MARINA COAST WATER DISTRICT

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Re: CalAm Monterey Peninsula Water Supply Project - Marina Coast Water District's Comments on the Draft Environmental Impact Report/ Environmental Impact Statement, Prepared for California Public Utilities Commission and Monterey Bay National Marine Sanctuary, January 2017 (SCH No. 2006101004)

Dear CPUC/MBNMS:

Thank you for the opportunity to comment on the Monterey Peninsula Water Supply Project ("MPWSP" or "project") proposed by the California-American Water Company ("CalAm" or "Applicant") in Application ("A.") 12-04-019 before the California Public Utilities Commission (the "Commission" or the "CPUC") and the associated Draft Environmental Impact Report/Environmental Impact Statement ("DEIR/EIS" or "Draft EIR/EIS") issued by the CPUC as lead agency under the California Environmental Quality Act ("CEQA") and the Monterey Bay National Marine Sanctuary (the "Sanctuary" or the "MBNMS") as the lead agency under the National Environmental Protection Act ("NEPA") on January 13, 2017.

The purpose of this letter is twofold.

First, this letter provides the comments of the Marina Coast Water District ("MCWD") on the background, legal framework, and practical necessity of the proposed MPWSP in relation to the anticipated significant environmental impacts of the project and proposed mitigation. As explained in detail herein, the proposed project is legally infeasible because it is either inconsistent with or would violate numerous federal, state, regional, and

local laws and regulations, including but not limited to: (1) California laws applicable to groundwater, including the Sustainable Groundwater Management Act and Monterey County Water Resources Agency Act; (2) the Federal and California endangered species acts; (3) the California Coastal Act; (4) the City of Marina's Local Coastal Plans (LCP); and (5) Monterey County Code of Ordinances section 10.72.030(B). Most critically, CalAm has no water rights in the project area and cannot obtain the water rights needed to operate the project.

Moreover, the proposed project is massively oversized, especially in light of the approved Pure Water Monterey Groundwater Replenishment Project ("GWR"), which is included as a component of Alternatives 5a and 5b. As explained below, even Alternative 5a (the purportedly environmentally superior/preferred alternative), provides substantially more water than is needed to meet all the project objectives. However, because the DEIR/EIS fails to consider alternatives to the 6.4 MGD desalination plant that would meet most or all of the project objectives and reduce the project's significant impacts, neither the public nor decisionmakers can comment on potentially feasible alternatives to the MPWSP in light of the approved GWR project. By only proposing alternatives to the originally proposed 9.6 MGD desalination plant (which assumed the GWR project would not happen), the DEIR/EIS sets up a strawman alternatives analysis that fails to meet the requirements of CEQA or NEPA as discussed below.

Second, this letter provides MCWD's comments on the adequacy of the DEIR/EIS under CEQA (Public Resources Code § 21000 et seq.), the CEQA Guidelines (Cal. Code Regs., tit. l4, § 15000 et seq.), NEPA (42 U.S.C. §4321 et seq.) and its implementing regulations (40 CFR Parts 1500-1508). As explained herein, the DEIR/EIS does not meet the minimum standards of adequacy under CEQA or NEPA.

The EIR is "the heart of CEQA." (Guidelines, § 15003, subd. (a); *Laurel Heights Improvement Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392 ("*Laurel Heights I*").) It "is an 'environmental "alarm bell" whose purpose it is to alert the public and its responsible officials to environmental changes ***before*** they have reached ecological points of no return.' [Citations.]" (*Laurel Heights I, supra*, 47 Cal.3d at p. 392, emphasis added.) "Because the EIR must be certified or rejected by public officials, it is a document of accountability" that ensures "the public will know the basis on which its responsible officials either approve or reject environmentally significant action." (*Ibid.*) Where, as here, the environmental review document does not fully and accurately inform decision-makers, and the public, of the environmental consequences of proposed actions or independently evaluate potentially feasible alternatives that would reduce the project's environmental impacts, the document does not satisfy the basic goals of CEQA. (See Pub. Resources Code, § 21061 ["The purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect that a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; **and to indicate alternatives to such a project**."], emphasis added.)

Similar to the requirements for EIRs under CEQA, under NEPA "the purpose of the EIS requirement is to ensure that 'to the fullest extent possible' agency decisionmakers have before them and take into proper account a complete analysis of the project's environmental impact." (*City of Davis v. Coleman* (1975) 521 F.2d 661, 673 [quoting *Calvert Cliffs' Coordinating Committee v. United States Atomic Energy Comm.* (D.C. Cir. 1971) 449 F.2d 1109, 1114].) The backbone of NEPA includes "a broad national commitment to protecting and promoting environmental quality." (*Robertson v. Methow Valley Citizens Council* (1989) 490 U.S. 332, 348 (*"Robertson"*); see 42 U.S.C., § 4331.) As such, NEPA requires an agency to prepare an EIS when it proposes "major federal actions significantly affecting the quality of the environment." (42 U.S.C., § 4332, subd. (C); *Robertson, supra,* 490 U.S. at p. 348.) In doing so, the agency must take a "hard look" at environmental consequences of the proposed action. (*Robertson, supra,* 490 U.S. at p. 349.) In this way, NEPA insures that a federal agency has fully contemplated the environmental effects of its action, and "to insure that the public has sufficient information to challenge the agency." (*Robertson, supra,* 490 U.S. at p. 349.)

As discussed in detail below and in the attached technical comments from Hopkins Groundwater Consultants, Inc. ("HGC Comments" – Exhibit # 1), GeoHydros, LLC ("GeoHydros Comments" – Exhibit # 2), Erler & Kalinowski, Inc. ("EKI Comments") – Exhibit # 3), and Intake Works LLC ("Intake Works Comments" – Exhibit # 4), the DEIR/EIS is replete with serious flaws. The DEIR/EIS does not provide an adequate description of the entire project, the environmental setting, or the project's potential impacts, nor does it consider feasible alternatives that would reduce the project's significant environmental impacts. Instead, the DEIR/EIS provides an incomplete project description, a misleading picture of the environmental setting/baseline, and a misleading and unsupported view of the project's potential impacts that would lead any reader to believe the project's environmental impacts are largely benign.

For example, the DEIR/EIS leads readers to incorrectly believe the project is designed to pump only seawater, and that while the project "could" incidentally pump a small amount of groundwater, any incidentally pumped groundwater would come from aquifers that are contaminated by seawater and are incapable of supporting beneficial uses. As explained herein, not only is this picture not supported by substantial evidence, but it conflicts with available information that the DEIR/EIS preparers had in their possession but failed to disclose. As a result, the DEIR/EIS fails to provide the necessary evidence or analysis to support its conclusions that the project's direct, indirect, and cumulative groundwater impacts would be less than significant. Moreover, the CPUC and Sanctuary have failed to disclose critical information required by CEQA and NEPA that would allow the public and public agencies to even comment on many of the DEIR/EIS's assumptions, analyses, and conclusions. Therefore, the DEIR/EIS does not meet public disclosure requirements and it does not act as an environmental alarm bell as required by CEQA or take the "hard look"

required by NEPA. Consequently, the CPUC and MBNMS will need to prepare and recirculate a revised DEIR/EIS before making any decisions to approve or deny the MPWSP.

In addition, the DEIR/EIS fails to consider a reasonable range of alternatives that could meet most of the project objectives. Instead, the DEIR/EIS only considers alternatives to CalAm's originally proposed 9.6 MGD desalination plant, which as explained below is massively oversized, especially following the approval of the GWR project and based on a fair assessment of CalAm's own reported supply and demand data. Importantly, there are at least several potentially feasible alternatives that could meet most of the project objectives with the implementation of the approved GWR project that were not considered in the DEIR/EIS. That said, MCWD notes that it cannot support a reduced-sized desalination plant (with GWR[1]) that pumps water from the Marina Subarea[2] of the Salinas Valley Groundwater Basin ("SVGB") absent adequate assurance based on sound science and the most current available data that the Marina Subarea and MCWD's existing vested rights to extract and use SVGB water for the current and future needs of its own service area, will not be harmed by the project. As explained below, the DEIR/EIS falls far short of providing these assurances.

MCWD's comments provided herein are informed by its in-house and outside experts as well as its understanding of the obligations of: (a) the Commission to act in protection of the public interest in the exercise of its unique and broad authority to regulate privately-owned public utilities in California; and (b) the Sanctuary to protect the coastal ecosystem and cultural resources of the Monterey Bay National Marine Sanctuary. We note that the Commission is required by law, as a fundamental component of its public interest balancing and project approval process, to consider fully the proposed project's "influence on the environment." (Public Utilities Code § 1002(a)(4).) Given these mandates, MCWD does not understand why the CPUC or Sanctuary are considering the originally proposed 9.6 MGD desalination plant in the DEIR/EIS in light of the CalAm's commitment in the MPWSP Settlement Agreement, dated July 31, 2013, and the approval of the GWR project.

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[1] / MCWD has supported and continues to support GWR Project proposed by the Monterey Regional Water Pollution Control Agency ("MRWPCA") and approved in October 2015.

[2] / The "Marina Subarea" is used in these comments to refer to the combination of (1) that portion of the 180/400 Foot Aquifer Subbasin of the SVGB located south of the Salinas River plus (2) the northwest portion of the Monterey Subbasin that would be impacted by the proposed slant well pumping on the CEMEX property. While the Marina Subarea is not a formally DWR-recognized subarea, it contains highly complex hydrogeological conditions that are very different from the portion of the 180/400 Foot Aquifer Subbasin north of the Salinas River as explained herein. The Marina Subarea is the coastal subarea of the overdrafted SVGB and is the area that would be directly impacted by the proposed project feed water pumping of 27,000 AFY. The Monterey County Water Resources Agency has defined the "Pressure Area" as a combination of the DWR-designated 180/400 Foot Aquifer Subbasin and the former Seaside Area and Corral De Tierra Subbasins (now the new Seaside and Monterey Subbasins). The Pressure Area is not a formally DWR-recognized subarea either, but that term is used throughout the DEIR/EIS as noted below.

I. BACKGROUND, LEGAL FRAMEWORK AND NECESSITY OF MPWSP.

The CPUC and MBNMS are familiar with the historical background of the water supply shortage that has long plagued CalAm's Monterey district, as well as prolonged efforts of numerous stakeholders to solve the problem. (*See, e.g.*, D.10-12-016, pp. 18-30, and orders of the State Water Resources Control Board and Assembly Bill ("AB") 1182 (Stats. 1998, ch. 797) cited therein.) The project, in essence, is intended to cure the significant, ongoing environmental harm to the Carmel River basin that has resulted from CalAm's illegal diversions of Carmel River water. This background is further complicated by the California Legislature's enactment of the landmark Sustainable Groundwater Management Act ("SGMA"), effective January 1, 2015, which effectively vests the protection of groundwater resources in local authorities under their existing and new SGMA police powers. Potential climate-change-related sea level rise must also inform the Commission's and MBNMS's environmental review and ultimate decisions. Here, the Commission must balance its obligation to ensure that CalAm's ratepayers continue to receive convenient and necessary water service against its obligation to comply with CEQA's mandates, carry out the Legislature's mandate to it in AB 1182 to resolve the physical problems presented by CalAm's illegal diversions of Carmel River water, and address the State Water Resources Control Board's orders reducing CalAm's sources of Carmel River Basin water (as the Commission previously acknowledged in D.10-12-016) – all within the sustainable limits of the local groundwater supply, under the SGMA. On the other hand, the MBNMS must evaluate whether it should authorize a prohibited use (16 U.S.C.A. § 1436) under the Sanctuary's Management Plan (http://montereybay.noaa.gov/intro/mp/fmp/02coastal_dev_mp.pdf), which provides that MBNMS should consider public versus private ownership among other factors, and its Guidelines for Desalination Plants in the Monterey Bay National Marine Sanctuary http://montereybay.noaa.gov/resourcepro/resmanissues/pdf/050610desal.pdf, which provide that desalination plants should only be approved when other economically and environmentally preferable alternative water sources are infeasible and should be sized not to induce growth within the coastal areas. As discussed below, the project—as proposed—is not consistent with the obligations of the CPUC or the Sanctuary.

Formed by a citizens group in 1958, MCWD is a County Water District organized and operating under section 3000 of the California Water Code servicing residents, businesses and organizations throughout Marina and the Ord Community. The District supplies water to over 8,250 water connections, maintains and operates 105 miles of pipeline, 8 reservoirs, 5 booster pump stations and 8 wells. It is also responsible for maintaining the service area's sewer collection system, which includes 20 lift stations and 110 miles of pipeline. MCWD, as the sole provider of municipal water service for over 33,000 residents in the Marina/Ord community, has a vested interest in the integrity and thoroughness of the Commission's environmental review for the proposed MPWSP in order to protect its own ratepayers. The need for careful scrutiny of the proposed project, alternatives and

cumulative impacts is particularly grave in this situation in which the Applicant proposes that the Commission approve a project designed to offset CalAm's illegal diversions from the Carmel River by pumping groundwater from the 180/400 Foot Aquifer Subbasin, which is designated by the State of California as a Critically Overdrafted Basin, and by adversely impacting groundwater conditions within the Marina Subbasin, which is MCWD's groundwater source. Of note, the entire SVGB, including the aquifers underling the Marina Subarea, lie outside of CalAm's public utility service area on the Monterey Peninsula. While CalAm's public utility service area would receive the benefit of convenient and necessary water service to be provided by the MPWSP, its source of water would be from the Marina Subarea, which since MCWD's founding is the only source of water supplies it has used to serve its ratepayers.

More than six years ago, the Applicant, MCWD and others sought and received the Commission's approval for the Regional Desalination Project, a project that was similar in many practical respects to the proposed project. (*See* D.10-12-016.) However, CalAm determined that it would not pursue the Regional Desalination Project, and the Commission permitted CalAm to change course and pursue the MPWSP instead. (D.12-07-008.) [3] The Commission should bear in mind in its environmental review process that the project it approved in 2010 was also *different* from the proposed MPWSP in several key respects related to environmental impacts:

- *Water rights* (addressed for the MPWSP in DEIR/EIS Chapter 2) for withdrawal of any groundwater component of source water were present in sufficient quantity to ensure project feasibility for the Regional Desalination Project (subject to test well results, *see, e.g.*, D.10-12-016 at Findings of Fact 83, 163-164, 169-170 and at pp. 84-85 of Appendix B thereto [CEQA Findings of Fact and Statement of Overriding Considerations]), due to MCWD's participation in the project. MCWD's vested rights to pump groundwater from the SVGB (discussed in MCWD's comments on DEIR/EIS Chapter 2, below), as well as MCWD's ability to offset the amount of project source water that was SVGB groundwater by a pumping offset (i.e., a commensurate reduction in its own lawful pumping from the basin) was then assumed to ensure that the project would not adversely affect the basin or impair the existing

[3] / Section 5.2 of the DEIR/EIS states without an explanation that the Regional Desalination Project was not evaluated in detail as an alternative because it is "incapable of meeting most of the basic project objectives or purpose and need as currently defined," (DEIR/EIS, p. 5.2-1 and 5.2-2.) MCWD disagrees with this unsupported conclusion as discussed in MCWD's comments below. Indeed, a smaller Regional Desalination Project configuration using horizontal directional drilling would appear to meet the project objectives and purpose and need. Moreover, it is quite feasible today with Marina Coast's participation, provided that the project would also remain physically feasible within the confines of the SGMA and the greatly-expanded availability of data concerning the state of the aquifers in the Marina Subarea, which data was not used in the DEIR/EIS.

rights of other users of SVGB groundwater. (See CalAm Coastal Water Project Final EIR, p. 6.2-16 ("The Regional desalination plant would be operated such that … the plant would deliver desalinated water to the MCWD service area within the SVGB in an amount equal to the volume of SVGB-groundwater…."].) The pumping offset by MCWD, a vested holder of water rights in the SVGB, also helped to ensure that the Monterey County Water Resources Agency Act's ("Agency Act") prohibition of the exportation of SVGB groundwater outside the basin would not be violated. (See *ibid.* ["that portion of the potable product water that originated as groundwater rather than seawater would be used on lands overlying the SVGB …].) As discussed below, the one-to-one return ratio was assumed prior to any test well results and new groundwater data indicating that a greater ratio would be needed to offset all direct, indirect, and cumulative impacts to the Marina Subarea from the proposed slant well pumping if vertical or slant wells (as opposed to horizontal wells) were used as the intake technology.

- *Basin return and the non-export* groundwater component of source water, and thus compliance with the non-exportation provision of the Agency Act (addressed for the MPWSP in DEIR/EIS § 2.5.1 and 2.6), was assured by providing for MCWD's allocation of product water from the desalination plant in at least an amount equal to the amount of groundwater withdrawn from the basin as part of the project's source water. (See CalAm Coastal Water Project Final EIR, p. 6.2-16.) As discussed below, more recent groundwater data indicates that a greater return water ratio would likely be required if vertical or slant wells (as opposed to horizontal wells) were used as the intake technology.
- *Vertical wells* (not evaluated in DEIR/EIS, see Appendix I1, at p. I1-4) and possible slant wells, which involve unproven technology, were to be utilized for testing and considered for intake rather than slant wells only. Indeed, vertical wells were the project proponents' preferred option for source water wells. Thus, the reliability of modeling and operation projections, including the assessment of potential environmental impacts, would generally be more certain and readily ascertainable for the more commonly-used vertical well scenarios, as opposed to the greater difficulty of arriving at reliable modeling and operation projections for comparatively new and largely untested slant well technology.
- *Well testing and comprehensive groundwater modeling* (addressed for the MPWSP in DEIR/EIS Chapters 2 and 4.4) for the Regional Desalination Project was to commence after Commission approval of the project (D.10-12-016 at Findings of Fact 83, 163-164, 169-170 and at pp. 84-85 of Appendix B thereto) with the participation of public agencies, including MCWD and the Monterey County Water Resources Agency ("MCWRA"), and provided for further Commission action in the event that test results did not confirm pre-approval assumptions. This approach ensured that the testing process would be transparent and that there would be flexibility in the future direction of the project, should test results not bear out the projections relied upon for environmental review and approval. Here, the test well process for the MPWSP is

proceeding *prior* to Commission approval and under a California Coastal Commission process that MCWD contends is flawed and inadequately informed, which the District is contesting elsewhere.[4] MCWD is concerned that transparency and flexibility are being frustrated rather than fostered due to the failure to utilize complete, current and accurate data in the DEIR/EIS and its modeling, as discussed below in detail. For the MPWSP, the test well results were not used to model the project's groundwater impacts disclosed in the DEIR/EIS. (*See* DEIR/EIS, p. 2-35.) As discussed below, the DEIR/EIS abandoned any attempt to model the project's potential impacts in favor of a simplified superposition model that does not evaluate the amount of groundwater that will be pumped from the Marina Subarea or evaluate the project's cumulative impacts. Moreover, there will be no further opportunity for public review and comment on testing and groundwater modeling or any requirement for disclosure of testing and groundwater modeling results or for changes in project configuration following project approval by the Commission. Nor will there be any way to promptly assess whether the project is causing greater impacts than evaluated or anticipated in the DEIR/EIS. Thus, any further MPWSP evaluation, testing, and modeling for groundwater impacts would proceed in a regulatory vacuum and would be shielded from full public scrutiny in violation of CEQA and the Public Utilities Code.

Finally, perhaps the most important difference in circumstances between the MPWSP and the Regional Desalination Project is the recent enactment of the SGMA. MCWD will discuss the importance of this change in the legal framework as it bears on environmental review in greater detail below.

MCWD does not dispute that additional water supplies are needed to serve the Monterey Peninsula in the face of the mandatory reductions imposed by the State Water Board's orders WR 95-10 and WR 2009-0060. However, even the MPWSP's reduced size alternatives (Alternatives 5a and 5b) provide vastly more water than required to meet the nine primary project objective (Executive Summary, p. ES-3). As explained below, MCWD has analyzed CalAm's 2022 water supply sources and demand in accordance with the nine primary project objectives. Based on this analysis, an additional 1,305 acre-feet per year ("AFY") would provide CalAm with a Reserve Margin of 10%. There are one or more Alternate Water Sources that could be implemented to meet this demand without the high cost, high environmental impacts, high energy use, and high greenhouse gas emissions of the proposed MPWSP.

[4] / Attached as Exhibit "5" are the Parties' briefs on the merits in *MCWD v. California Coastal Commission*, Santa Cruz Superior Court Case No. CV180839. As explained in the attached briefs the Coastal Commission failed to consider alternatives to slant wells in approving the MPWSP test slant well.

In light of this reality, MCWD cautions the Commission that in considering whether the currently proposed MPWSP is the project that best serves the public convenience and necessity, and in conducting its environmental review process for the MPWSP **and feasible alternatives** as CEQA and the Public Utilities Code demand, the Commission and Sanctuary take care not to view the Applicant's proposed project through so narrow a prism as to abnegate its fundamental public interest responsibilities. The Commission is required to weigh the environmental impact of the proposed project as a "relevant factor" on equal footing with other "relevant factors" affecting its public convenience and necessity determination. (*Northern California Power Agency v. Public Utilities Com.* (1971) 5 Cal.3d 370.)

II. PROCEDURAL MATTERS

A. Independent Judgment

As explained in the Introduction to the DEIR/EIS, before considering an approval of the MPWSP or its alternatives, the Commission must "certify" the final EIR. According to the CEQA Guidelines, "certification" consists of three separate steps. The Commission must conclude, first, that the document "has been completed in compliance with CEQA"; second, that the Commission has reviewed and considered the information within the EIR prior to approving the project; and third, that "the final EIR *reflects the [Commission]'s independent judgment and analysis*." (CEQA Guidelines, § 15090, subd. (a); see also Pub. Resources Code, § 21082.1, subd. (c)(3) [lead agency must make finding that the document reflects the agency's independent judgment].) While the courts will uphold an EIR that is not prepared directly by the lead agency if substantial evidence demonstrates that the lead agency has independently reviewed the EIR and exercised its independent judgment over the document, the courts will not permit lead agencies merely to "rubber stamp" analyses prepared by the project applicant or others without independently reviewing the analysis and the evidence in support of the analysis. (See *People v. County of Kern* (1976) 62 Cal.App.3d 761, 775.)

Here, it does not appear the CPUC exercised its independent judgment over the groundwater modeling that provided the basis for the CPUC's groundwater consultant's superposition modeling relied on in the DEIR/EIS to support its conclusion regarding the MPWSP's potential groundwater impacts. Based on the Public Records Act and data request responses we have received to date,[5] the HWG, including Geoscience, were intimately involved in the decisions regarding the modeling and selection of alternatives for consideration in the DEIR/EIS. This involvement appears to have significantly prejudiced the DEIR/EIS's analysis and conclusions of the MWPSP's potential groundwater impacts and the selection of potentially feasible alternatives that were evaluated in the DEIR/EIS. As

[5] / Attached as Exhibit 6 is a list of all the Public Records Act and data requests responses we have received to date, together with full copies on electronic media of all the documents produced. MCWD understands that additional documents may be produced following the comment deadline.

explained below and in the attached GeoHydros Comments, the DEIR/EIS modeling is unreliable, contrived, and does not evaluate the project's potential groundwater impacts in any meaningful way. Similarly, the DEIR/EIS' rejection of alternative intake technologies for consideration in the DEIR/EIS is not supported by the evidence, as explained below and in the attached Intake Works Comments, and appears to have been improperly influenced (if not decided) by the HWG.

As the CPUC is aware the four members of the HWG are paid by and represent parties with interests in the approval of the proposed project. Mr. Feeney and Mr. Durbin represent agricultural interests (Salinas Valley Water Coalition and Monterey County Farm Bureau). Their clients have an interest in the success of the project because they are likely to receive substantial increases in water supplies under several variations of the MPWSP. Mr. Leffler is CalAm's representative.

Most importantly, while Geoscience (Mr. Williams) was initially the designated and served as the CPUC representative on the HWG, during that time they also has a contract with CalAm and RBF Consulting, Inc. ("RBF" nka Michael Baker International) for the design, as well as supervision of construction and monitoring of the project's slant test well.[6] As the CPUC is aware, it was discovered after the 2015 release of the original Draft EIR for the MPWSP that Mr. Williams owns patents for slant well technology that may be used for the project. (See http://www.montereyherald.com/environment-and-nature/20150620/key-desal-project-hydrologists-slant-well-patents-questioned; see also July 14, 2015 ALJ Ruling and July 15, 2015 errata, A.12-04-019.) Regardless of whether Mr. Williams will receive any direct financial benefits from the project (which should unquestionably be disclosed) over and above the money he receives from CalAm through his consulting contracts, this creates another potential conflict of interest. Thus, while all four members of the HWG are experienced hydrologists, their clients' interests (and possibly their personal interests) may color their analysis. The Commission subsequently indicated that it would treat the work of Mr. Williams and his firm, Geoscience Support Services, Inc., as having been performed on behalf of CalAm rather than the Commission. Nonetheless, Mr. Williams and his firm remained involved in preparation of the 2017 DEIR/EIS, including groundwater modeling and underlying assumptions. (See, e.g., DEIR/EIS Executive Summary, Environmental Setting at sections 4.2 and 4.4, Appendix C3.) Despite the Commission's statements, Mr. Williams' dual advisory-advocacy role in the same proceeding raises an inference that his

[6] / Mr. Williams also testified on behalf of CalAm in Santa Cruz Superior Court proceedings relating to the potential impacts of project's slant test well. (See excerpts of testimony attached as Exhibit "7" from *MCWD v. California Coastal Commission*, Santa Cruz Superior Court Case No. Case No. CV180839.) During his testimony, Mr. Williams testified that he was 100 percent confident that pumping had stabilized in the slant test well after three to five days. (*Ibid.*, p. 202-203.) Later monitoring modeling has shown the test well still has not stabilized, over a year after long term-pumping commenced. Martin Feeney also provided several declarations on CalAm's behalf in those proceedings.

views and opinions may be accorded undue weight in the Commission's environmental review and decision-making processes. Therefore, to ensure the objectivity of the MPWSP's modeling and the adequacy of the EIR, and to allow the Commission to exercise the required "independent judgment," MCWD requests the Commission obtain a peer review from a recognized independent hydrologist that does not represent clients with interests in the success of the MPWSP or alternatives.

Moreover, if Mr. Williams has a financial interest in the project, has served as a consultant for both the Commission as the adjudicatory decision-maker and CalAm as the primary advocacy project proponent, and has served as a leading participant in generating the input of the HWG in both capacities, the question arises whether such status renders the Commission's work on the groundwater and modeling aspects of the DEIR/EIS and the input of the HWG subject to an impermissible conflict of interest. (See *Morongo Band of Mission Indians v. California State Water Resources Control Bd.* (2009) 45 Cal.4th 731.) The Commission and the DEIR/EIS fail adequately to investigate, explore, address and resolve such conflict of interest issues.

In conclusion, given the importance of the hydrogeological modeling on the project's overall feasibility and the DEIR/EIS's reliance on the modeling to evaluate that project's potential impacts to the over-drafted Marina subarea (discussed in Part III below) and alternatives, MCWD requests the Commission, at minimum, have Lawrence Berkeley independently review the hydrostratigraphy, assumptions, and calibration of Geoscience/HWG's updated modeling that was used in the DEIR/EIS and Hydrofocus's superposition model as they did for the modeling used in the original Draft EIR. An independent expert should also be identified to evaluate potentially feasible alternatives.

B. Unlawful "Parallel Track" used for examining the environmental impacts

MCWD believes the Commission is utilizing an unlawful "parallel track" methodology by examining the environmental impacts of the project in a CEQA process while examining other public interest factors under the closer scrutiny of a separate Certificate of Public Convenience and Necessity ("CPCN") hearing process so as to deprive the parties of an evidentiary hearing on some, but not all, key relevant factors bearing on the public interest. The Commission's approach in this instance has operated to impair, rather than foster, the public disclosure and transparency that is required under CEQA, as well as the fair balancing of all relevant factors, including "influence on the environment," that is required by the Public Utilities Code. (*Northern California Power Agency v. Public Utilities Com.* (1971) 5 Cal.3d 370; Public Utilities Code § 1002(a)(4).)

III. THE DEIR/EIS IS FUNDAMENTALLY FLAWED AND MUST BE RECIRCULATED

MCWD provides following, specific comments on the DEIR/EIS. These comments are based on MCWD's review of the DEIR/EIS, documents contained in the CPUC's files,

other public records, MCWD's independent investigation of this matter, its expertise in developing projects like the MPWSP proposed here, and the attached HGC Comments (Exhibit # 1), GeoHydros Comments (Exhibit # 2), EKI Comments (Exhibit # 3), and Intake Works Comments (Exhibit # 4). Based on its fifty-plus years of experience in providing water service in this area, as well as its prior role in the abandoned Regional Desalination Project, MCWD is uniquely qualified to comment on the DEIR/EIS. (See *Consolidated Irrigation District v. City of Selma* (2012) 204 Cal.App.4th 187, 206 [Water District's operations provided it with expertise in groundwater for purposes of commenting on a project's potential environmental impacts on water supplies].) The CPUC must respond separately to each environmental issue raised in this letter and those raised in HGC, GeoHydros, EKI, and Intake Works Comments on the adequacy of the DEIR/EIS and its Appendices (specifically groundwater modeling) in the Final EIR/EIS responses to comments (CEQA Guidelines, § 15088) as must the Sanctuary under NEPA.

A. THE DEIR/EIS'S DISCUSSION OF WATER DEMAND, SUPPLIES, AND WATER RIGHTS IS INADEQUATE AND MISLEADS THE PUBLIC.

DWR Bulletin 118, which was issued in 1980, officially divided up the SVGB into eight different subbasins. Pursuant to SGMA, DWR conducted a Basin Boundary Modification process, which finalized new SVGB Subbasin boundaries in October 2016. Those basin boundaries were incorporated into the Bulletin 118 Interim Update 2016. The SVGB Subbasins are now designated as follows: 180/400 Foot Aquifer, East Side Aquifer, Forebay Aquifer, Upper Valley Aquifer, Paso Robles (60% located in San Luis Obispo County), Seaside, Langley, and Monterey. It is generally agreed that subbasin boundaries were drawn using a fat Crayola and not a sharp pointed pen. These are the official subbasins within the SVGB. All eight subbasins are classified by DWR as being either a high- or medium-priority subbasin subject to the Sustainable Groundwater Management Act discussed below. In January 2016, DWR classified the 180/400 Foot Aquifer Subbasin and the Paso Robles Subbasin as Critically Overdrafted Basins, which means that each of the two subbasin must adopt a SGMA-compliant groundwater sustainability plan or coordinated plans by January 31, 2020, or be subject to a State Water Resources Control Board enforcement intervention. All other subbasins have until January 31, 2022. The basin boundary modification resulted in the size of the Seaside Subbasin being reduced to only include lands within the adjudicated Seaside Groundwater Basin, which is managed by the court-supervised Seaside Basin Watermaster and is essentially exempt from SGMA. CalAm is a member of the Watermaster Board. The former northern portion of the Seaside Area Subbasin and the balance of the former Corral de Tierra Subbasin were merged by DWR into the new Monterey Subbasin. The relationship between MCWD's service areas and the 180/400 Foot Aquifer Subbasin, Monterey Subbasin, and Seaside Subbasin is shown on Exhibit 8 [Map of Service area in relationship to the 180/400, Monterey, and Seaside Subbasins]. (See also EKI Comments, Figure 1.)

The Monterey County Water Resources Agency ("MCWRA") has combined the 180/400 Foot Aquifer Subbasin and the former Seaside Area and Corral De Tierra Subbasins into the so-called "Pressure Subarea." (See e.g., Brown and Caldwell's "State of the Salinas

River Groundwater Basin", dated January 16, 2015, which is included in the DEIR/EIS's list of references.) The CPUC and the public should be aware that reports or studies referring to the Pressure Subarea include substantially more land than within just the Marina Subarea.

CalAm had Geoscience prepare a North Marina Groundwater Model; the geographic area covered by the model is shown on Figure 15 in DEIR/EIS Appendix E2. As indicated in Footnote 1, for purposes of these comments, we have identified the Marina Subarea as the area that would be impacted by the proposed MPWSP slant well pumping.

1. Major Failure of DEIR/EIS to Perform an Integrated Total Water System Analysis of CalAm's System With and Without the Proposed MPWSP.

The DEIR/EIS blanketly accepts without independent review or any in-depth analysis CalAm's representations each of CalAm's existing and proposed non-MPWSP water supply sources and fails to examine how each of those water supply sources are currently operated to meet CalAm's existing actual demands (i.e., CalAm's 2016 baseline operations) versus how each of those water supply sources could be operated and optimized to meet the nine primary project objectives.

Operating a water utility has similarities to operating an electric utility in that both have to have water supply or electric generation resources available to meet base, peak, and intermediate demands and both have transmission, sub-transmission, and distribution pipelines or electric lines to deliver the water or electricity from the various water supply or electric generation resources to the ultimate customer. A "base" resource is available, around the clock, every day. A "peaking" resource is available during periods of maximum water or electric usage, which will vary by climatic region, such as afternoons on hot summer days in Sacramento. An "immediate" resource is any remaining resource, which is available above base but below peaking.

Lacking any adequate explanation in the DEIR/EIS, MCWD would surmise that today CalAm uses its Carmel River water as its base resource and peaks with its withdrawals from the Seaside Groundwater Basin (native groundwater plus ASR recoveries). That is a very simple resource mix compared to what will occur in 2022, especially without the MPWSP being constructed.

a. *CalAm's Monterey District Reserve Margin Requirements.*

Electric utilities are required to have existing electricity generation capacity reserves that serve as a buffer for unplanned demand fluctuations due to sudden increases in demand or power plant emergency outages and to analyze the probabilities that a system emergency may occur. A reserve margin is a measure of the amount of electricity imports and in-state generation capacity available over average peak demand conditions. Reserve margins are measured at two levels: planning (month-ahead to 10 years) and operating (real-time).

Except for CalAm Primary Project Objective #4 for this DEIR/EIS, which states, "Develop a reliable water supply for the CalAm's Monterey District service area, accounting for the peak month demand of existing customers," the DEIR/EIS has no discussion of any reserve margin requirements for CalAm's Monterey District. Objective #4 is only a type of planning or month-ahead reserve margin requirement. MCWD would note that the margin requirement is only to meet the peak month demand of existing customers, not of projected customers in 2022. For purposes of these comments, MCWD is assuming a Monterey District reserve margin requirement of ten percent (10%).

b. ***By 2022, CalAm Will Have a Completely Different Water Supply Mix Even Without the MPWSP.***

The DEIR/EIS fails to consider in its analysis that by 2022, especially without the MPWSP, CalAm will have dramatically shifted from being a Carmel River surface water-centric water system to a Seaside Groundwater Basin-centric system.

Pursuant to SWRCB Order WR 2016-0016, Cal Am is authorized to divert up to 8,310 AFY from the Carmel River through December 31, 2021. That represents 89.5% of its 2016 actual demand of 9,285 AF. Come January 1, 2022, CalAm's legal Carmel River diversions drops to 3,376 AFY or only 36.4% of CalAm's actual 2016 water demand. However, once the GWR Project is operational, the Adjudicated Seaside Basin becomes a comingled pool of native groundwater, Carmel River ASR water, and GWR advanced treated water through both direct injection and in-lieu groundwater recharge. Then 63.6% of CalAm's 2016 demand would be met with Seaside Basin water resources. In-lieu groundwater recharge occurs when advanced treated or recycled water is consumptively used within the Adjudicated Seaside Basin instead of potable water thereby preserving native Seaside Basin groundwater.

This substantial increase in the amount of imported water into the Seaside Basin could significantly improve the groundwater conditions within the Basin thereby allowing for additional pumping by CalAm. The DEIR/EIS does not provided any hydrogeological analysis of the synergistic benefits of all of this out-of-Seaside-Basin water being imported into the Basin.

The DEIR/EIS does not discuss how CalAm could operate its then-available water supply sources in 2022. Instead, the DEIR/EIS basically assumes that CalAm could not meet the DEIR/EIS projected manipulated demand (and not CalAm's actual 2016 demand, which is Primary Project Objective #4) without constructing at least a 6.4 MGD MPWSP. That assumption is false.

CalAm asserts that a minimum 6.4 MGD desalination plant with source water intakes on the CEMEX property coupled with the GWR Project are vitally needed to address the SWRCB's Cease and Desist Order curtailing CalAm's illegal diversions on the Carmel River. While the SWRCB in its Order WR 2016-0016 addressed in part the interrelationship of the

elements of CalAm's Total Water Portfolio, no significant total-water-portfolio-type analysis is contained in the DEIR/EIS. It is essential that the DEIR/EIS closely examine CalAm's existing and proposed elements in its Total Water Portfolio, including how those existing and proposed source elements would interact and be integrated by 2022, and their relationship to meeting the nine Primary Project Objectives.

CalAm has not produced for public review a computer model of its existing water supply sources and demands as they vary by water year type and by month and how it will change come 2022. It is essential that the DEIR/EIS provide such a computer model to allow the CPUC, the public and other decisionmakers to meaningfully evaluate CalAm's water needs and potential alternatives to the MPWSP.

