As noted above, the CPUC had identified about 325 ~~acre-feet~~acre-feet of expected demand for build-out in the Pebble Beach area. The analyses in the Updates ~~show~~argue that the actual baseline amount was somewhat lower – about 299 acre-feet – and would be split between two categories – a 145 acre-foot expected average for buildout and a 154-acre-foot expected average in “other

¹²⁶²⁰⁵ See July 1, 2019 application by California American Water application for CPUC's General Rate Case A1907004, available at: <https://apps.cpuc.ca.gov/apex/f?p=401:57:0>: (accessed August 10, 2020).

entitlement demand.”¹²⁷²⁰⁶ The Updates **note**argue that this buildout demand is likely overstated, in that it was based on higher water usage rates than are the current norm. For example, the buildout figures were based on a period when residences used about a third more water than the current average and included a proposed hotel that is no longer being pursued.

The Updates also conclude that the “other entitlement demand” is similarly overstated in that this demand would not exist once a new water supply – such as Cal-Am’s Project of the Pure Water Expansion – makes water available to users that would otherwise need the entitlement. These entitlements were developed as part of a financing package for an area recycling project, allowing the Pebble Beach Company to sell some of its unused water entitlements to residential property owners in the area. Over the last decade or so, these average entitlement demands have totaled about 4.9 acre-feet per year. It is unlikely that there will be additional requests for those same entitlements amounts during the approximately three years before one of these two water supply projects is online, largely because the entitlements cost about \$250,000 per acre-foot. The Updates acknowledge, however, that there could be some limited future interest in these entitlements, though more in the range of 10 to 15 acre-feet total rather than the above-referenced 154 acre-feet. The 2019 Update did not include this 10-15-acre-foot demand in its expected growth figures, though it addressed potential growth in a different way to provide sufficient conservatism in its calculations, as described below. The Updates conclude that the actual expected future demand for these categories of water use should be lowered from the previously presumed 325 acre-feet to between 103 and 160 acre-feet. Both Cal-Am and the Pebble Beach Company have contended that the full entitlement amounts may be used, though there is no certainty as to when or how quickly they might be drawn upon should this relatively high cost water be needed. However, the Pebble Beach Company has used or allocated all but 60 acre-feet of its entitlement, implying that the Updates underestimate current and future demand as a result of the Pebble Beach entitlements.²⁰⁷

- **Hospitality industry rebound/tourism bounce-back:** The 500 acre-feet the CPUC included in this category was based testimony from the local hospitality industry and on an expected recovery in the number of visitors to the Monterey Peninsula area. As part of the CPUC proceedings, the industry noted that hotel occupancy rates declined after 2001 and after the ~~2006–2009~~2006- 2009 recession and requested that the CPUC consider including additional water in its demand scenarios to serve the expected increase in occupancy rates that would accompany an improved economy. As described in the Updates, the pre-2001 occupancy rates were about 72%, dropped in 2001 to about 63%, and stayed at about that level until 2012-13. The Updates note that since then, occupancy rates have returned to the previous high pre-~~2001-2001~~ level of about 72%, yet the water use in this sector is substantially lower than it was in 2001 – about 2,442 acre-feet per year in 2018 versus 3,387 acre-feet in 2001. The Updates credit this reduction to recent mandatory conservation standards and improved conservation measures, many of which are permanent. They fail to acknowledge, though, that **even**

¹²⁷²⁰⁶ See April 2012 Pebble Beach Final Environmental Impact Report, Appendix H – Water Supply and Demand Information for Analysis. This document identifies demands wet, average, dry, and critically dry years that range from 128 to 145 acre-feet per year for buildout and 147 to 167 acre-feet per year for “other entitlement demand.”

²⁰⁷ September 10, 2020, Pebble Beach Company Letter to Costal Commission, p. 2.

with these improvements due to tiered water pricing that is in place to encourage conservation, many hotels in the region send laundry miles out of the area to be washed in less expensive service territories. Therefore, there is likely to be some “rebound” for this demand sector, though it is more likely, MPWMD assumes the rebound to be in the range of 100 to 250 acre-feet, without justification for those numbers, and not the 500 acre-feet referenced above.¹²⁸²⁰⁸ The Coalition of Peninsula Businesses disputes MPWMD conclusion and notes that the “500 afa of supply was intended to include not just the return to prior levels of occupancy on the Peninsula (full-service facilities, for instance, were at occupancy levels in the high 70s to low and mid-80s during 1998-99-2000) but water use increases as the rest of the Peninsula economy recovers...”²⁰⁹ Although Cal-Am has contended that the bounceback would be higher because many of those conservation measures are temporary, MPWMD confirmed claims that most are considered permanent, so the lower rates are likely to be long-term.

- **Lots of record:** Cal-Am’s Final EIR/EIS identified an expected future annual demand of 1,181 acre-feet from development of vacant lots of record within Cal-Am’s Cal-Am’s service area, based on a study done in 2002.¹²⁹²¹⁰ The Updates note argue that expected per capita or per household water use at the time of that 2002 analysis was substantially higher than current usage and argue that this expected future demand should be reduced to reflect this lower per capita use. They also note argue that some of these lots included in this calculation are not buildable or have already been developed and are therefore already included as part of Cal-Am’s existing demand. The Updates conclude that the proposed 1,181 acre-feet acre-feet of demand should be reduced by about 167 acre-feet to reflect reduced per capita/per household usage and by about 150 acre-feet to account for already developed or undevelopable lots. It acknowledges that some growth will occur both within and near Cal-Am’s service area, though that growth will be spread out over time rather than occur immediately. Overall, the Updates calculate the amount of new demand for this category at between 864 and 1,014 acre-feet.¹³⁰²¹¹ Cal-Am’s June 30, 2020 letter disagrees with this lower projection, stating that once the CDO is lifted, a “pent-up demand” to build will occur. Even if that were to occur, the Updates argue that it would take many years of growth for any “pent-up demand” to reach either of the above-referenced future demand volumes. This growth issue is further detailed below.

Rate of increase for future demand: The Updates also evaluate how these overall future water demands would be developed over time. Unlike the approach taken in Cal-Am’s Cal-Am’s Final EIR/EIS, which identified an existing demand of 12,000 acre-feet per year and a future need for 14,000 acre-feet per year but did not identify the rate at which that level of water

¹²⁸²⁰⁸ The Final EIR/EIS also acknowledged that much of the expected rebound had occurred, that the 500 acre-foot demand expectation was long-term, and that a reasonable estimate for hospitality industry rebound would be on the order of 200 to 300 acre-feet per year. See Section 2 – Water Demand, Supplies, and Water Rights, page 2-13, and Section 6 – Other Considerations, page 6-15.

²⁰⁹ September 24, 2019, Coalition of Peninsula Businesses letter to MPWMD, p. 4.

¹²⁹²¹⁰ The 2019 Update notes that this figure was based on a February 2002 analysis conducted by the District MPWMD that was revised slightly upward later that year to about 1,211 acre-feet.

¹³⁰²¹¹ This is largely consistent with the District’s MPWMD’s testimony to the CPUC, in which it recommended the CPUC not use the 2002 figures for the reasons cited above. See Final EIR/EIS Section 2 – Water Demand, Supplies, and Water Rights, pages 2-14 & 2-15.

use would be needed, the Updates calculated expected rates of increase in demand by looking at past rates of growth in water demand and projecting them over the next several decades. They also included several additional considerations in their calculations, such as potential higher growth rates, the cost of water, and the effects of recent legislation that are expected to limit or reduce future per capita demands. These projections and other considerations are described below.

The Updates ~~found~~argue that annual water growth rates during the past 20 years, which included periods of high water availability as well as drought and imposed conservation measures, ranged from about nine to 16.4 acre-feet per year. Based on the current range of existing demand identified above – i.e., from 9,338 to 9,825 acre-feet per year – and on the total available future supplies identified above in Table 76, with Cal-Am's desalination scenario providing about 15,296 acre-feet per year and the Pure Water Expansion scenario providing about 11,294 acre-feet per year, the Updates assert that Cal-Am's Project would result in an immediate excess supply of between 5,471 and 5,958 acre-feet and the Pure Water Expansion would result in an immediate excess supply of between 1,469 and 1,956 acre-feet. ~~At~~The Updates claim that at the highest rate of past growth – 16.4 acre-feet per year – the total portfolio with the Pure Water Expansion would supply several decades of growth.¹³⁴²¹² The Updates also ~~considered~~purport to consider other growth scenarios, with higher water demands that still resulted in the Cal-Am water portfolio with the Pure Water Expansion providing sufficient water for several decades, as described below.

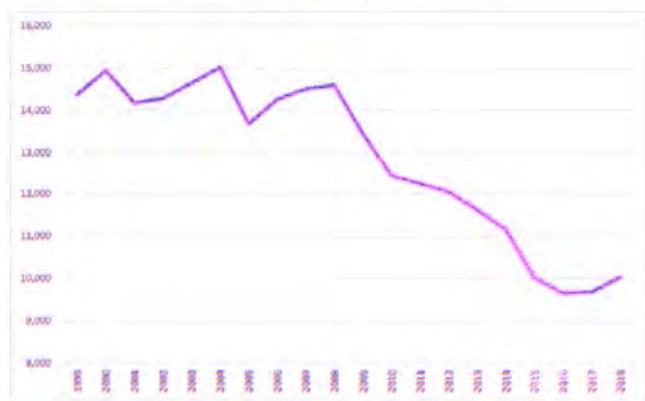
Additional considerations for projecting future demand: There are several additional planning considerations that the Updates claim support a conclusion that the Pure Water Expansion would provide water for a substantially higher number of years of growth in the area:

- **Continually lowering baseline:** As noted above, both the CPUC and the Updates considered a period of the past 10 years of usage data as a basis for average annual demand. The 2020 Update also identifies average demands based on the past five years and three years, both of which resulted in lower average demands of 9,825 ~~acre-feet~~acre-feet per year and 9,817 acre-feet per year, respectively, or about 10% less than the existing 10-year average. The Updates also include a graph showing the past 20 years of demand, which illustrates the substantial drop in water demand over that period and also illustrates that the early part of the most recent 10-year periods is much higher than current use – e.g., 2007 and 2008 have much higher demand than 2017 and 2018.

¹³⁴²¹² The substantially higher “overage” that Cal-Am's Project would supply might also raise concerns with conformity to Coastal Act Section 30254, which requires that new public works facilities be designed and limited to accommodate needs generated by development or uses consistent with other Coastal Act provisions.

(Modified)

Figure 1
Annual Water Production for Customer Service (Demand)
Last 20 Years
(Acre-Feet)



This graph also illustrates that calculating the 10-year average during the next several years will involve removing the higher demand years from 2008 to about 2015 and replacing them with lower demand years of 2019, 2020, and onward. As noted above, Cal-Am's recent testimony to the CPUC shows that it expects demand in 2020 through 2022 to remain at the low end of use – about 9,789 acre-feet per year – which results in the high demand during 2008 and 2009 of around 14,000 acre-feet being replaced by upcoming years of about 4,000 acre-feet less demand. Moving forward each year by deleting the earliest year of the 10-year period and adding a new year that includes the expected high estimate of 16.4 acre-feet per year of predicted growth (which, as noted in the Updates, is the highest rate over the past 20 years) results in the next several 10-year annual averages dropping well below the current 10-year average of 11,232 acre-feet per year – to a low of about 10,047 acre-feet in 2024.¹³²²¹³ It would then be expected to start increasing at the anticipated rate of growth. This approach puts the upcoming 10-year averages much closer to the existing five-year average used in the 2019 Update and allows for a relatively consistent comparison with the same approach used in the CPUC's reliance of the 10-year average. As described below, more recent use figures provided by Cal-Am show an even lower current baseline.

- **Rate of market absorption of water demand:** Although the Updates use a ~~five-~~

¹³²²¹³ This approach results in the 10-year annual average roughly equaling:

In 2019 (2010 to 2019): 10,902

In 2020 (2011 to 2020): 10,661

In 2021 (2012 to 2021): 10,467

In 2022 (2013 to 2022): 10,280

In 2023 (2014 to 2023): 10,135

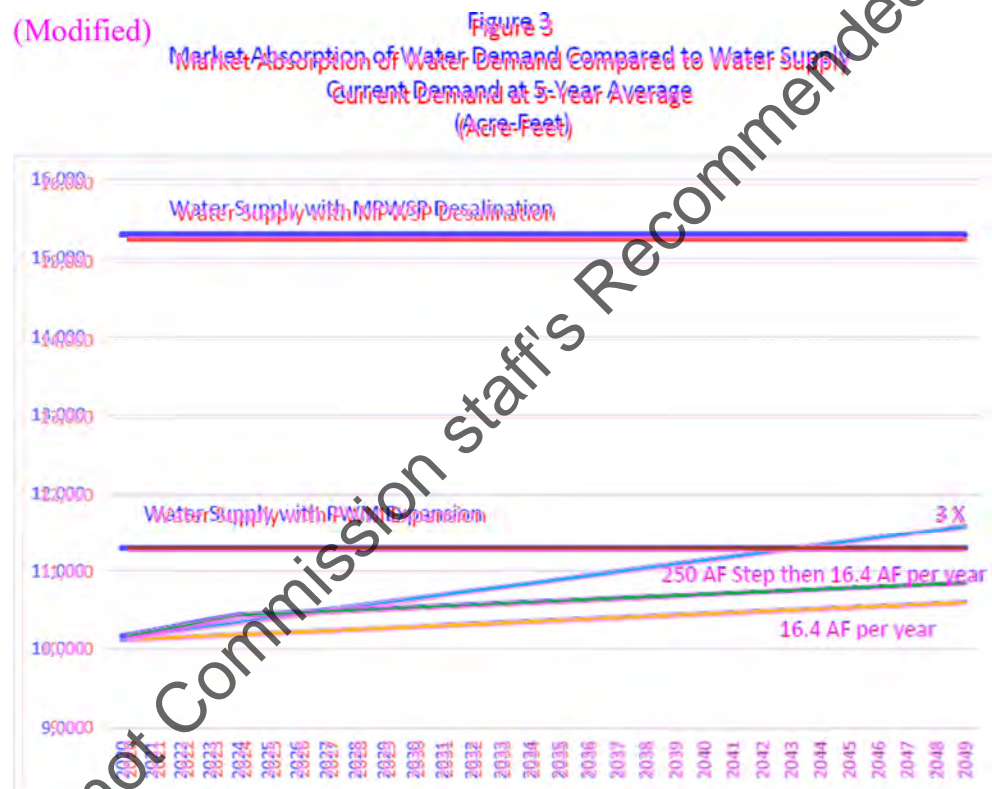
In 2024 (2015 to 2024): 10,047

In 2025 (2016 to 2025): 10,061

In 2026 (2017 to 2026): 10,102

In 2027 (2018 to 2027): 10,140

~~year~~five-year average demand rather than the 10-year average demand used in the CPUC's review, it included ~~added~~ several potential growth scenarios to assess how the Pure Water Expansion would support expected growth into future decades. Using the current ~~five-year~~five-year average annual demand as a baseline, it calculated future expected water demands in three ways: 1) adding the above-referenced 16.4 acre-feet per year growth rate; 2) adding three times that growth rate; and 3) adding an initial 250 acre-feet of growth during the first five years, followed by annual 16.4 acre-feet growth rates. As shown on the 2019 Update's Figure 3, those projections show that Cal-Am's available water portfolio with the Pure Water Expansion instead of the desalination facility would provide sufficient water under those growth rates until well beyond 2050, until about 2043, and again, well beyond 2050, respectively.



- Effects of cost on expected water demand:** Water use rates are also driven by considerations other than growth, including the cost of water. Reliance on either of these facilities – the Cal-Am project or the Pure Water Expansion – as part of ~~Cal-Am's~~Cal-Am's water portfolio would result in increased water costs and water rates in ~~Cal-Am's~~Cal-Am's service area. Current costs for water from the Carmel River and the Seaside Basin are in the range of several hundred dollars per acre-foot, ~~whereas water from the Cal-Am project is expected to cost about \$6,100 per acre-foot and water from the Pure Water Expansion about \$2,340 per acre-foot. Either would increase the average cost of water from Cal-Am's water portfolio, though the Cal-Am project, at about three times the cost of the Pure Water Expansion, would create a substantially larger cost increase (this issue is discussed in more detail in Section II.N – Environmental Justice and Section II.P – Coastal-Dependent Industrial Facility Override). Additionally, because the Cal-Am project would be built to produce significantly more water than will be needed for a number of years, its~~

actual costs per acre-foot would be substantially higher than \$6,100 for as long as the facility was operated at less than its design capacity. This is because its fixed costs, such as the capital costs for building the facility, would be spread among the smaller number of acre-feet actually produced. The Updates illustrate this difference, as shown in Table 8 below, which identify the expected cost per acre-foot at three different levels of production:

As discussed above, the CPUC approved a rate increase of about \$37-\$40 per month for the average Cal-Am customer in a single family residence for desalination facility costs and financing, and that increase is not directly tied to per acre-foot water costs.²¹⁴ Whereas water from the Pure Water Expansion is currently projected to be somewhere in the range of \$2,508 to \$3,678 per acre-foot – at minimum, more than 50% above the rate of \$1,720 per acre-foot approved by the CPUC. Either water supply project would increase the average cost of water from Cal-Am’s water portfolio, though the expected costs of Cal-Am’s proposed Project would be higher than those of the Pure Water Expansion. At current expected costs, ratepayers would pay more per acre-foot for Cal-Am’s water than Pure Water Expansion. However, current costs projections for Pure Water Expansion do not account for costs already expended on the Cal-Am desalination facility, which is currently approximately \$110 million, and it is reasonably foreseeable that such costs would be recovered via water rate increases in connection with the Pure Water Expansion. Further, as discussed in more detail in Section IV.N, *supra*, and as the CPUC recognized in its final decision to approve the Cal-Am Project’s Final EIR/EIS, the relatively high cost of desalinated water must be balanced against the need to achieve a sufficient supply of reliable potable water for the Peninsula. Because there are no feasible alternatives to the proposed Project, it remains the best option to ensure water reliability. Moreover, with implementation of Special Condition 13, which will increase the discount offered from Cal-Am’s Customer Assistance program and improve efforts to enroll eligible customers, costs to residents newly enrolled in the Customer Assistance program could see their rates drop rather than increase after the Project begins operations.

Table 8: Cal-Am costs per acre-foot at different production levels

Annual production by desalination facility (in acre-feet):	6,252	5,000	4,300
Annual fixed costs (in millions):	\$30.3	\$30.3	\$30.3
Annual variable costs (in millions):	\$7.8	\$6.2	\$5.4
Total annual costs to customers (in millions):	\$38.1	\$36.5	\$35.7
Resulting cost per acre-foot	\$6,094	\$7,308	\$8,294

As in past instances, if actual costs are higher than initially determined by the CPUC, Cal-Am would presumably seek to recover those costs through a CPUC-approved rate increase or surcharge.

²¹⁴ See August 13, 2020 Latham Letter to Commission, p. 1, Exhibit 1, p. 3 n.4 (citing Attachment C-1 to Advice Letter No. 1220-A from California-American Water Company to CPUC).

- **Lower per capita use due to conservation:** The Updates also describe the effects of recent legislation that establishes urban water efficiency standards to be implemented by water agencies.¹³³²¹⁵ The legislation establishes standards for indoor and outdoor water use, allowable limits for water lost to leaks, and other measures meant to reduce per capita water use in the state. It establishes, for example, an indoor water use rate of 55 gallons per person per day that will be further reduced to 50 gallons per person per day in the coming years. The Updates note that per capita use in the Cal-Am service area is currently at 57 gallons per person per day, so meeting the new mandates will result in a relatively small reduction of about five percent per capita, which will likely lead to a moderate reduction in the future growth rates described above and will allow the water supplies provided by either project to last somewhat further into the future.
- **Effects of COVID-19 restrictions:** It is difficult to quantify the short- or longer-term effects of the COVID-19 pandemic on expected rates of water use. Cal-Am's service area has been heavily dependent on tourism and associated hotel, restaurant, and visitor-serving uses, but the water uses by those industries have been significantly curtailed due to pandemic-related travel restrictions and ~~shelter-in-place~~shelter-in-place requirements. With area residents sheltering in place, it is likely that residential water use has increased, but not sufficiently to match the missing demand of the above-referenced industries. ~~At the very least, it appears~~However, it is speculative to assume that COVID-19 will result in a slower and longer recovery or "bounce-back" period. ~~With the current lower baseline use and with 700 acre-feet per year of water available through ASR storage, Cal-Am will likely be able to meet its CDO obligations without having either project online by the December 2021 CDO deadline.~~

To provide a short-term comparison, the chart below compares Cal-Am's ~~pre-COVID~~pre-COVID 2019 total water production in March, April, May, and June of 2019 with its water demand during those same months in 2020 and shows an approximately 10% decrease in water use:

Month:	2019:	2020:	Reduction from 2019 to 2020:
March	1029.29	851.88	-177.41 (-17.2%)
April	1021.33	931.86	-89.47 (-8.8%)
May	917.91	843.90	-74.01 (-8.1%)
June	866.82	844.71	-22.11 (-2.6%)
Totals:	3835.35	3472.35	-363.00 (-9.5)

Note: all figures in acre-feet, and are obtained from Cal-Am's quarterly reports to the State Water Resources Control Board required by Cease-and-Desist Order 2016-0016, available at:

<https://amwater.com/caaw/customer-service-billing/billing-payment-info/water-rates/monterey-district>
<https://amwater.com/caaw/customer-service-billing/billing-payment-info/water-rates/monterey-district>

~~In sum, with the current 10-year annual average demand being lower than the demand identified in Cal-Am's Final EIR/EIS, with any of several potential future growth rates, and with increased water costs and increased conservation mandates, adding the Pure Water~~

¹³³²¹⁵ The 2019 Update referenced both the 2018 adoption of SB 606 and AB 1668.

~~Expansion to Cal-Am's water supply portfolio instead of the desalination facility, is expected to provide sufficient water for at least the next two or more decades.~~

~~Two additional factors support this conclusion. First, and as noted above, the Updates include a category of "other available supplies" that would provide an additional 406 acre-feet per year to the above totals. These include:~~

- ~~—Up to about 300 acre-feet per year from the Carmel River (through State Water Board Permit #21330 issued to Cal-Am in 2013).~~
- ~~—Additional production from the Sand City desalination facility: up to about 106 acre-feet per year available to Cal-Am until Sand City generates sufficient growth and development to use this volume of water. At the time of the CPUC's review, this additional production had been suggested, but the CPUC found that it was not supported by credible evidence. More recently, however, Cal-Am's has reported as part of its compliance requirements to the State Water Board that it used 189.55 acre-feet from the Sand City facility during the most recent water year, about 80% more than had been anticipated in the CPUC's review.~~
- ~~—"Carryover Credit" from the Seaside Groundwater Basin: Cal-Am has a number of "credits" for water in the Seaside Groundwater Basin that Cal-Am was allowed to produce, but did not produce due to constraints within the delivery system. The Basin currently has about 1,400 acre-feet in storage.~~

~~While these supplies are not as certain or may not be as consistently reliable as other supplies in Cal-Am's water portfolio, some proportion of these 406 acre-feet is likely to be available as part of future supply portfolios.~~

Maximum daily and peak hour demands: As noted above, Cal-Am's CEQA review evaluated whether the desalination facility, if included as part of Cal-Am's water portfolio, would allow Cal-Am's water system to provide maximum daily demand ("MDD") and peak hour demand ("PHD"), pursuant to the state's requirements for public water systems. That review considered Cal-Am's peak month demand as being ~~the critical~~ the critical determinant as to whether the system could meet MDD and PHD. The review used July of 2010 as the peak month demand, when Cal-Am's ratepayers used 1,111 acre-feet of water. The CPUC's Final Decision noted, based on the information available at that time, that the MDD was 60.48 acre-feet (about 19.7 million gallons) and the PHD was 15.12 acre-feet (about 4.9 million gallons).

MPWMD has also prepared calculations to determine whether including the Pure Water Expansion instead of the desalination facility as part of the water portfolio could meet maximum daily and peak hour demands (see Exhibit ~~17~~ 19 – MPWMD *Analysis of Available Well Capacity for 10-Year Maximum Daily Demand (MDD) and Peak Hour Demand (PHD)*). It used an even higher peak month as its baseline – July of 2012, when demand was 1,206 acre-feet – and determined that the Pure Water Expansion would more than allow Cal-Am to meet these standards. ~~The District's~~ MPWMD's calculations included assumptions that the additional well capacity included as part of the Pure Water Expansion and a proposed pump station would be developed as proposed and one or more existing wells not currently connected to the system could be added. It concluded that these demands could be met under any of several operating scenarios that used the Pure Water Expansion instead of the desalination facility. Cal-Am's June 30, 2020 letter stated that the Pure Water Expansion would not be sufficient to support these peak demand needs; ~~however, it neglected to address other factors that were~~

~~addressed in another recent study, as described below.¹³⁴ Cal-Am explained that using only MDD and PHD to project demand is inappropriate because public water systems must be able to “deliver water supplies at near MDD levels during dry years over a few maximum months of demands.” The appropriate way to ensure adequate capacity is by calculating demand based on maximum month demand (“MMD”) as required by the California Waterworks Standards (Cal. Code Regs., tit. 22, § 64554, subds. (a), (b)(2)). Cal-Am explained that MPWMD’s conclusion that the Pure Water Expansion can meet MDD and PHD relies on the availability of drought reserves to meet such demand—however, MPWMD also assumes that no drought conditions will occur on the Monterey Peninsula between now and 2034, allowing for the buildup of such reserves. As explained below, the assumption that the Peninsula will not experience drought conditions over any significant period is wholly untenable, given that California has experienced a drought in every decade over the last century,²¹⁶ and recharge of groundwater reserves is essentially unavailable under drought conditions.²¹⁷~~

~~Drought supply: A key concern raised by Cal-Am and others about the Pure Water Expansion is whether it would be able to provide sufficient water supply during multiple years of drought. The Project Final EIR/EIS described concerns about whether even the first phase of the Pure Water project would provide sufficient water during multiple drought years, and it based the approved size and volume of the desalination facility, in part, with this concern in mind.¹³⁵ MPWMD has evaluated how much water would be available during multiple drought years and determined that, with the Pure Water Expansion adding water to the ASR project each year and with the current level of demand and expected increases in that demand, Cal-Am’s portfolio could provide adequate water for multiple drought years (see Exhibit 18 – Final Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, April 2020, Appendix M: Source Water Operational Plan Technical Memorandum). MPWMD’s modeling shows that the amount of water stored in the ASR would increase at a rate allowing it to contribute water to Cal-Am’s water supply portfolio during an increasing number of drought years through time. Starting in 2020, the ASR would provide between about 4,750 and 5,950 acre-feet per year and by 2024 would have enough water stored to provide for about two years of drought~~

~~¹³⁴ In an April 17, 2020 call with staff of the State Water Board’s Drinking Water Division and MPWMD to discuss MPWMD’s analysis, Board staff identified no inconsistencies with state drinking water requirements.~~

~~²¹⁶ See U.S. Geological Survey, 2012-2016 California Drought: Historical Perspective, available at [https://water.ca.gov/-/media/DWR-Website/Web-Pages/What-We-Do/Drought-Mitigation/Files/Publications-And-Reports/a6022_CalSigDroughts19_v9_ay11.pdf](https://ca.water.usgs.gov/california-drought/california-drought-comparisons.html#:~:text=Runoff%20and%20precipitation%20conditions%20for%20California's%20six%20historical%20droughts; California Department of Water Resources, California's Most Significant Droughts: Comparing Historical and Recent Conditions, p. 54 (January 2020), available at <a href=).~~

~~²¹⁷ In an April 17, 2020 call with staff of the State Water Board’s Drinking Water Division and MPWMD to discuss MPWMD’s analysis, Board staff identified no inconsistencies with state drinking water requirements.~~

~~¹³⁵ See, for example, the Final EIR/EIS Section 8.2.13 at pages 117-18, which states: [t]he recent severe, five-year drought demonstrated that it is not reasonable to assume that there would never be drought conditions that could deplete ASR reserves and prevent new ASR supplies being diverted from the Carmel River for storage and use. Consequently, changes in plant sizing based on scenarios that assume the availability of adequate ASR supplies would need to be considered carefully.~~

~~and by 2034 would have enough stored for at least four years of drought and possibly longer.~~

Other reviews: In response to the November 2019 Commission staff report on the ~~Cal-Am~~Cal-Am project and to the 2019 Update, Cal-Am prepared a review and critique of the conclusions of those documents. However, that review (see Exhibit ~~1921~~ – California American Water Peer Review of Supply and Demand for Water on the Monterey Peninsula, Hazen and Sawyer, January 22, 2020) assumed for its analyses that ~~Cal-Am's~~Cal-Am's current demand was 12,350 acre-feet per year, which was substantially greater than the above-referenced 9,789 acre-feet that ~~Cal-Am~~Cal-Am has recently acknowledged to be its expected demand in 2019 through 2022.

In addition to the analyses conducted by the CPUC, Cal-Am, and MPWMD, ~~the Marina Coast Water District ("MCWD")~~ – conducted its own analyses to identify whether the Pure Water Expansion would provide adequate future water supplies. ~~The~~ MCWD's report (see Exhibit ~~2022~~ – Expert Report and Recommendations of Peter Mayer, P.E., Regarding Water Supply and Demand in the California American Water Company's Monterey Main System, April 21, 2020) used an even higher, and therefore more conservative, demand figure than both the MPWMD and Cal-Am had used (9,885 ~~acre-feet~~acre-feet versus 9,825 and 9,789 acre-feet, respectively), but similarly concluded that the Pure Water Expansion would meet water needs and state requirements until at least 2040. ~~These reports also countered the other conclusions of the above-referenced Hazen and Sawyer report – for example, they point out that the Hazen and Sawyer report made errors in its peak demand analyses and assumed that per capita water use would increase despite state requirements to reduce that use.~~¹³⁶

The Mayer report includes additional assessments of expected growth, using population projections provided by the Association of Monterey Bay Area Governments ("AMBAG") and based on expected water usage in the various water demand sectors – e.g., residential, commercial. It evaluated expected water use using both the current demands and using the expected reductions in demand that would occur during ongoing implementation of water efficiency measures. Under both scenarios, it determined that either project would allow Cal-Am to have sufficient water supplies through 2040 and that adding the Pure Water Expansion to Cal-Am's water supply portfolio would provide an approximately 1,200-acre-foot surplus supply in 2040. It also provides an evaluation of how the Pure Water Expansion would allow Cal-Am to meet expected peak demand requirements under any of several scenarios and shows that ~~Cal-Am~~Cal-Am has additional water management options – such as adding additional pumping capacity, implementing rate or demand control measures, etc. – that would provide even more ability, if needed to meet those peak demands.

Demand Determinations

The Commission has been presented with conflicting ranges of estimates and projections of current and future water demand for the Peninsula. The MPWMD range of future demand is 10,855 acre-feet per year to 12,287 acre-feet per year.²¹⁸ Demand

¹³⁶ ~~See also the March 6, 2020 letter from the Monterey Peninsula Water Management District to Cal-Am, which raises similar concerns about the Hazen and Sawyer report.~~

²¹⁸ Compare Update 2019 Table 8 with Update 2020 Table 9. In the 2019 Update, MPWMD estimated the higher end of demand to be 12,656 acre-feet per year but revised its estimate to 12,287 acre-feet in the 2020 Update.

projections from MCWD are generally within this same range. In response to the analysis provided to the Commission by MPWMD and MCWD, on August 12, 2020, Cal-Am submitted an expert report prepared by Hazen and Sawyer, which demonstrates that the Pure Water Expansion is not capable of meeting even the most conservative end of the range of demand estimates when combined with Cal-Am's existing portfolio without the desalination Project.²¹⁹ A supplemental report from Hazen and Sawyer, dated September 10, 2020, and attached hereto as Exhibit 23, confirms this assessment. Therefore, without deciding on the merits of the various demand projections presented to the Commission, for purposes of determining whether the Pure Water Expansion could provide sufficient supply to meet the Peninsula's water demand, the Commission is assuming that demand for Cal-Am's Monterey service area is 10,855 acre-feet per year (although MPWMD has acknowledged that demand may be as high as 12,287 acre-feet per year).²²⁰

Evaluation of Available Supplies to Meet Demand

To determine if the Pure Water Expansion is a feasible alternative to the Project, it must be determined whether available water supplies within Cal-Am's service territory can meet 10,855 acre-feet per year of demand with only the addition of the Pure Water Expansion.

The CPUC analysis showed that Cal-Am's water portfolio, including production from the proposed desalination facility, would provide about roughly 1,300 acre-feet more water than needed to serve the CPUC expected 14,000 acre-feet per year demand. The components of the expected water portfolio are shown in Table 5 and described below.

Table 5: CPUC identified available water supplies

<u>Source:</u>	<u>Amount Available (in acre-feet per year):</u>
<u>Carmel River</u>	<u>3,376</u>
<u>Seaside Groundwater Basin</u>	<u>774</u>
<u>Aquifer Storage and Recovery</u>	<u>1,300</u>
<u>Sand City Desalination Facility</u>	<u>94</u>
<u>Pure Water Monterey Groundwater Replenishment Project</u>	<u>3,500</u>
<u>Total:</u>	<u>9,044</u>
<u>Total when including a 6.4 mgd (6,252 afy) desalination facility:</u>	<u>15,296</u>

²¹⁹ See Exhibit 25 – August 11, 2020 Hazen Memo.

²²⁰ Since the Commission adopts the most restrictive estimate of demand for purposes of evaluating the feasibility of the Pure Water Expansion, the Commission does not need to evaluate arguments from MCWD, Stoldt, and Marina concerning the effectiveness of future conservation measures, the effects of increased customer rates on demand, expected demand from the buildout of the Pebble Beach entitlements and lots of records, hospitality industry rebound/tourism bounce-back or other similar arguments that demand will be further depressed.

A common principle in water planning is that having more water sources is preferred to having fewer, as more sources generally allow for more overall reliability. Although some areas in the state rely on one or two main sources (along with conservation) to meet their water needs. However, the Peninsula is unique and does not have a significant local water supply source of its own. As shown above, Cal-Am currently has five sources (not counting conservation). Adding the Pure Water Expansion and including it as part of the existing Pure Water project would keep Cal-Am with five sources, while adding desalination would increase sources to six.

In summary, the CPUC identified a current baseline use of 12,000 acre-feet per year, an expected future demand of about 14,000 acre-feet per year, and an available supply, including Cal-Am's proposed desalination facility, of 15,296 acre-feet per year.

Similar to the competing demand scenarios described previously, the Commission received competing analyses purporting to identify the available water supplies for the Peninsula within Cal-Am's water supply portfolio. Table 7 below summarizes the conflicting evaluations of available supplies.

Note: These are not Commission staff's Recommended Findings

Table 7: Identified Available Water Supplies In Acre-Feet Per Year

(Added)/ Assumption Scenario	Proposed by Others			ASR Controlled*			Wastewater & Reclamation Ditch Controlled*		
	CPUC	MPWMD 2020	MPWMD 2019	No ASR	Half ASR (650 AFY)	Full ASR (1,300 AFY)	Updated Table 9 – Normal Year building Reserve	Updated Table 10 – Normal Yr after full Reserve	Updated Table 11 – Dry Year
1. Carmel River	3,376	3,376	3,376	3,376	3,376	3,376	3,376	3,376	3,376
2. Seaside Groundwater Basin	774	774	774	774	774	774	774	774	774
3. Aquifer Storage and Recovery	1,300	1,300	1,300	0	650	1,300	1,300	1,300	1,300
4. Sand City Desalination Facility	94	94	94	94	94	94	94	94	94
5. Pure Water Project	3,500	3,500	3,500	3,500	3,500	3,500	3,700	3,500	0
6. Pure Water Expansion	-	2,250	2,250	2,250	2,250	2,250	528	719	0
7. Other Available Supplies	-	300	406	-	-	-	-	-	-
Total without desalination Project	9,044	11,594	11,706	9,994	10,644	11,294	9,772	9,763	5,544
Surplus/Deficit assuming 10,855 afy demand	-1,811	739	845	-861	-211	439	-1083	-1,092	-5,311

* Figure 2 from the August 11, 2020 Hazen and Sawyer report depicts these alternative scenarios. (August 11, 2020 Hazen Memo, p. 19.)

The availability of the water supply sources included in Table 7 above are described in more detail below.

Source 1. Carmel River.

Although Cal-Am is required to reduce its withdrawals from the Carmel River, it continues to have the legal right to withdraw 3,376 acre-feet per year from the river.

Source 2. Seaside Groundwater Basin.

Cal-Am has also relied on past withdrawals from the Seaside Groundwater Basin. As part of the Basin's adjudication in 2006, Cal-Am was determined to have rights to 1,474 acre-feet per year from the Basin; however, based on its overwithdrawals from past years, Cal-Am is required to replenish the Basin at a rate of 700 acre-feet per year over a 25-year period, which limits its allowable withdrawals to 774 acre-feet per year. In an August 12, 2020 memorandum, the Seaside Groundwater Basin Watermaster expressed concern that the Basin would need additional water – about 1,000 acre-feet per year over and above the currently proposed 700 acre-feet per year – to provide protective groundwater elevations in the Basin, and that the proposed Project is the only possible source for this additional supply. For the sake of this alternatives analysis of the Pure Water Expansion, the Commission is utilizing the most conservative demand levels presented to it (10,855 acre-feet per year) without considering the potential need for an additional 1,000 acre-feet per year for the Seaside Basin. The Commission notes, however, that based on the submission from the Seaside Groundwater Basin Watermaster, future demand on the Peninsula could increase by 1,000 acre-feet per year to account for the additional water needed to prevent groundwater intrusion in the Basin.

Source 3. Aquifer Storage and Recovery ("ASR").

Cal-Am and MPWMD together implemented an ASR project that provides a water supply based on using available storage capacity in the Seaside Basin. The project involves diverting high winter flows of Carmel River water into the Basin for later recovery, treatment, and delivery to customers during summer months to help reduce summer withdrawals from the river. The winter flows it diverts are only those identified as excess to the flows needed to support the river's threatened steelhead population. MPWMD's website explains that the first ASR phase was completed in 2008 and allows a maximum annual diversion of about 2,400 acre-feet per year from the Carmel River, and has an average yield of approximately 920 acre-feet per year. The second phase, completed in 2013, allows storage of up to 2,900 acre-feet per year and provides an average yield of 1,050 acre-feet of additional water supply.²²¹ However, MPWMD explains in the Updates that "[b]ased on long-term historical precipitation and streamflow data, ASR is designed to produce 1,920 AFA on average."

The analyses in the Updates rely on ASR providing 1,300 acre-feet every year for Pure Water Expansion to meet existing Peninsula water demand and assumes no drought between now and 2034. These assumptions are unrealistic for the following reasons. First, as explained in the August 11, 2020 report from Hazen and Sawyer, ASR using excess Carmel River water in the past 15 years has not shown the ability to consistently

²²¹ See <https://www.mpwmd.net/water-supply/aquifer-storage-recovery/>

provide 1,300 acre-feet in any given year, much less in drought years. Between 2005 and 2019, annual ASR reinjection only reached 1,300 acre-feet twice.²²² During that same period, ASR only achieved an output of the 1,300 acre-feet assumed by the Updates once. Second, during drought periods, injection and recovery from ASR is essentially unavailable. In a single dry year, ASR water availability is reduced to 63%. Following three dry years, ASR availability is reduced to 4%.²²³ The reliability of ASR during drought conditions is depicted in Cal-Am's Urban Water Management Plan Table 6-2, as shown below.

(Added)

Table 6-2: Monterey County District Supply Reliability-Current Water Use

Water Supply Sources ¹	Average / Normal Water Year Supply	Single Dry Water Year	Multiple Dry Water Year Supply		
			Year 1	Year 2	Year 3
Carmel Valley Aquifer	100%	100%	100%	100%	100%
Seaside Groundwater Basin	100%	100%	100%	100%	100%
Salinas Valley Groundwater Basin	100%	100%	100%	100%	100%
Aquifer Storage and Recovery	100%	63%	74%	17%	4%
Sand City Desalination	100%	100%	100%	100%	100%

Third, ASR has not proven itself capable of building up a drought reserve to consistently deliver 1,300 acre-feet. For the last 15 years, average annual storage of ASR is approximately 138 acre-feet per year. Over the last five years, average annual storage of ASR is 352 acre-feet per year.²²⁴ These amounts are not sufficient storage to provide 1,300 acre-feet annually over a multi-year drought. As a result, the Commission cannot rely on the availability of 1,300 acre-feet per year from ASR as part of the water supply portfolio.

In Table 7, three ASR Controlled scenarios are presented: No ASR, Half ASR (650 acre-feet per year), and Full ASR (1,300 acre-feet per year). The Half ASR scenario involves more generous assumptions of ASR availability than the ASR average of 450 acre-feet per year during the past 22 years. Under these three scenarios, water supply for all other sources is assumed to be equal to the availability assumed by the Updates and by the CPUC – i.e., only availability of ASR is variable. As shown, ASR must provide 1,300 acre-feet per year every year in order to achieve the low end demand of 10,855 acre-feet per year. Under the Half ASR scenario, this demand cannot be met.

When a multi-year drought is considered, the availability of ASR is reduced to zero. The Updates assume that ASR water supply is available each year, such that the Peninsula can build up a reserve of ASR water to compensate for extended drought conditions, and that no drought will occur between now and 2034. In assuming that no drought will occur, the Updates also ignore the fact that ASR recharge is unreliable and takes place

²²² Exhibit 25 – August 11, 2020 Hazen Memo, pp. 5, 19.

²²³ Exhibit 21 – January 23, 2020 Hazen Memo, pp. 6-8; Exhibit 25 – August 11, 2020, Hazen Memo, pp. 5.

²²⁴ Exhibit 25 – August 11, 2020 Hazen Memo, p. 5.

intermittently, at best. California has experienced a multi-year dry period or drought in every decade for the last century, and recharge of groundwater reserves is essentially unavailable under drought conditions. Therefore, it is inappropriate not to consider the effects of drought when analyzing the availability of ASR water. ASR water availability is reduced to 63% in a single dry year, and even further reduced to 4% following three dry years.²²⁵ Accordingly, when considering availability of ASR alone, the Pure Water Expansion cannot meet even the low demand projection of 10,855 acre-feet per year. As discussed below, when drought is factored in while also considering the availability of wastewater and Reclamation Ditch flows, the Peninsula's water supply deficit could reach upwards of 5,311 acre-feet.

Source 4. Sand City Desalination Facility.

This facility is owned by Sand City but operated by Cal-Am. Of the facility's 300 acre-feet per year capacity, Cal-Am has available to it a long-term supply of 94 acre-feet per year.

Source 5 and 6. Pure Water Project and Pure Water Expansion.

At the time of the CPUC's review, the first phase of Cal-Am's Project – a joint proposal by the Monterey Regional Water Pollution Control Agency and MPWMD – had just undergone environmental review. The project involves treating several water sources – including treated wastewater, agricultural runoff water, and stormwater – and injecting the treated water into the Seaside Groundwater Basin for later additional treatment and use as a potable water supply. The CPUC's decision to approve Cal-Am's desalination facility relied on Cal-Am being able to purchase 3,500 acre-feet per year from the Pure Water project, which allowed the CPUC to reduce the size of Cal-Am's desalination facility from its initially proposed 10,700 acre-feet per year to its currently proposed 6,252 acre-feet per year (i.e., from 9.6 to 6.4 mgd). As discussed in the feasibility analysis above, due to technical issues, the Pure Water project is currently only capable of producing 2,030 acre-feet per year, which is less than 58 percent of the 3,500 acre-feet per year the project was intended to produced. The Pure Water Expansion is intended to expand the Pure Water project with the goal of supplying 2,250 acre-feet per year in addition to the 3,500 acre-feet per year to be supplied by the Pure Water project. In order to achieve the low-end demand of 10,855 acre-feet per year, MPWMD has assumed that 100% of the projected supplies from both the Pure Water project and the Pure Water Expansion will be available at all times.

Speculative Source Water Supplies for the Pure Water Project and Expansion. As described above in the discussion of Pure Water Expansion feasibility, there is significant uncertainty and controversy surrounding the availability and reliability of the source waters for the Pure Water project and the Pure Water Expansion. (See Section IV.C.1, *supra*.) Many of the water sources purportedly available to Monterey One Water to supply the Pure Water project and the Pure Water Expansion are either contractually dedicated to other users or are merely "paper" water, meaning these sources are not actually available when Monterey One Water needs them most, such as during the summer or during drought. Relying on such speculative water sources to supply the Pure Water Expansion will result in inadequate supplies for the Peninsula.

²²⁵ Exhibit 21 – January 23, 2020 Hazen Memo, pp. 6-8.

It is unnecessary to make any conclusions regarding the contractual disputes between Monterey One Water and other public agencies (such as Monterey One Water's dispute with MCWRA over the ARWRA source waters and Monterey One Water's dispute with the City of Salinas regarding use of the City's agricultural produce wash water). Instead, the limited and variable availability of WWTP flows and surface water flows from the Reclamation Ditch indicate that the Pure Water project and the Pure Water Expansion will not be able to produce their assumed supply of 3,500 acre-feet per year and 2,250 acre-feet per year, respectively.

- WWTP Flows. There are significant limitations on wastewater flows, and data gaps within the analyses in the SEIR for the Expansion and offered by the Updates that do not account for the continuing decrease in WWTP flows in the region over the past decade. Specifically, the SEIR and subsequent analysis provided by the Updates and MCWD do not account for WWTP flows beyond 2013. In response to the August 11, 2020 Hazen and Sawyer memo demonstrating that WWTP flows declined significantly since 2013, Monterey One Water made updated WWTP flow information available to the Commission and the public for the first time on August 20, 2020. In Hazen and Sawyer's August 23 and September 10, 2020 supplemental reports, Hazen demonstrates that based on the new WWTP flow information provided by Monterey One Water, the Pure Water project and the Pure Water Expansion cannot reasonably rely on WWTP flows to produce 3,500 acre-feet per year and 2,250 acre-feet per year, respectively. Similarly, there is a continuing decline of wastewater effluent directed to the ocean outfall. The Draft SEIR indicated that there was approximately 8,000 acre-feet per year of wastewater effluent available to the ocean outfall in a normal year. (Draft SEIR Appendix M, Table 2.) However, the Final SEIR updated this assumption to 5,811 acre-feet per year. When considering Monterey One Water's flow information for 2020, which shows wastewater flow at 17,980 acre-feet, the available wastewater flow to the ocean outfall is 5,554 acre-feet.²²⁶ Given that the Pure Water project requires 4,568 acre-feet-per-year of wastewater to produce 3,700 acre-feet-per-year in product water for Cal-Am and to build a drought reserve, and the Regional Urban Water Augmentation Project requires at least 741 acre-feet-per-year, only 432 acre-feet-per-year in WWTP flows will be available for the Pure Water Expansion.²²⁷ Given that the Pure Water Expansion requires at least 2,778 acre-feet-per-year to produce the promised 2,250 acre-feet-per-year in treated water, available WWTP source waters are insufficient to allow the Expansion to operate near its capacity. Actual WWTP flows are likely to be even less in dry years, during which there will be no flow available for the Pure Water Expansion. When data and wastewater trends are taken into account, the Pure Water project and the Pure Water Expansion would not have sufficient source water to provide the Peninsula with an adequate water supply during substantial periods during the year in both normal and dry years.²²⁸
- Reclamation Ditch Flows. As explained above, the Pure Water projects depend heavily on surface water flows. Among the surface water flows relied upon for the Pure Water projects is flow from the Reclamation Ditch. Reclamation Ditch flows were analyzed originally in the Schaaf & Wheeler Agricultural Ditch Yield Study,

²²⁶ Exhibit 23 – September 10, 2020 Hazen Memo, p. 2.

²²⁷ Id.

²²⁸ Exhibit 25 – August 11, 2020 Hazen Memo, pp. 6-10.

March 2015, based on 2006-2014 data, and were updated in the Pure Water Expansion SEIR Appendix I Tables 8-11. Hazen and Sawyer's August 11, 2020 report updated Reclamation Ditch flows using actual recorded flow data from U.S. Geological Survey ("USGS").²²⁹ Notably, the USGS data provides recorded Reclamation Ditch flow by month from 2010 to April 2020. Based on a review of actual flow records from USGS, the SEIR for the Pure Water Expansion significantly overestimated the availability of Reclamation Ditch flow by 16 to 67 percent in critical summer months.

- Monterey One Water has claimed that it has secured agreements for more than adequate source waters to supply the Pure Water Expansion. However, Tables 2 and 3 to the Pure Water Expansion SEIR, coupled with the above-described analysis of WWTP flows, demonstrates that sufficient source waters are not in fact available. When accounting for all assumed and estimated source water flows according to the Source Water Priority Table 3 in Appendix M to the Pure Water Expansion SEIR, there is only 2,297 acre-feet-per-year available to the Pure Water Expansion.²³⁰ With such flows available, the maximum treated water that could be produced by the Pure Water Expansion amounts to 1,860 acre-feet-per-year. That supply is further reduced to 1,597 acre-feet-per-year if source water figures are reduced to account for current wastewater flows described above. These supplies are far below the 2,250 acre-feet-per-year that Monterey One Water claims could be supplied by the Pure Water Expansion, and would not provide adequate supplies to meet demand in Cal-Am's Monterey service area.

In Table 7, under the Wastewater & Reclamation Ditch Scenarios, the source water data in the FSEIR has been updated to account for the availability of WWTP flows and Reclamation Ditch flows. Under these three scenarios, all other sources, including ASR, are assumed to be fully available. As depicted in the Wastewater & Reclamation Ditch Scenarios in Table 7, the operation of the Pure Water project and the Pure Water Expansion, when combined with Cal-Am's existing sources, cannot satisfy MPWMD's low-end demand estimate of 10,856 acre-feet per year. In normal years the supply deficit could range from -1,083 acre-feet to -1,092 acre-feet, while in a dry year that deficit could reach -5,311 acre-feet. If the full availability of ASR were replaced in the table with realistic ASR assumptions for the Wastewater & Reclamation Ditch Scenarios, then the supply deficit would be even more severe.

Source 7. Other Available Supplies.

The Updates also assert that the following "Other Available Sources" are available to Cal-Am:

- Up to about 300 acre-feet per year from the Carmel River ("Table 13" water rights through State Water Board Permit #21330 issued to Cal-Am in 2013). Cal-Am's

²²⁹ Exhibit 25 – August 11, 2020 Hazen Memo, pp. 10-11; see also September 10, 2020 Pebble Beach Company Letter to Coastal Commission p.2 (From 30 years of experience with the Pebble Beach water reclamation project "we've learned that the supply of recycled water is extremely dependent upon the community's potable water use that, in turn, supplies the 'raw product' for the reclamation process... Recycled water alone simply cannot meet the Monterey Peninsula's water supply needs on a sustainable, long-term basis.")

²³⁰ See Exhibit 23 – September 10, 2020 Hazen Memo, p. 2.

Table 13 water rights under Permit 21330 provide a potential right to divert up to 1,488 acre-feet per year from the Carmel River, but this right is only available between December and May and is subject to instream flow requirements, such that in times of drought Table 13 water may not be available. Use of Table 13 water is also limited to the Carmel River watershed. The Updates acknowledges these limitations, but assumes that 300 acre-feet per year will be available, despite the fact that diversions were only 42.2 acre-feet in 2015 and 164.2 acre-feet in 2016. A water system's supply must be assessed in dry and multiple dry water years, and must include the source's lowest anticipated daily yield.²³¹ Because of the uncertainty of availability of Table 13, inclusion of any permitted amounts from this source in determining adequacy of supplies is speculative and not supported.

- Additional production from the Sand City desalination facility: up to about 106 acre-feet per year available to Cal-Am until Sand City generates sufficient growth and development to use this volume of water. The CPUC considered whether any additional supply was available from the Sand City desalination plant, and specifically whether an additional 106 acre-feet per year was available to Cal-Am. The CPUC concluded that arguments about any additional allocation above the 94 acre-feet per year already allocated to Cal-Am confused the Sand City plant's total expected production of 200 acre-feet-per-year with Cal-Am's allocation, and that no credible evidence supported the claim that Cal-Am would be able to rely on receiving more than the 94 acre-feet-per-year to which it is currently entitled.²³² More recently, Cal-Am has reported as part of its compliance requirements to the State Water Board that the Sand City facility had produced a total of 153.95 acre-feet during the 2018-2019 recent water year, although Cal-Am's existing agreements continue to permit it to utilize only 94 acre-feet-per-year of the production from the Sand City facility.²³³ As such, reliance on this water source in an amount greater than 94 acre-feet-per-year is speculative.
- "Carryover Credit" from the Seaside Groundwater Basin: Cal-Am has a number of "credits" for water in the Seaside Groundwater Basin that Cal-Am was allowed to produce, but did not produce due to constraints within the delivery system. The Updates assert that the Basin currently has about 1,400 acre-feet in storage. However, this position conflicts with the CPUC's determination that only 774 afy is available from the Seaside Basin: "Cal-Am's has an adjudicated right to 1,474 afy from the Seaside Groundwater Basin. See, *Cal-Am v. City of Seaside et al., Super. Ct. Monterey County, 2006*, No. M66343. However, Cal-Am must also repay the Seaside Basin for overdrafts and has therefore assumed a reduction of supply of 700 afy over 25 years, resulting in a net supply available to Cal-Am of 774 afy from the Seaside Groundwater Basin."²³⁴ Further, the Seaside Watermaster has provided the Commission with evidence that up to an additional 1,000 acre-feet per year may need to be injected into the Seaside Basin to prevent seawater intrusion. If the Seaside Basin were to become seawater intruded, then Cal-Am

²³¹ See Water Code, § 10635(a); Cal. Code Regs., tit. 22, § 64554(k).

²³² October 15, 2019, Ian Crooks, Cal-Am Letter to MPWMD, pp. 2, 11.

²³³ See July 29, 2020 Cal-Am 4th Quarterly Report to State Water Board for the 2018-2019 Water Year, p. 2.

²³⁴ Decision 18-09-017, p. 33.

and others (including Monterey One Water) may not be able to pump water from the Basin.

While these supplies are not as certain or may not be as consistently reliable as other supplies in Cal-Am's water portfolio, some proportion of these 406 acre-feet is likely to be available at certain times as part of future supply portfolios. To ensure a more conservative assessment of available supplies, the "Other Available Supply" category above is considered a speculative supply and not certain to be available to Cal-Am, as that category includes some less certain water sources.

Drought Supply Considerations.

A key concern raised by Cal-Am and others about the Pure Water Expansion is whether it would be able to provide sufficient water supply during multiple years of drought. The Project Final EIR/EIS described concerns about whether even the first phase of the Pure Water project would provide sufficient water during multiple drought years, and it based the approved size and volume of the desalination facility, in part, with this concern in mind.²³⁵ MPWMD has evaluated how much water would be available during multiple drought years and determined that, with the Pure Water Expansion adding water to the ASR project each year and with the current level of demand and expected increases in that demand, Cal-Am's portfolio could provide adequate water for multiple drought years.²³⁶ MPWMD's modeling purports to show that the amount of water stored in the ASR would increase at a rate allowing it to contribute water to Cal-Am's water supply portfolio during an increasing number of drought years through time. Starting in 2020, MPWMD asserts that the ASR would provide between about 4,750 and 5,950 acre-feet per year and by 2024 would have enough water stored to provide for about two years of drought and by 2034 would have enough stored for at least four years of drought and possibly longer. MPWMD also assumes that no drought will occur on the Peninsula between now and 2034.

As discussed above, these assumptions are unrealistic. First, ASR using excess Carmel River water in the past 15 years has not shown the ability to consistently provide 1,300 acre-feet in any given year, much less a drought year. Between 2005 and 2019, annual ASR reinjection only reached the 1,300 acre-feet twice and only achieved the 1,300 acre-feet output assumed by the Updates once.²³⁷ Further, as shown in Table 6-2, from Cal-Am's Urban Water Management Plan, ASR is significantly reduced in dry years and unavailable in drought years. Finally, ASR has not proven itself capable of building a sufficient drought reserve to consistently deliver 1,300 acre-feet based on average

²³⁵ See for example, the Final EIR/EIS Section 8.2.13 at pages 117-18, which states: [t]he recent severe, five-year drought demonstrated that it is not reasonable to assume that there would never be drought conditions that could deplete ASR reserves and prevent new ASR supplies being diverted from the Carmel River for storage and use. Consequently, changes in plant sizing based on scenarios that assume the availability of adequate ASR supplies would need to be considered carefully.

²³⁶ See Exhibit 20 – Final Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, April 2020, Appendix M: Source Water Operational Plan Technical Memorandum.

²³⁷ Exhibit 25 – August 11, 2020 Hazen Memo, pp. 5, 19.

annual storage over the last 15 years (138 acre-feet) and five years (352 acre feet)²³⁸
Since ASR has not been able to store 1,300 feet consistently, it cannot be relied upon to deliver 1,300 acre-feet in any given year or a consecutive year period.²³⁹

In order to achieve the amount of storage that MPWMD claims, it would require more than a decade without any drought on the Peninsula. MPWMD's assumption that the Peninsula will not experience drought conditions over any significant period is not reasonable given that California has experienced a multi-year dry period or drought in every decade for the last century. As shown in Table 7 above, during drought conditions, ASR water is essentially unavailable, which would increase the supply deficit that would result from adding the Pure Water Expansion to Cal-Am's existing water supplies. There is simply no assurance that sufficient water is available for ASR reinjection and storage in any given year, much less to build up adequate storage during drought years. As a result, the Commission cannot rely on the availability of 1,300 acre-feet per year from ASR as part of the water supply portfolio.

The Pure Water Expansion also fails to comply with California mandates designed to ensure that as climate change continues, water suppliers remain capable of providing a drought-proof supply to their customers. Governor Newsom's 2020 Water Resilience Portfolio requires that water suppliers plan for prolonged drought conditions, and "[d]evelop strategies to protect communities and fish and wildlife in the event of a drought lasting at least six years."²⁴⁰ As discussed, during Normal/Wet years and in Dry years, the Pure Water Expansion would not be able to achieve MPWMD's low-end demand projections for the Peninsula of 10,855 acre-feet per year due to limitations on the available source waters for the Pure Water Expansion. This deficit will only increase during prolonged periods of drought. As such, the Pure Water Expansion would not meet the state's water supply resilience goals; further confirming that is not a feasible alternative to Cal-Am's Project. In contrast, the source water for the proposed Project, the Pacific Ocean, is not vulnerable to drought.

Therefore, since the Pure Water Expansion and existing supply sources would not meet water demand needs on the Peninsula during prolonged drought conditions, the Expansion cannot serve as a viable alternative to the Project during such conditions.

Pure Water Expansion Supplies Do Not Meet Demand.

As shown in Table 7, when ASR is accounted for at a realistic level, the Pure Water Expansion cannot meet the lowest estimate of 10,855 acre-feet per year demand. Likewise, when WWTP flows and Reclamation Ditch flows are accounted for based on current flow data, the Pure Water Expansion cannot meet 10,855 acre-feet per year demand. These scenarios are not exclusive, and despite generously assuming that all other sources are available, the supply deficit would likely be even greater than as depicted in Table 7, particularly during drought years. Accordingly, the Pure Water Expansion is not capable of providing the Cal-Am Monterey service area with reliable water supplies across reasonable and probable scenarios, such as prolonged drought

²³⁸ Exhibit 25 – August 11, 2020 Hazen Memo, p. 5.

²³⁹ Exhibit 25 – August 11, 2020 Hazen Memo, p. 5.

conditions, and cannot meet projected demand using reasonable and realistic assumptions.

3) How does the Pure Water Expansion conform to the Final EIR/EIS Project Objectives and Criteria used for Cal-Am's Project?

In order to qualify as a feasible alternative to a proposed ~~Project~~project, an alternative generally must feasibly accomplish most of the basic objectives of the project. The Findings below ~~compares~~compare the two projects as to whether they meet the project objectives selected as part of the CPUC's Final EIR/EIS and its Final Decision. Those documents included nine primary objectives and three secondary objectives, all of which are provided below, followed by a brief description of how the two projects conform to them. For purposes of this comparison, the Commission assumes that ~~Cal-Am~~Cal-Am would be successful in gaining approval for use of the shared pipeline, described above, that is critical to ~~its project's~~the Project's feasibility, though it acknowledges that this issue is not yet resolved. Following this comparison, the Findings then evaluate the Pure Water Expansion against the nine criteria the CPUC applied to the initial phase of the Pure Water project to determine ~~that~~whether it was a suitable and reasonable source of water supply for Cal-Am. ~~As noted above, the CPUC determined that although the Pure Water Expansion was speculative at the time of its decision, if built, it would satisfy the basic and key project purposes.~~

Final EIR/EIS primary objectives:

- ~~1.~~ 4. Develop water supplies for the Cal-Am Monterey District service area to replace existing Carmel River diversions in excess of Cal-Am's legal entitlement of 3,376 afy, in accordance with SWRCB Orders 95-10 and ~~2016-0016~~2016- 0016: As described above, ~~including either project as part of~~only Cal-Am's ~~water supply portfolio~~Project would allow Cal-Am to replace its excess diversions from the Carmel River and meet the Peninsula's water demand.
- ~~2.~~ 2. Develop water supplies to enable Cal-Am to reduce pumping from the Seaside Groundwater Basin from approximately 4,000 to 1,474 afy, consistent with the adjudication of the groundwater basin, with natural yield, and with the improvement of groundwater quality: As ~~described in the CEQA documents for both~~discussed above, only Cal-Am's Project ~~and would enable Cal-Am to reliably reduce pumping from the Seaside Groundwater Basin. The Pure Water Expansion would not supply water sufficient to meet even the lowest projection of Peninsula water demand (10,855 acre-feet per year), and therefore poses a significant risk that operation of the Expansion without desalination would not allow Cal-Am to reduce its Seaside Groundwater Basin withdrawals.~~²⁴¹ The CPUC also has noted that the Pure Water Expansion, both projects are designed to meet this objective. The Pure Water project and the Pure Water Expansion have contracts and agreements for more than the amount of water they will need, so there is likely to be sufficient water, even if those full amounts are not available. could not "provide supply to allow for replenishment of water that Cal-Am previously pumped from

²⁴¹ See Seaside Groundwater Master Letter, p. 2; see also Exhibit 25 – August 11, 2020 Hazen Memo, p. 6; June 30, 2020 Cal-Am Letter to Commission, p. 65.

the Seaside Basin in excess of Cal-Am's adjudicated right²⁴²

- 3. 3.** Provide water supplies to allow Cal-Am to meet its obligation to pay back the Seaside Groundwater Basin by approximately 700 ~~afy~~acre-feet per year over 25 years as established by the Seaside Groundwater Basin Watermaster: ~~Similar to Like~~ the above, ~~both projects are designed to~~only Cal-Am's Project could reliably meet this objective.²⁴³
- 4. 4.** Develop a reliable water supply for the Cal-Am Monterey District service area, accounting for the peak month demand of existing customers: As described above, ~~both projects are sized to accomplish~~only Cal-Am's Project would be able to provide a sufficient water supply to meet peak monthly demand. (See Section IV.O.2, supra.) MPWMD's conclusion that the Pure Water Expansion can meet MDD and PHD assumes that no drought conditions will occur on the Monterey Peninsula between now and 2034. This assumption is untenable given that California has experienced a multi-year drought in every decade for the last century, and recharge of groundwater reserves is essentially unavailable under drought conditions. (See Section IV.O.2, supra. As a result only Cal-Am's project is capable of meeting this objective.
- 5. 5.** Develop a reliable water supply that meets fire flow requirements for public safety: As described above, ~~both projects are designed to meet maximum daily demand and peak hour demands, which are intended to provide the required factor of safety to ensure public water systems can meet emergency demands.~~only Cal-Am's Project can meet even the most conservative projections of demand for Cal-Am's service area (10,855 acre-feet per year). (See Section IV.O.2, supra.) The appropriate way to ensure adequate capacity is by calculating demand based on maximum month demand ("MMD) as required by the California Waterworks Standards (Cal. Code Regs., tit. 22, § 64554, subds. (a), (b)(2)), which was not done to arrive at the 10,855 acre-feet demand scenario.²⁴⁴ ~~Nevertheless, because the Pure Water Expansion cannot provide sufficient water supplies to achieve 10,855 acre-feet of demand, Pure Water Expansion cannot provide a reliable water supply that meets relevant fire flow requirements.~~
- 6. 6.** Provide sufficient water supplies to serve existing vacant legal lots of record: The buildout of existing lots of record has the potential to cause current water demand on the Peninsula to grow. The rate of growth due to this buildout is disputed by Cal-Am, MPWMD and others. However, a determination of the rate of growth as a result of buildout is not required. As described above, ~~adding either project to Cal-Am's water supply portfolio would provide sufficient water for the area's lots of record.~~the Pure Water Expansion is not capable of meeting the low projected demand of 10,855 acre-feet per year without desalination, which does not even take into consideration higher housing demand projections from cities in

²⁴² See CPUC Decision D.18-09-017, p. 40.

²⁴³ See Seaside Groundwater Master Letter, p. 2; see also Exhibit 25 – August 11, 2020 Hazen Memo, p. 6; June 30, 2020 Cal-Am Letter to Commission, p. 65.

²⁴⁴ June 30, 2020 Cal-Am Letter to Commission, p. 61.

Cal-Am's service territory like Monterey.²⁴⁵ Accordingly, the Pure Water Expansion does not satisfy this objective.

7. 7. Accommodate tourism demand under recovered economic conditions: As described above, ~~adding either project to Cal-Am's water supply portfolio even if the lowest demand projection for the Peninsula is accepted, the addition of the Pure Water Expansion to Cal-Am's existing water supplies (without the addition of the proposed Project) is insufficient to meet 10,855 acre-feet per year demand and therefore could not accommodate tourism demand. In contrast, Cal-Am's Project~~ would allow for an ~~expected~~ increase in tourism demand for water over the coming two decades or longer.²⁴⁶

8. 8. Minimize energy requirements and greenhouse gas emissions per unit of water delivered: The Pure Water Expansion would use about 23,000 megawatt hours per year of electricity, ~~almost all of~~ which ~~will be~~ is proposed to be generated by landfill gas that would otherwise be released to the atmosphere, as well as 45 megawatt hours per year of electricity from the grid. However, Monterey One Water has not yet secured construction bids to build the infrastructure that would support this conversion and the bids it has received far exceed its original estimates. If Monterey One Water cannot secure reduced bids or obtain additional funding, it cannot implement this landfill gas power system. Accordingly, the greenhouse gas emissions of the Pure Water Expansion are somewhat unknown at this time. Cal-Am's Project would use about ~~52,000~~ 38,000 megawatt hours per year, potentially from grid-based electricity that currently represents production of ~~about 8,000~~ just over 5,188 metric tonnes of CO2 equivalent per year. (See Section K, supra.) However, the CPUC imposed a mitigation measure that requires Cal-Am's operations to ~~be carbon neutral~~ result in net zero operational emissions, either through securing on-site or off-site renewable energy, or purchasing and retiring renewable energy or carbon credits. Overall, Cal-Am's electrical use would be, both initially and over the long term, ~~significantly~~ higher than that of the Pure Water Expansion, although it would also produce more water. Per unit of water delivered, it appears that Cal-Am's Project would have slightly lower energy use; ~~however, unless it was powered by renewable energy sources, it would result in generation of more greenhouse gas emissions than the Pure Water Expansion, thus the need for Cal-Am's mitigation requirement to obtain emission offsets.~~ Emissions related to both projects' electricity use ~~is~~ are slated to be carbon neutral, though they would reach that goal through different means. ~~The Pure Water Expansion is slated to use landfill gas that otherwise enters the atmosphere, which would be carbon benefit. Cal-Am may achieve its carbon neutrality through a combination of renewable energy purchases and offsets, which are less certain to provide actual greenhouse gas benefits (see also Section II.D of these Findings). In fact, a recent court decision rejected another agency's use of the same type of carbon offsets that the CPUC imposed on Cal-Am, finding that they were not certain to result in verifiable and permanent carbon reductions. Golden Door Properties, LLC v. County of San Diego (2020) 50 Cal.App.5th 467. Overall for this objective, Cal-Am would use more energy and is less certain to offset the emissions caused by its use of energy, though the Expansion project~~

²⁴⁵ See Exhibit 29 – February 4, 2020 City of Monterey Letter to MPWMD, p. 1.

²⁴⁶ See June 30, 2020 Cal-Am Letter to Commission, pp. 66-67.

~~may use more energy per unit of water.~~

9. ~~Minimize project costs and associated water rate increases: The PWM Pure Water Expansion conforms to this objective far better than the Cal-Am project. Pure Water's capital costs are roughly a quarter or a third of Cal-Am's; its water costs are about a third of Cal-Am's, and the effects on water rates are expected to be similarly less than Cal-Am's.~~

9. Minimize project costs and associated water rate increases: The CPUC approved a rate increase of about \$37-\$40 per month for the average Cal-Am customer in a single family residence for the desalination facility, and that increase is not directly tied to per acre-foot water costs, and that rate will not be affected by any growth in per acre-foot water costs.²⁴⁷ This is because the CPUC already determined the rate increase for Cal-Am's customers for the desalination facility based on a calculation of the annual revenue required to repay capital costs to build the facility, including set financing repayment requirements and the annual facility operations and maintenance. How much water the facility ultimately produces (or does not produce) is not a material variable in rates that customers are charged, except for minor, incremental operating and maintenance costs. It is uncertain whether the Pure Water Expansion conforms to this objective, as new evidence suggests the project's projected costs continue to increase. As of June 2020, Monterey One Water stated that at the current projected delivery of 2,030 acre-feet per year, costs for Pure Water project water would increase to \$3,678 per-acre-foot. Under the most optimistic scenario presented by Monterey One Water, the Pure Water project water costs will amount to \$2,508 per-acre-foot. This represents a 50 percent increase over the water rate approved for the Pure Water project by the CPUC. Moreover, an increase in the Pure Water Expansion's costs is made more likely by recent information, which suggests the project will not have sufficient source water to meet the area's demands. (See Section IV.O.1, *supra*.) Finally, current costs projections for Pure Water Expansion do not account for costs already spent on the Cal-Am desalination facility, which will be recovered via water rate increases that could increase customer bills by approximately \$10 to \$20 per month even if the desalination facility is never built. Accordingly, it is uncertain, if not doubtful, whether the Pure Water Expansion satisfies this final, Project objective.

Final EIR/EIS secondary objectives:

1. 4. Locate key project facilities in areas that are protected against predicted future sea-level rise in a manner that maximizes efficiency for construction and operation and minimizes environmental impacts: ~~Cal-Am's well field, located several hundred feet from the Monterey Bay shoreline, would likely be affected directly by sea level rise and the accompanying erosion of the shoreline. As described above in Section II.H of these Findings, the initial effect on the wells would be from the dune recession that will accompany this coastal erosion—as the shoreline profile moves inland, the foredunes that are seaward of the well field would move inland and bury the well heads. The wells would later be subject to coastal erosion. The Commission's current sea level rise projections show that the well heads would likely be subject to dune recession by about 2040 and would~~

²⁴⁷ See August 13, 2020 Latham Letter to Commission, p. 1, Exhibit 1, p. 3 n.4 (citing Attachment C-1 to Advice Letter No. 1220-A from California-American Water Company to CPUC).

~~be affected by erosion around 2060. The state's more recent guidance to consider a higher scenario of 3.5 feet of sea level rise by 2050 would result in burial and erosion several years sooner. Although Cal-Am has stated that it may avoid these impacts because it expects the wells to operate for no more than 20-25 years, it has not identified where it could relocate the wells. Conversely, the~~ As discussed in Section IV.H, Cal-Am's Project is not expected to face any impact from coastal erosion or rising sea levels during the economic life of the Project's slant wells and is consistent with this Secondary Objective. (See Section IV.H; see also AECOM Coastal Erosion Hazard Analysis.) The Expansion would take place at an inland location outside of the coastal zone and is likely to experience few, if any effects of sea level rise.

2. 2. Provide sufficient conveyance capacity to accommodate supplemental water supplies that may be developed at some point in the future to meet build out demand in accordance with adopted General Plans: As described in Exhibit 17—Monterey Peninsula Water Management District ~~above, Cal-Am's Project would provide adequate conveyance capacity to meet build out demand in accordance with adopted General Plans. The Pure Water Expansion does not appear able to provide adequate conveyance to meet even the lowest projection of demand presented by MPWMD. Exhibit 19 – MPWMD~~ Analysis of Available Well Capacity for 10-Year Maximum Daily Demand (MDD) and Peak Hour Demand (PHD), does not explain how the Pure Water Expansion ~~has been planned to project will provide adequate excess conveyance to meet the expected water demands. capacity for future water projects, as is required to satisfy Secondary Objective 2.~~ ²⁴⁸ Moreover, based on the most recent analysis provided by Hazen and Sawyer, the Pure Water Expansion project does not appear able to meet PHD. ²⁴⁹ Although, the Pure Water Expansion project may have sufficient conveyance capacity, it does not appear able to satisfy this objective because there is insufficient source water for the Expansion to meet its delivery promises. Accordingly, the Pure Water Expansion does not satisfy this secondary objective.
3. 3. Improve the ability to convey water to the Monterey Peninsula cities by improving the existing interconnections at satellite water systems and by providing additional pressure to move water over the Segunda Grade: Both projects are able to meet this objective, though only if Cal-Am is able to use the distribution pipeline it shares with the Marina Coast Water District or builds a new pipeline (see Section II.A of these Findings). The Commission has not received evidence indicating that the Pure Water Expansion would satisfy this Secondary Objective. In contrast, as explained above, existing agreements permit Cal-Am to utilize the shared pipeline, and the pipeline has ample capacity to serve Cal-Am's uses for the Project. ²⁵⁰ If Cal-Am is required to construct an additional, parallel pipeline to carry Project water, that potential additional pipeline remains before MPWMD for approval, and will be considered by the MPWMD Board at a later date. ²⁵¹ Because only Cal-Am's Project has demonstrated that it will improve

²⁴⁸ See June 30, 2020 Cal-Am Letter to Commission, p. 68.

²⁴⁹ See Exhibit 24 – August 23, 2020 Hazen Memo, p. 6.

²⁵⁰ See June 30, 2020 Cal-Am Letter to Commission, pp. 54-55.

²⁵¹ See July 31, 2020 MPWMD Board of Directors Meeting Final Minutes, p. 1.

existing interconnections via the shared pipeline or the construction of a parallel pipeline, it is more likely to satisfy this secondary objective.

Applying the criteria used by the CPUC for the Pure Water project to the Pure Water Expansion:

During the CPUC's review of Cal-Am's proposed Project, it evaluated several other water supply alternatives to consider whether they could help meet the above project objectives. In 2017, the CPUC applied nine criteria to determine that the then-proposed Pure Water project would provide a reliable 3,500 acre-feet of water per year, which would allow for a smaller desalination facility than Cal-Am had originally proposed – i.e., a 6.4 million ~~afy~~acre-feet per year facility instead of a 9.6 million ~~afy~~acre-feet per year facility.¹³⁷²⁵² To determine whether the proposed Pure Water project would provide a suitable and reliable water supply source, the CPUC had, in 2016, evaluated the Pure Water project against nine criteria, which are provided below. For each of those nine criteria, these Findings compare the status of the Pure Water project at the time of the CPUC's decision with the current status of the Pure Water Expansion.¹³⁸²⁵³ This comparison is meant to help determine whether it is similarly reasonable for the Commission to now consider the Pure Water Expansion as a feasible project alternative.

- **Criterion 1 – Final EIR:** The CPUC evaluated whether the Pure Water project had an approved EIR, whether it was subject to a CEQA lawsuit, or whether it was subject to a stay due to any such lawsuit. At the time of the CPUC's decision regarding Cal-Am's Project, the Pure Water project had a completed EIR and was not subject to lawsuits or stays. In applying this criterion to the Pure Water Expansion, that project has ~~a Final SEIR~~an FSEIR that that has ~~been drafted but not yet been~~ certified by ~~the lead agency. Even though the Pure Water Expansion has not quite advanced to the degree the Pure Water project had been at the time of the CPUC's decision, it raises essentially the same issues that were successfully addressed, without challenge, as part of the Pure Water project~~Monterey One Water. After receiving several comments that raised substantial concerns regarding the Pure Water Expansion, the Monterey One Water Board voted to deny certification of the FSEIR on April 27, 2020. Moreover, Monterey One Water has stated that it does not possess the funding to remedy the deficiencies in the Pure Water Expansion FSEIR, and the Monterey One Water Board has ordered its staff to stop all work on the Expansion. As such, CEQA approval for the Pure Water Expansion has not occurred, and the project does not meet this feasibility criteria. Moreover, as discussed in Section IV.O.1, if Monterey One Water eventually chooses to certify the FSEIR, it will likely have to recirculate the FSEIR, respond to public comment, and revise the document before it can be certified, in light of significant new information regarding the availability of source water for the Pure Water Expansion, and the need to construct additional Pure Water deep injection wells, among other issues. Accordingly, the Pure Water Expansion does not satisfy the criterion of having a final EIR.
- **Criterion 2 – Permits:** This criterion was used to determine the status of permits needed to construct and operate the Pure Water project, including whether they had

¹³⁷²⁵² See California Public Utilities Commission, Decision 16-09-021, issued September 22, ~~2406~~2016.

¹³⁸²⁵³ The ~~PWM~~Pure Water project sponsors initially prepared a status report in 2018 that applied these nine criteria to the ~~PWM~~Pure Water Expansion. (See May 10, 2018 Progress Report on Pure Water Monterey Expansion, prepared by Monterey One Water.) These Findings provide an update of the conclusions of that 2018 Progress Report.

been obtained or whether the weight of evidence showed that they were likely to be obtained in a timeframe consistent with the project's proposed schedule. At the time of the CPUC decision, the Pure Water project had not yet obtained several key permits, but the CPUC determined that its sponsors were working diligently to obtain the needed approvals and there was no indication they would not be able to obtain them. ~~The Pure Water Expansion similarly has not obtained all of its needed permits; however, those permits are generally expected to be modified versions of permits the Pure Water project has since obtained. At this point, neither~~ Here, the Pure Water Expansion ~~nor Cal-Am has not obtained any of its needed permits. Accordingly, it is doubtful the Pure Water Expansion~~ would be able to complete construction and start operations in time to meet the December 2021 deadline established in the State Water Board's ~~cease-and-desist order; however, as described below, the path forward~~ CDO. As described in Section IV.O.1, additional delays for construction permitting can be expected due to the likely need for recirculation of the Pure Water Expansion's FSEIR. Monterey One Water cannot obtain any discretionary permits for the Pure Water Expansion ~~involves fewer such obstacles than the Cal-Am Project, and can therefore be expected to be online at least as soon if not sooner, until it has certified the FSEIR. Accordingly, the Pure Water Expansion falls short of this criterion.~~

- Criterion 3 – Source waters:** This criterion was meant to establish whether there was sufficient legal certainty as to whether the Pure Water project had adequate source water. At the time of the CPUC's decision, the Pure Water project had agreements that could provide it with more than the amount of water it needed to produce the expected 3,500 acre-feet per year, and it was seeking approval for additional amounts. ~~The Pure Water Expansion would use the same water sources, and possibly others. As noted above, an August 20, 2020 Monterey One Water letter referred to the Pure Water Expansion's Final SEIR, which includes a detailed technical memorandum that uses a number of relatively conservative assumptions to evaluate several different scenarios—e.g., dry year versus wet year supplies, variable seasonal or annual amounts from different sources, etc.—and determined in each case that there would be sufficient water to produce the 2,250 acre-feet expected from the Pure Water Expansion (see Exhibit 18). Although some commenters questioned whether the Pure Water Expansion would have a sufficient, reliable supply of water, the project's Final SEIR states that “[n]o new source water diversion and storage sites are necessary to achieve the Expanded PWM/GWR Project's recycled water yield objective of an additional 2,250 AFY of replacement supplies.” It further notes that the Pure Water Expansion is designed to use water from existing Monterey One Water contractual rights. Several commenters contended that those contracts allow water to be used only for the Pure Water project, not the Pure Water Expansion. However, the contracts do not make such a distinction, so there appears to be adequate source water for both. Monterey One Water has at least one water source—about 8,000 acre-feet per year—that is not involved in this contractual uncertainty, is not needed by the baseline Pure Water project, and would reliably~~ As discussed in detail above, recent analyses demonstrate that there are not sufficient agreements in place to guarantee water supplies for the Pure Water Expansion, and that when examining available WTP flows and surface flows that could be available, there is insufficient source water to provide the ~~approximately~~ 3,000 acre-feet per year that the Pure Water Expansion

would need to produce its 2,250 acre-feet per year.¹³⁹ ~~Also, As discussed above, there is a continuing decline of wastewater effluent directed to the Monterey One Water staff has stated that, in any event, it could use the certain water sources in question for ocean outfall, which based on Monterey One Water's flow information for 2020, is 5,554 acre-feet. Accordingly, when looking at outfall flows as a sole source of supply, there are insufficient flows to provide the necessary source water to both the Pure Water project, and reserve other water sources (that are not in question) for the Pure Water Expansion. Although some parties still debate whether there is a sufficient long-term water supply for the Pure Water Expansion, its Final Supplemental EIR sufficiently responds to and addresses those questions and provides substantial evidence that adequate source waters exist. Therefore, this criterion cannot be met because source waters are inadequate to produce the Pure Water Expansion's promised 2,252 acre-feet per year.~~

- **Criterion 4 – Water quality and regulatory approvals:** Similar to Criterion 2, this criterion had the CPUC examine whether it was likely that the Pure Water project would obtain approvals from the state Department of Health and the Regional Water Quality Control Board for its proposed treatment and injection processes. Neither had been obtained at the time of the CPUC decision, though the CPUC noted that available evidence indicated that the approvals would be forthcoming. It cited additional assurance in that the expected water quality sampling and testing program would ensure project water quality would meet necessary health and safety standards and would protect uses of the aquifer. As noted above, the Pure Water project has since obtained those approvals and is now operating. ~~Both Although the Pure Water project and the Pure Water Expansion use the same treatment methods as approved at other permitted facilities of this type in California. Cal-Am and some other commenters submitted comments to Monterey One Water claiming that,~~ there are unresolved questions about the quality of treated water that would come from both projects. For instance, there are concerns about whether agricultural runoff water can be successfully treated since the Pure Water Expansion. However, as described in the Final SEIR for the project (which has not yet been certified but which contains the most comprehensive analysis of these issues), successfully treated any such water. Accordingly, there remains uncertainty about whether this criterion can be met by the Pure Water Expansion—~~would not increase the quantity or type of new source waters that would flow into the [treatment plant] compared to the quantity and type of new source waters that were evaluated in the certified [EIR for the original PWM project].” In other words, the Monterey One Board has previously found that treatment of these source waters is feasible and will create water that meets state drinking water quality standards. As noted above, the current project schedule would allow the PWM Expansion to be constructed and operating about 24 to 27 months after obtaining the necessary permits. Once obtained, the Pure Water Expansion, which would use the same treatment systems and presumably have similar sampling and monitoring requirements, could be expected to obtain the new or amended version of these permits for its operation.~~
- **Criterion 5 – Pure Water Expansion project schedule compared to desalination**

¹³⁹ ~~The Pure Water Expansion is designed to operate at a relatively high efficiency of about 80%—that is for every hundred gallons of source water, it would produce about 80 gallons of usable water.~~

schedule: At the time of CPUC Decision 16-09-021, the Pure Water project was expected to be completed in late 2017, with the desalination facility to be completed in mid-~~2019~~ 2019. Both schedules were delayed somewhat; however, the Pure Water project has been completed and started limited operations in March 2020. ~~Current expectations are that once construction starts for either facility, the Pure Water Expansion would take about 24 to 27 months to complete, while the desalination facility would take slightly longer. At this point, neither project would be able to meet the December 2021 deadline imposed by the State Water Board cease-and-desist order; however, the Pure Water Expansion would likely be available several months sooner than the desalination facility, though no water deliveries to Cal-Am have been made to date. Currently, there is some degree of uncertainty as to whether Cal-Am can meet its expected desalination facility schedule, due to certain remaining project approvals and pending litigation. However, there is also uncertainty over the project schedule for the Pure Water Expansion. As discussed in Section IV.O.1, the Pure Water Expansion still requires certification of its FSEIR, approval by the CPUC of a Water Purchase Agreement, and final state and federal approval for its modified discharge into coastal waters. Specifically, the Monterey One Water Board has denied certification of the Pure Water Expansion FSEIR due to ongoing flaws in the FSEIR's analysis, and has ordered its staff to suspend work on the Pure Water Expansion. Even if staff resumes work, the FSEIR will need to be revised and recirculated for public comment to reflect significant new information, including new information concerning source waters and available wastewater flows, and the need to construct additional deep injection wells for the Pure Water project. (See Section IV.O.1.) This recirculation could add an additional 6 to 12 months before certification of the final SEIR, further delaying the project's schedule. Until the FSEIR is revised and certified, it is speculative to assume that no litigation will occur.~~

~~There is some uncertainty about the timeline for the Pure Water Expansion, as it still needs to have its environmental review document certified and a Water Purchase Agreement approved by the CPUC. The initial Pure Water project was delayed for several months due to various scheduling issues typical of a complex industrial construction project. However, there is also doubt about whether Cal-Am can meet its expected desalination facility schedule, due to several issues, including: 1) the above-referenced lack of approval from the Marina Coast Water District to allow use of a shared pipeline and its lack of approval to build an alternative, parallel pipeline; 2) the uncertainty about the timing, effects, and any permitting needed for the outfall liner that Cal-Am must have installed before it can discharge its brine waste; 3) litigation related to Cal-Am's proposed use of groundwater from the Salinas Valley Groundwater Basin; and 4) litigation over Monterey County's approval of portions of the project in its jurisdiction, which so far has resulted in the Superior Court in mid-September 2019 issuing a temporary stay on construction activity. In addition, if the Commission were to approve the project, there is a substantial likelihood that its decision would also be challenged in court. These areas of concern do not apply to the Pure Water Expansion.~~

- **Criterion 6 – Status of Pure Water Expansion project engineering:** ~~This criterion required that the Pure Water project be developed to at least a 10% design level or that its development is at or beyond the level of engineering prepared for the desalination facility. At the time of the CPUC's decision, the various components of the Pure Water project were at anywhere from at least 10% to 100% design and~~

~~it therefore met this criterion. The project is now constructed and about to produce purified water. The Pure Water Expansion, being an expanded version of the existing facility, is well beyond this 10% design threshold. As discussed above, work on the Pure Water Expansion has been stopped. (See Section IV.O.1.) The Pure Water project has already encountered significant delays and cost overruns that have placed the project eight months behind schedule, and these issues are likely to translate to the Pure Water Expansion.²⁵⁴ Likewise, The Pure Water project has also encountered problems with its deep and shallow well injection, which has significantly reduced its delivery capacity.²⁵⁵ As a result, it is likely the Pure Water Expansion, which relies on the same technology, will encounter similar issues. Concerns also have been raised regarding the Pure Water Expansion's ability to rely on certain source waters, including agricultural wash from the Salinas Valley.²⁵⁶ In light of these concerns and comments raising environmental concerns with the Pure Water Expansion's SEIR, the Monterey One Board has denied certification of the FSEIR, and staff has been ordered to suspend work on the Pure Water Expansion. (See Section IV.O.1.) Accordingly, project engineering of the Pure Water Expansion is not proceeding, and this criterion is not satisfied.~~

- **Criterion 7 – Pure Water Expansion project funding.** This criterion required that Pure Water project funding be detailed sufficiently for the project to apply to a State Revolving Fund loan. At the time of the CPUC decision, Monterey One Water had applied for that loan and had received confirmation from the State Water Board that its application was complete and that would be eligible for a relatively low (1%) interest rate on the loan. It has also received over \$100 million in grants and loans from state and federal agencies. ~~For additional needed funding, the Pure Water Expansion would rely on a commitment from Cal-Am to purchase the water it produces (through a Water Purchase Agreement approved by the CPUC – see below). Cal-Am has not yet pursued such an Agreement, largely because it is proposing the desalination project instead; however, it would be within Cal-Am's control to work expeditiously toward a Water Purchase Agreement if it decided to pursue the PWM Expansion project. However, as discussed above, the Monterey One Water Board has denied certification of the Pure Water Expansion's FSEIR and lacks the funds to address the substantial flaws in the FSEIR's analysis. Additionally, any Water Purchase Agreement for Pure Water Expansion water also would need to incorporate additional terms beyond those included in the Pure Water project Water Purchase Agreement, including guarantees for the full production volume of the Expansion, and full indemnification to Cal-Am or all risks, liabilities, or penalties in the event that the Pure Water Expansion fails to provide an adequate supply for any reason. Such assurances would be necessary to ensure that Cal-Am does not need to undertake additional Carmel River or Seaside Basin water withdrawals to serve its customers if water demand cannot be met by the Pure Water and Pure Water Expansion projects. These additional terms also could~~

²⁵⁴ See August 13, 2020 Cal-Am Letter to Commission, p. 4; August 12, 2020 Cal-Am Letter to Commission, pp. 1-3.

²⁵⁵ See August 13, 2020 Cal-Am Letter to Commission, p. 4; August 12, 2020 Cal-Am Letter to Commission, pp. 1-3.

²⁵⁶ See August 13, 2020 Cal-Am Letter to Commission, p. 4; August 12, 2020 Cal-Am Letter to Commission, pp. 3-5.

result in a higher project cost.²⁵⁷ Accordingly, the Pure Water Expansion lacks necessary project funding and does not meet this criterion.

~~Cal-Am and other commenters recently expressed concern that Monterey One Water's finances, which have diminished recently, would not be adequate for the funding and staffing needed to construct and operate the Pure Water Expansion. However, Monterey One Water staff have clarified that funding for the Expansion would be separate from other general Monterey One Water funds, and once Cal-Am received an approved Water Purchase Agreement, would likely be administered through bond purchases or other similar instruments.~~

- **Criterion 8 – Reasonableness of Water Purchase Agreement terms:** This criterion was meant to ensure that Cal-Am and the Pure Water project sponsors had concurred on a “just and reasonable” water purchase agreement. The CPUC determined, at the time of this 2017 decision, that the agreement that the parties had reached in 2016 met this criterion. The agreement included a first-year cost cap and a provision that Cal-Am would pay only the actual costs for Pure Water project water. Water from the Pure Water and Pure Water Expansion projects is expected to cost between about \$2,000 and \$3,000 per acre-foot, ~~both well~~ below the \$6,000 per acre-foot cost for water from ~~Cal-Am's Project.]Cal-Am's Project. However, Cal-Am and Monterey One Water have not reached any agreement for the purchase of Pure Water Expansion water, and the parties would need to agree to new performance standards in any such agreement to ensure a continued water supply in the event that the Pure Water Expansion cannot meet Peninsula demand.²⁵⁸ Accordingly, this criterion is not satisfied.~~
- **Criterion 9 – Reasonableness of the Pure Water Expansion project revenue requirement:** Similar to Criterion 8 above, the CPUC required for this criterion that the revenue requirement for the smaller desalination facility – i.e., the currently proposed facility – combined with Pure Water project was “just and reasonable” as compared to the revenue requirement of the larger proposed desalination facility alone. At the time of this 2017 decision, there was a great deal of uncertainty about expected Pure Water project costs, but the CPUC determined that it was reasonable to move forward with the combination of a desalination facility and Pure Water project, based in part on the ~~first-year~~¹⁴⁰²⁵⁹ first-year cost cap referenced in Criterion 8, on an evaluation of the likely “indifference cost” of the two options,¹⁴⁰²⁵⁹ and on the broader benefits provided by the Pure Water project, such as supporting aquifer recharge, having lower greenhouse gas emissions, and others. There is, in fact, more ~~certainty at this point than during the 2017 decision about the expected costs of all the projects, which provides more certainty about~~ uncertainty regarding Pure Water Expansion now than when the CPUC reached its 2017 decision. The Pure Water project has incurred major cost overruns and faces ongoing technical obstacles, thereby driving up projected Pure Water project water rates. It is likely that the Pure Water Expansion will face

²⁵⁷ See June 30, 2020 Cal-Am Letter to Commission, p. 72.

²⁵⁸ June 30, 2020 Letter to Commission, pp. 72-73.

¹⁴⁰²⁵⁹ The CPUC's 2017 decision describes the “indifference cost” as the range of costs within which ratepayers are indifferent as to whether they are paying for water from the larger desalination facility or the smaller facility in combination with the PWM. This range was determined to be between \$1,178 and \$2,062, which bracketed the expected first-year cost cap of \$1,720.

similar cost overruns, and therefore it would be speculative to reach a conclusion on the reasonableness of ~~expected~~ the Pure Water Expansion's project revenue requirements. Moreover, as discussed above, new significant information indicating that the Pure Water Expansion lacks sufficient source water to meet its promised water deliverables is only likely to further increase costs. Accordingly, the Pure Water Expansion cannot currently satisfy this criteria.

4) Adverse environmental effects of each project

As noted above and in the Findings of this report, Cal-Am's proposed Project would be inconsistent with Coastal Act and Marina LCP policies regarding sensitive habitat including wetland/vernal pond ESHA. (See Sections F, G, *supra*.) But with the implementation of Special Conditions 5 and 6, the Commission will have adopted all feasible mitigation to reduce potential ESHA impacts, including potential wetland/vernal pond ESHA impacts. Further, the Cal-Am Project will be consistent with all other Coastal Act and LCP policies with implementation of Special Conditions. (See Section IV.O.1, *supra*.) In contrast, significant questions remain unresolved regarding the environmental impacts of the Pure Water Expansion, and the FSEIR for the Expansion requires substantial additional analysis. As a result of these flaws, the Monterey One Water Board denied certification of the FSEIR for the Expansion. (See Section IV.O.1, *supra*.)

~~As noted above and in the Findings of this report, the Cal-Am project would have significant adverse effects on several coastal resources, including environmentally sensitive habitat areas and endangered or threatened species (see Section II.F—Environmentally Sensitive Habitat Areas). Its effects on marine life and ocean water quality have not yet been determined. The Pure Water Expansion would have few, if any, adverse effects on coastal resources, as it would be located entirely outside of the coastal zone and would be constructed largely on an existing industrial site. It would also~~ is designed to be greenhouse gas neutral, as it ~~would~~ proposes to use electricity generated from landfill gases. ~~Although the Cal-Am~~ As explained previously, Cal-Am's Project would rely on grid-supplied electricity, which generally has a current emissions rate of up to several hundred pounds of greenhouses gases per megawatt-hour. However, the CPUC imposed a mitigation measure (MM 4.11-1) that requires ~~the Project to have net zero greenhouse gas emissions from electricity used during Cal-Am's operations. However, this mitigation is less certain to result in permanent, enforceable, and verifiable greenhouse gas reductions than the mitigation for the Pure Water Expansion's emissions. net zero operational emissions, either through securing on-site or off-site renewable energy, or purchasing and retiring renewable energy or carbon credits. (See Section IV.K, *supra*.) Thus, emissions related to both projects' electricity use are slated to be carbon neutral, though they would reach that goal through different means.~~

An underlying environmental concern applicable to both projects is the potential effect of ~~Cal-Am~~ Cal-Am not having an adequate water supply project in place by December 2021 so that it can meet its obligation under the State Water Board's ~~cease-and-desist order~~ CDO to reduce its withdrawals from the Carmel River to no more than its legal limit. ~~Cal-Am has a supply of "banked" water in the Seaside Aquifer that it may be able to rely on for some period of time, but it~~ is possible that Cal-Am would seek, and obtain, an extension to allow completion of its desalination facility or of Pure Water Expansion if needed, which could lead to continued excessive water withdrawals from the Carmel River until the new project was ready. This would result in further adverse effects in the Carmel River ecosystem and specifically to the steelhead that are listed as threatened. However, as noted above, the Cal-Am project Pure

Water Expansion appears to have as great or a greater risk of delay than does the ~~Pure Water Expansion, so~~ desalination Project due the Monterey One Water Board's decision not to certify the FSEIR, the lack of resources needed to revise the analysis in the FSEIR and the potential need to recirculate the FSEIR for further public review. Accordingly, this potential environmental effect is ~~at least as~~ likely to occur if the Cal-Am project moves forward ~~at the expense of the Pure Water Expansion.~~

5) Areas of Uncertainty

Both projects involve areas of uncertainty, albeit over different issues, as described below. These issues relate to whether the Pure Water Expansion is a feasible alternative, as well as to whether the public welfare would be adversely affected if ~~Cal-Am's~~ Cal-Am's Project were not approved:

Pure Water Expansion:

- **Amount of water produced:** ~~The~~ As discussed above, the baseline Pure Water project started operating in March 2020, but its annual production volume is currently lower than the full expected amount – ~~about 170~~ currently around 2,030 acre-feet per month ~~versus its average expected 290 acre-feet per month. However, the operator, Monterey One Water, has identified the problems—two wells that are not injecting water into the aquifer at the expected rate and a sinkhole at another well site—along with proposed solutions to those problems: installing an additional injection well and “swabbing,” or cleaning one of the existing wells. Monterey One Water is scheduling the swabbing for later this year and the installation of the new well sometime next year. With the new components, Monterey One Water expects the injection rates to improve and provide more than the expected volume—up to about 330 acre-feet per month~~ year out of a planned 3,500 acre-feet per year.²⁶⁰ This shortfall is the result of sinkholes and subsidence affecting the Pure Water project short wells, as well as injection refusal in the deep wells. (See Section IV.O.1, supra.) To remedy these technological difficulties, Monterey One Water is proposing repairs to the shallow wells, to carry out final commissioning of the deep wells, and to install a third, and potentially a fourth, deep well. Until the work is completed, there will be uncertainty about exactly how much water can be produced; ~~however, injection wells and these cleaning methods are common and proven technologies, so Monterey One Water's estimates can be considered relatively reliable. Additionally, and as noted previously, these types of adjustment are common and typically necessary as part of the start-up of complex water treatment plants. Finally, the Pure Water project description anticipated this initial lower production, noting that its first-year production would be about 1,000 acre-feet per year, not the full 3,500 acre-feet per year. Some commenters have stated that these start-up issues demonstrate that the Pure Water project, and by extension the Pure Water Expansion, may not provide as much water as promised, and that the Pure Water Expansion therefore should not be relied on as an alternative project. However, the evidence so far does not support these assertions; as described above, the start-up issues are being dealt with and are not entirely unexpected. by the Pure Water project, and it is not clear that the baseline project will be capable of~~

²⁶⁰ See August 12, 2020, Cal-Am Letter to Commission, p. 2.

supplying its full projected outlay.

- **Type of Availability and type of source water:** The Pure Water project is treating several types of source water, including treated wastewater, stormwater, and agricultural runoff, which is considered one of the more difficult water source to treat. Several commenters have raised concerns that the Pure Water Expansion's treatment methods will not adequately treat this type of water. ~~As noted above, complex water treatment facilities such as PWM generally expect to adjust treatment as needed to address changes in source water, and the treatment methods it uses are commonly used in such facilities. The FEIR for the original Pure Water project analyzed treatment of agricultural source waters and found that they could be adequately treated, and the Pure Water project has, in fact, started treating that water source, as approved by the State Water Board's Department of Drinking Water. The Pure Water Expansion would use the same source waters that were analyzed in that document and are being successfully treated, including it Pure Water Expansion's ability to treat agricultural water runoff containing lingering concentrations of pesticides.~~²⁶¹ Moreover, there remains significant uncertainty regarding the availability of planned source waters for the Pure Water Expansion—the claimed water rights for the Expansion are highly disputed, and substantial evidence demonstrates that WWTP and surface water flows for use as Pure Water Expansion source water are significantly less than assumed by Monterey One Water. (See Section IV.O.1, *supra*.) Based on the available evidence, the Pure Water Expansion does not have adequate source waters to enable the project to produce 2,250 acre-feet per year. As a result of this shortfall, the Pure Water Expansion would prevent Cal-Am from meeting even the lowest demand projection presented by MPWMD (10,855 acre feet per year).
- **CEQA:** A ~~Final SEIR~~ FSEIR has been prepared for the Pure Water Expansion, but ~~has not yet been~~ there is uncertainty as to when it may be certified. (See Section IV.O.1.) The Monterey One Water Board ~~considered certifying~~ of Directors denied certification of the FSEIR at its April 27, 2020 meeting. The ~~vote to certify it failed by a vote of 10 to 11. There was then a motion to deny certification of the Final SEIR and terminate any further action on the Expansion project, which also failed on a vote of 10 to 11. The effect is that the Final SEIR was not certified but that the Board remains free to reconsider the Final SEIR and project approval at a future hearing, if it so chooses. The main area of controversy that was raised during the Final SEIR public comment period relates to whether there is an adequate water supply for the Expansion. As described elsewhere in these Findings, the Final SEIR provides substantial evidence that the water supply is adequate for the Expansion, and arguments submitted by parties to this proceeding have not demonstrated otherwise. Board did so in recognition of the significant remaining flaws in the FSEIR, including its analysis of source water availability for the Expansion, Peninsula supply and demand, impacts to agricultural water supplies, and the FSEIR's failure to evaluate the Expansion as either an alternative to or a cumulative project with the Cal-Am facility. Given that Monterey One Water does not possess the funding to correct these deficiencies, and has now ordered its staff to halt all work on the Pure Water Expansion, it is not certain when the Expansion will have a certified FSEIR. Until then, Monterey One Water cannot obtain any discretionary permits for the Expansion.~~

²⁶¹ See June 30, 2020 Cal-Am Letter to Commission, pp. 70-71.

- Funding and Water Purchase Agreement:** Cal-Am would need to seek CPUC approval of a Water Purchase Agreement in order to provide funding for ~~to~~ Monterey One Water to implement the Pure Water Expansion. Cal-Am has ~~not had an incentive to do this to date because it is pursuing its desalination project. However, there do not appear to be any practical barriers to such an approval being considered by the CPUC if Cal-Am needs to proceed with the Pure Water Expansion.~~ previously met with Monterey One Water and MPWMD to discuss a Water Purchase Agreement for Expansion water.²⁶² However, Cal-Am determined at that time that it could not yet pursue a Water Purchase Agreement for Pure Water Expansion water, given the ongoing uncertainties related to source water availability, environmental impacts, permitting requirements, funding, and product water pricing. As explained above, many of these uncertainties persist. Moreover, as discussed above, if the Pure Water project and the Pure Water Expansion were to become the primary water sources in Cal-Am's Monterey service area, any Water Purchase Agreement for Expansion water would need to include guarantees from Monterey One Water for the full production volume of the Expansion, and full indemnification to Cal-Am in the event that the Pure Water Expansion does not provide an adequate water supply.²⁶³ Such assurances would be necessary to ensure that Cal-Am does not need to undertake additional Carmel River or Seaside Basin water withdrawals to serve its customers if water demand cannot be met by the Pure Water and Pure Water Expansion projects. As such, it is not clear when or if Cal-Am and Monterey One Water would be able to enter into a Water Purchase Agreement for Pure Water Expansion water, or whether the CPUC would approve such an agreement.

Cal-Am:

- Cal-Am:** Coastal hazards and expected operating life of slant wells: ~~with~~ With current sea level rise projections, incorporating the reduction in coastal erosion reasonably expected from the cessation of sand mining, Cal-Am's well field ~~could~~ would not be affected ~~by dune recession as soon as 2040 and~~ by climate change-related coastal erosion ~~by about 2060. However, and along with the general uncertainty about the rate and severity of future climate change, there are two specific areas of uncertainty associated with the wells. First, as described above in Section II.H, the analyses anticipate that there will be a 60% reduction in the current rate of erosion resulting from the upcoming cessation of sand mining at the CEMEX site. While this appears to be a reasonable assumption, it cannot be verified because sand mining has not yet ended. Second, as part of its response to these hazards, Cal-Am expects its wells to have an operating life of 20 to 25 years, after which they would likely need to be relocated. While this limited operating life would likely allow them to avoid the effects of dune recession and coastal erosion, it raises uncertainty about what other locations might be available for the wells. There are no alternative, more landward locations for the wells within Cal-Am's easement, as they would be located at the most inland extent of Cal-Am's easement at the CEMEX site. Therefore, there is uncertainty about how the facility would operate after the first 20-25 years of its 60-year, including dune recession due to wave~~

²⁶² Exhibit 30 – March 19, 2019 Cal-Am Advice Letter No. 1231 to the CPUC.

²⁶³ See Exhibit 28 – May 9, 2020 Cal-Am Letter to Monterey One Water, p. 5.

erosion or sea-level rise, until near 2120. Two of the seven wells could be affected by sand burial by windblown sand prior to 2040, but these impacts will be avoided by implementation of Special Condition 8.²⁶⁴ Accordingly, the proposed well site locations, as conditioned, would allow the wells to avoid coastal hazards during their expected operating life.

- **Water rights:** ~~There are at least two~~ Certain comments have asserted that there are uncertainties associated with water rights ~~issues. First, Cal-Am has not yet established for the Cal-Am Project. However, multiple agencies have confirmed that Cal-Am may develop~~ appropriate rights to source water for ~~the groundwater that its project would withdraw, and it is not clear how long that process and any accompanying litigation might take or whether Cal-Am will be successful.~~ No permit is required by the State Water Board to acquire or use appropriative groundwater rights, but Cal-Am will have an ongoing burden to demonstrate that its withdrawal and use of fresh water (i.e., non-seawater) will not harm or cause injury to any other legal user of water. As part of its review of ~~Cal-Am's~~ Cal-Am's Project, the CPUC asked the State Water Board whether ~~Cal-Am~~ Cal-Am has a credible legal claim to extract feed water for the proposed desalination plant. The State Water Board issued an opinion stating, in relevant part, that:

to appropriate groundwater from the Basin, the burden is on ~~Cal-Am~~ Cal-Am to show no injury to other users. Key factors will be the following: (1) how much fresh water Cal-Am is extracting as a proportion of the total pumped amount and how much desalinated seawater is thus available for export as developed water; (2) whether pumping affects the water table level in existing users' wells and whether Cal-Am can avoid injury that would otherwise result from any lowering of water levels through monetary compensation or paying for upgraded wells; (3) whether pumping affects water quality to users' wells within the capture zone and whether Cal-Am can avoid or compensate for water quality impacts. (4) how Cal Am should return any fresh water it extracts to the Basin to prevent injury to others; and (5) how groundwater rights might be affected in the future if the proportion of fresh and seawater changes, both in the larger Basin area and the immediate area around Cal-Am's wells.

~~Cal-Am has entered a return water agreement that addresses item (4), though, as described in Section II.J of these Findings, Cal-Am may be required to return significantly more water to the Basin than anticipated during development of this agreement and as anticipated in the Final EIR/EIS. Additionally, many of the other questions and issues above cannot be answered or dealt with until pumping actually begins and continues for a period of time.~~ The State Water Board concluded that "[i]f overlying groundwater users are protected from injury, appropriation of water consistent with the principles discussed in this report may be possible." ~~However, it~~ The State Water Board also made a variety of recommendations for what sort of monitoring and other measures would need to be undertaken to ensure that other users were not

²⁶⁴ See Section IV.H, *supra*.

injured. The CPUC ~~determined that, although it is “not the arbiter of whether Cal-Am possesses water rights for the project,” these water rights issues did not raise significant enough questions about the project’s viability to warrant finding that the project was infeasible.~~¹⁴⁴ ~~Because these rights are not known, cannot be known until after pumping occurs, and involve issues that have been highly contentious in the area, there is the possibility that they could cause Cal-Am’s Project to be further delayed or, if it is built, to incur additional costs—potentially significant costs (see Section II.J describing the possible need for Cal-Am to return greater percentages of water to Castroville).~~ thereafter confirmed that the State Water Board, the agency charged with primary responsibility for regulating state water resources, had determined that Cal-Am could develop all necessary water rights to develop and operate the desalination facility. As such, there is no ongoing uncertainty related to Cal-Am’s right to source water for the Project.

~~Additionally, the City of Marina has filed litigation against CEMEX for allowing Cal-Am to obtain an easement at the site that is meant to allow an export of more than 15,000 acre-feet of groundwater away from the site each year. The City contends that a 1996 agreement with CEMEX limited water use at the site to no more than 500 acre-feet per year.~~

- **Effects on wetlands and vernal ponds:** As described in Section ~~III~~IV.G of these Findings, recent ~~hydrogeological monitoring conducted by the Commission’s independent hydrogeologist shows that~~ reports are inconclusive regarding whether Cal-Am’s proposed well field operations could result in a groundwater drawdown ~~of about two to four feet beneath nearby vernal ponds and lesser drawdowns in other, slightly more distant vernal pools and wetlands. The closest wetland/vernal pond areas are about 1,000 feet at their closest from the well field and cover about 80 acres, with other groups of wetland/vernal ponds somewhat more distant. The modeling conducted during the project’s CEQA review did not evaluate the effects of these drawdowns on the wetlands/vernal ponds, as it was believed at the time that these landscape features were hydraulically isolated from the underlying groundwater. However, there are currently no data available to confirm whether there is a connection and whether these areas would be affected. If they are connected to groundwater, this could result in an additional and as-of-yet unevaluated and unmitigated impacts to up to several acres of wetlands/vernal ponds that would adversely affect the function and values of vernal ponds and wetlands. Accordingly, Special Condition 7 requires Cal-Am to implement an Adaptive Management Program which would monitor the vernal ponds to determine first, whether they are groundwater dependent, and if so, what changes might be associated with any pumping-related drawdowns. If the additional analysis determines that there would be impacts from pumping-related drawdowns, Special Condition 7 requires Cal-Am to implement a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan to mitigate for potential impacts to the vernal ponds at specified ratios.~~

¹⁴⁴ ~~The CPUC’s EIR stated: “The CPUC is not the arbiter of whether CalAm possesses water rights for the project and nothing in this EIR/EIS should be construed as the CPUC’s opinion regarding such rights, except to the extent that the CPUC must determine whether there is a sufficient degree of likelihood that CalAm will possess legal rights to pump and desalinate the source water that would supply the desalination plant such that the proposed project can be deemed to be feasible.”~~

- Lack of water distribution pipeline:** Cal-Am's proposed Project is slated to rely on delivering water to its service area using a pipeline it shares with MCWD. MCWD has informed Cal-Am that the pipeline does not provide sufficient capacity for Cal-Am's proposed use. Cal-Am disputes this claim, ~~though asserts~~ arguing that there is in fact excess capacity in the shared pipeline for Cal-Am's use, and noting that its existing agreements permit it to use the shared pipeline for desalinated product water. However, Cal-Am has also noted that, if needed, it could construct another pipeline parallel to that shared pipeline, in order to convey project water. ~~Without one of these options, Cal-Am would not be able to deliver water to its customers. As noted above, in July 2020, the MPWMD chose not to make the necessary approval for Cal-Am to construct that~~ Potential approvals for this parallel pipeline, ~~though it could revisit that decision at any point in the future if it chose to do so, will be considered by the MPWMD Board in October. Given more than one available option, there do not appear to be significant barriers to Cal-Am's project related to its need for a desalinated water distribution pipeline.~~
- Lack of required outfall liner:** One of the adverse impacts identified in Cal-Am's Final EIR/EIS was corrosion of the proposed outfall due to the brine discharge from the desalination facility. The Final EIR/EIS included a mitigation measure that required ~~Cal-Am~~ Cal-Am to install an outfall liner before discharging from its facility, and although that liner was not fully designed at the time of the CEQA review, the CPUC analyzed several reasonably foreseeable impacts of installing the liner and imposed conditions to minimize such impacts. ~~It anticipated additional impacts to ESHA due to the anticipated need to cause ground disturbance along the outfall route while installing the liner, and noted that installation would have to occur during the outfall's low-flow period in the summer when most of its discharges are treated and rerouted to be used for agricultural irrigation; however, work in the summer would likely involve work on the beach within critical habitat for the Western snowy plover during its breeding and nesting period. Rather than applying for a permit to install the liner along with its desalination project, Cal-Am has stated that the owner of the outfall, Monterey One Water, will separately apply for the necessary permits once the liner has been designed, and that any potential impacts would be evaluated at that time. At this point, there is no approved design in place and it is unknown what additional environmental review and permits would be needed to install a liner. It is reasonably likely that Cal-Am would need to apply for a CDP for this work from the City of Marina. to a less than significant level. Moreover, as described in Section IV.F, on August 18, 2020, the Commission received a letter from Cal-Am describing an updated liner installation method that would be done almost entirely within the outfall and would involve no ground disturbance within the coastal zone of the City or the County. As discussed in Section IV.F, because there is a less impactful feasible alternative, Special Condition 4 requires Cal-Am to implement the proposed spray-lining method prior to the commencement of Project operations or to obtain an amendment to this CDP or a new CDP should Cal-Am need to implement a different method to install the outfall liner. Because Special Condition 4 guarantees there will be no adverse impacts to ESHA caused by the installation of the outfall liner, this future Project component does not raise significant concerns regarding project certainty.~~

~~In early August 2020, Cal-Am submitted new information about a possible “spray-on” method to install the liner without any ground disturbance within the coastal zone, which may obviate the need for the work to require a CDP. However, the outfall owner, Monterey One Water, has not yet evaluated this proposed spray-on liner to determine whether it would be feasible and would provide sufficient protection. Uncertainty about how the required liner is to be installed could lead to at least one substantial impact, as both of the two currently proposed installation methods would have to occur during the outfall’s low-flow period in the summer, when most of the discharges normally routed through the outfall are rerouted after treatment to be used for agricultural irrigation. However, any installation in the summer that requires work on the beach would adversely affect critical habitat for the Western snowy plover during its breeding and nesting period. It is uncertain at this time whether Cal-Am could avoid impacts to the plover or would need to obtain approval from the U.S. Fish and Wildlife Service to allow “take” of a listed threatened or endangered species. It also appears that the spray-on method would take somewhat longer to install – from eight to 12 weeks – which may exceed the amount of time the outfall is available for the proposed work.~~

As noted above, the Project Final EIR/EIS also considered smaller alternative desalination facilities to meet Cal-Am’s needs. Based on the modular nature of desalination treatment trains, with each train able to treat about 1.6 mgd, there was brief consideration of a 4.8 mgd and a 3.2 mgd facility; however, those options would likely have been more costly per unit of water produced because they would require much of the same infrastructure and capital construction, but would produce much less water. They would also share many of the same concerns as ~~Cal-Am’s~~ Cal-Am’s currently proposed 6.4 mgd facility – e.g., ~~the lack of a distribution pipeline, the lack of the needed outfall liner, and smaller, but similar concerns about impacts to wetlands. There would also be similar impacts to ESHA, though the area of impacts on the dunes would be slightly smaller because one or more wells would not need to be drilled.~~ Overall, the Commission did not consider this alternative in depth because its environmental impacts were not significantly less than the Project’s impacts.

“No Action” Alternative

The existing water supply situation is discussed above and elsewhere in this report, and this analysis relies on that discussion. The purpose of describing the “no action” alternative is to allow decision makers to compare the impacts of approving a proposed Project with the impacts of not approving it. Here, if the Commission denies the proposed desalination project, Cal-Am will need to pursue other options to obtain alternative water supplies. Over the past decade or two, other water supply projects have been considered – for example, new desalination facilities elsewhere in Monterey County. Those other desalination facilities have proposed to use open water ~~intakes~~ intake and could also affect areas of ESHA, thereby potentially causing greater adverse impacts than Cal-Am’s proposed Project. However, none of those proposals could meet the deadline imposed by the State Water Board’s cease-and-desist order, and Cal-Am is therefore not likely to pursue them, at least in the foreseeable future.

If the Commission does not approve this ~~project~~ Project, the most likely scenario is that Cal-Am will pursue the Pure Water Expansion. The PUC acknowledged this possibility in its 2017 Decision when it stated that it would consider an application for the Pure Water Expansion if the “desalination plant authorized in this decision (i.e., 6.4 mgd) 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 State Water Resources Control Board.” Given that the design and environmental review for the Pure Water Expansion is already well underway, it appears as

though is the only other water supply project that could be ~~ready to allow Cal-Am~~ developed in the near future – though not in time to meet the State Water Board's cease-and-desist order. Therefore, what is most reasonably expected to occur in the foreseeable future if Cal-Am's Project is not approved is that Cal-Am will pursue the Pure Water Expansion. ~~As described above, the Pure Water Expansion would have fewer impacts on coastal resources than the proposed Project.~~

The no action alternative is not feasible for the same reasons the Pure Water Expansion is not feasible. As explained above, if the Project is not approved, Cal-Am will not have an adequate water supply project in place by December 2021 to meet its obligation under the State Water Board's CDO to reduce its withdrawals from the Carmel River to no more than its legal limit. It is possible that Cal-Am would seek an extension to allow completion of its desalination facility or of Pure Water Expansion if needed, though approval of such an extension by the State Water Board is uncertain. Any extension could lead to continued excessive water withdrawals from the Carmel River and pumping from the Basin until the new project was ready. In the interim, the Monterey Peninsula will be left in a perpetual water supply deficit with available supplies unable to meet demand. This would result in further adverse effects in the Carmel River ecosystem and specifically to the steelhead that are listed as threatened. Further, overdraft from the Basin would likely occur, which has the potential to result in greater seawater intrusion, which the Project would have helped to prevent.²⁶⁵ Such potential environmental effect are least likely to occur if the Cal-Am Project moves forward.

~~As the analysis above shows, the Pure Water Expansion should provide adequate water supply for Cal-Am's service area for several decades. However, if Cal-Am determines that it needs additional supply during or after that time period, or if the Pure Water Expansion falls short of its expected production volumes, it may seek~~ Thus, if the Commission selected the no action alternative, Cal-Am may be required to develop ~~such~~ other water supplies to comply with the CDO. These could include ~~any of several~~ other possible water supply projects, including some considered by the CPUC in its Alternatives Analysis, but dismissed because they were then considered speculative, were not far enough along in design and planning, or were constrained by then-unresolved technical or environmental issues – for example, other desalination facilities that have been considered for the region, alternative slant well locations, etc. Presumably, Cal-Am could seek approval for some amount of additional legal rights to pump water from the Carmel River, though likely at a lower volume than its past overpumping. There may also be other alternatives available within the upcoming 20 to 25 year time frame considered in these Findings – for example, extraction wells being considered by the Salinas Valley Basin Groundwater Sustainability Agency to reduce the rate of seawater intrusion may provide a source of water for a desalination or water recycling facility.

Whether and when any such projects might be proposed, whether they would be approved by the ~~PUC~~ CPUC and other agencies, and what impacts those supply projects might have on coastal resources, is speculative at this time. If Cal-Am did not pursue any of these other alternatives, then it would possibly continue overpumping the Carmel River and the Basin, which would cause the ongoing, adverse impacts ~~to the river, its population of steelhead, and other wildlife~~ described above.

Conclusion

²⁶⁵ October 4, 2019, Seaside Basin Watermaster letter to Coastal Commission, p. 1.

Based on the above, the Commission finds that there ~~is a~~no feasible and less environmentally damaging alternative that would meet all or most of the proposed Project's objectives in a timely manner.

Note: These are not Commission staff's Recommended Findings

P. COASTAL-DEPENDENT INDUSTRIAL FACILITY OVERRIDE

Section 30260 of the Coastal Act states:

Coastal-dependent industrial facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with this division. However, where new or expanded ~~coastal-dependent~~coastal- dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this section and Sections 30261 and 30262 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.

Section 30101 of the Coastal Act states:

“Coastal-dependent development or use” means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.

Section 30101.3 of the Coastal Act states:

“Coastal-related development” means any use that is dependent on a ~~coastal-dependent~~coastal- dependent development or use.

The City of Marina LCP includes the following provisions:

LCLUP Policy 41:

To give priority to Coastal-dependent development on or near the shoreline and ensure that environmental effects are mitigated to the greatest extent feasible.

LCLUP Geotechnical Policies, Policy 1 (first bullet)

Structural development shall not be allowed on the ocean-side of the dunes, in the area subject to wave erosion in the next 50 years, or in the tsunami run-up zone. The only exception to this would be essential support facilities to a coastally-dependent industry, and in these areas the city will not undertake liability for property damage due to hazards.

Project components within the City of Marina are on property designated by the LCP as “Coastal Conservation and Development,” a designation that prioritizes ~~coastal-dependent~~coastal- dependent industrial uses.

LCLUP Coastal Conservation and Development Uses, Policy 2 (second bullet) states:

Coastal Conservation and Development uses shall be allowed on the west side of Dunes Drive. These activities shall include, but not be limited to, marine agriculture (Mariculture); off-shore and surf-zone sand mining, and other commercial activities dependent for economic survival on proximity to the ocean, salt water or other elements available in this particular environment.

Development in this area will be allowed in already disturbed areas.

The LCLUP, at page 41, describes uses allowed in areas designated Coastal Conservation and Development:

...such uses as are dependent upon salt water, the unique coastal-marine environment found in Marina, and/or on resources present only in this portion of Marina's Coastal Zone. Development shall be sited in already disturbed areas. Access roadways shall be kept to the minimum necessary to serve the proposed development and buildings shall be designed and sited to preserve sensitive habitats and views of the coastal dunes.

The IP, in its regulations for Coastal Conservation and Development Districts, includes similar standards for allowed uses in this district. They include:

Coastal research and educational uses; developed public access and other coastally dependent recreation uses; coastal dependent industrial uses including but not limited to marine agriculture (mariculture), dredge pond, surf zone and offshore sand extraction;

The LCLUP's policies relating to the North of Reservation Road Planning Area identify appropriate uses within the high Flandrian dune area, in which this project is proposed, to include "activities specifically dependent upon proximity to the ocean" (see LCLUP, page 37). It further states that the uses allowed in Coastal Conservation and Development districts are those consistent with numerous Coastal Act policies, including Coastal Act Section 30260 (see LCLUP, pages 38 and 44).

Analysis

As evaluated above, the Commission finds that despite Special Conditions imposed to reduce impacts, the proposed Project is fundamentally remains inconsistent with (i.e., is inconsistent and could not be brought into consistency through mitigation measures) Coastal Act and/or LCP policies regarding environmentally sensitive habitat areas and placement of fill in coastal waters ESHA, including wetland and vernal pond ESHA. Nonetheless, Coastal Act Section 30260 allows the Commission to consider approval of a coastal-dependent industrial facility that is otherwise inconsistent with one or more policies of the Coastal Act's Chapter 3. The City of Marina's LCP, under its Coastal Conservation and Development land use designation, similarly allows coastal-dependent uses that are dependent on proximity to the ocean if the uses are consistent with Coastal Act Section 30260, subject to certain limitations.

The LCP does not define the term "coastal-dependent," but Coastal Act Section 30101 states that a coastal-dependent development or use *"means any development or use which requires a site on, or adjacent to, the sea to be able to function at all."* Cal-Am's proposed Project is coastal-dependent because: 1) the proposed well field would be located adjacent to the shoreline so it can extract primarily seawater from beneath the seafloor and the shoreline of Monterey Bay while reducing its effects on non-seawater components of the underlying groundwater aquifers; 2) the proposed Source Water Pipeline is needed to transport that water from this shoreline area to the inland desalination facility; and 3) the Project's proposed use of an existing ocean outfall is needed to convey the facility's brine discharge into coastal waters.

Some commenters have asserted that the Project is not coastal-dependent because they claim that the extraction wells would be drawing brackish groundwater, not mostly seawater, and the well heads could draw such water even if they were located farther inland. However, as explained in the Final EIR/EIS and these Findings, the Project is expected to draw

approximately 88 to 99% seawater over time. As also explained elsewhere in these Findings, this type of slant well cannot be more than several hundred feet long, so they could not pull in mostly intruded seawater if they were located farther inland. In addition, if the wells were located inland and were pulling a higher percentage of non-seawater, this could affect **Cal-Am's** ability to obtain sufficient appropriative water rights and would significantly alter its return water obligations, likely making the Project infeasible.

The proposed Project is also an industrial facility. Several Project components fall within at least one category of the North American Industry Classification System ("NAICS") – i.e., NAICS #237110: Water and Sewer Line and Related Structures Construction.¹⁴⁴²⁶⁶ Some of the Project components would be built within currently active industrial sites and would use similar equipment and methods as the other uses on those sites. The proposed Project would be implemented by Cal-Am, an entity that, along with being a publicly regulated utility, is considered part of the water and wastewater industry. Further, the Commission has previously recognized that public utilities conduct industrial activities – for example, in its 2013 certification of Santa Barbara County Local Coastal Program Amendment No. LCP-4-STB-13-0215-2 allowing natural gas exploration and production by public utilities. The City's LCP also includes several provisions that similarly address "coastal-dependent" uses. The proposed Project is therefore a coastal-dependent industrial facility.¹⁴³²⁶⁷

Application of Coastal Act Section 30260

Coastal Act Section 30260 provides for special consideration of coastal-dependent industrial facilities that would otherwise be unapprovable due to inconsistencies with the Act's Chapter 3 coastal resource protection policies. Section 30260 allows the Commission to approve such projects, notwithstanding the project's inconsistencies with those other policies, if they meet a three-part test: 1) if alternative locations are infeasible or more environmentally damaging; 2) to do otherwise would adversely affect the public welfare; and 3) if adverse effects are mitigated to the maximum extent feasible. The LCP similarly allows approval of coastal-dependent industrial uses in dune habitat if they are the types of uses allowed pursuant to Coastal Act Section 30260, if the development is sited in the most disturbed areas, and if the adverse impacts of the development are mitigated.¹⁴⁴²⁶⁸ Thus, the Commission interprets these LCP provisions consistent with Section 30260 to determine if the proposed Project is approvable, despite its inconsistency with the habitat protection policies of the LCP.¹⁴⁵ ~~For this first test of Section~~

¹⁴⁴²⁶⁶ NAICS was formerly the Standard Industrial Classification, or SIC system. Both systems have been used by U.S. EPA, the State and Regional Water Boards, and others to categorize various industrial activities.