While the Carmel River Legal Limit of 3,376 AFY has been determined by the SWRCB in Order 95-10 and confirmed in Order WR 2016-0016, the DEIR/EIS without significant analysis blanketly accepts CalAm's claims as to the water available from each of CalAm's existing and future non-MPWSP water sources and fails to examine how CalAm's non-MPWSP water sources should be synergistically integrated to maximize their ability to meet the nine Primary Project Objectives. Again, come 2022, CalAm's water system will make a dramatic shift to a Seaside Basin groundwater dependent system, which includes native Seaside Basin groundwater, injected GWR water, injected Carmel River ASR water, and as CalAm proposes an additional 2,100 AFY of injected MPWSP desalinated water. Yet the DEIR/EIS has failed to disclose or perform a month-by-month analysis of how each of CalAm's water supply sources can be utilized in 2022 to optimize the use of each water source both with and without the MPWSP. As discussed below, such an analysis would show that only an additional 1,305 AFY of new water supplies are needed to meet all nine Primary Project Objectives and that the MPWSP is not needed to meet those objectives.

i. CalAm's Actual 2016 Demand of 9,285 AF.

Table 2-2, Existing Demand 2006-2015, in Section 2.3.1, page 2-10, shows a 10-year average (2006-2015) of 12,351 AF. Table 2-2, Other Demand Assumptions, page 2-12, shows an "Existing Service Area Demand" of 12,270 AF. The actual 2016 existing demand was 9,285 AF[7], or only 75.7% of 12,270 AF. However, system demand has consistently decreased over the past decade. (See https://www.watersupplyproject.org/system-delivery.) The decrease in demand is apparently due to ratepayer conservation, as well as improvements in system losses due to leaks. (See SWRCB Order 2016-0016, p. 2.) These demand reductions are likely to be permanent, as discussed below.

The DEIR/EIS' use of 12,270 AFY in its analysis when 9,285 AFY is the actual 2016 demand number is an example of the DEIR/EIS padding the numbers by 2,985 AFY, or 32% more, to justify a larger capacity desalination plant.

[7] / http://www.watersupplyproject.org/system-delivery.

ii. CalAm's Representations as to Its Water Supply.

In Order WR 2016-0016, the SWRCB amended in part Order 2009-0060, the Carmel River Cease and Desist Order by granting CalAm a time extension until December 31, 2021, to terminate all unlawful diversions from the Carmel River. On and after January 1, 2022, CalAm may only divert 3,376 AFY under Order WR 2016-0016 although CalAm and MPWMD jointly will continue to have the right pursuant to SWRCB-issued water right permits 20808A and 20808C to divert up to an additional 5,326 AFY of excess flows for ASR Phases 1 and 2 with an estimated average annual yield of 1,920 AFY.

In Table 2-4, CALAM Monterey District Water Supplies with Proposed MPWSP, page 2-18, CalAm is said to have the following water supply available during the period when CalAm is replenishing/repaying the Seaside Groundwater Basin with a 6.4 MGD Desalination and the GWR Project:

CalAm's Claimed NO MPWSP Water Sources When GWR becomes operational and on January 1, 2022	**Acre Feet per Year**
Carmel River Legal Limit	3,376
Sand City Desalination Plant	94
Aquifer Storage & Recover (ASR) Project Phases 1 and 2	1,300
Groundwater Replenishment (GWR) Project	3,500
Seaside Basin Adjudicated Groundwater Supply	774
Total No MPWSP Water Supply	9,044

With an actual 2016 existing demand of 9,285 AF, the above 9,044 AF total is only 241 AF or 2.6% short without considering any additional available water supply from Sand City's 300 AFY desalination plant, ASR, GWR, and the Seaside Basin. Such additional available water supply sources are discussed below.

Note that in Section 5.4.2.1, the DEIR/EIS claims that the "total long-term supply under the No Project Alternative would be 6,380 afy," which excludes all GWR water. If the 3,700 AFY GWR water is added to the 6,380 AFY, the total becomes 10,080 AFY.

iii. Sections 2.2.2.2 and 2.2.4, Seaside Groundwater Basin.

A substantial majority of the lands in the Seaside Basin are within MCWD's Ord Community service area, not within CalAm's service area. MCWD provides potable water and will soon be providing recycled water to the Ord Community within the Seaside Basin. CalAm has major production wells within the Seaside Basin but most of CalAm's Monterey

District customers are outside of the Seaside Basin so CalAm is a net exporter of native Seaside Basin groundwater. The DEIR/EIS ignores these facts. The fastest growing area within Monterey County is within MCWD's Ord Community service area as part of the economic redevelopment of the former Fort Ord, which places even more emphasis on MCWD's need to protect its potable water supply.

As explained above, come 2022, CalAm's water supply portfolio will shift from a Carmel River-centric system to a Seaside Basin-centric system. Once the GWR Project is operational, the Adjudicated Seaside Basin becomes a comingled pool of native groundwater, Carmel River ASR water, and GWR advanced treated water through both direct injection and in-lieu groundwater recharge. This substantial increase in the amount of imported water into the Basin could significantly improve the groundwater conditions within the Basin thereby allowing for additional pumping by CalAm. However, the DEIR/EIS does not provided any hydrogeological analysis of the synergistic benefits of all of this out-of-Seaside-Basin water being imported into the Basin.

The DEIR/EIS also fails to analyze and describe how ASR water, GWR water, and MPWSP water will be imported into and exported out of the Seaside Basin by month and how correspondingly the pipeline conveyance system will be operated to accommodate the water flow. For example, during January, Carmel River ASR would enter the 30-inch MCWD-CalAm joint pipeline from the South through the 36-inch Monterey Pipeline at the same time MPWSP product water through a 36-inch pipeline and recovered GWR water will enter the MCWD-CalAm joint pipeline from the North. Since water cannot move both north and south at the same time in the MCWD-CalAm joint pipeline, does CalAm intend to not send water from the North while Carmel River ASR water is moving North for injection into the Seaside Basin or, if not and the water coming from the North will block the Carmel River ASR water coming from the South, will CalAm not then be effectively sending the Carmel River water directly to its Monterey customers and not north for injection?

In addition, CalAm is proposing to construct new ASR wells 5 and 6. The new ASR wells are not to inject and recover Carmel River water but to inject and recover 2,100 AFY of MPWSP desalinated water. The 2,100 AFY that would be injected each year into the Seaside Basin means (1) that CalAm could pump at least 1,474 AFY from the Seaside Basin or (2) that instead of taking 25 years to repay the Watermaster at 700 AFY, it would only take about 8 years. As more importantly discussed below, however, CalAm has not shown this additional 2,100 AFY of desalinated water is needed to meet the nine Primary Project Objectives and the MPWSP may be downsized accordingly.

Proposed Transfer of 700 AFY of MCWD's GWR Project Water Entitlement to Seaside Basin Watermaster Instead of 700 AFY of MPWSP Desalinated Water. Section 2.4.2, page 2-17, states that CalAm and the Seaside Groundwater Basin Watermaster have agreed for CalAm to pay back at the rate of 700 AFY for 25 years the volume of groundwater CalAm has pumped in excess of its adjudicated right at the rate of 700 AFY for

25 years. CalAm is assuming that the entire 700 AFY would come from the MPWSP plant and has accordingly increased the capacity of the MPWSP plant by 700 AFY, which will result in substantial capital and annual operating and maintenance costs for that added capacity. The DEIR/EIS fails to consider any other options, such as the following.

MCWD is entitled to 1,427 AFY of the output of the GWR Project for use by MCWD's customers within the Seaside Basin portion of MCWD's Ord Community service area, which includes the City of Seaside's Bayonet and Blackhorse Golf Courses. This is in addition to up to 3,700 AFY of GWR water, which will be sold to CalAm. A more practical and cost-effective alternative to building the additional 700 AFY of MPWSP plant capacity would be for CalAm to pay the Watermaster to purchase 700 AFY of MCWD's GWR water for use by MCWD's customers within MCWD's Ord Community service area within the Adjudicated Seaside Basin. This would result in a substantial saving for CalAm's customers by avoiding the need to pay for 700 AFY of desalination plant capacity that is not needed.

This more practical and cost-effective option is based upon representations contained at pages 20 and 21 of the Watermaster's May 23, 2016 Status Report to the Monterey County Superior Court prepared by Attorney Russell M. McGlothlin. Section G of the 2016 Court filing discusses "Potential Request for Relief from the 2018-2021 Triennial Rampdown." The basis for the potential rampdown postponement request is an April 2010 Land Transfer and Water Service Agreement between MCWD and the City of Seaside wherein MCWD agreed to supply the City with 2,500 AF total of potable groundwater for the City's same two golf courses. Section 1.11 of the MCWD-Seaside Agreement states, "This program would result in an 'in-lieu' replenishment of the Seaside Bain (sic) by virtue of suspending the production from the Seaside Basin for gold course irrigation." The golf courses are within that portion of MCWD's Ord Community service area within the Adjudicated Seaside Basin. Delivery of Salinas Valley groundwater to portions of the former Fort Ord is expressly exempt from the MCWRA Agency Act's groundwater export prohibition. Mr. McGlothlin stated in the 2016 Status Report that had MCWD sold the 2,500 AF directly to the Watermaster that would have constituted a direct replenishment supply for the Basin's benefit upon which a rampdown could be postponed. The Watermaster's March 2, 2017 Case Management Statement to the Court at pages 20 and 21 specifically references the above 2016 representations to the Court. Here, MCWD is proposing that GWR Project recycled water be used in lieu of potable groundwater for the golf courses and for other customers' non-potable water uses.

Sand City Desalination Plant: At the time of the SWRCB's October 20, 2009 Carmel River Cease and Desist Order WR 2009-0060, Sand City was constructing a 300 AFY capacity desalination plant. The Order at page 41 stated,

> Of the 300 afy, 94 afy will be used to replace water being diverted from the Carmel River by CalAm for existing water use within Sand City; thus, once the plant becomes operational the

> city should no longer receive water illegally diverted from the Carmel River. The balance of the plant's production, 206 afy, is for future growth. **Pending the need for the remaining 206 afy, CalAm may use the water to meet the needs of its customers. (Emphasis added.)**

CalAm operates the Plant. While 206 acre feet of the plant's 300 AFY capacity is reserved exclusively for future Sand City development, that development will occur slowly over time as only in-fill and redevelopment opportunities remain because the city is geographically very small and is hemmed in by existing development. Without the Sand City plant, CalAm as the Sand City residents' water provider would be required to provide water for any new development after December 31, 2021. Presumably the 206 AFY is currently available for CalAm's use outside of Sand City yet the DEIR/EIS provides no analysis in Section 2.4.4, page 2-19, as to the projected availability of that 206 AFY in 2022 and beyond. However, Section 5.4.2.3, page 5.4-7, states, "Continued use of approximately 230 afy provided by Sand City's existing desalination plant (*same as proposed project*)." Therefore, MCWD will use 230 AFY as the amount of water available to CalAm from the Sand City plant.

ASR Project Phases 1 and 2: SWRCB-issued water right permits 20808A and 20808C jointly to CalAm and the MPWMD with an authorized Carmel River diversion of up to 5,326 AFY between December and May of each year for ASR Phases 1 (ASR Wells 1 and 2) and 2 (ASR Wells 3 and 4) with an estimated average annual yield of 1,920 to 1,970 AFY.

MPWMD on its website on "Aquifer Storage & Recovery" reports an average yield for Phase 1 of "about 920 AFY" and for Phase 2 of "approximately 1,050 AFY", for a total of 1,970 AFY.[8] The difference between MPWMD's total annual yield amount of 1,970 AFY and Table 2-4's amount of 1,300 AFY is 670 AFY.

After December 31, 2021, CalAm is required to reduce its Carmel River by 4,934 AFY or over 59% from 8,310 AFY to 3,376 AFY. The DEIR/EIS fails to provide any analysis of the amount of additional water and the increased frequency of Carmel River water availability for ASR when that diversion reduction occurs. In addition, at the July 19, 2016 SWRCB hearing on what became Order WR 2016-0016, Rob MacLean stated that the new CalAm pipelines to be constructed would provide an additional 1,000 AFY conveyance capacity for Carmel River ASR water. It appears that CalAm has performed an analysis of the increased availability of ASR water come January 1, 2022, but has not shared that analysis with either the CPUC or the public. For purposes of these comments, the SWRCB's lower estimated annual yield of 1,920 AFY annual yield will be used. The DEIR/EIS should explain why it

[8] / See http://wwvv.mpwmd.net/water-supply/aquifer-storage-recovery/.

does not use 1,920 AFY for CalAm's future ASR water supply, especially for 2022 and beyond.

GWR Project Supply: The CPUC has approved a water purchase agreement wherein CalAm would purchase 3,500 AFY of GWR Project supply. MRWPCA has also reserved the right to an additional 200 AFY or a total of 3,700 AFY. The additional element of the GWR Project is that MCWD is entitled to an additional 1,427 AFY of advanced treated water to serve MCWD's Ord Community service area. The Board of Directors of the Fort Ord Reuse Authority (FORA) by Resolution 07-10, adopted on June 8, 2007, allocated the 1,427 AFY to its member jurisdictions served by MCWD, including specifically 453 AFY to the City of Seaside, 280 AFY to the City of Del Rey Oaks, and 134 AFY to Monterey County for use within that portion of MCWD's Ord Community service area within the Adjudicated Seaside Basin. The City of Seaside, including its two golf courses, and the City of Del Rey Oaks are within the Adjudicated Seaside Basin and their 733 AFY combined allocation would result in additional in-lieu groundwater recharge benefits for the Adjudicated Seaside Basin, which fact is totally ignored in the DEIR/EIS. (See Exhibit 8, [Reference Map of MCWD Service Area in Relation to the Adjudicated Seaside Groundwater Basin].)

Phase 1 of the GWR Project provides for the 3,700 AFY to MRWPCA and 600 AFY of the 1,427 AFY to MCWD. Phase 2 of the GWR Project will increase the Advance Water Treatment Plant capacity by up to an additional 827 AFY to provide the balance of the 1,427 AFY for MCWD's Ord Community service area. This DEIR/EIS should examine (1) CalAm paying the Seaside Watermaster to purchase from MCWD 700 AFY of GWR Project Water for use within the Basin by MCWD's customers in satisfaction of CalAm's obligation to repay the Seaside Watermaster 700 AFY for 25 years and (2) transferring additional Phase 1 and 2 advance treated water from MCWD to MPWMD for use by CalAm to the extent not needed by MCWD's Ord Community customers.

The GWR Product Water Conveyance Facilities (pipeline), which will convey the advance treated water from the new treatment plant to MCWD's Ord Community service area and then onto the new GWR injection facilities, will have sufficient capacity to convey more than 5,127 AFY. It should be noted that MCWD's peak use of the Advance Water Treatment plant and the pipeline will be during the summer months so a much greater portion of the treatment plant capacity and the conveyance capacity of the pipeline will be available during the other months to treat and convey water to the GWR injection facilities. Pursuant to the April 2016 Pure Water Delivery and Supply Project Agreement between MRWPCA and MCWD, the pipeline is to be designed, constructed, owned, and operated by MCWD. That Agreement also authorizes MRWPCA to produce an additional 200 AFY of purified recycled water for the GWR Project injection, or an annual total of 3,700 AFY.

iv. The NO MPWSP Option:

For both the SWRCB proceedings and for this DEIR/EIS, MCWD has analyzed the available information, especially those not considered in this DEIR/EIS, and concludes that the proposed MPWSP does not need to be built. The NO MPWSP Option is based upon the following water sources discussed above, which should be available to CalAm when the GWR Project becomes operational and on January 1, 2022:

CalAm's NO MPWSP Water Sources When GWR becomes operational and on January 1, 2022	**Acre Feet per Year**
Carmel River Legal Limit	3,376
Seaside Basin Adjudicated Groundwater Supply[9]	1,474
Sand City Desalination Plant	230
Aquifer Storage & Recover (ASR) Project Phases 1 and 2	1,920
Groundwater Replenishment (GWR) Project	3,700
Total No MPWSP Water Supply	**10,700**

As shown by Scenario A and B of MCWD's Total Water Portfolio analysis, by 2022, CalAm can achieve both (a) 100% compliance with the SWRCB Cease and Desist Order and (b) have an adequate water supply without the MPWSP. (See also the discussion of No Project Alternative in Part III.D below.)

c. ***CalAm's Total Water Portfolio Options for Meeting the Nine Primary Project Objectives.***

i. Scenario A: Using the Actual CalAm 2016 Water Demand of 9,285 AFY for Comparison Purposes and in accordance with Primary Project Objective #4.

The following is a comparison of CalAm's Total Water Portfolio with the MPWSP as discussed above with the DEIR/EIS's representation of CalAm's Water Supplies using a proposed 6.4 MGD MPWSP and the GWR Project shown in Column 3 of Table 2-4, page 2-18:

[9] / Assumes that CalAm meets its 700 AFY payback obligation to the Seaside Watermaster by paying the cost of 700 AFY of advanced treated water allocated for use within that portion of MCWD's Ord Community service area within the Adjudicated Seaside Basin.

CalAm Water Sources	No MPWSP Option	CalAm Water Sources from Table 2-4, Col. 3
Carmel River Legal Limit	3,376	3,376
Seaside Basin Groundwater Supply[10]	1,474	774
Sand City Desalination Plant	230	94
Aquifer Storage & Recover (ASR) Project Phases 1 and 2	1,920	1,300
Groundwater Replenishment (GWR) Project	3,700	3,500
6.4 MGD Desalination Plant	NA	7,167
Total No MPWSP Water Supply	10,700	16,211
2016 Actual Demand	9,285	9,285
Excess over 2016 Actual Demand	1,415	6,926
Percent of Water Supply in Excess of 2016 Actual Demand	**15.2%**	**74.6%**

Another way of analyzing CalAm's Total Water Portfolio in relationship to the non-MPWSP option is through the following Scenario A spreadsheet analysis based upon the following:

- Total Water Portfolio analysis assuming MCWD's numbers for the Seaside Basin Adjudicated Groundwater Supply, Sand City Desalination Plant, ASR Phases 1 and 2, and GWR Project
- Meeting CalAm Project Objectives 1, 2, 3, 4, 5, 8, and 9, including 100% compliance with the SWRCB Carmel River Cease and Desist Order.
- Objective 4 states, "Develop a reliable water supply for the CalAm's Monterey District service area, accounting for the peak month demand of existing customers," i.e., 2016 customers. (Executive Summary, p. ES-3) Limiting the Objective to "the peak month demand of existing [2016] customers" makes the project not growth

[10] / Assumes that CalAm meets its 700 AFY payback obligation to the Seaside Watermaster by paying the cost of 700 AFY of advanced treated water allocated for use within that portion of MCWD's Ord Community service area within the Adjudicated Seaside Basin.

inducing and satisfies the Sanctuary's Management Plan requirement that if other economically and environmentally preferable alternative water sources are infeasible, then any new desalination plant should be sized not to induce growth within the coastal areas.

- CalAm's 2016 system deliveries of 9,285 AF as the baseline.
- Proving a Reserve Margin Percentage of at least 10%.

Under Scenario A, MCWD examined four different Total Water Portfolio options, which could be in place by January 1, 2022, with 100% Cease & Desist Order compliance — NO MPWSP, Alternate Water Sources (Alt Water), 6.4 MGD Desal, and 9.6 MGD Desal — in relationship to CalAm's actual 2016 water deliveries. The "NO MPWSP" option assumes that CalAm's MPWSP is not constructed. The "6.4 MGD Desal," and "9.6 MGD Desal" options assumes that CalAm would construct a desalination plant (location of source wells are not assumed to be the CEMEX property or that slant wells would be used) with those respective treatment capacities as discussed in the DEIR/EIS. The DEIR/EIS assumes that a 6.4 MGD plant would produce 7,167 AFY even though CalAm represented in its March 14, 2016 Amended Application to the CPUC that the 6.4 MGD plant would produce 6,252 AFY. Consequently, MCWD assumed a 24/7/365 operating scheme for the desalination plant options.

The Scenario A results are as follows:

	No MPWSP	6.4 MGD Desal	9.6 MGD Desal
Total Supply	10,700	17,867	21,450
2016 Demand[11]	9,285	9,285	9,285
Water Supply Reserve Margin	1,415	8,582	12,165
Reserve Margin Percentage (10% assumed needed)	**15.2%**	**92.4%**	**131.0%**

Scenario A meets seven of the nine primary or fundamental objectives of the proposed MPWSP without the need to construct the MPWSP. As demonstrated above, Scenario A without the MPWSP will develop water supplies for the CalAm Monterey District service area to replace CalAm's illegal Carmel River diversions (#1), will reduce pumping from the Seaside Groundwater Basin (#2), will pay back the Seaside Groundwater Basin (#3), will develop a reliable water supply for CalAm's Monterey District service area, accounting for the peak monthly demand of existing customers (#4), and develop a reliable water supply that meets fire flow requirements for public safety

[11] / Primary Project Objective #4 specifies demand of existing (2016) customer demand. See also III.A.1.b.i below. Does not include any return water demand as alternatives exist that would not require any return water.

(#5). Because the MPWSP desalination plant would not be built, a major new large energy use would be eliminated with a corresponding substantial reduction in greenhouse gas emissions per unit of water delivered (#8). In addition, without the MPWSP, substantial project costs would be eliminated with the resulting beneficial effect for water rates (#9).

ii. Scenario B: Using 2016 Demand, Pebble Beach Water Entitlements, Legal Lots of Record, and 25% of Hospitality Industry Rebound, a Total of 10,915 AFY, for Comparison Purposes.

The differences from the above Scenario A analysis and from the Table 2-3, page 2-12, CalAm demand assumptions are as follows:

- For the "Existing Service Area Demand," the actual 2016 demand of 9,285 AF was used. CalAm Project Objective 4 states, "Develop a reliable water supply for the CalAm's Monterey District service area, accounting for the peak month demand of existing customers," i.e., 2016 customers.
- The DEIR/EIS "Pebble Beach Water Entitlements" of 325 AF was used.
- The DEIR/EIS "Legal Lots of Record" of 1,180 AF was used.
- Only 25% of the DEIR/EIS's 500 AF for the "Hospitality Industry Rebound Economic Recover," or 125 AF, was used because in Section 2.3.3.2, pages 2-13 to 2-14, the DEIR/EIS admits that "the region's economy has largely recovered" and that some of the 500 AFY would be available for other uses but fails to identify what those other uses would be and whether that would result in duplicating a CalAm demand. That means that most of the 500 AFY is not needed. Table 2-2 shows a significant progressive reduction in CalAm customers' water as the economy was "recovering." Therefore, MCWD has determined that only 125 AFY, and not 500 AFY, is needed to meet any further Hospitality Industry Rebound to meet Primary Project Objective #7. MCWD has experienced a similar significant progressive reduction in MCWD customers' water use and that has and is occurring even as the number of MCWD's customers continues to grow. Governor Brown has declared, "water conservation must be a part of everyday life."[12] CalAm and MCWD customers have answered that call and implemented water conservation measures in their everyday lives and they will continue to do so.
- Meets all nine Primary Project Objectives, including 100% compliance with the SWRCB Carmel River Cease and Desist Order and with Objective 7 being met as recalculated above.

[12] / http://www.npr.org/sections/thetwo-way/2016/05/09/477392158/california-governor-makes-some-water-restrictions-permanent

- Under the NO MPWSP Option, the comparison assumes that an additional 1,305 AFY of water would be available as discussed below under Alternative Water Sources.
- Proving a Reserve Margin Percentage of at least 10%.

The Scenario B results are as follows:

	No MPWSP	6.4 MGD Desal	9.6 MGD Desal
Total Water Supply Available	12,005	17,867	21,450
2016 Demand + PB + LOR + 50% of HI Rebound	10,915	10,915	10,915
Water Supply Reserve Margin	1,090	6,827	11,040
Reserve Margin Percentage (10% assumed needed)	**10.0%**	**61.8%**	**94.3%**

Scenario B meets all nine primary or fundamental objectives of the proposed MPWSP without the need to construct the MPWSP. As demonstrated above, Scenario B will develop water supplies for the CalAm Monterey District service area to replace CalAm's illegal Carmel River diversions (#1), will reduce pumping from the Seaside Groundwater Basin (#2), will pay back the Seaside Groundwater Basin (#3), will develop a reliable water supply for CalAm's Monterey District service area, accounting for the peak monthly demand of existing customers (#4), and develop a reliable water supply that meets fire flow requirements for public safety (#5). Provide sufficient water supplies to serve existing vacant legal lots of record (#6), and accommodate tourism demand under the already "largely recovered" economic conditions (#7). Because the MPWSP desalination plant would not be built, a major new large energy use would be eliminated with a corresponding substantial reduction in greenhouse gas emissions per unit of water delivered (#8). In addition, without the MPWSP, substantial project costs would be eliminated with the resulting beneficial effect for water rates (#9).

iii. Scenario A and B Conclusions:

The Scenario A analysis with accompanying spreadsheet and bar graph (Exhibit 10) shows that the MPWSP is not needed to meet CalAm's actual 2016 water demand, and to provide CalAm with a Water Supply Reserve of 1,415 AFY or a Reserve Margin of 15.2%. Scenario A would meet seven (1, 2, 3, 4, 5, 8, and 9) of the nine primary or fundamental objectives of the proposed MPWSP without the need to construct the MPWSP.

The Scenario B analysis with accompanying spreadsheet and bar graph (Exhibit 11) shows that even if CalAm's actual 2016 water demand is increased by Pebble Beach

Entitlements, Legal Lots of Record, and 25% of the claimed Hospitality Industry Rebound demand, and provide CalAm with a 10% Reserve Margin, that combined demand could be met with an additional 1,305 AFY of water from other sources, which are discussed below under Alternate Water Sources (Alt Water). Scenario B would meet all nine primary or fundamental objectives of the proposed MPWSP without the need to construct the MPWSP.

d. ***What CalAm has Done to Increase Water Demand by 54% over the 2016 Actual Demand. CalAm's Existing Customers Should Not be Required to Pay for that Significant Water Supply Cost Increase.***

In Table 2-3, page 2-12, the DEIR/EIS assumes that CalAm's "Existing Service Area Demand" is 12,270 AFY based upon 2010 demands and not the actual 2016 demand of 9,285 AFY as required by Primary Project Objective #4. In other words, the DEIR/EIS assumes an "Existing Service Area Demand," which is 2,985 AFY or over 32% more than the actual existing demand. Table 2-3 then goes on to add an additional 2,005 AFY for Pebble Beach Water Entitlements, Hospitality Industry Rebound Economic Recovery, and Legal Lots of Record. In the Section 2.3.3.2 discussion of Hospitality Industry Rebound, pages 2-13 to 2-14, the DEIR/EIS admits that "the region's economy has largely recovered" and that some of the 500 AFY would be available for other uses. CalAm's actual 2016 water demand was 9,285 AF. The DEIR/EIS' new total water demand is 14,275 AFY, or 4,990 AFY more, which is a 54% increase over the actual 2016 water demand. It should be noted that providing service for Pebble Beach Water Entitlements, Hospitality Industry Rebound Economic Recovery, and Legal Lots of Record are *not* within the scope of objectives listed for the operative Project Description that is on file with the Commission, where the primary stated objective is compliance with SWRCB Order 95-10. (Mar. 14, 2016 Amended Appl., Ex. H.) These further objectives have been added by CalAm, as reflected in the DEIR/EIS project description. (Executive Summary, p. ES-3; see pp. 2-10 through 2-15.)

The DEIR/EIS fails to explain why CalAm's existing customers should be required (1) to pay a 54% increase in water supply in excess of those existing customers' actual demand or (2) to pay for a desalination plant that will act as a very expensive insurance policy. This is the typical investor-owned utility solution to foster a perceived water supply shortage that it then proposes to solve by building the biggest, shiniest new water supply project at the existing customers' expense and at the expense of the environment – bigger is not better here.

e. ***The DEIR/EIS Shows that the Proposed 6.4 MGD MPWSP is Not Needed and that a 6.4 MGD Plant is Substantially Oversized even with CalAm's Expanded Project Objectives.***

As discussed above, a MPWSP of any size is not needed to meet the current system demand. Under Scenario A, 6,475 AFY, or 5.78 MGD, of the 6.4 MGD MPWSP plant capacity is not needed to meet seven of the expanded DEIR/EIS Primary Project Objectives. Under Scenario B, 4,845 AFY, or 4.33 MGD, of the 6.4 MGD MPWSP plant capacity is not needed to meet all nine of the expanded DEIR/EIS Primary Project Objectives.

First, as discussed in MCWD's comments A.1.b.i above, the actual 2016 existing demand was 9,285 AF versus Table 2-2, page 2-12 of the DEIR/EIS shows an "Existing Service Area Demand of 12,270 AF. Under Scenario A, that would represent a 2,985 AFY increase over the actual existing demand. Under Scenario B, that would represent a 1,355 AFY increase over the Scenario B demand of 10,915 AFY. Therefore, under Scenario A, there would be 2,985 AFY of overcapacity and, under Scenario B, there would be a 1,355 AFY of overcapacity.

Second, as discussed in DEIR/EIS Section 2.4.3 on page 2-19 and in Section 3.2.4, page 3-43, CalAm is proposing to construct new ASR Wells 5 and 6. However, the new ASR wells are not to inject and recover Carmel River water but to inject and recover 2,100 AFY of MPWSP desalinated water. The DEIR/EIS has not provided any justification as to why 2,100 AFY more water needs to be injected into the Seaside Basin. For example, the DEIR/EIS does not justify this 2,100 AFY desalinated water as payback water to the Seaside Watermaster. Therefore, the MPWSP plant capacity to produce this 2,100 AFY is totally unnecessary.

Third, as discussed above under Seaside Basin Groundwater Supply, DEIR/EIS Section 2.4.2, page 2-17, states that CalAm and the Seaside Groundwater Basin Watermaster have agreed for CalAm to pay back the volume of groundwater CalAm has pumped in excess of its adjudicated right at the rate of 700 AFY for 25 years. CalAm is assuming that the 700 AFY would come from the MPWSP plant and has increased the capacity of the MPWSP plant by 700 AFY for that purpose. The DEIR/EIS fails to consider any other options and as explained above, a more practical and cost-effective option would be for CalAm to pay the Watermaster to purchase 700 AFY of MCWD's share of GWR Project advanced treated water for use by MCWD's customers within MCWD's Ord Community service area within the Adjudicated Seaside Basin. Based upon the cost of GWR Project water under the CPUC-approved Water Sales Agreement, purchasing this additional GWR Project water would be at a substantial savings to the equivalent amount of MPWSP desalinated water. This would further reduce the need for MPWSP plant capacity by an additional 700 AFY.

Fourth, DEIR/EIS Section 2.5.1, pages 2-22 to 2-23, discusses CalAm's Salinas Valley Groundwater Basin Return Water obligation to mitigate for pumping SVGB groundwater if the proposed slant well technology and CEMEX well locations are used. Section 2.5.1 states that the proposed "Settlement Agreement on MPWSP Desalination Plant Return Water" would require CalAm to return 690 AFY if the 6.4 MGD plant is built. The DEIR/EIS does not determine how much return water would actually be needed, but apparently decided to use 690 AFY without a sound scientific basis. An amount greater than 690 AFY is likely as discussed below. As also discussed below, another fatal flaw of the DEIR/EIS is the blatant assumption that returning one AF of desalinated water anywhere in the SVGB, especially north of the Salinas River, could be adequate mitigation for direct, indirect, and cumulative impacts from slant well pumping at the CEMEX property under

environmental, groundwater, and SGMA law. While one reading of the Agency Act may support a one-to-one return ratio, the DEIR/EIS does not discuss anywhere whether a one-to-one return ratio is adequate to mitigate for environmental, groundwater, and SGMA direct, indirect, and cumulative impacts from slant well pumping at the CEMEX property. As discussed in MCWD's comments on Project Alternatives, use of proven Horizontal Wells technology would eliminate the need to provide any return water.

Overcapacity Items	Scenario A AFY	Scenario B AFY
Eliminating Excess Demand in DEIR/EIS' "Existing Service Area Demand of 12,270 AF versus Scenario A or Scenario B Demand	2,985	1,355
Eliminating proposed new ASR Wells 5 and 6 and the need 2,100 AFY of MPWSP product water to inject	2,100	2,100
Elimination of repayment to Seaside Watermaster by instead purchasing 700 AFY of GWR water for use within the Adjudicated Basin	700	700
Elimination of Return Water Obligation	690	690
Total Amount of MPWSP Overcapacity	6,475	4,845
Overcapacity Converted into MGD =	5.78 MGD	4.33 MGD
6.4 MGD MPWSP Capacity Remaining	0.62 MGD 694 AFY	2.07 MGD 2,318 AFY

In summary, using the DEIR/EIS' own information, 5.78 MGD of a 6.4 MGD MPWSP plant is not needed to meet seven of the Primary Project Objectives and 4.33 MGD is not needed to meet all nine Primary Project Objectives.

f. ***Alternative Water Sources (Alt Water).***

The DEIR/EIS states that no viable alternatives have been identified that would supply water without a desalination plant being included and dismisses all non-desalination plant alternative water sources with the exception of the GWR Project. (DEIR/EIS, pp. 5.2-1 through 5.2-6.) This conclusion, however, is not supported by the record as discussed above. Under the Scenario A analysis above, MCWD has shown that CalAm does not need a desalination plant of any size to meet 2016 demand going forward and to meet Primary Project Objectives 1, 2, 3, 4, 5, 8, and 9. Under the Scenario B analysis above, MCWD has shown that CalAm would only need approximately 1,305 AFY more from Alternate Water Sources to meet all nine Primary Project Objectives.

Moreover, as a result of the drought, stormwater capture is the new "low hanging fruit" for additional water supplies. January and February 2017 have demonstrated the availability and viability of Salinas River water for stormwater capture projects; however,

stormwater flows exist in the Salinas River during other than wet water years. The following two excess river flow capture projects would utilize excess flows in the Salinas River and should be analyzed in the DEIR/EIS as they could provide additional assurances that CalAm could obtain sufficient supplies without building the MPWSP desalination plant.

iv. Salinas River Excess Flow Capture – Groundwater Recharge Project.

As a result of the drought, stormwater or excess flow capture is the new "low hanging fruit" for additional water supplies. January and February 2017 have demonstrated the availability and viability of Salinas River water for excess flow capture projects; however, excess flows exist in the Salinas River during other than wet water years. The following two excess river flow capture projects would utilize excess flows in the Salinas River and should be analyzed in the DEIR/EIS as they could provide additional assurances that CalAm could obtain sufficient supplies without the proposed MPWSP desalination plant.

MCWD agrees that the primary purpose of the Salinas Valley Water Project should be to provide groundwater recharge for the Salinas Valley Groundwater Basin. However, during many water years, there are substantial Salinas River flows to Monterey Bay in excess of SVGB groundwater recharge and Salinas River environmental flow needs. For example, because of the substantial magnitude and occurrence of those flows, MCWRA is proposing the construction of an Interlake Tunnel that would divert water from Nacimiento Reservoir to San Antonio Reservoir – water that would otherwise have been spilled at Nacimiento Dam. While the Interlake Tunnel Project will result in storing more stormwater runoff, a new Salinas River diversion and conveyance system is being proposed to convey that water to a new groundwater recharge area near the City of Salinas. However, MCWRA's Salinas River Diversion Facility (the "rubber dam") is an already permitted diversion facility located near Marina at the MRWPCA's regional tertiary treatment plant and the site of the to-be-constructed GWR Advance Treated Water plant. The MCWRA has existing unexercised SWRCB-issued water rights that could be modified to accommodate additional river diversions at the rubber dam for groundwater recharge. For example, a recharge project could divert some 10,000 to 20,000 AF when there are excess flows in the river. Required bypass flows for the protection of Salinas River steelhead would be at minimum levels during the months of November through March when diversions for this project would normally occur. There are at least four potential uses or combination of uses for this water:

1. If a blend of river water and tertiary treated water could be treated at MRWPCA's Advance Water Treatment plant, then a portion of this water could be incorporated into the GWR Project for use by CalAm's Monterey District. MCWRA's Agency Act only prohibits the export of Salinas Valley Groundwater Basin groundwater, not Salinas River water.
2. If Salinas River water could be treated in a desalination plant, then a portion of the river water could be treated at a new desalination plant thereby reducing source water pumping.

3. A portion of the excess river water could be conveyed north of the Salinas River to the Castroville area for groundwater recharge. The river water would be treated (e.g., filtered and chlorinated) to the extent necessary. Despite the many years that the Castroville Seawater Intrusion Project (CSIP) has been in operation, the Castroville Community Service District continues to experience significant groundwater supply problems. A significant cause of the groundwater problem is the pumping depression that has developed to the east of CCSD in the northern portion of the City of Salinas caused by over-pumping in the East Side Subbasin, which causes groundwater underneath the CCSD to flow east instead of naturally flowing west to Monterey Bay. See DEIR/EIS Figure 4.4-6.
4. A portion of the excess river water should remain south of the Salinas River in the Marina area for seawater intrusion protection and groundwater recharge. See Exhibit #3 to these Comments, Erler & Kalinowski, Inc., Memorandum dated 22 March 2017, Section 4.2, Impacts of MPWSP on MCWD's Ability to Implement Groundwater Recharge Augmentation at Armstrong Ranch.

Because the 180/400 Foot Aquifer Subbasin of the SVGB is classified as a Critically Overdrafted subbasin, i.2, i.3, and i.4 above should be mandatory projects under the Groundwater Sustainability Plan for the 180/400 Foot Aquifer Subbasin.

MCWD is proposing that the Salinas River Excess Flow Capture/Groundwater Recharge Project be implemented and utilized by CalAm by capturing from 3,000 to 4,000 AF in excess river flow years to supply on the average 1,000 AFY as either additional GWR source water (i.1) and/or direct desalination plant source water (i.2).

v. Additional GWR Project Water and ASR water.