¹⁴³²⁶⁷ The Commission's findings here are also supported by an unpublished Court of appeal opinion upholding the Commission's 2014 approval of Cal-Am's test well and finding that the test well was a "coastal-dependent industrial facility" and that the City's LCLUP incorporates Section 30260. See *Marina Coast Water Dist. v. California Coastal Comm'n*, 2016 WL 6267909, (Oct. 26, 2016).

¹⁴⁴²⁶⁸ For example, LCLUP Uses allowed in the CD District, Policy 2, p. 41, LCLUP Habitat Protection Policy 1, LCLIP Regulations for CD Districts section b(2)(b).

¹⁴⁵ ~~*McAllister v. California Coastal Commission*, (2009) 169 Cal.App.4th 912, 931. Marina Coast Water District submitted comments asserting that the Commission may only consider whether the Project is consistent with the City's LCP in the appeal and may not use the Section 30260 override. The Court of appeal has previously rejected a substantially similar argument made by Marina Coast Water District in litigation that it brought challenging the Commission's approval of Cal-Am's test well. See *Marina Coast Water Dist. v. Cal. Coastal Commission* (2016) 2016 WL~~

~~30260, the Commission is also incorporating the alternatives analysis required pursuant to Coastal Act Section 30233—that there be no feasible, less environmentally damaging alternative to the proposed Project.~~²⁶⁹

Application of the Section 30260 override provision is discretionary: it *allows* the Commission to approve a project that meets the three statutory criteria, but it does not *require* the Commission to do so. Similarly, the Commission need not find that a coastal-dependent industrial project fails to meet the three criteria in order to deny it, although such findings could support a denial. If, however, the Commission finds that any of the three tests are *not* met – e.g., if it finds that denial of the Project will not harm the public welfare because there is an alternative location that is feasible and environmentally preferable ~~alternative~~—then it may not approve the Project. The three tests of Section 30260 are applied below.

Test 1 – Alternative Locations are Infeasible or More Environmentally Damaging and Development is Limited to Already-Disturbed Areas: 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 also 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 Final EIR/EIS evaluated alternative locations to the proposed Project.²⁷⁰ For instance, the Final EIR/EIS 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 Final EIR/EIS 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.

- Slant wells at Potrero Road. The Final EIR/EIS determined that a slant well system at Potrero Road would be infeasible because it would require drawing a greater volume of water from the SVGB. As a result, Cal-Am could be required to increase the amount of water that it must return to the SVGB, which could result in a remaining water supply that would be insufficient to meet recovered tourism demand or serve vacant legal lots of record. Slant wells at Potrero Road could also capture groundwater that would otherwise flow into Elkhorn Slough, which would lead to significant and unavoidable impacts on marine and terrestrial biological resources.

~~6267909 (upholding the Commission’s use of the 30260 override, as it is incorporated in the City’s LCP, to approve the test well).~~

²⁶⁹ McAllister v. California Coastal Commission, (2009) 169 Cal.App.4th 912, 931. MCWD submitted comments asserting that the Commission may only consider whether the Project is consistent with the City’s LCP in the appeal and may not use the Section 30260 override. The Court of appeal has previously rejected a substantially similar argument made by Marina Coast Water District in litigation that it brought challenging the Commission’s approval of Cal-Am’s test well. See *Marina Coast Water Dist. v. Cal. Coastal Commission* (2016) 2016 WL 6267909 (upholding the Commission’s use of the 30260 override, as it is incorporated in the City’s LCP, to approve the test well).

²⁷⁰ See Final EIR/EIS, §§ 5.4 to 5.6.

- Slant wells at Moss Landing: The Final EIR/EIS determined that this alternative would involve “additional permitting complexity,” which would hinder Cal-Am’s ability to implement the alternative before the CDO deadline. The Moss Landing Site would also lead to: (1) significant and unavoidable impacts to marine habitat and biological resources associated with construction and operation of the intakes; (2) potentially significant impacts related to the open ocean intakes’ potential to cause underwater landslides and interfere with oceanic processes; and (3) significant and unavoidable impacts to marine biological resources caused by intake and entrainment of marine life.

As such, the Final EIR/EIS selected the proposed Project, with slant wells located at the CEMEX site, as the environmentally superior alternative. The Final EIR/EIS 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.²⁷¹ These findings and conclusions were incorporated into the CPUC’s final decision regarding the proposed Project.

In addition, while the Commission’s review under Section 30260 is limited to “alternative locations” the Commission also evaluated alternatives to the proposed Project in Section IV.O of these Findings, and concluded that the Pure Water Expansion is not a feasible alternative due to lack of sufficient water source supplies, inability to meet water demand, disputes over water rights, impacts to agricultural water supplies, and increased costs resulting from issues with technology and injection wells.

~~Section II.O of these Findings describes a feasible and less environmentally damaging alternative to the Cal-Am’s proposed Project. Like Cal-Am’s proposed Project, the Pure Water Expansion project is a water supply project, but it would have few adverse environmental effects compared to the proposed Project, and few, if any, adverse effects to coastal resources, since it would be located outside of the coastal zone. For example, it would result in no impacts to coastal ESHA, would have far fewer greenhouse gas emissions compared to the Cal-Am Project, and would not cause the brine discharge-related water quality impacts that Cal-Am’s Project would cause. This alternative project would meet the same project objectives as developed under CEQA for Cal-Am’s proposed Project and would also meet the relevant state requirements for water supply systems. This alternative project also appears to be fully feasible, as it would be an extension of an existing facility that is modeled on other similar, existing treatment facilities. Importantly, it fully meets the criteria of the Coastal Act’s definition of feasibility. Thus, the Commission finds that the proposed Cal-Am Project does not meet the first test of Section 30260 because the Commission has determined that there is a~~
Because there is no feasible and less damaging alternative to the proposed Project, the Commission finds that the proposed Cal-Am Project meets the first test of Section 30260.

Test 2 – To not permit the development would adversely affect public welfare: Section 30260’s second test provides that coastal-dependent industrial development may be permitted if to do otherwise (i.e., to deny the proposal) would adversely affect the public welfare. The Findings herein evaluate several benefits and concerns regarding the proposed Project’s effects

²⁷¹ See Final EIR/EIS, §§ 5.1 to 5.6.

as related to the public welfare.

The Commission acknowledges the need for Cal-Am to obtain a new water supply. 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~~ 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. ~~Cal-Am's proposed Project also~~

To not permit the proposed Project could mean that Cal-Am would miss CDO milestones. In 2009, the State Water Board adopted a CDO in which it set a compliance schedule requiring Cal-Am to take actions necessary to reduce its diversions from the Carmel River and ultimately terminate the withdrawals by December 31, 2016.²⁷² In 2016, the State Water Board approved an amended CDO that would maintain Cal-Am's effective diversion limit from the Carmel River from the start of water year 2015-2016 until December 31, 2021, as long as Cal-Am meets defined Project approval and construction milestones.²⁷³ The amended CDO also imposes interim Project milestones, and failure to meet each interim milestone results in a 1,000 afy reduction in Cal-Am's annual Carmel River diversions.

Additionally, the CDO imposes a moratorium on new service connections and certain increases in use until Cal-Am certifies that it has obtained sufficient alternative water supplies. Cal-Am has proposed a facility sized to meet expected water supply and demand projections for its service area. As described in Section IV.O of these Findings, without the proposed Project, a deficit between available water supplies and total demand will result and worsen over time, particularly during drought periods. The Final EIR/EIS explained that a prolonged deficit could lead to prohibitions on all or specified non-essential water uses.²⁷⁴ 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.²⁷⁵

Further, as discussed in Section IV.O, although it is possible that Cal-Am could seek an extension of the CDO deadline with the State Water Board, approval of such an extension by the State Water Board is uncertain. Regardless, any extension could lead to continued excessive water withdrawals from the Carmel River and pumping from the SVGB. This would result in further adverse effects to the Carmel River ecosystem, particularly the steelhead. Moreover, if SVGB overdraft occurs, the Basin would experience greater seawater intrusion, which the Project would have helped to prevent.

Notably, 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 and for the Monterey Peninsula to meet its housing goals. In particular, the

²⁷² See State Water Board, Order WR 2009-0060, p. 57.

²⁷³ See State Water Board, Order WR 2016-0016, p. 19.

²⁷⁴ Final EIR/EIS, pp. 5.4-10 to 5.4-11.

²⁷⁵ Final EIR/EIS, pp. 5.4-10 to 5.4-11.

proposed Project could promote the buildout of necessary affordable housing on the Peninsula, as dictated by the Regional Needs Housing Assessment (“RHNA”) for the Monterey Bay Area.²⁷⁶

The CPUC also determined that the proposed Project would support economic growth in the area. In approving the proposed Project, the CPUC’s final decision explained:

Ensuring long-term water supply in the Monterey Peninsula area will boost the region’s economic vitality, particularly the County’s ‘four pillars’ – agriculture, tourism, education, and research, by substantially enhancing the reliability of water resources and water infrastructure. The Project will allow residential, commercial (including tourism) and industrial activities to continue to exist and flourish within the greater Monterey area, benefiting those who live and work throughout the greater Monterey area (and not merely within the CalAm Monterey service territory).

(See CPUC Final Decision 18-09-017, pp. C-74 to C-75.) In the absence of the Project, the region would remain in a state of water poverty and would not experience the economic benefits that the Project would enable. For instance, construction of the Project is anticipated to generate \$258.5 million in one-time economic impacts and support 1,762 job years in Monterey County over the anticipated development timeline.²⁷⁷

In addition, Cal-Am’s proposed Project includes three components ~~meant in part~~ designed to address public welfare concerns to ensure that the Project would not adversely affect public welfare. 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~~ In addition, the proposed Project’s slant wells would extract primarily seawater from the SVGB and would prevent seawater intrusion from migrating further inland. Cal-Am also selected a site that, ~~at the time,~~ was already being used by a coastal-dependent industrial facility – the CEMEX sand mining operation – rather than a completely undeveloped coastal location where it may have caused additional adverse effects. ~~Cal-Am also proposed a facility sized to meet the then-expected water supply and demand projections for its service area.~~

Some commenters suggest that the public will be adversely affected because CEMEX will be permanently ending its operations in the next several months, and therefore commenters argue that the site will be largely set aside for habitat restoration, public access, and passive recreational opportunities. However, as discussed in Section IV.L of these Findings, prior to the site becoming open for public access, a government agency or non-profit entity must purchase the property, and the purchase must be approved by the Commission. There is no current timeline for the purchase. The Settlement Agreement also does not require the purchaser to use and manage the property for a specific level of public accessibility or for certain activities such as ESHA restoration or to provide funding to achieve restoration and desired improvements. It is therefore unclear when that would occur or what the exact scope of future uses on the site would

²⁷⁶ See Latham and Watkins Letter to Tom Luster, dated June 30, 2020, pp. 40, 62.

²⁷⁷ See Exhibit 31 – Economic & Planning Systems letter to California American Water, dated August 31, 2020, pp. 4, 7.

be.

Regardless, the Project would have a nominal effect on public use of the area. As described in Section IV.L of these Findings, the Project will occupy a small portion of the CEMEX site – approximately 0.25 acres on the 400+ acre site, or 0.06%. Minimal additional area would be occupied for periodic maintenance activities beginning in year five of operations. None of the area impacted by the Project's construction or operation, including those maintenance activities, would impede beach use or access, and the remaining 400+ acres of the CEMEX site would be available for potential coastal access and recreation. Furthermore, although the Project would not impact public access, Special Condition 10 allows the Commission to require Cal-Am to make changes to its Public Access Plan depending on the final approved use of the CEMEX site.

~~However, the situation has recently changed significantly for two of these aspects of the Project. First, Cal-Am would no longer share the site with another industrial facility, as CEMEX will be permanently ending its operations in the next several months. Pursuant to the above-referenced CEMEX Settlement, the site will be largely set aside for habitat restoration, public access, and coastal educational opportunities. Second, Some commenters also have suggested that~~ another potential project has been developed – the above-referenced Pure Water Expansion – ~~which, as described above in Section II.O of these Findings, will be able to~~that could provide a water supply adequate for current and expected future growth and that will allow Cal-Am to meet its obligations regarding reduced withdrawals from the Carmel River. ~~As described above, These commenters suggest that the alternative project will have far fewer adverse impacts than Cal-Am's Project. Because of this~~However, as described in Section IV.O of these Findings, the Pure Water Expansion is not a feasible alternative, ~~the Commission's denial of Cal-Am's Project will not adversely affect the public welfare, as the alternative project will be able to provide the needed water. Among other things, the Pure Water Expansion faces significant technological issues and requires additional environmental analysis. There is also significant uncertainty regarding the availability of source water for the Pure Water Expansion, and based on expert analysis, it would not provide a water supply adequate to meet even the lowest water demand numbers from MPWMD (10,855 acre-feet per year). Further, Monterey One Water is not currently moving forward with the development of the Pure Water Expansion and does not appear to have resources to dedicate to the project.~~

~~Importantly, and as detailed in Section II.N – Environmental Justice, Cal-Am's Project would create substantial hardships for several communities of concern that would be affected by the relatively high water costs resulting from the Project, by potential indirect impacts to other area water supplies, and by the presence of Cal-Am's well field on a site that otherwise would provide amenities such as habitat restoration, public access to the shoreline, and recreational opportunities. As noted in that section, Cal-Am's proposed Project would benefit a different community of concern – Castroville – by providing it with relatively inexpensive water to supplement Castroville's current supply that is provided by several wells that are experiencing, or will soon experience, seawater intrusion. However, those benefits would come at the expense of other communities of concern.~~

~~Additionally, the alternative Pure Water expansion water supply project eliminates concerns about potential adverse effects that Cal-Am's proposed Project would have on groundwater. As noted~~Further, as described in Section ~~IIIV.IJ~~IV.IJ of these Findings, Cal-Am's

proposed extraction of groundwater will not result in 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 those effects. Cal-Am's SVGB. In addition, as discussed in Section IV.G, with the implementation of Special Conditions the Project's~~ extraction of groundwater would likely not 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 because impacts would be mitigated to the maximum extent feasible.~~ There is strong public interest in these groundwater resources, as evidenced by development of a basin management plan being developed by local stakeholders, ~~pursuant to requirements of the state's~~ Cal-Am's proposed Project has been designed to prevent further migration of seawater into the SVGB in furtherance of the goals of Sustainable Groundwater Management Act. ~~Implementing the alternative project instead of Cal-Am's would eliminate this current uncertainty about the extent of Cal-Am's effects on these groundwater resources and how those effects may affect local water sources or regional use of the Basin.~~

Notably, Cal-Am's proposed Project will not only benefit the SVGB, but will also provide much needed protections to the Seaside Groundwater Basin, which is another critical water supply source for the Peninsula. The Seaside Groundwater Basin also provides groundwater storage for ASR and Pure Water Monterey. 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 an additional 1,000 afy is needed for injection into the Basin to maintain the Basin's water levels. Both Cal-Am's replenishment water and the additional 1,000 afy identified by the Seaside Basin Watermaster appear necessary to achieve and maintain protective water levels for the Seaside Basin to prevent seawater intrusion and irreversible loss of basin storage. If Seaside Basin storage is lost or reduced as a result of seawater intrusion, other existing water supplies – that is, ASR and Pure Water Monterey – would be in jeopardy because seawater intruded aquifers cannot be used for groundwater storage.

Additionally, and as detailed in Section IV.N, Cal-Am's Project will benefit several communities of concern. As noted in that section, Cal-Am's proposed Project would benefit Castroville by providing it with relatively inexpensive water to supplement Castroville's current supply that is provided by several wells that are experiencing, or will soon experience, seawater intrusion. Through a Return Water Agreement developed during the CPUC's review of Cal-Am's Project, Cal-Am would return a portion of the water it extracts and exports from the Salinas Valley Groundwater Basin back into the Basin via pipeline in the form of reduced-cost potable water for the Castroville.²⁷⁸ As a result, Castroville would benefit from the Cal-Am project because the agreement will help to maintain existing low water rates (approximately \$45 per month) and stakeholders say it would also help with the development of critical affordable housing projects and agricultural jobs. Further, Cal-Am has an existing Customer Assistance Program for qualifying water consumers that will help defray increased water costs associated with the proposed Project, and pursuant to Special Condition 13 will develop additional

²⁷⁸ See CPUC Final Decision 18-09-17, Appendix H.

programs. Moreover, the Commission finds that the approximately \$37-40/month water bill increase following Project implementation is consistent with previous Commission decisions (i.e., the Commission's July 2019 approval of the Morro Bay Water Reclamation Facility that would result in \$41/month water bill increase,²⁷⁹ see Section IV.N of these Findings).

Based on the above, the Commission finds that denying the proposed Project would ~~not~~ adversely affect the public welfare. ~~The Project would result in a number of adverse impacts, and there is also substantial uncertainty about the Project's long-term feasibility due to questions about return water obligations, groundwater rights, where future wells could be located once the initial ones need to be replaced, and costs, among other things. Because denying the project is likely to lead to implementation of a project alternative that would benefit the public welfare, the project does not meet and, thus,~~ meets the second test of Section 30260, ~~which would be required for approval.~~

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

~~Because the Commission has determined that the proposed Project does not meet either of the first two tests of Section 30260, there is no need to determine whether it meets this third test. Nonetheless, and as described below, the Commission finds that the proposed Project does not meet the~~ The third test of Section 30260 ~~and of the LCLUP's Habitat Protection Policy 1 require that the proposed Project's adverse environmental effects be mitigated to the maximum extent feasible.~~

~~This third test of Section 30260 and of the LCLUP's Habitat Protection Policy 1 require that the proposed Project's adverse environmental effects be fully mitigated. As noted in the Findings above, several Project components are not yet fully mitigated. For example, and as described in Sections II.F of these Findings, the Project's adverse effects on ESHA could be fairly extensive – up to about 35 acres of terrestrial ESHA – yet Cal-Am's currently proposed mitigation strategy would result in a net loss of ESHA. Additionally, the recently identified impacts to up to several dozen acres of nearby vernal ponds described in Section II.G have not been fully evaluated and the mitigation that may be needed for those impacts has not yet been identified. If those impacts can be feasibly mitigated, then the currently proposed mitigation does not yet meet the standard of impacts being mitigated to the maximum extent feasible. The Commission therefore finds that Cal-Am's proposed Project does not meet the third test of Section 30260.~~

As noted in these Findings, with the implementation of the CPUC's mitigation measures identified in the Final EIR/EIS and imposition of the Special Conditions above, the proposed Project's impacts have been mitigated to the maximum extent feasible. For example, as described in Section IV.F, the CPUC's MMRP and Cal-Am's HMMP are robust plans that require Cal-Am to mitigate the proposed Project's potential environmental impacts to terrestrial biological resources in the coastal zone to the maximum extent feasible. Further, as described in Section IV.G, Special Condition 7 requires Cal-Am to implement an Adaptive Management Program to monitor the vernal ponds. If monitoring reveals that the vernal ponds are groundwater dependent and would be impacted by pumping-related drawdowns, Special Condition 7 requires Cal-Am to obtain Commission approval to implement a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan to mitigate for those potential impacts to the maximum extent feasible. Potential impacts to coastal hazards, coastal waters, and public access are also mitigated to the

²⁷⁹ See CDP No. 3-19-0463.

maximum extent feasible through Special Conditions 6 through 10.

With the mitigation measures identified in the CPUC's MMRP and the above Special Conditions, the Commission therefore finds that Cal-Am's proposed Project meets the third test of Section 30260.

Conclusion

~~The Commission finds that the proposed Project does not meet the three tests of section 30260 and the parallel LCP policies.~~

Conclusion

Cal-Am's proposed Project is inconsistent with Coastal Act and City of Marina LCP policies regarding protection of ESHA and primary habitat, including wetland/vernal pond ESHA. Nonetheless, the proposed Project meets the three tests of Section 30260, and therefore, the Commission may exercise its discretion to approve Cal-Am's proposed Project.

Note: These are not Commission staff's Recommended Findings

V. ~~III.~~ CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096(a) of the Commission's administrative regulations requires that Commission approval of a Coastal Development Permit application be supported by a finding showing that the application, as conditioned by any conditions of approval, is consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment. ~~In addition, CEQA Guidelines Section 15042 states that "[a] Responsible Agency may refuse to approve a project in order to avoid direct or indirect environmental effects of that part of the project which the Responsible Agency would be called on to carry out or approve." As a responsible agency under CEQA, the Commission is limited to considering alternatives within its jurisdiction. (Pub. Resources Code, § 21002.1(d); CEQA Guidelines, §§ 15042, 15096(g)(1).)~~

The CPUC, as lead agency under ~~the California Environmental Quality Act (CEQA)~~, prepared and certified a Final EIR for the project in 2018. The CPUC's Final EIR certification was challenged in court, and in 2019 the California Supreme Court upheld the Final EIR certification. The Coastal Commission, acting as a responsible agency pursuant to CEQA, has reviewed and considered the information contained in the Final EIR on the project. The findings in the staff report also address and respond to all issues pertaining to significant adverse environmental effects that were raised in public comments received prior to preparation of the staff report.

The Commission has identified and adopted 15 Special Conditions necessary to avoid, minimize, or mitigate potential impacts to coastal resources. However, as discussed above, the proposed Project is inconsistent with certain Coastal Act and City of Marina LCP policies with respect to ESHA and vernal ponds. Nonetheless, with the inclusion of these Special Conditions, the Commission finds that there are no further feasible alternatives or mitigation measures available which would substantially lessen any significant adverse effect which the proposed project may have on the environment. Therefore, the proposed project, as conditioned, has been adequately mitigated and is determined to be consistent with CEQA.

~~The Commission incorporates its findings on inconsistency with the Coastal Act and City's certified LCP at this point as if set forth in full. As discussed above, the proposed development is inconsistent with various, applicable policies of the certified LCP and Coastal Act, and is denied on that basis. As an additional and independent basis for denial, the Commission denies the proposed Project under CEQA in order to avoid the environmental effects that Cal-Am's Project would have within the coastal zone, including the effects to environmentally sensitive habitat and the other impacts described in this report. Denial is also appropriate because there is also a feasible alternative available that would substantially lessen significant adverse effects that the proposed development may have on the environment.~~

~~In addition, Section 21080(b)(5) of CEQA, as implemented by section 15270 of the CEQA Guidelines, provides that CEQA does not apply to projects that a public agency rejects or disapproves. Accordingly, the Commission's denial of this project represents an action to which CEQA, and all requirements contained therein that might otherwise apply to regulatory actions by the Commission, does not apply.~~

Staff Report Exhibits

Exhibit 1 – Project Location

Exhibit 2 – Project Layout

Exhibit 3 – Proposed Project Well Field

Exhibit 4 -- California Public Utilities Commission, 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 18-09-017, September 13, 2018.

Exhibit 5 – Special Status Species and Natural Communities That Could Be Significantly Impacted During Construction of the Proposed Facilities

Exhibit 6 – Construction Staging Areas, Habitat Types, and Special-Status Species with Potential to Occur (Table 4.6-3 from the Final EIR/EIS)

Exhibit 7 – Final EIR/EIS Summary of Terrestrial Biological Resources Mitigation Measures

Exhibit 8 – Cal-Am proposed Habitat Mitigation and Monitoring Plan, June 2020

Exhibit 9 – Map of Area Wetlands

Exhibit 10 – Coastal Hazards Technical Memorandum

Exhibit 11 – Independent Hydrogeological Review of Recent Data and Studies Related to California American Water's Proposed Monterey Regional Water Supply Project, November 2019

Exhibit 12– Independent Evaluation, Modification, and Use of the North Marina Groundwater Model to Estimate Potential Aquifer Impacts, July 2020

Exhibit 13 – Hydrogeologic Working Group Comments on Weiss Report, August 13, 2020.

Exhibit 14 – Hydrogeologic Working Group Comments on AGF Final Report on the 2019 AEM Survey, June 26, 2020.

Exhibit 15 – Environmental Justice – Methodology for Identifying Communities of Concern

Exhibit 16 – Rural Community Assistance Corporation Letter to State Water Resources Control Board – Division of Financial Assistance, March 30, 2017

Exhibit 17 – Monterey Peninsula Water Management District 2019 Update

Exhibit 18 – Monterey Peninsula Water Management District 2020 Update

Exhibit 19 – Monterey Peninsula Water Management District – Analysis of Available Well Capacity for 10-Year Maximum Daily Demand (MDD) and Peak Hour Demand (PHD)

Exhibit 20 – Final Supplemental Environmental Impact Report for the Proposed Modifications to the Pure Water Monterey Groundwater Replenishment Project, April 2020, Appendix M: Source Water Operational Plan Technical Memorandum

Exhibit 21 – California American Water Peer Review of Supply and Demand for Water on the Monterey Peninsula, Hazen and Sawyer, January 22, 2020

Exhibit 22 – Expert Report and Recommendations of Peter Mayer, P.E., Regarding Water Supply and Demand for Water on the Monterey Peninsula, April 21, 2020 and Supplemental Report, July 1, 2020.

Exhibit 23 – California American Water Peer Review of CCC Staff Report and Lon House Report, Hazen and Sawyer, September 10, 2020.

Exhibit 24 – California American Water Peer Review of August 20, 2020 Letter from M1W to CCC, Hazen and Sawyer, August 23, 2020.

Exhibit 25 – California American Water Peer Review of Supply and Demand for Water on the Monterey Peninsula, Hazen and Sawyer, August 11, 2020.

Exhibit 26 – Seaside Basin Watermaster Letter to Commission Regarding Monterey Peninsula Water Supply Project – Support, August 12, 2020.

Exhibit 27 – City of Salinas Letter to Monterey One Water Regarding 4-27-20 Agenda Item 7A, April 27, 2020.

Exhibit 28 – California-American Water Company Letter to Monterey One Water Regarding Pure Water Monterey Project – Cost, Operational Performance and Status, May 9, 2020.

Exhibit 29 – City of Monterey Letter to Monterey Peninsula Water Management District Regarding Supply and Water Demand for the Monterey Peninsula, February 4, 2020.

Exhibit 30 – California-American Water Company Advice Letter No. 1231 to the California Public Utilities Commission, March 19, 2019.

Exhibit 31 – Economic & Planning Systems Memorandum to California-American Water Company regarding One-Time Economic Impacts of Construction, August 31, 2020

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September 17, 2020

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

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

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.

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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*, CPUO Application 12-04-019, January 4, 2018.

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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).

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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.

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

California Coastal Commission, CDP No. 3-19-0463 (Morro Bay Water Reclamation Facility), June 21, 2019.

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

Dudek, *Environmental Justice Analysis for the Monterey Peninsula Water Supply Project*, August 10, 2020.

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.

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

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Note: These are not Commission staff's Recommended Findings

ATTACHMENT B

RESPONSE TO AUGUST 25, 2020 STAFF REPORT FOR APPLICATION 9-19-0918 AND APPEAL A-3-MRA-19-0034

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A. **Environmentally Sensitive Habitat Areas (Staff Report, pp. 28-47)**

- The Project's Final EIR/EIS determined that the Project would result in a significant and unavoidable inconsistency with the City of Marina's Local Coastal Program's ("LCP") Habitat Protection Policies regarding development in primary habitat. (Final EIR/EIS, p. 4.6-235.) However, as explained in the Project's Final EIR/EIS, the Project would not result in a substantial adverse *physical* impact to sensitive habitats during Project construction or operation with the implementation of all feasible and enforceable mitigation measures. (Final EIR/EIS at pp. 4.6-198, 4.6-201, 4.6-204 to 4.6-205, 4.6-215, 4.6-258 to 4.6-259.) With the implementation of the mitigation identified in the Final EIR/EIS, Cal-Am's Habitat Mitigation and Monitoring Plan ("HMMP"), and Cal-Am's proposed Special Conditions, potential impacts to ESHA would be mitigated to the maximum extent feasible. (See Applicant's Staff Report, Section IV.F.) Thus, the Commission may approve the Project under Coastal Act section 30260, which allows for coastal-dependent industrial facilities like the Project to be approved despite any potential LCP inconsistencies. (See *ibid.*)

1. **Scope of ESHA Impacts**

- The Staff Report states that the Project "would disturb up to several dozen acres of ESHA or would otherwise adversely affect, or have the potential to adversely affect, a number of sensitive plant and animal species." (Staff Report, p. 31; see also *id.*, pp. 40-43.) As described in the Applicant's Staff Report, Section IV.F, and below, staff greatly overestimates the amount of ESHA the Project could impact.
 - The acreages used in the Staff Report come from the Final EIR/EIS, which conservatively assumed that all undeveloped areas in the Project's footprint within the Coastal Zone were ESHA. (Final EIR/EIS, p. 4.6-36.) This resulted in a maximum envelope of ESHA impacts associated with the Project being disclosed in the Final EIR/EIS.
 - Subsequent to the certification of the Final EIR/EIS, more detailed biological assessments have been prepared to better define the scope of biological resources impacts. The HMMP relied upon these assessments, which identified ground cover within undeveloped areas of the Project area within the Coastal Zone as not satisfying the definition of ESHA. (HMMP, p. 3-3.) These areas were then mapped with GIS accuracy. (*Id.*) Accordingly, the areas identified in the HMMP more accurately capture physical conditions that exist on the ground and should be utilized for establishing the acreage of impacts to ESHA in lieu of the conservative assumptions that were included in the Final EIR/EIS.
 - Moreover, the majority of the ESHA impacts would occur where Cal-Am proposes to install the Project's pipelines, which would be located in the Transportation Agency for Monterey County right-of-way ("TAMC ROW"). The TAMC ROW, which was previously operated by Southern Pacific Railroad, consists of remnant railroad tracks and previously disturbed dune habitat. The TAMC ROW runs from the community of Castroville to the City of Monterey,

and is, on average, 100-feet wide with a single rail track in the center. The TAMC ROW is host to existing linear utilities including electric, communications and wastewater.¹ Thus, it has already been subject to various ground disturbances as it serves as an existing utilities corridor.

- The project studied in the Final EIR/EIS was also a larger version (9.6 mgd) of the currently proposed Project (6.4 mgd), and which would have included additional intake wells and wellheads on the CEMEX property. Ultimately, the CPUC selected Alternative 5a, a 6.4 mgd project, for approval. Accordingly, the HMMP reflects subsequent design drawings prepared for the smaller desalination project as well as the completion of more detailed design for the Project components. (HMMP, p. 3-11.)
- The specific acreage of impacts to biological resources potentially impacted by the Project as updated with information provided in the HMMP as compared to the Staff Report is shown below.

Impact Location in Coastal Zone	Staff Report Acreage ²	HMMP Acreage
CEMEX site	9	8.4
Desalinated Water Pipeline	16.9	2.12
Source Water Pipeline	11.8	4.8
Desalinated/Source Water Pipeline Overlap	0	1.95
Transmission Main Pipeline	5.4	0.1
Castroville Pipeline	0.4	0.13
Total	43.5 ³	17.5

¹ In August 2019, TAMC’s Board of Directors approved an Easement Purchase Agreement and Operations Plan and Agreement with Cal-Am to install the pipelines in the TAMC ROW. (https://www.tamcmonterey.org/wp-content/uploads/2019/08/TAMC_Agenda_2019_8_28_Meeting219.pdf.)

² The Staff Report states that there would be overlap in potential impact acreage for certain Project components, but does not quantify the extent of overlap. For instance, the Staff Report notes that the Desalinated Water Pipeline would impact up to 16.9 acres of ESHA within the City of Marina. (Staff Report, p. 40.) But the Staff Report further provides that “some of this area of impact would likely overlap with some of the areas affected by the Source Water Pipeline construction.” (*Ibid.*) Moreover, staff identifies an overlap in Desalinated Water Pipeline Construction across the City of Marina’s LCP jurisdiction and the County’s Coastal Zone. (*Id.*, p. 41.) Staff identifies similar overlaps for the Source Water and Transmission Main Pipelines. (See *id.*, pp. 41-42.)

³ The Staff Report asserts that the Project could result in “up to about 35 acres of both temporary and permanent impacts to terrestrial ESHA during construction and operation” (Staff Report, p. 5), but the sum of potential impact acreages identified in the Staff Report totals 43.5 acres. However, as noted above the Staff Report states that there would be overlap in potential impact

- Further, as explained in Cal-Am’s June 30, 2020 Letter to Commission staff (“June 30 Letter to Commission”) and detailed in the HMMP, the Project would only permanently impact approximately 2.2 acres of ESHA and temporarily impact approximately 15.3 acres. (June 30 Letter to Commission, Att. A, p. 1.)

Impact Location in Coastal Zone	Permanent Acres	Temporary Acres	Total
CEMEX site	2.2	6.2	8.4
Pipelines outside of Marina	0	4.6	4.6
Pipelines within Marina	0	4.5	4.5
Total	2.2	15.3	17.5

- Staff also suggests that Project construction would result in impacts to an additional 6.6 acres of ESHA, suggesting that this acreage would be in addition to the ESHA impact locations identified in the table above. (See Staff Report, p. 43.)
 - While Cal-Am would establish several construction staging areas, the staging areas would occur in paved areas or within the construction footprint for the slant wells or pipelines. (See Applicant’s Staff Report, Section IV.F.) As a result, these staging areas would not result in any additional impacts to ESHA.

2. Uses of the CEMEX Site

- The Staff Report incorrectly characterizes the CEMEX Settlement Agreement, suggesting that, as of December 31, 2020, the CEMEX site will be limited to public access, open space, and habitat. (Staff Report, p. 37.) Staff acknowledges Cal-Am’s existing easement over a 30-acre area of the CEMEX site, but suggests that Cal-Am’s proposed activities within that easement are inconsistent with public access, open space, and habitat uses. (See *ibid.*) In addition, the Staff Report claims that the HMMP proposes restoration activities in a place that is already expected to benefit from preservation pursuant to the Settlement Agreement. (*Ibid.*)
 - As Cal-Am explained in its June 30 Letter to the Commission, the Project is consistent with the Settlement Agreement’s restrictions on the use of the CEMEX site because Cal-Am is proposing to use the easement to facilitate Project construction and operation. (See June 30 Letter to Commission, Att. A, pp. 3-4 [citing Settlement Agreement, § 6.1].)
 - Further, under the HMMP, Cal-Am proposes to promote the Settlement Agreement’s intent by restoring approximately 14.6 acres at the CEMEX site (6.6 acres for permanent impacts, 6.2 acres for temporary impacts, and an additional 1.8 acres that is not required but is proposed to benefit the overall restoration of the CEMEX site). Restoration at the CEMEX site would include re-

acreage for certain Project components and therefore the 43.5 acre total reflects the overlap that would need to be removed to avoid double-counting the same impact areas.

establishment, rehabilitation and enhancement of habitats through removal of existing sizeable invasive species populations, and reintroduction of native species indigenous to the dune habitat. The HMMP also requires long-term management activities to remove newly emerging invasive vegetation and protect and preserve the restored and existing native habitats. (See June 30 Letter to Commission, Att. A, p. 4.)

- Moreover, Cal-Am's proposed HMMP ensures that any impacts on the CEMEX site as a result of Project construction and operation will be mitigated to the maximum extent feasible. Implementation of the HMMP will result in the restoration of approximately 14.6 acres on the CEMEX site to its natural condition, the funding for which would not be secured in the absence of Cal-Am's Project and the HMMP.
- The Staff Report's suggestion that the HMMP proposes restoration in an area that is already expected to benefit from preservation is a significant overstatement of the Settlement Agreement.
 - The Settlement Agreement requires CEMEX to transfer title to a Commission-approved entity to either manage the property for conservation uses or use the property for allowable activities, such as the proposed Project. (Settlement Agreement, § 6.1.) The Settlement Agreement does not require the future purchaser to use or manage the property for ESHA preservation or restoration.
 - In addition, the restoration activities proposed in the HMMP would be located entirely in areas that are not identified for restoration under the Settlement Agreement or CEMEX's Reclamation Plan. The Settlement Agreement and Reclamation Plan require restoration activities in certain limited areas of the CEMEX site related to sand mining activities, but they do not require restoration activities across the entire 400-acre property. Both the Settlement Agreement and Reclamation Plan focus restoration activities on the southern portion of the CEMEX site in areas where recent sand mining activities have occurred. The HMMP, however, proposes permanent mitigation in the northern portion of the CEMEX site. Specifically, the HMMP notes that the northern portion of the CEMEX site "offers highly suitable multi-resource mitigation sites of varying sizes and does not overlap with areas that CEMEX is required to restore based on the CDO and Reclamation Plan prepared for the CEMEX plant consistent with the Surface Mining and Reclamation Act (SMARA) requirements." (HMMP, p. 4-1; see also HMMP, pp. 7-12, 7-26.) Therefore, the HMMP was specifically designed to provide for permanent restoration activities in areas of the CEMEX site that are in need of restoration that are not provided for in the CEMEX Settlement Agreement or Reclamation Plan. All of the HMMP work would result in benefits to habitat beyond those contemplated in the Settlement Agreement and Reclamation Plan. No restoration or enhancement of these areas is

otherwise proposed, required, or funded under the Settlement Agreement or Reclamation Plan.

- Therefore, Cal-Am's proposed use is entirely consistent with the Settlement Agreement's intent and would result in the restoration of area that would not otherwise be restored.

3. Slant Well Construction and Maintenance

- The Staff Report states that potential impacts from well construction and maintenance cannot be considered "temporary" because Cal-Am will need to conduct maintenance at the well sites every few years, which would result in "ongoing impacts" to approximately six acres and "ongoing disturbance during the expected recovery periods." (Staff Report, p. 37.)
 - Although Cal-Am anticipates having to conduct recommended maintenance at the well sites about every five years, staff misconstrues the potential impacts. While the Final EIR/EIS indicated that the disturbed area from well construction and ongoing maintenance would be 6 acres, the HMMP explained that this area has been reduced to 2.2 acres as a result of a smaller desalination project being approved by the CPUC and subsequent refinements to Project design. (HMMP, p. 3-11.) Therefore, the updated area of disturbance for construction (including staging) would be located within a 1.2-acre area already included in the 2.2 acres identified in the HMMP as an area of *permanent* impact. (See Applicant's Staff Report, Section IV.F.)
 - To mitigate for impacts to ESHA from well site construction and maintenance, the HMMP provides for approximately 6.6 acres of restoration for the 2.2 acres of potential permanent impacts at a 3:1 mitigation ratio. (Applicant's Staff Report, Section IV.F; see also June 30 Letter to Commission, Att. A, pp. 1, 10.)
- The Staff Report states that, in order to drill the well sites within the expected Project deadlines, Cal-Am would be required to perform construction work during western snowy plover breeding and nesting season. (Staff Report, p. 38.)
 - Staff ignores Cal-Am's June 30 Response on this exact issue. (See June 30 Letter to Commission, Att. A, pp. 4-5.)
 - The CPUC's Mitigation Monitoring and Reporting Program ("MMRP") limits how and when Cal-Am can perform Project work to minimize potential impacts to western snowy plover. Cal-Am cannot perform work during western snowy plover breeding season without first obtaining approval from the U.S. Fish and Wildlife Service ("USFWS") and subject to conditions. (See Final EIR/EIS, p. 4.6-175 [emphasis added]; CPUC Decision D.18-09-017, Appx. C, p. C-18; *id.*, Appx. D, pp. D-19 to D-21.) If Cal-Am applies for, and obtains, such approval, it is anticipated that USFWS would condition the construction or maintenance work to avoid or minimize impacts to western snowy plover.

- These measures included in the MMRP are similar to a Special Condition approved by the Commission for Cal-Am’s test slant well, which did not prohibit construction during western snowy plover breeding season, but rather imposed pre-construction and pre-disturbance survey requirements and protections for any work performed between February 28 and October 1. (See Final Adopted Findings, CDP App. No. 9-14-1735, Appeal No. A-3-MRA-14-0050 (Nov. 12, 2014), pp. 8, 13-15.)
 - Further, regardless of whether construction occurs during plover breeding season, slant well construction has been designed to “occur *outside* of western snowy plover critical habitat and **would not result in direct impacts on critical habitat.**” (Final EIR/EIS, p. 4.6-197 [emphasis added].)
- Cal-Am agrees with staff’s suggestion that impacts from disposing of well drilling spoils offsite would be *de minimis*. (Staff Report, pp. 38-39.) Any impacts would be negligible and do not create any new or more severe impacts in addition to those identified and mitigated in the Final EIR/EIS. (See June 30 Letter to Commission, Att. A, p. 6.)
- Staff asserts that “Cal-Am expects the [slant] wells to have operating lives of about 20 to 25 years,” and that the wells would be impacted by coastal erosion and dune recession. (Staff Report, p. 31.) As a result, staff claims that Cal-Am would need to relocate the wells, which would result in additional ESHA impacts. (*Id.*, p. 31; see also *id.*, pp. 37-38, 39-40.)
 - As explained in Sections IV.H and IV.F of the Applicant’s Staff Report, it would be total speculation to assess where or how Cal-Am would replace or relocate its wells after their 25-year operating life. For example, technological advancements over the next 25 years could enable the location of alternative wells in locations that are not feasible today, such as further away from the coast. Moreover, by the time Cal-Am needs to decommission the wells authorized by this permit, Cal-Am would need to apply to the Commission for authorization to replace or relocate the wells, and the Commission would need to consider whether the proposal would result in additional ESHA impacts based on the specific proposed well locations. These requirements are incorporated in Special Condition 9, under which Cal-Am must report to the Commission on the need for any replacement or relocation of the wells and apply for a CDP amendment should such actions be necessary, no later than 24 years from the commencement of operations, unless the Executive Director deems it unnecessary.

4. **Monterey One Water Outfall Clamp Replacement and Installation of Interior Lining**

- The Staff Report finds that the Monterey One Water outfall clamp replacement work required by the Final EIR/EIS would not conform to Marina’s LCP or Coastal Act section 30240. (Staff Report, pp. 43-44.) In particular, staff claims that Cal-Am would replace clamps during Western Snowy Plover season, and that clamp replacement work requires heavy equipment that would disturb half an acre of critical habitat for 6-8 weeks. (*Ibid.*)

- Staff ignores that the Final EIR/EIS analyzed the potential secondary impacts of the clamp replacement work. After identifying all feasible mitigation measures, the Final EIR/EIS concluded that potential impacts to ESHA from the clamp replacement work would be less than significant with mitigation. (Final EIR/EIS, p. 4.13-28 to 4.13-33; see also Applicant’s Staff Report, Section IV.F.)
 - As described in Cal-Am’s local CDP application, the work would be performed late in the snowy plover nesting season when eggs would have already hatched. Moreover, although the activities could temporarily disturb approximately a half acre between the dunes and the beach, beach access would remain open, except during extreme high tide events. Any clamp replacement materials and equipment placed on the beach would be removed by sunset each day that work occurs, with the exception of limited larger equipment for which daily removal would be impracticable. Finally, all accessways impacted by construction activities would be restored to pre-construction condition or better within 3 days of construction completion. (See Applicant’s Staff Report, Section IV.F.)
- Even if the Commission finds that the clamp replacement work is inconsistent with the habitat protection policies of Marina’s LCP and Coastal Act section 30240, the Commission may still approve the Project as a coastal-dependent industrial facility under Coastal Act section 30260. (See Applicant’s Staff Report, Sections IV.F, IV.P.)
- The Staff Report concludes that installation of the liner in the Monterey One Water outfall, as described in the Final EIR/EIS, would not conform to Coastal Act Section 30240 as a non-resource-dependent activity that would occur in ESHA. (Staff Report, p. 44.) In doing so, the Staff Report assumes the worst-case conditions for the outfall lining work, while ignoring the Final EIR/EIS’s analyses and mitigation measures for that work. (See Final EIR/EIS, pp. 4.13-33 to 4.13-36.)
 - Recognizing that the installation of the outfall liner could result in environmental impacts, the EIR/EIS evaluated the potential secondary impacts of lining the outfall. (Final EIR/EIS, pp. 4.13-33 to 4.13-36.) The Final EIR/EIS identifies all feasible mitigation measures, the implementation of which would reduce *each potential impact to less-than-significant levels*. (*Id.*, pp. 4.13-33-36.)
 - Nonetheless, to address staff’s concerns with potential impacts from the outfall lining work, Cal-Am has proposed an alternative approach that is as effective as the approach evaluated in the Final EIR/EIS and that would minimize or eliminate impacts to coastal resources and ESHA. (See Cal-Am’s August 17, 2020 Letter to Commission.) As staff correctly points out, this alternative “spray on” method for the outfall lining work “would be done almost entirely within the outfall and *would involve no ground disturbance within the coastal zone of the City [of Marina] or the County.*” (Staff Report, p. 45 [emphasis added]; see also Applicant’s Staff Report, Section IV.F.)

- The Staff Report correctly acknowledges that this new “spray-on” proposal “would appear to avoid any impacts related to ESHA and would avoid having the liner work cause a non-resource dependent use in ESHA.” (Staff Report, p. 45.) However, the Staff Report errs by concluding that Cal-Am has not demonstrated that this approach is “feasible,” because M1W has not chosen a final design or received the necessary permits for this work. (*Ibid.*)
 - The Coastal Act and CEQA both define “feasible” as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.” (See Pub. Resources Code, §§ 21061.1 [CEQA], 30108 [Coastal Act].) Staff identifies no evidence that suggests the proposed outfall lining work is not “capable of being accomplished in a successful manner within a reasonable period of time.” Further, while M1W’s August 17, 2020 technical memorandum regarding the spray liner proposal identifies that certain issues still need to be resolved before the spray lining work can proceed, M1W does not find the method proposed to be infeasible.
 - Staff takes inconsistent approaches to “feasibility” in its Staff Report. Staff (incorrectly) concludes that the PWM Expansion—which is without a certified EIR or any project approval and must address numerous environmental concerns that have been identified—is a “feasible” alternative to the Project. (See Staff Report, p. 4.) At the same time, the Staff Report provides no reasoning as to why the proposed outfall pipeline lining work is infeasible, despite the fact that Cal-Am has provided a detailed proposal, showing that the spray-lining work could be “accomplished in a successful manner within a reasonable period of time.” (See Pub. Resources Code, §§ 21061.1, 30108.) The Staff Report even concedes that it is possible the outfall lining work could be accomplished without *any* CDP from Monterey County, the City of Marina, or the Coastal Commission. (Staff Report, p. 112.)
- Proposed Special Condition 4 would require Cal-Am to implement the less impactful spray-on lining method prior to the commencement of Project operations or to obtain a CDP amendment or a new CDP should Cal-Am need to implement a different method to install the outfall liner. (Applicant’s Staff Report, Section IV.F.) Therefore, Special Condition 4 ensures that approval of the current CDP application will not result in any adverse impacts to ESHA from the installation of the outfall liner. (See *ibid.*)

5. Mitigation Measures & Mitigation Ratios

- The Staff Report assumes that all Project-related impacts that cannot be restored within 12 months are “greater than temporary” or permanent. (Staff Report, pp. 37, 38.) Under a definition of “temporary” that requires impacts to be restored within 12 months, staff concludes that Cal-Am has proposed insufficient mitigation acreage and that the mitigation ratio for temporary impacts should be increased. (*Ibid.*; see also *id.*, p. 46.)

- The Project's temporary impacts are construction impacts that can be fully restored to pre-disturbance conditions for most species following completion of construction, such as impacts from construction staging, laydown, trenching areas, and other work space that will not be occupied by permanent facilities during Project operation. Due to the proposed activities and the fact that restoration will begin concurrent with Project construction, sequencing work to ensure that impacts are temporally limited, these impacts are properly considered temporary instead of permanent. (See Applicant's Staff Report, Section IV.F.) The mitigation ratio proposed for temporary impacts is consistent the mitigation requirement included in the Final EIR/EIS. (Final EIR/EIS, p. 4.6-170.)
- The Staff Report asserts that Cal-Am's HMMP "involve[s] a number of uncertainties that make it difficult to evaluate potential mitigation success" and "proposes a number of measures that are not consistent with past Commission-approved mitigation plans." (Staff Report, p. 46.) Responses to staff's claims are provided below:
 - ***Timing and Funding for Mitigation.*** As explained in Section IV.F of the Applicant's Staff Report, because the CEMEX site has not yet been purchased by a Commission-approved entity, Cal-Am has proposed Special Condition 5 to address the uncertainty regarding the CEMEX site closure and subsequent transfer to a purchaser. Special Condition 5 requires Cal-Am, in consultation with the Executive Director, to prepare and submit a final plan that selects one of the proposed mitigation approaches for implementing the HMMP at the CEMEX site. Under any proposal, Special Condition 5 will provide certainty regarding the implementation of the HMMP, including funding mechanisms.
 - ***HMMP Reference Sites, Success Criteria, and Analysis Methods:*** The Staff Report notes concerns regarding the HMMP reference sites, success criteria, and analysis methods. The reference site and success criteria are consistent with those provided in the Final EIR/EIS. (See e.g. Final EIR/EIS pp, 4.6-177, 4.6-179, 4.6-181, 4.6-190, 4.6-219, and 4.6-220.) In addition, as provided in the HMMP "[p]roject impact areas will be surveyed for pre-Project/baseline data by the Biological Monitor or Restoration Ecologist before construction and the start of monitoring of mitigation sites in order to provide comparable sets of data by which the mitigation sites' performance will be assessed." (HMMP, p. 6-4.) Both qualitative and quantitative monitoring will occur. Quantitative monitoring will include "quantification of vegetation characteristics (e.g., native and non-native vegetation cover, species diversity, dominant species, target species cover and density) and collection of established viewpoint photographs." (*Ibid.*) The percent cover of native species will be estimated using a modified relevé method. (*Id.*) Accordingly, the HMMP is proposing reference site, success criteria, and analyses methods consistent with other habitat mitigation and monitoring plans.
 - ***Agricultural Runoff Management.*** The Staff Report states that the HMMP proposes to use agricultural runoff as part of its dune restoration. That is not accurate. In the *Monterey Peninsula Water Supply Project: CEMEX North Dunes – Agricultural Runoff Drainage System Observations and Options* prepared by

AECOM and dated August 19, 2020, AECOM provided additional information regarding the valley and agricultural runoff. As clarified in AECOM's memorandum, the HMMP proposes that the agricultural runoff into the dunes be discontinued, that all the invasive vegetation associated with the agricultural runoff be removed, and the entire dune area impacted by the agricultural runoff be restored with coastal dune habitat. AECOM notes that discontinuation or alternative management strategies for the agricultural runoff would occur as part of implementation of the HMMP. Because there is some uncertainty regarding the discontinuation or alternative management strategies for the agricultural runoff, Cal-Am has proposed Special Condition 6, which requires Cal-Am to submit a plan for Executive Director review and approval prior to permit issuance, which will detail the plan for the discontinuation or alternative management for the agricultural runoff. (See Applicant's Staff Report, Section IV.F.)

6. Consistency with Marina's LCP and Coastal Act Section 30240; Coastal Act Override Under Section 30260

- The Staff Report finds that the Project is not consistent with the Coastal Act and LCP provisions that require development in ESHA to be dependent on the protected habitat resources. (Staff Report, pp. 32, 34, 43.) Nonetheless, staff finds that the Project can be considered for approval under Coastal Act section 30260 as a coastal-dependent industrial facility. (*Id.*, pp. 32, 43, 47.)
 - The Project would conform to the Habitat Protection Policies in Marina's LCP, as supplemented by its consistency with the Coastal Dependent Development priorities in the LCP and Coastal Act section 30260, which allows for coastal-dependent industrial facilities like the Project to be approved despite any potential LCP inconsistencies. (See June 30 Letter to Commission, Att. A, p. 1.)
 - Although the Final EIR/EIS determined that the Project would be inconsistent with provisions of Marina's LCP and Coastal Act section 30240 regarding development in protected habitat resources, the CPUC adopted a robust MMRP to ensure the Project's potential impacts to ESHA are mitigated to the maximum extent feasible. (See Final EIR/EIS, Appx. D, pp. D-1 to D-58.)
 - Moreover, Cal-Am prepared a comprehensive HMMP addressing impacts to habitat within the Coastal Zone. The HMMP would ensure that the Project would not result in substantial adverse effects on sensitive natural communities in the Coastal Zone, including ESHA, during Project construction and operation. (See Applicant's Staff Report, Section IV.F.) Further, Cal-Am has proposed Special Conditions that require implementation of the HMMP and impose additional protections against potential impacts to ESHA. (See *ibid.*) With the implementation of the HMMP and proposed Special Conditions, potential impacts to ESHA would be mitigated to the maximum extent feasible. (See *ibid.*)
 - Cal-Am agrees with staff that the Commission may approve the Project notwithstanding potential inconsistencies with the habitat protection policies in

Marina's LCP and the Coastal Act under Coastal Act section 30260. As explained below in Section K of this Response, and in the Applicant's Staff Report, Section IV.P, the Project satisfies the three tests for approval of coastal-dependent industrial facilities.

B. Wetlands and Vernal Pond ESHA (Staff Report, pp. 48-53)

- The Staff Report concludes that there are “likely” impacts to vernal ponds from Cal-Am's pumping of groundwater and therefore the Project cannot be found consistent with the Coastal Act or LCP. (Staff Report, p. 53.)
 - The Staff Report's conclusion is not based on the totality of the evidence and instead entirely relies on information provided by the City of Marina. Specifically, the City of Marina's submittal argues that the Project's pumping of groundwater would result in groundwater drawdowns that would impact certain vernal ponds that the City of Marina claims are groundwater dependent ecosystems.
- The Staff Report fails to address the robust analysis submitted by Cal-Am regarding the vernal ponds, which demonstrates that the vernal ponds are unlikely to be impacted by the Project.
 - Geoscience and AECOM prepared a thorough analysis of the vernal ponds using available information, *Understanding the Influence of Subsurface Aquifer Drawdown Upon Surface Waters and Wetlands for the Proposed Monterey Peninsula Water Supply Project* dated August 18, 2020 (“Pond Memo”).
 - The Pond Memo provides a detailed assessment of the vernal ponds within the Project's drawdown area and concludes: 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. (Pond Memo, p. 35.) This conclusion is consistent with the Final EIR/EIS for the Project. (See Final EIR/EIS, pp. 8.5-688, 8.5-702.)
 - To reach its conclusion the Pond Memo evaluated existing monitoring wells, conducted water quality sampling, researched surface water conditions, examined historical aerial imagery, and reviewed previously prepared analyses regarding the ponds.
 - For six of the seven ponds at issue, the Pond Memo explains that urban development has substantially altered the existing functions of the ponds and that the main water source for those ponds is from surface water runoff, including storm water discharged from adjacent urbanized areas.
 - For the seventh pond, the Armstrong Ranch ponds, the Pond Memo explains that agricultural irrigation and historic use as a cattle pasture has affected the extent to which the ponds are groundwater dependent. The Pond Memo concludes that

surface water and rainfall are likely the source of water for the Armstrong Ranch ponds.

- The Pond Memo also notes that the Dune Sand Aquifer is directly connected to the ocean and reflects tidal changes. Accordingly, if any of the ponds were hydraulically connected to the Dune Sand Aquifer the pond surface water elevation would rise and fall with daily tidal fluctuations. None of the ponds show influence of tidal changes, which further supports that the ponds are not hydrologically connected to the Dune Sand Aquifer.
- The Staff Report disregards the comprehensive Adaptive Management Program proposed by Cal-Am.
 - While the Pond Memo concludes that the Project is not anticipated to adversely affect any vernal ponds, the Pond Memo nevertheless includes a comprehensive Adaptive Management Program whereby the ponds would continue to be evaluated prior to the commencement of Project operations, and that if it is determined that there would be impacts from Project pumping, the Adaptive Management Program requires implementation of wetland resiliency, enhancement, or restoration activities to ensure that there would be no adverse effects associated with the Project.
 - As proposed by Cal-Am at Special Condition 7, implementation of the Adaptive Management Program would occur in close coordination with Coastal Commission staff and all analysis would be required to be submitted to staff for review and approval. In addition, if wetland resiliency, enhancement, or restoration activities are necessary they would be reviewed by the Commission under a future permit amendment.
 - The Adaptive Management Program includes a three stage process:
 - Stage 1: consists of supplemental data collection and near-term monitoring that would include surveying all ponds, installing monitoring equipment, sampling water quality, evaluating the biological conditions, and conducting a historical review. Stage 1 would occur over a 12 month period to account for seasonal variation and would be completed prior to Project operations. Stage 1 would determine whether there is a connection between the ponds and the Dune Sand Aquifer.
 - Stage 2: if Stage 1 determines that there is a hydrological connection between the ponds and the Dune Sand Aquifer, Stage Two would evaluate the degree to which the Project's pumping would affect the ponds.
 - Stage 3: based on the results of Stage Two, Stage Three would require development of a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan that would require compensation for potential impacts based on specified standards. Resiliency, enhancement, and restoration

actions could include providing supplemental water, pond restoration or enhancements, on-site habitat restoration, or off-site restoration. The measures would entirely off-set all potential impacts.

- Therefore, based on the *Pond Memo and with the implementation of the Adaptive Management Program included as Special Condition 7, the Project would ensure that any impacts to the vernal ponds are mitigated to the maximum extent feasible.*

C. Coastal Hazards (Staff Report, pp. 54-61)

- The Staff Report confirms that the desalination facility and other Project components would be located outside of the coastal zone and away from any coastal hazards, but that the slant well field at the CEMEX site could be subject to coastal hazards and “the risk from these hazards would be expected to be relatively minor.” (Staff Report, pp. 55.) Cal-Am agrees.
- In particular, the Staff Report explains that the slant wells would avoid coastal hazards within their economic life of 20 to 25 years, and therefore would be consistent with the LCP’s coastal hazards provisions related to the expected economic life of the development. (Staff Report, pp. 58, 60.) Again, Cal-Am agrees that the slant wells will be safe from coastal hazards within their economic life, and likely would be for much longer.
- The Staff Report states that based on the technical memorandum prepared by the Commission’s coastal engineer that “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 test well site and other well sites would likely be at risk by 2120.” (Staff Report, p. 58.)
 - 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, pp. 57-58.) These conservative assumptions go beyond the most extreme scenarios proposed by the Commission’s most recent sea-level rise guidance. The analysis concluded that the slant wells (including the test slant well) would not be at risk from coastal erosion until near 2120. (June 30 Letter to Commission, Att. A, pp. 10-13.)
 - However, the Staff Report fails to account for *any* reduction in coastal erosion from the end of sand mining at the CEMEX site. (See, e.g., Staff Report, Exhibit 10, p. 3.) Staff’s refusal to assume any reduction of coastal retreat is not a reasonable approach, and staff does not provide any modeling or data to support its assumption. Even under staff’s approach, eliminating any and all reductions to coastal retreat from the cessation of sand mining, the Staff Report only identifies a

potential impact to the test slant well by 2060, years after the well's useful life of 20 to 25 years has passed. (Staff Report, p. 58.)

- In contrast, AECOM applied a reasonable and conservative 60 percent reduction in the historic coastal retreat rate to account for the cessation of sand mining activities at the CEMEX site, based on prior analysis of retreat reductions at other sand mine closure sites along the southern Monterey Bay coastline earlier in the 20th century, combined with a site-specific sand budget analysis. (June 30 Letter to Commission, Att. A, pp. 11-12.) This reduction is based in part on a study commissioned by the Office of Naval Research that assessed sand mining impacts on long-term dune erosion in southern Monterey Bay. (*Ibid.*) Moreover, when the Commission was considering the CEMEX Settlement Agreement in 2017, its own staff prepared a technical report stating, “[i]f sand mining from the CEMEX Pond were to stop, the rate of shoreline retreat and dune erosion within the SMB Littoral Cell would likely *reduce significantly*.” (See Exhibit 5 to Commission Staff Recommendations and Findings for CEMEX Closure, p. 2, attached to June 30 Letter to Commission as Exhibit 7, [emphasis added].) Indeed, improvements to shoreline change and reductions in erosion were precisely some of the factors contemplated in seeking the closure of the CEMEX sand mining operations. (June 30 Letter to Commission, Att. A, p. 12 [quoting and citing Commission Staff Recommendations and Findings for CEMEX Closure].) Thus, when using a reasonable estimation of reduction in coastal retreat, the slant wells (including the test slant well) are projected to be unaffected by coastal hazards until near 2120.
- The Staff Report also claims 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. 58.) However, as the Executive Director stated in his May 22, 2020 letter endorsing this new principle, the new principle is not a new sea level rise projection and is, in general, already 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 staff to evaluate the potential impacts for the project.⁴ Using those projections and recommendations, the slant wells will be unaffected by 3.5 feet of sea-level rise in 2050, and therefore the Project is consistent with the new state principle. AECOM provided a supplemental technical analysis 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 at 2050. (See August 13, 2020 Letter to Commission, Exhibit 4, p. 1.) Accordingly, the Staff Report's

⁴ Executive Director's Letter Endorsing "Making California's Coast Resilient to Sea Level Rise: Principles for Aligned State Action," (May 22, 2020), https://documents.coastal.ca.gov/assets/slr/CCCendorsement_SLRPrinciples.pdf.

suggestion that the principle represents a new heightened level of sea-level rise scrutiny or that the wells would be impacted under the new principle is incorrect.

- Despite these inaccuracies, the Staff Report concludes that the slant wells would be safe from coastal hazards for their economic life and would therefore be consistent with LCP and Coastal Act policies. (Staff Report, p. 61.)
- Even though the slant wells, including the test well, are not projected to be exposed to coastal hazards until near 2120, Mitigation Measure 4.2-10 conservatively requires Cal-Am to monitor and report the rate of coastal retreat to the Commission annually. (Final EIR/EIS, p. 4.2-72.) Beginning at least five years prior to anticipated slant well exposure, Cal-Am must take steps to remove the wells from service and abandon them. (*Ibid.*) Accordingly, even in the extremely unlikely event coastal erosion exceeds any of the extreme scenarios that have been analyzed, the wells would avoid coastal hazards and remain consistent with Coastal Act and LCP policies. (See Applicant Staff Report, Section IV.H.)
- Further, the Project has seven wells for reliability purposes, but only needs five to be operating in order to maintain the Project's permitted water deliveries. Thus, even in the event that the test slant well needs to be decommissioned early due to potential risks from coastal hazards, the Project could continue to supply water to the Monterey Peninsula. (June 30 Letter to Commission, Att. A, pp. 12-13, 14.)
- The Staff Report claims that AECOM did not assess risk from dune recession. (Staff Report, p. 59.) This is not so. On June 30, 2020, Cal-Am submitted a detailed technical memorandum prepared by AECOM analyzing expected dune recession at the site. (Staff Report, p. 60.)
 - The Commission's technical memorandum concedes that its own analysis of dune recession did not consider cessation of sand mining at the CEMEX site, did not include any modeling of the back profile of the dunes, and covered the potential for burial only in general terms. (Staff Report, Exhibit 10 p. 4.)
 - In contrast, AECOM's analysis specifically evaluated the various mechanisms involved in dune recession and concluded that just two of the seven wells could be affected by sand burial within 20 to 25 years. (Staff Report, p. 60; see also June 30 Letter to Commission, Exhibit 9.) The analysis also found that burial could be reduced or avoided through various soft measures. In the Applicant's Staff Report at Special Condition 8, Cal-Am is required to monitor and report annually on the risk of impacts to the wellheads from dune recession and wind-blown sand and if necessary, implement soft measures such as the removal of invasive non-native plants, revegetation of native plants, and sand removal. If additional measures become necessary, Cal-Am would be required to seek approval from the Commission and mitigate any potential impacts to ESHA.

- Regardless of Cal-Am's Special Condition, which conservatively ensures no potential coastal hazard impacts, the Staff Report independently concludes that the slant wells would be safe from dune recession and sand burial for their economic life and therefore consistent with LCP and Coastal Act policies. (Staff Report, p. 60.)
- The Staff Report also claims that because the operating/economic life of the slant wells is 20 to 25 years, Cal-Am would necessarily need to relocate the wells further inland and Cal-Am does not have legal interest in property further inland that would allow it to do so. (E.g., Staff Report, p. 60.) Accordingly, the Staff Report asserts that the wells' limited operating life raises concerns about whether Cal-Am would be able to operate its desalination facility after 20 to 25 years and that future movement of the wells would conflict with plans to restore the CEMEX site pursuant to the CEMEX Settlement Agreement. (*Ibid.*)
 - It is speculative to assess how or where Cal-Am may replace or relocate its wells after their operating life. Within the wells' operating period, technical advancements may be made that would allow the replacement of the wells or development of alternative wells in alternate locations that are not feasible today. Moreover, the future scope and use of the CEMEX site has not yet been determined. Thus, consideration of future well sites and operations beyond the wells' operating period is speculative. Moreover, as explained above, Mitigation Measure 4.2-10 and the Project's seven-well design ensure that wells can be decommissioned prior to being affected by coastal hazards, if necessary, while still allowing the Project to continue operations. (See Final EIR/EIS, p. 4.2-72; June 30 Letter to Commission, Att. A, pp. 12-13, 14.) Additionally, to ensure that the Project remains consistent with the LCP's coastal hazards provisions, Special Condition 9 requires Cal-Am to return to the Commission for a CDP amendment should there be a need to replace or relocate any slant wells, no later than 24 years from the commencement of operations, unless the Executive Director deems it unnecessary.
- Therefore, for the reasons explained herein the Project is consistent with the relevant coastal hazard Coastal Act and LCP policies.

D. Protection of Coastal Waters and Marine Resources (Staff Report, pp. 62-67)

- For the reasons discussed in the Applicant's Staff Report, the Project would not involve the placement of fill in coastal waters, and therefore, would not trigger Coastal Act Section 30233. As described therein, the work required for each Project aspect that Staff has identified is temporary in nature and limited in scope, and potential impacts to receiving coastal waters, if any, would be minimal. Furthermore, the Project and associated brine discharges would have minimal impacts on receiving coastal waters, which would be mitigated below a level of significance.
- The Staff Report alleges that outfall work would coincide with Western snowy plover breeding and nesting season. (See Staff Report, p. 66.) According to staff, the area of the

beach where work is required to replace existing clamps on the outfall is designated as critical habitat for the plover, and work would represent a significant disturbance during a critical period of the plover's life cycle. (*Ibid.*)

- This issue was addressed in detail in Cal-Am's June 30, 2020 Letter. (June 30 Letter to Commission, Att. A, pp. 4-5.) Further, as discussed in the Final EIR/EIS, installation of the WEKO seal clamps is designed to occur in *late summer/early fall*. This "[t]iming would [] be late in the snowy plover nesting season, when eggs would have hatched," which would minimize any adverse impacts that construction work would have on the snowy plover breeding and nesting cycle. (Final EIR/EIS, p. 4.13-28.) Additional information on this issue is provided in Attachment B, Section A, *supra*.
- The Staff Report contends that diffuser retrofit, buoy installation, and WEKO clamp replacement would each involve placing fill in coastal waters, thereby triggering Coastal Act Section 30233. (See Staff Report, p. 66.) As discussed below, staff wrongly characterizes these Project components as involving the placement of fill in coastal waters and fails to provide any support for its determination.
 - As an initial matter, aside from the replacement of existing WEKO seal clamps within the nearshore portion of the outfall with corrosion-resistant clamps, potential modifications to the M1W outfall to retrofit its existing diffuser are not part of Cal-Am's CDP application. Potential retrofitting would be addressed through a separate CDP application to be submitted by Monterey One Water, the owner of the outfall.
 - Although the Staff Report contends that the potential diffuser retrofit, the buoy installation, and WEKO seal clamp replacement would constitute "placing fill in coastal waters in the form of new or modified structures," staff does not provide any support whatsoever for this determination or attempt to explain its conclusion in any meaningful way. (See Staff Report, p. 66.) Staff also fails to address Cal-Am's assertions regarding this issue in Cal-Am's June 30 Letter, in which a comprehensive analysis is provided along with a review of relevant Commission precedent. (See June 30 Letter to Commission, Att. A, p. 19.)
 - **Diffuser Retrofit.** As the Staff Report correctly notes, retrofitting the diffuser is currently a "potential design change." (See Staff Report, p. 65.) Even if this design change were implemented, "[t]he impacts associated with the physical construction of such a retrofit would likely be minor and temporary." (Final EIR/EIS, p. 4.3-109.) Construction impacts would consist primarily of minor seabed disturbance and temporary water quality degradation. Even so, "[w]ater quality would rapidly return to ambient conditions following completion of the retrofit." (*Ibid.*) Likewise, any disturbance to benthic communities would be short in duration and of low intensity, such that the communities are anticipated to return to baseline conditions. (*Ibid.*) Accordingly, the Final EIR/EIS determined that secondary construction and operational impacts of diffuser retrofit were determined to be less than significant. (*Id.*, pp. 4.3-109 to 4.3-110.) In light of

the extremely limited and temporary ecological footprint that the diffuser retrofit would entail and the Staff Report's failure to identify any specific aspect of the work that might constitute "fill," there is no reasonable basis to conclude that the diffuser retrofit would trigger Coastal Act section 30233.

- ***Buoy Installation.*** The Staff Report ignores Cal-Am's June 30 Letter to the Commission on this issue, which confirms that the proposed monitoring equipment and buoys are not "fill" as contemplated by the Coastal Act. (See June 30 Letter to Commission, Att. A, p. 20.) As Cal-Am previously stated, the proposed monitoring equipment and telemetry buoy would be temporarily attached to the sea floor by an anchor. (See Monterey Peninsula Water Supply Project (MPWSP) Components in Commission's Original Jurisdiction (Sept. 19, 2019), p. 5.) "The proposed temporary equipment anchoring systems are static and would be less impactful to benthic resources than a typical fishing or research vessel mooring anchor." (*Ibid.*) Importantly, installation would be complete in a matter of hours, and impacts would be limited to temporary seabed disturbance. (*Ibid.*) As such, this minor temporary anchoring does not constitute "fill." (See June 30 Letter to Commission, Att. A, p. 20.) The Staff Report neither attempts to address these facts nor provides an independent justification for characterizing the buoy installation as "fill."
- ***WEKO Clamp Replacement.*** Staff wrongly states that WEKO clamp replacement constitutes "fill" in coastal waters. Without an explanation as to how Staff reaches this conclusion, it is unclear which aspect of the clamp replacement, if any, could trigger Coastal Act section 30233. According to Staff, installation activities would occur on the beach "and possibly within coastal waters." (See Staff Report, p. 66.) However, Staff has not identified which aspect of the installation work would involve the placement of "fill" in coastal waters. As the Final EIR/EIS asserts, "[c]onstruction work shall not be conducted seaward of the mean high water line unless tidal waters have receded from the authorized work areas." (Final EIR/EIS, p. 4.13-28.) Installation activities on the beach would be conducted at a distance of roughly 100 feet from the shoreline. Additionally, while in operation, construction vehicles will "remain as high on the upper beach as possible to avoid contact with ocean waters and intertidal areas." (*Id.*, p. 4.13-29.) All construction materials will either be removed by sunset each day that work occurs or stored beyond the reach of tidal waters. (*Ibid.*) Finally, all construction activities that result in discharge of materials, polluted runoff, or wastes to the beach of the adjacent marine environment will be prohibited. (*Ibid.*) Therefore, Staff has not demonstrated that WEKO clamp replacement would involve placing "fill" in coastal waters.
- The Staff Report alleges that is unclear at this time as to what effects the desalination plant would have on water quality and marine life and what measures would be needed to ensure Cal-Am's discharge meets relevant Ocean Plan objectives and that potential adverse effects are addressed. (See Staff Report, p. 65.)

- Staff has previously raised this issue and Cal-Am responded in its June 30 Letter. (See June 30 Letter to Commission, Att. A, pp. 16-18.) Cal-Am’s prior response to this issue, which Staff failed to address, is as follows:

“The Project’s potential effects on ocean water quality and marine life were analyzed in detail in the Final EIR/EIS. Specifically, Impact 4.3-5 assessed whether the Project’s operational brine discharge would violate water quality standards or waste discharge requirements, or degrade ocean water quality. (Final EIR/EIS, pp. 4.3-95 to 4.3-113.) As discussed therein, the Final EIR/EIS concluded that implementation of the Project could potentially cause exceedances of Ocean Plan water quality objectives for the ammonia and cyanide under certain operational conditions when wastewater volumes co-mingled with the brine are low. For an additional thirteen constituents, the Final EIR/EIS determined that there is not enough information to assess concentrations at the edge of the zone of initial dilution. Therefore, the Final EIR/EIS conservatively concluded that Ocean Plan water quality objectives could potentially be exceeded during operations for some operational discharge scenarios.

However, the Final EIR/EIS determined that Impact 4.3-5 would be less than significant with implementation of Mitigation Measure 4.3-5 (Implement Protocols to Avoid Exceeding Water Quality Objectives), which requires Cal-Am to perform an extensive water quality assessment prior to Project implementation. (Final EIR/EIS, p. 4.3-104.) Operational discharges that cannot be demonstrated to conform to the Ocean Plan water quality objectives may only be released following implementation of additional design features, engineering solutions, and/or operational measures that ensure compliance with these objectives.⁵ (*Id.*, p. 4.5-64.) In other words, **no exceedance of Ocean Plan objectives will occur because no discharges will be permitted unless the water quality assessment confirms that the discharges comply with the Ocean Plan.** The Commission did not comment on or object to Mitigation Measure 4.3-5 in its comments on the EIR/EIS.”

- Additionally, Impact 4.3-4 in the Final EIR/EIS considered whether the Project would violate water quality standards or waste discharge requirements or degrade water quality from increased salinity as a result of brine discharge from the operation of the desalination plant. In order to address this concern, the Final

⁵ The Final EIR/EIS also described the potential design features and operational measures that could be employed, such as retrofitting the existing outfall diffuser, additional pre-treatment of source water to the Desalination Plant component of the Project, treatment of discharge, flow augmentation, and end gate modification. (Final EIR/EIS, pp. 4.3-106 to 4.3-108.) The Final EIR/EIS also analyzed the potential secondary impacts of these potential design features and operational measures, and determined that those secondary impacts would be less than significant. (*Id.*, pp. 4.3-109 to 4.3-113.)

EIR/EIS imposes Mitigation Measures 4.3-4, which requires the applicant to implement a monitoring and reporting plan in order to ensure that operational discharges from the Project are in compliance with applicable Ocean Plan salinity standards. (Final EIR/EIS, p. 4.3-93.) The plan will be approved by the Regional Water Board and MBNMS *prior to* implementation. (*Ibid.*) Moreover, monitoring will be conducted for one year *prior to* the commencement of operational discharges and will continue until at least five years after operational discharges commence. (*Id.*, p. 4.3-94.)

- As discussed in the Final EIR/EIS, implementation of these mitigation measures would ensure that impacts relating to water quality standards, waste discharge requirements, or ocean water quality, as a result of brine discharges from the Project, would be **less than significant**. Accordingly the Final EIR/EIS has thoroughly examined the effects that the desalination plant would have on water quality and the measures needed to ensure Cal-Am's discharge meets relevant Ocean Plan objectives and minimizes potential adverse effects.
- As a further precaution, the Applicant's Staff Report includes a Special Condition to ensure that all applicable water quality standards are met. The condition requires that prior to operation of the Project, the Applicant must demonstrate that discharges from the outfall would comply with the Ocean Plan and applicable water quality requirements by demonstrating that:
 - (1) a Coastal Development Permit or Amendment has been obtained and implemented for any necessary work on the Monterey One Water outfall related to the project's discharge; and/or
 - (2) Permittee has implemented other measures consistent with Final EIR/EIS Mitigation Measure 4.3-5, as necessary, outside of the Commission's jurisdiction.
- Even if buoy installation or WEKO clamp replacement would involve placing "fill" in coastal waters, the Project would conform to Coastal Act section 30233. Pursuant to Coastal Act Section 30233, fill is allowed if it meets a three-part test: 1) that there is no feasible less environmentally damaging alternative, 2) that feasible mitigation measures have been provided to minimize adverse environmental effects, 3) and that it be for certain specified purposes, including a new or expanded port, energy, or coastal-dependent industrial facility. Contrary to Staff's contention, there is no feasible or less environmentally damaging alternative project, all feasible mitigation has been identified and imposed, and these Project aspects would be used for a coastal-dependent industrial facility. (See Staff Report, p. 66.)
 - As an initial matter, even if the Project components that are the subject of these applications did involve fill, which they do not, the Commission's authority under Section 30233 would be limited to review of alternatives to those Project components within the Commission's jurisdiction that do involve fill, rather than wholesale alternatives to the entire Project. Even so, as discussed in Section J,

infra, at this time, there is no feasible or less environmentally damaging alternative project.

- Likewise, as discussed in Section K, *infra*, the Project has identified and imposed all feasible mitigation.
- Finally, the Project aspects would be used for certain specified purposes in support of a coastal-dependent industrial facility.

E. Groundwater Resources (Staff Report, pp. 68-73)

- Commission staff’s analysis of the Project’s potential groundwater impacts are not tied to Coastal Act Section 30231 as required. Section 30231 provides that biological productivity and water quality must be maintained through “preventing depletion of ground water supplies.” (Pub. Resources Code, § 30231.) However, staff’s evaluation focuses on the Project’s potential public welfare impacts vis-à-vis groundwater—not the Project’s potential environmental impacts to groundwater supplies in the Salinas Valley Groundwater Basin. While the Staff Report includes language confirming that “[a]lthough some commenters have expressed concern that the Project would adversely affect the water supply wells of Marina Coast Water District, . . . neither the Final EIR/EIS nor the Commission’s independent hydrogeologist found evidence that such impacts are reasonably foreseeable” (Staff Report, p. 68), such a finding should be the basis of a conclusion that the Project is consistent with Coastal Act Section 30231. As described in the Applicant’s Staff Report and throughout this Section, the Project will not adversely affect groundwater supplies in the SVGB and therefore is consistent with Coastal Act Section 30231.

1. MCWD Production Wells

- Project pumping will not adversely affect MCWD’s water supply wells. The Staff Report recognizes that “neither the Final EIR/EIS nor the Commission’s independent hydrogeologist found evidence that [impacts to MCWD water supply wells] are reasonably foreseeable.” (Staff Report, p. 68.) However, Cal-Am disagrees with staff’s suggestion that “additional modeling and data may be needed to more fully characterize the Project’s likely effects on groundwater.” (*Ibid.*) Because ***the EIR/EIS, the HWG, State Water Resources Control Board, and the Commission’s independent hydrogeologist agree that groundwater impacts to MCWD’s production wells are not reasonably foreseeable***, no further modeling is necessary. (See also Applicant’s Staff Report, Section IV.J.) Notably, the only hydrogeologists claiming impacts to MCWD’s wells are MCWD’s paid consultants, and those claims are unsubstantiated and based on flawed or limited technical analysis.

2. Ocean Water Percentage (“OWP”) and Groundwater Gradients

- Staff asserts that the modeling performed by its independent hydrogeologist, Weiss Associates (“Weiss”), shows the Project pumping would not reach the long-term OWP of 96-99% identified in the Final EIR/EIS, but rather that the OWP “would vary based on

whether it was a wet or dry season, how much irrigation occurred, etc.” (Staff Report, p. 71.) Staff further asserts that the EIR/EIS’s modeling “did not include this recharge component,” rendering the EIR/EIS’s projected OWP ranges inaccurate. (*Ibid.*)

- Staff misrepresents the Final EIR/EIS’s and Weiss’s OWP analyses and conclusions—all of which support an estimated OWP range of 87-99% under realistic, reasonable assumptions.
 - The EIR/EIS’s modeling resulted in OWP ranging from 83-99% across the short- and long-term. (See Final EIR/EIS, Appx. H to Appx. E3, p. 11.) However, the EIR/EIS discounted the low bookend of the OWP range (83% after year 1 and 86% after year 2) because the results assumed a groundwater gradient not actually representative of the local conditions. (See *ibid.*; see also Final EIR/EIS, p. 8.2-44.) Using reasonable assumptions based on actual data, the EIR/EIS estimated OWP after one year of Project pumping to be 87 to 93%. (Final EIR/EIS, p. 4.4-56.) After two years of Project pumping, the OWP estimate increases to 92-97%. (*Ibid.*) Long-term equilibrium OWP would ultimately fall between 96-99%. (*Ibid.*) Thus, the EIR/EIS’s estimated OWP ranges are consistent with Weiss’s predicted ranges of 86-97% under reasonable modeling scenarios.
- Further, the EIR/EIS modeling did account for rainfall recharge and used reasonable rainfall recharge assumptions (5 in./yr.). (See Final EIR/EIS, Appx. E3, p. 65 [explaining that “seasonal changes in rainfall will result in a non-steady (i.e., fluctuating) increase in salinity from year-to-year, with some higher rainfall years showing a decrease in salinity and some lower rainfall years showing an increase in salinity.”]; *id.*, Appx. E3, p. 13 [“long term OWP is most influenced by net amount of recharge that occurs within the capture [zone].”].)
 - Average annual rainfall for the area is 14.8 inches, but only a fraction of total annual rainfall actually becomes groundwater recharge—typically 30%. (See HWG Comments on Weiss Report (Aug. 13, 2020), p. 4.)
 - In its July 2020 report (“2020 Weiss Report”), Weiss unrealistically assumed groundwater 100% recharge resulting from precipitation of 10 to 15 inches per year in its modeling scenarios, resulting in OWP ranging from 63% to 68% (assuming a flat gradient in the 180-Foot Aquifer), and from 69% to 96% (assuming landward gradient in the 180-Foot Aquifer). (See 2020 Weiss Report, Tables 2-2b.)
 - Even if the modeling used a conservation assumption in which recharge resulting from precipitation is less than 50% of average annual total rainfall, which is still much higher than the 30% recharge rate typically assumed in modeling, the resulting OWP ranges from 88-99%, consistent with the EIR/EIS’s analyses. (HWG Comments on Weiss Report, p. 3; see also Final EIR/EIS, p. 4.4-56 [OWP ranges from 87-99%].)

- Although the 2020 Weiss Report uses unrealistic groundwater recharge amounts in certain scenarios, the Report nonetheless confirms that, with realistic rainfall recharge assumptions, the OWP amounts projected in the EIR/EIS are accurate. Therefore, the Project will not extract greater amounts of seawater than initially projected in the EIR/EIS. (See also Applicant’s Staff Report, Section IV.J.) As the HWG confirms, there is “no need to further refine estimates of OWP within [this] range.” (HWG Comments on Weiss Report, p. 2.) Moreover, even if the Project’s source water has a greater OWP than the EIR/EIS predicted, that would not be an environmental impact. (See Final EIR/EIS, p. 8.2-13; see also June 30 Letter to Commission, Att. A, p. 29.)
- The Staff Report states that the 2020 Weiss Report “concluded that the amount of seawater extracted would vary due to the direction and slope of the groundwater gradient.” (Staff Report, p. 71.) The Staff Report acknowledges that current gradients are landward, but then assumes a flat or seaward gradient “could be developed through the implementation of the Salinas Valley Groundwater Management Plan.” (*Ibid.*)
 - As explained in Applicant’s Staff Report, Section IV.J, ***OWP will likely exceed 88% even assuming a seaward gradient in the Dune Sand Aquifer***, using reasonable assumptions for other model inputs. (See also HWG Comments on Weiss Report, p. 3.) The HWG explained that the 2020 Weiss Report demonstrates that “[a]ssumed seaward gradients in the Dune Sand Aquifer **do not result in any significant difference** in OWP results.” (*Id.*, p. 1 [emphasis added]; see also *id.*, p. 3 [“OWP exceeds 88% for the assumed seaward gradient in the DSA using reasonable assumptions for other model inputs (e.g., landward gradient in the 180-Foot Aquifer, which represents current, historical, and projected future conditions; rainfall recharge that is less than 50% of average annual total rainfall).”].)
 - In reviewing the 2020 Weiss Report, the HWG explained that “[t]he only OWP estimate less than 88% required unreasonable/unsubstantiated rainfall recharge over the long-term or flat/seaward hydraulic gradients in the 180-Foot Aquifer (an unrealistic future conditions assumption that is not consistent with the GSP) that would require decades to centuries to reduce OWP.” (*Id.*, p. 3.)
 - The Sustainable Groundwater Management Act (“SGMA”) does not require seaward gradients. (See *id.*, p. 9.) “SGMA requires that the extent and magnitude of seawater intrusion not be exacerbated compared to current conditions, but does not require that existing seawater intrusion be mitigated/restored.” (*Ibid.*)
 - In fact, the Staff Report correctly recognizes that “***even with a flat or shoreward gradient, . . . it could take several decades to increase the percentage of non-seawater, due to the large volumes of seawater that have already intruded to inland areas.***” (Staff Report, p. 71 [emphasis added].) The 2020 Weiss Report confirms:

Assuming that SGMA could create a flat gradient or even a pronounced seaward gradient, for the initial decades after this condition is achieved the Project pumping wells would capture the existing saline water in the 180-Foot Aquifer . . . and OWP would likely be at or close to the 92.7 baseline value. After many decades or a few centuries when the 180-Foot Aquifer becomes filled with fresh water, this water would flow out to sea under non-pumping conditions, or would be captured by the Pumping well field if operating. Only under these conditions would the 74.9 OWP occur.

(2020 Weiss Report, p. 4-4.) Until all the seawater is flushed from the 180-Foot Aquifer, “the Pumping well field would be capturing all of the saline water currently in storage in the 180-Foot Aquifer, resulting in average OWP ***greater than 91.5.***” (*Id.*, pp. 5-1 to 5-2 [emphasis added].)

- The 2020 Weiss Report further explains that the existing landward gradient, caused by historic inland groundwater pumping, “is quite steep and has been for more than 60 to 80 years. ***It is highly unlikely that a similarly steep seaward gradient could be achieved under SGMA.***” (2020 Weiss Report, p. 4-4 fn. 7 [emphasis added].)

Thus, “it would take more than 80 years to reverse seawater intrusion impacts after a seaward gradient is achieved.” (HWG Comments on Weiss Report, p. 3.) Even assuming a seaward gradient is achieved in the 180-Foot Aquifer by 2040 as a result of SGMA (which Weiss confirms is highly unlikely), the 70.8% estimated OWP would not be reached until after 2120 *at the earliest*. (See *ibid.*)

3. Vernal Ponds

- The Staff Report states that the 2020 Weiss Report identified areas of expected groundwater drawdown beneath nearby wetland and vernal pond areas. (Staff Report, p. 71.) “[T]his represents a previously unknown and unanalyzed potential impact of the proposed Project that could result in the spatial and/or temporal loss of up to several dozen acres of those wetland areas.” (*Ibid.*)
 - As explained in Applicant’s Staff Report, Section IV.G, and Section B, *supra*, vernal ponds are not likely to be hydrologically connected to the Dune Sand Aquifer from which the Project will pump water, and there is no technical justification for assuming a connection between Project pumping, groundwater in the Dune Sand Aquifer, and vernal ponds in the Project vicinity. Although the vernal ponds are unlikely to be affected by Project pumping, Cal-Am has nonetheless proposed an Adaptive Management Program that would include ongoing monitoring and evaluation of the ponds to determine conclusively that the ponds are hydrologically disconnected to the Dune Sand Aquifer, or to what extent Project pumping might affect the ponds, and Cal-Am has proposed to

mitigate and/or offset any potential adverse effects to the ponds should Project-related impacts be identified through the Adaptive Management Program.

4. Return Water Settlement Agreement

- Staff asserts that the Return Water Settlement Agreement contemplates that Cal-Am would return “no more than about 700 acre-feet of water per year.” (Staff Report, p. 72.) However, “during years with higher precipitation rates, lower inland pumping rates, or other reasonably foreseeable conditions, Cal-Am would need to return up to 2,100 acre-feet per year.” (*Ibid.*)
 - It is unclear which OWP estimate on which staff relies to yield a return water calculation of 2,100 afy. However, as explained in Applicant’s Staff Report, Section IV.J, and above, the 2020 Weiss Report confirmed the EIR/EIS’s conclusions that, under reasonable and realistic assumptions, OWP would range from 88-99%. (See also Final EIR/EIS, p. 4.4-56.) These OWP estimates formed the basis of the CPUC’s approval of the Return Water Settlement Agreement, in which the parties agreed to an expected return water obligation of approximately 700 afy at a cost of \$110 per acre-foot. (See CPUC Decision D.18-09-017, p. 109.) If the return water calculations for a particular year are less than the expected approximately 700 afy, then Cal-Am will make additional water available to Castroville for purchase at a cost of \$580 per acre-foot. (*Ibid.*) If the return water obligation exceeds the approximately 700 af in a particular year, then Cal-Am will make the surplus available for delivery to the Castroville Seawater Intrusion Project. (*Ibid.*)
- The Staff Report concludes that, if Cal-Am’s return water obligations are higher than expected, the “return” water would be subsidized by Cal-Am’s ratepayers or would result in additional costs to Cal-Am that it may cover through additional cost recovery requests to the CPUC. (Staff Report, p. 72.) “That subsidy . . . could range from about \$3,000 to \$5,000 per acre-foot.” (*Ibid.*) “Presumably, this higher return water volume would also reduce the water Cal-Am and its customers would be able to use for future growth.” (*Id.*, p. 73.)
 - The Staff Report’s misunderstands the CPUC’s decision on the Project, where the CPUC specifically considered limiting risk to Cal-Am’s ratepayers from Cal-Am’s return water obligations under the Return Water Settlement Agreement. Specifically, the CPUC allocated the costs and risks associated with the high Return Water obligations to Cal-Am, not on ratepayers. (CPUC Decision D.18-09-017, p. 111; see also Applicant’s Staff Report, Sections IV.J, IV.N.)
 - 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.” (CPUC Decision D.18-09-017, p. 138.) 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 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 “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.*) Thus, the CPUC has mechanisms in place to ensure that Cal-Am ratepayers are receiving the water they need and not subsidizing Cal-Am’s return water obligations.

- In addition, 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 SVGB, which would come with its own additional costs. (See Applicant’s Staff Report, Sections IV.J, IV.N.) The Return Water Settlement Agreement allows Cal-Am to meet the requirements of the Agency Act, provides a potable water supply to a disadvantaged community, and protects the Salinas Valley Groundwater Basin by alleviating a current pumping stress ahead of the seawater intrusion front.
- Further, regardless of the cost per acre-foot, that cost is not going to affect the cost for the Project on customers’ water bills. The CPUC already determined the rate increase for Cal-Am’s customers for the Project based on both the capital costs to build the facility and the cost of long-term operations and maintenance. As such, how much water the Project produces (or does not produce) is not a material variable in rates that customers are charged, except for minor, incremental operating and maintenance costs. Thus, if Cal-Am needs to produce more water in order to meet its return water obligations, it can do so without adding to the Project’s fixed costs. (See Applicant’s Staff Report, Section IV.O.3.)

5. Relocation of the Project’s Slant Well Network

- In response to comments regarding the relocation of the existing well network, the Staff Report recognizes that current drilling technology “generally limits [well installation] to a maximum length of several hundred feet.” (Staff Report, p. 73.) Further, the Staff Report explains the Project’s well network cannot be located closer to the shoreline because it would increase the risks from coastal erosion and sea level rise. (*Ibid.*)
 - For the reasons explained in Applicant’s Staff Report, Section IV.J, Cal-Am agrees with staff’s determination that the proposed location for the slant wells is the environmentally superior design to maximize seawater capture and protect

against further inland migration of seawater in the Project area, and at the same time minimize capture of seawater intruded contaminated groundwater.

F. Energy Consumption & Climate Change (Staff Report, pp. 74-77)

- 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. 77.) Cal-Am agrees with Commission Staff's determinations.
- The Staff Report bases its conclusion by citing to data for the larger project that was analyzed in the Final EIR/EIS, not Alternative 5a, which was the reduced project alternative ultimately approved by the CPUC. To clarify the record, Alternative 5a (the Project for which Cal-Am applied to the Commission) would reduce emissions and energy use as follows:
 - As part of Alternative 5a, operational electricity use for the intake and desalination plant would be reduced to 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 (based on the 11,466 megawatt hour baseline used in the Final EIR/EIS). (See Final EIR/EIS, pp. 4.11-12, 5.5-341.)
- As 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. 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. Based on the loading order, Cal-Am is most likely to purchase renewable energy since it is a less expensive option than purchasing and retiring carbon offsets.
- However, the Staff Report also concludes that the PWM Expansion is a feasible alternative that would use less energy than the Project. The Staff Report notes that the PWM Expansion is proposed to operate entirely on renewable energy as opposed to Cal-Am's mitigation measure that proposes to use renewable energy, purchase emission credits, or a combination of both.
 - The Staff Report's statements that the PWM Expansion would operate entirely on renewable energy are in question. As discussed in Section J, *infra*, the PWM Expansion's proposal to use landfill gas for its energy use is facing obstacles. Therefore, the PWM Expansion's ultimate GHG impacts are not currently known.
 - The Staff Report also cites to *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal.App.5th 467 ("*Golden Door II*") to contend that Mitigation

Measure 4.11-1's allowance of offsets and carbon credits "does not necessarily result in real, permanent, verifiable, and enforceable greenhouse gas emissions." (Staff Report, p. 77.) Therefore, the Staff Report concludes that if Cal-Am does not operate entirely on renewable energy, "it would result in higher GHG emissions than the" PWM Expansion. This misconstrues the holding of *Golden Door II* and Mitigation Measure 4.11-1's requirements.

- *Golden Door II* expressly states that the "decision is not intended to be, and should not be construed as, blanket prohibition on using carbon offsets—even those originating outside of California—to mitigate GHG emissions under CEQA," contrary to the Staff Report's suggestion. (*Golden Door II*, *supra*, 50 Cal.App.5th at p. 483.) In addition, Mitigation Measure 4.11-1 does not contain the same flaws as *Golden Door II*'s measure, which impermissibly deferred mitigation by failing to include specific, objective, or enforceable performance standards to ensure offsets actually occurred. In fact, the Staff Report does not point to anything in Mitigation Measure 4.11-1 to suggest that the offsets will not occur. Indeed, Mitigation Measure 4.11-1 contains other performance standards to ensure that mitigation of GHG emissions occurs. Mitigation Measure 4.11-1 requires Cal-Am to submit documentation annually to the "CPUC demonstrating that the project's operational electricity use in the immediately preceding calendar year resulted in net zero GHG emissions." (Final EIR/EIS, p. 4.11-20.) Should the CPUC determine that Cal-Am has not achieved net zero GHG emissions, the CPUC will provide to Cal-Am a notice to procure, submit, and retire offsets in an amount at least equivalent to the exceedance. (*Id.*, p. 4.11-21.) The *Golden Door II* measure was overturned in part because it contained no such requirements for demonstrating that net zero GHG emissions were achieved or any enforcement mechanisms for the County of San Diego to ensure that mitigation was actualized. Accordingly, the Staff Report's contention that Cal-Am would result in higher GHG emissions than the PWM Expansion simply because it may involve the purchase and retirement of offsets is without merit.
- Further, as Section J, *infra*, explains, the PWM Expansion is infeasible, and should not be considered as an alternative to the Project. Accordingly, comparing the Project's energy consumption to the PWM Expansion is unnecessary.

G. Public Access and Recreation (Staff Report, pp. 78-82)

- The Staff Report concludes that the Project's impacts on public access and recreation could be consistent with Coastal Act and LCP public access and recreation policies with the implementation of special conditions. (Staff Report, pp. 80-81.) Cal-Am believes that any public access and recreation impacts are *de minimis*, but as part of the Applicant's Staff Report proposed Special Condition 10, which requires the preparation of a Public Access Plan to ensure consistency with the applicable Coastal Act and LCP policies.

1. Public Access and Recreation During Construction

- The Staff Report acknowledges that construction activities to develop the well field and pipeline in the Coastal Zone would occur hundreds of feet from the shoreline and “would have little, if any, effect on public access or recreational use.” (Staff Report, p. 80.)
- However, the Staff Report suggests that impacts related to the replacement of clamps on the outfall line as well as installation of the outfall liner could impact public access and recreation. (*Ibid.*)
 - Impacts related to clamp replacement would be temporary and would only occur over a 6 to 8 week period. Lateral beach access would remain open during the 6 to 8 week period and the Final EIR/EIS includes a mitigation measure to ensure that impacts from the clamp replacement would be less than significant. (Final EIR/EIS Mitigation Measure 4.13-5.) Nonetheless, Cal-Am proposes Special Condition 10 to further ensure that there are no public access and recreation impacts.
 - Regarding the outfall liner, Cal-Am has proposed an alternative approach to the outfall liner that would maintain the existing M1W outfall pipeline and avoid groundbreaking and impacts within the Coastal Zone. Specifically, Cal-Am has proposed excavating a single access point to the pipeline outside of the Coastal Zone and manually applying a protective spray liner throughout the pipeline’s interior from the access point to the beach junction box. As a result of this change it would no longer be necessary for Cal-Am to excavate, open, and install a new physical liner in the pipeline at ten locations along the M1W right-of-way and no above grade work would occur within the Coastal Zone. Accordingly, the new design of the outfall liner would entirely avoid any potential public access impacts within the Coastal Zone. Special Condition 4 requires Cal-Am to implement the proposed spray-lining method prior to the commencement of Project operations or to obtain an amendment to this CDP or a new CDP should Cal-Am need to implement a different method to install the outfall liner.
- Cal-Am agrees with the Staff Report’s conclusion that Project construction would be consistent with the LCP and Coastal Act policies, and believes that proposed Special Conditions 4 and 10 further will ensure that consistency.

2. Public Access and Recreation During Operations

- The Staff Report states that “[p]roject operations ... would not cause public access or recreation impacts compared to currently existing conditions.” (Staff Report, p. 80.) Cal-Am agrees. However, the Staff Report claims 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. 80.)

- To begin, 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 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 [every five years] for maintenance, and result in use of vehicles and other equipment over an approximately 6 acre area over time.” (Staff Report, p. 81; 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 reduced to 2.2 acres as a result of selecting the smaller desalination project and subsequent design drawings. (See Section A.) For context, the half-acre footprint would occupy only 0.12 percent of the 400+ acre CEMEX site at any one time.
- Nevertheless, the Staff Report’s claim improperly relies on a future baseline. The proper baseline is existing conditions. (See *Neighbors for Smart Rail v. Exposition Metro Line Construction Auth.* (2013) 57 Cal.4th 439, 447; CEQA Guidelines, § 15125.) Staff’s post-restoration baseline is improper because final removal of CEMEX buildings and facilities is not required until December 31, 2024, with an additional year—until December 31, 2025—to complete grading and seeding. (Final EIR/EIS, p. 8.2-122.) A restoration and access plan associated with the transfer in title of the CEMEX site to a purchaser could come even later and the scope of such a plan is unknown. (See Settlement Agreement, § 6 [providing only general requirements for use of site].) Staff provides no support for its reliance on conditions more than five years in the future as a baseline for Cal-Am’s CDP. The Project should properly be evaluated against existing conditions which provide no public access.
- The Staff Report incorrectly claims that the six acres that would be occupied or disturbed over the Project’s lifetime, could otherwise be used for public access. (Staff Report, p. 81.)
 - To begin, as explained above, the previously estimated six acres of disturbance has been reduced to 2.2. acres as a result of selecting the smaller desalination project and subsequent design drawings.
 - Further, 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, 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. (Settlement Agreement, §§ 6.2.D.1, 23.2.) Cal-Am’s easement would remain even with implementation of a future restoration and access plan.

- Therefore, to suggest that the acreage used for the Project (approximately 2.2 acres) would otherwise be used for public access misstates the Settlement Agreement.
- Although the Project would not impact public access and recreation resources, Cal-Am has proposed Special Condition 10, which provides for a Public Access Plan for both construction and operations. Notably, the Public Access Plan commits Cal-Am to modify the Public Access Plan as required by the Executive Director in light of any future restoration and access plan prepared pursuant to the CEMEX Settlement Agreement. Therefore, the Project is consistent with relevant Coastal Act and LCP policies regarding public access, and would not interfere with the CEMEX Settlement Agreement.

H. Visual Resources (Staff Report, pp. 83-85)

- 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. 83-84.)
- The Staff Report further concludes that the Project's impacts on visual resources could conform with LCP and Coastal Act visual resources policies if the Commission were to impose special conditions on the Project. (Staff Report, p. 84.)
- In the Applicant's Staff Report, Cal-Am has proposed Special Conditions 11 and 12 to address staff's visual resources concerns. Special Condition 11 requires implementation of a Facility Design and Screening Plan and Special Condition 12 requires implementation of a Lighting Plan. Implementation of these two plans will ensure that the Project is consistent with applicable LCP and Coastal Act visual resources policies.

I. Environmental Justice (Staff Report, pp. 86-101)

- The Staff Report downplays the potential Project benefits to Castroville, a community of concern, and the Monterey Peninsula as a whole. (See Staff Report, pp. 90-91.)
 - As described in the Applicant's Staff Report, the Project will not only provide water supplies to Castroville, a particularly underserved community, but will also protect the Peninsula's groundwater supplies from seawater intrusion and provide a reliable drought-proof water supply for economic growth and much-needed affordable housing and residential development. (See Applicant's Staff Report, Sections IV.J, IV.N, IV.P.)
 - Not only would the Project benefit the SVGB by withdrawing seawater from the seawater intruded aquifers of the SVGB and preventing further seawater intrusion from migrating inland (see Applicant's Staff Report, Section IV.J; see also Final EIR/EIS, pp. 8.5-562, 8.5-615), but also the Project would provide much needed protections to the Seaside Groundwater Basin. The Project would enable the Seaside Basin to maintain the necessary groundwater levels to prevent seawater

intrusion and the irreversible loss of groundwater storage. (See Applicant's Staff Report, Section IV.P; see also October 4, 2019 Seaside Groundwater Basin Watermaster Letter to Commission.)

- In the absence of the Project, the region would remain in a state of water poverty and would not experience the economic benefits that the Project would enable. (See Applicant's Staff Report, Section IV.P.)
 - For instance, construction of the Project is anticipated to generate \$258.5 million in one-time economic impacts and support 1,762 job years in Monterey County over the anticipated development timeline. (See Economic & Planning Systems Letter to California-American Water (Aug. 31, 2020), p. 4, attached as Exhibit 31 to Applicant's Staff Report.)
 - Further, the Project could provide sufficient water for the State Water Board to lift the moratorium and for the Monterey Peninsula to meet its housing goals. In particular, the proposed Project could promote the buildout of necessary affordable housing on the Peninsula, as dictated by the RHNA for the Monterey Bay Area. (See June 30 Letter to Commission, Ex. 28, pp. 9-11; see also Applicant's Staff Report, Section IV.P.)
- The Staff Report substantially overstates the Project's potential impacts to Marina, stating that Marina already has "a disproportionate amount of nearby industrial development" and would be further adversely affected by the Project's slant well field located on the CEMEX site. (Staff Report, p. 89) In particular, staff suggests that Marina residents would be burdened by the Project's potential impacts to public access, vernal ponds, and groundwater.⁶ (*Id.*, pp. 89-90.)
 - As an initial matter, much of the industrial development that staff represents to be in Marina is not, in fact, within city limits. Figure 1 of the Staff Report shows that, although Marina is near a regional landfill, regional composting facility, and regional sewage plant, this industrial development is located outside of Marina's boundaries. (See Staff Report, p. 100; see also Applicant's Staff Report, Section IV.N.) Further, although Fort Ord is a contaminated site, Marina is actively working to develop the area with housing. (See Applicant's Staff Report, Section IV.N.)
 - Moreover, the Project's impacts to public access and wetlands within Marina are expected to be minimal.

⁶ Further, staff's evaluation of the Project's potential environmental justice impacts outside of the Coastal Zone exceeds the Commission's jurisdiction. (See *Sierra Club v. Cal. Coastal Com.*, 35 Cal.4th 839, 851-52.) Staff's consideration of environmental justice impacts should be limited to potential impacts within the Coastal Zone, consistent with staff's consideration of other Coastal Act and LCP policies in its Staff Report.

- **Public Access.** The Project’s slant wells would involve the permanent development on only 0.25 acres of the approximately 400-acre CEMEX site (0.06 percent). (See Applicant’s Staff Report, Sections IV.L, IV.N.) Further, Cal-Am has proposed Special Condition 10 to minimize potential impacts to public access. (See *id.*, Section IV.L.)
- **Vernal Ponds.** Based on the available evidence submitted to the Commission, any vernal ponds are unlikely to be hydrologically connected to the Dune Sand Aquifer from which the Project will pump water. (See Applicant’s Staff Report, Section IV.G.) Thus, those ponds are unlikely to be affected by Project pumping. Nonetheless, Cal-Am has proposed an Adaptive Management Program that would include ongoing monitoring and evaluation of the ponds to confirm whether the ponds are hydrologically connected to the Dune Sand Aquifer, to what extent Project pumping might affect the ponds and to mitigate and/or offset for any potential adverse effects to the ponds should potential impacts be identified through the Adaptive Management Program. (See *ibid.*)
- Finally, the Final EIR/EIS, the Commission’s independent hydrogeologist, the HWG, and the State Water Board all agree that the Project will not impact Marina’s groundwater supply. (See Staff Report, p. 68 [“Although some commenters have expressed concern that the Project would adversely affect the water supply wells of the Marina Coast Water District, which are located about two miles from the Project’s proposed well field, neither the Final EIR/EIS nor the Commission’s independent hydrogeologist found evidence that such impacts are reasonably foreseeable”]; see also Applicant’s Staff Report, Section IV.J.)

1. Procedural Concerns

- The Staff Report provides inadequate details on the extensive outreach Cal-Am performed in order to engage its customers and Monterey Peninsula residents regarding the Project. (See Staff Report, pp. 91-92.)
 - For example, Cal-Am maintained a website dedicated to the Project with information and updates for the public, sent bill inserts and direct mail pieces to customers regarding the Project, and engaged in a social media awareness campaign. (See Applicant’s Staff Report, Section IV.N.)
 - Further, since 2013, Cal-Am has published a quarterly newsletter discussing Project need, status, and financing, as well as the permitting process. Cal-Am published the newsletter in local print media and circulated it via email. (See Applicant’s Staff Report, Section IV.N.) Cal-Am also contributed guest editorials to inform the public on the Project. (See *ibid.*)
 - Moreover, two local agencies—the Monterey Peninsula Regional Water Authority and the Governance Committee—were established to increase public participation in the future of the Monterey Peninsula’s water supply, particularly

the desalination component that the Project would provide. (See Cal-Am August 13, 2020 Letter, Ex. 1, p. 12.) These agencies hold regular public meetings to discuss issues concerning the Project. (See *ibid.*)

- Thus, in addition to the CPUC’s extensive, six-year long public administrative process regarding the Project’s environmental review and ratesetting, Cal-Am conducted thorough outreach to both its customers and the broader region, and ample opportunity was provided to the public to participate in the Project’s review.

2. Substantive Concerns – Water Costs

- The Staff Report states that one of the primary concerns regarding the Project is the potential disproportionate burdens that low income ratepayers in Cal-Am’s service area would experience as a result of increased rates. (Staff Report, pp. 92-96.) Although the rate increases are commensurate with other projects approved by the Commission,⁷ Cal-Am has committed to further mitigating any potential disproportionate impacts on disadvantaged communities by proposing Special Condition 13 to increase the discount afforded to customers through its Customer Assistance Program (“CAP”)⁸ from 30% to 50%, increase enrollment in the CAP by launching a pilot program to enroll residents of multi-family housing to ensure more eligible customers can participate in the CAP, and contribute an additional \$250,000 to the United Way to assist customers in Cal-Am’s service territory who are having financial difficulties paying monthly bills. With implementation of Special Condition 13, the Project will be consistent with the Commission’s Environmental Justice Policy.
- The Staff Report states that a 2017 Food & Water Watch survey indicates that Cal-Am’s customers currently pay among the highest water rates in the country. (Staff Report, pp. 92-93.) The Staff Report also states that a MPWMD report found that costs of the Project would nearly double an average residential ratepayer’s water bill by 2023.
 - As explained in the Applicant’s Staff Report Section IV.N, based on available information, the CPUC approved a rate increase of about \$37-\$40 per month for the average Cal-Am customer in a single-family residence for desalination facility costs and financing. Although a final rate determination will be made by the CPUC when the Project goes into service, the Commission last year approved a project that would result in a \$41 increase in water bills – the Morro Bay Water Reclamation Facility. (CDP App. No. 3-9-0463; see also Exhibit 1 to August 13, 2020 Letter to Commission (“Dudek Memorandum”), p. 3-4.)⁹

⁷ E.g., Morro Bay Water Reclamation Facility, CDP App. No. 3-9-0463 (June 21, 2019), <https://documents.coastal.ca.gov/reports/2019/7/Th13a/Th13a-7-2019-report.pdf>.

⁸ Previously referenced as the Low-Income Ratepayer Assistance (“LIRA”) program.

⁹ In July 2019, the Commission approved the Morro Bay Water Reclamation Facility even though the project would result in a \$41 monthly surcharge to Morro Bay ratepayers. The

- Staff states that Cal-Am has repeatedly increased surcharges included in water rates, which the Public Advocates Office (“PAO”) has protested. (Staff Report, p. 93.)
 - As explained in the Applicant’s Staff Report, Section IV.N, surcharges are included as part of the base water rates and included in customer water bills out of transparency. Certain surcharges also will be expiring in the next few years. What is relevant for the Commission’s consideration of the Project is that CPUC approved a rate increase of about \$37-\$40 per month for the average Cal-Am customer in a single-family residence for desalination facility costs and financing.
- The Staff Report claims that Cal-Am’s CAP does not currently reach all low-income customers and has not fully offset the burden on those customers. (Staff Report, p. 94.) Because many otherwise eligible ratepayers live in multi-family structures, where the water bill is in the name of a landlord or management company and not individually metered, those customers may be unable to enroll in programs to offset rate increases. (*Ibid.*)
 - As an initial matter, Cal-Am already undertakes significant outreach efforts to customers who are eligible for CAP participation. Cal-Am publicizes the Customer Assistance Program by sending physical mailers, bill inserts, and email notices to all of its customers. (See Dudek Memorandum, pp. 5; Applicant’s Staff Report, Section IV.N.) However, despite these efforts, eligible customers do not all participate in the program.
 - With the implementation of Special Condition 13, Cal-Am would implement a pilot program to provide the CAP’s 50% discount to landlords and management companies of master metered multi-family housing where low income tenants reside. The discount would similarly be provided to non-profit housing facility organizations and investors. This would substantially increase the number of participating customers in Cal-Am’s service area.
 - With the increased 50% discount provided in Special Condition 13, based on available information average bills for eligible customers would only be expected to increase \$10 to \$12 per month for desalination facility costs and financing, as compared to \$37 to \$40 per month for non-CAP customers.
 - In addition, Special Condition 13 requires Cal-Am to contribute an additional \$250,000 to the United Way to assist customers in Cal-Am’s service territory who are having financial difficulties paying monthly bills.
- The Staff Report reiterates that the lived experience of residents Cal-Am’s service area and the potential for higher water rates to displace low income residents requires

Commission found that, although the project would be expensive and disproportionately impact low-income ratepayers, the project was nonetheless consistent with the Commission’s Environmental Justice Policy and necessary to provide a safe and reliable supply to Morro Bay.

heightened scrutiny of the Project's environmental justice impacts. (Staff Report, pp. 95-96.)

- As described above, Special Condition 13 would prevent the Project from having unintended effects on vulnerable communities in Cal-Am's service territory by offering reduced rates to disadvantaged customers and improving Cal-Am's ability to enroll eligible customers in the CAP. (Applicant's Staff Report, Section IV.N.)
- The Staff Report downplays the Project's importance in ensuring a safe and reliable source of water to the Peninsula. (Staff Report, p. 96.) However, without the Project, there will be insufficient water to construct affordable housing and to allow the hospitality industry to rebound on the Peninsula. (See, e.g., June 30 Letter to Commission, Att. A, pp. 40, 62.) This is just one of the many adverse environmental justice impacts that would result from a failure to approve the Project's CDP.
- The Staff Report claims that the Project is unnecessary because the PWM Expansion is a feasible alternative that would supply customers with adequate, more affordable water supplies and fewer environmental justice impacts. (Staff Report, p. 96.) Staff is incorrect.
 - As more fully described at Section J, burdens related to water cost increases would not be avoided by the PWM Expansion. Projections of PWM Expansion water costs are entirely speculative at this time. Expected water costs from the Phase 1 PWM project have recently increased drastically due to technological difficulties and needed repairs. Monterey One Water estimates that Phase 1 PWM water may range between \$2,508 and \$3,678 per acre-foot – at minimum, more than double the rate of \$1,720 per acre foot approved by the CPUC. (August 12, 2020 Cal-Am Letter to Commission, p. 3.) The projected costs for PWM Expansion would likely see similar increases in costs.
 - Moreover, the Final SEIR for the PWM Expansion was *denied* certification by Monterey One Water and is infeasible for myriad other reasons as explained in Applicant's Staff Report. (See Applicant's Staff Report, Section IV.O.1; May 20, 2020 M1W Board of Directors Staff Report.)
 - Notably, even if the PWM Expansion were to eventually be approved, it could fall short of meeting water demand, and will result in its own significant environmental justice impacts. Local groups representing farmers and communities of concern, such as the Monterey County Farm Bureau, the City of Salinas, and others, have voiced serious concerns regarding these significant environmental justice issues related to the PWM Expansion. (See Dudek Memorandum, pp. 14-17 [detailing these concerns]; Section J, *infra*.)

3. **Substantive Concerns – Return Water Agreement to Castroville Community Services District (“CCSD”)**

- The Staff Report states that Cal-Am would provide water to CCSD and CSIP at a steep discount, at the expense of Cal-Am ratepayers. (Staff Report, p. 96.) As a result, staff asserts that the costs of providing discounted water to Castroville would disproportionately impact low-income ratepayers in Cal-Am’s service area. (*Id.*, pp. 96-97.) Staff incorrectly characterizes the Return Water Settlement Agreement and its specific provisions, as well as the intent underlying the Agreement.
 - As the Applicant’s Staff Report, Section IV.N explains, many parties¹⁰ negotiated and agreed to the Return Water Settlement Agreement’s provisions, including the per-acre foot costs.
 - The Agreement requires Cal-Am to provide desalinated water to Castroville Community Services District (“CCSD”) at about \$110 per acre-foot for the return water. (CPUC Decision D.18-09-017, Appx. H, § 5.a.i.) This cost represents CCSD’s avoided costs to produce groundwater from the SVGB to serve customer demand. (See *ibid.*) If CCSD wants to purchase additional desalinated water from Cal-Am, the cost would be approximately \$580 per acre-foot, which includes various Project-related infrastructure costs. (See CPUC Decision D.18-09-017, Appx. H, § 5.a.ii.)
 - The Agreement also requires that excess return water be directed to the Castroville Seawater Intrusion Project (“CSIP”) at a cost of \$102 per acre-foot, representing CSIP’s avoided costs to produce groundwater. (See *id.*, § 5.b.)
 - Further, if Castroville did not agree to purchase the return water, Cal-Am would be required to build or use the infrastructure necessary to inject excess desalinated water into the SVGB in order to comply with the Agency Act. (See Applicant’s Staff Report, Section IV.N.) This could result in additional Project costs. However, Castroville’s agreement to purchase the return water avoids these costs for Cal-Am and its ratepayers. (*Ibid.*)
 - Moreover, as explained below and in the Applicant’s Staff Report, Sections IV.J and IV.N, Cal-Am would incur the costs associated with any return water obligations that exceed those contemplated in the Final EIR/EIS.
- Staff asserts 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 previous modeling and in the Return Water Agreement.” (Staff Report, p. 97.) As a result, the

¹⁰ The development of the Return Water Settlement Agreement was a collaborative effort by Cal-Am, Coalition of Peninsula Businesses, Landwatch Monterey County, the Monterey County Farm Bureau, the Monterey County Water Resources Agency, the Monterey Peninsula Regional Water Authority, Monterey Peninsula Water Management District, Monterey One Water, Planning and Conservation League Foundation, and the Salinas Valley Water Coalition. (See CPUC Decision D.18-09-017, Appx. H.)

Staff Report states that Cal-Am may need to return up to 2,100 afy (as opposed to approximately 700 afy contemplated in the Return Water Settlement Agreement) at a cost of \$3,000 to \$6,000 more per acre-foot. (*Ibid.*)

- Pursuant to the Return Water Settlement 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; see also Applicant’s Staff Report, Sections IV.J, IV.N.)

4. Substantive Concerns – Cumulative Environmental Impacts

- The Staff Report raises concerns that the slant wells placement on the beach will impact public access, habitat restoration, and passive public recreational use after the CEMEX closure. (Staff Report, p. 98.)
 - As discussed in Section G, the Project’s footprint is *de minimis*, and would permanently occupy only a quarter-acre on the 400+ acre CEMEX site, with another quarter-acre being required for periodic maintenance activities that are recommended for the wells approximately every five years and conducted over a period of nine to 18 weeks. (Staff Report, p. 81; see also June 30 Letter to Commission, Att. A, pp. 33-35; Applicant’s Staff Report, Section IV.N.) Whether this very minor Project presence would interfere with a future restoration and access plan is entirely speculative because the scope of such a plan or even if one will occur is currently unknown.
 - Moreover, 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. (Settlement Agreement, §§ 6.2.D.1, 23.2.) Cal-Am’s easement would remain even with implementation of a future restoration and access plan.
 - Finally, staff’s comparison of conditions with the Project to a speculative future, relies on an improper baseline. The proper baseline is existing conditions. (See *Neighbors for Smart Rail v. Exposition Metro Line Construction Auth.* (2013) 57 Cal.4th 439, 447; see also Section G, *supra*.) Staff provides no support for its reliance on conditions more than five years in the future as a baseline for Cal-Am’s CDP. The Project should be evaluated against the site as it exists—a site which has served industrial sand mining purposes for over a century and provides no public access.
 - Nonetheless, Special Condition 10, would require Cal-Am to prepare a Public Access Plan that would, among other things, allow the Executive Director to require further public access protections once a restoration and access plan is adopted for the CEMEX site some point in the future. (See Applicant’s Staff Report, Section IV.N.)

- The Staff Report points to existing industrial facilities *outside of the coastal zone*, located *near* the City of Marina as evidence that Marina is overburdened with cumulative impacts from industrial facilities. (Staff Report, p. 100.)
 - First, staff’s evaluation of the Project’s potential environmental justice impacts outside of the Coastal Zone exceeds the Commission’s jurisdiction. (See *Sierra Club v. Cal. Coastal Com.*, 35 Cal.4th 839, 851-52.)
 - Second, as stated above, much of the industrial development is not, in fact, within city limits – it is *near* Marina. Figure 1 of the Staff Report shows that, although Marina is near a regional landfill, regional composting facility, and regional sewage plant, this industrial development is outside of Marina’s boundaries. (See Staff Report, p. 100; see also Applicant’s Staff Report, Section IV.N.) Further, although Fort Ord is a contaminated site, Marina is actively working to develop the area with housing. (See Applicant’s Staff Report, Section IV.N.) Even so, the Project’s *de minimis* presence would not contribute to cumulative impacts on Marina. (See Section G, *supra*.) The majority of the Project’s footprint and the physical desalination facility will be located outside of Marina.
- The Staff Report states that Marina residents “are concerned about the potential impacts of the proposed slant wells on their own aquifer and groundwater supply.” (Staff Report, p. 101.)
 - As explained above, the Commission’s independent hydrogeologist, the Final EIR/EIS, the HWG, and the State Water Board all agree that the Project will not adversely impact groundwater or Marina’s municipal supply wells. (See Staff Report, p. 68; Applicant’s Staff Report, Section IV.J; Section E, *supra*.)
 - Further, as described above and throughout the Applicant’s Staff Report, the Project will provide benefits to both the SVGB and Seaside Groundwater Basin. (Applicant’s Staff Report, Sections IV.J, IV.N, IV.P.) The Project will help prevent further seawater intrusion in the SVGB and will protect groundwater levels in the Seaside Basin, thereby preventing seawater intrusion and the irreversible loss of groundwater storage.
- The Staff Report again claims that the PWM Expansion is a feasible alternative that would “avoid all the above-referenced impacts” and result in a “significantly lower rate increase.” (Staff Report, p. 101.) For the reasons discussed above and in Section [Alts], staff is wrong that the PWM Expansion represents a feasible alternative, would avoid its own significant impacts, or would result in a significantly lower rate increase. Particularly with implementation of Special Condition 13, low income customers in Cal-Am’s service territory will bear little to no costs from the rate increases associated with the Project.

J. Assessment of Alternatives (Staff Report, pp. 102-146)

1. Interpretation of Coastal Act Sections 30233 and 30260

- The Staff Report asserts that Coastal Act section 30233 permits the Commission to analyze Project alternatives because the concrete anchors attached to the Project’s temporary monitoring buoys, and the retrofit of the M1W outfall, constitute “fill.” (Staff Report, pp. 103, 107.)
 - Staff provides no support for the argument that work on the existing M1W outfall would involve “fill.” Resources Code section 30108.2 defines “fill” as “earth or any other substance or material, including pilings placed for the purposes of erecting structures thereon, placed in a submerged area.” As discussed in Section D, *supra*, no “fill” is involved in the Project construction. Therefore, Coastal Act section 30233 does not apply. Additionally, even if certain components did constitute “fill”—which they do not—the Commission’s authority would be limited to review of alternatives as to those components, not wholesale alternatives to the entire Project. (June 30, 2020 Letter to Commission, Att. A, p. 46.)
- The Staff Report next claims that under the first test of Coastal Act section 30260, the Commission may consider the PWM Expansion project as an alternative. (Staff Report, pp. 103, 107.)
 - As stated in Cal-Am’s June 30 Letter to the Commission, pp. 46-47, this position ignores the plain language of section 30260, which explicitly applies only to alternative “locations,” not entirely separate projects. (See Pub. Resources Code, § 30260.) Although the Commission has previously interpreted section 30260 to allow consideration of a wide variety of different alternatives, including alternative technologies and methods for accomplishing a project’s objectives, it has not previously interpreted section 30260 to allow consideration of wholly separate alternative projects. (See, e.g., Staff Report for Test Slant Well, App. No. 9-14-1735, A-3-MRA-14-0050, pp. 3, 57 [evaluating on- and off-site alternative locations for the test slant well].) Further, prior instances of nuclear storage projects in which the Commission considered out-of-state alternatives are not binding precedent on this proposed Project or other Commission actions.
- Staff also claims that the Commission may consider Project alternatives outside of the Coastal Zone, even though it is only a responsible agency under Public Resources Code section 21080.5(d)(2)(A). (Staff Report, pp. 103, 107-108.) The Commission’s authority as a responsible agency is limited. (See, e.g., Pub. Res. Code, § 21002.1, subd. (d); Cal. Code Regs., Tit. 14, Div. 6, Ch. 3 (“CEQA Guidelines”), §§ 15042, 15096, subd. (g)(1) [“When considering alternatives and mitigation measures, a responsible agency is more limited than a lead agency. A responsible agency has responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve.”]; see also June 30 Letter to the Commission [listing cases].)
- Lastly, the Staff Report argues that the Commission’s public trust doctrine obligations require it to assess whether “there is an alternative project that would protect the public

trust resources in the Carmel River and that would not involve as many impacts to coastal and public trust resources as this proposed Project.” (Staff Report, pp. 104-105.)

- Under the public trust doctrine, state agencies have “an affirmative duty to take the public trust into account in the planning and allocation of [trust] resources, and to protect public trust uses whenever feasible.” (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 446.) However, there is no “procedural matrix” by which an agency must abide in carrying out a public trust determination, and there is no requirement that an agency conduct a separate public trust analysis, as staff did here. (*Citizens for East Shore Parks v. State Lands Com.* (2011) 202 Cal.App.4th 549, 576, 578.)
- The Project does not harm public trust resources. Cal-Am agrees with the Staff Report that the Project “would entail the use of seawater, a public trust resource, in a manner that would not harm that particular resource,” “will not take up space on, or affect, tidelands that provide public access”, “protects marine water and wildlife public trust resources,” and “would end the withdrawal of water from the [Carmel] River.” (Staff Report, p. 105.) However, contrary to Staff’s contention, as discussed in Section A, the proposed Project also has in place satisfactory measures to mitigate any potential adverse effects construction may have on sensitive species and their habitat.
- As described in this section and in Section K, there is no feasible alternative project that better protects public trust resources. (See Section K, *infra*; Applicant’s Staff Report, Section IV.P.).

2. The PWM Expansion is Not A Feasible Alternative

- The Staff Report purports to analyze the PWM Expansion as an alternative to the Project under the “feasibility” criteria set forth under Coastal Act section 30108. (Staff Report, pp. 109-115.) Contrary to staff’s claims, when assessed pursuant to the section 30108 criteria, the PWM Expansion is plainly infeasible as an alternative to the Project. (See Applicant’s Staff Report, section IV.O.1; see also June 30 Letter to Commission, Att. A, Section I.2.)

a. “Capable of Being Accomplished in a Successful Manner”

- Staff argues that the PWM Expansion would use the same proven technology as Phase I PWM, and that the problems faced by Phase I at startup are common for water treatment projects and are being readily resolved. (Staff Report, p. 110.)
 - The Staff Report ignores the fact that M1W has ceased all work on the PWM Expansion and also fails to acknowledge the myriad technological/operational issues with the Phase I PWM and the PWM Expansion that will prevent the projects from being completed in a successful manner or within a reasonable period of time. (See Applicant’s Staff Report, Section IV.O.1.) Given that the PWM Expansion has now been delayed indefinitely and would not meet even the

low demand scenario promoted by MPWMD, it can no longer be considered a feasible alternative to the Project.