Additional GWR Water. As discussed above under "GWR Project Supply," MCWD is entitled to 1,427 AFY of GWR water and MCWD is proposing that CalAm pay the Seaside Watermaster to purchase from MCWD 700 AFY of MCWD's GWR water for use within the Seaside Subbasin by MCWD's Ord Community customers in satisfaction of CalAm's obligation to repay the Seaside Watermaster 700 AFY for 25 years. To the extent that the remaining 727 AFY of GWR water is not needed by MCWD's Ord Community customers, a portion of that 727 AFY could be sold to CalAm.

MCWD understands Salinas Valley agriculture's concerns over reductions of their recycled water for the Castroville Seawater Intrusion Project (CSIP) as a result of the GWR Project. MCWD suggests that the above Salinas River Stormwater Capture/Groundwater Recharge Project could provide direct groundwater recharge benefits that would combat seawater intrusion, allow more agricultural pumping, and help recover the Castroville area groundwater. For example, would 4,000 AF of groundwater recharge with stormwater capture occurring one-third of the water years be sufficient to offset an additional 1,000 AFY of GWR water going to CalAm?

Additional ASR Water. As discussed above under "ASR Project Phases 1 and 2," after December 31, 2021, CalAm is required to reduce its Carmel River by 4,934 AFY or over 59% from 8,310 AFY to 3,376 AFY. The DEIR/EIS fails to provide any analysis of the amount of additional water and the increased frequency of Carmel River water availability for ASR when that diversion reduction occurs. In addition, at the July 19, 2016 SWRCB hearing on what became Order WR 2016-0016, Rob MacLean stated that the new CalAm pipelines to be constructed would provide an additional 1,000 AFY conveyance capacity for Carmel River ASR water. It appears that CalAm has performed an analysis of the increased availability of ASR water come January 1, 2022, but has not shared that information with either the CPUC or the public.

vi. Salinas River Excess Flow Capture — Salinas River Water Treatment Plant.

This is not necessarily low hanging fruit but MCWD has already performed a preliminary analysis of the feasibility of diverting Salinas River water in excess of existing agricultural uses and steelhead needs to meet potable water demands. The project would utilize excess water under MCWRA's water right licenses and permits and could utilize the rubber dam or wells along the Salinas River as CalAm does along the Carmel River. River water would not be available in all water years, but for a 5,000 AFY water treatment plant, 1,000 AFY could be used to meet potable water demands within MCWD's Ord Community and the remaining 4,000 AFY could be made available to CalAm's Monterey District and to Castroville Community Services District for direct use and/or for groundwater recharge.

vii. Small Desalination Plant.

MCWD has proposed constructing its own 3,000 AFY (2.7 MGD) desalination plant, which is generally discussed in the DEIR/EIS on pages 4.4-89 to 4.4-90. Pursuant to the Regional Urban Water Augmentation Program (RUWAP), MCWD is obligated to provide an additional 2,400 AFY of augmentation water needed for the redevelopment of Fort Ord. MCWD has secured 1,427 AFY of that from the GWR Project. The remaining 973 AFY could be provided by a 3,000 AFY desalination plant to be owned by MCWD. MCWD's ownership of the plant would comply with the Monterey County ordinance requiring 100% ownership of desalination plants in the county. (See Monterey County Code of Ordinances, section 10.72.030(B).) The balance of 2,027 AFY (1.8 MGD) could be sold to CalAm for its Monterey Peninsula customers. Any MCWD desalination plant would likely use horizontal or vertical wells and not slant wells.

viii. Alternate Water Sources Conclusion.

The DEIR/EIS just focuses on a 6.4 MGD and 9.6 MDG MPWSP desalination plant. The DEIR/EIS failed to do a 2022 Total Water System analysis for CalAm's Monterey District thereby failing to determine the actual water supply and water demand situation needed to meet all nine Primary Project Objectives because, as MCWD has shown, even a 6.4 MGD desalination plant would produce an excess amount of water making actual demand irrelevant. Because of that, alternate water sources were not analyzed because no additional water sources were needed with a 6.4 MGD plant. As MCWD has shown, only

1,305 AFY of alternate water sources are needed to meet all nine Primary Project Objectives without the need to construct the MPWSP. The Excess Flow Capture/Groundwater Recharge Project could provide a significant amount of additional GWR water and groundwater recharge to combat seawater intrusion, especially north of the Salinas River. Additional GWR water and ASR water should also be available to provide the additional 1,305 AFY.

2. The DEIR/EIS's discussion of Plant Capacity vastly underestimates the amount of water that would need to be returned to the SVGB.

The adequacy of the DEIR/EIS's discussion of plant capacity is critical to determining the amount of groundwater that must be returned to the SVGB from the MPWSP's source wells given CalAm's lack of water rights. It is also critical for determining whether the project actually has capacity to return the large amount of groundwater it must return to the Marina Subarea. The DEIR/EIS, however, fails to provide any discussion or support for bracketing the return water percentage between 0% to 12%. As discussed in the attached HGC Comments, it is likely that the return water obligation would be more than 12%, especially in the initial years of operation. (See HGC Comments, pp. 9-10.) Even the NMGWM2016 calibrated model, which likely underestimates the slant wells production of groundwater, predicts up to 22% of groundwater will be produced from the Dune Sand Aquifer and another 3.5% of groundwater will be produced from the 180-FTE Aquifer during the initial time step. (*Ibid.*) Moreover, this does not account for the amount of return water that may be needed to mitigate groundwater impacts in the Marina Subarea.

Therefore, the DEIR/EIS must be revised to disclose the potential maximum amount of groundwater that must be returned, especially in the early years, of the project to determine whether the presently proposed slant well intakes are actually feasible. Importantly, other subsurface intakes that the DEIR/EIS fails to analyze would like reduce (Ranney Wells) or eliminate (Horizontal Wells) the need for any return water. In addition, both the no project alternative and GWR project would not require any return water component. Therefore, the revised DEIR/EIS should not assume the return water component is part of CalAm's demand in assessing potentially feasible alternatives, as discussed further below.

3. The DEIR/EIS's discussion of Water Rights Is Misleading, Ignores Established Legal Precedent, and Fails to Demonstrate the Project is Legally Feasible.

Any discussion of the applicability of CEQA/NEPA law, groundwater law, and the Sustainable Groundwater Management Act (SGMA) to the proposed MPWSP is very fact dependent. As discussed in MCWD's comments, the DEIR/EIS analysis in Section 4.4, Groundwater Resources, is fatally flawed, being based upon inaccurate data and modeling, and not fully analyzing the direct, indirect, and cumulative adverse impacts of MPWSP's withdrawal of groundwater from the Marina Subarea. MCWD will fully discuss those matters in its comments on Section 4.4. The following discussion provides MCWD's

comment on the Section 2.6 discussion as to (1) the DEIR/EIS' theoretical understanding of the law and (2) the law as applied to the facts as ascertained by MCWD.

a. ***The DEIR/EIS' Discussion of CPUC's Role.***

In the introduction to Section 2.6, the DEIR/EIS makes the following statements:

(1) "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,"

(2) "except to the extent that the CPUC must determine whether there is a sufficient degree of likelihood that CalAm will possess rights to water that would supply the desalination plant such that the proposed project can be deemed to be feasible."

(3) "The SVGB is not an adjudicated groundwater basin, so use of the groundwater in the Basin is not subject to existing court decree, written agreements or oversight by an impartial Watermaster."

(4) Three "relevant types of groundwater rights" are:
"(1) overlying rights whereby those who own land atop the Basin may make reasonable use of groundwater on such land; (2) prescriptive rights whereby a water user has acquired another's rights to use water via an open, adverse and sustained use [for at least five years] under a claim of right that such user would otherwise not be entitled to; and (3) appropriative rights whereby the groundwater may be used outside the Basin or for municipal purposes. **While CalAm owns 46 acres of land (the proposed desalination plant location) overlying the Basin, that land would not support sufficient water for the project and would not enable CalAm to use the water beyond the property that it owns.** CalAm has no prescriptive groundwater rights in the Basin. Thus, CalAm would take any Basin water for the project via appropriative rights, which are junior to existing appropriations and to overlying users." (Emphasis added.)

(5) "If the proposed project is approved and any dispute arises as to whether or not CalAm possesses legal water rights, such dispute likely would be resolved through court action."

(6) "[I]f CalAm did not possess legal rights to use the feedwater for the MPWSP desalination plant, then the desalination plant simply could not operate and the project would not go forward. That is why water rights factors in as a key project feasibility issue."

As to Statements (1) and (2), the DEIR/EIS is correct that the CPUC has no legal authority or jurisdiction to determine whether or not CalAm will have the necessary water

rights for the proposed project. However, the DEIR/EIS fails to explain the precise meaning of "a sufficient degree of likelihood," the standard to be allegedly applied by the CPUC, the legal authority for that statement, and examples of where the CPUC has applied that same standard in other proceedings.

Given Statements (1) and (5) and the SWRCB's statement that CalAm would have the burden of proof to demonstrate that it will have adequate water rights for the project, the burden at the CPUC must be on CalAm to show by a preponderance of the evidence that it has adequate water rights for the project. The burden of proof is not on the public or pubic agencies like MCWD to show that CalAm does not have adequate water rights.

Statement (3) fails to recognize that the extraction of groundwater from the CEMEX property is governed by a written agreement, i.e., the 1996 Annexation Agreement discussed in DEIR/EIS Section 2.6.4. MCWD strongly disagrees with the DEIR/EIS interpretation of that agreement as explained below. In addition, the actual extraction of groundwater occurs on the CEMEX property and not on the proposed desalination plant location. For the same reason that the DEIR/EIS admits in Statement (4) that CalAm has no right to export groundwater beyond the proposed desalination plant location, CalAm has no right to export groundwater beyond the CEMEX property.

As to Statement (4), so-called developed water is not an appropriative right but a separate right to use and export the amount of actual net new water developed. CalAm is not appropriating native groundwater but developing new water. Being so limited, CalAm would not gain legal status as an "appropriator" vis-à-vis other appropriators of native groundwater within the SVGB. MCWD agrees with the Statement (4) principle, as applied to the CEMEX property, that CalAm would not be able to use any groundwater extracted from the CEMEX property beyond the boundaries of that property.

As to Statement (6), the available data shows that groundwater, which meets Basin Plan standards for beneficial uses, within the aquifers that will be impacted by the proposed slant wells at the CEMEX site and that there are foreseeable direct, indirect, and cumulative adverse impacts to those beneficial conditions as result of groundwater extractions by the proposed 6.4 MGD or 9.6 MGD desalination plants uses (as discussed in comments to Section 4.4). Therefore, CalAm cannot acquire water rights to the groundwater that would be extracted by the proposed slant wells and the MPWSP cannot go forward as proposed.

b. ***Section 2.6.1, State Water Resources Control Board Report.***

CalAm is proposing to pump the source water for the MPWSP from that portion of 180/400 Foot Aquifer Subbasin of the SVGB located south of the Salinas River. MCWD's Central Marina and Ord Community water service areas are within portions of three Subbasins: the newly designated Monterey Subbasin, the Adjudicated Seaside Basin, and the 180/400 Foot Aquifer Subbasin. MCWD's production wells are located along the northwestern boundary of the Monterey Subbasin and pump from the groundwater aquifers

that are within both the 180/400 Foot Aquifer Subbasin and the Monterey Subbasin. A MCWD production well is located approximately 1.6 miles from the CEMEX property. (See Exhibit 8 [Map of MCWD Service area].)

MCWD agrees that no groundwater right or other water right are needed to extract 100% seawater from Monterey Bay so long as there are no direct, indirect or cumulative impacts to any existing groundwater condition. A basic and essential problem is that the currently proposed length and location of the proposed slants wells will not extend into Monterey Bay as originally proposed by CalAm but will in fact extract groundwater from the 180/400 Foot Aquifer Subbasin with impacts to the adjoining groundwater aquifers. The DEIR/EIS itself admits that it cannot with any certainty determine the percentage of groundwater to be extracted but models up to 12%. However, as discussed below and in the attached HGC and GeoHydros comments, the total annual amount of groundwater water pumped from the proposed slant wells is likely to be significantly higher than 12% at least during the initial years of operation.

As the DEIR/EIS admits, CalAm has no existing overlying, appropriative or prescriptive groundwater right or claim of right to pump groundwater from the 180/400 Foot Aquifer Subbasin. The SWRCB issued its Final Review of California American Water Company's Monterey Peninsula Water Supply Project more than 3 ½ years ago, on July 31, 2013 (Final Review).

In the Legal Conclusions section of the Executive Summary to the Final Review, page ii, the SWRCB stated:

> To appropriate groundwater from the [Salinas Valley Groundwater] Basin, the burden is on CalAm to show their project will not cause injury to other users. Key factors will be: (1) how much fresh water CalAm extracts as a proportion of the total pumped amount, (to determine the amount of water, that after treatment, could be considered desalinated seawater available for export as developed water); (2) whether pumping affects the water table level in existing users' wells; (3) whether pumping affects seawater intrusion within the Basin; (4) how CalAm returns 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 in the larger Basin area or the immediate area around CalAm's wells.

The SWRCB stated, "because groundwater in the Basin is in a condition of overdraft, the only way to show there is surplus water available for export to non-overlying

parcels is for a user to develop a new water source" and "[t]he only water that would be available for export is a new supply, or developed water." (Final Review at 35 and 40.)

The SWRCB's Final Review had to speak in general terms because, as the SWRCB itself admitted, the SWRCB lacked the necessary on-site technical information needed to make a legal determination. While emphasizing the need for accurate on-site technical information, the entire Final Review is founded on the misplaced acceptance for legal analysis purposes of CalAm's and now the DEIR/EIS' inaccurate representation of the conditions of the 180/400 Foot Aquifer Subbasin in the vicinity of the CEMEX property. For example, the SWRCB accepted CalAm's allegation that "the seawater intrusion front extends approximately 5 miles landward from the proposed [CEMEX] well locations" (Final Review at 45-46) and that consequently, almost all water pumped will be brackish water and not "fresh water" and that "[t]here is expected to be minimal impact to fresh water sources at start-up and for the first several years of operation as water will certainly be sourced from the intruded portion of the aquifer." (Final Review at 44.) The SWRCB also incorrectly assumes that "it is unlikely that Basin conditions would improve independent of MPWSP operations." (Final Review at 43.) As discussed in our comments on Section 4.4 below and in the attached HGC, EKI and GeoHydros comments, the assumptions have been shown to be wrong.

The SWRCB's Definition of "Fresh Water" is Not in Compliance with the SWRCB's own Sources of Drinking Water Policy and Federal and State Law

The SWRCB Final Report states at footnote 40: "Brackish water in this report is defined as groundwater within the seawater intrusion zone that contains chloride levels greater than 500 ppm. Water with chloride concentrations less than 500 mg/L is considered fresh water."

What the SWRCB Final Report completely fails to do is address SWRCB's own Resolution No. 88-63, Adoption of Policy Entitled "Sources of Drinking Water." Resolution No. 88-63 is incorporated by reference into the existing 2011 Water Quality Control Plan for the Central Coastal Basin, which is applicable to the proposed project. (See DEIR/EIS, pp. 4.10-37 to 4-10-38.) The Basin Plan may be found at http://www.waterboards.ca.gov/rwqcb3/publications_forms/publications/basin_plan/docs/basin_plan_2011.pdf. Resolution No. 88-63 is Appendix A-9 of the Basin Plan. Resolution No. 88-63 sets forth the following policy regarding surface and ground water within the project area:

> All surface and ground waters of the State are considered to be suitable, or potentially suitable, for municipal or domestic water supply and should be so designated by the Regional Boards with the exception of:
>
> 1. Surface and ground waters where:

> a. The total dissolved solids (TDS) exceed 3,000 mg/L (5,000 uS/cm, electrical conductivity) and it is not reasonably expected by Regional Boards to supply a public water system, or
> b. There is contamination, either by natural processes or by human activity (unrelated to the specific pollution incident), that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices, or
> c. The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.

In addition, the SWRCB Final Report completely fails to address the Marina Subarea as an underground source of drinking water. The U.S. Environmental Protection Agency ("USEPA") defines "Underground source of drinking water (USDW)" at 40 CFR 144.3 to mean:

> An aquifer or its portion:
> (a)(1) Which supplies any public water system; or
> (2) Which contains a sufficient quantity of ground water to supply a public water system; and
> (i) Currently supplies drinking water for human consumption; or
> (ii) Contains fewer than 10,000 mg/l total dissolved solids; and
> (b) Which is not an exempted aquifer.

The Marina Subarea supplies MCWD's public water system and currently contains a sufficient quantity of groundwater to supply that system with drinking water for human consumption and contains fewer than 10,000 mg/l TDS. Therefore, the Subarea meets the requirements of an aquifer under part 144.3(a) and it is not an exempted aquifer as defined at 40 CFR 146.4.

Water Code Section 10780, et seq., is the Groundwater Quality Monitoring Act of 2001. Section 10783(a) states, "The Legislature finds and declares that protecting the state's groundwater for beneficial use, particularly sources and potential sources of drinking water, is of paramount concern." Section 10783(g)(2) specifically cites to the above USEPA's definition and states, "an Underground Source of Drinking Water as containing less than 10,000 milligrams per liter total dissolved solids in groundwater." In its June 23, 2015 revised draft Model Criteria for Groundwater Monitoring in Areas of Oil and Gas Well Stimulation, the SWRCB classifies this Underground Source of Drinking Water as "Protected water."

The DEIR/EIS's water rights discussion is founded upon the SWRCB Final Report. Yet the SWRCB Final Report fails to even discuss its own Resolution No. 88-63, which would prevent Cal Am from claiming as new "developed water" for municipal or domestic water supply purposes any feed water to the extent that source water did not exceed 3,000 mg/L TDS. In addition, the SWRCB Final Report fails to discuss the affected groundwater

subarea as an "underground source of drinking water" containing less than 10,000 mg/l TDS as specified under both Federal and State law. The DEIR/EIS fails to discuss these very important legal parameters and, therefore, the DEIR/EIS must be revised to address both of those parameters and re-circulated for comment.

As discussed below and in other parts of MCWD's comments, the SWRCB Final Review and DEIR/EIS factual assumptions about the groundwater conditions within the Marina Subarea are incorrect. The proposed slant well pumping at the CEMEX site would result in near term and long-term direct, indirect, and cumulative injury to legal users of the groundwater and to groundwater conditions within the Marina Subarea.

c. ***Section 2.6.2, Project Water Rights.***

The entire DEIR/EIS Section 2.6.2 discussion is based upon the incorrect premise on page 2-32 that "The geographic areas from which the project supply wells could draw water inland of the sea are indeed intruded by seawater" and the additional statement on page 2-37 that "The entirety of the geographical area of the Basin that would be affected by the project contains brackish water rather than fresh water." As discussed above, the entire SWRCB Final Report's legal analysis is founded on the misplaced acceptance of these same CalAm's misrepresentations as to the conditions of the 180/400 Foot Aquifer Subbasin south of the Salinas River. The DEIR/EIS then misrepresents the SWRCB's Final Report by claiming that the Final Report provides the definitive description of the conditions of the 180/400 Foot Aquifer Subbasin in the vicinity of the CEMEX property. As explained in MCWD's comments on Section 4.4, the proposed MPWSP pumping will cause direct, indirect, and cumulative adverse impacts to groundwater conditions. Consequently, CalAm cannot acquire adequate water rights to extract groundwater at the CEMEX site for the MPWSP desalination plant, thereby rendering the project infeasible, at least with the current slant well intake configuration at the CEMEX property.

d. ***Section 2.6.3, Effect of Monterey County Water Resources Agency Act.***

> A primary purpose of the Agency Act was to give to the MCWRA the power: to increase, and prevent the waste or diminution of the water supply in the Agency, including the control of groundwater extractions as required to prevent or deter the loss of usable groundwater through intrusion of seawater and the replacement of groundwater so controlled through the development and distribution of a substitute surface supply ***and to prohibit groundwater exportations from the Salinas River Groundwater Basin***. [Agency Act, Section 52-8, emphasis added.]

The economic development of the SVGB is based upon a balance between a predominantly agricultural economy and urban development. Therefore, to achieve this balance, the MCWRA has developed a number of groundwater stabilization and conservation projects (e.g., CSIP) to restore the Basin and prevent seawater intrusion as directed by the Agency Act. As the DEIR/EIS recognizes, to meet the Agency Act's directives, MCWRA

also adopted Ordinance 3709, "prohibiting groundwater extraction within the northern Salinas Valley between the depths of 0 mean sea level and -250 mean sea level." (DEIR/EIS, p. 2-46.) MCWRA's efforts, as well as the efforts of other SVGB users (including MCWD) to restore the Basin and prevent seawater intrusion, have resulted in improved water levels and water quality within the SVGB, particularly in the areas near the project site, as demonstrated by the slant test well's monitoring. (See e.g., attached HGC comments, p. 57.)

The DEIR/EIS's perfunctory discussion of the Agency Act, however, misrepresents the location of the MPWSP source well screens in an effort to suggest the Agency Act and Ordinance 3709 may not apply to prohibit the MPWSP proposed export of the project's treated water. Specifically, the DEIR/EIS misleadingly block quotes the SWRCB report as follows:

> … As currently proposed, the project would use slanted wells and have screened intervals located seaward of the beach. Although the project would serve areas within the territory of the MPWSP, the points of diversion for these proposed wells may be located outside the territory of MCWRA as defined by the Agency Act.

(DEIR/EIS, p. 2-46, emphasis added.) While the DEIR/EIS does not state what description of the project the SWRCB reviewed, the majority of the MPWSP's proposed slant well's screens are clearly not beneath the ocean floor. (See DEIR/EIS, Figure 3-3b (not to scale).) In fact, at least one of the slant wells (as designed) does not even extend beneath the ocean floor. (*Ibid*.) Plus, the DEIR/EIS acknowledges that it will be required to return the "freshwater portion of the brackish source water that originated from the inland aquifer" that would be pumped by the proposed project. (DEIR/EIS, p. 4.4-49.) Thus, it does not appear there is any question that the well and the well screens are within the jurisdiction of the County and the proposed extractions of groundwater at the CEMEX site for export out of the SVGB is prohibited by the Agency Act. Given the critical importance of this issue, the DEIR/EIS must be re-circulated to disclose to the public and public agencies whether the well screens are located within the jurisdiction of the County.

Without attempting to resolve this issue, the DEIR/EIS suggests it does not matter, stating the SWRCB (while acknowledging that it is not the body charged with interpreting the Agency Act) "opines that the project would appear consistent with the Agency Act and the Ordinance given that the project would return to the Basin ***any quantity of fresh water withdrawn from the Basin***." (DEIR/EIS, p. 2-40, emphasis added.) The DEIR/EIS then concludes without any analysis that it appears at least preliminarily reasonable to conclude that the project would be consistent with the Agency Act and the Ordinance. (*Ibid.*) However, in reaching this conclusion, the DEIR/EIS mischaracterizes both the SWRCB's advisory opinion and Ordinance 3709. First, as explained above, the SWRCB's entire Final Review is founded on the misplaced acceptance for legal analysis purposes of CalAm's and

now the DEIR/EIS' inaccurate representation of the conditions of the 180/400 Foot Aquifer Subbasin in the vicinity of the CEMEX property and the incorrect assumption that a one-to-one return ratio applies. Second, by extracting groundwater that may be beneficially used in accordance with State and Federal law discussed above, the slant wells will cause seawater to contaminate other beneficial use groundwater, which also must be prevented or completely mitigated. Third, the SWRCB Report uses the phrase "incidentally extracted usable groundwater," not "fresh water withdrawn," in reaching its opinion. These are not interchangeable terms. The DEIR/EIS must define and use the Federal and State law definitions of beneficial use groundwater as discussed above in its analysis. As discussed below, it does not appear the MPWSP is feasible if CalAm is required to return all "incidentally extracted usable groundwater" as the SWRCB opined would be required for the project to be consistent with Agency Act and Ordinance 3709. Focusing on extractions also fails to address the requirement to prevent or mitigate reductions in groundwater quality due to the slant wells causing seawater to contaminate beneficial use groundwater. Fourth, the Agency Act and Ordinance 3709 do not differentiate between "usable groundwater" and groundwater. As discussed below and in the attached HGC comments, removing so-called "unusable groundwater" from this area will likely result in the aquifers in the Marina Subarea becoming more saline, which will make "useable" groundwater further inland "unusable" – and increase seawater intrusion. Therefore, the Agency Act and Ordinance 3709 are not unreasonable restrictions given the purpose of the Agency Act. The DEIR/EIS must be revised and re-circulated to address this issue.

Moreover, the DEIR/EIS incorrectly assumes that compliance with the Agency Act constitutes compliance with groundwater law and it does not. Compliance with the Agency Act also does not constitute compliance with CEQA, NEPA, or the SGMA. As the SWRCB stated in its Legal Conclusions in the Executive Summary to the Final Report, CalAm has the burden to show that the MPWSP will not cause injury to other users and to existing groundwater conditions. Included in CalAm's burden of proof is to show that the method by which CalAm extract and returns any fresh water it extracts will prevent injury to others and prevent injury to existing groundwater conditions in the vicinity of the CEMEX property. As MCWD's Section 4.4 comments show, "returning" desalinated water to north of the Salinas River does not in any way prevent injury to others or prevent injury to existing groundwater conditions in the vicinity of the CEMEX property.

What CalAm and the DEIR/EIS are arguing is that even though a person does not have a groundwater right, the person can obtain a groundwater right to extract groundwater from Point X so long as I "return" the same amount of water to Point Y, which is located some eight miles away and across a major river. During our lifetimes, no molecule of water deposited at Point Y will ever appear at Point X given existing groundwater gradients, which causes groundwater in Castroville to flow east and not west to Monterey Bay. No technical or legal authority is cited in support of the proposed North of Salinas River Return Water scheme would fully mitigate for direct, indirect, and cumulative adverse impacts of the slant well pumping at the CEMEX property.

e. ***Section 2.6.4, Effect of Annexation Agreement.***

In Section 2.6.4, the DEIR/EIS incorrectly states that the 500 AFY pumping limitation on the property does not presently apply and that it would not apply until formal annexation. The DEIR/EIS must be revised to correct this inaccuracy, which bears upon the feasibility of the project. The 1996 Annexation Agreement was entered into for the express purposes of groundwater protection and reduction of seawater intrusion. The 1996 Annexation Agreement limits groundwater pumping of non-potable water on the CEMEX property to a total amount of not more than 500 AFY; all of which groundwater can only to be used on the CEMEX property. The owner of the CEMEX property at that time, Lonestar, agreed to limit its then-existing overlying groundwater rights in exchange for other consideration in the agreement and that limitation took effect upon signing of the Annexation Agreement in 1996.

The 1996 Annexation Agreement established "a contractual process for the exercise of regulatory authority by the MCWRA under Water Code App. Section 52-22, and the MCWD under Water Code section 31048." (MCWRA Negative Declaration re: Annexation of Marina Area Lands to Zones 2/2A, dated February 21, 1996, at p. 4.) The purpose of the 1996 Annexation Agreement was to "establish a groundwater mitigation framework for the lands to be annexed, and will provide money from the Marina area for the MCWRA's Basin Management Plan and for Zones 2 and 2A, for management protection of the groundwater resource in the Salinas River Groundwater Basin and to reduce seawater intrusion." (Purpose section, Attachment B-1 to Initial Study for Marina Lands Annexation.) The 1996 Annexation Agreement (Sec. 5.9) required MCWD to pay a $2,849,410 fee to MCWRA less a credit of $400,000 based on a 1990 agreement and the similar credit given to the Army. Standby charges and assessments were then levied and collected by the MCWRA on an annual basis.

Attachment B-1 to Initial Study for Marina Lands Annexation stated the following:

> GROUNDWATER PUMPING LIMITS
> Pumping Limits. MCWD currently pumps about 2,200 afy, and Lonestar pumps about 500 afy. Under the Agreement and Framework, the present MCWD service area would be limited to an additional 820 afy of potable groundwater, and would otherwise be subject to the same pumping regulations and restrictions by MCWRA as the area within the City of Salinas. Non-agricultural use of Basin groundwater on the Armstrong Ranch would be limited to 920 afy, 20 afy when the Agreement and Framework becomes effective, an additional 150 afy upon annexation, and additional increments of 150 afy every two years thereafter. Groundwater underlying approximately 730 acres of the Armstrong Ranch would be limited to agricultural use, except that 20 afy could be used for potable uses, and water

from that area could also be used at the regional treatment plant. Lonestar would limit its pumping to its current use of 500 afy.
* * *
MCWRA POLICY CONSIDERATIONS.
a. Effect of the annexation on the overall water supply of the Salinas Valley. All lands being annexed currently overlie the Salinas River Groundwater Basin, and all currently use water from the Basin. Annexation on the terms and conditions of the proposed Annexation Agreement and Mitigation Framework ("Agreement and Framework") will result in limiting the pumping of groundwater from the Basin to less than the amounts which the Marina Coast Water District, RMC Lonestar, and the J.G. Armstrong Family claim the right to pump and use for beneficial use, potentially decreasing ultimate water use from the Basin and demand on the overall water supply of the Basin. The Agreement and Framework also would establish a planning framework which could lead to better management and use of reclaimed wastewater and the encouragement of alternative supplies such as desalinated seawater, which would enhance the overall water supply of the Basin.

b. Effect on increase or decrease of seawater intrusion. Although the annexation will not have a physical impact on seawater intrusion, annexation on the terms and conditions of the Agreement and Framework will establish contractual guidelines and limits for potable and reclaimed water use that should result in no increased seawater intrusion and enhance the MCWRA's ability to mitigate existing seawater intrusion.

c. Effect on overdraft of the Salinas Valley. Marina Coast Water District currently draws most of its water from the deep (900') aquifer, which has not been shown to be in an overdrafted condition and has not been shown to contribute to the overdraft of the shallower aquifers. Lonestar and Armstrong either are already pumping or have the capability to pump from the shallower aquifers. While the annexation will not physically impact overdraft, pumping limits for the annexed Marina Area lands from the deep and the shallower aquifers will limit overdraft of water resources in the Salinas Valley, and a management framework for reclaimed water will help to mitigate overdrafting in the Salinas Valley.

d. Amount of water presently pumped from the aquifer of the Salinas Valley. MCWD has present operational capacity to pump about 6,000 afy, has an approved Urban Water Management Plan and an approved Urban Water Shortage

> Contingency Plan to pump 3,020 afy of potable water, and presently pumps about 2,200 afy of potable water, including some potable water for the Armstrong Ranch. Lonestar presently pumps about 500 afy. A new, agricultural well of unknown capacity recently has been drilled on the Armstrong Ranch, and is expected to be operational before the MCWRA's Board of Supervisors acts on the proposed annexation.
>
> e. Quality of the water made available. Annexation will not change the quality of water available either from or to the annexed lands. Lands served by MCWD currently have both potable and nonpotable water available from and to those lands. The Lonestar property currently pumps and uses water that is considered nonpotable from the shallower aquifers, and has the ability to drill a well into the deep aquifer to obtain potable water. Groundwater underlying the Armstrong Ranch is potable. Both potable and nonpotable water might be transported to the Marina Area lands from elsewhere in the Basin whether or not the proposed annexation occurs.
>
> f. Amount of additional groundwater to be used by the annexed area. Annexation will not provide additional groundwater to the annexed area, because the Marina area already overlies the Basin. The net projected change in groundwater pumping for the Marina Area by the year 2010, assuming full implementation of the Agreement and Framework, is about 115 afy. This is based on limits on increased pumping in the annexed area of 1,740 acre-feet/year (afy), and decreased groundwater use of 300 afy in the annexed area from desalination and 1,325 afy in adjacent agricultural areas from reclaimed water management.
>
> g. Water supplies for future growth. Annexation will not change water supplies available for future growth. The Agreement and Framework will provide contractual limits on the use of potable water supplies available from the Basin for future growth. The Agreement and Framework also encourages proactive management of the deep aquifer. Reclaimed water supplies may be managed differently if the Agreement and Framework becomes effective. Non-Basin, potable water supplies are not affected by the annexation or the Agreement and Framework. Agricultural water supply within the area to be annexed is not affected by the annexation.

Thus, the Initial Study shows that the prescribed pumping limits/groundwater allocations for the annexed Marina Area lands from the deep and the shallower aquifers

were intended to (1) limit and avoid increasing seawater intrusion, (2) enhance the MCWRA's ability to mitigate existing seawater intrusion, (3) not physically impact overdraft, and (4) help limit the overdraft of water resources in the Salinas Valley.

While Section 7.3 of the 1996 Annexation Agreement provides that the Lonestar Property's annexation to Zones 2 and 2A would not take effect until the Lonestar Property has been approved for annexation to the Zones, the 1996 Annexation Agreement itself, including the 500 AFY limitation on pumping on the Lonestar property, took effect in 1996 upon execution of all of the parties. (1996 Annexation Agreement, Section 2.9, p. 2.) More importantly, the then Lonestar property already had an overlying groundwater right, i.e., a right to pump groundwater from the Lonestar property for use on the Lonestar property. Section 7.4.5 limited Lonestar's purpose of use to non-potable industrial or agricultural use. Lonestar agreed that "All groundwater withdrawn from the Basin by Lonestar may be used only within the Basin." (Section 7.1, p. 17.) Section 7.2 states, "Commencing on the effective date of this Agreement and Framework, Lonestar shall limit withdrawal and use of groundwater from the Basin to Lonestar's historical use of 500 afy of groundwater." Lonestar did not need to sign the Annexation Agreement to pump 500 AFY for non-potable water uses since it already had that overlying right, but it agreed to that limitation in consideration of the right to obtain potable water from MCWD for future urban development on the property on terms set forth in the agreement and to limit seawater intrusion. Lonestar's overlying right does not provide any benefit to CalAm's proposed extraction and then export of the groundwater off the CEMEX property (property it does not own) and out of the Basin.

Even if one were to accept the DEIR/EIS' incorrect conclusion that the Annexation Agreement only applies if and when the CEMEX property is actually annexed to MCWD, groundwater law (as opposed to the Agency Act) prevents the export of the groundwater underlying the CEMEX property from the CEMEX property. The DEIR/EIS itself admits on page 2-30 that CalAm has no right to export groundwater beyond the proposed desalination plant location, and for the same reason, CalAm has no right to export groundwater beyond the CEMEX property where the slant wells would actually be located.

The DEIR/EIS on page 2-42 additionally proposes that "CalAm could conceivably construct and employ an injection well on the CEMEX property to return 500 afy to that property such that the MPWSP would have a net-zero effect on groundwater from the CEMEX land and conceivably could operate regardless of whether the 500 afy groundwater withdrawal limitation were imposed at some point in the future." Interestingly, the DEIR/EIS admits that in order to "have a net-zero effect on groundwater from the CEMEX land," CalAm needs to inject the return water directly at the CEMEX property. This directly contradicts the DEIR/EIS' support for the Return Water Agreement and supports MCWD's position that providing "return" water to north of the Salinas River will not mitigate for the direct adverse impacts to groundwater from the CEMEX property.

The DEIR/EIS must be revised to correct this inaccuracy, which bears upon the feasibility of the project.

Moreover, as explained in the HGC Comments, there is no evidence to support the conclusion that returning 500 afy to the CEMEX property would ensure that no more than 500 afy groundwater was withdrawn from the project as limited by the Annexation Agreement. In fact, the evidence indicates substantially more groundwater would need to be injected to demonstrate consistency with the agreement. (See HGC Comments, p. 31.)

In short, CalAm does not and will not have sufficient groundwater rights or developed water rights for the proposed MPWSP, and the DEIR/EIS fails to explain this aspect of the water rights framework that governs the Marina Subarea of the SVGB. The DEIR/EIS must be revised to reflect the full scope of the water rights framework that governs the proposed project site and that framework's impact on the feasibility of the project.

f. ***The DEIR/EIS Provides No Scientific Proof or Analysis in Support of its One-to-One Ratio, which Would Not Mitigate for All Direct, Indirect, and Cumulative Impacts from Slant Well Pumping on the CEMEX Property.***

The DEIR/EIS incorrectly and inexcusably assumes without any scientific proof or analysis that a one-to-one return water ratio would be sufficient to fully mitigate for the source well pumping on the CEMEX property, i.e., for every one AF of good groundwater extracted, it must only be replaced with one AF of desalinated water. DEIR/EIS' one-to-one return water ratio appears to be upon the incorrect assumption that the Agency Act only requires a one-to-one return ration and that compliance with the Agency Act constitutes compliance with groundwater law and it does not. Again, compliance with the Agency Act also does not constitute compliance with CEQA, NEPA, or the SGMA.

Slant well pumping on the CEMEX property draws seawater, brackish water, and groundwater adequate for beneficial uses to the slant wells. The CEMEX property pumping will also draw seawater into beneficial use groundwater areas thereby directly degrading the groundwater into brackish water. The slant well pumping has direct, indirect, and cumulative adverse water quality and water quantity impacts within the groundwater aquifers, as explained in MCWD's comments on Section 4.4. The one-to-one ratio does not adequately mitigate for all of these impacts being based solely upon direct extraction of beneficial use groundwater. Therefore, the use of a one-to-one return ratio by the DEIR/EIS is a fatal flaw.

g. ***The Sustainable Groundwater Management Act (SGMA).***

The DEIR/EIS Section 2.6 inexplicitly fails to discuss SGMA and that law's applicability to the proposed project. SGMA became effective January 1, 2015. SGMA grants local public agencies the authorities to manage groundwater in a sustainable manner and authorizes state intervention, primarily by the SWRCB when local public agencies fail to take required actions by the deadlines set forth in SGMA. SGMA Water Code Section

10720.5(b) states, "***Nothing in [SGMA], or in any groundwater management plan adopted pursuant to [SGMA], determines or alters*** surface water rights or ***groundwater rights under common law*** or any provision of law that determines or grants surface water rights." Section 10720.5(c) states that water rights may be determined in a groundwater adjudication action pursuant to Code of Civil Procedure Sections 830, et seq. SGMA applies to the proposed project and the application of SGMA's standards and requirements are separate and apart, although related, to any groundwater rights analysis. The DEIR/EIS must include a SGMA analysis.