- Staff fails to acknowledge that the PWM Expansion is no longer moving forward. (See Applicant's Staff Report, Section IV.O.1; see also June 30, 2020 Cal-Am Letter to Commission, pp. 47-48.) On April 27, 2020, the M1W Board denied certification of the Final SEIR for the PWM Expansion. (See May 20, 2020 M1W Board of Directors Staff Report.) In doing so, the M1W Board acknowledged that significant flaws remain unaddressed in the Final SEIR related to its analysis of PWM Expansion source water, water supply and demand, impacts to agricultural water supplies, and the SEIR's failure to evaluate the PWM Expansion as either an alternative to or a cumulative project with the Project. (*Id.*, p. 2; August 12, 2020 Cal-Am Letter to Commission.) M1W has stated that it does not possess the funding to remedy the significant deficiencies in the PWM Expansion SEIR, and therefore has ceased all work on the Expansion. (See May 20, 2020 M1W Board of Directors Staff Report, p. 1.)
- Phase I PWM continues to face significant technical and operational barriers, and given that it will use the same technology as Phase I PWM, there is no reason to believe that the proposed PWM Expansion will not encounter similar hurdles. (See Applicant's Staff Report, Section IV.O.1; June 30 Letter to Commission, Att. A, pp. 49-50.)
 - M1W is experiencing ongoing difficulties in achieving treated water injection rates originally promised for the Phase I PWM, and currently estimates that it is capable of an annual injection rate of 2,030 afy – less than 58% of the 3,500 afy it has contractually promised to Cal-Am. (Applicant's Staff Report, Section IV.O.1.)
 - In an attempt to address these technical barriers, M1W has proposed a series of costly fixes, including repairs to the shallow wells, final commissioning of the deep wells, and construction of a third, and possibly a fourth, deep injection well. (August 12, 2020 Cal-Am Letter to Commission, p. 2; August 31, 2020 M1W Board of Directors Meeting, at 1:14:20 to 1:22:10, available at <https://montereyonewater.org/290/Audio-Recordings-of-Board-Meetings>.) These attempted remedies will increase Phase I PWM costs by \$13 million, with no guarantee that they will allow M1W to provide Cal-Am with its promised allocation of PWM water. It should be noted that in order to achieve the lowest demand estimate of 10,855 afy set forth in the Stoldt Memo, M1W must produce 100 percent of the promised water supply from the Phase I PWM, as well as 100 percent of the promised supply from the PWM Expansion—even with the proposed fixes the evidence demonstrates that such assumptions are unrealistic. (See Section J.3, *infra*.) These measures will also cause further delay in the Phase I PWM—for example, M1W does not intend to begin construction on the third deep well until November 2020, and it is

speculative to assume that all of its technical issues could be resolved by the December 31, 2021 CDO deadline. (*Ibid.*)

- Phase I PWM has not utilized certain source waters, including agricultural wash water, since startup. (August 12, 2020 Cal-Am Letter to Commission, p. 2.) It is not clear that PWM treatment technologies will be capable of treating these untested source waters to safe levels.
- Staff does not consider adequately the uncertainty regarding disputed water rights for the PWM projects. As discussed in the Applicant’s Staff Report, the Amended and Restated Water Recycling Agreement (“ARWRA”) between M1W and MCWRA contains multiple requirements and conditions regarding the construction, operation, and financing of new source water for the PWM projects. The conditions to the ARWRA have yet to be satisfied, thus the reliability ARWRA source waters, even for Phase 1 PWM, is speculative due to this ongoing dispute. Likewise, the City of Salinas disputes the PWM Expansion’s use of agricultural wash from the City. (Applicant’s Staff Report, Section IV.O.1.) Because these issues are currently being disputed, Staff is incorrect in determining that the Phase 1 PWM issues will be easily resolved.
- Staff rebuts the argument that PWM Expansion source waters are unsecured, pointing to the Final SEIR and M1W’s August 20, 2020 letter. (Staff Report, pp. 110-111.)
 - As described in Section J.3, *infra*, recent data regarding wastewater treatment plant (“WWTP”) and Reclamation Ditch flows demonstrates that under both normal and dry water years, there will be insufficient source waters to supply the Phase I PWM and the PWM Expansion.

b. “Within a Reasonable Period of Time”

- The Staff Report claims that the Project would take 27 months to construct and begin operations once all final approvals are received, while the PWM Expansion would take 24 to 27 months. Confusingly, staff then claims that if each project began construction today, the Project would begin providing water by early 2024, while the PWM Expansion could provide water by late 2022. (Staff Report, p. 111.) This contradicts staff’s statement that both projects could be completed in about the same amount of time. Staff also argues that the primary remaining barriers for the PWM Expansion are: (1) certification of the Final SEIR and (2) approval of a new Water Purchase Agreement (“WPA”), which staff claims Cal-Am could pursue expeditiously if it chose to do so. (Staff Report, pp. 111-112.)
 - Even assuming that the M1W Board was ready to approve the PWM Expansion, which it is not (see Section J.2.a, *supra*), the approval of the PWM Expansion will be further delayed by the need to recirculate the SEIR for that project. Under CEQA, when “significant new information” is added to an EIR after the public notice and comment period, but before certification of the EIR, the lead agency must provide notice of an additional public comment period before certifying the

EIR. (Pub. Resources Code, § 21092.1; CEQA Guidelines, § 15088.5; *Save Our Peninsula Committee*, 87 Cal.App.4th 99, 130.)

Appendix I to the PWM Expansion Final SEIR does not consider post-2013 WWTP flow data, which demonstrates a consistent trend of decreasing WWTP flow to source the PWM Expansion, despite the fact that M1W apparently possessed this data when preparing the Final SEIR. (See August 23, 2020 Hazen Memo, p. 4; see Applicant's Staff Report, Section IV.O.1.) Accordingly, overall demand for the source waters listed for the PWM Expansion far exceeds available supplies in both Normal/Wet years and Dry years. (August 23, 2020 Hazen Memo, p. 6.) This newly released post-2013 WWTP flow data constitutes significant new information under CEQA because M1W will be required to identify new, secure water sources for the Expansion for it to be feasible. Further, the absence of the post-2013 WWTP flow data that M1W had in its possession from the Final SEIR created a CEQA document "so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." (See CEQA Guidelines, § 15088.5, subd. (a)(4).) As a result, the Final SEIR will need to be revised and recirculated for public comment.

M1W also has proposed the potential construction of additional deep wells in an attempt to address injection refusal issues. (August 12, 2020 Cal-Am Letter to Commission, p. 2; August 31, 2020 M1W Board of Directors Meeting, at 1:14:20 to 1:22:10, available at <https://montereyonewater.org/290/Audio-Recordings-of-Board-Meetings>.) Initially, M1W anticipated constructing a third deep well, but is now discussing a fourth. (*Id.*) The decision to add these additional deep wells would also constitute significant information regarding the PWM Expansion's impacts, triggering a requirement for M1W to recirculate the Final SEIR for the PWM Expansion for additional notice and comment. (CEQA Guidelines, § 15088.5, subd. (a); *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1129.) As drafted, the PWM Expansion Final SEIR assumes that five deep injection wells would be constructed for both Pure Water projects in total: two deep injection wells for the Phase I PWM, two deep injection wells for the PWM Expansion at sites that would be relocated from those planned for the Phase I PWM, and one additional deep injection well for the PWM Expansion, for a total of three deep injection wells for the PWM Expansion. (See PWM Expansion Draft SEIR, p. 2-22.) Should M1W be required to construct a total of four deep injection wells solely for the Phase I PWM, it is likely that it would need to construct three deep injection wells for the PWM Expansion, for a total of seven wells. Even if only one additional deep injection well is constructed for the Phase I PWM, that would result in one more deep well than was analyzed in the PWM Expansion SEIR. As the Final SEIR has not assessed the impacts of constructing these additional wells, M1W would be required to revise and recirculate the Final SEIR to provide for public notice and comment regarding these additional impacts. (See Applicant's Staff Report, Section IV.O.1; Pub. Resources Code, § 21092.1; CEQA Guidelines, § 15088.5, subd. (a)(1).)

This entire recirculation process could add an additional six to twelve months to the PWM Expansion project's timeline—further demonstrating that the PWM Expansion is not a feasible alternative.

- Delivery of water from the PWM Expansion also will be delayed by the need for the CPUC to approve a WPA between M1W and Cal-Am for PWM Expansion water. As acknowledged by the PWM Expansion Final SEIR, such a WPA is needed to secure funding to construct the Expansion and thus, “[w]ithout knowing when or whether a [WPA] will be negotiated, it is currently not possible to estimate when the [PWM Expansion] would be completed.” (See PWM Expansion Final SEIR, p. 3-35.) Any WPA for the PWM Expansion would be required to incorporate additional terms beyond those included in the WPA for Phase I PWM water to provide adequate assurances to Cal-Am and its customers that the PWM Expansion water will be delivered as promised, and enhanced protections in the event that the Expansion is incapable of providing adequate supplies. (See Applicant's Staff Report, Section IV.O.1; see also June 30 Letter to Commission, Att. A, p. 72.) Such performance guarantees must include a guarantee of the full production volume of PWM Expansion product water, and a full indemnification to Cal-Am against any risk, liability, or penalties should the PWM Expansion fail to provide an adequate water supply to meet the needs of Cal-Am's customers. (See Applicant's Staff Report, Section IV.O.1; see also May 9, 2020 Cal-Am Letter to M1W, p. 5.)
- As discussed by the State Water Board, the timeline for implementation of the PWM Expansion has been delayed beyond the December 31, 2021 CDO deadline, and the Expansion requires “approvals and funding for which the details are uncertain and the timeline is indefinite”—as such, “[i]t is uncertain whether or when the proposed [PWM Expansion] may proceed beyond its currently pending environmental review . . .” (See May 8, 2020 State Water Board Letter to Coastal Commission, pp. 4-5.) As such, it is unlikely that the PWM Expansion could be constructed and operational within a reasonable period of time as compared to the Project. (See Applicant's Staff Report, Section IV.O.1.)
- The Staff Report argues that Cal-Am must, for its part: (1) design and obtain permits to install an outfall liner; (2) obtain approvals to either use MCWD's pipeline or construct a new parallel delivery pipeline; and (3) overcome ongoing litigation with the City of Marina and MCWD, all of which the Staff Report claims will delay Project implementation. (Staff Report, pp. 112-113.)
 - None of the matters raised by the Staff Report here present the likelihood of significantly delaying the Project.
 - First, as described in an August 17, 2020 letter to the Commission, Cal-Am now proposes to install a liner to the existing M1W outfall from within the outfall itself via a spray-on method. (See August 17, 2020 Cal-Am Letter to Commission; see also Applicant's Staff Report, Section IV.O.5; Section A.4, *supra*.) As the spray-on liner would be installed entirely from within the outfall, and because the outfall

pipe would be accessed from points outside of the coastal zone, installation would not involve any ground disturbance within the coastal zone, and therefore would not require that Cal-Am obtain a CDP for the work. (See August 17, 2020 Cal-Am Letter to Commission, p. 3.) Cal-Am has proposed a Special Condition to ensure that this less impactful, feasible alternative approach to the outfall liner is pursued. (See Applicant’s Staff Report, Special Condition 4.) As such, installation of the outfall liner will not cause any delay in Project implementation.

- Second, existing agreements already permit Cal-Am to utilize the pipeline shared with MCWD to convey Project water, and there remains sufficient excess capacity in the pipeline to accommodate Project water. (June 30 Letter to Commission, Att. A, pp. 54-55.) As acknowledged by the Staff Report, in the event that MCWD continues to unreasonably refuse to permit Cal-Am to exercise its right to utilize the pipeline, Cal-Am has proposed to construct an additional product water conveyance pipeline, running parallel to the shared pipeline. Approvals for this proposed parallel pipeline will come before MPWMD at its October Board meeting. (See July 31, 2020 MPWMD Board of Directors Final Minutes, p. 1.) Therefore, Cal-Am’s ability to utilize the shared pipeline, or to obtain approvals for a new parallel pipeline, are not anticipated to cause any substantial delay in the Project’s schedule.
- Third, with respect to the litigation initiated by the City of Marina, and in which MCWD has filed a cross-complaint, Cal-Am believes the claims in that case are meritless, and has demurred to MCWD’s cross-complaint. (See Applicant’s Staff Report, Section IV.O.1.) Further, the CPUC has declared that with respect to brackish groundwater to be extracted by the Project, Cal-Am may develop appropriate groundwater rights if the Project extracts otherwise unusable groundwater without harm to existing users, and Cal-Am thereafter returns any fresh water to the Basin—that framework cannot be modified through this litigation. (*Ibid.*) Moreover, the temporary stay currently in place as a result of MCWD’s litigation with the County of Monterey is expected to be lifted following the Commission’s decision on the Project. (*Ibid.*) As such, it is unlikely that the litigation initiated by Project opponents will cause significant delay in Project implementation.

c. “Taking into account economic, environmental, social, and technological factors”

- **Economic**—Staff argues that Project water would cost \$6,000 to \$8,000 per acre-foot, while PWM Expansion water would cost about \$2,300 per acre-foot. (Staff Report, pp. 113-114.)
 - The Staff Report’s acre-foot cost comparisons are not relevant to potential rate increases on Cal-Am’s customers. As stated in the Applicant’s Staff Report, based on available information the CPUC approved a rate increase of about \$37-\$40 per month for the average Cal-Am customer in a single family residence for the desalination facility, and that increase is not tied to per acre foot water

costs. (See Applicant’s Staff Report, Section IV.O.1.) The CPUC’s rate increase was based on a calculation of the annual revenue required to repay capital costs to build the facility, including set financing repayment requirements, and the annual operations and maintenance. The amount of water the facility produces is not a material variable in rates that customers are charged, except for minor, incremental operating and maintenance costs. Thus, regardless of the amount of water produced each year, the amount needed to be recovered annually from customers for physical construction and operation of the facility and for financing/loans essentially remains the same. (*Ibid.*) That is why the CPUC found that approving a smaller 4.8 MGD desalination facility would not result in any “significant, if any, cost savings to ratepayers” and determined that alternative was not feasible. (CPUC Decision 18-09-017, p. 129.)

- Further, projections of ***PWM Expansion water costs are entirely speculative*** at this time, and given recent increases in Phase I PWM water costs, the projected costs for PWM Expansion water are likely to see similar increases. (See Applicant’s Staff Report, Section IV.O.1.) Given the above-discussed technological difficulties facing the Phase I PWM, M1W staff projects that at the current anticipated delivery rate of 2,030 afy, costs for Phase I PWM water may be as high as \$3,678 per acre-foot. (August 12, 2020 Cal-Am Letter to Commission, p. 3.) These costs are more than double the rate of \$1,720 per acre-foot approved by the CPUC for Phase I PWM water. (*Ibid.*) It is highly likely that the PWM Expansion would face similar cost hikes. Moreover, current cost projections for PWM Expansion water do not account for costs already expended on the Project, which are anticipated to be recovered via future water rate increases that would be expected to increase customer bills by approximately \$10 to \$20 per month even if the desalination facility is not built. (Applicant’s Staff Report, Section IV.O.1.) It is therefore both irresponsible and speculative to compare estimated PWM Expansion water costs to Project water costs at this time.
- **Environmental**—The Staff Report claims that the Project would result in significant adverse effects to ESHA, groundwater, and marine life, while the PWM Expansion would be built entirely outside the coastal zone and would have relatively few environmental impacts. (Staff Report, p. 114.)
 - The Staff Report mischaracterizes the extent of the Project’s environmental impacts. (See Applicant’s Staff Report, Section IV.O.1.) As described above, the Project would be consistent with the Coastal Act and City of Marina LCP policies regarding coastal waters with the implementation of Cal-Am’s proposed special conditions. (See Section D, *supra*; see also Applicant’s Staff Report, Section IV.J.) Further, even without the implementation of special conditions, the Project is entirely consistent with all policies regarding groundwater. (See Section E, *supra*; see also Applicant’s Staff Report, Section IV.J.) Finally, while the Project would be inconsistent with the Coastal Act and Marina LCP policies regarding ESHA, including wetland/vernal ponds EHSA, the Project would incorporate

mitigation measures to reduce impacts to ESHA to the maximum extent feasible. (See Section A, *supra*; see also Applicant's Staff Report, Section IV.F.)

- Further, there remains significant uncertainties regarding the PWM Expansion's environmental impacts. (See Applicant's Staff Report, Section IV.O.1.) The M1W Board has recognized that the PWM Expansion SEIR does not fully address a number of environmental issues, and therefore denied certification of the SEIR. (May 20, 2020 M1W Board of Directors Staff Report.)
- Finally, the Commission cannot purport to assess the PWM Expansion, which does indeed lie entirely outside the coastal zone, while simultaneously ignoring each and every one of the Expansion's environmental impacts. Staff cannot have it both ways—the Commission must either conduct a complete analysis of the PWM Expansion, including a thorough examination of *all* of the Expansion's impacts regardless of where they occur, or it must abandon its attempt to analyze and substitute an alternative for the Project where the alternative lies entirely outside the Commission's coastal zone jurisdiction.
- **Social**—The Staff Report asserts that the Project would have much greater environmental justice-related effects on low-income ratepayers and other communities of interest. (Staff Report, p. 114.)
 - As discussed in Section I, *supra*, Cal-Am offers rate assistance programs for low-income ratepayers, and, as required in proposed Special Condition 13, Cal-Am must implement additional ratepayer assistance programs to address potential barriers to access, customer outreach, and the need to offset any rate increases for low-income customers. (See Applicant's Staff Report, Section IV.O.1.) Moreover, Cal-Am will offer discounted Project water rates to Castroville, a disadvantaged community whose groundwater supply has diminished in recent decades due to overpumping. (*Ibid.*) Proposed Special Condition 13 will ensure that Cal-Am's low income customers will not be required to absorb the costs of providing this discounted water to Castroville residents. (*Ibid.*)
 - In contrast, the PWM is highly likely to cause a number of environmental justice-related impacts, which the Staff Report wholly ignores.
 - First, M1W currently proposes to use more than 3,700 afy in agricultural produce wash water generated by the City of Salinas in order to produce the 2,250 afy in treated water planned for the Expansion. However, Salinas disputes M1W's rights to use these agricultural wash waters, which the City argues is needed to "support farmers, ranchers, and the City's agricultural industry." (See Applicant's Staff Report, Section IV.O.1; January 29, 2020 City of Salinas Letter to M1W, pp. 1-2.)
 - Second, implementation of the PWM Expansion, without the Project, will not enable Cal-Am to provide an adequate water supply to meet even the lowest demand projections set forth in the Stoldt Memo. (See Applicant's

Staff Report, Section IV.O.2.) Without a sufficient water supply, there will be insufficient water available to construct affordable housing in Cal-Am's service area, which will force employees in the Monterey Peninsula service industry to continue residing in more affordable inland communities and contend with lengthy commutes to their jobs on the Peninsula. (*Id.*, Section IV.O.1.) These workers will then be forced to bear additional economic burdens, including costs spent on gasoline or other modes of transportation, in order to commute to the Peninsula, and reduced Coastal access opportunities. (*Ibid.*)

- Third, because WWTP flows that the PWM Expansion is projected to rely upon as source water are continuing to decline, in most situations there would be insufficient source waters to supply both the Expansion and the CSIP. (See Section J.2.a, *supra*; see also Applicant's Staff Report, Section IV.O.1.) Without adequate source water to supply the CSIP project, continued groundwater pumping resulting in seawater intrusion in the SVGB will continue to progress, disproportionately affecting the disadvantaged community of Castroville. (See Applicant's Staff Report, Section IV.O.1.)
- **Technological**—Staff acknowledges that the Project would utilize proven slant well technology, while claiming that the startup issues seen with Phase I PWM will be easily remedied. (Staff Report, pp. 114-115.)
 - Staff does not provide any evidence to back up its claims that the ongoing technological issues with the Phase I PWM, and by extension the PWM Expansion, can be readily corrected. (See Section J.2, *supra*.) M1W has proposed a series of fixes in an attempt to bring Phase I PWM production and injection rates up to planned capacity levels. (*Ibid.*) However, it is speculative at this time to assume that these repairs and additional measures will be effective.

3. Water Supply and Demand

- The Staff Report purports to evaluate the PWM Expansion under the criteria of the Coastal Act section 30108 definition of feasibility and concludes that the PWM Expansion is a feasible alternative to the Project. (Staff Report, p. 109.) Cal-Am and the Commission staff fundamentally disagree as to the feasibility of the PWM Expansion, the current and future water demand for the Cal-Am Monterey service area, and the availability of source water for the PWM Expansion.¹¹
 - As explained in Applicant's Staff Report, Cal-Am's desalination facility would provide a more reliable and drought resilient water supply than would the PWM

¹¹ In response to the Staff Report's claims regarding Monterey Peninsula supply and demand and PWM Expansion source water, Hazen and Sawyer prepared an additional report debunking the Staff Report's assertions (the "September 10, 2020 Hazen Memo"), attached to the Applicant's Staff Report as Exhibit 23.

Expansion. (Applicant’s Staff Report, Section IV.O.2.) When combined with Cal-Am’s other available water sources, and when considering the most restrictive projections of demand presented to the Commission by MPWMD, only Cal-Am’s Project is capable of providing an adequate water supply to meet the Peninsula’s current and future demands. Only the addition of the Project to Cal-Am’s water portfolio would allow Cal-Am to reduce its withdrawals from the Carmel River in accordance with requirements of the State Water Board’s CDO.

- As shown in Table 1 below, the Commission has been presented with conflicting estimates and projections of current and future water demand for the Peninsula. As explained in Applicant’s Staff Report, the Commission does not need to determine the validity of these competing demand projections because even when it is assumed that the lowest demand projections from MPWMD are accurate (10,855 afy), the PWM Expansion is not capable of and cannot be relied upon to satisfy that level of demand. (Applicant’s Staff Report, Section IV.O.2.)

Table 1: Comparison of existing and future demand scenarios

	2018 CPUC	MPWMD March 2020	MPWMD September 2019	MCWD	2019 Cal-Am Rate Case ¹²
Existing demand:	12,000	9,817 – 10,863	9,788 – 11,232	9,985	9,338 – 9,789 (to 2023)
Future demand:	~14,000 at an unspecified future date	10,884 – 12,287	10,855 – 12,656	10,412 – 10,983	NA

- **Additional Demand for Seaside Groundwater Basin.** The Seaside Groundwater Basin Watermaster also has concluded that in order to achieve protective water levels and prevent seawater intrusion, the Basin will require replenishment of an additional 1,000 afy over the next 25 years. (October 4, 2019 Seaside Groundwater Basin Watermaster Letter to Commission, p. 2.) Accordingly, each of the demand numbers presented above should be increased by 1,000 acre-feet. The Staff Report concedes that only the Project is capable of replenishing this additional water, however, claims without support that the Watermaster’s identification of this 1,000 afy demand is merely “speculative”

¹² The purpose of a rate case is to determine what rates are needed for the next three years to cover the expenses of operating and maintaining the water supply system. To do that, it must be determined what those expenses will be, and what revenue will be generated from customers. Since part of a customer’s bill is based on amount of water use, expected demand over the next three years is important to determine expected revenue. In projecting demand over the next three years, Cal Am used demand in 2019 for 2019-2022 based on the assumption that no growth would occur due to the moratorium. The issue of what supplies are needed to adequately and reliability provide water to meet customer demand at all times over decades to come is completely different. If a water system is sized only to meet average current demands, it will not have sufficient water to supply customers on the hottest summer days, in times of drought, or to accommodate growth.

since there is no contract in place to purchase the water. (See Staff Report, p. 120.) Notably, there are either no contracts in place or disputed contracts for numerous PWM Expansion source waters that Commission staff rely upon as part of staff's determination that sufficient source waters exist for the Expansion to be considered a feasible alternative. (See June 30 Letter to Commission, Att. A, pp. 50-51 [describing disputed ARWRA source waters and City of Salinas' agricultural produce wash water].) Despite staff's position on those source waters, somehow staff considers the Watermaster's determination to be speculative in the absence of a contract. (See June 30 Letter to Commission, Att. A, pp. 50-51 [describing disputed ARWRA source waters and City of Salinas' agricultural produce wash water].) Commission staff cannot have it both ways.

- *Sufficiency of Available Supplies to Meet Demand.* As explained in Hazen and Sawyer's August 11, August 23 and September 10, 2020 expert analysis submitted to the Commission, the analyses provided by proponents of the PWM Expansion fail to demonstrate that the Pure Expansion has reliable sources of water necessary to meet demand on the Monterey Peninsula, assuming 10,855 afy demand.

To conclusively demonstrate that the PWM Expansion is not a feasible alternative capable of meeting even a conservative estimate of demand, Appendix A in the September 10, 2020 Hazen Memo provides an updated accounting of Cal-Am's water supply portfolio, assuming operation of the PWM Expansion, but without the Project. Appendix A in the September 10, 2020 Hazen Memo controls for multiple Aquifer Storage and Recovery ("ASR") scenarios and surface water scenarios and demonstrates that the PWM Expansion cannot meet 10,855 afy demand. Hazen Appendix A is reproduced below.

September 10, 2020 Hazen Memo, Appendix A

Source / Assumption Scenario	Proposed by Others			ASR Controlled*			Wastewater & Reclamation Ditch Controlled*		
	CPUC	MPWMD 2020	MPWMD 2019	No ASR	Half ASR (650 AFY)	Full ASR (1,300 AFY)	Updated Table 9 – Normal Year building Reserve	Updated Table 10 – Normal Yr after full Reserve	Updated Table 11 – Dry Year
1. Carmel River	3,376	3,376	3,376	3,376	3,376	3,376	3,376	3,376	3,376
2. Seaside Groundwater Basin	774	774	774	774	774	774	774	774	774
3. Aquifer Storage and Recovery	1,300	1,300	1,300	0	650	1,300	1,300	1,300	1,300
4. Sand City Desalination Facility	94	94	94	94	94	94	94	94	94
5. Pure Water Project	3,500	3,500	3,500	3,500	3,500	3,500	3,700	3,500	0
6. Pure Water Expansion	-	2,250	2,250	2,250	2,250	2,250	528	719	0
7. Other Available Supplies	-	300	406	-	-	-	-	-	-
Total without desalination Project	9,044	11,594	11,700	9,994	10,644	11,294	9,772	9,763	5,544
Surplus/Deficit assuming 10,855 afy demand	-1,811	739	845	-861	-211	439	-1083	-1,092	-5,311

* Figure 2 from the August 11, 2020 Hazen and Sawyer report depicts these alternative scenarios. (August 11, 2020 Hazen Memo, p. 19.)

The availability of the individual water supply sources included in Hazen Appendix A above are described in more detail in Applicant's Staff Report. (Applicant's Staff Report, Section IV.O.2.)

Specifically, as shown in Hazen Appendix A, Hazen concluded that ASR was incapable of consistently providing enough water supply to meet the 10,855 afy demand. (August 11, 2020, Hazen Memo, pp. 5-6.) In concluding the PWM Expansion can meet demand, MPWMD's General Manager unrealistically assumes that ASR will provide 1,300 afy of supply at all times and that no droughts will occur between now and 2034. As explained in Applicant's Staff Report, ***the assumption that ASR can reliably produce 1,300 afy on a consistent multi-year basis is unreasonable and speculative.*** (Applicant's Staff Report, Section IV.O.2.) First, as shown in the August 11, 2020 Hazen Memo, ASR using excess Carmel River water in the past 15 years has only achieved an output of 1,300 afy once and an input of 1,300 afy twice. (August 11, 2020 Hazen Memo, p. 5.) Second, during droughts, injection and recovery from ASR is essentially unavailable. (January 23, 2020 Hazen Memo, pp. 6-8; August 11, 2020 Hazen Memo, p. 5.) Third, ASR has proven to be incapable of building up a drought reserve to consistently deliver 1,300 afy. For the last 15 years, average annual storage of ASR is approximately 138 afy, and the last five years have seen an average of 352 afy. (August 11, 2020 Hazen Memo, p. 5.) Such amounts are insufficient storage to provide 1,300 afy over a multi-year drought. Hazen Appendix A accounts for the overall variability of ASR and shows that when realistic assumptions regarding ASR availability are made, there is an overall supply deficit ranging from -211 afy to -861 afy. Hazen found that this deficit will occur even when it is assumed that all other supplies will be fully available.

As explained in Applicant's Staff Report and as found by Hazen and Sawyer, wastewater and surface water flows are insufficient water sources for the Phase I PWM and the PWM Expansion to produce their promised supplies of 3,500 and 2,250 afy, respectively. (Applicant's Staff Report, Section IV.O.2; August 23, 2020 Hazen Memo, pp. 6-15.) Specifically, the PWM Expansion SEIR and analysis provided by PWM Expansion proponents did not evaluate wastewater flows beyond 2013 when considering if wastewater is a reliable water source. In response to the August 11, 2020 Hazen Memo demonstrating that wastewater flows declined significantly since 2013, M1W made wastewater flow information for 2014 to 2019 available to the Commission and the public for the first time on August 20, 2020. However, M1W's new flow information only confirmed that wastewater flow has declined by 2,110 acre-feet since 2013, essentially as Hazen and Sawyer predicted. Further, using recent recorded flow data from the U.S. Geological Survey, Hazen and Sawyer demonstrate that the Reclamation Ditch flows originally analyzed in the PWM Expansion SEIR were significantly overestimated by 16 to 67 percent in critical summer months. (August 11, 2020 Hazen Memo, pp. 10-11.) As shown in Hazen Appendix A, when current wastewater and surface water flows are accounted for, thereby reducing potential output from the Phase I PWM and PWM Expansion, implementation of the PWM Expansion (in lieu of the Project) is expected to result in a supply deficit ranging from -1,083 in normal year to -5,311 in dry years, even assuming MPWMD's low estimate of Peninsula water demand.

Although a supply deficit will occur when either ASR availability or wastewater and surface water flows are accounted for, if these scenarios occurred simultaneously, a greater supply deficit would result.

- The Staff Report also claims that M1W has agreements for more than enough water to supply the PWM Expansion. (Staff Report, p. 110.) However, Tables 2 and 3 provided by the PWM Expansion SEIR, coupled with the analysis of WWTP flows in the Applicant’s Staff Report, plainly demonstrates that staff is incorrect. When all available assumed and estimated source water flows according to the Source Water Priority Table 3 in Appendix M to the SEIR are available, there is only 2,297 afy actually available to the PWM Expansion. (September 10, 2020 Hazen Memo, pp. 2-3.) The maximum treated water that could be produced by PWM Expansion with such source waters is 1,860 afy—that output is further reduced to 1,597 afy if the source water flows are reduced to account for current wastewater flows. (*Ibid.*) These outputs are far below the 2,250 afy assumed by M1W and the Staff Report for the PWM Expansion, and would not provide an adequate supply to meet Peninsula demand. (See Applicant’s Staff Report, IV.O.2.)

4. PWM Expansion Conformity with Project Objectives and Criteria

- The Staff Report evaluates the Project’s and the PWM Expansion’s compliance with the primary and secondary Project objectives as set forth in the EIR/EIS. Staff concludes that PWM Expansion could meet each of these objectives, largely because the Staff Report had already concluded that the PWM Expansion could provide an adequate water supply to meet Cal-Am’s needs and lift the CDO. (Staff Report, pp. 133-135.)
 - The Staff Report’s conclusions regarding the PWM Expansion’s ability to satisfy Project objectives and meet the feasibility criteria set forth by the CPUC were thoroughly addressed and refuted in Cal-Am’s June 30 Letter. (See June 30 Letter to Commission, Att. A, pp. 63-73.)
 - Staff’s determination that the PWM Expansion can meet all Project objectives is based upon the mistaken conclusion that the Expansion can provide a reliable water supply that will meet demand in Cal-Am’s Monterey District service area—as explained above, even using the low end demand figures from MPWMD, Peninsula supply with the PWM Expansion, but without the Project, cannot accommodate that demand. (See Section J.3, *supra*; see also Applicant’s Staff Report, Section IV.O.3.) Project Primary Objectives 1 through 7 each explicitly concern the proposed project’s ability to accommodate present and future demand for water on the Monterey Peninsula as calculated by the CPUC, and thereby enable Cal-Am to abide by the requirements of the State Water Board CDO and deliver needed supplies to Peninsula water users. (Applicant’s Staff Report, pp. Section IV.O.3.) Given that the PWM Expansion cannot provide a sufficient supply to meet even the hypothetical low demand figures, let alone the determinations of current and future demand issued by the CPUC, it cannot, by definition, satisfy these basic Project objectives. (*Ibid.*) As stated by the CPUC, 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 some size. (CPUC Decision D.18-09-017, Appx. C, p. C-71 [emphasis added].) The Staff Report does not introduce any new evidence to suggest that the PWM Expansion is any more capable of meeting these objectives than when previously addressed by Cal-Am. (See June 30 Letter to Commission, Att. A, pp. 64-67.)

- With respect to Primary Objective 8, regarding minimizing energy requirements and GHG emissions, staff newly calls into question whether Cal-Am can use the carbon offsets ordered as a mitigation measure by the CPUC. (Staff Report, p. 134.) As explained above, implementation of Project Mitigation Measure 4.11-1 would result in the Project having zero net emissions from electricity consumption. (See Section F, *supra*.) The Staff Report’s claim that this mitigation measure is “less certain to provide actual greenhouse gas benefits” is entirely without support. Moreover, the case cited by staff, *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal.App.5th 467, has no bearing on the Project’s carbon offset program. In *Golden Door Properties*, the California Court of Appeal concluded that the respondent county’s GHG mitigation measures, permitting the purchase of carbon offset credits from any carbon offset registry anywhere in the world, lacked sufficient safeguards to ensure that the offsets were permanent and enforceable. (*Id.* at pp. 347-348.) By contrast, the GHG reduction program MM 4.11-1 provides a detailed loading order for achieving net zero GHG emissions for the Project, including the possibility of purchasing and retiring carbon offsets from approved registries that represent reduction of sequestration of one metric ton of CO₂e *within California*. (See Final EIR/EIS, p. 4.11-20.) Any comparison between the Project’s carbon offset plan and the mitigation measures rejected in *Golden Door* is unjustified.
- As to Primary Objective 9, requiring minimization of project costs and water rate increases, the Staff Report’s conclusion that the PWM Expansion conforms better to this objective is pure conjecture. (Staff Report, p. 134.) Phase I PWM project costs continue to skyrocket—as of June 2020, M1W stated that at the current projected delivery of 2,030 afy, costs for Phase I PWM water would increase to \$3,678 per acre-foot. (See Applicant’s Staff Report, Section IV.O.3; August 12, 2020 Cal-Am Letter to Commission, p. 3.) Even under the most optimistic scenario presented by M1W, Phase I PWM water costs will amount to \$2,508 per acre-foot—almost a 50 percent increase over the water rate approved for Phase I by the CPUC. (Applicant’s Staff Report, Section IV.O.3.) There is every reason to assume that the PWM Expansion will face similar cost overruns and therefore no evidence to conclude that the Expansion conforms to this objective.
- Secondary Objective 1 requires that project facilities be sited in areas that are protected against future sea-level rise—the Staff Report claims that the Project well field “would likely be affected directly by sea level rise and the accompanying erosion of the shoreline.” (Staff Report, pp. 134-135.) However, as described in Section C, *supra*, with current sea level rise projections, and

incorporating the reduction in coastal erosion rates to be expected from cessation of sand mining at the CEMEX site, the Project's well field would not be affected by climate change-related erosion, including dune recession, until near 2120. (See also Applicant's Staff Report, Section IV.H.) While two of the seven slant wells could be affected by sand burial from windblown sand prior to 2040, these impacts would be avoided with the implementation of special conditions proposed by Cal-Am. (*Ibid.*) As such, the Project well field, with the implementation of special conditions, will not be affected by coastal erosion during the wells' expected operating life and is therefore consistent with this objective. (See Applicant's Staff Report, Section IV.O.3.)

- The Staff Report's conclusion that the PWM Expansion can provide adequate conveyance capacity to accommodate any future supplemental water supplies, as required by Secondary Objective 2, is based entirely upon Exhibit 17 to the Staff Report, a one-page analysis of available well capacity to meet 10-year MDD and PHD prepared by MPWMD General Manager Stoldt, which was also included as Exhibit 9 to the 2019 Staff Report. (Staff Report, p. 135.) However, the Staff Report fails to explain how this report prepared by Stoldt speaks to the PWM Expansion's ability to provide excess conveyance capacity for *future* water projects, as is required to satisfy Secondary Objective 2. (See Applicant's Staff Report, Section IV.O.3.) By contrast, Cal-Am's project would provide adequate conveyance capacity to meet build out demand in accordance with adopted general plans and therefore satisfies this Project objective. (*Ibid.*)
- The Staff Report concludes that the PWM Expansion can meet Secondary Objective 3, which requires improvement of the ability to convey water to the Monterey Peninsula cities by improving existing connections at water satellite systems and by providing additional pressure to move water over the Segunda Grade. (Staff Report, p. 135.) In reality, staff has failed to provide *any* evidence that the PWM Expansion will provide such necessary conveyance improvements. (Applicant's Staff Report, Section IV.O.3.) Staff instead focuses on Cal-Am's ability to utilize the existing shared pipeline to convey Project product water. However, as explained above, existing agreements permit Cal-Am to utilize the shared pipeline, and the pipeline has ample capacity to serve Cal-Am's uses for the Project. (See June 30 Letter to Commission, Att. A, pp. 54-55.) Moreover, even if Cal-Am is required to construct an additional parallel pipeline to carry Project water, that potential additional pipeline remains before MPWMD for approval, and will be considered by the MPWMD Board in October 2020.
- The Staff Report goes on to apply each of the criteria used by the CPUC to assess the Phase I PWM, to the PWM Expansion, and concludes that the Expansion meets each of the criteria. (Staff Report, pp. 135-140.) Cal-Am has previously addressed each of the Staff Report's conclusions regarding PWM Expansion conformity with the CPUC's criteria (see June 30 Letter to Commission, Att. A, pp. 69-73). As explained in that submittal and the Applicant's Staff Report, based on the available evidence, the PWM Expansion cannot satisfy the feasibility criteria set forward by the CPUC. (See Applicant's Staff Report, Section IV.O.3.)

5. Adverse Environmental Effects

The Staff Report purports to compare the relative environmental impacts of the Project and the PWM Expansion, and concludes the PWM Expansion would have less adverse environmental impacts. (Staff Report, p. 140.)

- Staff contends that the Project would have significant adverse effects on coastal resources, including ESHA and protected species, while PWM Expansion would have few, if any, effects on coastal resources. (Staff Report, p. 140.)
 - As discussed in Section A, *supra*, Cal-Am's proposed Project would be inconsistent with Coastal Act and Marina LCP policies regarding sensitive habitat including wetland/vernal pond ESHA. (See Sections A, B, *supra*.) But with the implementation of Special Conditions 4, 5, and 7, the Commission will have adopted all feasible mitigation to reduce potential ESHA impacts, including potential wetland/vernal pond ESHA impacts. The proposed Project will also be consistent with all other Coastal Act and LCP policies with implementation of Special Conditions. (See Section J.2.c, *supra*; see also Applicant's Staff Report, Section IV.O.4.) The Project is also not anticipated to be impacted by sea level rise of coastal erosion until near the 2120 planning horizon, well beyond the economic lifespan of the Project's wells. (See Section C, *supra*.) Further, the CPUC has already determined that the Project will not result in substantial adverse impacts to coastal waters or marine resources during Project construction or operation with the implementation of all feasible and enforceable mitigation measures.
 - In contrast, the environmental analysis conducted for the PWM Expansion, as discussed in various comment letters on the PWM Expansion Draft and Final SEIRs, has significant flaws and requires substantial additional analysis. (See June 30 Letter to Commission, Ex. 20, Cal-Am Comments on PWM Expansion Final SEIR; see also January 30, 2020 Cal-Am Comments on PWM Expansion Draft SEIR, provided separately to Commission staff.) In fact, based on these significant flaws, the M1W Board denied certification of the SEIR. (See June 30 Letter to Commission, Ex. 18, M1W Board of Directors Staff Report.) Consequently, the full scope of the PWM Expansion's environmental impacts remains unknown.
 - Therefore, the Staff Report's conclusion that the PWM Expansion would have fewer adverse environmental effects is not supported by substantial evidence.
- Staff asserts that the PWM Expansion would be greenhouse gas neutral, while Cal-Am's Project, even with mitigation measures, "is less certain to result in permanent, enforceable, and verifiable" greenhouse gas reductions. (Staff Report, p. 140.)
 - As explained previously, the CPUC imposed Mitigation Measure 4.11-1, which requires Cal-Am's operations to result in net zero operational emissions, either through securing on-site or off-site renewable energy, or purchasing and retiring

renewable energy or carbon credits. (See Section F, *supra*; Applicant’s Staff Report, Section IV.O.4.) Thus, the PWM Expansion is not more likely to achieve greenhouse gas reductions; rather, emissions related to both projects’ electricity use are slated to be carbon neutral, though they would reach that goal through different means. (See Applicant’s Staff Report, Section IV.O.4.)

- Moreover, the PWM Expansion’s proposal to utilize landfill gas as a power source is uncertain at this time. (June 30 Letter to Commission, Att. A, p. 67.) If M1W is unable to secure reduced bids or obtain additional funding for this infrastructure, it will be unable to implement the landfill gas power system.
- Staff further states that “an underlying environmental concern applicable to both projects” is the possible effect of Cal-Am not having an adequate water supply to allow Cal-Am to reduce its Carmel River withdrawals by the CDO deadline. (Staff Report, p. 140.) Staff concludes that the risk of delay is “at least as likely to occur” if the Project moves forward instead of PWM Expansion. (*Ibid.*)
 - The assertion that the Project has a higher risk of delay than the PWM Expansion is not supported by the available facts. Cal-Am’s Project has received numerous approvals, while the PWM Expansion has obtained no approvals. The PWM Expansion will also experience further delay due to the M1W Board’s decision not to certify the Final SEIR, the lack of resources needed to revise the analysis in the Final SEIR, the potential need to recirculate the Final SEIR for further public review. (Applicant’s Staff Report, Section IV.O.1.) Cal-Am would also need to seek CPUC approval of a WPA to provide funding for M1W to implement the PWM Expansion. (*Ibid.*) Further, there are questions about how long it could take the Original PWM Project to achieve its water delivery obligations. (See June 30 Letter to Commission, Ex. 25, PWM Status Update Presentation; Section J.2.a, *supra*.) It is virtually impossible that the PWM Expansion would meet the CDO 2021 deadline.

6. Areas of Uncertainty

- The Staff Report claims that both the Project and PWM Expansion involve certain “areas of uncertainty” that relate to the Expansion’s status as a feasible Project alternative. (Staff Report, pp. 141-145.) Staff dismisses each “area of uncertainty” related to the PWM Expansion as inconsequential, while concluding that each identified uncertainty for the Project poses significant barriers to Cal-Am. The Staff Report appears willing to accept as insignificant the major questions surrounding the PWM Expansion, while simultaneously condemning the Project based on unfounded conjecture put forward by Project opponents like MCWD.
- Staff lists the following “areas of uncertainty” for the PWM Expansion:
 - **Amount of water produced**—Staff acknowledges that Phase I PWM is currently producing less water on startup than predicted, but asserts that this will be easily

remedied under M1W's plans, and argues that similar issues will not impact a potential supply from PWM Expansion. (Staff Report, p. 141.)

- Staff inappropriately dismisses the significant technological barriers facing the Phase I PWM that have yet to be resolved and which continue to cause significant uncertainty regarding the amount of water that the Phase I PWM is capable of producing. (See Applicant's Staff Report, Section IV.O.5.)
- **Type of source water**—The Staff Report refutes claims that there are potential issues associated with treating agricultural runoff that will be used by PWM Expansion. (Staff Report, p. 141.)
 - Despite staff's claims, the fact remains that that no agency has ever analyzed the impacts from using wastewater contaminated with pesticides or other chemicals as source water for the PWM Expansion. (June 30 Letter to Commission, Att. A, pp. 70-71.) Unless and until such analysis occurs, there will continue to be uncertainty regarding the PWM Expansion's ability to treat agricultural runoff to safe levels. (See Applicant's Staff Report, Section IV.O.5.)
- **CEQA**—The Staff Report acknowledges that the vote to certify the PWM Expansion Final SEIR failed, but argues that the M1W board is free to reconsider the Final SEIR if it so chooses. Staff argues that the primary area of controversy for the Final SEIR was whether adequate source waters exist for the Expansion, and that substantial evidence shows that source waters are adequate. (Staff Report, p. 142.)
 - The Staff Report fails to recognize that multiple, independent barriers remain before the M1W Board may certify the Final SEIR for the PWM Expansion. (See Applicant's Staff Report, Section IV.O.5.) First, in denying certification of the Final SEIR, the M1W Board of Directors explicitly recognized the myriad remaining flaws in the Final SEIR's analysis, including unresolved gaps regarding source water availability, water supply and demand, impacts to agricultural supplies, and the Final SEIR's failure to analyze the PWM Expansion as either an alternative to or a cumulative project with the Project. (*Ibid*; see also May 20, 2020 M1W Board of Directors Staff Report, p. 2.) M1W does not have the funds to correct these major deficiencies in the Final SEIR, and therefore has stopped all work on the PWM Expansion—there is no indication that M1W intends to resume its efforts to certify a complete SEIR any time soon. (See Applicant's Staff Report, Section IV.O.5.)
 - Further, as discussed above, before M1W is able to certify the PWM Expansion SEIR, it will be required to recirculate the SEIR for additional public notice and comment regarding substantial new information that has been learned since the Draft SEIR was circulated. (See Applicant's Staff

Report, Section IV.O.1; see Section J.2.b, *supra*, CEQA Guidelines, § 15088.5, subd. (a); *Cadiz Land Co.*, *supra*, 83 Cal.App.4th at p. 95.) As such, there continues to be significant uncertainty regarding when or whether M1W will be able to issue a certified Final SEIR for the PWM Expansion.

- **Funding and Water Purchase Agreement**—Staff claims that while Cal-Am would need to seek CPUC approval of a new WPA for PWM Expansion water, Cal-Am “has not had an incentive to do this to this date because it is pursuing its desalination project.” The Staff Report therefore argues that there would be no barriers to WPA consideration “if Cal-Am needs to proceed with the Pure Water Expansion.” (Staff Report, p. 142.)
 - The Staff Report fails to acknowledge that Cal-Am has in fact met with M1W and MPWMD on multiple occasions to discuss a WPA for PWM Expansion water. (See Applicant’s Staff Report, Section IV.O.5; see Section J.4, *supra*; Applicant’s Staff Report, Exhibit 30, p. 1.) However, Cal-Am determined that it could not, at that time, pursue a WPA for Expansion water given the significant uncertainties surrounding the PWM Expansion. (See Applicant’s Staff Report, Exhibit 30, p. 2.) As demonstrated above, these uncertainties remain unaddressed. Finally, as discussed above, any WPA for PWM Expansion water would need to include additional performance measures to guarantee delivery of the full production volume of the PWM Expansion, and indemnification to Cal-Am in the event that the Expansion does not provide an adequate supply. (See Applicant’s Staff Report, Section IV.O.5.) These protections would be necessary to ensure that Cal-Am does not need to undertake additional Carmel River or Seaside Basin withdrawals to serve its customers if water demand cannot be met by the PWM projects, without the Project. Accordingly, there is no reason to believe that Cal-Am could reasonably enter into a WPA for PWM Expansion any time soon, much less obtain the CPUC’s approval of such an agreement.
- Staff lists the following “areas of uncertainty” for the Project:
 - **Coastal hazards and expected operating life of slant wells**—Staff argues that there are two areas of uncertainty associated with the Project slant wells: (1) the rate of erosion at the CEMEX site cannot be known until sand mining ceases; and (2) while Cal-Am acknowledges that the wells would need to be related after 20-25 years, Cal-Am has not identified alternative well locations. Therefore, there is uncertainty about how the Project would operate after the first 20-25 years of its 60-year operating life. (Staff Report, p. 142.)
 - As explained in Section C, *supra*, the Project well field will not be affected by climate-change-related coastal erosion until at least 2120. (See Applicant’s Staff Report, Section IV.O.5.) With the implementation of special conditions proposed by Cal-Am, the current slant well sites will

allow the wells to avoid hazards related to coastal erosion during their expected operating life. (*Ibid.*)

- **Water rights**—the Staff Report asserts that there are two areas of uncertainty associated with Project water rights: (1) whether Cal-Am will be able to satisfy its ongoing burden to demonstrate that its withdrawals and use of fresh water (non-seawater) will not harm or cause injury to any other legal water user; and (2) whether Cal-Am will need to incur additional costs to return greater percentages of SVGB water to Castroville. (Staff Report, p. 143.) Staff also points out that Marina has filed litigation regarding limitations on uses of water at the CEMEX site. (*Id.*, p. 144.)
 - As acknowledged by the Staff Report, no water rights are necessary for the extraction of seawater from the SVGB. (Staff Report, p. 70.) With respect to the non-seawater component of the Project’s source water, Cal-Am has proposed protections to ensure that its withdrawal of water does not harm existing SVGB groundwater users. (See Applicant Proposed Measures 4.4-3.) Further, the EIR/EIS explicitly concluded that the Project would not impact groundwater supplies in the SVGB. (See Final EIR/EIS, pp. 4.4-64 to 4.4-70.) The Commission’s own independent hydrogeologist confirmed groundwater supplies will not be adversely impacted by Project operation. (See Applicant’s Staff Report, Section IV.J.)
 - Additionally, it is not expected that the Project would withdraw greater amounts of “non-seawater” than estimated in the EIR/EIS. Rather, the Commission’s independent hydrogeologist confirmed that, under reasonable modeling scenarios, the range of ocean water percentages to be utilized by the Project are consistent with the modeling set forth in the EIR/EIS. (See Section E, *supra*.) Regardless, even if Cal-Am were to extract a greater percentage of “non-seawater” than originally estimated in the EIR/EIS, the CPUC has imposed costs associated with noncompliance with the Return Water Settlement Agreement on Cal-Am, not the ratepayers. (CPUC Decision D.18-09-017, p. 111; see also Applicant’s Staff Report, Sections IV.J, IV.N.)
 - Further, any determination regarding water rights is not within the Commission’s jurisdiction. On the contrary, the State Water Board—the agency charged with responsibility for regulating state water resources (Water Code, § 174; Pub. Resources Code, § 30412)—has determined that Cal-Am can develop all necessary water rights to operate the Project. (CPUC Decision D.18-09-017, p. 80.) Nothing has occurred since the time of the State Water Board’s 2013 opinion to change the Board’s assessment in any way.
 - Finally, as explained in Section J.2.b, *supra*, Cal-Am believes that the claims made by Marina and MCWD in the litigation over water use at the

CEMEX site are meritless. The CPUC has already determined that Cal-Am may develop appropriative groundwater rights if the Project extracts otherwise unusable groundwater without harming other existing lawful groundwater users, and Cal-Am returns any fresh water to the Basin. (*Ibid.*) This framework by which Cal-Am may perfect rights to Project source water cannot be modified via this litigation.

- **Effects on wetlands and vernal ponds**—Staff argues that, as discussed in Staff Report Section II.G, recent hydrogeological monitoring conducted by the Commission’s hydrogeologist suggests that Cal-Am’s slant wells could result in groundwater drawdown at nearby vernal ponds and wetlands. Staff notes that there is no currently available data to confirm whether there is a connection between groundwater and the wetlands/vernal ponds. (Staff Report, p. 144.)
 - As stated in the Staff Report, recent reports regarding Project slant well impacts on nearby vernal ponds and wetlands are inconclusive. (See Applicant’s Staff Report, Section IV.O.5.) As such, Cal-Am has proposed a Special Condition requiring the implementation of an Adaptive Management Program which would monitor the vernal ponds to determine: (1) whether the ponds are groundwater dependent and (2) if so, what changes to the ponds might be associated with Project-related drawdowns. (Applicant’s Staff Report, Special Condition 7.) If the additional analysis determines that there would be impacts from pumping-related drawdowns, Special Condition 7 would thereafter require Cal-Am to implement a Wetland Resiliency, Enhancement, Restoration, and Monitoring Plan to mitigate for potential vernal pond impacts. (*Ibid.*) Accordingly, any uncertainty has been adequately addressed through a Special Condition.
- **Lack of water distribution pipeline**—Staff notes that: (1) MCWD claims that its product water pipeline does not have sufficient capacity to accommodate Project product water and (2) MPWMD chose not to make the necessary approval for Cal-Am to construct a parallel pipeline at this time. (Staff Report, p. 144.)
 - The Staff Report fails to recognize that existing agreements explicitly permit Cal-Am to utilize the shared pipeline for the conveyance of Project product water, and that there remains sufficient capacity in the pipeline to accommodate such water. (See Applicant’s Staff Report, Section IV.O.5; June 30 Letter to Commission, Att. A, pp. 54-55.) Moreover, Cal-Am’s alternate proposal to construct an additional pipeline, running in parallel to the shared pipeline, remains entirely feasible—while MPWMD has not yet issued the approvals for the parallel pipeline, the MPWMD Board will consider approvals for the pipeline at its October meeting. (See July 31, 2020 MPWMD Board of Directors Final Minutes, p. 1.) Cal-Am has every reason to believe that MPWMD will issue approvals for the proposed conveyance pipeline.

- **Lack of required outfall liner**—The Staff Report states that there is no approved design in place for the outfall liner proposed as a mitigation measure in the EIR/EIS, and that it is unknown what additional environmental review or permits would be needed for the liner. Staff further addresses Cal-Am’s suggestion of a “spray-on” liner, but notes that M1W has not yet evaluated this proposal, and argues that any installation of the spray-on liner that requires work on the beach would adversely affect snowy plover habitat. (Staff Report, pp. 144-145.)
 - As a threshold matter, the Staff Report ignores the fact that the CPUC analyzed reasonably foreseeable impacts of the liner installation method proposed in the Final EIR/EIS, and concluded that these impacts would be less-than significant with mitigation. Nevertheless, Cal-Am has proposed to the Commission a less-impactful feasible alternative method for installing the liner that would be done almost entirely within the outfall and would involve no ground disturbance within the Coastal Zone of the City or the County. (See August 17, 2020 Cal-Am Letter to Commission.) As described in Section IV.F of the Applicant’s Staff Report, Cal-Am has proposed Special Condition 4, which would require Cal-Am to implement this proposed spray-lining method prior to the commencement of Project operations. (See Applicant’s Staff Report, Section IV.F.) Because Special Condition 4 guarantees there will be no adverse impacts to ESHA caused by the installation of the outfall liner, this future Project component does not raise concerns regarding Project certainty.

7. **“No Action” Alternative**

- The Staff Report states that under a “no action” alternative, Cal-Am would need to pursue alternative water supply solutions. (Staff Report, pp. 145-146.) Staff argues that the most likely scenario is that Cal-Am would pursue the PWM Expansion. (*Ibid.*) Staff also notes that if Cal-Am needs to obtain an additional supply in the next decade due to shortfalls in PWM Expansion supply, then it may be possible that Cal-Am would need to continue overpumping from the Carmel River. (*Id.*, p. 146.)
 - Cal-Am agrees with the Staff Report that the other water supply projects which have been considered over the past two decades have proposed to use open water intake and could also affect areas of ESHA, thereby potentially causing greater adverse impacts than Cal-Am’s proposed Project. (See Staff Report, pp. 145-146.) In the course of reviewing the Project over six years, the CPUC analyzed, and rejected eleven different alternatives to the Project, including the PWM Expansion. Cal-Am also agrees that none of those proposals could meet the deadline imposed by the State Water Board’s CDO. Cal-Am is not likely to pursue them.
 - As explained above and in Applicant’s Staff Report, the PWM Expansion is not a feasible alternative and has a greater risk of delay than does the desalination Project due the M1W’s declining to certify the Final SEIR, the lack of resources needed to revise the analysis in the Final SEIR, and the potential need to

recirculate the Final SEIR for further public review. (See Section J.2.b, *supra*; Applicant's Staff Report, Section IV.O.1.)

- Additionally, if the Project is not approved, Cal-Am will not have an adequate water supply in place to meet its obligation under the State Water Board's CDO. Although Cal-Am could seek an extension of the CDO deadline, approval of such an extension is speculative. Moreover, any extension would lead to continued excessive water withdrawals from the Carmel River in order to make up for shortfalls in supplies from the PWM project as a whole. The Staff Report does not adequately acknowledge the very real possibility that Cal-Am will be forced to continue pumping from the Carmel River to meet regional water demands or otherwise implement severe water rationing measures, along with any associated environmental, economic and environmental justice impacts.

K. Coastal Act Section 30260 Override for Coastal-Dependent Facility (Staff Report, pp. 147-153)

- Cal-Am agrees with the Staff Report's determination that Coastal Act section 30260 applies to the Project, has been incorporated into Marina's LCP, and that the Commission may conduct a section 30260 analysis in considering the Project. (Staff Report, pp. 148-149.) Cal-Am also agrees with staff's determination that the Project is coastal-dependent and an industrial facility (*Ibid.*), but disagrees that it does not meet the three tests under section 30260 (*Id.*, pp. 150-153). As explained in the Applicant's Staff Report, Section IV.P, and below, the Project satisfies section 30260, and the Commission may approve it.

1. Alternative Locations

- The Staff Report wrongly contends that under section 30260 the PWM Expansion is a feasible and less environmentally damaging alternative to the Project. (*Id.*, pp. 150-151.) First, as noted in the Applicant's Staff Report, Section IV.P, the alternatives analysis required under Section 30260 allows the Commission to only consider alternative locations for its project, not entirely different alternative projects. (See also June 30 Letter to Commission, Att. A, p. 76 [citing cases].) Second, even if the Commission could consider a separate alternative project, the PWM Expansion is not a feasible alternative. (See Applicant's Staff Report, Section IV.O [explaining that, among other reasons, the PWM Expansion is infeasible due to technological issues, delay, increased costs, and unknown environmental impacts].)
- As described in Applicant's Staff Report, Section IV.P and in the June 30 Letter to the Commission, Att. A, pp. 76-77, the Final EIR/EIS evaluated alternative locations for the Project's slant well network and determined that the CEMEX site is the environmentally superior alternative location. For instance, the two alternative locations considered for the slant wells were found infeasible due to impacts on marine and terrestrial biological resources, an inability to draw sufficient water, and additional permitting complexity.
- To the extent staff cites Coastal Act section 30233 regarding fill in coastal waters as a basis for evaluating whether alternative projects are less environmentally damaging, this

is incorrect. (See Staff Report, p. 150.) As explained above in Sections D and J and in Applicant's Staff Report, Sections IV.H and IV.O, Coastal Act section 30233 allows diking, filling, or dredging of open coastal waters only "where there is no feasible less environmentally damaging alternative." The Project does not involve the "diking, filling, or dredging" of coastal waters. (See Pub. Resources Code, § 30233.) The Project's underwater monitoring equipment and single buoy do not constitute "fill" as contemplated by section 30233 because the equipment uses anchors placed on the seafloor. (See June 30 Letter to Commission, Att. A, p. 77.) In addition, the potential retrofitting of the outfall diffuser and replacement of WEKO seal clamps on the outfall would not involve "fill" in coastal waters. (See Applicant's Staff Report, Section IV.I.) Accordingly, the alternatives analysis for the Project should not include an analysis under Coastal Act section 30233.

- Moreover, even if the Project components that are the subject of these applications did involve fill, which they do not, the Commission's authority under Section 30233 would be limited to review of alternatives to those components within the Commission's jurisdiction that do involve fill, rather than wholesale alternatives to the entire Project. (Section J, *supra*; June 30 Letter to Commission, Att. A, p. 46.)
- Therefore, as concluded in the Applicant's Staff Report, Section IV.P, there is no feasible less damaging alternative to the Project, and the Project meets the first test of Section 30260.

2. Public Welfare

- The Staff Report contends that denial of the Project would not adversely affect the public welfare. (Staff Report, pp. 151-153.) To the contrary, to not permit the Project would have significant adverse effects on the public welfare.
- Although the Staff Report "acknowledges the need for Cal-Am to obtain a new water supply," it does not provide adequate disclosure of the Project's numerous benefits. (*Id.*, p. 151.) Specifically, the Staff Report either ignores or does not adequately address the following ways the public will be affected if the Project is not approved, as discussed in the Applicant's Staff Report, Section IV.P:
 - Without the Project, a deficit between available water supplies and total demand will result and worsen over time, potentially leading to prohibitions on all or specified non-essential water uses. 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 and commercial water use (Final EIR/EIS, pp. 5.4-10 to 5.4-11);
 - Without the Project, Cal-Am would fail to meet the CDO milestones, which could have harmful consequences for Cal-Am, its customers, the community, and the regional economy. Even if Cal-Am sought an extension of the CDO deadline, approval by the State Water Board is uncertain, and any extension could lead to

continued excessive water withdrawals from the Carmel River and associated environmental impacts, as well as pumping from the Seaside Groundwater Basin that could lead to seawater intrusion;

- The CDO imposes a moratorium on new service connections and certain increases in use until Cal-Am certifies that it has obtained sufficient alternative water supplies. Notably, the moratorium and water supply deficit prevent the development of essential affordable housing in the region. If the proposed Project is approved, it could promote the buildout of necessary affordable housing on the Peninsula, as dictated by the Regional Housing Needs Assessment (“RHNA”) for the Monterey Bay Area;
 - The Project would provide a water supply to replace that obtained from the Carmel River, benefiting the river watershed (Final EIR/EIS, p. 4.6-126);
 - The Project would prevent further seawater intrusion into the SVGB (*id.*, p. 4.4-92; D.18-09-017, Appx. C, p. C-75);
 - The Project would provide sufficient water to support economic growth, particularly the County’s “four pillars”—agriculture, tourism, education, and research.
 - Further, as discussed above in Section I and in the Applicant’s Staff Report, Section IV.N, the Project will not only benefit the SVGB, but will also provide much needed protections to the Seaside Groundwater Basin, which is another critical water supply source for the Peninsula. (Section I, *supra*; Applicant’s Staff Report, Section IV.N.) Providing adequate protections to the Seaside Groundwater Basin is necessary to maintain protective water levels for the Seaside Basin to prevent seawater intrusion and irreversible loss of basin storage.
- Furthermore, as explained in the Applicant’s Staff Report, Section IV.N, Cal-Am has a rate assistance program for qualifying water consumers that will help defray increased water costs associated with the Project. Cal-Am has also proposed Special Condition 13, which would expand upon the current ratepayer assistance program and benefit more lower income customers.
 - Staff also contends that the public will be adversely affected because sand mining operations at the CEMEX site will cease on the proposed site and the property will be set aside for public benefit. (Staff Report, pp. 151-152.) But staff ignores the current reality of the site conditions. Cal-Am selected this site in part because the area was already disturbed and industrialized. (See Applicant’s Staff Report, Section IV.L.)
 - Further, prior to the CEMEX site becoming open for public access, a government agency or non-profit entity approved by the Commission must purchase the property. It is unclear when that would occur or what the exact scope of use for the site would be. (See *ibid.*)

- Moreover, the Project would have a nominal effect on public use of the area. The Project components will only occupy 0.06 percent of the 400-acre CEMEX site, with some minimal additional occupation for recommended maintenance activities approximately every five years. (See Applicant's Staff Report, Section IV.L.) None of the areas impacted by the Project's construction or operation, including those maintenance activities, would impede beach use or access. (*Ibid.*; Final EIR/EIS, pp. 3-59, 4.8-33.)
- As discussed in Section A, *supra*, and in Applicant's Staff Report, Section IV.F, Cal-Am's HMMP also proposes restoration activities on the CEMEX site which would provide significant improvements to that area of dune ecosystem because no restoration or enhancement of the area is otherwise proposed, required or funded under the Settlement Agreement. (See Section A, *supra*; Applicant's Staff Report, Section IV.F.) The Settlement Agreement does not require the future purchaser to use or manage the property for ESHA preservation or restoration. (See Applicant's Staff Report, Section IV.F.) However, in its HMMP, Cal-Am has proposed areas for restoration that have not been identified for restoration under the Settlement Agreement. (*Ibid.*)
- The Staff Report also states that the PWM Expansion could provide a water supply adequate for current and expected future growth and that will allow Cal-Am to meet its obligations regarding reduced withdrawals from the Carmel River. (Staff Report, p. 151.)
 - As described in Section J of this Response and in Section IV.O of the Applicant's Staff Report, the PWM Expansion is not a feasible alternative because, among other things, it will not provide sufficient water to meet even the low demand number put forth by MPWMD. (See Applicant's Staff Report, Section J [discussing PWM Expansion's technological issues, uncertainty regarding the availability of source water for the PWM Expansion, inability to provide adequate water supply, and Monterey One Water's decision not to move forward with the project's development].)
- The Staff Report further contends that the PWM Expansion will better eliminate concerns regarding adverse effects to groundwater. (Staff Report, p. 152.) However, the Project will not adversely affect groundwater supplies in the SVGB, as described in Section E, *supra*, and in the Applicant's Staff Report, Section IV.J. The Commission's independent hydrogeologist and the Final EIR/EIS confirmed that the Project will not impact Marina's supply wells (see Staff Report, p. 68), and that the Project will withdraw primarily seawater from the SVGB—not groundwater that is usable for irrigation or human consumption without treatment. In addition, the Commission's independent hydrogeologist confirmed that the OWP of the Project's source water would range between 88-99% under reasonable assumptions, consistent with the EIR/EIS's conclusions. (See Applicant's Staff Report, Section IV.J.)

3. Mitigation to the Maximum Extent Feasible

- Staff asserts that because the Project does not meet the first two tests under section 30260, it is not necessary to consider the third test. Nevertheless, Staff claims that adverse environmental effects have not been “fully mitigated.” (Staff Report, p. 153.)
 - Although the Staff Report uses the phrases interchangeably, the Coastal Act and its regulations do not require that impacts be “fully mitigated,” but rather requires that impacts are mitigated to the “*maximum extent feasible*.”¹³ (See, e.g., 14 Cal. Code Regs., § 13053.5, subd. (a); see also *id.*, §§ 13328.1, 13356, subd. (b)(2), 13540, 13666.4.) Similarly, the City’s LIP states that, for CDPs, the City’s Planning Commission shall consider “feasible mitigation measures which substantially reduce significant impacts of the projects as described in any applicable EIR.” (LIP, p. 24.)
 - As discussed above in Section A and in the Applicant’s Staff Report, Section IV.F, the extent of ESHA impacted will be less than staff identifies in the Staff Report. Instead of the approximately 35 acres staff claims, the Project will only impact approximately 17.5 acres, and all but 2.2 acres only would be temporarily impacted.
 - Further, Cal-Am will implement the CPUC’s MMRP and has proposed additional mitigation in its HMMP and Special Condition 5 to address staff’s additional ESHA concerns. (See Section A *supra*; Applicant’s Staff Report, Section IV.F.) With implementation of these measures and conditions, impacts to ESHA will be mitigated to the maximum extent feasible. (See *ibid.*)
 - In addition, Cal-Am has proposed a separate mitigation program specific to vernal ponds, which would be required under proposed Special Condition 7. (See Section B *supra*; Applicant’s Staff Report, Section IV.G.) As a result, potential impacts to vernal ponds would be mitigated to the maximum extent feasible.
 - Finally, potential impacts to coastal hazards, coastal waters, visual resources, and public access are mitigated also to the maximum extent feasible through Special Conditions 3, 8, 9, 10, and 11. (See Section A, C, G, I, *supra*; Applicant’s Staff Report, Section IV.F, IV.H, IV.I, IV.L, IV.M.)
- Because Cal-Am’s Project meets each of the three tests under Coastal Act section 30260, the Commission should approve the Project.

¹³ As explained above, “feasible” means “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.” (See Pub. Resources Code, § 30108.) The City’s Zoning Ordinance definition of “feasible” is substantively identical to the Coastal Act’s definition. (Marina Municipal Code, § 17.41.110.)

ATTACHMENT C

**RESPONSES TO MCWD’S AUGUST 14, 2020 COMMENT LETTER,
ATTACHMENTS A & B**

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A. Environmentally Sensitive Habitat Areas (“ESHA”)

- MCWD argues that Cal-Am incorrectly estimates the Project’s potential impacts to ESHA by using the wrong standard for temporary impacts, and that, “[a]s determined by the City’s biologists, Cal-Am would need to provide at least 50.72 acres of habitat to mitigate the impacts to ESHA within City’s jurisdiction.” (MCWD Letter, pp. 4, 6.) Further, MCWD argues that regardless of the extent of ESHA impacts, the Project remains inconsistent with Marina’s LCP because it impacts “any ESHA.” (*Id.*, p. 4.)
 - MCWD incorrectly states that Cal-Am is using the wrong standard for temporary impacts. Cal-Am’s position is that temporary impacts to be those impacts on habitat resulting from construction that can be fully restored to pre-disturbance conditions following completion of construction, such as impacts from construction staging, laydown, trenching areas, and other work space that will not be occupied by permanent facilities during Project operation. For these type of activities, restoration work will occur concurrent with Project construction, sequencing work to ensure that the impacts are temporally limited. Therefore, these construction-related impacts are correctly identified as temporary.
 - As explained above in Attachment B, Section A of this Response, the impacts to ESHA were previously overestimated in the Final EIR/EIS and have been significantly reduced because the CPUC approved a smaller desalination project than was studied as the project in the EIR/EIS, subsequent design drawings have been prepared, and more detailed biological assessments have defined the scope of biological resource impacts. Therefore, the acreages provided in Attachment B, Section A show the full scope of impacts to biological resources including ESHA in the Coastal Zone.
 - In addition, as explained above in Attachment B, Section A of this Response, the Project conforms to the LCP’s habitat protection policies because the Project would not result in substantial adverse impacts to sensitive natural communities, including ESHA, during Project construction or operations with the implementation of feasible and enforceable mitigation measures.
 - Further, because the Project is a coastal-dependent industrial facility that would not result in a substantial adverse impact on sensitive habitats, the Project may be sited in an area defined as primary habitat without violating the City of Marina’s LCP and the Coastal Act. (Pub. Resources Code, § 30260; see also Attachment B, Sections A, K; Applicant’s Staff Report, Sections IV.F, IV.P.)
- MCWD contends that it is unclear whether Cal-Am has considered impacts to secondary habitat. (MCWD Letter, p. 5.)
 - Contrary to MCWD’s contention, Cal-Am’s HMMP very clearly considers impacts to secondary habitat. As the HMMP provides “[f]or purposes of this analysis, this document assumes that both primary and secondary habitat would correspond with the CCC’s definition of ESHA.” (HMMP, p 3-3.) Further,

HMMP Table 3-1 Permanent and Temporary Impacts to Special-Status Biological Resources specifically identifies the acreage of secondary impacts to the Special-Status Biological Resources, HMMP Table 3-3 Mitigation Requirements by Biological Resource identifies the amount of mitigation that is necessary for secondary impacts by resource category, and HMMP Table 3-4 Total Impact Acreages and Mitigation Requirements by Project Components summarizes the total mitigation necessary for secondary impacts. (See HMMP p 3-6 – 3-7 and 3-9 – 3-10.) As provided in Table 3-4, the HMMP proposes to mitigate for 4.457 acres of impacts to secondary habitat. Accordingly, it is very clear that Cal-Am considered and proposed mitigation for impacts to secondary habitat as part of the HMMP. MCWD’s comment is entirely without basis.

- MCWD asserts that construction of the Project’s slant wells will result in the long-term loss of 7 acres and temporary loss of 2 acres. (MCWD Letter, pp. 5-6.) MCWD further argues there would be additional losses as a result of the future need to relocate wells due to sea level rise and coastal erosion. (*Id.*, p. 6.) According to MCWD, Cal-Am must provide evidence or commit that future sites for the replacement slant wells would not be located in ESHA; otherwise, staff must consider the ESHA impacts permanent. (*Ibid.*)
 - Contrary to MCWD’s assertion, construction of the Project’s slant wells would result in only 2.2 acres of permanent impacts to ESHA and 6.2 acres of temporary impacts. (See Attachment B, Section A; Applicant’s Staff Report, Section IV.F.)
 - In addition, as explained in Applicant’s Staff Report, Sections IV.F and IV.H, and above in Attachment B, Sections A and C, it is speculative to assess at this time where or how Cal-Am would replace or relocate its wells after their 25-year operating life because technological advancements over the next 25 years could enable the location of alternative wells in locations that are not feasible today. If any relocation or replacement is necessary, Special Condition 9 would require that Cal-Am seek an amendment from the Commission. Further, by the time Cal-Am needs to decommission the wells authorized by this CDP, Cal-Am would need to apply to the Commission for authorization to replace or relocate the wells, and the Commission would need to consider whether the proposal would result in additional ESHA impacts based on the proposed well locations.
- MCWD argues that pipeline construction would result in at least 35 acres of ESHA impacts, and that it is unknown how much ESHA would be impacted by the installation of a liner within the Monterey One Water outfall pipeline. (MCWD Letter, p. 6.)
 - As shown above in Attachment B, Section A of this Response, the Project will not result in 35 acres of ESHA impacts associated with pipelines as MCWD claims, but rather would potentially result in impacts to only 9 acres outside of the CEMEX site associated with pipelines—all of which would be temporary impacts. (See Attachment B, Section A; see also Applicant’s Staff Report, Section IV.F.)

- Moreover, as described in Applicant’s Staff Report, Section IV.F, Cal-Am has proposed a feasible, less-impactful alternative to install a protective liner throughout the Monterey One Water outfall. The alternative spray lining method would involve minimal groundbreaking activities outside of the Coastal Zone, and the application of the liner would occur entirely within the pipeline itself. (See *ibid.*) Under proposed Special Condition 4, Cal-Am would be required to implement this alternative liner method to avoid impacts to Coastal Zone resources, including ESHA.
- MCWD claims that Cal-Am’s proposed mitigation is not permitted under the Coastal Act because “section 30240 does not permit a process by which the habitat values of an ESHA can be isolated and then recreated in another location.” (MCWD Letter, p. 5 [quoting *Bolsa Chica Land Trust. v. Super. Ct.* (1999) 71 Cal.App.4th 493, 507].)
 - Contrary to MCWD’s assertion, Cal-Am does not propose to “recreate” ESHA elsewhere as a means to be consistent with provisions in Marina’s LCP and Coastal Act section 30240 prohibiting non-resource dependent uses in ESHA. Rather, Cal-Am has proposed all feasible mitigation measures to ensure that impacts to ESHA are mitigated to the maximum extent feasible under the Coastal Act and Marina’s LCP. (See Applicant’s Staff Report, Section IV.F.) Despite proposing all feasible mitigation measures the Project would remain inconsistent with Coastal Act section 30240. Proposing mitigation in another location for permanent impacts is entirely appropriate outside of the context of a Coastal Act section 30240 consistency evaluation. (See, e.g., *Masonite Corp. v. County of Mendocino* (2013) 218 Cal.App.4th 230, 238-239 [permitting offsite mitigation]; see also *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 279-280 [same].) Therefore, the HMMP’s proposal to mitigate for permanent impacts at the CEMEX site in another area of the CEMEX site is permitted under the Coastal Act.
 - Pursuant to Coastal Act section 30260, because the Project is a coastal-dependent industrial facility, the Commission may consider approving the Project notwithstanding potential inconsistencies with Marina LCP and Coastal Act policies regarding habitat protection. One of the tests under Section 30260 is whether the Project’s potential impacts are mitigated to the maximum extent feasible.
 - As explained in Applicant’s Staff Report, Section IV.P, the Project’s potential impacts to ESHA are mitigated to the maximum extent feasible because Cal-Am would implement the CPUC’s robust MMRP, Cal-Am’s proposed HMMP, and proposed Special Conditions 5, 7.
- MCWD contends that areas identified for mitigation in the HMMP are already slated for preservation or restoration after sand mining activities cease at the CEMEX site. (MCWD Letter, p. 7.) Accordingly, MCWD claims that Cal-Am’s proposed mitigation would not yield additional habitat beyond what would otherwise occur and would actually result in a net loss of ESHA. (*Ibid.*)

- As explained in Attachment B, Section A the areas proposed for restoration under the HMMP at the CEMEX site are located entirely within areas that are not identified for restoration under the Settlement Agreement or Reclamation Plan. Absent the implementation of the HMMP by Cal-Am no restoration or enhancement of these areas is otherwise proposed, required, or funded.
- MCWD claims that all ESHA mitigation requires buffer areas, but Cal-Am failed to provide buffers in its HMMP. (MCWD Letter, p. 7.)
 - Contrary to MCWD's contention the HMMP included buffer areas from the pipelines and facilities. (HMMP, p. 1-1.) Specifically, the HMMP provided for a 25-foot work areas on both sides of the centerline of most pipelines and around facilities. (*Id.*) Work area limits along the Castroville pipeline are 30 feet from the centerline on each side. (*Id.*) Accordingly, the HMMP accounted for buffers from the Project's pipelines and facilities.
- MCWD argues that Cal-Am has not provided assurance that the proposed restoration activities at the CEMEX site would occur or that the mitigation would be consistent with the goals of the entity ultimately purchasing the site. (MCWD Letter, p. 7.) Further, MCWD argues that Cal-Am has not proposed a long-term management plan or mitigation to restore the CEMEX site after the useful life of the Project has expired. (*Ibid.*)
 - As explained in Attachment B, Section A and Section IV.F of the Applicant's Staff Report, because the CEMEX site has not yet been purchased by a Commission-approved entity, Cal-Am has proposed Special Condition 5 to address any uncertainty regarding the CEMEX site closure and subsequent transfer to a purchaser as well as long-term management of the restoration area.
- MCWD claims that agricultural runoff will reduce the success of the HMMP.
 - As explained in Attachment B, Section A and Section IV.F of the Applicant's Staff Report, Cal-Am has proposed Special Condition 6, which requires Cal-Am to submit a plan for Executive Director review and approval prior to permit issuance, which will detail the plan for the discontinuation or alternative management for the agricultural runoff. Therefore, any concerns regarding agricultural runoff will be fully addressed.
- MCWD claims that the HMMP is inadequate because the California Department of Fish and Wildlife and the US Fish and Wildlife Service have been left out of the process. (MCWD Letter, p. 6.)
 - Contrary to MCWD's claims, Fish and Wildlife have always been involved in the process of developing the Project's mitigation program. In fact, the US Fish and Wildlife Service have issued Biological Opinion dated October 18, 2018 on which the HMMP was based, and the California Department of Fish and Wildlife have issued an Incidental Take Permit for the Project on December 19, 2019. (See ITP No. 2081-2018-027-04.)

B. Coastal Hazards

- MCWD’s Letter argues that the Final EIR/EIS’s sea-level rise analysis was superseded by the state’s and Commission’s more recent guidance that projects higher sea level elevations occurring more quickly. (MCWD Letter, p. 8.)
 - The Final EIR/EIS was prepared based on the best available science at the time. Since that time, the Ocean Protection Council and the Commission have updated their sea-level rise guidance. (See, e.g., June 30, 2020 Letter to Commission, pp. 10-11.) Cal-Am and staff have both evaluated the Project based on this more recent guidance and found that the Project as proposed is consistent with applicable LCP and Coastal Act policies.
 - MCWD references an August 2020 Legislative Analyst’s Office Report¹ that it claims represents new state guidance that sea level rise will be higher and faster than previously expected. (MCWD Letter, p. 8.) But this report relies on the very same state guidance, such as the Ocean Protection Council’s State of California Sea-Level Rise Guidance 2018 Update, which AECOM and staff have already reviewed and used to update the Project’s coastal hazards analysis. MCWD’s claim that the report constitutes new information is meritless.
- MCWD argues that the Project is not coastal-dependent pursuant to Coastal Act section 30260. As more fully explained in Section J, MCWD is wrong. The Project is a coastal dependent development as defined by Coastal Act section 30101, which states that a coastal-dependent development or use “means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.”
- MCWD states that LCP policies must account for at least 50 years of safety and stability. Although the Project, with Special Conditions, would be safe and stable for 50 years, the LCP and Coastal Act only require that a Project is protected for its economic life. This understanding is shared by Commission staff. (Staff Report, p. 61 [“the proposed well site locations would allow the wells to avoid hazards from coastal erosion during their expected operating life and are therefore consistent with the above-referenced LCP provisions”].) Here, the substantial evidence shows and staff agrees that the Project would be protected for the economic life of the slant wells.
 - The practical effect of MCWD’s position would be that any development planned for less than 50 years near the beach would be prohibited, regardless of whether that development would be impacted by wave erosion. This is both nonsensical and inconsistent with the LCP’s language and intent, which is meant to ensure that developments are sited to be protected from coastal hazards during their economic lives. (See Staff Report pp. 54-55.) Here, the slant wells would be protected during their operational/economic lives of 20 to 25 years. (*Id.* at p. 61.)

¹ Legislative Analyst’s Office, “What Threat Does Sea-Level Rise Pose to California?” (Aug. 2020), <https://lao.ca.gov/reports/2020/4261/sea-level-rise-081020.pdf>.

- MCWD further claims that the soft measures included in Special Condition 8 proposed by Cal-Am to prevent sand burial are unrealistic to avoid the long-term effects of dune recession. MCWD’s contention is not only entirely unsupported by any expert analysis, but is contradicted by the City of Marina and the Commission’s guidance documents.² Soft measures, such as revegetating and monitoring, are dune restoration practices commonly understood to mitigate dune recession. (June 30, 2020 Letter to Commission, p. 13.)
 - MCWD further argues that if the soft measures fail, any hard measures such as sand fencing, would cause additional impacts. (August 14, 2020 MCWD Letter, p. 9.) However, as described above and in Cal-Am’s June 30, 2020 letter, the likelihood of the wells being affected by coastal erosion or sand burial is extremely limited – only two wells could potentially be affected by dune migration during their economic lives. (June 30, 2020 Letter to Commission, p. 12-13.) Those impacts would be mitigated through Special Condition 8. Evaluating other measures at this time is entirely speculative and, if necessary, would be the subject of further Commission review and conditions based on actual circumstances. Additionally, because not all wells are necessary for operation, potentially impacted wells could be decommissioned if ultimately necessary without impacting Project operations. (See Final EIR/EIS, p. 4.2-72; June 30, 2020 Letter to Commission, pp. 12-13, 14.)
 - Finally, MCWD claims that not analyzing potential hard measures now constitutes improper deferral of mitigation. (MCWD Letter, p. 9.) MCWD’s continued attempt to impose CEQA principles applicable to EIRs onto the Commission’s review is groundless. The CEQA Guidelines state that “[f]ormulation of mitigation measures should not be deferred until some future time.” (CEQA Guidelines, § 15126.4(a)(1)(B).) Neither the Coastal Act nor the LCP include any such provision. The Commission’s role in issuing coastal development permits is to determine whether “the proposed development is in conformity with the certified local coastal program” and other applicable Coastal Act policies. (Coastal Act, § 30604.) Conformance with Section 30253 of the Coastal Act is a Coastal Act policy, not a CEQA threshold.
 - Even so, under CEQA, the specific details of a mitigation measure “may be developed after project approval when it is impractical or infeasible to include those details during the project’s environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that

² City of Marina Local Coastal Program, Land Use Plan, p. 21, 61-62 (2013) (“The impact of development on areas already subject to wind erosion problems is low to moderate and can be mitigated through the permit process (e.g., geotechnical investigation prior to permitting development, revegetation with appropriate groundcovers, provision of ‘boardwalk’ accessways, sand fences, etc.)”), <https://cityofmarina.org/DocumentCenter/View/10046/LUP-with-figures---complete>; see also June 30, 2020 Letter to Commission, p. 13.

can feasible achieve that performance standard and that will be considered, analyzed, an potentially incorporated in the mitigation measure.” (CEQA Guidelines, § 15126.4(a)(1)(B).) Here, Special Condition 8 meets all of these requirements by committing Cal-Am to annual monitoring of dune migration and implementation of specific types of restoration and stabilization activities as necessary, which would be reviewed and approved by the Executive Director prior to implementation. Further, Special Condition 8 provides that if measures are necessary that could impact ESHA, they would be separately permitted and ESHA impacts would be mitigated at a 3:1 ratio. The measure also provides for the possibility of removal of the well entirely if necessary. Therefore, Special Condition 8 ensures that potential dune migration and windblown sand impacts can be fully mitigated or avoided, and is not improper deferral under CEQA.

- Additionally, to ensure that the Project remains consistent with the LCP’s coastal hazards provisions, Special Condition 5 requires Cal-Am to return to the Commission for a CDP amendment should there be a need to replace or relocate any slant wells.

C. Protection of Coastal Waters and Marine Resources

- Contrary to MCWD’s assertions, the Project would not involve the placement of fill in coastal waters, and therefore, would not trigger Coastal Act Section 30233. As discussed in the Final EIR/EIS, the Project components that MCWD has taken issue with are temporary in nature and limited in scope, and potential impacts to receiving coastal waters, if any, would be minimal. Furthermore, the Project and associated brine discharges would have minimal impacts on receiving coastal waters, which would be mitigated below a level of significance.
- MCWD argues that the full extent of impacts to coastal waters and marine resources is unknown because Cal-Am “failed to include critical project components in its CDP application.” (See MCWD Letter, p. 10.) MCWD argues that because Cal-Am has not included the outfall work as part of its CDP application, it is not presently known how exactly the brine would be processed and discharged into the ocean, and how that would impact coastal waters. (See *id.*, p. 79.)
 - MCWD has not identified the “critical project components” that it alleges were excluded from Cal-Am’s CDP application. To the extent MCWD’s contention relates to the M1W outfall, Cal-Am thoroughly discussed the extent of the outfall’s impacts to coastal waters and marine resources in its June 30 Letter to the Commission, in response to similar inquiries by Staff. (See June 30 Letter to Commission, pp. 16-17.)
 - As Cal-Am has repeatedly maintained, aside from the WEKO seal clamp replacement on the nearshore portion of the outfall, work on M1W’s outfall is separate from the Project components before the Commission and may be separately conditioned when M1W applies for a CDP for that work (if a CDP is necessary). Even so, as Cal-Am explained in its June 30 Letter to the

Commission, the impacts associated with the potential structural changes to the outfall were fully described and analyzed in the Final EIR/EIS. (Final EIR/EIS, pp. 4.3-109 to 4.3-110; see also *id.*, Appx. D1 (Roberts 2017); *id.*, Appx. D3 (Trussel Tech); June 30 Letter to Commission, pp. 17-18.) Construction impacts would be minor and temporary, design specifications would be reviewed and approved by Monterey bay National Marine Sanctuary *before* implementation of the retrofit work, and benthic communities are expected to recover to baseline conditions as a result of any potential disturbance. (Final EIR/EIS, p. 4.3-109.)

- As a further precaution, Applicant's Staff Report includes a Special Condition to ensure that all applicable water quality standards related to the outfall are met. The condition requires that prior to operation of the Project, the Applicant must demonstrate that discharges from the outfall would comply with the Ocean Plan and applicable water quality requirements by demonstrating that:
 - (1) a Coastal Development Permit or Amendment has been obtained and implemented for any necessary work on the Monterey One Water outfall related to the Project's discharges; and/or
 - (2) Permittee has implemented other measures consistent with Final EIR/EIS Mitigation Measure 4.3-5, as necessary, outside of the Commission's jurisdiction.
- With respect to project impacts to coastal waters and marine resources generally, these impacts have been thoroughly examined in the Final EIR/EIS, and reiterated in Cal-Am's June 30, 2020 Letter. (See Final EIR/EIS, pp. 4.3-1 to 4.3-129, 4.5-1 to 4.5-72, 5.5-29 to 5.5-82, 5.5-110 to 5.5-137; June 30 Letter to Commission, pp. 16-18.)
- MCWD argues that the Project's seafloor anchors, buoys, and other mooring instruments constitute the placement of "fill" in open coastal waters, for purposes of Coastal Act section 30233. (See MCWD Letter, pp. 10-11.)
 - In support of this contention, MCWD cites to three prior applications, claiming that "the Commission has historically regarded seafloor anchors, mooring, and other devices as 'fill' under section 30233." (MCWD Letter, p. 11.) As described below, each of these examples involves work that is substantially greater in magnitude and duration than the Project components MCWD has identified. MCWD cites to these applications as an attempt to distort application of the Commission's precedent. In fact, a review of the applications that MCWD has cited confirms that the Commission would not generally consider the Project components at issue in this application to be "fill" for purposes of the Coastal Act.
 - MCWD cites to the following applications in attempting to characterize certain Project components as fill in coastal waters:

- Application No. 9-16-1153, involving installation of up to four 700-pound anchoring devices on the seafloor for a period of up to three years.³
 - Application No. E-12-012-A1 involving installation of 80 anchoring devices, the majority of which would either be “metal like anchors or 12-foot long helical screw anchors that would be *drilled into the seafloor*.”⁴
 - Application No. 5-03-151-A1, involving the placement of “six one-ton concrete blocks on the ocean floor.”⁵
- Each of these applications proposes the placement of substantially larger objects or a substantially greater number of objects within coastal waters than the Project calls for. Work required for the Project’s seafloor anchors, buoys, and mooring instruments is temporary in nature and limited in scope, and potential impacts to receiving coastal waters, if any, would be minimal. As such, ***the precedent that MCWD cites to in no way suggests that the Project components MCWD has identified would involve the placement of “fill” in coastal waters for purposes of the Coastal Act.*** To the contrary, the precedent suggests that the Commission would not generally consider the temporary and minor work that the Project entails, as involving the placement “fill” in coastal waters.
- MCWD further suggests that the Project would adversely impact ocean water quality due to seasonal unavailability of wastewater for mixing with brine discharges and insufficient impact mitigation. (MCWD Letter, pp. 79-80.) For these reasons, MCWD concludes that the final method for discharge is unknown, has not been fully analyzed, and there will not be sufficient wastewater available for mixing with the brine discharges. (See *id.*, p. 80.)
 - With respect to impacts associated with brine discharges, the Project’s potential environmental impacts from brine discharges were fully analyzed in the Final EIR/EIS. (See June 30 Letter to Commission, pp. 94-95.) As Cal-Am explained in its June 30, 2020 Letter to the Commission:
 - “The Project’s potential effects on ocean water quality and marine life were analyzed in detail in the Final EIR/EIS. Specifically, Impact 4.3-5 assessed whether the Project’s operational brine discharge would violate water quality standards or waste discharge requirements, or degrade ocean water quality. (Final EIR/EIS, pp. 4.3-95 to 4.3-113.) As discussed therein, the Final EIR/EIS concluded that implementation of the Project

³ Staff Report, Application No. 9-16-1153 (April 21, 2017), available at: <https://documents.coastal.ca.gov/reports/2017/5/w9a/W9a-5-2017-report.pdf> (pp. 3, 7).

⁴ Staff Report, Application No. E-12-012-A1 (July 13, 2018), available at: <https://documents.coastal.ca.gov/reports/2018/7/fl1a/fl1a-7-2018-report.pdf> (pp. 10, 15).

⁵ Staff Report, Application No. 5-03-151-A1 (July 12, 2006), available at: <https://documents.coastal.ca.gov/reports/2006/7/W16a-7-2006.pdf> (p. 8.).

could potentially cause exceedances of Ocean Plan water quality objectives for the ammonia and cyanide under certain operational conditions when wastewater volumes co-mingled with the brine are low. For an additional thirteen constituents, the Final EIR/EIS determined that there is not enough information to assess concentrations at the edge of the zone of initial dilution. Therefore, the Final EIR/EIS conservatively concluded that Ocean Plan water quality objectives could potentially be exceeded during operations for some operational discharge scenarios.

- However, the Final EIR/EIS determined that Impact 4.3-5 would be less than significant with implementation of Mitigation Measure 4.3-5 (Implement Protocols to Avoid Exceeding Water Quality Objectives), which requires Cal-Am to perform an extensive water quality assessment prior to Project implementation. (Final EIR/EIS, p. 4.3-104.) Operational discharges that cannot be demonstrated to conform to the Ocean Plan water quality objectives may only be released following implementation of additional design features, engineering solutions, and/or operational measures that ensure compliance with these objectives.⁶ (*Id.*, p. 4.5-64.) In other words, no exceedance of Ocean Plan objectives will occur because no discharges will be permitted unless the water quality assessment confirms that the discharges comply with the Ocean Plan. The Commission did not comment on or object to Mitigation Measure 4.3-5 in its comments on the EIR/EIS.”
- Additionally, Impact 4.3-4 considered whether the Project would violate water quality standards or waste discharge requirements or degrade water quality from increased salinity as a result of brine discharge from the operation of the Project desalination plant. In order to address this concern, the Final EIR/EIS imposes Mitigation Measures 4.3-4, which requires the applicant to implement a monitoring and reporting plan in order to ensure that operational discharges from the Project are in compliance with applicable Ocean Plan salinity standards. (Final EIR/EIS, p. 4.3-93.) The plan will be approved by the Regional Water Board and MBNMS *prior to* implementation. (*Ibid.*) Moreover, monitoring will be conducted for one year *prior to* the commencement of operational discharges and will continue until at least five years after operational discharges commence. (*Id.*, p. 4.3-94.)

⁶ The Final EIR/EIS also described the potential design features and operational measures that could be employed, such as retrofitting the existing outfall diffuser, additional pre-treatment of source water to the Desalination Plant component of the Project, treatment of discharge, flow augmentation, and end gate modification. (Final EIR/EIS, pp. 4.3-106 to 4.3-108.) The Final EIR/EIS also analyzed the potential secondary impacts of these potential design features and operational measures, and determined that those secondary impacts would be less than significant. (*Id.*, pp. 4.3-109 to 4.3-113.)

- As discussed in the Final EIR/EIS, implementation of these mitigation measures would ensure that impacts relating to water quality standards, waste discharge requirements, or ocean water quality, as a result of brine discharges from the Project, would be less than significant. Accordingly the Final EIR/EIS has thoroughly examined the effects that the desalination plant would have on water quality and implemented adequate mitigation to minimize any potential adverse effects.
- MCWD reiterates concerns that the California Department of Fish and Wildlife (CDFW) raised regarding potential impacts of the Project on sensitive habitats and special status biological resources. In doing so, MCWD falsely suggests that “agencies with authority over marine protected areas have not yet reviewed the project...” (MCWD Letter, p. 80.)
 - As Cal-Am has previously noted, the Final EIR/EIS evaluated potential Project impacts on biological resources in detail and concluded that the Project would not result in a significant impact on marine biological resources with implementation of the mitigation measures identified. (Final EIR/EIS, pp. 4.5-47, 5.5- 134; June 30 Letter to Commission, pp. 82-84.)
 - In addition, as discussed in Attachment B, Section A, CDFW and U.S. Fish and Wildlife have been involved in the process of developing the Project’s mitigation program and CDFW has issued an Incidental Take Permit for the Project on December 19, 2019. (See ITP No. 2081-2018-027-04.)
 - In its response, MCWD states that to “[its] knowledge, agencies with authority over marine protected areas have not yet reviewed the project to determine whether it would impact marine species or whether the project is even permissible under the relevant laws.” MCWD has overlooked or ignored the fact that Monterey Bay National Marine Sanctuary, a federal agency that is part of the National Oceanic and Atmospheric Administration and whose mission is to “understand and protect the coastal ecosystem... of the Monterey Bay National Marine Sanctuary,” prepared the Final EIR/EIS in conjunction with the CPUC. This basic oversight underscores the haphazard nature of MCWD’s allegation.

D. Groundwater Resources

1. Adequacy of Existing Groundwater Modeling

- MCWD argues that the Final EIR/EIS’s modeling has significant limitations and cannot accurately calculate OWP, thereby underestimating the amount of fresh water that the Project will extract. (MCWD Letter, p. 21; see also *id.*, pp. 83-84.) Thus, the Commission must conduct additional investigation and modeling. (*Id.*, pp. 12-13, 25.)
 - MCWD’s arguments and additional modelling requests are based on assumptions and its own technical analyses that have been rejected in numerous other administrative and judicial proceedings, and are contrary to the findings of the Commission’s own technical consultant.

- The extensive groundwater modeling for the Final EIR/EIS involved a multi-year, peer-reviewed effort that conservatively analyzed the Project's OWP and potential impacts to groundwater supplies in the SVGB. (See June 30 Letter to Commission, Att. A, pp. 20-22.)
- Further, as described in Applicant's Staff Report, Section IV.J, the Final EIR/EIS's modeling adequately characterized the Project's potential impacts to groundwater resources in the SVGB and the Project's estimated OWP. The EIR/EIS's OWP estimates are consistent with the 2020 Weiss Report's results for scenarios using reasonable groundwater input assumptions.
- The additional modeling MCWD suggests would only duplicate the extensive groundwater modeling and analyses performed to-date, and thus, is not required. The Commission is "not required to exhaust all suggested testing" before approving the Project. (See *Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal.App.4th 74, 102.)
- MCWD suggests that even the 2020 Weiss Report's conclusions have limited value because Weiss could not fully evaluate the Project's potential groundwater impacts using a new groundwater model "due to a lack of funding and time." (MCWD Letter, pp. 14, 20; see also *id.*, p. 73.)
 - There is no need to conduct additional investigation and modeling beyond what Weiss performed, much less for the costs proposed, because the 2020 Weiss Report's findings for modeling scenarios – where it used reasonable parameters and assumptions – confirm the Final EIR/EIS's conclusions. (See Applicant's Staff Report, Section IV.J.)
 - Further, "[p]revious and current modeling results are consistent with field data collected during pumping of the Test Slant Well over a three-year period from April 2015 to February 2018." (HWG Comments on Weiss Report, p. 3.) Thus, "[t]here is no need to further refine estimates of OWP within a range of 88 to 99%." (*Ibid.*)
 - Although Cal-Am maintains that additional groundwater modeling by Weiss was unnecessary in the first instance, Commission staff appropriately directed Weiss to modify the existing model before embarking on a most ambitious and expensive path that would likely prove unnecessary. (See 2020 Weiss Report, p. 3-1 ["To address the recommendations contained in [Weiss's 2019] technical report in potentially less time than would be needed if the field work was included, it was decided that the NMGWM²⁰¹⁶ would be revised and implemented prior to the field work to see if a range of OWP and capture estimates could be calculated that would account for any reasonable variation in the range of possible aquitard configurations and discontinuities."].)
 - Notably, the 2020 Weiss Report does not suggest that the Commission must conduct transient modeling, as MCWD claims. Rather, the 2020

Weiss Report explains that, should the Commission feel more modeling is necessary to refine the Project's OWP, calibrated transient modeling could be the next step. (See 2020 Weiss Report, p. 5-2.) As explained in Applicant's Staff Report, Section IV.J, and throughout this Response, additional modeling is not required.

- MCWD argues that the 2020 Weiss Report is flawed because it does not address MCWD's comments on Weiss' Scope of Work for the groundwater modeling. (MCWD Letter, p. 15.) According to MCWD, Weiss should have: (i) conducted additional field work to better define hydrogeologic conditions; (ii) incorporated the airborne electromagnetic ("AEM") data and Fort Ord groundwater salinity data; (iii) incorporated seaward gradients in the 180-Foot Aquifer consistent with the applicable Groundwater Sustainability Plan ("GSP"); and (iv) evaluated the impacts of CEMEX's sand mining operations on the Final EIR/EIS's modeling and data from the test slant well. (Id., pp. 15-16.)
 - The Commission is not required to conduct every type of modeling and analysis that MCWD requests.⁷ (See *Cleveland Nat. Forest Found. v. San Diego Assn. of Govts.* (2017) 3 Cal.5th 497, 512 [citations omitted].)
 - ***Investigation into Hydrogeologic Conditions.*** MCWD ignores that the 2020 Weiss Report assumed hydrogeologic conditions and other parameters favorable to MCWD's position, such as seaward gradients in the Dune Sand Aquifer. With the exception of unrealistic assumptions regarding flat or seaward gradients in the 180-Foot Aquifer and above-average rainfall recharge, the resulting OWP estimates were generally consistent with the Final EIR/EIS's estimates. (See 2020 Weiss Report, pp. 2-3, 4-9; see also Applicant's Staff Report, Section IV.J.)
 - ***AEM Studies and Fort Ord Salinity Data.*** For the reasons set forth in Applicant's Staff Report, Section IV.J, additional modeling is not required to incorporate the results of MCWD's AEM studies or the Fort Ord data.
 - ***Seaward Gradients in the 180-Foot Aquifer under SGMA.*** SGMA does not require a flat or seaward gradient in the 180-Foot Aquifer. (See HWG Comments on Weiss Report, pp. 6, 9.) Rather, SGMA "requires that the extent and magnitude of seawater intrusion not be exacerbated compared to current conditions, but does not require that existing seawater intrusion be mitigated/remediated." (*Ibid.*)

⁷ MCWD argues that MCWD and the City of Marina asked for this additional investigation as part of Marina's consideration of Cal-Am's local CDP application, but that "Cal-Am refused." (MCWD Letter, p. 20.) However, Cal-Am did not refuse to conduct any additional investigation. Rather, Cal-Am disagreed with MCWD's and Marina's position that supplemental environmental review of the Project's potential groundwater impacts was required—a position that was and continues to be incorrect and belied by the record, as described below.

- Further, the “hypothetical construction of a flat to seaward gradient in the 180-Foot Aquifer and 400-Foot Aquifer (based on an incorrect assumption about SGMA) is inconsistent with the groundwater elevation minimum thresholds and measurable objectives in the [GSP].” (*Id.*, p. 2 [underlining in original].)
 - In addition, the 2020 Weiss Report confirmed it could take decades to centuries to achieve a flat or seaward gradient in the 180-Foot Aquifer through the implementation of SGMA. (See Applicant’s Staff Report, Section IV.J; see also Attachment B, Section E.)
- ***Impact of CEMEX Operations on EIR/EIS’s Modeling.*** For the reasons set forth in Applicant’s Staff Report, Section IV.J, the net effect of the CEMEX operations on the test slant well was to *lower* salinity levels, not increase OWP as MCWD suggests.
- MCWD suggests that Cal-Am and the Commission cannot rely on the HWG’s critique of Weiss’ Scope of Work because the Final EIR/EIS’s superposition modeling was not peer-reviewed except by the HWG. (MCWD Letter, p. 25.)
 - As explained in Applicant’s Staff Report, Section IV.J, the Project’s groundwater modeling was subjected to extensive peer-review, and all HWG work product was peer-reviewed by the CPUC’s EIR/EIS consultant team. (See also Final EIR/EIS, pp. 4.4-6, 8.2-27.)
 - Further, the HWG’s critique of the Weiss Report and other evaluations of groundwater issues constitute substantial evidence upon which the Commission may rely. (CEQA Guidelines, § 15384, subd. (b) [“Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts”].) “While there may be conflicting opinion as to the need for additional [modeling], that is not fatal to the [environmental review].” (*Cadiz, supra*, 83 Cal.App.4th at p. 101; see also *Save Cuyama v. County of Santa Barbara* (2013) 213 Cal.App.4th 1059, 1069 [county could rely on expert’s conclusions regarding hydraulic impacts despite differing opinions by EPA and petitioner’s expert].) The Commission is not required to “correctly solve a dispute among experts.” (*Cadiz, supra*, 83 Cal.App.4th at pp. 101-102.)

2. No Significant New Information Regarding Groundwater Impacts Requires the Commission to Perform Supplemental CEQA Review

- MCWD argues that significant new information regarding the Project’s potential groundwater impacts requires the Commission to perform supplemental environmental review under CEQA. (See MCWD Letter, pp. 16, 26-28, 73.) In particular, MCWD identifies the 2020 Weiss Report, 2017 and 2019 AEM studies, and Fort Ord salinity data.

- The triggers for further environmental review are not satisfied here, and, thus, the Commission is not required to conduct additional environmental review regarding the Project’s potential groundwater impacts.
 - Public Resources Code section 21166 unambiguously states that “[w]hen an environmental impact report has been prepared for a project pursuant to this division, ***no subsequent or supplemental environmental impact report shall be required by the lead agency or by any responsible agency***” unless certain events occur. (Pub. Resources Code, § 21166 [emphasis added].)
 - The triggers for additional environmental review are narrowly limited to: (1) substantial project changes that will require major revisions to the previous EIR; (2) substantial changes regarding project circumstances that will require major revisions to the previous EIR; or (3) new information of substantial importance that was not known or could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified. (CEQA Guidelines, § 15162, subd. (a).) However, subsequent project changes or new information must “require major revisions of the previous EIR . . . ***due to the involvement of new significant environmental effects or a substantial increase in the severity*** of previously identified significant effects.”⁸ (*Ibid.* [emphasis added].) Additionally, where new information arises, it must be of substantial importance, not have been known and could not have been known at the time the EIR was certified, and show “either that the project will have one or more significant effects not previously discussed in the EIR or that significant effects previously examined will be substantially more severe than shown in the EIR.” (*A Local & Regional Monitor v. City of Los Angeles* (1993) 12 Cal.App.4th 1773, 1800 [internal citation omitted].)
- *First*, the 2020 Weiss Report’s conclusions are generally consistent with the Final EIR/EIS’s evaluation of the Project’s OWP. (See Applicant’s Staff Report, Section IV.J.) Therefore, the 2020 Weiss Report is not significant new information requiring additional environmental review.
 - Moreover, Cal-Am’s return water obligations are not mitigation for any environmental impact. (See Final EIR/EIS, p. 8.2-13.) Rather, OWP and return water are relevant to Cal-Am’s compliance with the Agency Act. (See *ibid.*)
- *Second*, the AEM data does not constitute significant new information. The CPUC evaluated and rejected the 2017 AEM study as part of its review of the

⁸ “The term ‘significant effect’ on the environment is defined in the CEQA Guidelines as ‘a substantial, or potentially substantial, *adverse change* in any of the *physical conditions* within the area affected by the project’” (*Fund for Envtl. Def., supra*, 204 Cal.App.3d at p. 1552 [citing CEQA Guidelines, § 15382] [emphasis in original].)

Project. (See Applicant’s Staff Report, Section IV.J; see also CPUC Decision D.18-09-017, Appx. J.) Similarly, the 2019 AEM study merely repeats the same general flawed conclusions as the 2017 AEM study. (See Applicant’s Staff Report, Section IV.J; see also HWG Comments on AGF Final Report on the 2019 Airborne Electromagnetic Survey of Selected Areas Within the Marina Coast Water District (June 26, 2020).) Thus, the AEM surveys are not significant new information requiring additional environmental review.

- *Third*, the Fort Ord data are not new. In response to MCWD’s same comment during the Marina Planning Commission process, the HWG explained that the Ford Ord data is not “new information” following the CPUC’s approval of the Project “as it has been collected from the same wells for many years.” (See HWG Comments (Apr. 12, 2019), p. 3.) Most importantly, however, the HWG confirmed that the Ford Ord data is irrelevant to the Project’s groundwater modeling and impacts because the wells are “not located in the potential MPWSP project impact area.” (*Id.*, p. 11.) Accordingly, the Fort Ord data is neither new nor significant, and, thus, does not warrant further environmental review.
- MCWD argues that the AEM study has now been peer-reviewed, and, thus, the Commission should consider it in evaluating the Project’s groundwater impacts. (See MCWD Letter, pp. 26-27.)
 - As Section IV.J. of the Applicant’s Staff Report explains, the AEM studies and “data” are of limited utility and technically insufficient to characterize “fresh” groundwater. Upon reviewing the 2019 AEM study, the HWG found “[t]he use and interpretation of data in this matter [] *inappropriate and deeply troubling*.” (HWG Comments on AGF Final Report on the 2019 Airborne Electromagnetic Survey of Selected Areas Within the Marina Coast Water District (June 26, 2020), p. 1.)
 - Further, the Commission is entitled to rely on the HWG’s assessment of the AEM studies; it is not required to “correctly solve a dispute among experts.” (*Cadiz*, *supra*, 83 Cal.App.4th at pp. 101-102; see also *Save Cuyama Valley*, *supra*, 213 Cal.App.4th at p. 1069.)
- MCWD argues that monitoring well data constitutes significant new information confirming that groundwater gradients in the Dune Sand Aquifer have changed from landward to seaward, and that seaward gradients are required in the 180-Foot Aquifer pursuant to SGMA. (MCWD Letter, p. 34.)
 - ***Dune Sand Aquifer Gradient.*** As HWG explained in response to MCWD’s *same comments last year*, “[e]xamining the data from the **entire** Monterey Peninsula Water Supply Project (MPWSP) monitoring network, and for the period throughout the long-term pumping period, there is no clear seaward gradient over the project area in the DSA during this period (2015-2018).” (HWG Response to Marina Planning Commission (Jan. 25, 2019), p. 2.) “The Fall 2018 data, similar to Fall 2017 data, indicates that the Dune Sand Aquifer gradient is landward

between the CEMEX monitoring wells and MW-8S, and locally seaward between the CEMEX monitoring wells and MW-7S.” (*Id.*, p. 5.) “While there may be localized and seasonal variations in Dune Sand Aquifer hydraulic gradients, the net result has been and continues to be sea water intrusion within the area encompassed by the MPWSP monitoring well network.” (*Id.*, p. 2.) Therefore, MCWD’s information is not new.

- Regardless, even if the Dune Sand Aquifer gradient is seaward, the Project’s source water would still have an OWP ranging from 88-99%. (See HWG Comments on Weiss Report, p. 1; see also Applicant’s Staff Report, Section IV.J.) Because that OWP range is consistent with the EIR/EIS’s analysis, information regarding purported changes in the Dune Sand Aquifer groundwater gradient is not significant information requiring additional environmental review.
- **180-Foot Aquifer.** SGMA’s requirements and the Salinas Valley Basin GSP are not significant new information. The CPUC considered SGMA’s impact when evaluating the Project’s potential impacts. (See, e.g, CPUC Decision D.18-09-017, Appx. J, pp. 18-19.)
 - Further, as explained in above in Attachment B, Section E, SGMA does not require a flat or seaward gradient. “[T]he occurrence or implementation of conditions leading to a flat to seaward hydraulic gradient in the 180-Foot and 400-Foot Aquifers is neither required under SGMA nor specified in the 180-400-Foot Aquifer Subbasin GSP.” (HWG Comments on Weiss Report, p. 9.) Thus, hypothetical flat or seaward gradients in the 180-Foot Aquifer following implementation of the GSP is not significant new information.
- MCWD contends that the 2020 Weiss Report constitutes significant new information regarding the Project’s capture zone that shows the Project will create groundwater impacts “over many square miles and extract significant quantities of fresh water from the basin.” (MCWD Letter, p. 35; see also *id.*, pp. 83-84.)
 - As an initial matter, a 3,000 mg/L TDS standard is not appropriate to delineate fresh water because it would not be suitable for drinking water or irrigation unless treated. (See Applicant’s Staff Report, Section IV.J.) Indeed, the Staff Report recognizes that a 3,000 mg/L TDS standard delineates groundwater that would be “suitable for drinking water, *if treated*.” (See Staff Report, p. 70, fn. 64 [emphasis added].) Rather, regulations under the Safe Drinking Water Act designate the Secondary Maximum Contaminant Levels, or Consumer Acceptance Levels, for TDS in drinking water as 500 mg/L. (See *id.*, fn. 63; Applicant’s Staff Report, Section IV.J.)
 - As the HWG explains, the 2020 Weiss Report depicts “Fresh Water Capture Zones,” but these zones are misleading because “most of the water is still coming from the ocean,” not from inland. (HWG Comments on Weiss Report, p. 5.) This

finding is consistent with the Final EIR/EIS's analysis and, thus, is not new. (See Final EIR/EIS, p. 4.4-70 [explaining that because the slant wells are located along the coast, their capture zone would pull in primarily seawater].)

- Further, although the 2020 Weiss Report identifies capture zones of varying sizes, capture zones are influenced by local conditions, including groundwater gradients. (See Final EIR/EIS, p. 4.4-65.) Thus, the use of unreasonable assumptions or inputs not representative of actual local conditions will impact the resulting capture zone in the model. (See *ibid.*; see also Applicant's Staff Report, Section IV.J.)
- Based on years of monitoring well data and extensive modeling, the Final EIR/EIS concluded that the Project "would extract primarily seawater and smaller volume of highly brackish ambient groundwater from a localized coastal capture area." (Final EIR/EIS, p. 4.4-69 to 4.4-70.) Because the slant wells would be located along the coast, "seawater would be the primary source of recharge, and the regional inland gradient would preclude inland groundwater in the Dune Sand Aquifer and the 180-Foot Aquifer from being drawn to the capture zone." (*Ibid.*)

3. Ocean Water Percentage ("OWP")

- MCWD asserts that the 2020 Weiss Report demonstrates that the Final EIR/EIS's modeling was not conservative and did not accurately bookend the estimated OWP range. (MCWD Letter, p. 19.) According to MCWD, Weiss predicted OWP ranges from 86.1% to 97.4% based on "currently observed seasonal variations in the landward hydraulic gradient" in the Dune Sand Aquifer; the resulting average OWP of 91.7% is below the Final EIR/EIS's long-term range OWP estimate of 93% to 99%. (*Id.*, p. 21.)
 - MCWD incorrectly construes the EIR/EIS's estimates. The OWP range estimated in the Final EIR/EIS is 87-99% (Final EIR/EIS, p. 4.4-56), which is consistent with the 2020 Weiss Report's results assuming seaward gradients in the Dune Sand Aquifer and reasonable rainfall recharge. (See HWG Comments on Weiss Report, p. 1 ["Assumed seaward gradients in the Dune Sand Aquifer do not result in any significant difference in OWP results."]; see also *id.*, pp. 2, 3.)
 - The 2020 Weiss Report's results show that "OWP exceeds 88% for the assumed seaward gradient in the [Dune Sand Aquifer] using reasonable assumptions for other model inputs (e.g., landward gradient in the 180-Foot Aquifer, which represents current, historical, and projected future conditions; rainfall recharge that is less than 50% of average annual total rainfall)." (HWG Comments on Weiss Report, p. 3; see also Applicant's Staff Report, Section IV.J.)
- MCWD suggests that, based on the 2020 Weiss Report, the OWP would decrease to 70.8% under a flat gradient and would decrease even further under seaward gradients in the 180-Foot Aquifer. (MCWD Letter, pp. 22, 34.)

- The OWP estimates provided in the 2020 Weiss Report for a flat to seaward gradient in the 180-Foot Aquifer would take “many decades or even centuries in real-world conditions. The [] model does not consider the large volume of saline water in storage in the 180-Foot Aquifer . . . that would have to be replaced by fresh water before the OWP at the Pumping well field would begin to decrease, and approach the [] OWP calculated by the model.” (2020 Weiss Report, p. 4-3.)
- Further, “[t]he OWP calculated for the Project well field output under the 0.00 [flat] gradient . . . will only gradually be approached as the existing salt water flows seaward; **it will not “instantaneously” reach the 65 to 75 percent range calculated by the model.**” (2020 Weiss Report, p. 4-12 [emphasis added].) It would take decades to centuries before such an OWP range is reached. (See *id.*, p. 4-3.)
- For a detailed discussion of hypothetical groundwater gradients in the 180-Foot Aquifer and the 2020 Weiss Report’s conclusions regarding OWP under such scenarios, see Applicant’s Staff Report, Section IV.J.
- MCWD contends that CEMEX’s operations during the test slant well pumping period could have impacted the Final EIR/EIS’s modeling of OWP by increasing the predicted OWP. (MCWD Letter, pp. 22-23.) Further, MCWD argues that CEMEX’s operations could have elevated water levels, thereby decreasing the amount of groundwater drawn the Project could cause. (*Id.*, p. 23.)
 - As explained in Applicant’s Staff Report, Section IV.J, the EIR/EIS accounted for CEMEX’s operations in evaluating the Project’s OWP and potential groundwater impacts. (See also HWG Comments on Technical Appendices/Attachments to Letters Submitted by MCWD and City of Marina (Aug. 15, 2018), pp. 30-31; Final EIR/EIS, Appx. E3, pp. 49-53.)
- MCWD argues that the 2020 Weiss Report shows that the Final EIR/EIS overstated predicted OWP and, in turn, understated Cal-Am’s return water obligations, which raises public welfare concerns in the form of increased costs to ratepayers. (MCWD Letter, pp. 38-39.)
 - In approving the Return Water Settlement Agreement, the CPUC explained that Cal-Am—not ratepayers—would incur the costs for meeting its return water obligation if that obligation “is increased due to a greater OWP than that estimated in the FEIR/EIS.” (CPUC Decision D.18-09-017, p. 192.) For a detailed discussion of Cal-Am’s return water obligations and potential impacts to Cal-Am ratepayers, see Applicant’s Staff Report, Sections IV.J & IV.N.
- MCWD claims that the CPUC acknowledged that the Project’s source water component would need to be reevaluated if (1) pumping from inland areas is reduced to the point that the groundwater system is in equilibrium; and (2) pumping depressions are reduced such that there is no longer a landward gradient. (MCWD Letter, p. 21.)

- As an initial matter, the CPUC was quoting the State Water Board’s 2013 review of the Project (“2013 State Water Board Report,” EIR/EIS, Appx. B2), not imposing any sort of condition on the Project.
- Further, MCWD ignores that, in the same paragraph, the CPUC confirms that “[m]ost of the water entering the slant wells would still come from the ocean if the gradient were seaward rather than landward as it is today.” (CPUC Decision D.18-09-017, Appx. J, p. 17 [emphasis added].) Indeed, the 2020 Weiss Report confirms that OWP would average around 91.5% assuming a seaward gradient in the 180-Foot Aquifer that does not currently exist. (See 2020 Weiss Report, pp. 4-11 to 4-12, 5-1 to 5-2.) Instead, the 2020 Weiss Report confirms that a seaward gradient could not exist for decades to centuries given the volume of existing seawater in the 180-Foot Aquifer and ocean recharge. (See *id.*, p. 4-3.)

4. Groundwater Salinity

- MCWD asserts that water with more than 500 mg/L TDS is not “useless,” as most groundwater requires some treatment or blending before it is used for drinking water. (MCWD Letter, pp. 28-29; see also *id.*, pp. 83-84.) Moreover, “with the exception of the elevated nitrate concentrations, all the groundwater sample results meet drinking water standards for potable supplies.” (*Id.*, pp. 28-29.) Further, elevated nitrate levels does not indicate seawater intrusion, but rather some other “source of recharge that contributes a contaminant.” (*Id.*, p. 29.)
 - The Staff Report and MCWD’s own argument confirm that water with TDS levels exceeding 500 mg/L need treatment before consumption as drinking water or use in irrigation. (See Staff Report, p. 70.)
 - Further, MCWD is wrong when it claims that “with the exception of the elevated nitrate concentrations, all the groundwater sample results meet drinking water standards for potable supplies.” (MCWD Letter, p. 29.) Final EIR/EIS Table 8.2.8-1 shows groundwater samples from MPWSP monitoring wells located within the slant well capture zone exceeding drinking water standards for TDS and chloride. (See Final EIR/EIS, p. 8.2-48.)
 - In addition, as MCWD implicitly recognizes, groundwater data from the monitoring wells show elevated nitrate levels indicative of some source of contamination. (MCWD Letter, p. 29.) Whether this contamination is a result of seawater intrusion is irrelevant to the fact that the water still requires treatment before use as drinking water or in irrigation.
 - Finally, MCWD ignores the groundwater data showing chloride concentrations at levels twice the National Secondary Drinking Water Regulation (250 mg/L) and that exceeds the concentration for water to be considered of ‘Class III – injurious or unsatisfactory’ quality for agricultural irrigation (350 mg/L).” (CPUC Decision D.18-09-017, Appx. J, p. 20.) Groundwater quality data from the test slant well indicates that groundwater in the Project area contains between 11,680

mg/L to 16,037 mg/L—over 45 times the National Secondary Drinking Water Regulation. (Final EIR/EIS, p. 8.5-877.)

5. Monterey County Water Resources Agency Act Compliance

- MCWD contends that the State Water Board did not confirm that the Project is consistent with the Agency Act in the 2013 State Water Board Report. (MCWD Letter, p. 31.)
 - Cal-Am never argued that the State Water Board has authority to implement the Agency Act. MCWRA is the agency responsible for interpreting and enforcing the Agency Act. (See June 30 Letter to Commission, pp. 24, 27.)
 - The State Water Board made a finding consistent with that understanding in the 2013 State Water Board Report. (Final EIR/EIS, Appx. B2, p. 40 [although “it does not appear that the Agency Act . . . operate[s] to prohibit the Project,” “[t]he State Water Board is not the agency responsible for interpreting the Agency Act or MCWRA’s ordinances”].)
- MCWD argues that the 2013 State Water Board Report is flawed for three reasons. First, the State Water Board relied on Cal-Am’s “inaccurate representation of groundwater conditions.” Second, the State Water Board focused on “incidentally extracted usable groundwater,” not “fresh water withdrawn,” in reaching its opinion. The Project is not feasible if Cal-Am is required to return all “incidentally extracted usable groundwater.” Third, the Agency Act does not differentiate between “usable groundwater” and “groundwater.” (MCWD Letter, pp. 31-32.)
 - *First*, the State Water Board did not rely on “Cal-Am’s inaccurate representation of groundwater conditions,” but rather relied on “the available technical information” provided by the CPUC, who requested the State Water Board’s input on whether Cal-Am has the legal right to extract desalination feedwater for the Project. (Final EIR/EIS, Appx. B2, pp. 1, 63-65.)
 - *Second*, MCWD’s distinction between “usable groundwater” and “fresh water” is a distinction without a difference. The water withdrawn by the Project’s slant wells is not potable water and is not suitable for human consumption or irrigation without treatment. (See Applicant’s Staff Report, Section IV.J; see also Final EIR/EIS, Appx. B2, p. 47 [“Water that is currently unusable, due to its location in the Basin and corresponding quality, could be rendered usable if desalinated and would thus be surplus to current water supplies in the Basin.”].)
 - Further, as described above, MCWD’s reliance on a 3,000 mg/L TDS standard to delineate “fresh” water is inappropriate because such water is not potable without treatment. (See Attachment B, Section E; see also Final EIR/EIS, p. 4.4-70 [seawater intrusion has degraded groundwater within the Project capture zone, rendering it “unusable for potable water supply due to its high salinity.”].)

- *Third*, as explained in Applicant’s Staff Report, Section IV.J, the Project will extract primarily seawater; any groundwater extracted would be returned to the SVGB consistent with Cal-Am’s return water obligations. (See also Final EIR/EIS, p. 4.4-70.) Cal-Am’s return water obligations do not differentiate between “groundwater” and “usable groundwater,” but depend on the amount of “non-seawater” extracted. (See CPUC Decision D. 18-09-017, pp. 103-112 [explaining that any “non-seawater” extracted from the SVGB will be returned to the basin as part of Cal-Am’s Agency Act obligations].)
- MCWD argues that the Return Water Settlement Agreement, including the 1:1⁹ return water ratio, does not mitigate the Project’s groundwater impacts. (MCWD Letter, pp. 32, 35.)
 - As Cal-Am explained in its June 30 Letter, Cal-Am’s return water obligations are not mitigation for environmental impacts. (See June 30 Letter to Commission, p. 29; see also Final EIR/EIS, p. 8.2-13 [“The purpose of the return water element of the project is not to alleviate or address any environmental effects.”].)
 - Further, MCWD provides no legal authority for its assertion that a 1:1 return water ratio is insufficient. MCWRA, as the agency vested with interpreting and enforcing the Agency, agreed to the terms of the Return Water Settlement Agreement (see Final EIR/EIS, Appx. H), and has the authority to enforce Cal-Am’s compliance with the Agency Act—not the Commission.¹⁰

6. Water Rights

- MCWD contends that the Commission is not bound by dicta in the CPUC’s Decision regarding water rights. (MCWD Letter, pp. 30, 33, 72-73.) Although MCWD recognizes that the Commission lacks jurisdiction to determine the Project’s water rights, MCWD claims that the Commission still must evaluate whether significant new information exists that affects the feasibility of Cal-Am’s ability to obtain water rights. (*Id.*, p. 33.) According to MCWD, water rights are “now being litigated in the Monterey County Superior Court.” (*Ibid.*)
 - As the Staff Report explains, no water rights are necessary for the extraction and use of seawater from the SVGB. (Staff Report, p. 70.) And as MCWD concedes,

⁹ “[F]or every one AF of ‘usable’ groundwater extracted, it must only be replaced with one AF of desalinated water.” (MCWD Letter, p. 32.)

¹⁰ MCWD also argues that Cal-Am assumes that compliance with the Agency Act constitutes compliance with other groundwater laws, the Coastal Act, CEQA, and SGMA. (MCWD Letter, p. 32.) Cal-Am never suggested that its compliance with the Agency Act constitutes compliance with other applicable laws. Rather, Cal-Am explained that its return water obligations under the Agency Act are not mitigation for environmental impacts under CEQA and that the Project is consistent with Coastal Act section 30231. (See June 30 Letter to Commission, p. 29.)

the issue of water rights is outside the Commission's jurisdiction. (MCWD Letter, p. 33.)