The California Department of Water Resources had previously classified the 180/400 Foot Aquifer Subbasin as a high-priority subbasin and in January 2016, the Subbasin was designated as a Critically Overdrafted Basin.[13] Both the MPWSP's slant wells and desalination plant are located within the 180/400 Foot Aquifer Subbasin. Because of the Critically Overdrafted Basin classification, the 180/400 Foot Aquifer Subbasin is required to adopt a State-approved groundwater sustainability plan (GS Plan) or coordinated GS Plans by January 31, 2020.[14] The GS Plan must include measurable objectives and milestones in increments of five years to achieve sustainability within 20 years of the GS Plan adoption, which would be no later than January 31, 2040, in the case of the 180/400 Foot Aquifer Subbasin.[15]

The terms "sustainability goal," "sustainable groundwater management," "sustainable yield," and "undesirable results" are defined in Water Code Section 10721. They require that the applicable groundwater sustainability agency (GSA) or agencies within the Subbasin adopt and implement a GS Plan or coordinated GS Plans, which manages the use of groundwater within the Subbasin in a manner that can be maintained during the 20-year time horizon without causing any undesirable results. "Undesirable results" applicable to the proposed MPWSP include (1) Chronic lowering of groundwater levels, (2) Significant and unreasonable reduction of groundwater storage through, for example, causing seawater to displace or contaminate existing groundwater thereby reducing available groundwater storage, (3) Significant and unreasonable seawater intrusion, and (4) Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supply and including the migration of seawater into portions of aquifers currently occupied with groundwater. The SGMA baseline conditions date is January 1, 2015.[16]

MCWD's comments on DEIR/EIS Section 4.4, Groundwater Resources, show (1) that there are existing good groundwater conditions in the vicinity of the CEMEX property not recognized in Section 4.4 and (2) that the proposed 6.4 MGD and 9.6 MGD

[13] / http://www.water.ca.gov/groundwater/sgm/pdfs/COD_BasinsTable.pdf
[14] / Water Code §§ 10720.7(a), 10735.2(a)(2), 10735.2(a)(3).
[15] / Water Code § 10727.2(b)(1).
[16] / Water Code § 19727.2(b)(4).

desalination plants will cause or increase all four undesirable results between January 1, 2015, and January 31, 2040. For example, approval of the MPWSP with slant well pumping on the CEMEX property that increases seawater intrusion and decreases good groundwater conditions in the 180/400 Foot Aquifer Subbasin south of the Salinas River, would be in violation of SGMA.

The proposed MPWSP is intended to be a long-term project with an operating life well beyond the requirement of achieving the required sustainability goal by January 31, 2040, for the 180/400 Foot Aquifer Subbasin. The DEIR/EIS' failure to analyze the proposed project's impacts against SGMA's standards and requirements especially relating to how the proposed project will create or increase undesirable results from January 1, 2015, through January 31, 2040, when the 180/400 Foot Aquifer Subbasin is required to achieve its sustainability goal, is another fatal flaw of the DEIR/EIS.

*** * ***

In summary, CalAm cannot obtain any overlying, appropriative, or prescriptive groundwater rights for the proposed project's feed water whether at the proposed site or anywhere overlying the Marina Subarea utilizing the proposed slant well technology and proposed MPWSP source well locations. The DEIR/EIS would fashion a No-Injury Developed Water Export Right based upon a definition of "fresh water," which is not in accordance with the SWRCB's own Source of Drinking Water Policy and not in accordance with Federal and State law. The CPUC must apply the legal parameters in both (1) the SWRCB's own Source of Drinking Water Policy, which is applicable to the proposed project under the Central Coast RWQCB Basin Plan (DEIR/EIS at 4.10-37), and (2) the Underground Source of Drinking Water as defined in Federal and State law, to calculate the amount of "Protected Water" contained in the feed water that the project would pump. Using the same legal parameters, the CPUC would also need to determine to what extent the slant well pumping would cause seawater to contaminate Protected Water.

CalAm then has the burden to prove that in creating any new developed water, (1) the proposed MPWSP source well pumping will cause no injury to any legal user of the groundwater within the Marina Subarea, (2) will cause no injury to pre-January 1, 2015 baseline groundwater conditions in the Marina Subarea, including, but not limited to, reductions in the availability and quantity of protected groundwater, reductions in groundwater quality, and increases in seawater intrusion, and (3) will not cause any SGMA undesirable results so as to prevent the 180/400 Foot Aquifer Subbasin from achieving groundwater sustainability by 2040. The DEIR/EIS must be revised to acknowledge these circumstances and their impact on project feasibility.

Finally, the DEIR/EIS should address the Monterey County Code of Ordinances section 10.72.030(B) and the issues surrounding private ownership of desalination plants. We would also point out that the California Coastal Commission ("CCC") report entitled

Seawater Desalination and the California Coastal Act (CCC, 2004) cited in the DEIR/EIS, addresses Coastal Act public resources policies related to desalination, including policies relating to public versus private ownership of desalination facilities in Chapter 4. As many of these policies relate to environmental impacts (e.g. public trust doctrine and ecosystem preservation) this issue should be addressed in the revised DEIR/EIS. Notable, the Sanctuary's Management Plan, discussed below, provides that MBNMS should consider public versus private ownership.

B. THE PROJECT DESCRIPTION INCLUDED IN THE DEIR/EIS IS DEFICIENT UNDER CEQA.

An accurate, stable and finite project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity. (*See San Joaquin Raptor Rescue Center v. County Of Merced* (2007) 149 Cal.App.4th 645, 655 (*Raptor*); *McQueen v. Board of Directors of the Midpeninsula* (1988) 202 Cal.App.3d 1136, 1143; *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193 (*County of Inyo*) [an accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR].) The DEIR/EIS's description of the project omits critical information needed to evaluate the potential impacts of the project, including but not limited to the intended life or length of project, decommissioning of slant wells after their useful life, potential need to construct additional slant wells over the life of the project, and the amount of return water that would be required for the project. These failures require that the DEIR/EIS be revised and re-circulated.

First, the DEIR/EIS's project description fails to adequately disclose the temporal length of the project. While MCWD understands that CalAm is requesting permission to operate the MPWSP through 2060, by failing to disclose this information to the public, it is impossible for the public to understand and comment on the potential long term impacts of the project. The Final EIR/EIS must disclose the length of the project and identify whether all impacts were evaluated based on the proposed 40+ year project life.

Second, the DEIR/EIS states that the project proposes to convert the slant test well to a permanent well, but fails to address the *requirement* of the California Coastal Commission ("CCC") that the slant well be decommissioned. (DEIR/EIS, p. 3-2.) Rather, the DEIR/EIS states: "Construction of the test slant well and operation of the pilot program was covered under separate environmental review… and it is not part of the proposed project being evaluated in this EIR/EIS….." If the DEIR/EIS is attempting to tier off of CCC's analysis in its CEQA-equivalent document,[17] the DEIR/EIS must expressly state so in the EIR and follow CEQA's tiering requirements. Regardless, the DEIR/EIS must presume the slant test

[17] / The DEIR/EIS's statement that the City of Marina completed tis CEQA review in November 2014 is misleading. As CalAm and the DEIR/EIS preparers are aware, the City never completed its CEQA review for the test well, but determined it needed to conduct additional environmental review before considering approval of test well.

well will be decommissioned as required in assessing the project's impacts given the CCC's prior environmental review did evaluate alternative locations for the test well and the acknowledgement the test well is located in an Environmentally Sensitive Habitat Area (ESHA) and within the coastal retreat area. The DEIR/EIS and the CPUC should also require CalAm to account for and return all of the groundwater pumped by the test well as all such groundwater has and will be wasted to the ocean as it is part of the larger project.

Third, the Project Description states the slant wells would require maintenance every 5 years, but fails to discuss decommissioning the wells after their useful life or the need to construct replacement wells during the life of the project. (Compare DEIR/EIS, p. 3-57 to 4.2-70 [operational life of the slant production wells anticipated to be 20 to 25 years).) Given that slant wells are an unproven technology[18] and results from the only existing slant well at the Doheny Beach, in Dana Point, CA (see Geoscience, Inc. 2012, Aquifer Pumping Test Analysis and Evaluation of Specific Capacity and Well Efficiency Relationships SL-1 Test Slant Well Doheny Beach, Dana Point, California Prepared for: Municipal Water District of Orange County September 7, 2012 , available at http://www.mwdoc.com/filesgallery/SL_1_Step_Test_Comp._FINAL_TM_Geoscience_12_09_2012.pdf), the DEIR/EIS must disclose, evaluate, and propose mitigation to address how slant wells will be decommissioned after their useful life and how the MPWSP will obtain the required source water over the 40 plus year project when none of the slant wells are anticipated to operate for the full life of the desalination plant.

Finally, the Project Description fails to disclose the amount of source water that the MPWSP would be required to return to the SVGB. In discussing the Castroville Pipeline, the DEIR/EIS states:

> The 4.5-mile-long, 12-inch-diameter Castroville Pipeline would convey desalinated Salinas Valley return water from the MPWSP Desalination Plant to the CSIP distribution system and the CCSD Well #3. As described in Chapter 2, Water Demand, Supplies and Water Rights, the portion of the water drawn from the subsurface slant wells that is determined to be groundwater originating from the Salinas Valley Groundwater Basin, would be delivered to CCSD as desalinated water in lieu of CCSD pumping an equivalent amount of groundwater. Under the proposed project, the first 800 afy would go to the CCSD and the remaining water would go to the CSIP.

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[18] / Notably, as discussed in Part VIII below, HWG member Mr. Feeney recently participated in another panel for the CCC's "Final Report: Technical Feasibility of Subsurface Intake Designs for the Proposed Poseidon Water Desalination Facility at Huntington Beach, dated October 9, 2014 available at http://www.coastal.ca.gov/pdf/ISTAP_Final_Phase1_Report_10-9-14.pdf.). That panel concluded that slant wells were unproven technology and infeasible. (See *id.*, pp. 37, 56, 64.)

(DEIR/EIS, p. 3-35, emphasis added.) However, as discussed further below, the DEIR/EIS models the possibility of returning 0%, 3%, 6% and 12% pumped water, but never estimates the amount of return water that will be required. Importantly, the amount of groundwater that would likely need to be returned to the SVGB would be significantly higher than 12 % at least in the initial period of project operation – potentially 30% or more. As discussed in our comments below, even this higher estimate is based on DEIR/EIS unreliable modeling and assumptions that fail to address impacts to the Dune Sand Aquifer. (See comments below on Section 4.4 [Groundwater Resources] and HGC comments, p. 59.)

Moreover, the DEIR/EIS fails to disclose to the public how the amount of water that would need to be returned to the Marina Subarea would be calculated and by whom. MCWD requests the DEIR/EIS include a detailed explanation of how the calculation would be done (the methodology to be used), whether any portion of the calculation would be subject to CalAm's discretion, and whether and by whom CalAm's calculation would be reviewed, including any judicial review required. In turn, this calculation must be included as a condition of approval or mitigation.

Given these omissions, the DEIR/EIS must be revised and recirculated. "[O]nly through an accurate view of the project may the public and interested parties and public agencies balance the proposed project's benefits against its environmental cost, consider appropriate mitigation measures, assess the advantages of terminating the proposal and properly weigh other alternatives…." (*City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1454.) Without this information it is impossible for the public or public agencies to provide meaningful comments on the DEIR/EIS's review of potential impacts and proposed mitigation and alternatives.

C. THE DEIR/EIS'S ENVIRONMENTAL ANALYSIS IS INADEQUATE.

1. Preliminary Statement Regarding Groundwater Analysis and Need to Recirculate Revised DEIR/EIS.

Based on MCWD's participation in the Regional Desalination Project and its more recent involvement in the environmental review process and litigation relating to CalAm's slant test well for the MPWSP, MCWD is intimately familiar with the public's long-standing concerns relating to the project's potential groundwater impacts to the SVGB. While all of this history is relevant to understanding the project, we do not have the time or the voluminous space necessary to fully recount it all here. However, we do provide a summary of recent events that should be part of the record and that demonstrate the lack of substantial evidence supporting the DEIR/EIS's groundwater analysis.

SWRCB's Advisory Opinion Determined the Need for the Slant Test Well to Accurately Characterize the Baseline and Potential Impacts to SVGB. The SWRCB's advisory opinion determined that the following actions to support the conclusion of no harm:

> Studies are needed to determine the extent of the Dune Sand Aquifer, the water quality and quantity of the Dune Sand Aquifer, the extent and thickness of the SVA and the extent of the 180-Foot Aquifer.

(DEIR, p. 4.4-53.) As discussed in the HGC comments, studies to date have not determined the extent or water quality in the Dune Sand Aquifer, which renders the DEIR/EIS's analysis and modeling grossly inadequate. (HGC Comments, p. 2.)

> The DEIR/EIS further acknowledges that the SWRCB required:
>
> "The effects of the MPWSP on the Basin [i.e., the SVGB] need to be evaluated. Specifically, a series of test boring/wells would be needed to assess the hydrogeologic conditions at the site. ***Aquifer testing also would be needed to establish accurate baseline conditions and determine the pumping effects on both the Dune Sand Aquifer and the underlying 180-Foot Aquifer.*** Aquifer tests should mimic proposed pumping rates."
>
> "Updated groundwater modeling will be needed to evaluate future impacts from the MPWSP. Specifically, modeling scenarios will need to be run to predict changes in groundwater levels, groundwater flow direction, and changes in the extent and boundary of the seawater intrusion front. **Additional studies also will be necessary to determine how any extracted fresh water is replaced, whether through re-injection wells, percolation basins, or through existing recharge programs.** It may also be necessary to survey the existing groundwater users in the affected area. The studies will form the basis for a plan that avoids injury to other groundwater users and protects beneficial uses in the Basin. **To ensure that this modeling provides the best assessment of the potential effects of the MPWSP, it is important that any new information gathered during the initial phases of the groundwater investigation be incorporated into the groundwater modeling studies as well as all available information including current activities that could influence the groundwater quality in the Basin."**

(DEIR/EIS, p. 4.4-53, emphasis added.) As noted in below and in the HGC and GeoHydros Comments, the DEIR/EIS's superposition model cannot and does not model groundwater flow direction or the changes in the extent and boundary of the seawater intrusion. A dual density model is required to meet the SWRCB requirements. (See e.g., HGC Comments, p. 34 and GeoHydros Comments, p. 9.)

Testimony from HWG's and CPUC's Representatives during Slant Test Well Environmental Review at City of Marina Led the City and Public to Believe Test Well Data Was Necessary and Would be Used in the DEIR/EIS to Evaluate the MPWSP's Groundwater Impacts. CalAm sought approval from the City of Marina to construct the

slant test well ostensibly for the purpose of satisfying the SWRCB's requirements of assessing the feasibility of MPWSP's slant wells and compiling baseline information for the project's modeling and environmental review. As part of this process the HWG and CPUC representatives stressed the importance of the test well to validate the MPWSP's modeling so the EIR could accurately assess the MPWSP's potential groundwater impacts. Martin Feeney of the HWG testified:

> **The test well is essential for being able to get the data that allows us to validate the models so that we can actually predict the impacts that go into the EIR.** We're at the point now where you can wave your arms about the geology, but we need some real data. We need to stress the system with the test well and to figure out how the system actually reacts so we can answer the questions about water rights, impacts, all those things come out of the actual testing of the test well and looking at the impacts in the monitoring wells that we're putting in around it to see how the whole system reacts. ***This is about a test well that helps us define the actual response of a system to the pumping so that we can accurately look at the impacts.***
>
> … What is the impact to the basin? You know, what is the impact to existing users? You know, I'm being paid by the farm -- farmers because they are concerned. It's about the impacts to the basin. So we got together, and that's the point is to figure out when you test this well, can it be done without impacts? Can it be done that it only takes seawater? That's the purpose of this. It's a feasibility study.
>
> ***My personal -- my personal opinion is this is a little dicey. It may not work.*** Other people have a different opinion. They think it's going to work fine. That's fine. We're to the point now where it's just opinion among a bunch of qualified experts. We need to actually drill this thing and stress it. That's the point.
>
> **So we get the monitoring wells, we get around the pumping well on all sides, we will be able to see what the draw-down effects are, and to be able to build a better groundwater model so that the full-scale project, should it be moved forward, <u>that the modeling that's in the EIR, the full EIR, can accurately model the impacts of the full-scale project</u>. We can't build a model to look at the full-scale project until we know what the aquifer parameters are, the transmissivity, the storativity, and what the boundary condition does to the well draw-down.** That's the deal.

(City of Marina transcript, pp. 110-111, 295-297, emphasis added.)

Eric Zigas, the CPUC's environmental consultant, also testified about the importance of the test well to inform the EIR's analysis:

> And the Hydrogeology Work Group, you just heard Martin tell you, they struggled with concepts and understanding, and they've come to what I think is a common understanding of how the basin works.
>
> … ***But uncertainly really is a -- makes for risky decisions***, and risk can be reduced by gaining knowledge, and the knowledge you can gain from the test well will benefit not only CalAm, it will benefit every basin user.
>
> ***… We will also be able to tell you with certainly what the impacts are associated with their wells, but we will only (sic) be able to model it without the well. We won't have real data. Okay?***
>
> So I do encourage you to learn more about your basin, be better informed. ***When we come back in a year with CalAm's application for the Coastal Development Permit, that conversation should be more informed. It should be informed by data and information, and that information will be obtained through this test well. Reduce your risk.*** Go ahead and learn the knowledge. Learn more about your basin.

(City of Marina transcript, pp. 111-118, emphasis added.)

Given the HWG's and the CPUC's representatives' testimony that the slant test well data was needed to accurately model the impacts in the MPWSP EIR, please explain why it is worth taking the risk to approve the project without the using the TSW data in the project's modeling. Please also explain why after all the efforts to construct the test well and obtain monitoring data, the DEIR/EIR only uses a simplified superposition model that precludes prediction of measurable groundwater elevations associated with the proposed pumping and impacts on water quality, which would provide the only means for stakeholders to validate the model predictions and potential project impacts. (See HGC Comments, p. 34; GeoHydos Comments, p. 9.)

Slant Test Well Review at the Coastal Commission. When the City determined that an EIR was required before it could consider granting CalAm's Coastal Development Permit (CDP) application for the slant test well, CalAm chose not to work with the City and appealed the City's denial without prejudice to the California Coastal Commission (CCC). As the DEIR/EIS recognizes, the CCC approved CDPs for the MPWSP's slant test well at the CEMEX site in November of 2014. The CCC issued the approvals over MCWD's (and others) objections that approval of the slant test well was premature because it improperly segmented the test well from the whole of the MPWSP, failed to analyze and mitigate the test well's potential impacts to the SVGB, failed to consider feasible alternatives, and

usurped the City of Marina's land-use authority, among other defects. (See merits briefs in *MCWD v. California Coastal Commission*, Santa Cruz Superior Court Case No. CV180839, attached as Exhibit "5".) When the CCC approved the slant test well, the CCC overrode the slant test well's significant and unavoidable impacts to ESHA (CCC findings, pp. 3 and 66, attached as Exhibit "9") and the project's inconsistency with the City of Marina's LCP (*id.*, pp. 38, 59, and 62) based on express findings that included the necessity of the slant test well to assess the feasibility, environmental setting, and design of the MPWSP, stating:

> **… pumping and water quality testing to be conducted during the slant well test is necessary to inform the design of a potential full-scale facility. Other actions, such as drilling additional boreholes or conducting additional modeling, would not be sufficient to characterize the site and its potential to provide source water."**

(Id., p. 60, emphasis added.) When MCWD sought injunctive relief in its lawsuit to enjoin construction and operations of the slant test well, the CCC, SWRCB, and CalAm argued any delays to the slant well were against the public interest because the information from the slant test well was necessary to inform the MPWSP's feasibility and environmental review.

In light of the statements from the CCC, SWRCB, and CalAm regarding the necessity of the slant test well to inform the CPUC's environmental review, please explain why has the DEIR/EIS used modeling the fully utilizing the information from the operations of the test well? Does the CPUC and Sanctuary disagree with the CCC's and SWRCB's conclusions that detailed analysis of all information from the full term of operations of the slant test well is necessary and relevant to determine the baseline environmental setting and assess the potential impacts for the MPWSP?

2. The DEIR/EIS's Discussion of Groundwater Impacts Does Not Comply with CEQA.

The DEIR/EIS's analysis of groundwater impacts is grossly inadequate as explained below and in the attached HGC Comments (Exhibit # 1), GeoHydros Comments (Exhibit # 2), and EKI Comments (Exhibit # 3).[19] Specifically, the DEIR/EIS baseline description of the Marina Subarea is misleading and conflicts with the best available information; the DEIR/EIS fails to disclose the MPWSP's inconsistencies with applicable laws and regulations; the analysis of groundwater impacts is based on unreliable modeling rather than substantial evidence; and cursory treatment of cumulative impacts does not comply with CEQA or NEPA. These error must be addressed in a revised DEIR/EIS prior the CPUC or Sanctuary's

[19] / These experts' comments must be responded to separately. While MCWD incorporates by reference these comments into this letter, they are not fully repeated here.

h. ***The baseline description of the Marina Subarea is misleading and conflicts with the best available information;***

CEQA requires an EIR to "delineate environmental conditions prevailing absent the project, defining a 'baseline' against which predicted effects can be described and quantified." (*Neighbors for Smart Rail v. Exposition Metro Line Construction Auth.* (2013) 57 Cal.4th 439, 447.) The baseline is normally the "existing conditions" in the vicinity of the project "as they exist at the time the [NOP] is published." (*Id.* at p. 448.) "Knowledge of the regional setting is critical to the assessment of environmental impacts." (Guidelines, § 15125, subd. (c).) Thus, CEQA Guidelines section 15125 provides that an EIR "must include a description of the physical environmental conditions in the vicinity of the project . . . from both a local and *regional* perspective." (*Id.* at subd. (a), emphasis added.) Furthermore, "[s]pecial emphasis should be placed on environmental resources that are rare or unique to that region and *would be affected by the project*." (*Ibid*, emphasis added.)

An EIR's description of a project's environmental setting plays a critical role in all of the subsequent parts of the EIR because it provides "the baseline physical conditions by which a Lead Agency determines whether an impact is significant." (Guidelines, § 15125, subd. (a).) Longstanding case law upholds this fundamental principle by recognizing that "[a]n EIR must focus on impacts to the *existing environment*, not hypothetical situations." (*County of Amador* v. *El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 955, emphasis added.)

"If the description of the environmental setting of the project site and surrounding area is inaccurate, incomplete or misleading, the EIR does not comply with CEQA." (*Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal.App.4th 74, 87 (*Cadiz*).) Here, as is explained below, the EIR's "description and consideration" of the regional setting "is so incomplete and misleading that it fails to meet the standard set forth in . . . Guidelines section 15125." (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 723.)

Here, the DEIR/EIS fails to comply with the fundamental CEQA baseline disclosure requirements for the following reasons and those included in the HGC comments.

(1) The DEIR/EIS fails to provide an accurate and complete description of the Dune Sand Aquifer in the project area and further inland to the extent the aquifer could be impacted by the project as required by CEQA. Instead the DEIR/EIS presents a misleading picture of the aquifer implying groundwater in the Dune Sand Aquifer has no value or uses, stating: "most of the water in the Dune Sand Aquifer has been intruded by seawater due to proximity with the ocean and seawater intrusion and is considered saline to brackish. (See DEIR/EIS, p. p. 4.4-8 [citing 13 year-old study], emphasis added.) As described in the attached HGC comments and EKI Comments, the Dune Sand Aquifer contains potable, freshwater less than a mile from the project site and extends miles inland. These comments further explain how the Dune Sand

Aquifer plays an important role in recharging the underlying aquifers and preventing seawater intrusion.

(2) The DEIR/EIS fails to provide an accurate and complete description of the 180-Foot Equivalent Aquifer in the project area and further inland to the extent the aquifer could be impacted by the project as required by CEQA. Instead the DEIR/EIS presents a misleading picture of the aquifer stating it is unconfined and implying groundwater in the 180-foot Aquifer is controlled by seawater at the site and miles inland, stating: "At the CEMEX site, the Dune Sand Aquifer and the 180-Foot Equivalent Aquifer are unconfined, as there are no extensive overlying low permeability clay units.… Based on the recent groundwater testing data discussed in the Groundwater Quality subsection below, the quality of water in the 180-FTE Aquifer is directly influenced by seawater; this influence extends for miles inland, as discussed below in the Seawater Intrusion section." (See DEIR/EIS, p. 4.4-11 [citing without reference to undisclosed recent groundwater testing data].) As described in the attached HGC comments the 180-foot aquifer contains is potable, freshwater less than a mile from the project site. Those comments further explain how the modeling for the project, and thus the DEIR/EIS, assumed the 180-foot aquifer was unconfined despite available information demonstrating otherwise. In fact, the HWG, admitted the 180-foot aquifer is at least semi-confined in the project area. (See HGW Memo, dated June 22, 2015, attached as Exhibit "1".) This error is not insignificant; in fact, this error alone requires re-circulation of the DEIR/EIS with updated modeling. (See HGC comments, p. 36 [describing how change in confinement will dramatically impact modeling – extending the zone of influence/drawdown much further than was modeled and disclosed in the DEIR/EIS].)

(3) The DEIR/EIS fails to provide an accurate and complete description of the 400-Foot Aquifer, stating it "is directly influenced by seawater," which extends for miles inland. (See DEIR/EIS, p. 4.4-11 [citing without reference to undisclosed recent groundwater testing data].) As described in the attached HGC comments [400-foot aquifer contains potable, freshwater less than a mile from the project site]. (See e.g., HGC comments, pp. 57.)

(4) The DEIR/EIS fails to provide an accurate and complete description of groundwater flows and flow direction in the project area. The DEIR/EIS incorrectly suggests that groundwater monitoring from north of the Salinas River shows flows and flow direction in the project area (DEIR/EIS, 4.4-14 - 4.4-16, citing Figures 4.4-5 and 4.4-6.) The cited figures, however, do not cover the project area. (See DEIR/EIS Figures 4.4-5 and 4.4-6.) The DEIR/EIS qualifies this statement for the Dune Sand Aquifer suggesting that while flows in the Dune Sand Aquifer are not known "based on the aquifer depth and geologic structure, it is reasonable to expect that they would be tidally controlled with little to no net horizontal flow in any particular direction." (DEIR/EIS, 4.4-14.) Again, this is inaccurate. As explained in the attached HGC comments, groundwater data show that flows in the Dune Sand Aquifer flow towards

the ocean and thus are protective of seawater intrusion. (See e.g., HGC comments, p. 70; see Figure 6 attached to same.)

(5) The DEIR/EIS fails to provide an accurate and complete description of seawater intrusion in the project area and the area impacted. Instead, the DEIR/EIS misleads the public into believing all groundwater in the Marina Subarea, in fact the entire SVGB to Salinas, is seawater intruded and has no beneficial uses stating:

> Figures 4.4-10 and 4.4-11 illustrate the seawater intrusion areas as of 2013 within the 180-Foot and 400-Foot Aquifers, respectively (MCWRA, 2015)
>
> … The 2013 estimates of seawater intrusion within the 180-Foot and 400-Foot Aquifers indicate that seawater has intruded to a maximum of approximately 8 miles and 3.5 miles inland, respectively, inferred from chloride concentrations greater than 500 mg/L. The seawater intrusion has resulted in the degradation of groundwater supplies, requiring urban and agricultural supply wells within the affected area to be abandoned or destroyed (MCWRA, 2001).

(DEIR/EIS, pp. 4.4-28 and 4.4-31.) As explained in the attached HGC Comments and EKI Comments, Figures 4.4-10 and 4.4-11 are inconsistent with monitoring data that shows that numerous wells with area shown to be seawater intruded, in fact, are not. (See also HGC comments, Figures 1-4 attached to same.) Moreover, the HWG itself has acknowledged the lack of data to support the MCWRA inferences. An accurate map of seawater intrusion, particularly within the area affected by the MPWSP's proposed slant wells is needed to understand the project's impacts. In addition, the DEIR/EIS's suggestion that where monitoring and production wells exceed 500 mg/L, there are no beneficial uses for this water must be revised. (See e.g., HGC comments, pp. 56-57.)

(6) The DEIR/EIS references the CCC's Special Condition 11 requiring the HWG to establish baseline water and TDS levels before the test well could commence operations does not save the DEIR/EIS either. The DEIR/EIS provides a hyperlink to the HWG's Technical Memorandum stating it "established baseline water and TDS levels" in the project area. (DEIR/EIS, p. 4.4-42.) The HWG's Technical Memorandum, however, does not establish baseline water or TDS levels in the project area, much less the required baseline levels for Monitoring Well No. 4 (MW-4) and three other monitoring wells within 2,000 feet of the test well as required by Special Condition 11. (See HWG's Technical Memorandum, p. 14.) Rather, the memorandum includes a cursory discussion of water levels at some of the monitoring wells over a period of weeks (id., pp. 11-12) and then provides a section entitled "Recommended Monitoring of Baseline and TDS Levels," which suggests a method for evaluating impacts without actually establishing baseline water levels. (Id., p. 14.) Specifically, the Technical Memorandum states that in order to determine impacts to water levels at MW-4:

> If ground water levels at MW-4 show a continuing downward trend but prior to reaching the threshold prescribed by CDP Condition 11, the test slant well will be voluntarily shut off. If the test slant well is the cause of the downward trend in groundwater levels at MW-4, then groundwater levels will show a recovering trend. If the groundwater levels do not recover, then this is indicative of regional and climatic impacts. The data will be reviewed by the HWG for confirmation and the test slant well will resume pumping. If the ground water levels continue to decline after start up, then the data indicative of impacts other the slant well will be submitted to the Coastal Commission Executive Director, prior to reaching the threshold.

(HWG's Technical Memorandum, p. 14.)

Did the DEIR/EIS rely on the Technical Memorandum's methodology for assessing impacts to groundwater levels from the MPWSP slant wells in lieu of establishing baseline water levels?

Please explain how the baseline water levels in the Technical Memorandum were used to refine the groundwater models and inform the analysis of the proposed project.

Please identify the baseline water levels in the Dune Sand, 180-FTE, and 400-FTE Aquifers that were used to evaluate the project's potential groundwater impacts (e.g., with the DEIR/EIS's projected drawdown contours).

Similarly, the HWG's Technical Memorandum does not provide TDS levels in the project area, at MW-4, or at the other monitoring well locations. Instead the memo provides three different methods for conducting TDS sampling and states:

> Each method prescribed above will be compared with the data collected by that method to determine whether TDS concentrations remain within acceptable levels or show an increasing trend. Seasonal changes in TDS may result from potential seasonal changes in ground water levels aside from changes potentially induced by groundwater extraction from the test slant well. Changes in TDS will also be compared to changes in groundwater levels to evaluate whether TDS changes represent seasonal water quality change in the underlying aquifers.
>
> If two of the three methods used indicate a rising trend in the MW-4 series monitoring wells, the data will be submitted to the HWG for review prior to reaching the threshold prescribed by

> CDP Condition. The HWG will evaluate the data to determine whether rising TDS, should it occur, is a result of TSW pumping or from some other cause.

(See HWG's Technical Memorandum, p. 14-15.)

Did the DEIR/EIS rely on the Technical Memorandum's methodology for assessing impacts to water quality from the MPWSP slant wells in lieu of establishing baseline water quality levels?

Please explain how the baseline water quality levels in the Technical Memorandum were used to refine the groundwater models and inform the analysis of the proposed project.

Please identify the baseline TDS/chloride levels in the Dune Sand, 180-FTE, and 400-FTE Aquifers that were used to evaluate the project's potential groundwater impacts (e.g., with the DEIR/EIS's projected drawdown contours).

The DEIR/EIS's omissions and misleading statements regarding water levels and water quality in the project area, particularly the Marina Subarea, obscure the project's potentially significant impacts to groundwater. As noted above, the SWRCB found that studies, including aquifer testing, are needed to determine the extent of the Dune Sand Aquifer and to establish accurate baseline conditions. This is also a fundamental CEQA requirement. (See *Cadiz, supra*, 83 Cal.App.4th 74, 86, [holding EIR was not in compliance with CEQA because the EIR does not discuss the volume of the aquifer groundwater, particularly potable water, which is a valuable and relatively scarce resource in the region].)

As the Court explained in *Cadiz*: "Despite the [Project] EIR's enormity and the length of time devoted to preparing it, the EIR is not in compliance with subdivision (c) of CEQA Guidelines section 15125 because the EIR does not discuss the volume of the aquifer groundwater, particularly potable water, which is a valuable and relatively scarce resource in the region. The EIR does not provide a sufficient description of the environmental setting or adequate information for the public and governmental agencies to evaluate whether the [Project] presents a significant adverse impact on the groundwater contained in the aquifer. In order to weigh and evaluate the risk of groundwater contamination, the volume of water subject to contamination is required… In turn, an informed decision cannot be made as to whether it is worth taking the risk of subjecting a valuable water source to contamination." (83 Cal.App.4th at p. 92.) The same is true here. The DEIR has not, but must, disclose the volume of the groundwater in the Dune Sand, 180-FTE, and 400-FTE and Deep Aquifers, particularly potable water, that may be impacted by the MPWSP over the life of the project.

Save our Peninsula Committee v. Monterey County Board of Supervisors (2001) 87 Cal.App.4th 99, 121-122 is also on point. In that case, the court explained that CEQA requires "preparers of [an] EIR [to] conduct the investigation and obtain documentation to support a determination of pre-existing conditions" because "the impacts of the project must be measured against the 'real conditions on the ground.'" There, the developer of a proposed residential subdivision on ranch lands had pumped a significant amount of water in the years right before the start of environmental review, presumably in an effort to establish that water use in existing baseline conditions was already high. The court concluded that "this treatment of baseline water use violated the basic principles of CEQA" because "some of these figures, although generated from recent pumping on the property, did not reflect water actually used for irrigating the property." (*Id.* at pp. 120-121.) The EIR was defective for the further reason that the EIR did not provide a clear, consistent description of historic groundwater use, and thus left the public to guess at the baseline conditions against which the project's impacts were measured.

In sum, the DEIR/EIS does not provide an accurate and complete description of existing groundwater conditions and groundwater beneficial uses in the area. Therefore, the DEIR/EIS must be revised and re-circulated to disclose (1) how much groundwater is in the Dune Sand, 180-FTE, and 400-FTE and Deep Aquifers, particularly potable water, that may be impacted by the MPWSP over the life of the project; (2) the baseline water levels in the Dune Sand, 180-FTE, and 400-FTE and Deep Aquifers, in the project area and the areas that will or could be affected by the project; and (3) the water quality in the Dune Sand, 180-FTE, and 400-FTE and Deep Aquifers (percentage that is seawater, brackish, or fresh), that may be impacted by the MPWSP over the life of the project. The DEIR/EIS should also address the importance of the Dune Sand Aquifer as a recharge source for lower aquifers in this part of the Basin (e.g., 180-foot aquifer) and its beneficial use as a protective layer against seawater intrusion. Absent this information, the public and decisionmakers are misled into believing groundwater in the Dune Sand Aquifer has no value or beneficial uses. As a result of the EIR's inadequate description of baseline conditions, the DEIR/EIS fails to fully evaluate impacts to consider potential impacts to the overdrafted Marina Subarea.

i. ***The DEIR/EIS fails to disclose the MPWSP's inconsistencies with applicable State, regional, and local laws and regulations.***

The DEIR/EIS states that Table 4.4-7 describes the state, regional, and local land use plans, policies, and regulations pertaining to groundwater that are relevant to the MPWSP and an analysis of project consistency with such plans, policies, and regulations. The Table, however, does not include any consistency determinations with the regulations described in the Regulatory Section of this Chapter, including the Central Coast RWQCB Basin Plan, the Agency Act, and MCWRA Ordinance 3709. As discussed above in our comments Water Rights, the MPWSP would violate both the Agency Act and Ordinance 3709. This must be disclosed in the Table. The DEIR/EIS should also discuss how the CPUC can approve the project in light of the fact it would violate the Agency Act and MCWRA Ordinance 3709.

While the DEIR/EIS fails to disclose whether the project would violate the Central Coast RWQCB Basin Plan's water quality objectives, it fails even to mention the project's consistency with Resolution No. 88-63, incorporated by reference into the existing 2011 Water Quality Control Plan for the Central Coastal Basin. (See DEIR/EIS, p. 4.4-32, 4.4-34 and 35.) As noted in our comment on the Water Rights Chapter, Resolution No. 88-63 is Appendix A-9 of the Basin Plan, and is applicable to the proposed project. Resolution No. 88-63 sets forth the following policy regarding surface and ground water within the project area and protects "groundwater considered to be suitable, or potentially suitable, for municipal or domestic water supply and should be so designated by the Regional Boards with the exception of:

> 1. Surface and ground waters where:
> a. **The total dissolved solids (TDS) exceed 3,000 mg/L** (5,000 uS/cm, electrical conductivity) and it is not reasonably expected by Regional Boards to supply a public water system, or
> b. There is contamination, either by natural processes or by human activity (unrelated to the specific pollution incident), that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices, or
> c. The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day."

(Emphasis added.) The DEIR/EIS, however, suggests that only the ASR Wells for the project are required only to be consistent with the Basin Plan's groundwater quality objectives, suggesting any groundwater extractions that impact groundwater quality and groundwater that currently does not meet drinking water standards does not have value and cannot be significantly impacted. This is inaccurate. The DEIR/EIS must discuss the amount of water within the project area that is suitable, or potentially suitable, for municipal or domestic water supply and how the project will impact these supplies. Without this information, it is impossible for the public and decisionmakers to understand whether the project, as proposed, would violate the Basin Plan.

j. ***The Analysis of Groundwater Impacts Is Based on Unreliable Modeling Rather than Substantial Evidence***

On Pages 4.4-39 through 4.4-52, the DEIR/EIS describes the investigation of groundwater conditions and modeling, and provide the following assessment of the "Limitations of Groundwater Models" at Page 4.4-44:

> Groundwater models simulate aquifer conditions based on a specific set of data that describes parameters such the subsurface characteristics, groundwater flow, and land use. The more robust the data set, the more capable the model will be to accurately simulate subsurface conditions. Most groundwater models use conservative input parameters so that the output overstates the

> actual aquifer response. Nevertheless, groundwater models are mathematical-based computer programs that rely on input parameters and, consequently, there is a degree of uncertainty. However, the models used to analyze the proposed project have been used previously and have benefited from input data derived from site-specific subsurface information. Given that, and given the fact that these models were calibrated with known data, the level of degree of uncertainty for this analysis is considered tolerable.

As discussed in GeoHydros and HGC comments, the level of degree of uncertainty in the DEIR/EIS's modeling is intolerable given the DEIR/EIS's failure to adequately investigate baseline conditions in the Marina Subarea and to utilize the best available information. The DEIR/EIS decision to abandon all the prior modeling efforts and use the superposition model renders the DEIR/EIS's groundwater analysis fatally defective. First, it the superposition model does not fix or improve the problems with the DEIR/EIS's modeling or its reliability. (See HGC Comments, p. 4; GeoHydros, p. 5.) Rather, it is an improper attempt to mask those problems. (*Ibid.*) Moreover, as explained in the GeoHydros Comment, the superposition modeling is inappropriate here because:

- it precludes the identification of source water of the MPWSP slant wells, which is a key issue with the application;
- it precludes prediction of measurable groundwater elevations associated with the proposed MPWSP slant wells pumping, which would provide the only means for stakeholders to validate the model predictions and potential project impacts;
- it is unnecessary because it provides no benefit in terms of reliability over the use of the calibrated version of the model for impact assessment, would identify source water of the MPWSP slant wells and predict of measurable groundwater elevations associated with the proposed MPWSP slant wells pumping; and
- it not reliable here to simulate cones of depression in the aquifers created by the proposed MPWSP pumping.

Without addressing the limitations of the superposition model, on Page 4.4-68 the DEIR/EIS concludes:

> **Conclusion of Impact Analysis - Depletion of Groundwater Supply from the SVGB**
> The proposed project would not deplete groundwater supplies; it would extract primarily seawater and a smaller volume of brackish inland groundwater from a localized area with only minor localized groundwater drawdown. The area influenced by the MPWSP groundwater pumping is within a zone that is degraded by seawater intrusion and therefore unusable for potable water supply due to its high salinity. When desalinated

> water is returned to the basin as part of the MPWSP, groundwater conditions in the 400-Foot Aquifer underlying the CSIP, CCSD, and adjacent areas would improve as water levels increase as a result of in-lieu groundwater recharge. The return water component of the MPWSP would benefit each of the aquifers by either reducing the area of influence or by increasing groundwater levels in other areas. The effects of return water on the basin water levels are discussed below and shown on Figures 4.4-14 through 4.4-16. If the proposed project did not return any water, localized depressed groundwater levels would persist in the three affected aquifers throughout the life of the project. However, the area affected by groundwater pumping would remain localized and the proposed project would continue to extract only brackish, degraded groundwater from the coast and, to a lesser extent, the inland portion of the aquifer. Based on the conclusions of this analysis, this impact would be less than significant.

As addressed in the HGC comments, EKI Comments and GeoHydros Comments, the DEIR/EIS's impact conclusion is not supported by substantial evidence. The DEIR/EIS's modeling must be updated to accurately quantify the amount of groundwater that will be pumped and required to be returned to the basin. The modified modeling must also take into account the semi-confined condition of the 180-FTE Aquifer and the elevated head conditions in the semi-perched Dune Sand Aquifer. As noted in the HGC comments, the DEIR/EIS's conclusion does not recognize existing conditions that have developed since cessation of coastal pumping, including protective water levels in the Dune Sand Aquifer along the coast. In addition, Groundwater production should be calculated to include the 3,000 mg/l beneficial use standard provided in the WQCP. The method of groundwater return to the basin must also be specifically indicated and analyzed to determine the effectiveness of its mitigation for the project's groundwater impacts on the Marina Subarea. In additional, the DEIR/EIS must be revised to include a mandatory mitigation measure that requires adequate monitoring to detect changes to groundwater levels and quality in the Marin Subarea. The mitigation must also include a meaningful performance standard to ensure impact to the Marina Subarea remains less than significant. The current Applicant Proposed measure does not satisfy these fundamental CEQA requirements.

Finally, the DEIR/EIS's conclusion that the project impacts to Groundwater Quality is less than significant, as mitigated, is inadequate and must be updated based on new modeling results. As discussed in HGC's comments, EKI Comments. and GeoHydros Comments, the DEIR/EIS impact conclusions relating to groundwater quality are fundamentally flawed and based on modeling incapable of addressing impacts to water quality. In addition, the DEIR/EIS failure to consider the level of confinement in the Marina Subarea, particularly in

the areas near existing groundwater remediation systems, renders the DEIR/EIS impact conclusion unsupportable.

Nor does the Mitigation Measure Mitigation Measure 4.4-4 mitigate away this failure. Mitigation cannot be deferred until after project approval except under very limited circumstances. CEQA permits deferral of mitigation only when: (1) an EIR contains criteria or performance standards to govern future actions; (2) practical considerations preclude the development of earlier measures; and (3) the lead agency has assurances that the future mitigation will be both "feasible and efficacious." (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 95 (*CBE v. City of Richmond*). Mitigation Measure Mitigation Measure 4.4-does not meet these standards. First, it is unclear by whom and when the required "determination be made regarding the possibility that the project pumping could affect the extent of the plumes." (DEIR/EIS, p. 4.4-89.) Second, the mitigation states that "In the event that the analysis concludes that the proposed slant wells may affect the extent of the OU1 TCE A-Aquifer Plume and the two OUCTP plumes, then the project applicant shall contact and work with the U.S. Army to address the potential impact by reimbursing the Army for the additional costs to expand the existing treatment systems to include remediating areas where the slant wells have migrated the contamination to previously remediated areas." (Ibid.) Thus, the mitigation is improperly left completely in the discretion of CalAm in violation of CEQA.

In summary, the DEIR/EIS's inadequate investigation and disclose of baseline conditions in the Marina Subarea and flaws in its modeling, make it impossible for the public or CPUC to make an informed decision on the project's potential groundwater impacts. As discussed in the HGC Comments, EKI Comments and GeoHydros Comments, the MPWSP will cause significant adverse impacts to groundwater supplies and water quality in the Marina Subarea that must be disclosed in a revised DEIR/EIS. After those impacts are disclosed, the DEIR/EIS must adopt all feasible mitigation or an alternative that would reduce these impacts to a less than significant level.

k. ***The DEIR/EIS's cursory treatment of cumulative impacts does not comply with CEQA or NEPA.***

The DEIR/EIS concludes using a simple list approach the Project's cumulative groundwater impacts are less than significant stating:

> Because the MPWSP combined with the possible RUWAP desalination element would not result in a significant adverse cumulative impact and may have beneficial consequences, and the Salinas Valley Water Project Phase II and the Interlake Tunnel would have beneficial effects, the cumulative effect of these four possible projects on groundwater resources would be less than significant. Therefore, the proposed project would not

> have a cumulatively considerable contribution to a significant cumulative impact during operations (less than significant).

(DEIR/EIS, p. Page 4.4-90.) The DEIR/EIS's approach to assessing cumulative groundwater impacts is inconsistent with both CEQA and NEPA requirements.

An EIR must analyze cumulative impacts because "the full environmental impact of a proposed project cannot be gauged in a vacuum." (*Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 114 ("*CBE v. Resources Agency*").) The CEQA Guidelines define cumulative impacts as "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects." (Guidelines, § 15355, subd. (b).) Thus, impacts that are "individually minor" may be "collectively significant." (*Ibid.*)

CEQA requires a lead agency to undertake a two-step cumulative impacts analysis. First, the agency must consider whether the combined effects from the proposed project and other projects would be cumulatively significant. Second, the agency must then consider whether the "proposed project's incremental effects are cumulatively considerable." (*CBE v. Resources Agency*, *supra*, 103 Cal.App.4th at p. 120; Pub. Resources Code, § 21083, subd. (b)(2); Guidelines, §§ 15355, subd. (b), 15064, subd. (h)(1).) This two-part analysis reflects the legal and empirical reality that "the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant." (*CBE v. Resources Agency*, *supra*, Cal.App.4th at p. 120.) Cursory statements of an agency's conclusions are inadequate under CEQA. (*Laurel Heights II*, *supra*, 6 Cal.4th at p. 1124.) The DEIR/EIS's analysis of cumulative impacts to the SVGB violates these CEQA principles in several important ways as discussed below.

Similarly, NEPA requires the agency to consider whether "the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment." (40 C.F.R. § 1508.27, subd. (b)(7).) The Council on Environmental Quality (CEQ) NEPA regulations define "cumulative impact" as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." (40 C.F.R. § 1508.7.)

The Ninth Circuit frequently cites a NEPA handbook prepared by CEQ—*Considering Cumulative Effects Under the National Environmental Policy Act* [20] (*Considering Cumulative Effects*)—when discussing the adequacy of the cumulative impact analysis in an EIS. (See, e.g., *Kern v. U.S. Bureau of Land Management*, 284 F.3d 1062 (9th Cir. 2002);

[20] / https://ceq.doe.gov/publications/cumulative_effects.html

Te–Moak Tribe of W. Shoshone of Nev. v. U.S. Dep't of Interior, 608 F.3d 592 (9th Cir. 2010); *Northern Plains Resource Council, Inc. v. Surface Transp. Bd.* (9th Cir. 2011) 668 F.3d 1067.) As explained in that document, a cumulative effects analysis should involve a three step process: (1) scoping; (2) describing the affected environment; and (3) determining the environmental consequences. (*Considering Cumulative Effects,* p. 10.) Regarding the description of the affected environment in a cumulative effects analyses, the document explains that a reasonable forecast of future conditions is critical:

> The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process. The no-action alternative is an effective construct for this purpose, but its characterization is often inadequate for analyzing cumulative effect. Much of the environment has been greatly modified by human activities, and most resources, ecosystems, and human communities are in the process of change as a result of cumulative effects. The analyst must determine the realistic potential for the resource to sustain itself in the future and whether the proposed action will affect this potential; therefore**, the baseline condition of the resource of concern should include a description of how conditions have changed over time and how they are likely to change in the future without the proposed action.**

(*Considering Cumulative Effects,* p. 41, emphasis added.)

The CEQ guidance also emphasizes that compiling data on stress factors pertaining to each resource or ecosystem is a critical step in describing the affected environment. (*Id*. at p. 27.) For instance, the handbook explains that while describing the affected environment, "the agency should pay special attention to common natural resource issues that arise as a result of cumulative effects." As an example of such stressors, the handbook cites "aquifer depletion or salt water intrusion following the overdraft of groundwater from numerous uncoordinated uses." (*Id.* at p. 25.) "The goal of characterizing stresses is to determine whether the resources, ecosystems, and human communities of concern are approaching conditions where additional stresses will have an important cumulative effect." (*Id*. p. 29.)

Although "a cumulative effects analysis necessarily involves assumptions and uncertainties," the analysis "must be supported by the best data we have or are able to collect." (*Considering Cumulative Effects,* p. 3; *Oregon Natural Resources Council Fund v. Brong* 492 F.3d 1120, 1134 (9th Cir. 2007) ["cumulative effects analysis requires an agency to predict future conditions"].) "NEPA requires that an EIS engage in reasonable forecasting. Because speculation is ... implicit in NEPA, [courts will] reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as crystal ball inquiry." (*Northern Plains Resource Council, Inc. v. Surface Transp. Bd*. (9th Cir. 2011) 668 F.3d 1067, 1079 [also noting that "reasonably foreseeable future actions need to be considered [in a cumulative impact analysis] even if they are not specific proposals."].) Thus, although an agency may explain specific

projections with reference to uncertainty in its cumulative impact analysis, "it may not rely on a statement of uncertainty to avoid . . . the requisite analysis." (*Oregon Natural Resources Council Fund v. Brong*, 492 F.3d 1120, 1134 (9th Cir. 2005).)

The DEIR/EIS fails to meet both CEQA and NEPA requirements for the following reasons.

First, the DEIR/EIS's analysis of cumulative impacts fails to account for how groundwater conditions have changed over time and how they are likely to change in the future without the project. In fact, the DEIR/EIS acknowledges its modeling "only solves for the groundwater changes due solely to the proposed project." It goes on to expressly state:

> These changes are 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. By using superposition, the actual effects of only the proposed project can be isolated from the combined effects of all other basin activity. For example, when the NMGWM reports a 1-foot drawdown in a well, it is understood that the one foot of drawdown would be the effect on the basin of the proposed project only. That well may experience greater drawdown due to other stresses, such as drought or other nearby pumping wells, or may experience increases in water levels due to reduced regional pumping or an extremely wet year. But the proposed project's contribution to that drawdown in the well would remain only 1-foot. Superposition is described in Appendix E2, Section 5.2.

(DEIR/EIS, p. 4.4-47 and 4.4-49.) The DEIR/EIS suggests this limited approach to figuratively assessing the project's potential cumulative impacts to groundwater is permissible because baseline conditions reflect the contributions of past actions on groundwater resources within the geographic scope. As explained in the attached HGC Comments, this approach ignores that groundwater conditions have changed over time under baseline conditions and will continue to change in the future from other stressors. As noted above, the DEIR/EIS acknowledges this possibility. The fact that the modeling exists and has been run for the project (but the results not disclosed) and that it address these additional stressors is inexplicable. Even if the DEIR/EIS preparers believe this modeling provides flawed results, the information must be disclosed (with an explanation regarding the flawed results) so the public can comment on the information and the decision makers can take it into account.

Second, the DEIR/EIS's cumulative impacts analysis for groundwater supply impacts improperly relies on its discussion in Impact 4.4-3 that groundwater levels would be

expected to decrease by 5 or more feet within approximately 1 mile of the MPWSP subsurface slant wells as basis for considering which projects to include in its analysis of cumulative impacts on groundwater supply. Based on this incorrect assumption (see comments on Impact 4.4-3 above), the DEIR/EIS then limits its discussion of cumulative impacts to the Salinas Valley Water Project Phase II (No. 1), the RUWAP Desalination Element (No. 31), and the Slant Test Well Project (No. 47) on the basis that these projects are the only other projects that would overlap with the project's presumed drawdown footprint. It then, without disclosing potential combined drawdown effects of these projects on existing wells, states because these three projects would not result in any net decrease to groundwater within the SVGB there would be no potential cumulative groundwater impacts and adopts the same less than significant conclusion reached for Impact 4.4-3. (DEIR/EIS, pp. DEIR/EIS, pp. 5-22 to 5-24.) This approach is inadequate and must be revised to address the following deficiencies.

- The DEIR/EIS fails to address how the project would impact the SVGB, particularly the Marina Subarea of the SVGB, overdraft conditions and state law requirements for the Groundwater Sustainability Plan that must be adopted to address this issue. (See Chapter 2.0 comments above). It is reasonably foreseeable that at least one Groundwater Sustainability Plan will be adopted that regulates groundwater extractions within the project area. Therefore, the DEIR/EIS must be revised to address and mitigate the project's potential adverse impacts on such a Plan's ability to achieve groundwater sustainability within the project area. (See *Friends of the Eel River*, *supra*, 108 Cal.App.4th at p. 872 [EIR failed to comply with CEQA because its cumulative impacts analysis did not consider potential curtailment of water supplies that could result from regulatory proceedings, which result in "an underestimation of the Agency's ability to meet customer demands without negative environmental consequences."].)
- The DEIR/EIS also fails to discuss how the project could adversely impact environmental gains realized by ongoing water conservation projects in the area.
- The DEIR/EIS also fails to address how increased water use from many of the regional projects will affect groundwater supplies. The DEIR/EIS incorrectly assumes that only past, present and future "water supply projects" within the radius of influence of the project will impact the SVGB and Marina Subarea. (Guidelines, § 15130, subd. (b) (3).) As explained in the attached technical HGC and EKI Comments, the DEIR/EIS's analysis of cumulative impacts is woefully inadequate in this respect.
- The project fails to look at the cumulative impacts of the MPWSP's test well on groundwater supplies, groundwater quality, and impacts to biological resources. The CCC's approval of the slant well excluded any analysis of the potential long-term impacts of the slant well based on its conclusion is would

be decommissioned after 2 years. The DEIR/EIS must be revised to include this analysis, unless the slant test well will be decommissioned as provided for in the CCC approval.

Finally, the cumulative impacts analysis must be revised to consider reasonably foreseeable projects that will be necessary under the SGMA. See discussion of no project alternative (DEIR/EIS, p. 5.5-84 ["Existing, ongoing regional groundwater pumping would continue throughout the Salinas Valley, as would efforts to develop a sustainable groundwater management plan."]). As a result of these failures, the DEIR/EIS does not accurately consider whether the project's impacts to the SVGB are cumulatively considerable. Instead of following CEQA's mandate, the DEIR/EIS here portrays a fundamental misunderstanding of the statute. The document assumes that if the project's impacts related to groundwater are less than significant (which they are not), then the impacts could not be cumulatively considerable. (DEIR/EIS, p. 5-24.) This approach turns cumulative analysis on its head and is a plain violation of CEQA. An EIR may not conclude that a project will not contribute to cumulative impacts simply because it has a less than significant impact on a project level. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-21.)

Therefore, the DEIR/EIS's cumulative analysis must be revised and re-circulated because it was reasonable and practical for the DEIR/EIS to analyze the omitted "past, present, and probable future projects producing related or cumulative impacts," and "their exclusion prevented the severity and significance of the cumulative impacts from being accurately reflected." (Guidelines, § 15130, subd. (b)(1)(A); 124 Cal.App.4th at p. 1215.) The DEIR/EIS's cumulative analysis must also be revised based on updated modeling that does not ignore the best available information regarding groundwater conditions in the project area.

3. The DEIR/EIS's Analysis of Terrestrial Biological Resources is Inadequate.

As emphasized by the California Supreme Court, "CEQA broadly defines the relevant geographical environment as 'the area which will be affected by a proposed project.'" (*Muzzy Ranch Co. v. Solano County Airport Land Use Comm.* (2007) 41 Cal.4th 372, 387 (*Muzzy Ranch*), quoting Pub. Resources Code, § 21060.5 ["Environment" means "the physical conditions which exist within the area which will be affected by a proposed project"].) In *Muzzy Ranch*, the Supreme Court flatly rejected the "suggestion that agencies have no obligation under CEQA to consider geographically distant environmental impacts of their activities." (*Id*. at p. 388.) Rather, an EIR must analyze and disclose all potential impacts, both direct and indirect, and cover the entire area where those impacts may occur.

Here, as explained in the DEIR/EIS, the "study area" for potential impacts to terrestrial biological resources is limited to a 50-foot buffer around the project features. The DEIR/EIS, however, fails to explain why impacts to biological resources would cease at this arbitrary line. At a minimum, the DEIR/EIS must explain and document the screening

analysis or other methodology used to develop the study area wherein all potential impacts of the project would be captured. That simply did not occur; the DEIR/EIS fails to comply with CEQA's informational disclosure requirements by not identifying any methodology or providing any explanation for the unduly narrow study area.

In fact, the evidence shows that the study area under in the DEIR/EIS is far too narrow to account for all of the project's potential impacts to terrestrial biological resources. For instance, as demonstrated from the figures showing the "biological study area," the study area boundaries slice right through dune and other coastal habitat. But the DEIR/EIS fails to explain why impacts would only occur on one side of this arbitrary line but not the other. Indeed, it is only logical that entire connected habitat areas would be affected by the project.

Moreover, despite acknowledging that the project would result in a substantial lowering of groundwater levels and increased salinity levels in the project area, the DEIR/EIS fails to disclose or evaluate how that drawdown or increased salinity could impact biological resources that depend on groundwater. Indeed, the DEIR/EIS acknowledges that the area of drawdown and increased salinity would span for several miles—much further than the 50-foot study area. There is simply no justification for excluding this entire area from the analysis. It is well recognized that changes in groundwater levels can adversely affect overlying habitat, and groundwater-dependent ecosystems in particular.[21] For instance, as explained in an a series of articles by researchers from Stanford University, California is home to a diverse and widespread number of groundwater-dependent species and ecosystems, which can be significantly impacted by even minor changes in groundwater levels. (See Stanford Woods Institute for the Environment, Understanding California's Groundwater, 2014.) [22] The articles note that impacts of pumping groundwater on ecosystems can be most intense in coastal counties (generally surrounding the existing effects of municipal and agricultural pumping) and that these types of impacts should be analyzed and mitigated under CEQA and NEPA. (*Id*.) To reduce potential impacts, the authors recommend that "if there is potential to adversely affect groundwater-dependent ecosystems, comprehensive monitoring conditions on projects should be linked to clear and specific remedial management actions, like cease-to-pump rules based on quantified ecological triggers." (*Id*.) The DEIR/EIS, however, fails to analyze, or even mention, these types of impacts.

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[21] / See, e.g., The Nature Conservancy, California's Groundwater Dependent Ecosystems, http://www.groundwatercalifornia.org/; Jeannette Howard and Matt Merrifield (2010) Mapping Groundwater Dependent Ecosystems in California, http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0011249.

[22] / Articles are available at: http://waterinthewest.stanford.edu/groundwater/ http://waterinthewest.stanford.edu/groundwater/overdraft/ http://waterinthewest.stanford.edu/groundwater/conflicts/index.html

Further, the DEIR/EIS acknowledges that there are numerous areas identified as "Potentially USACE, RWQCB, and/or CDFW Jurisdictional" waters. But most of these areas, including wetlands, fall outside of the DEIR/EIS's study area boundaries. As explained above, wetlands and similar ecosystems frequently depend on, and are often interconnected with groundwater, particularly when, as here, the groundwater table is close to the surface. The Sanctuary's *Guidelines for Desalination Plants in the Monterey Bay National Marine Sanctuary* (NOAA, 2010) state that "implementation of subsurface intakes should not cause saltwater intrusion to aquifers ***or adversely affect coastal wetlands that may be connected to the same aquifer being used by the intake***." Nonetheless, the DEIR/EIS makes no attempt to evaluate these potential impacts. As result, the DEIR/EIS fails as an informational document by failing to analyze and mitigate potential impacts to these areas from a lower groundwater table and increased salinity. The CPUC cannot hide behind its failure to gather relevant data. (See *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1378 ["an agency [will] not be allowed to hide behind its own failure to gather relevant data . . . . CEQA places the burden of environmental investigation on government rather than the public."].) And, as explained below, it is insufficient under CEQA to rely on separate regulatory programs or future permitting requirements to justify the failure to analyze and disclose all of the project's potential impacts. (See, e.g., *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280-281.)

In short, the analysis in the DEIR/EIS must encompass a study area that is supported by substantial evidence and that is adequately explained and justified in the DEIR/EIS. By limiting the biological resources to an arbitrary 50-foot buffer area, the DEIR/EIS fails to meet CEQA's basic requirement of analyzing and mitigating all of the project's potential direct, indirect, and cumulative environmental impacts to biological resources.

l. ***Mitigation Measures for Impacts to Biological Resources Are Inadequate***

The DEIR/EIS's mitigation for impacts to biological resources fails to comply with CEQA's basic requirements for mitigation in several ways. First, the biological resources section is riddled with improperly deferred mitigation. To comply with CEQA, formulation of mitigation cannot be deferred until after project approval except under very limited circumstances. (CEQA Guidelines, § 15126.4, subd. (A)(1)(b).) "Impermissible deferral of mitigation measures occurs when an EIR puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR." (*Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280-281.) CEQA permits deferral of mitigation only when: (1) an EIR contains criteria or performance standards to govern future actions; (2) practical considerations preclude the development of earlier measures; and (3) the lead agency has assurances that the future mitigation will be both "feasible and efficacious." (*CBE v. City of Richmond, supra*, 184 Cal.App.4th at p. 95; see also *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645,669-71 (*Raptor*) [county improperly deferred mitigation when it allowed a land management plan for special status vernal pool species to be developed with the CDFW and

USFWS after certification of EIR]; *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1396 [conditioning a permit on "recommendations of a report that had yet to be performed" constituted improper deferral of mitigation].) "Fundamentally, the development of mitigation measures, as envisioned by CEQA, is not meant to be a bilateral negotiation between a project proponent and the lead agency after project approval; but rather, an open process that also involves other interested agencies and the public." (*CBE v. City of Richmond, supra,* 184 Cal.App.4th at p. 93.) Here, many mitigation measures are improperly deferred and the mitigation measures frequently call for the development of future plans or reports, without either setting performance standards or demonstrating how the impact can be mitigated in the manner described in the EIR.

Second, the mitigation measures are tarnished with impermissible qualifying language for implementation of the measures such as "to the extent practicable" or "where feasible," which renders the measures totally unenforceable. CEQA requires more. "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable. . ." (CEQA Guidelines, § 15126.4, subd. (a)(2); see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 444.)

Third, the DEIR/EIS cannot rely on future coordination with other agencies with jurisdiction over biological resources or a requisite future permitting process as enforceable mitigation. (*Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280-281.) Similarly, an agency cannot simply rely on future agency consultation or compliance with regulations to support a less than significant conclusion. (*Ibid*.) This is because there is usually no assurance that granting of permits or compliance with regulation will ensure that impacts are mitigated to a less than significant level. For example, just because the USFWS issues an incidental take permit does not mean the project will not have a significant impact on species. In fact, it means the project will likely have adverse impacts on species, but the agency will permit those impacts to occur.

Fourth, the analysis is defective because it fails to explain how the mitigation measures will mitigate the impacts to a less than significant level. Instead, the DEIR/EIS merely states that an impact may be significant generally, then lists some mitigation measures, and then concludes, without explanation or evidentiary support, that the mitigation measures will reduce the impacts to a less than significant level. In other words, the DEIR/EIS improperly assumes that mitigation will be implemented, will be effective, and will mitigate impacts to a less than significant level. This is not appropriate under CEQA. An EIR must include "sufficient information and analysis to enable the public to discern the analytic route the agency traveled from evidence to action." (*Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1397; see also *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645 [improper to assume that mitigation will be implemented as part of the project].) As explained by the California Supreme Court, "[t]o facilitate CEQA's informational role, the [CEQA document] must

contain facts and analysis, not just the agency's bare conclusions or opinions. . . . [It] must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 404.) The absence of this analysis here renders the DEIR/EIS inadequate as an informational document.

These problems are pervasive throughout the mitigation measures in this section of the DEIR/EIS. Below are several specific examples.

- Mitigation Measure 4.6-1a. Mitigation Measure 4.6-1a requires CalAm retain a biologist to oversee compliance with the avoidance and minimization measures for special status species and sensitive habitats and document certain activities. This measure does little, if anything, to ensure that the mitigation measures are properly implemented and effective. First, rather than allowing CalAm to retain a biologist at its discretion as the measure permits, the CPUC should select a neutral and independent biologist to serve as the Lead Biologist. This would remove any bias, either actual or perceived, on the part of the biologist because the biologist would not be contracted to CalAm. Further, all reports and documentation (including documentation of violations of the measures and compliance reports) must be made available to the public for review and comment on the MPSWP website. Making this information publicly available is the only way to ensure that the measures are being implemented properly and are effective. This is especially true for the monthly summary monitoring reports, which are intended to document the effectiveness and practicality of the prescribed measures and may recommend modifications to the measures. Moreover, language in this measure suggesting that the "prescribed" mitigation measures might not be practical or of effective, raises serious doubts regarding whether the CPUC has fully evaluated whether the proposed mitigation measures are feasible and will be effective *before* project approval, as CEQA requires.
- **Mitigation Measure 4.6-1c**. Mitigation Measure 4.6-1c is rife with language allowing improper deferral and precatory language that severely diminishes the likely effectiveness of the measure. As a consequence, the DEIR/EIS cannot rely on the measure to reduce impacts to a less than significant level. For instance, Mitigation Measure 4.6-1c, subpart (1), requires construction areas to be delineated prior to construction and prohibits construction-related disturbance outside the boundaries only when approved by the Lead Biologist. This is improper deferral. Without any performance standards describing when the Lead Biologist can approve construction-related activities outside of the delineated area, this measure is meaningless. The measure must include performance standards that establish objective criteria for determining when project activities could occur outside the delineated boundary. The measure

should at least require that the additional area be evaluated and delineated before construction activities can occur to avoid impacts. Mitigation Measure 4.6-1c, subpart (5), states that "standard" best management practices ("BMP") shall be employed and provides two examples. To comply with CEQA, however, the measure must state what specific BMPs will be required and include firm language to ensure that the mitigation will be binding and enforceable.

- Mitigation Measure 4.6-1d. Mitigation Measure 4.6-1d allows construction to occur at the slant well heads and along the segment of the Source Water Pipeline located west of the CEMEX processing plant during the snowy plover breeding season if approved by USFWS. The measure does not include any enforceable criteria or means by which impacts to plover might be avoided or reduced to a less than significant level. The measure must explain under what circumstances the USFWS might approve such activities and why allowing those activities during the breeding season would not impact snowy plover. This measure is especially troubling because the DEIR/EIS recognizes that any construction activities occurring during plover breeding season could affect the species. There is ample evidence showing that any construction activities during snowy plover nesting and breeding season will adversely affect the species. (See e.g., CCC Staff Report[23].) Further, the measure states that if work cannot be completed during the non-nesting season, a qualified biologist must conduct preconstruction surveys to determine if snowy plover nests are present within 300 feet. But there are no measures to implement if snowy plover nests are discovered. Instead, the measure states that the biologist must consult with USFWS to determine any additional measures that should be implemented. This is improper deferral of mitigation. Compounding this error, there are no performance standards that will ensure impacts to snowy plover will not occur. And there is no reason that enforceable mitigation measures cannot be developed now. During non-nesting season, the measure only requires a biologist to "inform CalAm of wintering plover activity" so they can make construction decisions that avoid or minimize disturbance to plovers. This measure too lacks any performance standard to ensure that impacts to plover will be less than significant. Even if an impacts is "minimized," that does not mean that significant impacts will not occur. The measure also states that temporarily impacted habitat must be "restored," but there is no standard for what type or amount of "restoration" would be sufficient to mitigate the impact. Instead, the determination is improperly

[23] CCC Staff Report, November 12, 2014, available at https://documents.coastal.ca.gov/reports/2014/11/W14a-s-11-2014.pdf and CCC Staff Report, October 5, 2015 available at https://documents.coastal.ca.gov/reports/2015/10/Tu15a-10-2015.pdf

deferred to a yet-to-be-prepared Habitat Mitigation and Monitoring Plan. There is no reason that the plan cannot be developed now, before impacts occur, as required by CEQA. And the measure allows CalAm to contribute funds to either a mitigation bank or to an existing restoration program "in lieu" of undertaking restoration actions. But there is no explanation why paying funds would reduce the physical impact to snowy plover and its habitat to a less than significant level.

- Mitigation Measure 4.6-1e. Mitigation Measure 4.6-1e is riddled with the qualifier "if feasible" which removes any teeth from the measure. If the measure is ultimately determined to be not feasible, it does not need to be implemented. The problem is that the impact conclusion relies on the mitigation measure to reduce the impact to a less than significant level. But since there is no guarantee that the mitigation measure will be implemented and will be effective given the "if feasible" language, it is not appropriate to rely on the measure to support the conclusion. Unless the DEIR/EIS provides firm and enforceable mitigation measures the impact should be found significant and unavoidable. This comment applies to all mitigation measures in this DEIR/EIS that include similar qualifying language. Subpart (2) includes additional flaws. It states that if avoidance is not feasible, additional measures "to be determined" will be implemented. This measure constitutes improper deferral of mitigation. The measures should be identified now and should be imposed as a requirement. Subpart (3) is problematic because it acknowledges the take of protected plant species may occur. If anything, the probability of take and the need for an incidental take permit indicate that a significant impact will occur, even if the take is allowed under the permit. This comment applies for all mitigation measures that acknowledge that a take may occur or that an incidental take permit may be required. Subpart (5) is even worse. It states that compensation in the form of land purchase or restoration "shall be provided to the level acceptable to the resource agencies" and will be determined on a "case-by-case basis." This is deferral of mitigation personified. There is no reason that the minimum level of compensation cannot be established now. The measure must include the minimum level of compensation that would be necessary to mitigate the impact to a less than significant level. Further the measure should include a monitoring program with success criteria to ensure that the compensatory mitigation will actually mitigate the loss of special-status plants. In fact, the very agency that is charged with protecting California's plant and wildlife species—the California Department of Fish and Wildlife (CDFW)—has determined that Mitigation Measure 4.6-1e is not adequate to mitigate impacts to special-status plants. (See CDFW Comments, Julie A. Vance, Feb. 27, 2017.) Among other flaws, DFW explained that reintroduction of sensitive plant species that may be impacted by the project is not recommended for species with sensitive habitats found in the project area and that there is no evidence that the identified

measures will be successful. (*Id*.) DFW concluded that because there is no information in the DEIR/EIS regarding the success of relocation and relocation of sensitive plants, and because that type of mitigation is generally not successful or recommended for various reasons, the primary measure relied on in the DEIR/EIS is not sufficient to mitigate impact to less than significant. (*Id*.)

- Mitigation Measure 4.6-1f. Like many other mitigation measures in this section, Mitigation Measure 4.6-1f, only requires that construction activities avoid impacts where feasible. As noted above, this makes the mitigation measure unenforceable and the DEIR/EIS cannot rely on it to support the conclusion that the impact is less than significant. The measure attempts to remedy this problem by including additional requirements if it is not feasible to avoid impacts during construction, but the additional requirements are also not proper mitigation. First, the mitigation is improperly deferred because it only requires the biologist to create a relocation plan after the project has already been approved. By deferring development of the plan, including the scope of the survey area and identification of appropriate relocation sites, it is impossible to determine whether the mitigation will be feasible or will be effective. And again, requiring approval of the plan by USFWS does not save the measure. Further, although subpart (5) includes what appears to be an attempt at the type of performance standard necessary for deferred mitigation (e.g., a minimum compensatory ratio of 2:1), the standard is negated entirely by the language allowing an alternate compensatory ratio as "otherwise negotiated with USFWS." The measure must state a firm and specific ratio and explain why that ratio is sufficient to mitigate the impact. This cannot be left up in the air in the DEIR/EIS and then decided at a later date after the project has been approved, even if the ultimate determination is made by USFWS.
- Mitigation Measure 4.6-1g. Mitigation Measure 4.6-1g is improperly deferred because it only requires that a plan for relocation be developed after project approval. There is no reason the relocation plan cannot be developed now before the project is approved. There is similarly no reason why relocation sites cannot be identified and surveyed before project approval to determine if relocation is even feasible. Further, because there is no evidence that relocation is feasible, the DEIR/EIS cannot rely on this mitigation measure to support the conclusion that impacts would be less than significant. Finally, it is unclear whether a biologist would be authorized to perform the required analysis or relocation based on a Scientific Collecting Permit issued by CDFW, since the analysis and relocation is not for scientific study.
- Mitigation Measure 4.6-1h. Mitigation Measure 4.6-1h also constitutes improper deferral of mitigation by requiring plans to be developed after project approval and, like other mitigation measure in this section, is marred by qualifying language such as "if feasible." Further, subpart (5) is

unenforceable because it allows ground-disturbing activities to occur "if otherwise authorized by CDFW." Whether another agency might authorize impacts to occur has no bearing on whether the impact is significant. Further, the mitigation specifies a "buffer distance" to be established based on the "level of disturbance." But the measure is silent as to how the level of disturbance might be determined, why the distances were selected, and how they would reduce impacts to less than significant levels. Subpart (6) is similarly deficient because there are no objective criteria to establish the "level of disturbance" and no explanation why the different buffers would be adequate to mitigate impacts. Subpart (7) is wholly unenforceable because it only includes a recommendation, rather than a requirement, that burrowing owls be excluded from burrows. The measure must use firm language (i.e. "shall") to ensure the mitigation is adopted and enforced. Subpart (8) is inadequate because there is no explanation why the measure would reduce the impact below the significance threshold. It simply requires site monitoring to avoid take. Take is not the threshold of significance for this impact. Even if no "take" occurs, there may still be a significant impact to the species.