- Further, nothing has changed since the CPUC approved the Project that renders the Project infeasible because of water rights. The pending litigation MCWD refers to pertains to a case filed by the City of Marina against CEMEX, Cal-Am, and MCWRA pursuant to a 1996 annexation agreement. (*City of Marina v. RMC Lonestar, et al.*, Monterey Superior Court Case No. 20CV001387.) In that case, MCWD, a party to the 1996 annexation agreement, filed a cross-complaint with causes of action against Cal-Am related to water rights issues. Cal-Am believes MCWD's claims are without merit and filed a demurrer to MCWD's claims on September 9, 2020.
 - MCWD's claims are not ripe because the Project is not completed and Cal-Am is not presently extracting water. Further, until the Project pumps water, it is impossible to determine if MCWD's water rights would be infringed. Any determination of water rights is premature until the Project is complete and operating.
 - Moreover, although the CPUC did not adjudicate Cal-Am's or others' water rights as part of its review of the Project, the CPUC did determine the legal framework applicable to the setting of the Project's water rights. The framework explains that Cal-Am does not need to obtain water rights to extract seawater. With respect to brackish groundwater extracted by the Project, the CPUC declared that Cal-Am could develop appropriate groundwater rights if the Project extracts otherwise unusable groundwater without harm to existing lawful users, and that any fresh water is returned to the Basin. MCWD cannot revisit that framework through this litigation.
- Thus, Commission staff's assessment of water rights – that none are necessary for the extraction and use of seawater – is consistent with the framework set forth in the CPUC's Decision. MCWD's pending cross-complaint does not call into question the feasibility of the Project on the basis of water rights.
- MCWD argues that the State Water Board did not actually determine that Cal-Am has or will develop the necessary water rights to operate the Project, but rather spoke in general terms about what Cal-Am must show to obtain water rights. (MCWD Letter, p. 30.) Moreover, MCWD claims that the 2013 State Water Board Report was premised on the assumption that there is no usable groundwater in the Project area, and that the Project wells would extend under Monterey Bay and extract only seawater. (*Id.*, pp. 31, 33.) Finally, MCWD argues the State Water Board issued the Report prior to the passage of SGMA, rendering the Report outdated. (*Id.*, p. 31.)
 - As Cal-Am explained in its June 30 Letter, the State Water Board confirmed that Cal-Am *could* develop the necessary water rights to operate the Project. (June 30 Letter to Commission, pp. 26-27.) Cal-Am did not represent that the State Water

Board has already made a water rights determination, as Cal-Am understands that such a determination would come with operation of the Project in the future.

- Moreover, as explained above, the 2013 State Water Board Report relied on “the available technical information” for the Project in rendering its opinion. (Final EIR/EIS, Appx. B2, pp. 1, 63-65.) That information demonstrated (and is still accurate today) that the seawater intrusion has degraded groundwater within the Project capture zone, rendering it “unusable for potable water supply due to its high salinity.” (Final EIR/EIS, p. 4.4-70; see also Applicant’s Staff Report, Section IV.J.)
- Finally, MCWD provides no support or explanation for its assertion that the passage of SGMA meaningfully changes the 2013 State Water Board Report or otherwise invalidates the State Water Board’s conclusions in that report. The Project remains consistent with SGMA and would promote SGMA’s goals by preventing further seawater intrusion into the SVGB.¹¹ (See CPUC Decision D.18-09-017, Appx. J, pp. 18-19.)

7. Relocation of the Project’s Slant Well Network

- MCWD claims that Cal-Am could use horizontal wells for a reduced size project, with the wells located outside of the Coastal Zone. MCWD also argues that, according to Cal-Am, the slant wells are not “coastal dependent” because the OWP would fall within the same predicted range regardless of slant well length. (MCWD Letter, pp. 37-38.)
 - The CPUC already considered horizontal wells as an alternative intake technology for the Project. The EIR/EIS explained that the use of horizontal wells on the CEMEX site would involve the installation of more than 2,500 feet of pipeline, which presented physical and technical feasibility issues. (Final EIR/EIS, Appx. I1, pp. I1-6 to I1-7.) If Cal-Am were to use horizontal wells outside of the Coastal Zone, *more* pipeline would be required, increasing the physical and technical feasibility challenges discussed in the EIR/EIS. In addition, the EIR/EIS explained that the use of horizontal wells would not avoid or minimize any of the impacts associated with the proposed slant wells. (*Ibid.*)
 - Moreover, as Applicant’s Staff Report, Section IV.J explains, at the coast, seawater entering the slant wells has the shortest and least restricted pathway through the overlying seafloor deposits. (See Final EIR/EIS, p. 4.4-65.) Further, in their proposed location, the slant wells would have a zone of capture with a western extent just offshore where the drawdown would be deepest, creating more flow of seawater to the slant wells. (*Ibid.*) Additionally, the drilling technology

¹¹ Contrary to MCWD’s assertions that the Project would exacerbate seawater intrusion (MCWD Letter, p. 83), the Project will prevent further seawater intrusion from migrating inland, thereby providing significant benefits to the Monterey Peninsula, the agricultural community of Castroville, and CSIP by safeguarding groundwater resources for agricultural uses. (See Applicant’s Staff Report, Section IV.N.)

involved in installing slant wells generally limits wells to a maximum length of several hundred feet. (See Applicant's Staff Report, Section IV.J.) Thus, to capture groundwater contaminated by seawater intrusion effectively, the slant wells cannot be moved further inland and outside of the Coastal Zone.

8. Groundwater-Dependent Ecosystems

- MCWD argues that there are vernal ponds and wetlands that are groundwater dependent ecosystems ("GDE"s) and that the vernal ponds and wetlands are located in areas that will experience significant drawdowns from the Project. (MCWD Letter p. 17.) MCWD notes that if the vernal ponds are connected to the underlying groundwater they could be significantly impacted by the Project and that additional field work and modeling is needed to assess these potential effects. (*Ibid.*) MCWD further states that the "only evidence in the record indicates these vernal ponds and wetland areas are connected to the underlying groundwater" and that without additional information the Staff Report cannot address whether the Project is consistent with Coastal Act and LCP policies regarding vernal ponds. (*Id.*, p. 18.)
 - As discussed above in Attachment B, Section B, Cal-Am submitted a detailed analysis regarding the vernal ponds, which demonstrates that the vernal ponds are not likely to be hydraulically connected to the Dune Sand Aquifer from which the Project will pump water, and therefore are unlikely to be impacted by the Project. Nevertheless, Cal-Am proposes Special Condition 7, which would require implementation of an Adaptive Management Program whereby the ponds would continue to be evaluated prior to Project operations. If it is determined that the ponds could be adversely affected from Project pumping, the Adaptive Management Program requires implementation of wetland resiliency, enhancement, or restoration activities to ensure that there would be no adverse effects associated with the Project. Therefore, the analysis requested by MCWD has been prepared and the Commission has sufficient evidence to conclude that any impacts to the vernal ponds will be mitigated to the maximum extent feasible.
- MCWD also argues that an alternatives analysis is required. As noted in Section I a complete analysis of alternatives has been prepared and the PWM Expansion is not a feasible alternative to the Project. Consistent with CEQA Guidelines Section 15126.6 the alternatives analyzed in the Final EIR/EIS include a reasonable range of alternative including those that would not have resulted in drawdowns in the vicinity of the vernal ponds and wetlands. In addition, as noted above, with implementation of Special Condition 7 potential impacts to the vernal ponds would be reduced to the maximum extent feasible.

E. Energy Consumption & Climate Change

- MCWD argues that Mitigation Measure 4.11-1 cannot reduce the Project's carbon footprint to zero because the measure requires the purchase of offsets, contending that *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal.App.5th 467 ("*Golden Door II*") invalidated a similar mitigation measure. (MCWD Letter, pp. 39-40.)

MCWD fundamentally misunderstands the *Golden Door II* court’s holding, as well as Mitigation Measure 4.11-1.

- MCWD contends that in *Golden Door II*, the “main problem with the offset mitigation measure was that it lacked sufficient safeguards to ensure the offsets were ‘real, permanent, verifiable, and enforceable,’” because the measure did not identify protocols for the measure’s identified registries to implement. (MCWD Letter, p. 39-40.) In *Golden Door II*, the County of San Diego attempted to argue that because its measure was “substantially similar” to California’s cap-and-trade program (this is what the MCWD letter refers to as the CARB-approved registry), the offset credits purchased under the measure were “real, permanent, verifiable, and enforceable” and therefore contained performance standards under CEQA. (*Golden Door II*, *supra*, 50 Cal.App.5th at p. 511.) Because compliance with cap-and-trade was the basis for the County’s argument that its measure was sufficient under CEQA, the court looked to cap-and-trade standards, including whether the measure included rigorous rulemaking procedures for offset protocols like the cap-and-trade program. (*Id.*, pp. 511-515.) Accordingly, *Golden Door II* does not hold that the *only* way for an offset measure to comply with CEQA is to incorporate cap-and-trade requirements, and recognized that its holding was “necessarily limited to the facts of this case.” (*Id.*, p. 483.) Mitigation Measure 4.11-1 need not include CARB-approved protocols for cap-and-trade to comply with CEQA because unlike the measure in *Golden Door II*, it does not utilize cap-and-trade requirements as the basis for the measure’s CEQA compliance.

Indeed, Mitigation Measure 4.11-1 contains other performance standards to ensure that mitigation of GHG emissions occurs. Mitigation Measure 4.11-1 requires Cal-Am to submit documentation annually to the “CPUC demonstrating that the project’s operational electricity use in the immediately preceding calendar year resulted in net zero GHG emissions.” (FEIR, p. 4.11-20.) Should the CPUC determine that Cal-Am has not achieved net zero GHG emissions, the CPUC will provide to Cal-Am a notice to procure, submit, and retire offsets in an amount at least equivalent to the exceedance. (*Id.*, p. 4.11-21.) The *Golden Door II* measure was overturned in part because it contained no such requirements for demonstrating that net zero GHG emissions were achieved or any enforcement mechanisms for the County of San Diego to ensure that mitigation was actualized.

- MCWD contends that Mitigation Measure 4.11-1 is “problematic” because it leaves the decision to move to the next loading order option up to Cal-Am “solely on what Cal-Am believes is ‘reasonable,’” speculating that Cal-Am will “no doubt . . . select the cheapest option.” (MCWD Letter, p. 40.) Cal-Am committed to quantify and describe the carbon footprint for all operational components, summarize available “state-of the art energy recovery and conservation technologies available for utility scale desalination facilities,” and then implement “feasible energy recovery and conservation technologies.” (FEIR, p. 4.11-19.) Should a technology be infeasible, the GHG Emissions Reduction Plan will “clearly explain why such technology is considered to be infeasible.” (*Ibid.*) Only after Cal-Am has implemented all feasible conservational technologies will

Cal-Am implement Mitigation Measure 4.11-1 subsection (b) which provides the requirement that all operational electricity usage results in net zero GHG emissions. (*Id.*, p. 4.11-20.) Specifically, Mitigation Measure 4.11-1(b) requires that Cal-Am adhere to 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. (*Id.*, p. 4.11-20.) Cal-Am is required to “progress through the loading order on the basis of the options’ physical and economic feasibility.” (*Ibid.*) Cal-Am notes that the purchase of zero carbon electricity currently is, and likely will continue to be, a less expensive option than purchasing and retiring carbon offsets, rendering MCWD’s concern that offsets will compose the entirety of Cal-Am’s mitigation meritless.

- MCWD additionally argues that the PWM Expansion is the best alternative because it does not result in significant greenhouse gas emissions or energy impacts. (MCWD Letter, p. 40.) As discussed in Section I *infra*, the PWM Expansion’s proposed use of landfill gas is facing obstacles placing into question the PWM Expansion’s actual energy impacts. Further, as discussed in Section I, the PWM Expansion is infeasible and should not be considered as an alternative to the Project.

F. Public Access and Recreation

- MCWD’s Letter claims that the Project would be inconsistent with the Coastal Act and LCP policies regarding public access and recreation. (MCWD Letter p. 41.) The MCWD Letter also argues that because the Commission has not yet approved a restoration and access plan pursuant to the CEMEX Settlement Agreement it is difficult to estimate the full extent of impacts. (*Ibid.*) Finally, the MCWD Letter claims there would be public access and recreation impacts associated with the outfall liner. (*Ibid.*)
 - As discussed above in Attachment A, Section IV.L:
 - Coastal Commission staff determined that the Project could conform with Coastal Act and LCP public access and recreation policies with the implementation of special conditions. (Staff Report, pp. 80-81.) Cal-Am has proposed Special Condition 10 to ensure that the Project is consistent with relevant Coastal Act and LCP policies regarding public access.
 - Evaluating the Project’s impacts against what would occur as part of a not yet approved restoration plan under the CEMEX Settlement Agreement is the improper baseline for evaluating the Project’s public access and recreation impacts.
 - Cal-Am has redesigned the outfall liner such that construction would not impact public access or recreation.

- Further, MCWD claims that Cal-Am’s proposed Public Access Plan would not cure the Coastal Act and LCP inconsistencies and would constitute improper deferral of mitigation. (MCWD Letter, p. 41.)
 - The Project would only occupy 0.06 percent of the 400+ acre CEMEX site and would occupy an additional 0.25 acre of the CEMEX site periodically for maintenance, amounting to 2.2 acres over the course of the Project’s life—accordingly the Project’s impact on public access would be *de minimis*. The Staff Report agreed that a special condition could ensure that the Project is consistent with public access and recreation policies. (Staff Report, pp. 81-82.).
 - Despite the minor scope of potential impacts, Cal-Am proposed Special Condition 10, which ensure that the Project would be consistent with the Coastal Act and LCP. The Public Access Plan was prepared consistent with other Coastal Commission public access plans and does not constitute improper deferral of mitigation.¹² The proposed Public Access Plan specifically requires that Cal-Am prepare a detailed Public Access Plan indicating the location of construction and maintenance areas, staging areas, and access corridors on the CEMEX site. Accordingly, the Public Access Plan would ensure that the Project is consistent with public access and recreation policies.
 - Moreover, MCWD’s attempt to impose CEQA principles regarding deferral of mitigation onto the Commission’s review of LCP and Coastal Act consistency are baseless. CEQA states that “[f]ormulation of mitigation measures should not be deferred until some future time.” (CEQA Guidelines, § 15126.4(a)(1)(B).) However, neither the Coastal Act nor the LCP include any such provision. The Commission’s role in issuing coastal development permits is to determine whether “the proposed development is in conformity with the certified local coastal program” and other applicable Coastal Act policies—the Commission’s role does not include conducting a review under CEQA. (Coastal Act, § 30604.)
- Therefore, consistent with the Staff Report conclusion, with the implementation of Special Condition 10 the Project would be consistent with Coastal Act and LCP policies related to public access and recreation.

G. Visual Resources

- MCWD contends that construction and operation of the project will adversely impact visual resources within the City of Marina and in the Coastal Zone. (See MCWD Letter, pp. 42-43.)

¹² For examples of similar recently imposed conditions requiring a plan or document prior to CDP issuance see Staff Report, CDP No. 5-19-1266 (June 18, 2020), <https://documents.coastal.ca.gov/reports/2020/7/F17d/F17d-6-2020-report.pdf> and Staff Report, CDP No. 6-20-0190 (July 23, 2020), <https://documents.coastal.ca.gov/reports/2020/8/TH7b/TH7b-8-2020-report.pdf>.

- ***MCWD's arguments are inconsistent with the Staff Report.*** The Staff Report concluded that the Project “would not be on prominent ridgelines, and permanent development would mainly be hidden from public view.” (Staff Report, p. 84.) The Staff Report further concluded that while “ongoing maintenance activity at the well head sites might be visible from nearby public locations, it would likely be limited in extent so that it would not conflict with the LCP’s requirement that development below the ridgelines be limited in height and mass to blend into the face of the dunes.” (*Ibid.*) Further, the Staff Report determined that while “[c]onstruction activities would have several temporary adverse visual impacts . . . none . . . [would] conflict with the LCP’s or Coastal Act’s visual resource policies.” (*Ibid.*) The Staff Report further stated that “the Commission could adopt special conditions requiring that Cal-Am implement any additional measures needed to ensure . . . [the] Project would conform to . . . visual resource-related provisions.” (*Ibid.*) In the Applicant’s Staff Report, Cal-Am has proposed Special Conditions 11 to address staff’s visual resources concerns. Special Condition 11 requires implementation of a Facility Design and Screening Plan and Special Condition 12 requires implementation of a Lighting Plan. Implementation of these two plans will ensure that the Project is consistent with applicable LCP and Coastal Act visual resources policies.
- ***MCWD's arguments are inconsistent with the Final EIR/EIS.*** The Final EIR/EIS concluded that temporary construction activities for the Project would have a less than significant impact on visual resources. (Final EIR/EIS, p. 4.14-30 - 4.14-33.) While not required to avoid a significant impact, the Final EIR/EIS included Mitigation Measure 4.14-1 to ensure a clean and orderly construction site. (Final EIR/EIS, p. 4.14-33.) Mitigation Measure 4.14-1 requires basic daily site maintenance and construction area screening where appropriate. (Final EIR/EIS, p. 4.14-33.) Regarding permanent impacts, the Final EIR/EIS concluded that impacts would be less than significant with mitigation and included Mitigation Measures 4.14-3a (Facility Design) and 4.14-3b (Facility Screening) to ensure that Cal-Am will design the Project to avoid or minimize contrast with the surrounding setting and screen the facilities from public views to the extent feasible. (Final EIR/EIS, p. 4.14-42 - 4.14-43.)
- MCWD also contends that there would be visual impacts associated with the outfall liner construction work. (See MCWD Letter, p. 42.)
 - The Final EIR/EIS concluded that construction activities associated with the outfall liner would be less than significant. (Final EIR/EIS, p. 4.13-31.)
 - Further, as discussed herein, Cal-Am recently proposed an alternative approach to the outfall liner that would maintain the existing M1W outfall pipeline and avoid groundbreaking and impacts within the Coastal Zone. Specifically, Cal-Am has proposed excavating a single access point to the pipeline outside of the Coastal Zone and manually applying a protective spray liner throughout the pipeline’s interior from the access point to the beach junction box. As a result of this change it would no longer be necessary for Cal-Am to excavate, open, and install a new

physical liner in the pipeline at ten locations along the M1W right-of-way and no above grade work would occur within the Coastal Zone. Accordingly, the new design of the outfall liner would entirely avoid any potential visual impacts within the Coastal Zone.

H. Environmental Justice

- MCWD asserts that the Project would provide water “far beyond the amount actually required to serve future demand,” while providing “an incidental benefit . . . to Castroville Community Services District.” (MCWD Letter, pp. 43, 44; see also *id.*, p. 45.) According to MCWD, resolving water quality problems for Castroville is not a Project objective and cannot offset the “environmental injustice” of locating more industrial development in Marina, which would bear all the burden and no benefit. (*Id.*, p. 44.)
 - As explained above in Attachment B, Section I and in the Applicant’s Staff Report, the Project will protect the Peninsula’s groundwater supplies in the SVGB and Seaside Groundwater Basin from seawater intrusion and provide a reliable drought-proof water supply for economic growth and much-needed affordable residential development. (See Applicant’s Staff Report, Sections IV.J, IV.N, IV.P.) These are benefits that all residents of the Monterey Peninsula would enjoy, including residents in Marina.
 - Further, the Applicant’s Staff Report describes in detail, the Project is appropriately sized to meet the Peninsula’s projected future demand. (See Applicant’s Staff Report, Section IV.O.)
 - Moreover, the Project’s benefits to Castroville, a disadvantaged community, are significant. (See Applicant’s Staff Report, Section IV.N.) Castroville’s agricultural operations are vital to the region’s economy. (See Dudek Memorandum, p. 6.) However, Castroville is facing serious water shortages due to seawater intrusion in the SVGB. (*Ibid.*) The Project will not only prevent further seawater intrusion in the SVGB, but will also reduce Castroville’s need to pump water from the SVGB as a result of Cal-Am providing desalinated water to Castroville pursuant to the Agency Act and Return Water Settlement Agreement. (See Applicant’s Staff Report, Section IV.N.)
 - Finally, as discussed in Section F, the Project’s footprint in Marina is *de minimis*, and would permanently occupy only a quarter-acre on the 400+ acre CEMEX site. (Staff Report, p. 81; see also June 30 Letter to Commission, pp. 33-35; Applicant’s Staff Report, Section IV.L.) Such a limited footprint would not create additional burden on the City of Marina.
- MCWD claims it would be an “injustice” to “impos[e] additional significant water costs on Cal-Am’s customers, who are already paying the highest water rates in the nation.” (MCWD Letter, pp. 44, 79.) MCWD argues that Cal-Am’s data shows average bills increasing from \$78/month to over \$105/month before desalination, and that desalination

would add more than \$41 to those monthly bills. “That outcome would result in Cal-Am’s average customer paying \$147 per month, nearly 50% more than the Food and Water Watch study’s control amount, while still using less water.” (*Id.*, pp. 46, 79.)

- Desalination is expected to increase costs, but, as determined by the CPUC, this increase is necessary to achieve a safe and reliable source of water for the Peninsula. (CPUC Decision D.18-08-017, pp. 123-24.) With implementation of Special Condition 13, these costs would not be shouldered by low income customers. Because the Customer Assistance Program (“CAP”) discount would increase from 30% to 50%, enrolled customers in single family homes could see a bill increase of only about \$10 to \$12 per month for desalination facility costs and financing. This would be a substantial reduction in monthly compared to customers who are not in the CAP program. Additionally, Special Condition 13 commits Cal-Am to contribute an additional \$250,000 to the United Way to assist customers in having financial difficulties paying monthly bills.
- MCWD argues that its “own water supply will be threatened by the project’s slant wells pumping 17,000 AFY in close proximity to Marina Coast’s groundwater wells.” (MCWD Letter, p. 44; see also *id.*, p. 45.)
 - As explained above in Attachment B, Sections E and I, ***the Project will not impact Marina’s municipal supply wells.*** (See also Staff Report, p. 68; Applicant’s Staff Report, Section IV.J.)
- MCWD contends that the Project will permanently impact “at least seven acres of unique Flandrian Dunes, including ESHA,” as well as adversely affect the “freedom to enjoy such pristine open space, *free of cost.*” (MCWD Letter, p. 44.) In addition, MCWD argues that Cal-Am’s assertion that only a small area would be permanently fenced from public access misses the point about impacts to ESHA and impairing the public’s access to all “presently-existing features of the property.” (*Id.*, p. 45.)
 - ***ESHA.*** Although the Project would be inconsistent with Marina LCP’s habitat protection policies because the Project is not a resource-dependent use, the Final EIR/EIS determined that the Project would not result in a significant adverse ***physical*** impact to sensitive habitats. (See Attachment B, Section A.) Further, with implementation of the mitigation identified in the Final EIR/EIS, Cal-Am’s HMMP, and the Special Conditions identified in the Applicant’s Staff Report, potential impacts to ESHA would be mitigated to the maximum extent feasible. (See Applicant’s Staff Report, Sections IV.F, IV.P.) The Project would conform to the LCP’s habitat protection policies as supplemented by Coastal Act section 30260, which allows the Commission to approve the Project as a coastal-dependent industrial facility. (See *id.*, Section IV.P.)
 - ***Public Access.*** As explained in Attachment B, Section G, the Project’s presence is *de minimis* and as compared to “existing features of the property,” would not prevent ***any*** public access because the CEMEX site is not currently publicly accessible. Further, although the Final EIR/EIS indicated that the disturbed area

from ongoing well maintenance would be 6 acres, that area has been reduced to 2.2 acres as a result of selecting the smaller desalination project and subsequent design drawings. (See Section A.) Therefore, any future, speculative impacts to public access and recreation are even smaller than previously analyzed.

- MCWD contends that Cal-Am’s assertion that the Project would help prevent further seawater intrusion is based on flawed groundwater modeling in the Final EIR/EIS. (MCWD Letter, pp. 45-46.) According to MCWD, more modeling must be performed to incorporate the AEM and Fort Ord data. (*Ibid.*) MCWD also argues that a flat groundwater gradient “must be achieved during the life of the project under the SGMA.” (*Id.*, p. 46.)
 - ***Sufficiency of Groundwater Modeling.*** As explained in the Applicant’s Staff Report, Section IV.J, the extensive groundwater modeling for the Final EIR/EIS involved a multi-year, peer-reviewed effort that conservatively analyzed the Project’s OWP and potential impacts to groundwater supplies in the SVGB. (See also Attachment B, Section E; Attachment C, Section D.)
 - Further, as the Applicant’s Staff Report explains, no additional modeling to incorporate the AEM studies and Fort Ord data is required or appropriate. (See Applicant’s Staff Report, Section IV.J.) The AEM studies are flawed and inaccurately characterize “fresh” water in the SVGB, and the Fort Ord data are from outside the Project area. (See *ibid.*)
 - ***Groundwater Gradients.*** As explained in the Applicant’s Staff Report, Section IV.J, SGMA does not require that groundwater gradients in the SVGB be flat or seaward. Rather, SGMA requires that existing seawater intrusion not be exacerbated. (See *ibid.*; see also Attachment B, Section E; Attachment C, Section D.)
- MCWD argues that the CPUC’s rate determinations have no bearing on the Project’s environmental justice impacts to the Marina, Fort Ord, and Seaside communities served by MCWD. (MCWD Letter, p. 46.)
 - While true that CPUC’s “just and reasonable” rate determination does not affect potential impacts to communities served by MCWD and not Cal-Am, it is a necessary consideration when evaluating the Project’s environmental justice impacts. The CPUC already considered the rate increases associated with the Project, acknowledged that they were not insignificant, but determined they were just and reasonable considering the need to supply reliable water to the Peninsula. (CPUC Decision D.18-09-017, pp. 19-20, 123-124.) The other environmental impacts allegedly borne by Marina, Fort Ord, and Seaside communities are separately addressed in Attachment B, Section I. (See also Applicant’s Staff Report, Section N.)
- MCWD asserts that the Project is no longer required for Cal-Am to serve its customers and comply with the CDO. (MCWD Letter, p. 46.) Further, MCWD claims that the “No

Action or PWM Expansion alternatives meet most or all of the project objectives,” with “little to no adverse environmental impact” and “far less cost to Cal-Am’s customers.” (*Ibid.*)

- As thoroughly described in Attachment B, Section J, the PWM Expansion is not a feasible alternative and would raise a host of its own environmental impacts. A “No Action” alternative would also fail to meet project objectives and leave the Peninsula without a reliable water supply. (See, e.g., Applicant’s Staff Report, Section O.)
- MCWD argues that the CPUC’s provision of required CEQA and NEPA notices and meetings “provided scant real opportunity for engagement to hard-working, low-income citizens in Marina and the Ord Community.” (MCWD Letter, p. 47.)
 - MCWD provides no support for its assertion that the CPUC’s and Monterey Bay National Marine Sanctuary’s public hearings as part of the Project’s environmental review did not provide meaningful opportunities for Marina and Fort Ord residents to participate. As explained in the Applicant’s Staff Report, Section IV.N, the public—including Marina residents—had ample opportunities to participate before the CPUC and other agencies regarding the Project’s environmental review and ratesetting. (See also CPUC Decision D.18-09-017, Appx. J, Ex. A.) Numerous Marina residents and organizations participated in those proceedings.
- MCWD argues that Cal-Am does not explain what environmental justice policies would be frustrated by the public acquisition of the Monterey District system. (MCWD Letter, pp. 47-48.)
 - MCWD ignores that acquisition of Cal-Am’s water delivery system in Monterey could cost more than \$1 billion. (See June 30 Letter to Commission, pp. 43-44.) These costs would necessarily be borne by ratepayers and would likely result in rate increases substantially in excess of those estimated from the Project. Thus, the disproportionate environmental justice impacts that MCWD alleges would result from the Project would likely occur many times over if a public takeover of the water system were to occur.
- MCWD claims that rates will be higher if the project were not operated at full capacity. (MCWD Letter, p. 77.)
 - As explained in Attachment B, Section J, the Project will be required to operate at or the expected 86% capacity to meet water demands within the Peninsula. However, even if the Project operates at a reduced capacity, how much the water facility produces (or does not produce) is not a material variable in rates that customers are charged, except for minor, incremental operating and maintenance costs. Thus, whether the project produces 2,000 acre feet or 10,000 acre feet of water each year, the amount needed to be recovered annually from customers for to repay physical construction costs, including set financing repayment

requirements, and annual operation and maintenance costs essentially remains the same. Based on available information, the CPUC approved a rate increase of about \$37-\$40 per month for the average Cal-Am customer in a single-family residence for the desalination facility, and that increase is not tied to per acre foot water costs. That is why the CPUC found that approving a smaller 4.8 MGD desalination facility would not result in any “significant, if any, cost savings to ratepayers” and determined that alternative was not feasible. (CPUC Decision 18-09-017, p. 129.)

- MCWD alleges that rates are increasing as conservation increases, and that this must be addressed through a change to pricing structure that would need to be approved by the CPUC. (MCWD Letter, p. 78.)
 - MCWD is correct that the CPUC has sole jurisdiction over ratemaking and any change of this nature would need to be considered through an entirely separate process. (MCWD Letter, p. 78.) As Cal-Am has previously explained, water conservation and reduction in water use can have the unintended consequence of increasing water prices because water utilities generally have high fixed costs associated with infrastructure, improvements, staff, and maintenance. This situation is not unique to Cal-Am; on average, about 70 percent of a water utility’s revenue is devoted to fixed costs. When sales are reduced as a result of water conservation, the variable costs go down, but the fixed costs remain, so the cost of each unit of water must increase to support the fixed costs and keep the water utility’s finances stable. While customers who conserve will always pay less than those who do not, they may not see substantial reductions in monthly bills due to conservation because the fixed costs remain. (See June 30 Letter to Commission, p. 93.)
- MCWD also states that Cal-Am has not provided information regarding how much water its customers use or how much they pay altogether for their water. (MCWD Letter, p. 79.)
 - Cal-Am has provided ample information on how much water its customers use and how much they pay for the water based on average use and average costs. (See Dudek Memorandum, pp. 3-4; June 30 Letter to Commission pp. 37, 92-93.)¹³ Moreover, Attachment B, Section I and the Applicant’s Staff Report, further describe the costs to customers who are eligible for Cal-Am’s Customer Assistance Program. For example, because the discount associated with the Customer Assistance Program, as proposed under Special Condition 13, will increase from 30% to 50%, water bills for enrolled customers will actually decrease after Project implementation.

I. Assessment of Alternatives

¹³ Additional information regarding rates in the Monterey service area is available here: <https://www.amwater.com/caaw/Customer-Service-Billing/Water-Rates/Monterey-District>.

1. Interpretation of Coastal Act Sections 30233 and 30260

- MCWD asserts that Coastal Act sections 30233 and 30260 and CEQA require the Commission to consider complete alternatives to desalination facilities, relying on guidance documents issued by the Commission. (MCWD Letter, pp. 48-49, 67-68.)
 - MCWD misleadingly cites two guidance documents issued by the Commission for the proposition that an alternatives analysis may be “need[ed] to evaluate whether using or providing a public water source is a feasible option” and that the Commission’s policy is to consider complete alternatives to desalination under Coastal Act sections 30233 and 30260. (MCWD Letter, pp. 48-49.) The Commission’s policy statements do not support MCWD’s claims.
 - First, the policy statements affirm that section 30233 only applies to projects involving any diking, dredging, or filling in coastal waters. (See *Briefing on the Applicability of Coastal Act Policies to Public and Private Desalination Facilities*, dated February 20, 2003, p. 7 [“Section 30233(a) requires in part that projects involving fill in coastal waters be allowed only under particular conditions.”] [emphasis added]; *Desalination and the Coastal Act*, dated March 20, 2004, p. 30 [“To place fill in coastal waters, a proposed development must fall within one of the eight categories listed under Coastal Act section 30233”] [emphasis added].) As explained in Applicant’s Staff Report, section 30233 does not apply to the proposed Cal-Am Project because the Project does not propose diking, filling, or dredging of coastal waters. (Applicant’s Staff Report, Section IV.I.)
 - Second, the policy statements affirm that section 30260 is limited to considering alternative locations. (See *Briefing on the Applicability of Coastal Act Policies to Public and Private Desalination Facilities*, dated February 20, 2003 [“Section 30260 states that coastal-dependent facilities may be permitted . . . if there are no feasible, less environmentally damaging alternative locations.”] [emphasis added]; *Desalination and the Coastal Act*, dated March 20, 2004, p. 30 [noting section 30260 asks “[a]re alternative locations infeasible or more environmentally damaging?”] [emphasis added].) Further, as discussed in the Staff Report Response, there is no feasible alternative project that better protects public trust resources. (Applicant’s Staff Report, Section IV.P.)
 - As explained in the Applicant’s Staff Report, Section IV.O, Coastal Act section 30233 does not apply to the Proposed Project. (See Pub. Resources Code, § 30233, subd. (a); June 30, 2020 Letter to Commission, pp. 45-46.) Here, the Project does not involve any diking, dredging, or filling of open coastal waters—as such, section 30233 does not provide the Commission with any authority to consider whether there is a “feasible less environmentally damaging alternative” to the Project. (June 30, 2020 Letter to Commission, p. 46; Section C, *supra*.) Even if certain components did constitute “fill”—which they do not—the

Commission’s authority would be limited to review of alternatives as to those components, not wholesale alternatives to the entire Project. (June 30, 2020 Letter to Commission, p. 46.)

- Similarly, the plain language of section 30260 grants the Commission the authority to consider only “*alternative locations*” for coastal-dependent facilities—nothing in this section permits the Commission to assess wholesale project alternatives. (June 30, 2020 Letter to Commission, pp. 46-47; see also Attachment B, Section J.1.) Further, as discussed in Attachment B, Section J.1, the Commission is limited to considering alternatives only within the Coastal Zone.

2. Feasibility

- MCWD argues that the PWM Expansion is “ready to be approved and implemented in short order,” asserting that while the M1W Board declined to certify the Final SEIR on April 27, 2020, in a second vote at that meeting, the M1W expressly voted against denying certification of the Final SEIR and terminating further action on the PWM Expansion. (MCWD Letter, p. 49.)
 - First, MCWD ignores that a letter from M1W to Cal-Am explicitly confirmed that the M1W Board had, on April 27, 2020, taken action “denying certification” of the Final SEIR for the PWM Expansion. (See June 8, 2020 M1W Letter to Cal-Am, p. 1.)
 - Second, MCWD’s assertion that the PWM Expansion can be implemented in short order wholly ignores the fact that M1W lacks the funding to correct the deficiencies identified in the PWM Expansion SEIR, which prompted the M1W Board to deny certification of the SEIR. (See Applicant’s Staff Report, Section IV.O.1.) As stated by M1W itself, “[M1W] does not have additional budget funds at this time for dealing with any additional deficiencies that have been identified . . . or could be identified in the future. [M1W] has suspended all of the remaining contracts on these matters to prevent further consultant expenditures.” (See May 20, 2020 M1W Board of Directors Staff Report, p. 1.) Moreover, as explained in M1W’s August 20, 2020 letter to the Commission, M1W has suspended all work on the PWM Expansion. (See August 20, 2020 M1W Letter, p. 3.)
 - Finally, before M1W could certify the PWM Expansion SEIR, it must recirculate the SEIR to provide for public notice and comment regarding significant new information, including the post-2013 wastewater or “WWTP” flow data recently disclosed by M1W. (See Applicant’s Staff Report, Section IV.O.1; see Attachment B, Section J.2.b; Pub. Resources Code, § 21092.1; CEQA Guidelines, § 15088.5.) Similarly, as discussed below, M1W has proposed the potential construction of additional deep wells. Initially, M1W anticipated adding a third deep injection well, but is now discussing adding a fourth. (See August 31, 2020 M1W Board of Directors Meeting, at 1:14:20 to 1:22:10 [discussing amending bid

request for the third deep injection well to include construction of a fourth deep injection well], available at <https://montereyonewater.org/290/Audio-Recordings-of-Board>.) Should M1W choose to construct these wells, it would again be required to revise and recirculate the PWM Expansion SEIR to permit public notice and comment regarding the impacts associated with these wells. (See Applicant's Staff Report, Section IV.O.1.) There is no reason to believe that M1W will be able to suddenly pick up the pieces of the PWM Expansion and approve and implement a complex water treatment system "in short order."

- MCWD asserts that the M1W Board did not deny certification of the Final SEIR due to deficiencies in the SEIR's environmental analysis, but rather that the agenda packet for the M1W Board's April 27, 2020 meeting contained detailed responses to Cal-Am comments on the SEIR. (MCWD Letter, pp. 49-50.)
 - Contrary to MCWD's claims, M1W has expressly acknowledged that the following significant deficiencies remain unaddressed in the SEIR that was provided to the M1W Board for certification:
 - The SEIR did not adequately address comments expressing concern that M1W cannot document the quantity and reliability of the source water available for the PWM Expansion;
 - The SEIR fails to support its conclusions regarding long-term water supply and demand, which are contrary to the CPUC demand determination and estimates from Peninsula cities;
 - The SEIR fails to properly evaluate potential impacts to agricultural water supplies due to reductions in available agricultural irrigation water because of the Expansion;
 - The SEIR does not evaluate the PWM Expansion as either an alternative to or a cumulative project with the Project. (May 20, 2020 M1W Board of Directors Staff Report, p. 2; August 12, 2020 Cal-Am Letter to Commission.)
 - M1W staff has stated that they do not have the funding to fix these deficiencies, and has therefore halted all work on the PWM Expansion. (See May 20, 2020 M1W Board of Directors Staff Report, p. 1.) It does not appear that M1W intends to or is capable of correcting these significant deficiencies in the near future.
- MCWD asserts that the Commission was required to consider the PWM Expansion as an alternative to the Project because there is "ample new information demonstrating that PWM Expansion is a feasible alternative." (MCWD Letter, p. 50.)
 - MCWD does not point to any new information demonstrating that the PWM Expansion has become a feasible Project alternative. In fact, just the opposite has occurred. In an August 20, 2020 letter to the Coastal Commission, M1W provided new information regarding wastewater flows from 2014 to 2019, that

were not previously available to the public or analyzed in the SEIR for the PWM Expansion. In an August 23, 2020 memorandum (the “August 23, 2020 Hazen Memo”), Hazen & Sawyer evaluated the new flow information and found that the new flow information only further confirmed the conclusion that source water for the PWM Expansion is inadequate and speculative and that the Expansion is not a feasible alternative to Cal-Am’s Project. This analysis built upon the Hazen & Sawyer memorandum provided to the Commission on August 11, 2020, which reached the same conclusion (the “August 11, 2020 Hazen Memo”).

- Moreover, M1W’s new information regarding wastewater flows, which would provide a significant proportion of the source waters for the PWM Expansion, itself constitutes significant new information under CEQA.
 - Under CEQA, when “significant new information” is added to an EIR after the public notice and comment period, but before certification of the EIR, the lead agency must provide notice of an additional public comment period before certifying the EIR. (Pub. Resources Code, § 21092.1; CEQA Guidelines, § 15088.5; *Save Our Peninsula Committee*, 87 Cal.App.4th 99, 130; *Cadiz Land Co. v Rail Cycle* (2000) 83 Cal.App.4th 74, 95.)
 - Appendix I to the PWM Expansion Final SEIR does not consider post-2013 WWTP flow data, which demonstrates a consistent trend of decreasing WWTP flow to source the PWM Expansion, despite the fact that M1W apparently possessed this data when preparing the Final SEIR. (See August 23, 2020 Hazen Memo, p. 4; see Applicant’s Staff Report, Section IV.O.1.) Accordingly, overall demand for the source waters listed for the PWM Expansion far exceeds available supplies in both Normal/Wet years and Dry years. (August 23, 2020 Hazen Memo, p. 6.) This newly released post-2013 WWTP flow information constitutes significant new information under CEQA because M1W must identify and analyze available water sources for the Expansion in order to demonstrate whether that project is feasible or whether potential environmental impacts could result. Regardless of where this new water is sourced, its diversion to the PWM Expansion could generate a significant new impact, which has yet to be evaluated. Likewise, by not including post-2013 WWTP flow data, which appears to have been in M1W’s possession for years, M1W has created a document “so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.” (See CEQA Guidelines, § 15088.5, subd. (a)(4).) Because the public was unable to accurately analyze whether the PWM Expansion could achieve its stated purpose, the Final SEIR failed in its fundamental purpose as an informational document by excluding this crucial information from public consideration. As a result of all of these flaws, the Final SEIR will need to be revised and recirculated for public comment, a process that could add at least an additional six to twelve

months or more to the project's timeline—further demonstrating that the PWM Expansion is not a feasible alternative.

- Similarly, M1W has proposed the potential construction of additional deep wells in an attempt to resolve the injection refusal issues currently faced by the Phase I PWM. Initially, M1W anticipated adding a third deep injection well, but is now discussion adding a fourth. (See August 31, 2020 M1W Board of Directors Meeting, at 1:14:20 to 1:22:10 [discussing amending bid request for the third deep injection well to include construction of a fourth deep injection well], available at <https://montereyonewater.org/290/Audio-Recordings-of-Board>.) Should M1W choose to construct these wells, it would again be required to revise and recirculate the PWM Expansion SEIR to permit public notice and comment regarding the impacts associated with these wells. (See Applicant's Staff Report, Section IV.O.1.)
- MCWD contends that the PWM Expansion satisfies each of the alternative feasibility criteria under CEQA and the Coastal Act, and is in fact more feasible than the Project. (MCWD Letter, pp. 50-53.)
 - As further explained below, the PWM Expansion has not been demonstrated to be a feasible project and should not be considered an alternative to the Project. (See Applicant's Staff Report, Section IV.O.1; see also June 30, 2020 Cal-Am Letter to Coastal Commission, Att. A, Section I.2.)

a. “Capable of Being Accomplished in a Successful Manner”

- MCWD takes issue with Cal-Am's statement that the serious concerns with technology proposed for use in the Phase I PWM means that the PWM Expansion is not capable of being accomplished in a successful manner. Instead, MCWD argues that M1W has addressed each of Cal-Am concerns regarding the Phase I PWM and states that “there is no evidence suggesting that the issues raised by Cal-Am cannot be resolved.” (MCWD Letter, pp. 50-51.)
 - As noted in the Applicant's Staff Report, the Phase I PWM continues to face significant, ongoing technological issues preventing the project from operating at full capacity, including sinkholes and/or subsidence, and injection refusal. (See Applicant's Staff Report, Section IV.O.1.) As a result, M1W estimates that current annual injection volume for Phase I PWM is only 2,030 afy—less than 58 percent of the 3,500 afy allocated for Cal-Am under the Water Purchase Agreement (“WPA”). (August 12, 2020 Cal-Am Letter, p. 2.)
 - In response to Cal-Am's concerns regarding inadequate injection rates from the Phase I PWM, M1W has proposed costly repairs to the shallow wells, final commissioning of the deep wells, and the addition of a third, and possibly a fourth, deep injection well. (August 12, 2020 Cal-Am Letter, p. 2.) However, it is not clear that these proposed actions will allow the Phase I PWM to operate at its expected capacity. In fact, M1W has recently been forced to propose the

addition of a fourth deep injection well, as the previously proposed third well is apparently inadequate to remedy injection refusal issues. (See August 31, 2020 M1W Board of Directors Meeting, at 1:14:20 to 1:22:10 [discussing amending bid request for the third deep injection well to include construction of a fourth deep injection well], available at <https://montereyonewater.org/290/Audio-Recordings-of-Board>.) Given that Phase I PWM and PWM Expansion would utilize the same technology, the technological concerns associated with the Phase I PWM apply equally to the PWM Expansion, and it is likely that M1W would also be forced to propose a similar continuing cycle of fixes for the PWM Expansion as is often the case for groundwater replenishment projects. (See Applicant’s Staff Report, Exhibit 23, September 10, 2020 Hazen Memo, p. 5.)

- MCWD claims that concerns regarding availability of source waters for the PWM Expansion were fully addressed in Appendix M to the Final SEIR, and that there is far greater uncertainty regarding the Project’s source waters. (MCWD Letter, p. 51.)
 - MCWD admits that PWM Expansion source water is “subject to certain seasonal variability.” (MCWD Letter, p. 51.)
 - As Cal-Am has previously explained to the Commission, the water rights that M1W claims are available for the PWM Expansion in SEIR Appendix M are not permanent water rights, but instead are merely interruptible use entitlements, and many of those entitlements are disputed by the holders of the water rights. (August 12, 2020 Cal-Am Letter, p. 4.) The following issues remain regarding claimed PWM Expansion source waters: ARWRA source waters; questionable modifications of source waters; disputed agricultural source waters; source water quality issues; and overestimation of water supplies during drought years. (*Id.*, pp. 4-5.)
 - Regarding source waters, M1W, the Stoldt Memo, and MCWD do not account for the risks of using wastewater as a primary water source for the PWM Expansion—wastewater is subject to significant variability according to demand and drought conditions. (August 11, 2020 Hazen Memo, pp. 6-7.) Appendix I to the PWM Expansion SEIR fails to account for WWTP flows since 2013, or the fact that WWTP flows have been decreasing on the Peninsula, and thereby overstates available wastewater flows that may be used as source water. (*Id.*, p. 7.) Indeed, data regarding wastewater flows was entirely unavailable until it was provided by M1W in its August 20, 2020 letter to the Commission. Under a corrected WWTP flow analysis using this new information, there would be significantly depressed WWTP source water supplies for the PWM Expansion in Normal/Wet years, and no flow available for Phase I PWM and PWM Expansion during Dry years. (August 23, 2020 Hazen Memo, p. 6.) Moreover, the significant new information regarding wastewater flow data post-2013 requires recirculation of the PWM Expansion Final SEIR for renewed notice and comment. (Pub. Resources Code, § 21092.1; CEQA Guidelines, § 15088.5; *Cadiz Land Co.*, *supra*, 83 Cal.App.4th at p. 95.)

- With respect to surface water flows, recent data from the U.S. Geological Survey shows that average surface water flows in the Reclamation Ditch are lower than assumed in the Final SEIR, and therefore the SEIR overstates the availability of Reclamation Ditch flow as source water for the Phase I PWM and the PWM Expansion. (August 11, 2020 Hazen Memo, p. 11.) Moreover, agricultural flows have decreased by one-third in recent years, meaning that monthly flows to the Blanco Drain and the Agricultural Wash Water are also below what is projected in the SEIR. (*Ibid.*)
- Updated Figure 4 in the August 23 Hazen Memo shows that when lower WWTP and Reclamation Ditch flows are accounted for, demand for source waters identified for the PWM Expansion far exceeds available supplies in Normal/Wet years and in Dry Years. (August 23, 2020 Hazen Memo, p. 6.) Without an adequate source water supply, the Peninsula will have to choose between supplying source water for the PWM Expansion or for the CSIP system. (August 11, 2020 Hazen Memo, pp. 13-14.)
- Finally, the PWM Expansion fails to comply with state mandates specifically designed to ensure that water suppliers are capable of providing a drought-proof supply in the face of advancing climate change. Specifically, Governor Newsom’s 2020 Water Resilience Portfolio’s makes clear that water supplies must plan for prolonged drought conditions, and “[d]evelop strategies to protect communities and fish and wildlife in the event of a drought lasting at least six years.”¹⁴ As discussed above, during Normal/Wet years and in Dry years, the PWM Expansion will have inadequate source waters, and this deficit will only increase during prolonged periods of drought—as such, the Expansion does not achieve Governor Newsom’s water supply resilience goals. Only the Project is capable of providing a reliable, drought-proof supply to the Monterey Peninsula.

b. “Within a Reasonable Period of Time”

- MCWD argues that while the PWM Expansion may not be implemented before the CDO deadline, “the evidence shows that PWM Expansion could be implemented long before the [Project],” and therefore can be completed within a reasonable period of time. To support this argument, MCWD again notes that the M1W Board rejected a motion to cease work on the PWM Expansion. (MCWD Letter, pp. 51-52.)
 - MCWD does not provide *any* evidence to support its assertion that the PWM Expansion can be implemented before the Project. Moreover, the M1W Board has denied certification of the PWM Expansion SEIR, which must now be recirculated to account for the significant new information disclosed by M1W regarding wastewater flow data and the potential additional deep injection wells. (Pub. Resources Code, § 21092.1; CEQA Guidelines, § 15088.5; *Cadiz Land Co.*,

¹⁴ 2020 Water Resilience Portfolio (July 2020), p. 26, available at https://waterresilience.ca.gov/wp-content/uploads/2020/07/Final_California-Water-Resilience-Portfolio-2020_ADA3_v2_ay11-opt.pdf.

supra, 83 Cal.App.4th at p. 95.) Coupled with the fact that M1W does not possess the funding to correct deficiencies in the SEIR, and M1W’s order to its staff to suspend work on any aspect of the PWM Expansion (see August 20, 2020 M1W Letter to Commission, p. 3), it is clear that ***the Expansion has now been delayed indefinitely.***

- MCWD claims that the Commission is not bound by the CDO deadline in determining whether the PWM Expansion is a feasible Project alternative. (MCWD Letter, p. 76.)
 - Without a feasible water supply, Cal-Am cannot provide a supply to replace its Carmel River withdrawals, which it is currently obligated to cease by the December 31, 2021 CDO deadline. The State Water Board CDO provides that the conditions thereto, as well as conditions set forth in previous iterations of the CDO, “shall remain in effect until (a) Cal-Am certifies, with supporting documentation, that it has obtained a permanent supply of water that has been substituted for the water illegally diverted from the Carmel River and (b) the Deputy Director for Water Rights concurs, in writing, with this certification.” (State Water Board Order WR 2016-0016, p. 27.) As such, if Cal-Am does not obtain a new, permanent supply to replace its Carmel River withdrawals by the CDO deadline, the CDO conditions, including the moratorium on new service connections mandated by the 2009 State Water Board CDO, will remain in effect. The Commission must consider the CDO deadline, as failure to meet the CDO milestones would result in severe consequences for Cal-Am and its customers, including continuation of the service connection moratorium and the potential for mandatory rationing and further restrictions on water usage. (See Final EIR/EIS, pp. 5.4-10 to 5.4-11.)

c. “Taking Into Account Economic, Environmental, Social, and Technological Factors”

- MCWD argues that the PWM Expansion would “cost much less” than the Project, and would save Monterey Peninsula ratepayers millions of dollars. (MCWD Letter, p. 52.)
 - While PWM Expansion would cost somewhat less than Cal-Am’s Project, it will not provide sufficient water to meet Peninsula water demand (even the low demand numbers advocated by MPWMD), and therefore it is not a feasible alternative. It also should be noted that Phase I PWM is facing significant cost overruns, which will be passed onto Cal-Am ratepayers. The CPUC approved a rate of \$1,720 or less per-acre-foot for Phase I PWM water—as of June 2020, M1W stated that at the current projected delivery of 2,030 afy, costs would increase to \$3,678 per-acre-foot. (August 12, 2020 Cal-Am Letter, p. 3.) Even under M1W’s best case scenario, after repairs to the shallow wells, commissioning of deep wells, and the addition of a third deep well, costs would be \$2,508 per acre-foot—a nearly 50 percent increase from the rate approved by the CPUC. (*Ibid.*)

- Moreover, MCWD fails to acknowledge that costs to Cal-Am’s customers for Cal-Am’s Project already have been established by the CPUC based on the capital costs to build the facility, the cost of long-term operations and maintenance, and the cost of financing, and are not materially affected by the per acre-foot cost of water. (See Applicant’s Staff Report, Section IV.O.1.) Based on available information, the CPUC approved a rate increase of about \$37-\$40 per month for the average Cal-Am customer in a single family residence for the desalination facility, and that increase is not tied to per acre-foot water costs. That is why the CPUC found that approving a smaller 4.8 MGD desalination facility would not result in any “significant, if any, cost savings to ratepayers” and determined that alternative was not feasible. (CPCU Decision 18-09-017, p. 129.)
- MCWD asserts that the PWM Expansion is environmentally superior, for purposes of the Commission’s alternatives analysis, because unlike the Project, the PWM Expansion is situated entirely outside the coastal zone. (MCWD Letter, p. 52.)
 - MCWD’s argument is entirely circular—the Commission cannot assess a Project alternative that is situated entirely outside the coastal zone, while simultaneously ignoring any environmental impacts of such a project that take effect outside of the coastal zone. MCWD cannot have its cake and eat it too. The Commission is not authorized to analyze the impacts of projects located outside of its jurisdiction – the coastal zone – and thus, cannot purport to assess the PWM Expansion’s environmental impacts against those of the Project. (See *Sierra Club v. Cal. Coastal Com.* (2005) 35 Cal.4th 839, 860; *Schneider v. Cal. Coastal. Com.* (2006) 140 Cal.App.4th 1339, 1347; June 30, 2020 Cal-Am Letter to Commission, p. 47.)
 - Moreover, MCWD assumes, without any evidence, that projects situated outside of the coastal zone are inherently environmentally superior to projects within the coastal zone. It is a gross overgeneralization to assume that a project located outside the coastal zone has fewer environmental impacts, without first conducting a complete analysis of that project’s effects.
 - Further, to the extent that Coastal Act section 30260 permits the Commission to analyze alternative project locations, such analysis is limited to alternative locations *within* the Commission’s coastal zone jurisdiction. Nothing in the Coastal Act permits the Commission to analyze the relative environmental impacts of siting projects at locations *outside* the coastal zone.
 - MCWD fails to recognize that, with the implementation of proposed special conditions, the Project is consistent with all of the policies set forth in the Coastal Act and the Marina LCP, except for those related to ESHA. (See Applicant’s Staff Report, Section IV.O.1.) Moreover, the Project would incorporate mitigation measures to the maximum extent feasible to reduce impacts to ESHA. (*Ibid.*) In contrast, significant questions regarding the impacts of the PWM Expansion remain unresolved and caused the M1W Board to deny certification of the Final SEIR for the Expansion. (*Ibid.*) Further, M1W has to this point failed

to evaluate the potential impacts from seawater intrusion to the SVGB, should the PWM Expansion be constructed in lieu of the Project. (*Ibid.*) Finally, as explained by the Seaside Groundwater Basin Watermaster, without supplemental supplies that only the Project can provide, the Watermaster cannot maintain adequate groundwater levels in the Basin to “avoid seawater intrusion and irreversible loss of Basin storage.” (See August 12, 2020 Seaside Groundwater Basin Watermaster Letter to Commission, p. 1; see also Applicant’s Staff Report, Section IV.O.2.) Without the additional water to be supplied by the Project, it is likely that seawater intrusion within the Seaside Basin will worsen and cause the loss of available Basin storage, resulting in potentially significant impacts to groundwater resources. (See Applicant’s Staff Report, Section IV.P.) Therefore, substantial evidence does not demonstrate that the Expansion will have fewer environmental impacts compared to the Project.

- MCWD claims that the CPUC’s analysis of the Project in the EIR/EIS is “not relevant” to the Commission’s review of the Project’s environmental impacts under the Coastal Act. (MCWD Letter, p. 52.)
 - As the lead agency, the CPUC reviewed the Project and its environmental impacts over a six-year-long administrative process. Throughout this process, the CPUC engaged federal, state, and local agencies, members of the public, and other stakeholders. Dozens of parties, including MCWD, became parties to the CPUC proceedings, enabling them to participate in legal briefing and oral arguments, join in technical workshops on various Project issues, and offer written and oral evidence taken under oath. When the CPUC issued the Final EIR/EIS, MCWD appealed it to the California Supreme Court, arguing in part that the Project would have adverse environmental impacts. The California Supreme Court found CPUC’s analysis and approval adequate. (Order Denying Petitions for Writ of Review, *Marina Coast Water District, et al. v. Public Utilities Commission*, Case No. S253585 (Aug. 28, 2019).) The analysis set forth in the EIR/EIS is therefore no longer subject to challenge and as such, as a CEQA responsible agency, the Commission is required to consider and rely upon the CPUC’s and EIR/EIS’s evaluation of the Project’s impacts. (See CEQA Guidelines, §§ 15096, subds. (a), (f).) As a responsible agency for the Project, the Commission’s CEQA authority is inherently limited to considering and avoiding only those impacts caused by Project components within the Commission’s coastal zone jurisdiction. (See, e.g., Pub. Res. Code, § 21002.1, subd. (d) [“A responsible agency shall be responsible for considering only the effects of those activities involved in a project which it is required by law to carry out or approve.”]; CEQA Guidelines, §§ 15042, 15096, subd. (g)(1) [“When considering alternatives and mitigation measures, a responsible agency is more limited than a lead agency. A responsible agency has responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve.”].)
- In response to Cal-Am’s argument that the PWM Expansion is socially infeasible because it will deprive the disadvantaged community of Salinas of valuable agricultural wash

water, MCWD argues that M1W has made clear that there is not currently any method by which the agricultural wash water can be put to beneficial use by Salinas residents. In the alternative, MCWD contends that M1W has rights to adequate source water for the PWM Expansion without use of agricultural wash water. Finally, MCWD argues that even if the PWM Expansion did rob Salinas residents of agricultural wash water, the Project will cause comparatively more harm to disadvantaged communities by “jeopardizing the sole source of drinking water” for these communities.” (MCWD Letter, pp. 52-53.)

- Salinas continues to dispute M1W’s rights to use the City’s agricultural wash water for the PWM Expansion, and argues that the ARWRA only permits M1W to use agricultural produce wash water for Phase I PWM, and not the Expansion. (January 29, 2020 City of Salinas Letter.) The City further explained that these water sources will not be available for use by the PWM Expansion because “the City fully intends to use available agricultural wash water for its own purposes, including to support farmers, ranchers and the City’s agriculture industry, as determined by the City in its sole and absolute discretion.” (*Id.*, p. 2.) The Commission therefore should not consider the agricultural wash water as an available water source for the Expansion Project.
- MCWD’s contention that M1W has rights to adequate source water for the PWM Expansion, without using agricultural wash water, is incorrect. As discussed in Cal-Am’s Response to Staff Report, the analyses provided by proponents of the PWM Expansion already fail to demonstrate that the Pure Expansion has reliable sources of water necessary to meet demand on the Monterey Peninsula, even when assuming MPWMD’s lowest 10,855 afy demand. (Attachment B, Section J.3.)
- Finally, MCWD’s claim that the Project is “jeopardizing the sole source of drinking water” for Salinas residents is without merit. As discussed in the Applicant’s Staff Report, extensive studies have been performed as part of the Project’s CEQA review before the CPUC, which have concluded that the Project’s well field would have relatively limited effects on nearby groundwater supplies conditions in the SVGB, and negligible or no effect on regional groundwater supplies. (See Applicant’s Staff Report, Section IV.J.) Moreover, the Commission’s own independent hydrogeologist confirmed that Project operation will not adversely affect groundwater supplies. (*Ibid.*)
- MCWD claims that there is no evidence that the PWM Expansion is technically infeasible and that the Phase I PWM “has not faced any ‘technological roadblocks.’” MCWD further claims that there is uncertainty regarding the Project’s proposal to use slant well technology to draw in brackish groundwater for desalination. (MCWD Letter, p. 53.)
 - MCWD’s claim that Phase I PWM has not faced any technological difficulties is simply false. As described above, due to a series of technological issues, including sinkholes and subsidence in the shallow wells and injection refusal in the deep wells, the Phase I PWM’s injection rate continues to be far below the

3,500 afy promised to Cal-Am under its existing WPA with M1W. (See Applicant's Staff Report, Section IV.O.1; see also Attachment B, Section J.2.a; August 12, 2020 Cal-Am Letter, p. 2.)

- Further, MCWD ignores that operation of the Project's test slant well has demonstrated the technical feasibility of slant well technology, and at least two other projects in California have similarly conducted successful tests as a method of supplying source water to desalination facilities. (See Applicant's Staff Report, Section IV.O.1.) Moreover, subsurface slant wells, such as those planned for the Project, are the type of intake technology preferred by the state resources agencies, including the Commission, for desalination facilities under the California Ocean Plan. (See California Ocean Plan, Section III.M.2.d(1)(a).)

3. Use of MCWD Pipeline

- MCWD argues that there is not sufficient capacity in the MCWD pipeline for use to transport Project product water, and that Cal-Am has not demonstrated that it could feasibly construct a product water pipeline running parallel to MCWD's, rendering the Project infeasible. (MCWD Letter, pp. 53-54.)
 - As a threshold matter, the March 10, 2009, Potable Water Wheeling Agreement between Cal-Am and MCWD, as well as Water Code sections 1810-1814, entitle Cal-Am with the legal right to use this shared pipeline while there is sufficient capacity available in the pipeline. (See June 30, 2020 Cal-Am Letter to Commission, pp. 54-55.) This shared pipeline has adequate capacity to serve Cal-Am's uses given that the Project will produce 6.4 mgd of desalinated water and the capacity in the Shared Pipeline is 15.9 mgd on an average day and 14.3 mgd at peak hour. (*Ibid.*) MCWD's arguments to the contrary have been rejected by the CPUC and the California Supreme Court. (See Order Denying Petitions for Writ of Review, *Marina Coast Water District, et al. v. Public Utilities Commission*, Case No. S253585 (Aug. 28, 2019).)
 - In any case, as acknowledged by the Staff Report, in the event that MCWD continues to unreasonably refuse to permit Cal-Am to exercise its right to utilize the pipeline, Cal-Am has proposed to construct an additional product water conveyance pipeline, running parallel to the shared pipeline. (See Staff Report, pp. 112-13; June 30, 2020 Cal-Am Letter to Commission, p. 55.) Approvals for this proposed parallel pipeline will come before MPWMD at its October Board meeting. (See July 31, 2020 MPWMD Board of Directors Final Minutes, p. 1.) There is no reason to believe that MPWMD will not issue approvals for the pipeline. As a result, Cal-Am's ability to utilize the shared pipeline, or to obtain approvals for a new parallel pipeline, will not cause contribute to uncertainty regarding the Project's operations.

4. Supply and Demand

- MCWD claims that Cal-Am’s demand numbers submitted to the CPUC in its general rate case support a finding of decreased demand, and that recent analyses submitted to the Commission support the 2019 Staff Report’s conclusions on supply and demand. (MCWD Letter, pp. 54, 82-83.)
 - MCWD’s contention demonstrates a misunderstanding regarding the purpose of a general rate case, which is to forecast revenue—not plan a long-term water supply system. The rate case is intended to calculate the revenue required for the next three years and propose rates necessary to meet that revenue requirement. To support the calculation, the rate case includes tables used to forecast customers, water sales and operating revenues over that time period. As specifically noted in the 100-day update for Monterey, “There is no forecasted growth in the Central Division due to the Moratorium.” (July 1, 2019 Cal-Am application for CPUC’s General Rate Case A1907004, Exhibit A, p. 302, available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M308/K837/308837881.PDF>) Table 3.14 in the update therefore uses the same total annual number of 9,789.4 acre-feet for 2019, 2020, 2021 and 2022. (*Id.* at 317.) Forecasting sales for three years is not the same as planning a water supply system to meet long-term needs, and does not consider issues like maximum month demand – which was a critical factor in the CPUC’s demand determination for the Project. (See Applicant’s Staff Report, Section IV.O.2; CPUC Decision D.18-09-017, pp. 21-24.) A supply that barely met an average annual demand number over a few year period would still be unable to meet maximum demands.
 - MCWD’s contention also ignores the fact that only Cal-Am’s Project can meet Peninsula water demand even under the most conservative demand estimate as presented by MPWMD to the Commission. As demonstrated in the Applicant’s Staff Report, even assuming the low demand figure proposed by MPWMD (10,855 afy), when ASR is accounted for at a realistic level, or when WWTP flows and Reclamation Ditch flows are accounted for based on current flow data, the Pure Water Expansion cannot meet the Peninsula’s water demand. (Applicant’s Staff Report, Section IV.O.2; September 10, 2020 Hazen Memo, p. 6.) When these two scenarios are combined, which is certain to occur, the Peninsula is left in a perpetual water supply deficit that the PWM Expansion cannot satisfy. (*Id.*)

a. CPUC Determinations of Supply and Demand

- MCWD contends that the Commission is not bound by the CPUC’s determination of supply and demand in Cal-Am’s Monterey service area, and can “consider the changes in demand and supply circumstances” since the CPUC issued its decision on the Project in 2018. MCWD claims that MPWMD, instead, should be afforded “greater weight” in its calculations of supply and demand. (MCWD Letter, pp. 54, 55, 82-83.)
 - MCWD’s claims demonstrate a misunderstanding of the law. As Cal-Am explained in its June 30, 2020 Letter to Commission, the CPUC’s determinations of appropriate levels of supply and demand in Cal-Am’s service area cannot now

be second-guessed by the Commission, MPWMD, or any other agency. (See June 30, 2020 Letter to Commission, pp. 56-57.) As previously explained, “[T]he jurisdiction to determine the adequacy of service actually being rendered by a public utility under its franchise is vested exclusively in the [CPUC] when it has elected to determine whether the service is inadequate.” (*California v. Super. Ct.* (1976) 56 Cal.App.3d 399, 408; see also *City of Oakland v. Key System* (1944) 64 Cal.App.2d 427, 435.)