- Mitigation Measure 4.6-1i. Mitigation Measure 4.6-1i suffers several flaws. First, it constitutes improper deferral of mitigation by requiring post-approval plans for mitigation. Second, the measure does not require any pre-construction surveys or avoidance measures for construction activities that would be completed entirely during the non-nesting season, but there is no explanation why construction-related impacts would not occur during that time.

- Mitigation Measure 4.6-1j. Mitigation Measure 4.6-1j is improperly deferred because it allows "suitable buffers" to be determined after the project has been approved (subpart (5)(b)). As explained above, the buffer must be established now and included as specific performance criteria. Further, there needs to be an explanation why the buffer was selected and how it will actually reduce the impact to a less than significant level. Further, the measure should include compensation for any temporary or permanent loss of habitat.

- Mitigation Measure 4.6-1k. Mitigation Measure 4.6-1k is similarly inadequate because it requires the biologist to establish a "suitable buffer area" to avoid impact to woodrat nests (subpart (3)). There is no indication what might be considered a suitable buffer or why the buffer might minimize impacts. Further, subpart (4) is improper because it only requires relocation "to the extent feasible," which removes all enforceability from the measure. The measure then states that if relocation cannot be avoided within the peak breeding season, the lead agency shall contact CDFW for further guidance and CDFW's recommendation will be implemented. This is textbook deferral of mitigation and is prohibited under CEQA. There is no evidence that relocation

is feasible and there are no performance standards included in the mitigation that would ensure impacts are avoided.

- Mitigation Measure 4.6-1l. Mitigation Measure 4.6-1l states that bat roosts that begin during construction are presumed to be unaffected, and no buffer would be necessary. This statement defies logic and is not supported by any evidence. There are a variety of construction activities that would affect bats in different ways; just because bats may roost during some construction activities does not mean they would be unaffected by other activities. Further, the mitigation prohibits the take of "species," but as explained above, take is not the threshold of significance. Even if there is no take, there still may be significant impacts.
- Mitigation Measure 4.6-1m. Mitigation Measure 4.6-1m requires that facilities shall be sited and construction activities planned to avoid impacts on native stands of Monterey pine, but only "to the extent feasible." Although the mitigation includes additional mitigation if avoidance is not feasible, the success of that mitigation relies on the creation of a plan that details the monitoring requirements and success criteria. These are exactly the type of performance criteria that must be established before project approval if deferral of mitigation is to be permitted. The monitoring requirements and success criteria must be established and explained now to ensure that impacts will not occur.
- Mitigation Measure 4.6-1n. Mitigation Measure 4.6-1n requires CalAm to develop a plan for mitigation after project approval. This too is textbook deferral of mitigation. As explained above, an agency may defer the formulation of mitigation only if, among other requirements, the mitigation includes specific performance criteria that will ensure impacts are minimized. Mitigation Measure 4.6-1n, however, explicitly allows, in fact requires, the post approval plan to include "performance standards by which successful completion of mitigation can be assessed and insured." This is exactly what CEQA prohibits. There is no reason that the mitigation plans cannot be developed now, including the requisite "monitoring plans and schedule" or the "reporting requirements and schedule," for example. Further, the measure allows for compensatory mitigation lieu of active restoration without any explanation why this is feasible or would reduce impacts below the identified significance thresholds. This problem is exacerbated by the fact that numerous mitigation measures reference and rely on Mitigation Measure 4.6-1n to ensure impacts will be less than significant. All of those mitigation measures are therefore inadequate as well.
- Mitigation Measure 4.6-1o. Mitigation Measure 4.6-1o is improperly deferred because it because it allows the relocation plan to be developed after project approval, including the identification of relocation sites. There are no

performance standards to ensure that relocation is successful and, because relocation sites have not been identified, there is no evidence that the mitigation is feasible. Further, the mitigation allows red-legged frogs and tiger salamanders to be relocated according to the improperly deferred relocation plan only if authorized by USFWS and CDFW. There is no assurance that those agencies will authorize relocation of the species and, in any event, it is unlikely they will authorize relocation in all instances. Indeed, CDFW has already commented that the mitigation measures for impact to the California tiger salamander are inadequate and questioned whether the mitigation would be in compliance with Fish and Game Code and the California Endangered Species Act (CESA). (See CDFW Comments, Julie A. Vance, Feb. 27, 2017.) Therefore, the DEIR/EIS cannot rely on this mitigation measure to support the conclusion that impacts will be less than significant. This impact, like many others in this section, should be significant and unavoidable.

- Mitigation Measure 4.6-1q. Mitigation Measure 4.6-1q is improperly deferred because it only requires a plan to be developed after project approval. The measure acknowledges that a frac-out may occur at the project site, which would cause a significant impact, and only after that occurs would CalAm be required to "consult with" the staffs of the relevant agencies "regarding appropriate incident-specific actions to be undertaken." Again, there are no performance standards or any assurance that this measure would reduce this impact to less than significant.

m. ***The Analysis and Mitigation for Construction-Related Impacts to Habitats, Including Environmentally Sensitive Habitat Areas (ESHAs), are Inadequate***

Under Impact 4.6-2, the DEIR/EIS claims that various habitat areas, including central dune scrub at the subsurface slant well site and beach adjacent to the site, central dune scrub along the Transition Main Alignment, and other habitat areas that will be effected by project components, *may* be considered primary and secondary habitat under the City of Marina Local Coastal Land Use Plan, and *may* be considered ESHA by the CCC. This is a major understatement that renders the DEIR/EIS inadequate as an informational document. These areas include both primary and secondary habitat under the City's Local Coastal Land Use Plan (LCLUP) and is designated as ESHA by the CCC. (These areas have already been established and delineated by the City and the CCC. The DEIR/EIS must disclose all areas designated as primary or secondary habitat by the City or as ESHA by the CCC and fully explain how the project would affect those habitat areas.

Further, as part of the project, CalAm intends to convert the temporary test well at the CEMEX site into a production well for the MPWSP. This slant well is located in ESHA. (See e.g., CCC Staff Report.) But the DEIR/EIS ignores this fact and fails to analyze the long-term impacts to ESHA and snowy plover habitat when the slant well is converted into a production well, as proposed. Instead the DEIR/EIS defers the consideration of these impacts by suggesting these issues will be worked out during the Coastal Development

Permit (CDP) application process. (DEIR/EIS, pp. 4.6-70; 4.6-207.) This is improper deferral of analysis and mitigation under CEQA. Simply stating that the mitigation measures will reduce impacts by "ensuring the project conforms to ESHA policies (including local coastal plan policies)" does not cure this defect. As explained elsewhere, the DEIR/EIS acknowledges that the project will be inconsistent with ESHA policies, including local coastal plan policies. Even if the CPUC or the CCC ultimately decide to override these policies, and are able to make the findings required to do so, that does not mean that significant impacts to ESHA would not occur. Indeed, as acknowledged elsewhere in the DEIR/EIS, the Staff Report for the temporary test well (which will be converted to a production well) found impacts to ESHA and snowy plover habitat to be significant and unavoidable. (DEIR/EIS, p. 6.4-224.) That section of the DEIR/EIS also acknowledges that project facilities "would be inconsistent with the City of Marina LCLUP policies governing protection of Primary and Secondary Habitats," and concludes that this would be "a significant and unavoidable impact." (DEIR/EIS, p. 6.4-224.) Thus, the DEIR/EIS itself is internally inconsistent on this issue.

Moreover, by ignoring the fact that the test slant well (and proposed production well) is already sited in ESHA, the DEIR/EIS overlooks major land use implications. One major oversight in the DEIR/EIS is the fact that the Coastal Act prohibits development in ESHA if there are feasible alternative locations available. (See Pub. Resources Code, § 30260; see also Pub. Resources Code, § 30240, subd. (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."].) Because the DEIR/EIS identifies feasible alternatives sites for the slant wells (see DEIR/EIS Chapter 7, Alternatives), the existing slant well must be decommissioned and relocated if slant wells are approved at the CEMEX site. But this is not explained or evaluated in the DEIR/EIS.

The discussion regarding conflicts with numerous policies in the City of Marina's LCLUP is also inadequate. Although numerous conflicts are acknowledged (See, e.g., DEIR/EIS, p. 4.6-219, 4.6-260), there is no explanation of whether they are indicative of environmental impacts or how the conflicts will be resolved. Instead the text refers to the discussion under the various impacts, which are entirely conclusory and inadequate as described above.

Further, the DEIR/EIS fails entirely to explain why these impacts would be rendered less than significant after the mitigation. Indeed, for the reasons explained above, the conclusion is unsupportable and is inconsistent with other impact conclusions in the DEIR/EIS, as noted above. Like many impacts in this section, this impact should be identified as significant and unavoidable.

The mitigation measures proposed under Impact 4.6-2 do not cure these problems. And those mitigation measures are also inadequate for additional reasons. The reasons most of the mitigation measure are inadequate or improper are explained above. The few

additional measures included for this Impact 4.6-2 fare no better than the others, and raise a host of additional problems.

- Mitigation Measure 4.6-2a. Mitigation Measure 4.6-2a requires consultation with local agencies and the CCC regarding ESHAs. As noted above, various project elements are proposed in areas already designated as ESHA by the CCC. The DEIR/EIS, therefore, is required to disclose the amount of ESHA that could be disturbed by project activities and the full extent of the potential impacts. This analysis cannot be deferred until after the CPUC approves the project, or be punted to the CCC for later consideration. Moreover, even if the CCC approves a CDP for the project, that does not mean that significant impacts to ESHA will not occur. It would just mean that the CCC decided to make the findings necessary to site the project in ESHA *despite the project's significant impacts*. Even with mitigation proposed in the DEIR/EIS, the impacts to ESHA must be considered significant and unavoidable.
- Mitigation Measure 4.6-2b. Mitigation Measure 4.6-2b only requires the construction contractor(s) to implement the identified avoidance and minimization measures "to the extent feasible." As explained above, this qualifying language renders the measure wholly unenforceable and inadequate under CEQA. Further, the measure requires restoration and compensation in accordance with Mitigation Measure 4.6-1n, which is improper deferral of mitigation, as explained above. There is also no evidence that this mitigation measure is feasible and no explanation why it would be effective. Furthermore, as explained in *Bolsa Chica Land Trust v. Superior Court* (1999) 71 Cal.App.4th 493, 507, impacts to ESHA cannot be mitigated through compensatory mitigation: "the language of section 30240 does not permit a process by which the habitat values of an ESHA can be isolated and then recreated in another location. Rather, a literal reading of the statute protects the area of an ESHA from uses that threaten the habitat values, which exist in the ESHA. Importantly, while the obvious goal of section 30240 is to protect habitat values, the express terms of the statute do not provide that protection by treating those values as intangibles which can be moved from place to place to suit the needs of development. Rather, the terms of the statute protect habitat values by placing strict limits on the uses which may occur in an ESHA and by carefully controlling the manner uses in the area around the ESHA are developed." The mitigation for impacts to ESHA and snowy plover habitat should be revised and the impact conclusion should be changed to significant and unavoidable.

Finally, as explained previously, the mitigation measures for impacts to special-status bird species is grossly inadequate. CDFW agrees. (See CDFW Comments, Julie A. Vance, Feb. 27, 2017.) Because there is no evidence that the mitigation measures will be effective and no explanation how they will avoid or reduce the impact to a less than significant level,

the DEIR/EIS cannot rely on the measures to support the conclusion that impacts will be less than significant.

n. ***The Analysis and Mitigation for Construction-Related Impacts to Wetlands and Other Jurisdictional Waters is Inadequate***

The DEIR/EIS's analysis of impacts to federal wetlands, federal other waters, and/or waters of the state during construction, suffers numerous flaws. Foremost, as explained above, the DEIR/EIS fails to analyze impacts to all of the wetlands and other jurisdictional waters that could be affected by the project. Although the DEIR/EIS identifies numerous areas that likely constitute jurisdictional waters under the state and federal definitions in close proximity to many project components, the DEIR/EIS fails to analyze impacts to those areas because they are located outside the arbitrary 50-foot study area. There is no explanation or evidentiary support for why the wetlands or other waters beyond 50-foot line would not be affected during construction or operation of the project.

Further, the mitigation included under Impact 4.6-3 suffers the same problems identified above for the other measures in this section of the DEIR/EIS. Most notably, the mitigation is improperly deferred and there is no explanation of why the mitigation is feasible and will be effective. Accordingly, the conclusion that impacts will be mitigated to a less than significant level is not supported by substantial evidence.

- Mitigation Measure 4.6-3. Mitigation Measure 4.6-3 calls for a wetland delineation to be conducted after project approval to determine the extent of jurisdictional waters that will be affected by the project. Because wetlands were not delineated prior to or concurrently with the preparation of the DEIR/EIS, the analysis of potential impacts is perfunctory. There is no way the reader or the CPUC can comprehend the full and accurate extent of potential impacts. Further, the mitigation measure states that compensation shall include the preparation of a Wetland Mitigation and Monitoring Plan (WMMP) to be prepared after project approval. The WMMP will include baseline information, monitoring methods and schedule, and "performance and success criteria." Problems with this measure abound. First, establishing the baseline is the first step in the analysis and cannot be deferred under any circumstance. Second, performance and success criteria must be included as part of the measure itself, if deferral of mitigation is to be permitted. Simply put, this measure does not comply with CEQA's most basic requirements.

o. ***The Discussion of Operation-Related Impacts and Mitigation Measures Are Inadequate.***

The DEIR/EIS states that any disturbance associated with pipeline repairs cannot be determined and therefore is not analyzed at all in the DEIR/EIS. (DEIR/EIS, p. 4.6-234.) CEQA, however, requires analysis of all components of the project and potential impacts that are reasonably foreseeable. Because CEQA is interpreted to afford the fullest possible

protection of the environment (*Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 259), this is a low bar. As acknowledged in the DEIR/EIS, at least some level of repair work is reasonably foreseeable. Therefore, the DEIR/EIS must at least disclose in general terms the type of repair work that is expected and the potential for environmental impacts.

Impact 4.6-6 states that noise or disturbance from maintenance activities could directly or indirectly impact wintering plovers. (DEIR/EIS, p. 4.6-235.) But there is no analysis of what potential impacts might occur. Instead the DEIR/EIS attempts to justify the lack of analysis by suggesting impacts would be only short-term and temporary. But CEQA requires analysis of all potential environmental impacts including those that are only short-term or temporary. There must be a full discussion of impacts to snowy plover from maintenance and operations of the project.

Impact 4.6-6 also acknowledges that, over the life of the project, "migratory waterfowl could become sick or die from use of the brine storage basin, a significant impact." (DEIR/EIS, p. 4.6-237.) But the mitigation relied on to mitigate this impact only provides that bird deterrents "should" be utilized at the Brine Storage Basin, the type of bird deterrent "should" be determined by the lead biologist, and "should" be modified if the bird deterrents are either not sufficient at deterring birds from the Brine Storage Basin or pose a risk to wildlife. Because there is no mandatory language in the measure, it is entirely unenforceable. For that reason alone, the DEIR/EIS cannot rely on the mitigation measure to reduce the impact to less than significant. Moreover, the only evidence cited to support the measure is a single sentence stating that "bird deterrent measures (such as use of a falconer, bird whistles, and fine ropes placed over the pond) are used at the adjacent MRWPCA Regional Wastewater Treatment Plant to successfully deter most birds from their ponds," without explaining what "most" birds means. (DEIR/EIS, p. 4.6-237.) Thus, the DEIR/EIS acknowledges that the project will cause an unquantified number of birds to die, but because deterrent devices implemented for another project (similar to those recommended but not required here) successfully deterred most birds (ostensibly meaning more than half), the impact is considered less than significant. This explanation is entirely inadequate under CEQA. What amount of dead birds does the DEIR/EIS consider to be a significant impact?

The DEIR/EIS also fails to disclose impacts to wildlife species that would result from erosion control measures. Notably, as explained in comments from CDFW, the use of certain types of erosion-control methods would likely cause impacts to several species, including reptile and amphibian deaths. This potential impact is ignored entirely. The DEIR/EIS must analyze these potential impacts and require mitigation measures to ensure that the impacts are avoided or reduced.

Moreover, the DEIR/EIS fails to address whether impacts would occur to special status plants and other species that depend on groundwater. Indeed, the DEIR/EIS fails to address any impacts to groundwater-dependent ecosystems despite acknowledging that the project would result in substantial drawdown of groundwater levels and an increase in

salinity levels. These types of changes would obviously have an impact on overlying habitat and species. But these potential impacts are ignored entirely in the DEIR/EIS.

To address impacts that are identified as significant, the DEIR/EIS relies on many of the same mitigation measures that are fatally defective for the numerous reasons described above. The additional mitigation in this section suffers many of the same problems. There is no explanation why the mitigation measures are feasible or how they will be effective and how they will mitigate the impact to a less than significant level. Again it is not sufficient to acknowledge a significant impact will occur, then list a number of mitigation measures, and then baldly assert that the mitigation will reduce the impacts to a less than significant level. The DEIR/EIS must explain why the selected mitigation measures will work and the conclusion must be supported by substantial evidence. This critical component of the CEQA analysis is missing from every impact discussion in this section.

Impact 4.6-6 and Impact 4.6-7, in particular, rely on the same mitigation measures that are inadequate for the reasons described above. Like the other impacts in this section, there is no supporting evidence at all and no explanation regarding how the mitigation will work and why the impacts will be reduced to a less than significant level. This is a plain violation of CEQA and renders the DEIR/EIS inadequate as an informational document.

p. ***The Analysis and Mitigation for Operations-Related Impacts to Wetlands and Other Jurisdictional Waters is Inadequate.***

Impact 4.6-8 purports to analyze adverse effects on federal wetlands, federal other waters, and/or waters of the state during project operations. But the discussion only addresses impacts related to ground disturbance and maintenance activities. There is zero discussion regarding how the ongoing operation of the facilities (i.e., pumping groundwater) will impact wetlands and other jurisdictional waters overlying the groundwater aquifers. The notion that the significant drawdown caused by the project in the groundwater aquifers underlying, and likely hydrologically connected to, the wetlands and other jurisdiction waters would have no impact defies logic. As noted above, by lowering the groundwater table and increasing salinity levels, the project would likely impact those wetlands and other waters. Yet the DEIR/EIS is silent on this potential impact.

This failure further demonstrates that the 50-foot study area is arbitrary and fails to account for all of the project's potential environmental impacts, as described above. Despite the fact that the DEIR/EIS identifies numerous areas that are potential wetlands or other jurisdictional waters in close proximity to the project, the DEIR/EIS does not analyze potential impacts because the features are beyond the 50-foot line. Even if the 50-foot study area could be justified for surface impacts (as explained above, it cannot) the underground (i.e. groundwater) impacts undeniably extend much further. Indeed, the maps in the DEIR/EIS show that the groundwater levels would decline by substantial amounts over the span of several miles—not just within the 50-foot study area. But there is no discussion regarding how changes in groundwater levels, or increases in salinity levels, could affect

overlying wetlands or other groundwater-dependent ecosystems. The DEIR/EIS must be revised to analyze these potential impacts and identify feasible mitigation measures that will reduce the impacts.

Moreover, as with other impacts in this section, the DEIR/EIS relies on mitigation measures that are woefully inadequate to support the conclusion that these impacts would be less than significant with mitigation. The reasons that these mitigation measures are inadequate are described above. Notably, the measure constitute improper deferral of mitigation, lack enforceable standards, and improperly rely on other agencies' regulatory programs without any explanation how the mitigation measures will reduce the impacts to a level of insignificance.

q. ***The Discussion Regarding Consistency with an Adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or Other Approved Habitat Conservation Plan is Inadequate.***

As explained in the DEIR/EIS, the preparation of an HCP for the former Fort Ord military base, which will supersede the current Fort Ord Habitat Management Plan, was already underway when the DEIR/EIS was published and was expected to be complete in late 2016. (Draft EIR, p. 4.6-252.) Because the HCP was not yet adopted, the DEIR/EIS claimed that the requirements and mitigation measures cannot be known at this time. (*Id*.) Even if that was true then, the information is available now or should be before project approval is considered. Therefore, the Final EIR must analyze whether the project is consistent with the HCP for the former Fort Ord military base.

This impact also relies on the same mitigation measures that are inadequate for numerous reasons described above. Mitigation Measure 4.6-8 fares no better. The mitigation requires only that CalAm implement certain vague measures, "unless otherwise negotiated between CalAm and FORA." As explained previously, CEQA does not allow for project proponents to "negotiate" mitigation measures after project approval. (*CBE v. City of Richmond, supra,* 184 Cal.App.4th at p. 93 ["Fundamentally, the development of mitigation measures, as envisioned by CEQA, is not meant to be a bilateral negotiation between a project proponent and the lead agency after project approval"].) Instead the measures must be fully enforceable at the time the project is approved and must identify specific performance criteria that ensure the impact will be less than significant. Mitigation Measure 4.6-8 does neither.

r. ***The Discussion of Cumulative Impacts is Inadequate.***

The cumulative impacts analysis is a mass of flaws. Foremost, the DEIR/EIS improperly relies on the significance conclusions for project-specific impacts to conclude that the cumulative impacts would not be cumulatively considerable. This approach has been rejected by the courts time and again. (See, e.g., *CBE v. Resources Agency* (2002) 103 Cal.App.4th 98,120; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 721.) Just because a project does not cause a significant impact by itself, does not mean

that the project contribution to a cumulatively significant impact is not cumulatively considerable. Indeed, as recognized in the CEQA Guidelines, a project's incremental effects may be cumulatively considerable even when its individual effects are limited. (CEQA Guidelines, §§ 15130, 15064, subd. (h)(1), 15355, subd. (b).) (*Ibid*.; see also *Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal.App.4th 1059, 1072 ["Under CEQA, a project having no significant effect on the environment when considered by itself may nonetheless have such an impact when considered in conjunction with-or cumulatively to-other past, existing or planned environmental influences. (CEQA Guidelines §§ 15130, subd. (a), 15064, subd. (h)(1))."].) But, here, the DEIR/EIS states that because certain project-specific impacts are mitigated to a less than significant level, the project's impact is not cumulatively considerable. This does not comply with CEQA's cumulative impact requirements.

For other cumulative impacts, the DEIR/EIS concludes that the project's contribution to a cumulative significant impact would not be cumulatively considerable because the project's contribution to the impact would be relatively small. For instance, the DEIR/EIS concludes that the project's contribution to cumulative impacts on wetlands or other waters would not be cumulatively considerable because, after mitigation, the MPWSP's residual effects "would be temporary and limited to a small percentage of wetlands habitat in the geographic scope of analysis." (DEIR/EIS, p. 4.6-260.) The courts have routinely rejected this type of "ratio" or "drop-in-the-bucket" methodology. (See *CBE v. Resources Agency* (2002) 103 Cal.App.4th 98,120; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 721.) Under this reasoning, each cumulative project could individually gobble-up only a small percentage of the available wetlands until all of the wetlands are gone, but none of the projects' impact would be considered cumulatively considerable. This is impermissible under CEQA.

Moreover, even if the methodology used in the DEIR/EIS was appropriate under CEQA, the cumulative impacts analysis is tainted by the DEIR/EIS's failure to adequately fully analyze and disclose all of the project-specific impacts on terrestrial biological resources, as explained above. And the cumulative impacts analysis relies on the same mitigation measures that, as already explained, are inadequate under CEQA. The EIR also fails to consider how the habitat restoration required under the CEMEX reclamation plan will be affected by the project. In fact the DEIR/EIS fails disclose or acknowledge the existence of the reclamation plan and associated revegetation plan for the CEMEX site, which requires restoration or slopes and successful revegetation in the areas that will be affected by the project. (See RMC Lonestar, Reclamation Plan, Lapis Plant, City of Marina, County of Monterey: dated August, 1989; revised October 22, 1988 (Items Nos. 22, 27 and 29) and April 10, 1991 (Items Nos. 20, 22, 27 and 28); see also Burleson Consulting, Inc., 2016, 2016 Annual Revegetation Report, Lapis Sand Plant, Marina California, report prepared for CEMEX by Burleson Consulting, Inc., dated December 2016). Notably, no active mining is occurring in the area where the slant wells are proposed and "significant portions of the dune slopes previously mined in the southern portion of the property are considered to have met

reclamation requirements." (see 2016 SMARA Mine Inspection Lapis Sand Plant, CA MINE ID No. 91-27-0006, City of Marina, California, December 9, 2016, available at ftp://ftp.consrv.ca.gov/pub/smgb/February-08-2017/19%20RBM%2002082017-12B-1%20Lapis%20Plant%20(91-27-0006).pdf.) The DEIR/EIS must be updated to disclose how the project will impact reclamation and revegetation requirements for the CEMEX site.

Finally, the cumulative impacts analysis is woefully light on information. Although the discussion notes that cumulative impacts may occur, there is no quantification of impacts or other information or data that would allow the reader or the CPUC to understand the extent of those impacts. As explained previously, conclusory statements without explanation and evidentiary support do not suffice.

4. The DEIR/EIS's Discussion of Coastal Erosion Impacts is Inadequate

The DEIR/EIS reveals that there is a likelihood coastal retreat could migrate the beach inland such that the subsurface slant well casings, concrete well head vaults, electrical panels, and certain sections of conveyance pipelines would become located on the beach within the project lifetime. (DEIR/EIS, pp. 4.2-48 through 4.2-52; 4.2-68 through 4.2-69.) The DEIR/EIS further acknowledges that the exposure of the project components to wave action, storm events, and rip embayments could alter the existing natural beach dynamics and the coastal environment, resulting in an increase in beach erosion and/or an interruption in the sand supply to other beaches along the Monterey Bay. The DEIR/EIS, however, fails to adequately analyze the potential for such impacts and fails to include adequate mitigation or alternatives to minimize or avoid those impacts.

The DEIR/EIS states the coastal retreat study (ESA, 2014 – Appendix C-2) anticipated that the subsurface slant wells in the CEMEX active mining area could become located on the beach within the project lifetime. It further states coastal retreat study assumes a worst case scenario for planning purposes; the actual amount or rate of coastal retreat could be less. (DEIR/EIS, pp. 4.2-69.) While perhaps this was accurate in 2014, the failure to update this study based more recent information violates the CEQA and NEPA. For example, we understand the annual erosion rate of 2014 at the CEMEX coastline nearly doubled from 220,000 to 380,000 cubic feet in 2016. Does the DEIR/EIS account for this? Moreover, the public cannot determine what annual erosion rate was used in the DEIR/EIS. What annual erosion rate was used in the DEIR/EIS and Appendix C-2? Is the 15 feet of scour that was observed around the exposed section of the outfall during the winter storm surge in early March 2016 that exposed the buried slant test well connection to the MRWPCA ocean outfall pipe (see DEIR/EIS, p. 4.2-22) consistent with the 2014 coastal retreat study projections? In addition, the DEIR/EIS's failure to use available computer-aided modeling as identified in Appendix C-2 is inconsistent with CEQA and NEPA's requirements.

Figures 4.2-7 and 4.2-8 appear inaccurate and may mislead the public and decision makers. Is the current test well head 30 feet in elevation from the intertidal zone as shown in

Figures 4.2-7? Does Figure 4.2-8 (which claims to be a representative image) representative of all each slant well location and the slant well that would most likely be impacted by coastal retreat?

The DEIR/EIS states the final design locations for the slant wells were relocated approximately 400 feet further inland from the originally proposed locations to the locations shown on Figures 4.2-7, 4.2-8, and 3-3. (DEIR/EIS, p. 4.2-69.) Therefore, the DEIR/EIS concludes the proposed slant wells would not be exposed during the operational life of the slant production wells (anticipated to be 20 to 25 years) and would not contribute to further coastal erosion or changes in the beach environment. The use of the 20- to 25-year operational life for the slant wells to evaluate this impact is not consistent with the other sections of the DEIR/EIS, which never mention the potential for the slant wells being deconstructed (with the exception of the existing test well) or reconstructed over the 40 year life of the project. This inconsistency must be addressed in the revised DEIR/EIS.

The DEIR/EIS states that the anticipated future presence of the test slant well on the beach due to coastal retreat would result in a significant impact, but that Mitigation Measure 4.2-9 (Slant Well Abandonment Plan) would reduce the impact to a less-than-significant level by requiring CalAm to monitor coastal retreat rates and initiate well decommissioning before the beach migrates inland to the location of the subsurface slant wells. (DEIR/EIS, pp. 4.2-71 through 4.2-72.) This conclusion is not supported by the DEIR/EIS's discussion. Moreover, the mitigation measure does not meet CEQA's requirements.

First, the Mitigation Measure 4.2-9 impermissibly delegates to CalAm the responsibility for annual monitoring of the rate of coastal retreat relative to the slant wells at the CEMEX site and the discretion to determine when the slant wells and associated pipelines have 5 years before exposure. (DEIR/EIS, p. 4.2-72.) There is not oversight or public reporting requirement. This violates CEQA requirements that "[m]itigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments." (*Center for Biological Diversity v. California Dept. of Fish and Wildlife* (2015) 62 Cal.4th 204, 237 [citing Guidelines § 15126.4, subd. (a)(2)].)

Second, the mitigation measure states the sections of slant well casing and pipelines at risk of exposure shall be cut and removed to a depth of five feet below the 2060, 100-year lower profile envelope as determined by the 2014 Coastal Erosion Study (ESA, 2014) or as directed by any permit condition. (DEIR/EIS, p. 4.2-72.) This constitutes improper deferral of mitigation and fails to address that the Coastal Erosion Study concludes (albeit inadequately) that none of the slant wells casings or pipelines (with the exception of the test well) would be uncovered with the time period specified in the mitigation measure. Moreover, deconstruction of the test well and slant wells to a depth that they would not result in additional coastal erosion in the foreseeable future after the project is completed must also be addressed. What happens if the slant wells casings or pipelines are uncovered after 2060?

Finally, this high likelihood of exposure of the test well structures is enough reason to decommission the test well as required by the CCC in February 2018 or sooner.

5. The DEIR/EIS's Discussion of Land Use Impacts Fails to Disclose or Analyze the Numerous Land Use Conflicts

Under CEQA, an EIR must discuss any inconsistencies between a proposed project and applicable general plans, specific plans, and regional plans. (CEQA Guidelines, § 15125, subd. (d).) A project is consistent with a plan "if, considering all its aspects, it will further the objectives and policies of the . . . plan and not obstruct their obtainment." (*FUTURE v. Board of Supervisors* (1998) 62 Cal.App.4th 1332, 1336.) In *Napa Citizens for Honest Government v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, the court rejected the county's claim that a project was consistent with local plans because the EIR at issue did not "contain an adequate *discussion*" of local plan consistency. (*Id.* at p. 381, emphasis added.) The purpose of the required analysis is to identify any inconsistencies and to evaluate and consider ways to modify the project to avoid them. (*Orinda Assn. v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1168-1169 [referencing EIR discussion of plan inconsistencies and mitigation measures to avoid them].)

Here, the DEIR/EIS's discussion regarding plan inconsistency and land use impacts does not satisfy CEQA. First, the land use section of the DEIR/EIS claims that all policies applicable to the project and relevant to land use are listed in Table 4.8-2. That is obviously not true. Table 4.8-2 includes only a tiny fraction of plans and policies that apply to the project. For example, in Section 4.4, Groundwater Resources, the DEIR/EIS notes that there are numerous state and local plans, policies, and laws that apply to the project. (DEIR/EIS, pp. 4.4-32 - 4.4-40.) But the Groundwater Resources section only includes a consistency determination for a few of these policies, and none are discussed in Section 4.8, despite the DEIR/EIS's promise that "a general overview of these policy documents is presented in Section 4.8, Land Use, Land Use Planning, and Recreation." (DEIR/EIS, p. 4.4-38.)

Worse yet, the land use section, including Table 4.8-2, does not even list all of the relevant plans and policies that were adopted specifically for the purpose of avoiding or mitigating an environmental effects – an identified threshold of significance for land use impacts. (DEIR/EIS, p. 4.8-34.) In fact, the table does not even include the policies and plans that are identified in other sections of the DEIR/EIS. For example, the Terrestrial Biological Resources section alone lists 30 pages of plans and policies related to protecting environmental resources and identifies copious inconsistencies or "potential inconsistencies." (DEIR/EIS, pp. 4.6-88 – 4.6-118 [Table 4.6-4].) Although numerous inconsistencies are identified, they are not analyzed or discussed anywhere in the DEIR/EIS. (See *Napa Citizens for Honest Government v. Napa County Board of Supervisors, supra,* 91 Cal.App.4th at p. 381 [EIR overturned because it did not include an adequate discussion regarding plan inconsistencies].) Instead, the DEIR/EIS simply lists the plans and policies and states in conclusory fashion that the proposed mitigation measures would bring the MPWSP into conformity with the plans and polices. (See, e.g., DEIR/EIS, pp. 4.6-162-164; 4.6-203-204;

4.6-219; 4.6-230; 4.6-232-233; 4.6-240-241; 4.6-245-246; 4.6-248-250.) There is no support for these conclusions and they are likely not accurate in most instances. Even if the DEIR/EIS could accurately conclude that an impact is less than significant after mitigation based on the thresholds of significance that does not mean the project would be consistent with all relevant plans and policies. For example, there are numerous local policies that prohibit development in protected habitat and ESHA, or otherwise seek to protect and conserve such habitat. (See DEIR/EIS, 4.6-88 – 4.6-118 [Table 4.6-4].) But the project is sited directly in ESHA and would adversely impact protected habitat. Given the project's inconsistency with the City of Marina's LCP and Coastal, it is remarkable those issues are not address in this Chapter. In fact, unless the City of Marina amends its LCP, it would appear the MPWSP cannot be approved. (Attached as Exhibit "5" are the Parties' briefs on the merits in *MCWD v. California Coastal Commission*, Santa Cruz Superior Court Case No. CV180839.) The DEIR/EIS failure to address this fundamental issue requires recirculation. In any event, even if the consistency determination could be justified, CEQA requires a much better explanation regarding *how* the project would be consistent with the plans or policies. The conclusory statements in the DEIR/EIS do not suffice.

Further, because the land use section includes a threshold of significance that specifically states that a significant impact would occur the project would "conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect, all of the inconsistencies and "potential inconsistencies" identified in other sections of the DEIR/EIS must be discussed in the land use section and analyzed against this threshold. The required analysis will likely uncover numerous significant environmental impacts that are currently not disclosed, including some that are likely unavoidable. The DEIR/EIS must also discuss ways the inconsistencies can be avoided and whether any of the inconsistencies are indicative of any other environmental impacts. Because the updated analysis will require adding significant new information to the DEIR/EIS, the documents must be recirculated for public review and comment.

6. The DEIR/EIS's Discussion of Hazards and Hazardous Materials Is Inadequate.

The DEIR/EIS reveals that there is a high likelihood that hazardous materials are present in the soil and groundwater in the project area, which pose significant health risks to workers and the public. (DEIR/EIS, pp. 4.7-2 through 4.7-12; 4.7-28 through 4.7-30.) Given the nature of the project, and particularly the fact that it involves significant disruption of soil and groundwater in the area, the project is likely to have significant impacts regarding hazards and hazardous materials. The DEIR/EIS, however, fails to adequately analyze the potential for such impacts and fails to include adequate mitigation measures to minimize or avoid those impacts.

For Impact 4.7-2, for example, the DEIR/EIS explains that the potential for contaminated soil and groundwater to be released into the environment is considered

significant and proposes two mitigation measures. Neither the discussion of the impact or the proposed mitigation is adequate.

Although the DEIR/EIS discloses that a potential impact could occur including "health and safety risks" to workers and the public, it fails to describe the type of health risks that are present or the severity of the impact. (DEIR/EIS, p. 4.7-28.) Nevertheless, the DEIR/EIS states that implementation of Mitigation Measure 4.7-2a and Mitigation Measure 4.7-2b would reduce the impact to a less-than-significant level. There is, however, zero explanation of how the mitigation measures will operate and how they will reduce the impact to a less-than-significant level.

Further, the measures merely call for the preparation of various plans after the project is approved, which constitutes improper deferral of mitigation. (See *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280-281 ["impermissible deferral of mitigation measures occurs when an EIR puts off analysis or orders a report without either setting standards or demonstrating that the impact can be mitigated in the manner described in the EIR"].) Most glaringly, rather than including performance standards in the mitigation as CEQA requires, Mitigation 4.7-2b requires standards to be developed at some future time. For example, the measure states that "the plan must identify protocols for testing and disposal, identify the approved disposal site, and include written documentation that the disposal site will accept the waste." (DEIR/EIS, p. 4.7-30.) It also calls for the development of a groundwater dewatering and disposal plan that will "identify the locations at which groundwater dewatering is likely to be required, the method to analyze groundwater for hazardous materials, and appropriate treatment or disposal methods." (*Ibid*.) These are precisely the types of issues that must be resolved before the project is approved to demonstrate that the mitigation will be feasible and effective.

The analysis under Impact 4.7-4 is similarly defective. The analysis simply states that hazardous materials storage and stormwater permitting requirements would ensure the risk of release of hazardous materials during construction would be low. There is no explanation how compliance with those requirements would reduce this particular impact to a less-than-significant level. Also, CEQA contains certain notice and consultation requirements for projects within a quarter-mile of a school site "that might reasonably be anticipated to emit hazardous air emissions, or that would handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code." (Pub. Resources Code, § 21151.4.) The DEIR/EIS does not discuss compliance with section 21151.4.

Finally, the cumulative impacts analysis is also inadequate in that it relies on Mitigation Measures 4.7-2a and 4.7-2b to reduce the project's contribution to potential releases of or exposure to hazardous materials in soil or groundwater to a less-than-

significant level. As set forth above, these measures improperly defer mitigation in violation of CEQA.

7. The DEIR/EIS's Discussion of Greenhouse Gas Emissions is Inadequate.

The DEIR/EIS's discussion of Greenhouse Gas Emissions (GHGs) is plagued by the inadequacies from Chapter 4.18, Energy Conservation, discussed below. Notably, the proposed mitigation does not satisfy CEQA.

The proposed mitigation in DEIR/EIS Section 4.11, Greenhouse Gas Emissions, is improperly deferred and inadequately discussed in violation of both CEQA and NEPA. All of the problems with Mitigation Measure 4.18-1, which is also relied on to mitigate GHG emissions, are described below under the discussion of the energy analysis.

CEQA permits deferral of mitigation only when: (1) an EIR contains criteria or performance standards to govern future actions; (2) practical considerations preclude the development of earlier measures; and (3) the lead agency has assurances that the future mitigation will be both "feasible and efficacious." (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70 ("*CBE v. City of Richmond*"); see also *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 669-71 [county improperly deferred mitigation when it allowed a land management plan for special status vernal pool species to be developed after certification of an EIR]; *Gentry v. City of Murietta* (1995) 36 Cal.App.4th 1359, 1396 [conditioning a permit on "recommendations of a report that had yet to be performed" constituted improper deferral of mitigation].) "A study conducted after approval of a project will inevitably have a diminished influence on decision-making. Even if the study is subject to administrative approval, it is analogous to the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA." (*CBE v. City of Richmond, supra,* 184 Cal.App.4th at p. 92, quoting *Sundstrom, supra,* 202 Cal.App.3d at p. 307.) "Fundamentally, the development of mitigation measures as envisioned by CEQA, is not meant to be a bilateral negotiation between a project proponent and the lead agency after project approval; but rather, *an open process that also involves other interested agencies and the public*." (*Ibid.,* emphasis added.)

As an added consideration, NEPA requires that "an EIS contain a detailed discussion of possible mitigation measures." (*Robertson v. Methow Valley Citizens Council* (1989) 490 U.S. 332, 351.) "Mitigation must 'be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated.'" (*Carmel-By-the-Sea v. U.S. Dept. of Transportation* (9th Cir. 1997) 123 F.3d 1142, 1154.) "A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA." (*Northwest Indian Cemetery Protective Assn. v. Peterson* (9th Cir. 1986) 795 F.2d 688, 697, *rev'd on other grounds, Lyng v. Northwest Indian Protective Assn.* (1988) 485 U.S. 439 ("*Northwest Indian Cemetery*").) A perfunctory description of mitigation measures is inconsistent with the "hard look" an agency is required to render under NEPA. (*Neighbors of Cuddy Mountain v. U.S. Forest Service* (9th Cir. 1998) 137 F.3d 1372, 1380-1381 ("*Cuddy Mountain*") [EIS

inadequate where agency did not provide an estimate of effectiveness of a mitigation measure, nor provide a reasoned explanation as to why such an estimate was not possible].)

Mitigation Measure 4.18-1 violates these basic requirements for the reasons set forth below in comments related to Section 4.18, Energy Conservation.

Mitigation Measure 4.11-1, subsection (b) suffers from similar fatal flaws. The qualifier that CalAm need only make a "good faith effort" (see DEIR/EIS, p. 4-11.21) to obtain renewable energy for operations of the project makes the mitigation unenforceable and a far cry from what CEQA and NEPA require. (See 95 *CBE v. City of Richmond, supra,* 184 Cal.App.4th at p. 95; CEQ Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the effects of Climate Change in NEPA Reviews, p. 19 ["agencies should carefully evaluate the quality of [potential] mitigation to ensure it is additional, verifiable, durable, enforceable, and will be implemented].) The DEIR/EIS provides no definition of what constitutes "good faith," making it appear as though the term was included merely to give CalAm an easy out.

In January 2017, California Air Resources Board (CARB) released the Draft 2017 Climate Change Scoping Plan Update—which identifies the overall strategy to reduce GHG emissions by 40 percent below 1990 levels by 2030. With respect to the water sector, the plan identifies reduction of energy intensity as the primary reduction strategy for the water sector. (2017 Scoping Plan Update, p. 126.) While the DEIR/EIS acknowledges that the vast majority of GHG emissions associated with long-term operation of the project would be due to the astronomical energy use in the desalination process, Mitigation 4.11-1 is hardly adequate to ensure any reduction in the project's electricity consumption.

The suggestion that CalAm is actually required to do anything under this mitigation measure is misleading. Rather, it amounts to a bald attempt to avoid performing all feasible mitigation measures. Moreover, as noted below, CEQA and Appendix F require that a discussion and analysis of renewable energy options must be included in the EIR. But instead, the DEIR/EIS defers this analysis and allows CalAm to proceed without implementing any feasible renewable energy options even though such options would reduce GHG emissions and conserve energy.

Worse yet, there are readily available mitigation measures that would reduce this significant and unavoidable impact (potentially even to a less-than-significant level). For example, GHG emissions associated with the project could be reduced by purchasing carbon offsets. Yet, the DEIR/EIS summarily dismisses the use of carbon offsets—concluding that the indirect GHG emissions are associated with electricity generation by fossil fuel plants, which are already subject to CARB's cap-and-trade program. However, under the cap-and-trade program carbon offsets are limited to eight percent of a covered entity's compliance obligation per compliance period. (Cal. Code Regs. tit. 17, § 95856, subd. (h)(A).) Mitigation for the project's GHG emissions should not rest solely on outside programs and regulations.

At a minimum, the CPUC should require CalAm to purchase carbon offsets sufficient to reduce the GHG emissions to a "net zero" level (i.e., sufficient to fully offset the emissions of the project). Carbon offsets are feasible and are frequently used to offset GHG emissions for projects, including desalination projects. (See *North Coast Rivers Alliance v. Marin Municipal Water District Bd. of Directors* (2013) 216 Cal.App.4th 614, 653 [in approving a desalination plant project, "the District's Board adopted a policy requiring offsets for all project-related GHG emissions"].) Further supporting the feasibility of carbon offsets, the analysis in the 2017 Draft Scoping Plan Update finds that cap-and-trade is the lowest cost, most policy efficient approach, and provides certainty that the 2030 goals will be met, even if other measures fall short. (2017 Draft Scoping Plan Update, pp. 69-72.) It should also be noted that the MBNMS Guidelines for Desalination Plants states that "Applicants should also identify measures available to reduce electricity use and related emissions (e.g., energy efficient pumps, low resistance pipes, ***use of sustainable electricity sources***, etc.) ***and to mitigate for all remaining emissions (e.g., purchase of offsets and/or credits that are consistent with the policies and guidelines of the California Global Warming Solutions Act of 2006 (AB 32), etc.***)." (see p. 7, emphasis added, available at http://montereybay.noaa.gov/resourcepro/resmanissues/pdf/050610desal.pdf)

It is important to emphasize that simply because the DEIR/EIS concludes that all GHG emissions impacts are significant and unavoidable does not absolve the CPUC or Sanctuary of its obligation under CEQA to mitigate potential environmental impacts to the fullest extent feasible. In other words, finding GHG emissions significant and unavoidable cannot save the DEIR/EIS from its inadequacies. (See e.g., *California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173 ("*California Clean Energy Committee"*) [mitigation measure in EIR requiring further study of potential urban decay impacts was improper, despite EIR's conclusion that the impact was significant and unavoidable].) The DEIR/EIS must be revised to include fully enforceable mitigation measures that are supported by substantial evidence.

8. The DEIR/EIS's Discussion of Public Services and Utilities Is Inadequate.

The DEIR/EIS discussion of Public Utilities fails to discuss the MPWSP's potential impacts on MCWD's service area and water supplies, including the Regional Urban Water Augmentation Project ("RUWAP") Desalination Element. As addressed above, updated modeling based on the best available information is needed to ensure the MPWSP will not impact MCWD's wells, which serve as the sole source of supply for the Marina/Ord Community. The DEIR/EIS also needs to address here, or at minimum in the cumulative impacts analysis, how the MPWSP would affect the salinity levels of the proposed source wells for the RUWAP Desalination Element, either in this section or in its cumulative impacts analysis. The discussion must disclose whether increased salinity levels at the proposed RUWAP source well locations due to the MPWSP would require MCWD to install additional infrastructure for the treatment of source water or increase energy requirements (as well as the associated air quality/GHG emissions and impacts associated with any increased energy requirements).

The DEIR/EIS should also confirm that MRWPCA's ocean outfall has capacity to handle both MPWSP discharges and MCWD's vested rights to the facility, including discharges from the RUWAP Desalination Element, as well as MRWPCA's ordinary use. To the extent MCWD's ability to use the outfall would be affected or additional requirements would be imposed on MCWD, this information should be disclosed in the revised and re-circulated DEIR/EIS.

Finally, under the DEIR, MCWD's 30" pipeline in General Jim Moore Blvd. has been made a critical component of the MPWSP delivery system. The New 36" Transmission Main from the MPWSP desalination plant terminates into MCWD's pipeline. From there, the water is carried through MCWD's water system, and then back to the Cal Am system to deliver its water to its proposed Terminal Reservoir and to the Monterey Peninsula. This is not clearly described nor discussed in the DEIR/EIS and is shown as a pipeline "gap" between the proposed Terminal Reservoir and the end of the New Transmission Main in many of the Figures in the DEIR/EIS. The DEIR/EIS does not address the capacity limitations in MCWD's pipeline that may be exceeded by adding additional water from the MPWSP to flow through this pipeline in addition to the capacity needed by MCWD to serve the South Ord portion of its Ord Community service area when those areas develop and the capacity needed by MRWPCA to convey GWR water.

Further, the DEIR/EIS does not explain how MCWD's pipeline is to be operated with the new supply to allow it to adequately serve both CalAm's and MCWD's water systems. MCWD currently allows Cal Am to use the pipeline for Carmel River water injection into the Seaside Basin (Phase 1 and Phase 2 ASR) under an Agreement between the two parties (2007 Wheeling Agreement). However, subject to operational studies, the pipeline may not be able to be used simultaneously to convey (1) MCWD's water south to meet service area demands, (2) Carmel River water north for ASR injection, (3) GWR water south to the Peninsula, (4) extracted ASR water south to the Peninsula, and (5) direct distribution of CalAm's desalination water south to the Peninsula. For example, during January, how will the MCWD pipeline be operated if Carmel River is available to convey north in the MCWD pipeline for ASR injection while at the same time CalAm wants to convey GWR water and desalination water south in the same pipeline? There are significant complexities to overcome in operating the pipeline in this manner, which may cause the need for additional booster pumps, reservoirs, a completely separate pipeline to convey all or some of the desal water, and/or a reduction in pipeline life through intensified use, all of which have not been adequately addressed in the DEIR/EIS. This is another example of the failure of the DEIR/EIS to perform an integrated total water system analysis of CalAm's system.

In order to explore whether MCWD's pipeline can accommodate both MCWD's needs and CalAm's needs, the DEIR/EIS must provide CalAm's average, max day, and peak hour demands for the use of the pipeline and a projected use of the pipeline broken down for

each calendar month of the year, including proposed injection and extraction into and from the Seaside basin, for both the 9.6 MGD plant and the 6.4 MGD plant.

Additionally, MCWD identified significant conflicts between the planned MPWSP New Transmission Main and the existing/planned MCWD utilities in Light Fighter Drive and General Jim Moore Blvd. From DEIR/EIS figures 3-8 and 3-9, the MPWSP Transmission Main conflicts with the existing and planned MCWD facilities and possibly conflicts with other utilities as well (e.g. PG&E). The DEIR/EIS does not adequately address the conflicts in the alignment of the utilities and how those are to be mitigated.

9. The DEIR/EIS's Discussion of Energy Consumption and Mitigation is Inadequate.

The DEIR/EIS's discussion of energy conservation and proposed mitigation in Section 4.18, Energy Conservation, is inadequate under CEQA and NEPA.

CEQA Guidelines Appendix F provides that the "[p]otentially significant energy implications of a project shall be considered in an EIR." As recently explained in *California Clean Energy Committee, supra,* 225 Cal.App.4th at p. 203, "an EIR is 'fatally defective' when it fails to include a detailed statement setting forth the mitigation measures proposed to reduce wasteful, inefficient, and unnecessary consumption of energy." The court in that case was emphatic that the provisions set forth in Appendix F are mandatory, and failure to include the items listed under Appendix F, Section II (EIR Content) renders an EIR inadequate. (*Id*., at pp. 209-213.) The energy discussion in the DEIR/EIS does not address all of the items in Appendix F and is inadequate in numerous other respects.

s. *The DEIR/EIS fails to analyze renewable energy options.*

In direct contravention of Appendix F and the court's holding in *California Clean Energy Committee, supra,* 225 Cal.App.4th 173, the DEIR/EIS fails to analyze renewable energy options. The introduction to Appendix F states that its goals include "increasing reliance on renewable energy sources." (CEQA Guidelines, Appendix F, § I, subd. 3.) Appendix F further states that "[m]itigation measures may include: [¶] … [¶] 4. Alternate fuels (particularly renewable ones) or energy systems." (*Id*., § II, subd. D.4.) The DEIR/EIS barely pays lip service to a single option for renewable energy—the Landfill-Gas-to-Energy Option. (DEIR/EIS, p. 4.18-13.) Despite the fact that it would substantially reduce energy consumption, the DEIR/EIS provides no analysis of this option. (*Ibid*.) Instead, the DEIR/EIS states that "[i]mplementation of this option and the construction of associated interconnected improvements would require separate environmental review and are not evaluated in this EIR/EIS." (*Ibid*.)

This is not appropriate. To comply with CEQA, this feasible renewable energy option is required to be included and analyzed in the DEIR/EIS, and discussed as mitigation in accordance with Appendix F. (See also *California Clean Energy Committee, supra,* 225 Cal.App.4th at p. 213 [holding EIR "failed to comply with the requirements of Appendix F to the Guidelines by not discussing or analyzing renewable energy options"]; *Id*. at p. 213, ["the

requirement to adopt energy impact mitigation measures 'is substantive and not procedural in nature and was enacted for the purpose of requiring the lead agencies to focus upon the energy problem in the preparation of the final EIR.' [Citation.]"].)

Moreover, any future review and approval of this project component in a separate environmental document would, as contemplated in the DEIR/EIS, constitute improper piecemealing under CEQA. CEQA requires that all project components and all reasonably foreseeable project activities must be analyzed together in a single EIR. (See *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 396; CEQA Guidelines, § 15378, subd. (a) [the term "project" under CEQA is defined as the "whole of an action"].) Similarly, federal regulations implementing NEPA prohibit the "segmentation" of environmental analysis by mandating that "[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement." (40 C.F.R., § 1502(a).) Therefore, the feasible option that would mitigate energy impacts must be analyzed now as part of the DEIR/EIS.

t. ***The DEIR/EIS ignores indirect energy consumption associated with construction of the Project.***

The DEIR/EIS completely ignores the massive amount of electricity and energy that would be indirectly consumed during construction of the project. To skirt the disclosure of indirect energy consumption and to avoid any analysis, the DEIR/EIS states that the amount of electricity and indirect energy consumption that would be associated with the project is unknown and cannot be estimated, but is not expected to be substantial. (DEIR, p. 4.18-14.) This is inconsistent with the previous statement in the DEIR/EIS that "indirect energy use typically represents three-quarters of the total construction energy consumed, while direct energy use represents about one-quarter." (*Ibid*.) In other words, based on that statement, it is reasonable to assume that at least three times the amount of energy use disclosed and analyzed in the DEIR/EIS would be consumed by activities that, although indirect, are attributable to the project. But the DEIR/EIS fails to even attempt to quantify the amount of electricity and indirect energy consumption or discuss ways to reduce the consumption. Without full disclosure of energy consumption and a complete analysis, it is impossible for the reader (and the decisionmakers) to understand the full construction impacts of the project, as they relate to energy.

u. ***The analysis of energy consumption during Project operations is conclusory and not supported by substantial evidence.***

As an initial matter, the DEIR/EIS fails to provide adequate explanation to support the assumptions upon which the project's energy consumption is based. The DEIR/EIS states that CalAm's operational electrical power demand for the proposed project is estimated to be approximately 63,164 MWh per year, which would result in a net increase in CalAm's annual electrical power demand for water production of approximately 51,698 MWh per year. (DEIR, p. 4.18-16.) But there is no explanation how the 63,164 MWh per year figure was derived—making it impossible for the reader to assess the veracity of that number. The

document cited to support this number ("CalAm 2016") provides little help.[24] The document is a one page table that provides very little by way of explanation for how the energy demand was calculated. In fact, the amount of energy consumption for the MPWSP Desalination Plant appears to be based entirely on an email from CDM Smith, the contents of which are not described in the EIR itself[25] (CalAm 2016). This table also provides zero information regarding the project's energy peak demands, costs, fluctuations in energy use due to intake salinity and water temperature, power supply availability in the Monterey region during peak periods, or electric line upgrade requirements. Please explain how these numbers changed so dramatically from prior estimates.

Furthermore, the analysis of energy consumption during project operations (Impact 4.18-2) is conclusory and unsupported by substantial evidence. After disclosing the energy consumption during operations would be astronomical (63,164 MWh of electricity and 26,000 gallons of fuel annually), the DEIR/EIS provides very little discussion regarding how energy use could be reduced. There is no discussion as to the effectiveness of the energy efficient design elements, which are proposed to be incorporated into the project. Nor is there any discussion of accessing available sustainable electricity sources. Instead, the discussion purports to justify the enormous energy consumption on the basis that the project will help CalAm provide water to its customers.

That is not the purpose of energy analysis (or an EIR for that matter). If the CPUC determines that the project's benefits outweigh its significant impacts, and that determination is supported by substantial evidence, it can make such findings in a statement of overriding considerations if and when it approves the project. (See CEQA Guidelines, § 15093.) But that does not excuse the CPUC from proposing mitigation that could reduce significant energy impacts.

Notably, the DEIR/EIS itself mentions at least one feasible way to mitigate this impact—implementation of the Landfill-Gas-to-Energy Option, which would provide an alternative source of power for the project. But the DEIR/EIS does not consider this mitigation measure or any others. The Section 4.11, Greenhouse Gas Emissions, of the DEIR/EIS even acknowledges, although without much elaboration, that "there may be

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[24] / In any event, the data relied on to support this determination must be presented and explained in the draft EIR itself, and not buried in an incompressible report that is merely cited by the DEIR/EIS. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 422 (*"Vineyard"*) ["The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project. Information 'scattered here and there in EIR appendices or a report 'buried in an appendix,' is not a substitute for 'a good faith reasoned analysis.' [Citations.]"].)

[25] / It is impossible to verify the numerical figures set forth in the DEIR/EIS for the MWSP Desalination Plant, itself.

additional feasible energy reducing features available to reduce the electrical consumption associated with the project." (DEIR/EIS, p. 4.11-22.)

v. ***The DEIR/EIS improperly defers mitigation for Impact 4.18-1.***

Mitigation Measure 4.18-1 is improper and cannot support a less-than-significant impact determination. This measure constitutes improper deferral of mitigation because it merely requires CalAm to prepare a plan that will identify mitigation measures *after* project approval. (DEIR/EIS, p. 4.18-15.) A fundamental requirement of CEQA is that the formulation of mitigation cannot be deferred until after project approval except in limited circumstances, as set forth above. Mitigation Measure 4.18-1 provides no performance criteria; there is no explanation (or reason) why mitigation cannot be developed now; and there is no assurance the mitigation will be both feasible and efficacious. In fact, the measure only requires the yet-to-be determined mitigation measures "where feasible" or "to the maximum extent feasible." (DEIR/EIS, p. 4.18-15.) Thus, in addition to being improperly deferred, the measure has absolutely no teeth. There is no support for the conclusion that the mitigation measures would reduce the impact to a less-than-significant level.

Mitigation Measure 4.18-1 also falls far short of federal standards, which are set forth in the above, in that there is an utter lack of discussion or quantification of the estimated effectiveness of energy efficiency measures with respect to construction impacts. The DEIR/EIS instead merely provides the conclusory statement that with mitigation (the substance of which is to be determined at a later date), the significant energy impact would somehow be reduced to a less-than-significant level. This cursory and unsupported discussion does not satisfy NEPA requirements. (See *Northwest Indian Cemetery, supra*, 795 F.2d, at p. 697; *Cuddy Mountain, supra,* 137 F.3d at pp. 1380-1381.)

Moreover, there are numerous additional mitigation measures that would reduce this impact that are both feasible and widely accepted, but are not considered in the DEIR/EIS. For example, the CPUC could require that CalAm use only the most efficient off-road equipment and vehicles to reduce the amount of fuel consumed by project activities or include other mechanisms to ensure greater fuel efficiency for equipment and vehicles. Further, as explained in CEQA Guidelines, Appendix F, "the discussion should explain why certain measures were incorporated into the project and why other measures were dismissed." (§ II, subd. D.1.) The DEIR/EIS fails to do this.

w. ***The DEIR/EIS fails to adequately address transportation energy impacts.***

Appendix F states that the environmental impacts subject to the EIR process include "[t]he project's projected transportation energy use requirements and its overall use of efficient transportation alternatives. (§ II, subd. C.6.) Here the project would result in an additional 60 commuter vehicle trips per day. (DEIR/EIS, p. 4.18-16.) Yet, the DEIR/EIS concludes that the energy impacts from operation of the project would be less than significant—and therefore fails to consider mitigation for transportation energy impacts. (See *California Clean Energy Committee, supra,* 225 Cal.App.4th at p. 210 [EIR analysis

deficient where it did not assess or consider mitigation for transportation energy impacts of the project].) The CPUC should consider mitigation measures that would reduce the amount of fuel consumption from vehicle trips such as a ride-share or electric vehicle program or offer alternative modes of transportation if the amount of trips required cannot be reduced by other means. (See CEQA Guidelines, Appendix F, § C.6 [discussion must include the project's "overall use of efficient transportation alternatives"].)

x. ***The DEIR/EIS conclusion as to Impact 4.18-3 is unsupported by substantial evidence.***

The conclusion under Impact 4.18-3 that the project would not constrain local or regional energy supplies, require additional capacity, or affect peak and base periods of electrical demand during operations is conclusory and not supported by substantial evidence. There is no discussion of peak or base period electrical demand or any other facts or evidence in the DEIR/EIS to support the conclusion that impacts would be less than significant.

For example, just based upon the statement that the proposed project would result in a net increase of electrical demand of 51,698 MWh per year, would mean that if you assume that the project is in constant 24/7 electrical use, the new electric generating capacity required to supply that new energy demand would be 5.90 Mwh per hour or 141.6 Mwh per day. The actual peak energy demands could be higher and coincide with the existing peak energy demands for this area, which would result in even greater environmental impacts.

Given that Moss Landing is PG&E's transmission hub for this area, it would not be unreasonable to assume that this additional energy use would be supplied at times during peak periods from the Moss Landing Power Plant, resulting in increases in power plant cooling water demands from Monterey Bay and increased amounts of air pollutants generated by burning GHG-intensive fuel in this very region.

The DEIR/EIS lacks area-specific analysis of whether the PG&E sub-transmission electric lines from Moss Landing to the proposed project site are sufficient to meet this new electricity demand or whether those lines will need to be upgraded resulting in additional indirect project impacts.

In fact, the conclusion appears to be based entirely on a personal communication with PG&E via email, the contents of which are not described in the EIR itself. This total lack of a specific discussion as to the new significant electric generation and sub-transmission requirements and their impacts on the environment in a DEIR/EIS by the CPUC—which directly regulates PG&E—is highly unusual and emphasizes the sweeping inadequacy of the DEIR/EIS's discussion on energy impacts. The facts and evidence that support the conclusions must be included in the DEIR/EIS itself so the public and decisionmakers can readily evaluate the information and determine whether the conclusions are accurate. (See e.g., *Vineyard, supra,* 40 Cal.4th at p. 422.)

y. ***The DEIR/EIS's discussion of cumulative impacts related to energy conservation is inadequate.***

An EIR must discuss cumulative impacts when they are significant and the project's incremental contribution is "cumulatively considerable." (CEQA Guidelines, § 15130, subd. (a). A project's incremental contribution is cumulatively considerable if "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines, § 15065, subd. (a)(3).) The DEIR/EIS plainly fails to comply with CEQA with respect to the cumulative energy impacts of the project.

The DEIR/EIS incorrectly relies on Mitigation Measure 4.18-1 to conclude that project construction would not have a cumulatively considerable contribution to a significant cumulative impact on the availability of fuel sources. As set forth above, Mitigation Measure 4.18-1 improperly defers mitigation and cannot serve as the basis of support for such a conclusion.

Additionally, statements regarding the cumulative impacts of project operation on energy conservation are conclusory and unsupported by substantial evidence. The DEIR/EIS acknowledges that many of the other cumulative projects would be high demand users and that upgrades to the existing distribution system may be required. (DEIR/EIS, pp. 4.18-18 through 4.18-19.) Yet, without any further explanation, the DEIR/EIS simply concludes that the project would not have a cumulatively considerable contribution associated with energy use. (See CEQA Guidelines, § 15130, subd. (a)(2) [If a lead agency concludes that a cumulative impact is not significant, the EIR must provide a brief explanation of the basis of the finding and identify the facts and analysis supporting it]; *Klamath-Siskiyou Wildlands Center v. U.S. Bureau of Land Management* (9th Cir. 2004) 387 F.3d 989, 993 ["proper consideration of the cumulative impacts of a project requires some quantified or detailed information; … [g]eneral statements about the possible effects and some risk do not constitute the hard look absent a justification regarding why more definitive information could not be provided" (internal quotations omitted)].) The cumulative impacts discussion related to energy conservation falls short of both CEQA and NEPA standards.

D. THE DEIR/EIS FAILS TO INCLUDE A REASONABLE RANGE OF POTENTIALLY FEASIBLE ALTERNATIVES AND THE ALTERNATIVES ANALYSIS IS NOT SUPPORTED BY SUBSTANTIAL EVIDENCE.

As the DEIR/EIS acknowledges CEQA requires an EIR to "describe a range of reasonable alternatives to the project … which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects … and evaluate the comparative merits of the alternatives." (Guidelines, §§ 15126.6, subd. (a), 15002, subd. (a)(3); see also 42 U.S.C. 4332(C)(iii) [NEPA requiring same].) The DEIR/EIS, however, fails to meet this fundamental requirement.

The fundamental problem with the DEIR/EIS's alternatives analysis is that it only considers alternatives to CalAm's originally proposed 9.6 MGD desalination plant that is no longer necessary in light the approval of the GWR project. Confusingly, the DEIR/EIS states that "the GWR Project would not be relevant in the context of the proposed project *or any alternative that includes a 9.6 mgd desalination plant* built and operated by CalAm (i.e., Alternatives 1 and 2) because, if the GWR project is implemented, CalAm would not need to construct a 9.6 mgd desalination plant (the proposed project); instead, it would construct the 6.4 mgd plant as described in Alternatives 5a and 5b." (DEIR/EIS, pp. 5.2-6 and 5.2-7.) Inexplicably, the DEIR/EIS, however, ignores the reality that GWR Project has been approved and evaluates the comparatives merits of alternatives to the originally proposed 9.6 MGD desalination plant.[26] In doing so the DEIR/EIS sets up a strawman analysis and concludes the 6.4 MGD plant with GWR is the environmentally superior alternative. The DEIR/EIS, however, fails to consider alternatives to the 6.4 MGD plant (with GWR) that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant impacts.[27] As discussed below, the DEIR/EIS only considers alternatives that would meet all (rather than most) of the Primary Project Objectives and with either a 6.4 MGD or 9.6 MGD plant provide vastly more water supplies than are necessary. It does not consider alternatives that could feasibly attain most of the Primary Project Objectives (with the GWR Project and without either the 6.4 MGD or 9.6 MGD plant), but would avoid or substantially lessen any of the significant effects. As a result, not only does the DEIR/EIS fail to consider a reasonable range of alternatives, it also fails to meet the EIR's major function "to ensure that ***all reasonable alternatives to proposed projects are thoroughly assessed by the responsible official***." (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 400 [emphasis added].**)**

10. Comments on Alternatives Not Evaluated in Detail

An "EIR 'is required to make an in-depth discussion of those alternatives identified as at least *potentially feasible*.' [Citation.]" (*Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1354, italics added.) "While the lead agency may ultimately determine that the potentially feasible alternatives are not actually feasible due to other considerations, the actual infeasibility of a potential alternative does not preclude the

[26] / In fact, the originally proposed 9.6 MGD desalination plant is no longer feasible given CalAm commitment to the GWR project under the July 30, 2013 Settlement Agreement on Plant Size, etc., wherein it agreed to pursue the 6.4 MGD plant with implementation of GWR. (Sett. Agr., p. 4 at § 3(c).) The CPUC approved CalAm's entry into an agreement to purchase GWR water from MRWPCA in D.16-09-021.

[27] / The DEIR/EIS's identification of the project's significant environmental impacts in the Alternatives chapter (Section 5.1.1.2) must be revised to the extent additional significant and unavoidable impacts are identified in the revised DEIR/EIS. As explained in the comments above and the expert comments attached to this letter, the proposed project will result in significant and unavoidable impacts to the SVGB among others.

inclusion of that alternative among the reasonable range of alternatives." (*Watsonville Pilots Assn. v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1087.)

The DEIR/EIS states that the alternatives listed in Section 5.2 and Appendix I1 were either "considered and rejected in earlier environmental review documents because the projects were determined to be politically, legally, economically, or technically infeasible" or "are concepts that were speculative or technically or economically infeasible." (DEIR/EIS, p. 5.2-7.) When an agency uses the scoping process to narrow the range of potential alternatives to be analyzed in detail in an EIR, the EIR must describe the facts and rationale by which rejected alternatives were deemed infeasible. (*Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 404–405 ["An EIR's discussion of alternatives must contain analysis sufficient to allow informed decision making"; CEQA Guidelines, § 15126.6, subd. (c).) Here, the DEIR/EIS erroneously excludes several *potentially* feasible alternatives that could feasibly attain most of the basic objectives of the project and would avoid or substantially lessen the proposed project's significant impacts without any factual basis. In fact, as discussed below, the rationale for excluding several alternatives is demonstrably false. Therefore, the DEIR/EIS must be revised and recirculated so the public, responsible public agencies, and decisionmakers can consider and comment on these potentially feasible alternatives.

z. ***Comments on Alternatives Rejected and Not Mentioned in DEIR/EIS***

ix. The use of Horizontal Wells for MPWSP intakes is potentially feasible and would eliminate or reduce several of the project's significant and unavoidable environmental impacts.

The DEIR/EIS dismisses the feasibility of horizontal wells without adequately describing the technology, its advantages over the project's proposed slant wells intakes, or its appropriateness for the Monterey Bay coastal environment. (See Intake Works Comments, p. 7.) Instead, the DEIR/EIS summarily rejects horizontal (or "HDD") wells as a potentially feasible alternative intake technology in Appendix I1, stating: "Horizontal wells are not evaluated further for the following reasons: (1) the amount of pipeline that would be pushed under the sea floor (upwards of 2,500 feet) would be challenging in terms of construction time, physical limitations and the disposal of drilling sludge (and consequently much more expensive than other options); (2) installing artificial filter packs to stabilize unconsolidated formations like those found in the project area has yet to be demonstrated successfully and on a consistent basis, and; (3) HDD would not avoid or minimize any of the impacts associated with the proposed action." (Appendix I1, p I1-5) There is no evidence or citations to evidence that provide support for any of these conclusions. As explained below and in the attached Intake Works Comments, all three conclusions are inaccurate.

Horizontal wells could be constructed faster than the proposed MPWSP slant wells, have fewer physical limitations, and are potentially less expensive than the proposed slant wells.

Contrary to the DEIR/EIS's conclusion in Appendix I1 that HDD would be challenging in terms of construction time, the construction time for developing Horizontal Wells would likely be considerable shorter than the construction time needed to develop the MPWSP's proposed slant wells. As described in the attached Intake Works Comments, eight horizontal wells were drilled using one HDD drilling rig in approximately four (4) months along the Spanish Mediterranean Coast. Moreover, unlike the proposed slant wells, additional HDD drilling rigs could be used to ensure all required horizontal wells could be drilled within a timeframe that would avoid Snowy Plover breeding season. Additionally, unlike slant wells, HDD wells can curve to avoid unfavorable subsurface conditions. Finally, contrary the DEIR/EIS's suggestion the disposal of drilling sludge would be similar to, or less of an issue, than for the MPWSP's proposed slant wells. (See Intake Works Comments, p. 8.)

Importantly, Horizontal Wells can extend much further than the 2,500-foot mentioned in the Appendix I1 description of Horizontal Wells. (See Intake Works Comments, pp. 11-12.) As a result, the well heads can be located further from the beach than the MPWSP's proposed slant wells to avoid ESHA.

Thus, there is no support for the DEIR/EIS rejecting Horizontal Wells on this basis.

Horizontal wells, unlike slant wells, have been employed successfully as a desalinization intake.

The DEIR/EIS states, without any supporting citations, that installing artificial filter packs to stabilize unconsolidated formations like those found in the project area has yet to be demonstrated successfully and on a consistent basis. (Appendix I1, p I1-5.) Initially, this rationale provides no basis for rejecting Horizontal Wells here, whether the proposed intake technology has never been demonstrated successfully. As discussed below, the only operation slant well designed to extract ocean water, other the MPWSP test slant well (which has been started and stopped on countless occasions over its short duration), is Dana Point that under recent longer term testing dramatically declined in efficiency. Even if this was a potential basis for rejecting Horizontal Wells, the DEIR/EIS's conclusion is unsupportable. Artificial gravel-pack filters have been installed and are successfully operating around horizontal well screens within the range of depositional environments in and around the Monterey Bay area that would be encountered at potential sites for horizontal wells. Moreover, artificial filter packs have not been required when utilizing the Neodren® technology in horizontal wells. (See Intake Works Comments, pp. 13-14.)

Thus, there is no support for the DEIR/EIS rejecting Horizontal Wells on this basis.

Horizontal wells would avoid or minimize many of the significant impacts associated with the proposed project and would reduce the amount of source water needed for the MPWSP.

The DEIR/EIS's conclusion that HDD would not avoid or minimize any of the impacts associated with the proposed action is untenable, and appears to demonstrate a significant lack of independent judgment on the part of the DEIR/EIS preparers. (See discussion in Part II.A, above). While HDD could potentially be employed at numerous locations along the Monterey Coast, including but not limited to locations within CalAm's service area, it has the potential to avoid many of the projects' significant impacts at both locations identified in the DEIR/EIS.

For example, if horizontal wells were properly designed at or near the CEMEX site, they would likely avoid or reduce many of the proposed project's significant impacts:

1. Because Horizontal Wells can extend thousands of feet more than the proposed slant wells, they could be located further onshore and outside of ESHA, which would avoid the proposed project's impacts to endangered species as wells as the project's inconsistencies with the City of Marina's LCP and Coastal Act. (See Intake Works Comments, pp. 11-12, 14.)
2. Because Horizontal Wells can extend thousands of feet more than the proposed slant wells and at a curve, they can actually be screened underneath the ocean floor to avoid drawing in groundwater from the SVGB basin, which would avoid the project's impacts to groundwater levels and quality. This in turn would avoid potential significant impacts groundwater dependent ecosystems that the DEIR/EIS fails to evaluate. (See Intake Works Comments, pp. 14.)
3. Because Horizontal Wells could avoid drawing in groundwater from the SVGB there would be no need to return water to the SVGB, which would reduce all the impacts associated with return water pipeline. (See Intake Works Comments, p. 14.)
4. Because Horizontal Wells could avoid the need for any return water to the SVGB, they would reduce the amount of supply water and desalinated water needed for the MPWSP, which would reduce energy impacts and GHG emissions. (See Intake Works Comments, p. 14.)

Similarly, if horizontal wells were properly designed at or near the Potrero Road site they would likely avoid or reduce many of the potentially significant impacts identified at this location:

- Because Horizontal Wells can extend thousands of feet more than the proposed slant wells, they can actually be screened underneath the ocean floor to avoid drawing in groundwater from the SVGB basin, which would avoid drawdown impacts to groundwater basin water levels and therefore would

eliminate any potential impacts to Elkhorn Slough (which the DEIR/EIS speculates may be significant). (See Intake Works Comments, p. 14.)

- Similar to the CEMEX site, Horizontal Wells would not take in groundwater from SVGB there would be no return water obligation, which would reduce all impacts associated with return water pipeline. (See Intake Works Comments, p. 14.)
- Similar to the CEMEX site, Horizontal Wells could avoid the need for any return water to the SVGB, they would reduce the amount of supply water and desalinated water needed for the MPWSP, which would reduce energy impacts and GHG emissions. (See Intake Works Comments, p. 14.)

Moreover, additional locations closer to or in CalAm's service area may be feasible, which in turn could substantially reduce the length of the pipelines proposed for the project and impacts associated with those pipelines. (See Intake Works Comments, p. 14.)