- MCWD claims that these authorities stand only for the proposition that the CPUC is the exclusive agency for determining whether Cal-Am is providing adequate services to its customers—this is a distinction without a difference. By definition, the CPUC cannot determine adequacy of service to a public utility’s customers without determining current and future levels of supply and demand for such public utility. In this case, the CPUC carried out its explicit statutory mandate to determine the adequacy of service in Cal-Am’s service area, and thereby reached binding determinations of supply and demand in the area. The CPUC’s decision has been upheld by the California Supreme Court, and is now final.

b. Critiques of the Stoldt Memo

- Relying on the Mayer Report, MCWD claims that the January Hazen Memo, which Cal-Am used in critiquing the Original Stoldt Memo, contains “numerous errors, mischaracterizations, and incorrect conclusions.” (MCWD Letter, p. 55.)
 - MCWD’s claims regarding the January Hazen Memo are refuted by the August 11, 2020, August 23, and September 10, 2020 Hazen Memos. The August 11, 2020 Hazen Memo explains that the January Hazen Memo was written to reflect the substantial concerns with assuming lower Peninsula water demands that do not adequately analyze the range of uncertainty in water availability in the area. (August 11, 2020 Hazen Memo, p. 16.) The higher demands included in the January Hazen Memo are warranted to provide a buffer for uncertainty, which WaterDM and MPWMD have been unwilling to address. For example, WaterMD and MPWMD have avoided updating the flow data for the PWM Expansion to reflect the project’s actual supply of source water and instead assume that all paper water rights are fully available. (*Ibid.*) Indeed, as a matter of good engineering principles, supply and demand planning for the Monterey Peninsula, which is continuously dependent on new sources of water, requires planners to analyze these risks and apply an appropriate level of reliability and resiliency. (*Ibid.*) In contrast, it is MPWMD and WaterDM’s analyses that rely on outdated and inaccurate flow data for the PWM Expansion, overestimate the availability of ASR water, and presume increased water conservation without the implementation of more stringent measures, which actually contain “numerous errors, mischaracterizations, and incorrect conclusions.” (See MCWD Letter, p. 55.)
 - If there was any doubt as to the veracity of the January Hazen Memo, those concerns were dispelled when M1W released the post-2013 wastewater flow

information that was absent from the PWM Expansion's Final SEIR. Using this new information, Hazen and Sawyer confirmed their prior conclusion that "there is not enough wastewater flow to support the WM Phase One and the PWM Expansion as a reliable source of water supply for the Peninsula." (August 23, 2020 Hazen Memo, p. 3.)

- Finally, in Response to the Staff Report, Hazen and Sawyer provided additional analysis, including Appendix A, which offers a comprehensive accounting of water supply and demand on the Monterey Peninsula, accounting for different scenarios based on the variability in Cal-Am's water supply. Like Hazen and Sawyer's prior analyses, Appendix A demonstrates that when ASR supplies are described at reasonable levels, the PWM Expansion cannot meet the lowest demand estimates set forth by the MPWMD of 10,855 afy. Similarly, when WWTP and Reclamation Ditch flows to the Phase I PWM and PWM Expansion are reduced to account for recent data, the Expansion cannot meet the lowest estimate of demand in Cal-Am's service area. (September 10, 2020 Hazen Memo, p. 6.)

c. The Stoldt Memo's Supply and Demand Estimates

- MCWD argues that the Stoldt Memo's demand estimates, and the 2019 Staff Report's reliance on such estimates, were reasonable, and claims that the Supreme Court's rejection of MCWD's and Marina's challenges to the CPUC's decision do not "freeze" customer demand. Rather, MCWD claims that whether the Commission can revisit the CPUC's determination of supply and demand is controlled by a "three-part test" set forth in *San Diego Gas & Electric Co. v. Superior Court* ("*Covalt*") (1996) 13 Cal.4th 893. (MCWD Letter, pp. 55-56.)
 - MCWD does not explain the relevance of the *Covalt* case, nor does this case appear to provide any support for the proposition that the Commission can override the CPUC's binding determinations of supply and demand in Cal-Am's service area. Rather, *Covalt* is concerned with whether Public Utilities Code section 1759, which vests exclusive jurisdiction in the California Supreme Court and the courts of appeal to review any determination by the CPUC, permits a private plaintiff to file an action for damages against an electrical utility. (See 13 Cal.4th at p. 903.)
- MCWD claims that the CPUC's determinations of future supply and demand are outdated and inflated, and argues that the Mayer Report's estimates of supply and demand for 2040 (between 10,412 and 10,983 afy) are based upon AMBAG estimates of future population growth. (MCWD Letter, p. 56.)
 - As discussed above, the CPUC's determinations of supply and demand in the Cal-Am service area are binding and cannot now be second-guessed by MCWD, the Commission, or any other entity. (*California v. Super. Ct.*, *supra*, 56 Cal.App.3d at p. 408; *Key System*, *supra*, 64 Cal.App.2d at p. 435; see also June 30, 2020 Letter to Commission, pp. 56-57.)

- With respect to the Mayer Report’s estimate of future demand based upon AMBAG future population growth, MCWD fails to explain why such a method would yield more accurate projections of future demand than the methodology utilized by the CPUC, which required specific and thorough determinations of future supply based upon demand associated with Pebble Beach buildout, projected economic recovery, and existing legal lots of record. (CPUC Decision D.18-09-017, pp. 50-51.)
 - By generalizing based upon broad AMBAG growth projections, the Mayer Report fails to account for these factors specific to Cal-Am’s service area, including the above facets of future demand assessed by the CPUC, and artificial demand depression caused by the moratorium on new service connections.
 - Moreover, as stated by the City of Monterey, projecting future demand based upon AMBAG population growth is improper—AMBAG’s growth scenario, established six years ago, does not consider current and future legislative mandates to increase affordable housing construction. (February 4, 2020 City of Monterey Letter to MPWMD, p. 1.)
- MCWD argues that while Cal-Am’s customers have already reduced their annual water use by 30 percent, the Mayer Report demonstrates that Cal-Am customers can further reduce their consumption by 0.26 percent annually, resulting in a further decrease in demand. (MCWD Letter, p. 83.)
 - Any argument that Cal-Am customers can further reduce their water usage below already historically-low levels is not only wholly speculative, it unreasonably assumes that existing water conservation measures will result in increased conservation without the implementation of more stringent measures, such as moratoriums and water rationing. (August 11, 2020 Hazen Memo, p. 17.)
 - Cal-Am has already heavily invested in water conservation programs, as well as funding research into water loss and loss detection in order to cut water usage. (*Ibid.*) Cal-Am’s customers are considered some of the most water efficient users in the State of California. (See CPUC Decision D.18-09-017, p. 28; June 30, 2020 Letter to Commission, p. 99.)
 - MCWD and the Mayer Report ignore the fact that the Project was specifically designed to obviate the need to implement even more stringent water conservation measures, which would put additional strain on Cal-Am’s customers, Peninsula businesses, the local and regional economy, and the ability to meet state-mandated housing goals.

d. Stoldt’s Prior Statements

- MCWD attempts to dismiss the fact that Stoldt has adopted conflicting positions of Peninsula supply and demand over time, attributing these positions to “changing circumstances.” (MCWD Letter, p. 56.)
 - As discussed in Cal-Am’s June 30, 2020 Letter to Commission, MPWMD General Manager Stoldt has developed a track record of taking inconsistent positions regarding Monterey Peninsula water demands depending on the circumstances and as described in further detail below, provided the Commission with a manipulated memorandum intended to bolster his recent positions regarding Peninsula supply and demand. (See June 30, 2020 Letter to Commission, p. 60.) For example, although the Stoldt Memo asserts that Monterey Peninsula demand estimates should be reduced due to implementation of various water conservation efforts, which Stoldt argues represent a permanent reduction in demand, Stoldt previously argued that recent decreases in demand should not be used to justify reductions in Cal-Am’s diversion limits, because these reductions were likely due to extensive water conservation campaigns that could not be assumed permanent. (*Ibid.*) Likewise, in a series of emails regarding the State Water Board proceedings, Stoldt argued that depressed demand levels seen in recent years cannot be used to justify reductions in Cal-Am’s diversions from the Carmel River because drought awareness and corresponding cuts in water were likely to fade, economic activity on the Peninsula had been cut due to implementation of the CDO, and demand rebounds were likely once drought conditions abate. (*Ibid.*) The Stoldt Memo is based on the exact opposite assumptions. These contradictions demonstrate that the only “changing circumstance” that explains Stoldt’s conflicting water demand reasoning is an intent to frustrate Cal-Am’s Project. As a result, it is inappropriate to rely on the Stoldt Memo, particularly where supply and demand already has been evaluated and determined through an unbiased, public evidentiary process before the CPUC.

e. PWM Expansion and Maximum Month Demand

- MCWD argues that implementation of the PWM Expansion, without the Project, will provide sufficient water to meet maximum month demand in Cal-Am’s Monterey Service area. MCWD further contends, based on the Mayer Report, that Cal-Am “confuses peak capacity operations calculations” with “planning for an adequate future water supply on an annual basis.” MCWD argues that regulations requiring calculations of peak capacity do not apply to estimates of current and future annual demand. (MCWD Letter, p. 56.)
 - As discussed in the Applicant’s Staff Report, the proper way to ensure adequate capacity is by calculating demand based on maximum month demand, as required by the California Waterworks Standards (Cal. Code Regs., tit. 22, § 64554, subds. (a), (b)(2)). (Applicant’s Staff Report, Section IV.O.2.) MPWMD’s conclusion that the Pure Water Expansion can meet maximum daily demands and peak hourly demand relies on the availability of drought reserves to meet such demand. However, MPWMD also assumes that no drought conditions will occur on the Monterey Peninsula between now and 2034, allowing for the buildup of such

reserves. This assumption is untenable in light of the fact that California has experienced a drought in every decade over the last century, and recharge of groundwater reserves is essentially unavailable under drought conditions. (*Ibid.*) Moreover, as Hazen and Sawyer have explained, MPWMD focused on the distinction between maximum day demand and annual demand, but avoids assessing the long-term historical data in determining future demands for the Monterey Peninsula. (See August 11, 2020 Hazen Memo, p. 16.) In any case, even when using the most conservative 10,855 afy demand projection prepared by MPWMD, which was not calculated based on maximum month demand, only Cal-Am's Project would be able to meet demand in Cal-Am's service territory. (See Applicant's Staff Report Section IV.O.2; September 10, 2020 Hazen Memo, p. 6.)

- MCWD claims that Cal-Am currently has sufficient available supplies to manage its peak demand periods, even if Cal-Am does not have an additional supply by 2022. (MCWD Letter, pp. 56-57, 74, 83.)
 - MCWD does not provide any evidence to support this claim, and ignores the CDO deadlines. Moreover, MCWD's argument ignores serious concerns over the reliability of Cal-Am's existing water supplies. The concerns are addressed in detail in Applicant's Staff Report, Section IV.O.2, and demonstrated in the September 10, 2020 Hazen Memo, Appendix A, but are summarized below.
 - First, the ASR has not proven itself capable of building up a drought reserve to consistently deliver 1,300 acre-feet, and for the last 15 years, average annual storage of ASR is approximately 138 afy, with average annual storage of ASR at 352 afy over the last five years. These amounts are not sufficient storage to provide 1,300 acre-feet annually over a multi-year drought. Therefore, Cal-Am cannot rely on ASR to meet peak demand periods. (See Applicant's Staff Report, Section IV.O.2; September 10, 2020 Hazen Memo, Appx. A.)
 - Second, due to technical issues and decreasing wastewater flows, PWM Phase I cannot be relied upon to supply Cal-Am's service with the currently projected 3,500 afy. (See Applicant's Staff Report, Sections IV.O.1, 2; September 10, 2020 Hazen Memo, Appx. A.) In fact, due to technical issues regarding PWM Phase I's injection wells, PWM Phase I is currently only capable of producing 2,030 afy, which is less than 58 percent of the 3,500 afy the project was intended to produce. (See Applicant's Staff Report, Section IV.O.1, 2.) Additionally, as discussed above, decreasing source water flows for PWM Phase I cast further doubt on the project's ability to supply the Peninsula. (See *ibid.*; September 10, 2020 Hazen Memo, Appx. A.) Due to this trend, PWM Phase I does not offer a reliable source of water for Cal-Am to meet peak demands.
 - Finally, MCWD claims that Cal-Am will have sufficient water supplies provided it can prudently manage the Seaside Groundwater Basin storage

capacity. (MCWD Letter, pp. 56-57.) This argument ignores the fact that in 2019, the Seaside Groundwater Basin Watermaster, which is tasked with protecting and managing the Basin, identified the Project as “the only project before [it] that will protect the Seaside basin” by replenishing the Basin and ensuring that protective water levels are maintained. (October 4, 2019 Seaside Groundwater Basin Watermaster Letter to Commission.) On August 12, 2020, the Watermaster echoed its support for the Project, finding that “the MPWSP is necessary to meet the long-term water demands of the Monterey Peninsula,” and “[n]o other project has been identified to reliably meet the communities’ water needs sufficiently to get the community out from under the State Water Board’s Cease and Desist Order.” (August 12, 2020 Seaside Groundwater Basin Watermaster Letter to Commission, p. 1.) This is because the Watermaster concluded that the Basin will require replenishment of an additional 1,000 afy over the next 25 years in order to achieve protective water levels. (*Id.*, p. 2.) As a result, Cal-Am will likely be forced to withdraw less than the 744 afy from the Basin that it is currently entitled to. (Applicant’s Staff Report, Section IV.O.2.) Water from the Seaside Basin simply cannot be relied upon for Cal-Am to meet peak demand periods as MCWD claims.

f. ASR Water Supplies

- MCWD claims that Cal-Am’s arguments regarding unreliability of ASR water supplies is “misleading,” asserting that: (1) the CPUC’s 2016 approval of the new Monterey Pipeline means that only water year 2016-2017 and later should be considered in analyzing ASR recovery volumes and (2) that Cal-Am’s ASR permits 20808A and 20808C permit it to withdraw up to 5,326 afy, and are estimated to yield an average of 1,920 afy for injection. MCWD therefore contends that an average ASR injection and recovery rate of 1,300 afy is “reasonable.” (MCWD Letter, p. 57.)
 - MCWD’s claim that ASR permits 20808A and 20808C are estimated to yield an average of 1,920 afy for injection ignores the fact that the face values of these permits have been the same since the ASR permits were first issued, but the ability to actually divert water to ASR is conditioned. As a result, the ability for Cal-Am to withdraw water under these permits should be based on historic diversion numbers, not the entitlements established by the permits. Paper water is not sufficient to supply the Peninsula. Water rights must result in actual water flows.
 - The Mayer Report’s projection of drought conditions only occurring one year out of five is wholly unreasonable and ignores changing conditions in California, including global climate change. Indeed, as Hazen and Sawyer explained, ASR water availability is reduced to 63 percent in a single dry year and further reduced to 4 percent following three consecutive dry years, which means that ASR does not meet Water Code reliability standards (five consecutive historic driest years) or Governor Newsom’s 2020 Water Resilience Portfolio (consideration of a drought lasting six years). (August 11, 2020 Hazen Memo, pp. 5.)

- The actual data surrounding ASR speaks for itself. Over the past 15 years, ASR has stored an average of 138 acre-feet annually. Over 15 years, there is only 700 acre-feet claimed as stored—and only twice has the system injected more than the 1,300 afy claimed by MPWMD. (August 11, 2020 Hazen Memo, pp. 5, 19.)
- MCWD also contends that storage data after the CPUC’s 2016 approval of the Monterey Pipeline should be considered. While there is no requirement to limit review of ASR historical information, data from the last five years reveals that average annual storage of ASR is still only 352 afy. (August 11, 2020 Hazen Memo, pp. 5; Applicant’s Staff Report, Section IV.O.2.) This does not change Hazen’s conclusions about the availability of ASR as a water supply, particularly in drought years.
- Indeed, as shown in Appendix A of the September 10, 2020 Hazen Memo, when ASR supplies are described at reasonable levels, the PWM Expansion cannot meet even the lowest demand estimates set forth by the Stoldt Memos of 10,855 afy. (September 10, 2020 Hazen Memo, Appx. A.)

g. PWM Expansion Ability to Meet Regional Housing Goals

- MCWD argues that the 190 afy required to meet regional housing goals is accounted for in the Mayer Report. MCWD therefore concludes that the PWM Expansion can provide a supply sufficient to meet regional housing goals. (MCWD Letter, pp. 57-58.)
 - As discussed above, the CPUC has already made binding determinations of Monterey Peninsula supply and demand, and the Mayer Report fails to demonstrate that Peninsula supply, with PWM Expansion but without the Project, can meet this demand. In reality, only the Project can provide an adequate, reliable, and permanent supply to ensure that regional housing requirements are met. Assuming it functions properly at all times, the PWM Expansion can only meet current water demands, without reasonable growth. (See August 11, 2020 Hazen Memo, pp. 5-6.) PWM Expansion is simply incapable of providing the additional 190 afy that MPWMD concedes is necessary to meet the Peninsula’s RHNA goals.
 - Moreover, the 190 afy figure quoted by MCWD substantially understates the water required to meet demand related to regional housing goals.
 - The City of Monterey projects a need for 1,700 additional housing units by 2030, which represents a need for an additional 255 afy—which is 75 percent more than the need projected by MPWMD and quoted by MCWD for the entire region. (See February 4, 2020 City of Monterey Letter to MPWMD, p. 1.)
 - This 255 afy figure is just for one Peninsula city—including actual housing projections from other cities on the Peninsula only further increases the actual amount of water needed for housing. New RHNA

numbers for the Monterey Peninsula will be released in December 2023 and are anticipated to include substantial increases in required housing because of the State's ongoing housing crisis. Indeed, the Bay Area's updated RHNA, issued in June 2020, reflects a 135 percent increase in required housing over the previous period.¹⁵ There is no scenario under which PWM Expansion can provide the water supply needed for this housing.

- Moreover, the recently enacted provisions of the Housing Accountability Act and Housing Crisis Act provide for stricter enforcement of affordable housing goals throughout California. (See Cal. Gov. Code §§ 65589.5, subds., (d), (f)(1), (k)(1), 66300, et seq.) As such, there is an additional onus on Peninsula governments to construct significant additional affordable housing, and ensure that there is an adequate water supply available for that housing.
- Finally, there is currently a moratorium on new service connections on the Monterey Peninsula—this effectively prohibits the construction of additional affordable housing, which would create new water demand. If an adequate water supply is not secured and the moratorium is not lifted, no additional water will be made available for housing growth. Notably, even with the moratorium in place, housing-related demand for water on the Monterey Peninsula continues to grow.
 - In response to a request from MPWMD, several Monterey Peninsula cities provided projections for near-term housing water needs from the Cal-Am system—given that the CDO remains in place, these projections are related solely to metered properties. (See August 4, 2020 MPWMD Policy Advisory Committee Action Items, p. 1.) In response, the responding cities projected a need for an additional 88-95 afy for metered properties—as noted by MPWMD, this total does not include several key jurisdictions. (*Ibid.*) As a result, MPWMD is seeking 75 afy of relief from the CDO to accommodate this demand from the cities. (*Ibid.*) Plainly, housing-related need for water will only continue to grow, and only a new permanent water supply, with demonstrable ability to meet the needs in Cal-Am's service area, will lift the CDO and moratorium. Such demand from population growth is reflected in MCWD's own 2020 Water Master Plan, which shows that MCWD's average annual demand is expected to nearly double by 2042.¹⁶ The PWM Expansion is not a

¹⁵ The Regional Housing Needs Determination from the Association of Bay Area Governments is available here: [https://www.hcd.ca.gov/community-development/housing-element/docs/ABAGRHNA-Final060920\(r\).pdf](https://www.hcd.ca.gov/community-development/housing-element/docs/ABAGRHNA-Final060920(r).pdf).

¹⁶ Marina Coast Water District Water Master Plan, May 2020, Table 5.5, available at: https://www.mcwd.org/docs/engr_files/master_plans/MCWD_WaterMasterPlan_Final_052920.pdf.

permanent water supply, nor is it adequate to provide water to satisfy state-mandated housing needs.

h. Stoldt's Doctored Memo

- MCWD calls Cal-Am's arguments regarding the exhibit doctored by Stoldt that was used in the 2019 Staff Report "frankly ridiculous." MCWD refers to a letter from its own President to support its claim that Stoldt's doctored memo was "properly based on currently available information." (MCWD Letter, p. 58.)
 - Despite MCWD's apparent indignation, the fact remains that MPWMD General Manager Stoldt modified a draft technical memorandum prepared as an exhibit to the PWM Expansion Draft SEIR without identifying his modifications as changes to the original, in order to support the 2019 Staff Report's claims regarding ASR supply. (See June 30, 2020 Letter to Commission, p. 63.) As previously explained, it appears that Stoldt intentionally manipulated the technical memorandum to make it appear that the memorandum's authors had concluded that the ASR reserve could provide a supply to withstand a four-year drought by 2034. (*Ibid.*) Stoldt's efforts to manipulate the draft technical memorandum, and the conclusions that he added thereto, remain improper, and should not have been used by Commission staff to bolster unsupportable claims regarding the viability of ASR supplies. (*Ibid.*)

5. PWM Expansion Conformity to Project Objectives

- MCWD argues that the PWM Expansion is the only alternative capable of meeting all primary and secondary project objectives, and that most Project objectives can be met even by a No Action alternative. MCWD claims that current supplies should be sufficient to meet demand from Cal-Am's customers for at least the next ten years. (MCWD Letter, pp. 58-59.)
 - As explained in Cal-Am's June 30, 2020 letter to the Commission, the PWM Expansion is not capable of satisfying the Project objectives, and therefore cannot be a feasible alternative to the Project. (June 30, 2020 Letter to Commission, pp. 63-68; see Attachment B, Section J.4.) The fact remains that the PWM Expansion does not provide enough water to meet the CPUC-determined levels of demand in Cal-Am's Monterey District service area, an essential prerequisite to satisfying most of the Project objectives. (See *id.*, pp. 63-67; see also October 15, 2019 Cal-Am Letter; January 2020 Hazen Memo.)
 - Moreover, even under the depressed demand estimates put forward by Stoldt and MCWD, Peninsula water supply with the PWM Expansion, but without the Project, would barely suffice to meet current demand assuming all water supplies are working perfectly – which is wholly unrealistic. (June 30, 2020 Letter to Commission, pp. 58-60; see Applicant's Staff Report, Section IV.O.2.) Again, as explained by the CPUC, 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 merely delay the necessary implementation of a desalination project of some size. (CPUC Decision D.18-09-017, Appx. C, p. C-71 [emphasis added].)

- With respect to the claim that the Project cannot meet the primary project objectives due to MCWD’s intransigence regarding Cal-Am’s use of the shared pipeline, existing permits clearly permit Cal-Am to utilize the pipeline, and the pipeline has ample excess capacity to convey Project water. (See June 30, 2020 Cal-Am Letter to Commission, pp. 54-55.) Regardless, if needed, Cal-Am may construct an additional, parallel pipeline to convey Project water—approvals for that potential parallel pipeline will come before MPWMD in October 2020. (See Applicant’s Staff Report, Section IV.O.3.)
- MCWD’s claim that the PWM Expansion can satisfy Project objectives, and that compliance with Carmel River diversion limits and Seaside Basin pumping limits can be satisfied even without a new supply, assumes that both ASR and Phase I PWM operate at full capacity at all times. Given the significant shortfalls in ASR injection in Dry years, and the current deficiencies in Phase I PWM treatment and injection of product water, this assumption is wholly untenable. (See August 11, 2020 Hazen Memo, pp. 6, 17.) Even with full ASR, Phase I PWM, and PWM Expansion supplies, Peninsula water supplies would barely suffice to meet Stoldt’s low demand estimates and would place Cal-Am’s customers at serious risk if any one of these supplies should fail. (*Id.*, p. 6.)
- On the contrary, the Project is the only proposed water supply solution that is capable of providing the Cal-Am service area with reliable and sustainable water supplies across a series of probable scenarios, including prolonged drought conditions, limited wastewater flows, deficient Phase I PWM injection, limited agricultural drain flows, flows from the Sand City Desalination Plant, and potentially deficient flows from ASR supplies. (Applicant’s Staff Report, Section IV.O.2; September 10, 2020 Hazen Memo, Appx. A [demonstrating that when ASR supplies are described at reasonable levels or WWTP and Reclamation Ditch flows to the Phase I PWM and PWM Expansion are reduced to account for recent data, the Expansion cannot meet even the lowest estimate of demand in Cal-Am’s service area].)
- MCWD again turns to the status of the PWM Expansion, claiming that M1W has shown that adequate source water supplies are available, and that the PWM Expansion Final SEIR remains “substantially complete,” such that the PWM Expansion can move forward when the M1W Board is prepared to take up the matter again. (MCWD Letter, p. 59.)
 - MCWD’s claim that the PWM Expansion is ready to move forward at a moment’s notice is divorced from reality. In truth, significant doubts remain as to the PWM Expansion’s feasibility.

- First, contrary to MCWD’s assertions, source water for the Expansion is anything but secure, and the claimed “water rights” for the Expansion consist mainly of interruptible use entitlements, many of which are disputed by the actual holders of the water rights. (August 12, 2020 Cal-Am Letter, p. 4.) Significant evidence demonstrates that M1W drastically overestimates the availability of source waters for the PWM Expansion. (See Applicant’s Staff Report, Section IV.O.2.)
 - Moreover, wastewater flows, upon which the PWM Expansion would heavily rely, have been decreasing steadily in recent years, and analyses by Hazen & Sawyer demonstrate that WWTP flows to the PWM Expansion would be heavily depressed in Normal/Wet years, and flows to Phase I PWM and the PWM Expansion would be completely unavailable in Dry years. (August 23, 2020 Hazen Memo, p. 6.) Recent wastewater flow data provided by M1W only supports these conclusions.
- Further, there is no evidence that M1W can simply approve the PWM Expansion at a moment’s notice. (See Applicant’s Staff Report, Section IV.O.1; Section B.2, *supra*.) In truth, there remain significant deficiencies in the Final SEIR for the PWM Expansion, and M1W currently lacks the funding to correct these flaws. (See May 20, 2020 M1W Board of Directors Staff Report, p. 1.) M1W staff have also been ordered to cease any work on the PWM Expansion. (See August 20, 2020 M1W Letter, p. 3.) There is no reason to believe that the PWM Expansion Final SEIR, and therefore the Expansion itself, will be approved at any time in the near future.
- MCWD argues that there remains significant doubt in the Project’s construction schedule due to: (1) issues related to a Project source water pipeline, (2) a lack of a CDP for the brine outfall liner, and (3) a lack of a right to pump source water for the Project and related litigation of Cal-Am’s water rights. (MCWD Letter, p. 59.)
 - As discussed above, Cal-Am’s existing agreements permit it to utilize the shared pipeline with MCWD, and there is sufficient capacity in the pipeline to accommodate Project water. (See June 30, 2020 Cal-Am Letter to Commission, pp. 54-55.) Moreover, Cal-Am remains able to pursue construction of a parallel Project water pipeline, if MCWD continues to refuse to honor its agreements regarding the shared pipeline.
 - With respect to the M1W outfall, Cal-Am has proposed an updated liner installation method, whereby Cal-Am would install a spray-on liner from within the pipeline itself. (See August 18, 2020 Cal-Am Letter to Commission.) This method would involve no ground disturbance within the Coastal Zone of the City of Marina or the County, and therefore would not require Cal-Am to obtain a CDP. In fact, Cal-Am has proposed Special Condition 4 would require Cal-Am to implement this proposed spray-lining method prior to the commencement of Project operations since it is a feasible alternative. (See Applicant’s Staff Report, Section IV.F.) This would guarantee that the outfall liner work will result in no

adverse impacts to environmentally sensitive habitat areas, and therefore this future Project component does not raise substantial concerns regarding Project certainty.

- Finally, Cal-Am's rights to Project source water will have no impact on the Project's construction schedule. The EIR/EIS has already examined Cal-Am's potential water rights to the Project, and determined that Cal-Am could develop appropriative rights to that portion of the Project's source water that will be extracted from the Salinas Valley Groundwater Basin. (See June 30, 2020 Cal-Am Letter to Commission, p. 26; Final EIR/EIS, pp. 2-32 to 2-34.)
 - Moreover, in 2013, the State Water Board, the agency charged with primary responsibility for regulating state water resources (Water Code, § 174; Pub. Resources Code, § 30412), determined that Cal-Am can develop all necessary water rights to operate the Project. (See June 30, 2020 Letter to Commission, pp. 26-27; CPUC Decision D.18-09-017, p. 80.) Despite MCWD's allegations, and the City of Marina's frivolous lawsuit, Cal-Am's ability to develop water rights to Project feedwater do not pose any barrier to Project implementation.
- MCWD argues that Cal-Am's "recalcitrance" in following the CPUC's order to consider PWM Expansion if the Project is delayed, along with its "unwillingness" to discuss the terms of a purchase agreement for PWM Expansion water, constitute the primary barrier to PWM Expansion implementation. (MCWD Letter, pp. 59-60.)
 - MCWD blatantly ignores the myriad flaws in both the PWM Expansion and the Phase I PWM, including a lack of secure water rights for Expansion source water, the numerous technical difficulties faced during Phase I PWM construction and startup, and the fact that work on the PWM Expansion has ceased completely and that project is now indefinitely delayed. (See Attachment B, Section J.2.)
 - Further, MCWD's claims of Cal-Am's recalcitrance in following the CPUC's orders with respect to the PWM Expansion are unfounded. In truth, Cal-Am has met with M1W and MPWMD on multiple occasions to discuss a WPA for PWM Expansion product water. (See Applicant's Staff Report, Exhibit 30, p. 1.)
 - However, Cal-Am determined that it would not, at that time, pursue a WPA for PWM Expansion water, given significant uncertainties in Expansion source water availability, environmental impacts, permitting requirements, source water, funding, and product water pricing. (*Id.*, p. 2.) MCWD provides no additional evidence to demonstrate that Cal-Am is "unwilling" to discuss a WPA for PWM Expansion water, should the Expansion somehow prove to be a feasible source of water to the Monterey Peninsula.
 - Moreover, any WPA for the PWM Expansion would be required to include more stringent performance guarantees to provide adequate assurances to Cal-Am and

its customers that the Expansion water would be produced as promised, and greater protections in the event that Expansion water is not or cannot be produced at necessary levels to meet the Peninsula's water demand. (See Applicant's Staff Report, Section IV.O.2.) Such performance guarantees would include a guarantee of the full production volume of PWM Expansion water, and a full indemnification for Cal-Am against any risk, liability, or penalties in the event that the PWM Expansion fails to provide an adequate water supply. (*Ibid.*; see also May 9, 2020 Cal-Am Letter to M1W, p. 5.) In the absence of such guarantees, Cal-Am would be forced to bear the risk of the PWM Expansion not meeting its supply promises, which could cause Cal-Am to draw additional water from the Carmel River resulting in substantial penalties. (See Applicant's Staff Report, IV.O.3.)

6. Overall Adverse Project Effects

- MCWD claims that the Commission is not bound by the CPUC's analysis of the Project's environmental impacts in the EIR/EIS. (MCWD Letter, p. 60.) As discussed above, as a CEQA responsible agency, the Commission is required to consider the CPUC's—the lead agency—analysis of the Project's environmental impacts. (See Section I.2.c; see also CEQA Guidelines, §§ 15096, subds. (a), (f).)
- MCWD argues that even if neither the Project nor the PWM Expansion is implemented by January 1, 2022, Cal-Am may still comply with the legal limit on its Carmel River withdrawals, even without an extension of the CDO. (MCWD Letter, pp. 60, 74, 83.) MCWD further argues that the No Action alternative and the PWM Expansion would result in fewer adverse impacts than the Project (*Ibid.*)
 - For the reasons discussed in Applicant's Staff Report, Section IV.O.2, MCWD's statement that Cal-Am can meet its water supply obligations without a supplemental supply is simply false. Additionally, as explained in an August 12, 2020 letter submitted to the Commission by the Seaside Groundwater Basin Watermaster, if no action is taken (i.e., neither the proposed Project nor the PWM Expansion is adopted), protective water levels will not be achieved and the Seaside Groundwater Basin will not be protected against seawater intrusion. (August 12, 2020 Seaside Watermaster Letter, p. 4.) An additional 1,000 acre-feet of replenishment water is needed to prevent seawater intrusion in the Paso Robles and Santa Margarita Aquifers. (August 12, 2020 Seaside Watermaster Letter, p. 4.) This additional supply is critical to achieving protective water levels in the Seaside Basin, and cannot be achieved without the implementation of reliable, long-term water supply. As such, the Watermaster expressly concluded that the Project "is the only possible supplemental water project . . . that is capable of providing the additional water supply" needed to protect the Basin. (*Ibid.*) Further, the Watermaster determined that "[w]ithout the quantities of supplemental supplies from the [Project], CAW and other Seaside Basin pumpers may not be able to meet the pumping reductions called for in the Seaside Basin Decision." (*Id.*, p. 3.)

- MCWD contends that the Project faces a greater risk of delay than the PWM Expansion, arguing that the Phase I PWM is on track to deliver the planned total of 3,700 afy once shallow wells have stabilized and third deep well has been installed. (MCWD Letter, p. 60.)
 - MCWD fails to acknowledge significant, ongoing technical deficiencies in the Phase I PWM, as well as the overwhelming likelihood that the PWM Expansion will face similar barriers to construction and operation. (See Attachment B, Section J.2.a.)
 - As explained above, sinkholes and subsidence are affecting the Phase I PWM shallow wells, and these wells are not currently injecting any water and are likely to only ever operate at 25 percent capacity. (August 12, 2020 Cal-Am Letter, p. 2.)
 - Moreover, Phase I PWM deep injection wells are only operating at rates of 70 percent or less due to injection refusal, and therefore M1W estimates that current annual injection volume for Phase I PWM will only be 2,030 afy, or less than 58 percent of the 3,500 afy allocated to Cal-Am. (*Ibid.*)
 - Solutions proposed by M1W to address these technical flaws—repairs to shallow wells, final commissioning of deep wells, and construction of a third well which will not begin until November 2020—would increase Phase I PWM project costs by as much as \$13 million. (*Ibid.*) Most recently, M1W has identified the probable need for a fourth deep well, the timing of which remains uncertain. (See August 31, 2020 M1W Board of Directors Meeting, at 1:14:20 to 1:22:10 [discussing amending bid request for the third deep injection well to include construction of a fourth deep injection well], available at <https://montereyonewater.org/290/Audio-Recordings-of-Board>.)
 - Finally, some source waters for Phase I PWM, including critical agricultural wash water, have not been used since startup and present additional technical challenges. (*Ibid.*)
 - The Phase I PWM will clearly continue to experience significant delays and cost overruns, and there is every reason to believe that the PWM Expansion will face similar barriers to implementation. MCWD’s claims that the Project will face greater delays than the PWM projects ignore these realities.

7. **“No Action” Alternative**

- MCWD argues that if the Commission denied Cal-Am’s application, Cal-Am would likely pursue the PWM Expansion, and that this would be a reasonable outcome. (MCWD Letter, p. 61.) As discussed in the Applicant’s Staff Report, Section IV.O, the PWM Expansion is not a feasible alternative.

- MCWD further argues that under a No Action alternative, as a result of Cal-Am’s customer’s conservation efforts and an expanded ASR project with MPWMD, Cal-Am is capable of supplying its customers’ needs for the next decade, while still complying with the State Water Board CDO. (MCWD Letter, p. 61.)
 - As discussed in the Applicant’s Staff Report, Section IV.O.2, despite its ratepayers’ conservation efforts, Cal-Am will be at a significant deficit without a new supply without the adoption of the proposed Project. The no action alternative is not feasible for the same reasons the PWM Expansion is not feasible. (See Applicant’s Staff Report, Section IV.O.5.) Only Cal-Am’s Project is capable of providing an adequate water supply to meet current and expected future demands and allow the water system to conform to the state’s design and capacity requirements. Other supplies relied upon by MCWD and other project opponents, including ASR supplies, are not reliable – particularly in times of drought – and cannot be counted on to provide the necessary water supplies to serve even MPWMD’s demand projections for Cal-Am’s service area. (See *id.*, Section IV.O.2.)

8. Alternative Slant Well Locations

- MCWD argues that “feasible alternative location and technologies” for intake wells exist and should be considered that will reduce impacts to ESHA and groundwater and will be located outside the coastal zone. (MCWD Letter, p. 75.)
 - MCWD ignores the fact that the EIR/EIS already considered, and rejected, alternative intake well locations, and concluded that locating the Project’s slant wells at the CEMEX site is the environmentally superior alternative. No new information has been provided that would change the CPUC’s conclusion.
 - As explained in Cal-Am’s responses to questions posed by Commissioners at the November 14, 2019 Commission hearing on the Project, the EIR/EIS and the CPUC examined the feasibility of constructing intake systems at both the Moss Landing and Potrero Road sites. (See June 30, 2020 Cal-Am Letter to Commission, pp. 84-86.)
 - In both cases, the EIR/EIS found the alternative intake systems to be infeasible—a slant well system located at Potrero Road would draw excessive quantities of groundwater from the Salinas Valley Groundwater Basin and would result in significant and unavoidable impacts to marine and terrestrial biological resources due to capture of groundwater that would otherwise flow into Elkhorn Slough, while locating open ocean intakes at Moss Landing would result in increased impacts to marine habitat and biological resources related to intake construction and operation, as compared to the Project. (Final EIR/EIS, pp. 5.4-14, 5.4-19, 5.4-21, 5.4-39, 5.4-50, 5.6-4, 5.6-6.)

- Given these increased impacts, the EIR/EIS 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 thereafter selected the Project, with a slant well system at the CEMEX site, as the environmentally superior alternative. (*Id.*, pp. 5.6-6, 5.6-8.) The CPUC affirmed this decision, concluding that no Project alternatives are feasible, capable of meeting Project objectives, or reducing significant Project-related impacts. (CPUC Decision D.18-09-017, pp. 79-80.)
 - Moreover, despite its claims that feasible alternative locations and technologies for the Project’s slant wells exist, MCWD fails to identify **any** possible locations outside of the coastal zone where Cal-Am could feasibly locate a subsurface intake system.
 - Finally, even ignoring the EIR/EIS’s thorough evaluation of alternative Project intake technologies and sites, an agency need not consider “every conceivable alternative” to a project. (CEQA Guidelines, § 15126.6, subd. (a); *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 556.) Instead, the selection and consideration of project alternatives is governed by a “rule of reason.” (CEQA Guidelines, § 15126.6, subd. (a).) “[T]he discussion of alternatives need not be exhaustive,” and need not analyze every alternative recommended by third parties. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 548; *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 354-355.) Given the EIR/EIS’s consideration and rejection of a range of alternative intake systems and sites, there is no reason to further evaluate the possibility of unspecified intake system sites outside the coastal zone.
- MCWD argues that the Project’s intake wells could function “equally well” outside the coastal zone, and that the wells would likely need to be moved inland to account for sea-level rise, and therefore the Project is not “coastal dependent.” (MCWD Letter, p. 75.)
 - MCWD does not provide any evidence to support its claims that the slant wells could feasibly function in a location outside of the coastal zone, nor does MCWD provide any proposal for inland locations where the slant wells could feasibly be sited. What’s more, the CPUC did not identify any such locations in its six-year CEQA review of Cal-Am’s Project, in which MCWD was a major participant. MCWD’s argument that alternative well locations should be reviewed now by the Commission is nothing but a red herring.

J. Coastal Act Section 30260 Override for Coastal-Dependent Facility

1. General Legal Framework

- MCWD contends that the Commission retains limited appellate jurisdiction and cannot rely on Coastal Act section 30260 to approve the Project because the only basis for this

type of appeal is whether a project is consistent with the LCP. (MCWD Letter, pp. 61-63.)

- MCWD’s jurisdictional argument has been properly rejected by staff (Staff Report, pp. 147-148), and the California Court of Appeal in MCWD’s challenge to the Commission’s grant of a CDP allowing Cal-Am to locate its test slant well on the CEMEX site—the very same location where the Project’s wells will be located. (See *MCWD v. Cal. Coastal Com.* (2016) 2016 WL 6267909.) Marina’s LCP must be applied consistent with the Coastal Act and state policy. (See *McAllister v. Cal. Coastal Com.* (2009) 169 Cal.App.4th 921, 931; *MCWD*, 2016 WL 6267909, at *13.)
- Furthermore, as the Staff Report explained, Marina’s LCP incorporates Coastal Act section 30260 to determine permissible uses at the proposed Project site. (See Staff Report, pp. 147-148.) The LCP permits coastal-dependent uses in already disturbed areas and “states that this designation is consistent with section 30260.” (*MCWD*, 2016 WL 6267909, at *13; see Land Use Plan, p. 38; see also Marina Municipal Code, § 17.41.160 [includes coastal-dependent industrial uses within the coastal conservation and development district].)
- Therefore, the Commission may properly conduct an analysis and approve Cal-Am’s Project under Coastal Act section 30260.

2. Qualification as a Coastal-Dependent Industrial Facility

- MCWD argues that section 30260 does not apply because the Project is not “coastal-dependent.” (MCWD Letter, p. 63.)
 - As the Staff Report correctly concludes, the Project is a coastal-dependent industrial facility. (See Staff Report, p. 149.) The Project involves the processing of raw materials (water) and must be located adjacent to Monterey Bay to extract *primarily seawater* from beneath the seafloor. (*Ibid.* [rejecting claims that the Project will be primarily drawing brackish water].) In addition, the Project’s Source Water Pipeline is necessary to convey that water to the desalination facility. (*Ibid.*) Further, the Project will use the M1W outfall to convey the facility’s brine discharges into coastal waters. (*Ibid.*) If the Project were moved away from the coast, the entire basis for and underlying analysis of the Project would change. (See Final EIR/EIS, p. 4.4-56.)¹⁷
- MCWD further argues that Cal-Am cannot rely on its use of the M1W outfall to show that the Project is coastal-dependent because, according to MCWD, Cal-Am asserts that the outfall is not relevant to its CDP applications. (MCWD Letter, p. 63.) MCWD

¹⁷ This is also consistent with the Court of Appeal reasoning in *MCWD I*, which concluded that the “test slant well meets the [City’s] LCP’s definition of a coastal-dependent industrial facility.” (2016 WL 6267909, at *13.)

conflates the various outfall-related aspects of the Project and misconstrues Cal-Am's position.

- As described below in Section K of this Response, Cal-Am's proposed spray-lining work to maintain the integrity of the existing outfall pipeline is not development under the Coastal Act, or alternatively, is exempt from CDP requirements. Although the outfall lining work is not part of the CDP applications pending before the Commission, Cal-Am has nonetheless proposed Special Condition 4, which requires Cal-Am to obtain all necessary approvals for the outfall lining work and to implement the spray lining method to the pipeline to avoid impacts to coastal resources. (See Applicant's Staff Report, Section IV.F.)
- The aspects of the outfall maintenance that will occur in the Coastal Zone, such as the replacement of the outfall clamps along the beach, are included in Cal-Am's local CDP application and, thus, are before the Commission as part of Appeal No. 9-19-0918. (See Applicant's Staff Report, Section IV.F.)
- The fact that Cal-Am did not include the outfall lining work as part of its CDP application does not mean the outfall pipeline and Cal-Am's use of the pipeline to convey brine discharge is not coastal-dependent.

3. Alternative Locations

- MCWD argues that the PWM Expansion is a feasible alternative and that there are also alternative locations for the Project's slant well network outside of the Coastal Zone. (MCWD Letter, pp. 63-64.)
 - As explained in detail in the Applicant's Staff Report, Sections IV.O and IV.P, and above in Section I, the PWM Expansion is not a feasible alternative, and the proposed location for the slant wells is the environmentally superior alternative location.

4. Public Welfare

- MCWD asserts that Cal-Am simply argues that not approving project would adversely affect public welfare because it "would have no other options for complying with the CDO and could not supply sufficient water to its water district." (MCWD Letter, p. 64.) This is a complete oversimplification of Cal-Am's position. Additionally, MCWD contends that the Project will actively harm the public "for numerous reasons." (*Ibid.*) Not only does MCWD fail to specify what these "numerous reasons" are, but MCWD is also incorrect.
 - As explained in detail in the Applicant's Staff Report, Section IV.P, and Attachment B, Section K, the Project would have numerous benefits to the public and denial of the Project would result in detrimental effects to the public welfare.

5. Mitigation to the Maximum Extent Feasible

- MCWD asserts generally that Cal-Am has not shown “that impacts have been mitigated to the maximum extent feasible,” and that Cal-Am has not provided certain information “to evaluate critical project components.”¹⁸ (MCWD Letter, p. 64.)
 - As explained in detail in the Applicant’s Staff Report, Section IV.P, and Attachment B, Section K, the Project’s potential impacts will be mitigated to the maximum extent feasible. For example, implementation of the CPUC’s mitigation measures, Cal-Am’s HMMP, Cal-Am’s Adaptive Management Program for Vernal Ponds, and proposed Special Conditions 5, 7 will assist in ensuring that impacts are mitigated to the maximum extent feasible.

Further, contrary to MCWD’s assertions (MCWD Letter, p. 64), Cal-Am is not refusing to provide critical information regarding impacts resulting from the installation of the outfall liner. As explained in Attachment B, Section [Outfall], the outfall work for M1W is outside the scope of Cal-Am’s CDP application. Nonetheless, Cal-Am has proposed Special Condition 4 to require installation of the outfall liner using the spray-lining method to avoid potential impacts to coastal resources. (See Applicant’s Staff Report, Section IV.F.)

K. Proposed Outfall Liner

- MCWD incorrectly contends that the failure to consider the proposed outfall lining work in the current CDP application amounts to improper “piecemealing” of environmental review for Project elements within the Coastal Zone. (MCWD Letter, pp. 11, 64-66, 71-72.)
 - Here, the CPUC, as lead agency, already prepared, circulated, and adopted the Final EIR/EIS for the entire Project, which includes a detailed discussion of the impacts related to the most environmentally impactful methodology proposed for the outfall pipeline lining work. (See Final EIR/EIS, pp. 4.13-33 to 4.13-36.) Thus, no element of the Project is evading environmental review.
 - The authorities MCWD cites to support its claim that a second CDP for the outfall lining work would result in improper “piecemealing” are inapposite. MCWD’s cases involve CEQA lead agencies failing to analyze the environmental impacts of development so related to the project under consideration that it must be considered a “single project” or the “whole of an action” under CEQA. (CEQA Guidelines § 15378, subd. (a); see e.g. *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 732; *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonoma* (2007) 155 Cal.App.4th 1214,

¹⁸ MCWD no longer argues that impacts be “fully mitigated.” Instead, impacts need only be mitigated to the “maximum extent feasible.” (See, e.g., 14 Cal. Code Regs., § 13053.5, subd. (a); see also *id.*, §§ 13328.1, 13356, subd. (b)(2), 13540, 13666.4.)

1226.) Consistent with these cases, the Final EIR/EIS analyzed the impacts associated with the outfall pipeline lining work.

- Further, the section of the CEQA Guidelines upon which MCWD relies also states that “[t]he term ‘project’ refers to the activity which is being approved and which may be *subject to several discretionary approvals* by governmental agencies. *The term “project” does not mean each separate governmental approval.*” (CEQA Guidelines § 15378, subd. (c) [emphasis added].) The CDP application at issue here is not its own “project,” but merely one of several discretionary approvals for the larger Project. MCWD does not cite any authority holding that such independent, discretionary approvals, which are not on their own projects, must be made at the same time under a single proceeding.
- MCWD’s piecemealing argument also ignores the limited role responsible agencies play during a project’s environmental review. Here, the Coastal Commission is acting as a responsible agency; the CPUC was the Project’s lead agency under CEQA. Generally, “[a] responsible agency may refuse to approve a project in order to avoid direct or indirect environmental effects *of that part of the project which the responsible agency would be called on to carry out or approve.*” (CEQA Guidelines § 15042 [emphasis added].) Accordingly, a responsible agency “complies with CEQA by considering the EIR or negative declaration prepared by the lead agency and by reaching its own conclusions on whether and how to approve the project involved.” (CEQA Guidelines § 15096, subd. (a).) This division of authority between lead and responsible CEQA agencies may result in separate approval processes for individual elements of a larger project that are developed in different jurisdictions, but it does not necessarily mean a project has been improperly piecemealed. Here, the public and decisionmakers have been appraised of the worst-case potential impacts of the outfall liner work via the Final EIR/EIS. In addition, Cal-Am has proposed Special Condition 4 requiring it to obtain the specific approvals needed to install the spray-on lining to the M1W outfall and to install the spray-on lining before commencing Project operations.
- Notably, the Coastal Commission has previously required multiple CDPs or CDP amendments for different stages of a single project’s construction.
 - For example, in its September 26, 2019 Staff Report for the San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 Decommissioning Project, staff imposed a special condition that “would require the applicant to return within six months of completion of the proposed project with a permit amendment application that includes the proposed removal, to the extent feasible, of all remaining onshore structures at SONGS that may be exposed in the future due to coastal processes or that otherwise would have coastal impacts if they were to remain.” (September 26, 2019 Staff Report re Songs Units 2 and 3 Decommissioning, p. 2.) This special condition was part of a practical approach to separate approvals within a larger project, and MCWD offers nothing to

suggest that the Coastal Commission is barred from adopting a similar approach here.

- Like the above example, proposed Special Condition 4 would require Cal-Am to submit a complete application for a new or amended permit for the outfall liner work if the proposed “spray-on” liner method, described below, is not feasible. (See Applicant’s Staff Report, Section IV.F.)
- Finally, MCWD’s piecemealing claims do not consider that the spray-on lining work as proposed by Cal-Am and required by Special Condition 4 is not “development” within the meaning of the Coastal Act, or, in the alternative, would be exempt from CDP requirements as a repair or maintenance activity. (August 17, 2020 Letter to Commission, pp. 2-3.) Accordingly, it is unlikely the outfall pipeline lining would even require a CDP.
 - Cal-Am’s proposed outfall lining work does not meet the definition of “development” under Public Resources Code section 30106. Cal-Am does not propose to build or expand any existing structure related to the outfall pipeline, but would simply apply a coating to the outfall pipeline’s interior to protect against future corrosion. If any groundbreaking activities did occur, they would be in the unincorporated County, outside of the Coastal Zone. Finally, the work would not involve the discharge or disposal of waste through the outfall. (August 17, 2020 Letter to Commission, p. 3.) Indeed, as discussed in Attachment B, Section F, the Staff Report acknowledges that the proposed “spray on” method for the outfall lining work “would be done almost entirely within the outfall and would involve no ground disturbance within the coastal zone of the City or the County.” (Staff Report, p. 45.)
 - Even if the outfall pipeline lining did constitute “development” under the Coastal Act, the work would nevertheless be exempt from CDP requirements as “[r]epair or maintenance activities that do not result in an addition to, or enlargement or expansion of, the object of those repair or maintenance activities.” (See Pub. Resources Code, § 30610, subd. (d).) Likewise, the Coastal Act exempts work for “any necessary utility connection.” (Pub. Resources Code, § 30610, subd. (f).) Here, the proposed outfall pipeline lining would fall under these exemptions. In fact, the Staff Report acknowledges that the proposed outfall pipeline lining work *could be accomplished without any CDP*. (See Staff Report, p. 112.)

L. Scope of the Commission’s Authority

- MCWD argues that the Commission’s role as a CEQA responsible agency does not excuse the Commission from considering whether feasible alternatives exist that could avoid or substantially lessen environmental impacts. (MCWD Letter, pp. 68-70.)
 - As explained in Attachment B, Section J, contrary to MCWD’s assertions, the Commission’s authority as a CEQA responsible agency is limited. (See, e.g., Pub. Res. Code, § 21002.1, subd. (d); Cal. Code Regs., Tit. 14, Div. 6, Ch. 3

(“CEQA Guidelines”), §§ 15042, 15096, subd. (g)(1) [“When considering alternatives and mitigation measures, a responsible agency is more limited than a lead agency. A responsible agency has responsibility for mitigating or avoiding only the direct or indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve.”]; see also June 30 Letter to Commission [listing cases].) Therefore, the Commission is limited to its jurisdiction—the Coastal Zone—in evaluating the Project and alternatives under CEQA.

- Further, supplemental environmental review is prohibited unless one of three specific triggers is satisfied. As explained above in Section D of this Response, the triggers for supplemental environmental review have not been satisfied here. (See Attachment C, Section D [citing Pub. Resources Code, § 21166; CEQA Guidelines, § 15162, subd. (a).] Thus, the Commission is not required to conduct supplemental environmental review.
- MCWD contends that Cal-Am has suggested that the Commission, as a CEQA responsible agency, “is not only permitted but *required* to consider project components in isolation from the rest of the project.” (MCWD Letter, p. 70 [emphasis in original].)
 - MCWD misconstrues the “project” at issue and Cal-Am’s argument. “The term ‘project’ refers to the activity which is being approved and which may be *subject to several discretionary approvals* by governmental agencies. ***The term “project” does not mean each separate governmental approval.***” (CEQA Guidelines § 15378, subd. (c) [emphasis added].) The CDP application at issue here is not its own “project,” but merely one of several discretionary approvals for Cal-Am’s larger Project. MCWD does not cite any authority holding that such independent, discretionary approvals, which are not on their own projects, must be made at the same time under a single proceeding.
 - In addition, the division of authority between CEQA lead and responsible agencies may result in separate approval processes for individual elements of a larger project that are developed in different jurisdictions, but it does not necessarily mean a project has been improperly piecemealed. (See Attachment C, Section K.) Indeed, here, the CPUC, as lead agency, already prepared, circulated, and adopted the Final EIR/EIS for the entire Project. Thus, no element of the Project has evaded environmental review by the lead agency, and the Commission is limited to considering only those aspects of the Project within its permitting jurisdiction.
- MCWD argues that “enforcement of private contract provisions and the Agency Act are not within the CPUC’s jurisdiction,” such that the Commission is not precluded from considering such issues independently. (MCWD Letter, p. 73.)
 - As the Applicant’s Staff Report, Section J explains, MCWRA is vested with the authority to interpret and enforce the Agency Act, including Cal-Am’s compliance with the Agency Act.

- It is unclear what “private contract provisions” MCWD is referring to, but to the extent MCWD is referring to the Return Water Settlement Agreement, the CPUC approved the Agreement and has authority over the ratesetting provisions contained therein. (See CPUC Decision D.18-09-017, Appx. H.) MCWRA then has the authority to ensure Cal-Am is complying with the Agency Act by meeting its return water obligations as set forth in the Return Water Settlement Agreement.
- Ultimately, none of these issues fall within the Commission’s jurisdiction, which is limited to those Project components located within the Coastal Zone, which are specifically identified in the Staff Report. Further, the Commission is only responsible for assessing the Project’s consistency with the Coastal Act and applicable LCPs in determining whether to approve or deny Cal-Am’s CDP application. (See Pub. Resources Code, § 30200; see also *Charles A. Pratt Construction Co. v. Cal. Coastal Com.* (2008) 162 Cal.App.4th 1068, 1075.) Thus, the Commission’s review is limited to Project components within the Coastal Zone and potential impacts to Coastal Zone resources. (See June 30 Letter to Commission, p. 81.)
- MCWD claims that, in arguing for deferral to the State Water Board on matters of water quality, Cal-Am is “asking the Commission to forego thorough review of the [Project’s] potential groundwater impacts.” (MCWD Letter, p. 73.)
 - Cal-Am has never argued that the Commission should forego reviewing the Project’s potential groundwater impacts. Rather, Cal-Am explained that the Project’s existing groundwater data is extensive and the Final EIR/EIS’s groundwater modeling conservatively evaluated the Project’s potential groundwater impacts such that additional modeling is neither required nor appropriate. (See June 30 Letter to Commission, pp. 21-23, 82.) In other words, the Commission should review the existing, robust record in reviewing the Project’s consistency with the Coastal Act’s groundwater protection policies—not perform additional, unnecessary groundwater modeling.
 - Indeed, the State Water Board has reviewed the existing groundwater record for the Project, and concluded that the modeling “already conducted, revised, and relied upon by the Public Utilities Commission . . . provides a conservative overprediction of the volume of shallow, inland water that the Project would capture during full operation.” (See Letter from Eileen Sobeck, State Water Board, to John Ainsworth, Coastal Commission (May 8, 2020), p. 3.) As a result, “State Water Board staff’s opinion remains that the groundwater impacts of the Project will not be any greater than those stated, analyzed, and mitigated under the Public Utilities Commission’s certified Final EIR,” even if additional modeling is conducted. (*Id.*, p. 3.)

M. Role of Other Agencies

- MCWD argues that the CPUC is not playing any further role with respect to the Project. (MCWD Letter, p. 73.) MCWD is wrong.
 - Following its approval of the Project, as the lead agency the CPUC oversees Cal-Am’s compliance with the MMRP. (CPUC Decision D.18-09-017, p. 161.)
 - Further, the CPUC is charged by statute with exclusive jurisdiction to oversee Cal-Am’s ratesetting and determine utility supply and demand. (See June 30 Letter to Commission, p. 83.) “[T]he jurisdiction to determine the adequacy of service actually being rendered by a public utility under its franchise is vested exclusively in the [CPUC] when it has elected to determine whether the service is inadequate.” (See *Citizens Utilities Company of California v. Super. Ct.* (1976) 56 Cal.App.3d 399, 408; see also *City of Oakland v. Key System* (1944) 64 Cal.App.2d 427, 435.) Therefore, only the CPUC has the authority to make binding determinations as to the levels of supply and demand within Cal-Am’s service area. (See June 30 Letter to Commission, p. 83 [citing CPUC Decision D.18-09-017, pp. 167-171, 194-195].)
 - Accordingly, the CPUC has a continued role over the Project.
- MCWD argues that Cal-Am “overstates the power of the [State Water Board] in relation to the existing moratorium on new water connections.” (MCWD Letter, p. 74.) According to MCWD, it is the CPUC—not the State Water Board—that has the power to lift the moratorium as soon as Cal-Am determines it has sufficient water supplies to replace its Carmel River withdrawals. (*Ibid.*)
 - As explained in Cal-Am’s June 30 Letter to the Commission, the CDO that the State Water Board adopted in 2009 imposed a moratorium on new service connections and certain increases in use until Cal-Am obtained sufficient alternative water supplies. (See State Water Board Order WR 2009-0060, p. 59; see also June 30 Letter to Commission, pp. 83-84.) In 2016, the State Water Board approved an amended CDO that would maintain Cal-Am’s effective diversion limit from the Carmel River from the start of water year 2015-2016 until December 31, 2021, as long as Cal-Am meets defined Project approval and construction milestones. (See State Water Board, Order WR 2016-0016, p. 19.) Currently, the State Water Board oversees Cal-Am’s compliance with the CDO’s milestones. (*Id.*, pp. 20-21.)
 - Further, MCWD is simply wrong. The ***State Water Board***—not the CPUC—imposed the moratorium and has the power to lift it provided that Cal-Am certifies that it has secured sufficient permanent water supplies for its Monterey service district. (See *id.*, p. 27.)
 - The CPUC decision MCWD cites recognizes as such. Decision 11-03-048 is a CPUC Decision “***to recognize [the] moratorium mandated by the State Water Resources Control Board.***” (See CPUC Decision D.11-03-048, p. 1 [emphasis added].) The decision directs Cal-Am to acknowledge

the moratorium ordered by the State Water Board in Cal-Am's tariffs; it does not give the CPUC the authority to lift the State Water Board-imposed moratorium.

- In fact, MCWD's assertion that the CPUC will lift the moratorium when Cal-Am files an advice letter is belied by the text of Decision 11-03-048, which requires that Cal-Am file an advice letter after it has received concurrence from the State Water Board. "Cal-Am is directed to file an advice letter removing this tariff provision when it receives a *written concurrence of the Depute Director of Water Rights of the State Water Sources Control Board* with Cal-Am's finding that a permanent supply of water is ready to serve as a replacement for the unlawful diversions of Carmel River water." (CPUC Decision D.11-03-048, p. 2 [emphasis added].)
- In sum, MCWD's assertion that the State Water Board has no further role to play with respect to enforcing the CDO and current moratorium on new service connections is belied by the CDO's plain terms and the very CPUC decision upon which MCWD relies.

ATTACHMENT D

ALTERNATIVE MOTION AND RESOLUTION TO APPROVE COASTAL DEVELOPMENT PERMITS NOS. A-3-MRA-19-0034 AND 9-19-0918

The Applicant requests that the Commission approve Coastal Development Permits Nos. A-3-MRA-19-0034 and 9-19-0918 for the Monterey Peninsula Water Supply Project as submitted by the Applicant, subject to the Standard and Special Conditions within Sections II and III of the Applicant's Staff Report, included as Attachment A to the Applicant's letter dated September 11, 2020.

To approve the Project pursuant to the Applicant's request, the following Motions are in order:

Motion for Appeal A-3-MRA-19-0034: I move that the Commission **approve** Coastal Development Permit A-3-MRA-19-0034 for the development proposed by the applicant subject to conditions.

Moving Commissioner's Recommendation of Approval: I recommend a YES vote.

RESOLUTION TO APPROVE WITH CONDITIONS CDP A-3-MRA-19-0034 ON APPEAL:

The Commission hereby approves Coastal Development Permit A-3-MRA-19-0034 and adopts the findings set forth in Section IV of the Applicant's Staff Report, included as Attachment A to the Applicant's letter dated September 11, 2020 on the ground that the development as conditioned will be in conformity with the City of Marina Local Coastal Program and Coastal Act access and recreation policies. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

Motion for CDP 9-19-0918: I move that the Commission **approve** Coastal Development Permit Application No. 9-19-0918 for the development proposed by the applicant subject to conditions.

Moving Commissioner's Recommendation of Approval: I recommend a YES vote.

RESOLUTION TO APPROVE COASTAL DEVELOPMENT PERMIT NO. 9-19-0918:

The Commission hereby approves Coastal Development Permit 9-19-0918 and adopts the findings set in Section IV of the Applicant's Staff Report, included as Attachment A to the Applicant's letter dated September 11, 2020 on the ground that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

These materials have been provided to the Coastal Commission Staff