Finally, the DEIR/EIS's suggestion that Horizontal Wells may be more expensive is impossible to evaluate given the information provided in the DEIR/EIS. While drilling the Horizontal Wells could be more expensive than the proposed slant wells, such a comparison does not address the potential cost savings from water and pipeline savings. Moreover, potential alternatives cannot be excluded from consideration because it 'would impede to some degree the attainment of the project objectives, or would be more costly.'" (*Preservation Action Council, supra*, (2006) 141 Cal.App.4th at p. 1354; CEQA Guidelines, § 15126.6, subd. (b); *Habitat and Watershed Caretakers, supra*, 213 Cal.App.4th at pp. 1303-1304; *Goleta I*, supra, 197 Cal.App.3d at pp. 1180–1183.) Similarly, the fact that CalAm has constructed a slant test well at the CEMEX site does not make slant wells more viable than Horizontal Wells. This is especially true given the Coastal Commission's failed to consider alternative technologies prior to approving the test slant well.[28] As discussed below, if CalAm desires to test a Horizontal Well before considering this alternative, CalAm has sufficient water supplies with GWR to evaluate this technology prior to seeking approval of the MPWSP.

In summary, Horizontal Wells are, at minimum, potentially feasible and would avoid or substantially lessen many of the proposed project's significant environmental impacts. Therefore, the DEIR/EIS's alternatives analysis must be revised and recirculated to evaluate Horizontal Wells to comply with CEQA and NEPA. This analysis should consider the number of Horizontal Wells necessary to meet most of the project objectives (including the reduction in supply needed for the proposed slant wells return water) rather than the amount

[28] / CalAm and the Coastal Commission have argued the test well is not part of the MPWSP and will not prejudice the environmental review or consideration of alternatives for the larger MPWSP. (Attached as Exhibit "5" are the Parties' briefs on the merits in MCWD v. California Coastal Commission, Santa Cruz Superior Court Case No. CV180839.)

of feedwater required for the proposed 9.6 MGD desalination plant that provides an oversupply of water.

x. Vertical wells

The DEIR/EIS's rejection of vertical wells for the alleged reason that the number of "vertical wells that would be needed to provide a reliable source water flow to the desalination plant is considered infeasible, both from a construction and operational perspective and in terms of economic, legal (permitting) and environmental factors" is again not supported by any facts. (DEIR/EIS Appendix I1, p. I1-4 and I1-5.) As noted above, a potential alternative cannot be excluded from consideration because it 'would impede to some degree the attainment of the project objectives, or would be more costly.'" (*Preservation Action Council*, *supra*, (2006) 141 Cal.App.4th at p. 1354; CEQA Guidelines, § 15126.6, subd. (b); *Habitat and Watershed Caretakers*, *supra*, 213 Cal.App.4th at pp. 1303-1304; *Goleta I*, supra, 197 Cal.App.3d at pp. 1180–1183.) Moreover, given the CPUC approved vertical wells as part of the Regional Project, the argument that this alternative source is not potentially feasible actually conflicts with the record. As noted above, there is no reason why the legal permitting factors would be more onerous than for the slant wells proposed by the MPWSP. In fact, the fact vertical wells can be construct outside ESHA and other environmentally sensitive habitat likely makes permitting vertical wells more feasible. The DEIR/EIS suggestion that undisclosed environmental factors make vertical wells infeasible without any analysis cannot be supported under CEQA.

Finally, the DEIR/EIS only considers vertical wells without GWR and, therefore, improperly estimates that at least 24 vertical wells would be required. As discussed above, the DEIR/EIS must address whether the use of vertical wells (with GWR) could meet most of the project objectives, rather than the amount of feedwater required for the proposed 9.6 MGD desalination plant that provides an oversupply of water. As noted in the attached Intake Works Comments, using vertical wells with pre-engineered, so called "packaged" desalination systems, could result in avoiding or substantially lessening the proposed project's significant impacts and may be more economical because package solutions are available for desalination plants that are up to 5 MGD. (See Intake Works Comments, pp. 4-5.)

xi. Infiltration Galleries

The DEIR/EIS's rejection of infiltration galleries without analysis is similarly not supported by substantial evidence and would appear to conflict with available data on the feasibility of this option provided in the CCC's "Final Report: Technical Feasibility of Subsurface Intake Designs for the Proposed Poseidon Water Desalination Facility at Huntington Beach, dated October 9, 2014, available at http://www.coastal.ca.gov/pdf/ISTAP_Final_Phase1_Report_10-9-14.pdf. That report concluded that infiltration galleries were the only potentially feasible options for subsurface intakes for the proposed Poseidon Water Desalination Facility, which proposes producing 50

Million Gallons per Day (MGD) of potable water, five times as much as the current project. The CCC's Report notes that:

> ***A key aspect of a beach gallery system is that it underlies the surf zone of the beach, fully or in part. This means that the active infiltration face of the filter is continuously cleaned by the mechanical energy of the breaking waves and is therefore self-cleaning*** (Maliva and Missimer, 2010). ***Also, the location within the intertidal zone allows the gallery to be continuously recharged with no impact on the inland shallow aquifer system. The vertical flow of water from the sea assures that the inorganic chemistry is not significantly altered over time***… The gallery system is unaffected by variations in the deeper groundwater, which could be fresh or brackish in nature at the shoreline. The uppermost natural sand layer is the primary treatment zone within the filter and will likely allow the removal of all algae and a high percentage of bacteria and naturally occurring organic compounds (e.g., natural organic matter). The long-term data collected at the seabed gallery in Japan shows that the SDI was reduced below two, which is at the approximate level produced by conventional SWRO pretreatment systems (Shimokawa, 2012).
>
> ***The beach gallery would reduce or eliminate the impingement and entrainment of marine fauna. Also, upon completion of construction, the gallery would be located below the surface and could not be observed by beach users***

(Id. at p. 40, emphasis added.)

The DEIR/EIS's determination that infiltration galleries result in permanent disturbance to habitat does not appear to be consistent with the CCC's report. (*Ibid.*; see also *id.*, Figure 3.6 on p. 41.) Unlike the Fukuora location (on the semi-protected coast of the Sea of Genkai), it may be possible to limit the amount of excavation and lay out sections of filter pipe on the sandy seabed and allow natural forces to bury the system at the CEMEX site. The sandy bottom biological community is adapted to moving sands, which could reduce potential significant impacts. In addition, contrary to the DEIR/EIS's suggestion the sediment or filtration bed is unlikely to need much maintenance work given the turbulent forces near the seafloor would keep the upper most layer of the filter bed active. See Intake Works Comments, pp. 5-6.)

Notably, as with Horizontal Wells, infiltration galleries would eliminate impacts to the SVGB, which would eliminate the need for return water and the proposed return pipeline thereby avoiding those impacts as discussed above. As infiltration galleries are at least potentially feasible and would eliminate the project's significant impacts to the SVGB, including the Marina Subarea, the alternative must

actually be discussed in the DEIR/EIS before the CPUC can determine it is not feasible due to environmental impacts. Again, the size of the infiltration gallery should be based on need to meet most of the project objectives (including the reduction in supply needed for the proposed slant wells return water) rather than the amount of feedwater required for the proposed 9.6 MGD desalination plant that is provides an oversupply of water

xii. EIR/EIS Fails to acknowledge, disclose, analyze the uncertainty regarding the long-term operational efficiencies of slant wells

Finally, the DEIR/EIS's discussion of slant wells ignore the fact that slant wells are unproven technology. As addressed in the CCC's "Final Report: Technical Feasibility of Subsurface Intake Designs for the Proposed Poseidon Water Desalination Facility at Huntington Beach, California:

> Only one slant well has been successfully constructed to date, although a major installation to provide 20 MGD of feedwater capacity is under consideration in the Monterey Bay area [this project]. The successfully completed well is at Dana Point. When it was built and tested in 2006, it was test pumped at 2000 gpm and displayed a well efficiency of 95%. ***Recent longer term testing of the completed test well in 2012 documents the reduction in well efficiency from the original value of 95% in 2006 to 52% in 2012*** (GeoScience 2012). ***Given this observed reduction in efficiency over a short period, the long-term performance of the technology has yet to be confirmed.***
> … Slant wells completed in the Talbert aquifer would draw large volumes of water from the Orange County Groundwater Basin, which in itself is considered a fatal flaw. Recent public comments have suggested that pumping seawards of the Talbert Salinity Barrier could have beneficial impacts in managing seawater intrusion. In the Panel's opinion, however, this benefit is too uncertain to overcome the ISTAP conclusion about the fatal flaw of this technology as applied to the proposed Huntington Beach site. ***The advantage of having a subsea completion is largely lost in confined aquifers.*** The performance risk is considered medium, as the dual-rotary drilling method used to construct the wells is a long-established technology, but ***there is very little data on the long-term reliability of the wells. Maintainability is also a critical unknown issue.***
> … Slant wells tapping the Talbert aquifer would interfere with the management of the salinity barrier and the management of the freshwater basin, and further, would likely have geochemical issues with the water produced from the aquifer (e.g., oxidation states of mixing waters).

(CCC's "Final Report: Technical Feasibility of Subsurface Intake Designs for the Proposed Poseidon Water Desalination Facility at Huntington Beach, dated October 9, 2014, pp. 37, 56, 64, available at http://www.coastal.ca.gov/pdf/ISTAP_Final_Phase1_Report_10-9-14.pdf, emphasis added.)

In addition, the DEIR/EIS's failure to disclose and discuss the reduced efficiency of the Dana Point slant well is surprising given CPUC's representative on the HWG authored the report on this decline. (See GeoScience's Aquifer Pumping Test Analysis and Evaluation of Specific Capacity and Well Efficiency Relationships SL-1 Test Slant Well, Doheny Beach, Dana Point, California, dated September 7, 2012, available at http://www.mwdoc.com/filesgallery/SL_1_Step_Test_Comp._FINAL_TM_Geoscience_12_09_2012.pdf.) Notably, information from data responses and public records act requests reveal that Mr. Williams and Geoscience were involved in the selection process for alternatives despite the potential conflict of interests identified above. The DEIR/EIS's failure to disclose and address the findings in both reports require recirculation so the public can is aware of the project's risks and can comment on them. The risk that the project may not succeed is not born solely by the applicant, or CalAm ratepayers, here.

As explained in the Intake Works and HGC Comments, while the efficiency problems from the Dana Point may not manifest themselves at the CEMEX site, there is a considerable risk they could based on the previous study and unproven track record for this technology. Therefore, the DEIR/EIS must discuss mitigation in the event there is a considerable drop in efficiency as it would likely eliminate the MPWSP's ability to provide return water. Specifically, the DEIR/EIS must evaluate the how many slant wells will likely need to be replaced over foreseeable life of the project, where the replacement wells would be located, and the potential impacts of replacing the slant wells. The DEIR/EIS must also evaluate potential alternatives to slant wells if efficiency drops to the point that alternative feed water sources are required.

aa. ***Comments on Alternatives Rejected and Not Evaluated in Detail in DEIR/EIS***

Section 5.2.1 states that is summarizes the previous proposals and projects, and the environmental documentation prepared for them (as relevant), and discusses why each of these alternatives is not addressed in detail in this EIR/EIS. The DEIR/EIS further states that no viable alternatives have been identified that would supply water without a desalination plant being included. This conclusion, however, is improperly based on the assumption that any feasible alternative must meet all of the project's objectives. As discussed in Part I of these comments and below, at minimum the Coastal Water Project/Regional Project remains potentially feasible. The DEIR/EIS, however, must evaluate whether the other alternatives in this section could meet most of the project objectives, including the already approved GWR as a component or on stand-alone basis.

xiii. i. The Coastal Water Project/Regional Desalination Project Remains Potentially Feasible.

First, the DEIR/EIS' suggestion that Coastal Water Project/Regional Desalination Project (or "Regional Project") approved by the CPUC in 2010 is "no longer feasible for economic, social and legal reasons" is not supported by facts. The DEIR/EIS fails to provide any explanation or facts supporting its assertion that the Regional Project is not feasible. "A

potential alternative should not be excluded from consideration merely because it 'would impede to some degree the attainment of the project objectives, or would be more costly.'" (*Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1354; CEQA Guidelines, § 15126.6, subd. (b); *Habitat and Watershed Caretakers v. City of Santa Cruz* (2013) 213 Cal.App.4th 1277, 1303-1304.) As explained in *Citizens of Goleta Valley v. Board of Supervisors* (1988) 197 Cal.App.3d 1167, 1180–1183 (*Goleta I*) assertions that a particular alternative is economically infeasible simply because it would be more expensive or less profitable to the private applicant are not adequate. "In the absence of comparative data and analysis, no meaningful conclusions regarding the feasibility of the alternative could have been reached." (*Id.* at pp. 1180–1181.) The Court of Appeal added that:

> The fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible. What is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project.

(*Ibid.*) Because the DEIR/EIS fails support its conclusion that the Regional Project is infeasible and rejects it out of hand, additional analysis is required before the CPUC may approve the project. (Pub. Resources Code, § 21002; *Sierra Club v. Gilroy City Council* (1990) 220 Cal.App.3d 30, 31.) Similarly there is no discussion, and MCWD is unaware of any reasons why the Regional Project is infeasible. The fact that CalAm would like to proceed with MPWSP without the involvement of MCWD or another public agency, does not render such alternatives infeasible. (See *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1462 [An agency may not simply accept the project proponent's assertions about an alternative; rather, the agency "must independently participate, review, analyze and discuss the alternatives in good faith"], quoting *Kings Cnty. Farm Bureau v. City of Hanford*, 221 Cal.App.3d 692, 736 (1990).) MCWD is willing to work through any issues relating to Regional Project. The fact that CalAm would prefer to go it alone does not make the Regional Project infeasible.

Notably, the Regional Project configuration approved in 2010 with Marina Coast's participation is likely more feasible than the currently proposed project for the reasons explained in Part I above, including:

- The Regional Project addresses CalAm's lack of water rights that likely make the MPWSP infeasible.
- The Regional Project addresses the MPWSP's inability to comply with the Agency Act, which likely makes the MPWSP infeasible.
- The Regional Project's approval of vertical wells addressed high risks associated with slant wells that could make the MPWSP infeasible.

- The Regional Project Well included testing and comprehensive groundwater modeling to ensure groundwater impacts remained less-than significant unlike the MPWSP.
- The Regional Project, unlike the MPWSP, satisfies the Monterey County Desal Ordinance, which requires public ownership of desalination plants constructed within the County.

In sum, it is likely the Regional Project remains feasible provided that the project would be within the confines of the SGMA and the greatly-expanded availability of data concerning the state of the basin and pertinent sub-basin, as well as current drought and climate-change related conditions. Again, it is certainly more feasible the project, as proposed.

xiv. The GWR Project Meets Most of the Project Objectives.

The DEIR/EIS states that the "GWR Project is not considered in this DEIR/EIS as a stand-alone alternative to the MPWSP because it would not provide enough water to meet the basic project objectives of the MPWSP; ***it would be about 6,250 afy short***." (DEIR/EIS, p. 5.2-6.) Again, this conclusion is improperly based on the assumption that feasible alternatives must meet all the project objectives as incorrectly construed by the DEIR/EIS. For example, Primary Project Objective #4 states, "Develop a reliable water supply for the CalAm's Monterey District service area, accounting for the peak month demand of existing customers." "Existing customers' demand is reflected in the 2016 actual demand of 9,285 AF, not the 2016 demand plus the future water needed to meet Pebble Beach water entitlements, legal lots of record, and the hospitality industry rebound. As discussed above, in Part III.A.1 of these comments and below, it appears GWR Project, which would include additional sources of water not currently projected to be used for Phases 1 and 2, would meet most of the Primary Project Objectives under Scenario A and Scenario B, if not all of the Primary Project Objectives. The DEIR/EIS, however, fails to disclose this fact.

Rather, the DEIR/EIS states the GWR Project is included in the No Project/No Action alternative and "would not be relevant in the context of the proposed project or any alternative that includes a 9.6 mgd desalination plant built and operated by CalAm," because CalAm would instead construct the 6.4 MGD plant, which would have production capacity substantially in excess of any demand in 2022 and beyond. (DEIR/EIS, pp. 5.2-6 and 5.2-7.) Why does the DEIR/EIS assume that the GWR Project under the No Project/No Action alternative, but fail to consider it in evaluating the feasibility of alternatives that do not include slant well intakes.

bb. ***Comments on Alternatives Intake Options not carried forward for analysis in the DEIR/EIS***

DEIR/EIS Section 5.3.3.11 states that Intake Option 11 (Ranney Wells in Seaside/Sand City) was not carried forward in the alternatives analysis stating:

> As described in Appendix I2, Intake Option 11 would involve the installation of three Ranney wells at two sites in the former Fort Ord coastal area in Seaside and Sand City. However, the former ***Fort Ord Wastewater Treatment Plant site and former Stillwell Hall sites faced political challenges*** …

(DEIR/EIS, p. 5.3-17, emphasis added.) The DEIR/EIS rejection of this alternative on the grounds it would could face political challenges is not grounds to reject this alternative under CEQA. Notably, the CEMEX site faces major political challenges also. Unlike the CEMEX site, however, the Seaside/Sand City Intake Option draw water from within CalAm's service area. So the affected municipalities and residents would at least ostensibly receive benefits from the project, unlike the citizens of Marina. In sum, potential political challenges is not grounds for failing to consider this alternative that would likely reduce the project's significant impacts. Therefore, the revised DEIR/EIS must include this alternative.

Even more egregious, the DEIR/EIS decision not to include Ranney Wells at the CEMEX site based on speculation that this option would have similar impacts to the MPWSP's proposed slant wells and is not supported. As discussed in the attached Intake Works Comments (see pp. 14-15), the DEIR/EIS's analysis makes several incorrect assumptions about the technology and fails to provide meaningful analysis of this option. Most critically, the DEIR/EIS description of the option proposes to construct the Ranney Wells so they would extract groundwater from the deeper aquifers. If the Ranney Wells were properly designed to tap the shallow marine aquifer, this alternative would likely significantly reduce the project's groundwater impacts (and potentially other impacts). Given the DEIR/EIS concludes that Ranney Wells at the CEMEX site are at least potentially feasible, the DEIR/EIS must be revised to evaluate whether they would potentially reduce the project's significant impacts at the CEMEX site. As explained in the attached Intake Works Comments, available information indicates they could, if properly designed. Given the project's significant groundwater impacts to the Marina Subarea, including the 180-foot aquifer, the DEIR/EIS must evaluate Ranney Wells at the CEMEX site to meet its obligation under CEQA and NEPA.

11. Comments on Analysis of CEQA Alternatives (Section 5.4).

cc. ***Comments on the No Project Alternative***

Initially, the DEIR/EIS discussion of the no project alternatives fails to address what is reasonably expected to occur in the foreseeable future at the CEMEX project site (i.e., any reclamation that would occur, decommissioning of test well, restoration of ESHA, etc.) if the project if is not approved. Instead, the DEIR/EIS only discusses the effect that the No Project Alternative would have on water supplies and impacts associated with those supplies. The DEIR/EIS's summary on water supplies appears to ring a false alarm stating:

> Impacts related to a No Project Alternative could result in severely supply-constrained conditions in CalAm's Monterey

> District. Existing conservation programs would continue to be implemented and new conservation and rationing measures would be required in an attempt to balance out the severe supply shortfall following Carmel River diversion curtailments under the Revised CDO in 2018 through 2021. Given the limited water supplies, it is assumed this alternative would trigger Stage 3, Conservation Rates, and very possibly Stage 4, Rationing Measures, of the Monterey Peninsula Water Conservation and Rationing Plan.

(DEIR/EIS, p. 5.4-10.) The DEIR/EIS then states the No Project Alternative with the (already approved) GWR Project:

> The GWR Project, when constructed, would provide 3,500 of potable supply for the CalAm service area. ***With the GWR Project supply, total supplies available to CalAm at the end of the Revised CDO extension period would total about 9,880 afy, which is about*** 81 percent of 2010 demand and approximately ***89 percent of estimated demand after implementation of foreseeable demand management and offset programs and other planned projects described in Section 5.4.2.3.*** Although this volume of supply would be much closer to the existing demand, the No Project Alternative in combination with the GWR Project would fail to meet most project objectives. While this scenario would achieve compliance with the Revised CDO and the Seaside Groundwater Basin Adjudication, even in combination with the GWR Project, the No Project Alternative would not provide supply to allow for replenishment of water that CalAm previously pumped from the Seaside Basin in excess of CalAm's adjudicated right; would not provide water supply reliability; and would not provide supply for Pebble Beach water entitlement-holders, for the development of vacant legal lots of record, or supply to meet demand resulting from economic recovery and rebound of the hospitality industry. In addition to failing to provide sufficient supply to meet the average annual demand assumed in MPWSP planning, the No Project Alternative combined with a GWR Project water purchase agreement would not provide sufficient supply flexibility to meet most peak demands

(DEIR/EIS, p. 5.4-11, emphasis added.) Despite the fact that even by CalAm's own estimation (without independent modeling verification) that the No Project alternative with the GWR would meet 89 percent of its 2010 demand and exceed its 2016 demand of 9,285

AFY, the DEIR/EIS remarkably did not revise its conclusion that the no project alternative would likely trigger Stage 4, Rationing Measures, of the Monterey Peninsula Water Conservation and Rationing Plan. What is the rationale for not revising the conclusion?

The DEIR/EIS also appears to miscalculate the amount of water that would be available under the No Project Alternative with GWR. As discussed in Part III.A.1 above, if the 3,700 AFY GWR water is added to the 6,380 AFY identified in the No Project Alternative (on p. 5.4-9), the total becomes 10,080 AFY, not 9,880 AFY. Why does the DEIR/EIS use 9,880 AFY as that total amount water available? If this was a mathematical error, and assuming 10,080 AFY provides 795 AFY more than CalAm's 2016 demand of 9,285 AFY, what is the basis for concluding the No Project Alternative with GWR does not meet <u>most</u> of the project objectives? Assuming all the non-water supply objectives (i.e., Primary Objectives 8 and 9, and CalAm's secondary objective can be met by an alternative), what is the minimum amount of water supplies are needed to meet most of the project objectives? This number must be disclosed and its method of calculation for the public and decisionmakers to evaluate the potential feasibility of alternatives, including the No Project Alternative.

dd. ***Comments on the Alternative 1 – Slant Wells at Potrero Road***

Regarding Alternative 1, the DEIR/EIS states:

> Alternative 1 would contain the same elements as the proposed project and would produce the same volume of product water. However, because of the hydrogeology of the Potrero Road area, Alternative 1 would draw a greater volume of water from the Salinas Valley Groundwater Basin than the proposed project. In the event the Salinas Valley Return Water obligation is determined to be 12 percent (the highest return value simulated), Alternative 1 would meet the need for replacement supplies and meeting peak month demand, but limited supply would be available for other uses, including accommodating tourism demand under recovered economic conditions. Alternative 1 would not provide sufficient supplies to serve existing vacant legal lots of record and would therefore, not meet the project objective/need for water, some of which was to support limited growth (e.g., Objective 6)..

(DEIR/EIS, p. 5.4-15.) How does the DEIR/EIS determine that Alternative 1 would not provide sufficient supplies to meet Objective 6? How much water would Alternative 1 produce? How much water does the DEIR/EIS estimate would be needed to meet Salinas Valley Return Water obligations? How was this estimate calculated? What assumptions were used in the calculation?

After determining Alternative 1 would result in a reduced impact conclusion on groundwater quality compared to the proposed project, the DEIR/EIS states:

> Unlike the proposed project, groundwater modeling (see Appendix E2) indicates pumping from the slant wells at Potrero Road would result in a cone of depression in the underlying groundwater aquifers that would draw or divert water from Elkhorn Slough. This drawdown impact is discussed in Section 5.5.4, Groundwater Resources, and presented in Figure 5.5-2. ***The modeling cannot predict the amount of water diverted from Elkhorn Slough although it must be conservatively assumed, based on the predicted areal extent of the drawdown, that operations could potentially adversely affect aquatic habitat in Elkhorn Slough due to reduced surface water flow and volumes.*** This would be an increased level of impact compared to the proposed project and because there is no method to mitigate for impacts on surface water flow and volumes in Elkhorn Slough, ***Alternative 1 would result in an increased impact conclusion on marine species, natural communities or habitat, protected wetlands or waters, and critical habitats compared to the proposed project, significant and unavoidable.***

(DEIR/EIS, pp. 5.5-114, emphasis added; see also 5.5-128 [reaching same conclusion as to Alternative 5A].) As explained in the HGC Comments, this conclusion is based on the NMGWM^{2016} model, which is poorly calibrated and does not reliably predict potential drawdown, especially for the Potrero Road site, which the modeling uses untested and not substantiated vertical hydraulic conductivity values that are 2 orders of magnitude less than the CEMEX site. As explained in HGC's comment, the assessment of the impact of surface water losses from Elkhorn Slough due to pumping is general and compared to annual conditions that don't consider low-flow or no-flow conditions resulting from seasonal or climatic dry periods. (HGC Comments, p. 61, 78.) Thus, without improved modeling, it impossible for the DEIR/EIS to assess whether this this impact is significant and therefore, what the environmentally superior alternative is.

While MCWD does not fault the DEIR/EIS for conservatively determining this impact is significant due to the lack reliable modeling information, MCWD notes this this conservative conclusion is inconsistent with the DEIR/EIS's conclusion regarding the potential impacts to the Salinas River and the Tembladero Slough. However, the fact that the DEIR/EIS's modeling cannot predict the amount of water diverted from Elkhorn Slough and conservatively assumes operations could potentially adversely affect aquatic habitat in Elkhorn Slough due to reduced surface water flow and volumes does not excuse the DEIR/EIS from qualitatively evaluating the potential impacts. What are the potential impacts to aquatic habitat in Elkhorn Slough that could result from Alternative 1 and Alternative 5A? Without this information is impossible to determine whether any

potential impacts could be mitigated. Moreover, these potential impacts must compared with the projects potential impacts to groundwater dependent ecosystems (that are not evaluated in the DEIR/EIS) and ESHA so the public and decisionmakers can weigh the environmental consequences of these alternatives with those of the proposed project.

12. Comments on Environmentally Superior Alternative/Preferred Alternative (Section 5.6.)

The DEIR/EIS discussion of the Environmentally Superior Alternative/Preferred Alternative states:

> While CalAm is seeking approval of the 9.6 mgd project (proposed project), CalAm proposes to move forward with a 6.4 mgd desalination plant (Alternative 5a and 5b) if the GWR project is successfully implemented to help meet the SWRCB's CDO. In case the GWR project faces hurdles that would impair its ability to supply the additional 3.2 mgd of water for CalAm's customers in a timely manner, CalAm also seeks contingency approval for the 9.6 mgd desalination plant.

(DEIR/EIS, p. 5.6-2) The DEIR/EIS's decision to speculate that approved GWR project may not be fully implemented, without any explanation as why, in order to provide CalAm with an apparent contingency plan (which could allow CalAm abandon the GWR Project like the Regional Project for purely financial reasons) fatally undermines the DEIR/EIS's Alternatives Analysis and the CEQA and NEPA processes. As noted above, using this dual-track approach is inconsistent with CEQA and NEPA and this sets up a strawman alternative that ignores the fact the GWR Project is approved and moving forward.

Based on the DEIR/EIS's decision to compare all the alternatives to the vastly oversized and unnecessary 9.6 MGD project originally proposed by CalAm (prior to the approval of GWR), the DEIR/EIS determines that Alternative 5a paired with the GWR project, is the environmentally superior/environmentally preferred alternative. (DEIR/EIS, p. 5.6-7.) This conclusion, however, is fundamentally flawed because the DEIR/EIS fails to evaluate multiple potentially feasible alternatives that would eliminate or reduce the project significant and unavoidable impacts. As explained above, both Horizontal Wells and Ranney Wells are potentially feasible alternatives that would eliminate or reduce the project's significant and unavoidable impacts.

Setting aside these errors, the DEIR/EIS's conclusion that Alternative 5b (Reduced Desal with Slant Wells at Potrero Road) is environmentally inferior to Alternative 1A appears indefensible. The DEIR/EIS acknowledges that Alternative 5b would have similar but reduced groundwater level impacts at Elkhorn Slough in the Dune Sands aquifer. But concludes that "Although it would avoid impacts on marine and terrestrial biological resources at the proposed CEMEX site, the impacts on Elkhorn Slough biological resources were determined to be of greater magnitude. Therefore, Alternative 5b would not offer overall environmental advantages over the proposed project or Alternative 5a." The

DEIR/EIS provides no explanation for its determination that Alternative 5b's potential impacts on Elkhorn Slough biological resources are of greater magnitude than avoid Alternative 5b's impacts on marine and terrestrial biological resources at the proposed CEMEX site. As noted above, there is explanation in the DEIR/EIS of the Alternative 5b's potential impacts on Elkhorn Slough biological resources. Again, with any explanation, it is impossible for the public or decisionmakers to comment on or evaluate the DEIR/EIS's conclusion.

Finally, based on its comments above, MCWD offers the following comments regarding alternatives that must be considered in a revised DEIR/EIS, given the project significant impacts on the Marina Subarea, CalAm lack of water rights, and the Agency Act's prohibition of exports from the SVGB, before the CPCU or Sanctuary can determine the Environmentally Superior Alternative/Preferred Alternative.

- Horizontal Wells at CEMEX site. (See Intake Works Comments, p. 20.)
- Horizontal Wells at the Potrero site and/or other sites closer to CalAm's service area. (See Intake Works Comments, p. 20.)
- Ranney wells at CEMEX and Potrero Road sites. (See Intake Works Comments, p. 20.)
- Ranney wells at sites along Carmel Beach or other suitable locations closer to CalAm's service area. (See Intake Works Comments, p. 16.)
- In addition, the DEIR/EIS must consider alternative locations for a permanent wells on CEMEX site other than the slant well site. The CCC has determined that the existing slant test well is located in "primary habitat" (CCC Findings (analysis limited to temporary impacts to ESHA) – and MPWSP propose to make this location permanent. As this is inconsistent with City of Marina's LCP, the current test well location cannot be permitted by the City of Marina without an amendment to the City's LCP. Moreover, even under the CCC's current findings relating to the test well, a slant well at this location can only be approved if there are not feasible alternative locations on the CEMEX site. (*Ibid.*) Given the DEIR/EIS's suggestion the other proposed slant well locations are not within primary habitat – removal of the test well to one of these locations is required.

In sum, the DEIR/EIS must be revised and recirculated to consider these alternatives. As explained in *Citizens of Goleta Valley v. Board of Supervisors* (1988) 197 Cal.App.3d 1167, 1180–1183 (*Goleta I*) assertions that a particular alternative is economically infeasible simply because it would be more expensive or less profitable to the private applicant are not adequate. "In the absence of comparative data and analysis, no meaningful conclusions Because the DEIR/EIS fails to provide substantial evidence supporting a finding of infeasibility for any suggested alternatives above and rejects them out of hand, additional analysis is required before the CPUC or Sanctuary can consider approval of the project.

(Pub. Resources Code, § 21002; *Sierra Club v. Gilroy City Council* (1990) 220 Cal.App.3d 30, 31.)

Given these serious flaws in the DEIR/EIS analysis, the only Alternatives that MCWD can support is a test well for any of the above alternatives. This assumes any approved test well's impacts will adequately mitigated, unlike the CEMEX slant well, to ensure no harm to the SVGB. We further note that the Potrero Road site appears to be a superior site for subsurface seawater intake facilities for the reasons explained in the HGC Comments. Therefore, MCWD requests CPUC move forward with a test well alternative at the Potrero Road site.

E. Other Considerations.

13. Comments on Growth-Inducing Impacts (Section 6.3)

As explained in above in Part III.A.1, the proposed project provides substantially more water than is needed to meet the peak month demand of existing 2016 customers. Contrary to the DEIR/EIS's conclusion CalAm's requested contingency approval for the 9.6 MDG desalination plant would likely induce growth within the coastal areas substantially in manner that would be inconsistent with Sanctuary's Management Plan requirements. Unless the DEIR/EIS is revised to either eliminate the 9.6 MDG desalination plant from consideration, this section of the DEIR/EIS must be revised to evaluate the possibility of both the 6 MDG desalination plant and the GWR Project (potentially without CalAm's participation). Moreover, this Section must be revised based an independently reviewed assessment (preferably a computer model of its existing water supply sources and demands as they vary by water year type and by month and how it will change come 2022) of CalAm's future water supplies and demands.

14. Project Consistency with Monterey Bay National Marine Sanctuary Desalination Guidelines (Section 6.4)

The DEIR/EIS states the project is consistent with Sanctuary Desalination Guideline that "The implementation of subsurface intakes ***should not cause saltwater intrusion to aquifers or adversely affect coastal wetlands that may be connected to the same aquifer*** being used by the intake, and the intake proposal must address the likelihood of increased coastal erosion in the future." (Compare Monterey Bay National Marine Sanctuary Desalination Guidelines, p. 6 to DEIR, p. 6-48.) As discussed, above the DEIR/EIS modeling cannot and does not evaluate the project's potential to cause saltwater intrusion to aquifers or adversely affect coastal wetlands that may be connected to the same aquifer. Moreover, as explained in the attached HGC and EKI Comments, the project by design will cause seawater intrusion to Marina Subarea aquifers and adversely affect coastal wetlands that may be connected to the Marina Subarea. Therefore, this DEIR/EIS must be revised to disclose the project is not consistent with the Guideline. This Section should also be revised to consider the issue surrounding public versus private ownership based on the Sanctuary's

Management Plan. It should also address the project's consistency with the NOAA Guideline: "Desalination plant proponents should pursue collaborations with other water suppliers and agencies currently considering water supply options in the area to evaluate the potential for an integrated regional water supply project." (Monterey Bay National Marine Sanctuary Desalination Guidelines, p. 4.) Given these policies, MCWD fails to understand why the DEIR/EIS is only considering CalAm's go-it-alone approach or open water intakes.

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MCWD requests that The Figure 5.1 from appendix E2 be revised to show the areas impacted on a topographical map or other map were locations or landmarks are visible. The current figure does not allow the public to understand the extent of potential impacts.

F. Recirculation of the Revised DEIR/EIS with Project or Programmatic Analysis of MPWSP Source Water Is Required.

State CEQA Guidelines Section 15088.5 provides for recirculation of an EIR prior to certification when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review but before certification. The term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement.

The number one concern of MCWD and many other interested parties has been whether and to what extent the MPWSP will impact existing groundwater resources in the SVGB and Marina Subarea. As explained above, the DEIR/EIS groundwater analysis is fundamental flawed and fails to disclose adequate information regarding the Marina Subarea aquifer that will be impacted by the proposed MPWSP slant wells. This violates CEQA fundamental principles. *Cadiz Land Co., Inc., supra*, is on point. In that case the petitioner's comments on a draft EIR and a supplement to the draft EIR, including the consultant's report, proved that the EIR could have included an estimate of the groundwater volume in the aquifer. According to the court, upon receipt of these comments, "the County should have revised the EIR to include such information, along with a discussion of the estimated date of depletion of the aquifer water." (83 Cal.App.4th at p. 95.) Acknowledging that the county's decisionmakers considered this information before approving the project, the court nevertheless held that the consultant's report constituted "significant new information" within the meaning of Public Resources Code section 21092.1, and that "the EIR should have been revised and recirculated for purposes of informing the public and governmental agencies of the volume of groundwater at risk and to allow the public and governmental agencies to respond to such information." (*Ibid.*) As in *Cadiz*, recirculation is required here.

IV. CONCLUSION.

MCWD requests the DEIR/EIS be revised as detailed in the comments above. Due to the significant nature of the revisions that will be required, MCWD believes that the DEIR/EIS is plainly deficient. After the Commission and Sanctuary make the recommended revisions, the DEIR/EIS must be re-circulated for further comment.

In addition, due to the seeming infeasibility of the proposed project based on both legal and physical considerations related to likely significant adverse impacts on the groundwater environment, MCWD recommends that the Commission and CalAm consider the full range of feasible alternative configurations and feasible alternatives (including the no project alternative) that are not presently or sufficiently addressed in the DEIR/EIS.

CalAm and other project proponents have been using the "Cliff" argument to scare people into supporting the MPWSP. The argument is that if Cal-Am does not get a 9.6 MGD desalination plant built by 2021, then come January 1, 2022, when the final diversion reduction under the Carmel River Cease and Desist Order kicks in, there will be severe rationing. The DEIR/EIS's no project alternative analysis improperly adopts this scare technique. As MCWD has explained to the State Water Resources Control Board and explained above—there is no cliff. As MCWD has shown, Scenario A meets seven of nine Primary Project Objectives without the need to construct the MPWSP. Consequently, there is additional time to properly evaluate feasible alternatives, including intake technologies and locations, which would result in significantly less impacts to the environment and groundwater and lower capital costs by properly sizing the project. In fact, given the proposed project's risks and significant impacts, this evaluation is required for all the reasons explained above.

Sincerely,

Keith Van Der Maaten

Marina Coast Water District
General Manager

EXHIBIT LIST

Marina Coast Water District's
Comments on the 2017 DEIR/DEIS for the MPWSP
California Public Utilities Commission proceeding A.12-04-019

1. HGW Comments; Hopkins resume
2. GeoHydros Comments; Kincaid and Day CV; GeoHydros SOQ
3. EKI Comments
4. IntakeWorks Comments; Jones CV
5. Parties' briefs on the merits in *MCWD v. California Coastal Commission*, Santa Cruz Superior Court Case No. CV180839
6. Inventory of transmitted flash drive folders – containing
   Public Records Act responses received to date from the Commission and
   Data request responses in A.12-04-019 received to date from the Applicant
7. Excerpts of testimony of Dennis Williams in *MCWD v. California Coastal Commission*, Santa Cruz Superior Court Case No. Case No.: CV180839
8. Map of Marina Coast Service area in relationship to the 180/400, Monterey, and Seaside Subbasins
9. Coastal Commission findings
10. Scenario A Water Portfolio analysis
11. Scenario B Water Portfolio analysis