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VIA EMAIL AND OVERNIGHT MAIL

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Re: Comments on the Draft Environmental Impact Report/ Draft Environmental Impact Statement for the Proposed Monterey Peninsula Water Supply Project

Dear Ms. Borak and Ms. Grimmer:

We are writing on behalf of **California Unions for Reliable Energy (“CURE”)** to provide comments on the Draft Environmental Impact Report and Draft Environmental Impact Statement (“DEIR/EIS”) prepared by the California Public Utilities Commission (“CPUC”) and by the Monterey Bay National Marine Sanctuary (“MBNMS”), pursuant to the California Environmental Quality Act, and its regulations (“CEQA”),¹ and the National Environmental Policy Act, and its regulations (“NEPA”),² respectively, for the Monterey Peninsula Water Supply

¹ California Public Resources Code, §§ 21000 et seq.

² National Environmental Policy Act, 42 U.S.C. 4321 et seq.

Project (“Project”). The Project is being proposed by the California American Water Company (“CalAm” or “Applicant”) and will include the construction and operation of a seawater desalination plant and conveyance system with an initial capacity of 9.6 million gallons per day (“mgd”) to provide a supplemental source of water to the Monterey Bay area.

The Project area extends approximately 18 miles, from the Project site located in the town of Castroville in the north to the City of Carmel in the south.³ The Project would include:

- a seawater intake system (comprising of ten subsurface slant wells) extending offshore into submerged lands of MBNMS, and a Source Water Pipeline;⁴
- a 9.6 mgd desalination plant and related facilities (including pretreatment, reverse osmosis, and post-treatment systems), backwash supply and filtered water equalization tanks, chemical feed and storage facilities, brine storage and conveyance facilities, and other associated non-process facilities;⁵
- desalinated water conveyance facilities including pipelines and stand-alone pump station, and a Terminal Reservoir;⁶
- an expanded ASR system, including two additional injection/extraction wells, the ASR-5 and ASR-6 Wells, and three parallel pipelines, the ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, and ASR injection/extraction wells and backwash effluent from the wells to an existing settling basin.⁷

The seawater intake system comprises of ten subsurface slant wells (eight active and two on standby), which would be constructed at the CEMEX sand mining site in the northern coastal area of the City of Marina.⁸ An estimated 24.1 mgd of raw seawater — extracted through the seafloor in MBNMS — is needed to reliably generate 9.6 million gallons per day (mgd) of product water at the desalination

³ DEIR/EIS, at p. ES-5.

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

plant, which would be constructed in unincorporated Monterey County.⁹ The plant would produce approximately 10,750 acre-feet per year (“afy”).¹⁰ The plant’s related facilities include pretreatment, reverse osmosis (“RO”), and post-treatment systems; backwash supply and filtered water equalization tanks; chemical feed and storage facilities; brine storage and conveyance facilities; and other associated non-process facilities.¹¹

The source water is conveyed through the slant well to the desalination plant and related facilities. There, it must first pass through a pretreatment system, which would remove suspended and dissolved contaminants and fine particulates. Backwash supply pumps would be used to clean the pretreatment system’s filters. Next, the source water would pass through the RO system, which would remove salts and other minerals from the pretreated source water. Finally, the source water would pass through the post-treatment system, if necessary, to meet State Water Resources Control Board standards.¹²

Brine produced during the RO process and pretreatment backwash effluent (a total of approximately 13.98 mgd) would be stored at the desalination plant before being conveyed to the existing ocean outfall pipeline.¹³ The brine may be blended with treated wastewater effluent to Monterey Bay.¹⁴ During wet periods the brine would be blended with treated wastewater effluent from the MRWPCA Regional Wastewater Treatment Plant before discharge.¹⁵ During dry months, the brine stream could be discharged without dilution.¹⁶ The amount of treated wastewater effluent would vary throughout the year.¹⁷ The salinity of the discharged brine would be roughly 71 to 74 percent higher than seawater.¹⁸

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*, at pp. 3-8-12 (Table 3-1).

¹³ *Id.*, at p. 3-56.

¹⁴ *Id.*, at pp. 3-8-12 (Table 3-1).

¹⁵ *Id.*, at p. 3-56.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

The desalinated water would be held in holding tanks from which water would be pumped to either the CalAm water system, the existing Castroville Seawater Intrusion Project (“CSIP”) or the Castroville Pipeline.¹⁹ The Project includes other desalinated water conveyance and storage facilities, including treated water storage tanks, desalinated water pumps, a new desalinated water pipeline, a new transmission main, a terminal reservoir tank to store desalinated water and ASR product water, the Carmel Valley Pump Station to provide additional pressure needed to pump water, improvements to interconnection pipelines, the Castroville Pipeline, which would convey desalinated water to the CSIP and the Castroville Community Services District (“CCSD”) Well #3, and a pipeline to the CSIP pond for subsequent delivery to agricultural users in the Salinas Valley.²⁰ The ASR system, includes two new ASR injection/extraction wells (named ASR-5 and ASR-6), which would inject desalinated water into the Seaside Groundwater Basin for storage.²¹ Three parallel pipelines would also be constructed to convey water.²²

The Project would return approximately 700 afy to the Seaside Groundwater Basin over 25 years.²³ It would also include improvements to the Seaside Groundwater Basin aquifer storage and recovery (“ASR”) system facilities to enable CalAm to inject desalinated product water into the groundwater basin for subsequent extraction and distribution to customers.²⁴ The improved ASR system would include two additional injection/extraction wells, the ASR-5 and ASR-6 Wells, and three parallel pipelines, the ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, and ASR Recirculation Pipeline, and would improve the reliability of the existing ASR system.²⁵

The Project also includes over 21 miles of water pipelines that convey source water between the subsurface intakes and the desalination plant, and desalinated water from the plant to the Terminal Reservoir.²⁶

¹⁹ *Id.*, at p. 3-10.

²⁰ *Id.*, at p. 3-7.

²¹ *Id.*

²² *Id.*

²³ *Id.*, at p. ES-3.

²⁴ *Id.*, at p. ES-5.

²⁵ *Id.*

²⁶ *Id.*

CalAm's application for the Project also includes an option that would combine a reduced-capacity desalination plant (6.4 mgd) with a water purchase agreement for 3,500 afy of product water from another source, the Pure Water Monterey Groundwater Replenishment ("GWR") Project.²⁷ The Monterey Regional Water Pollution Control Agency ("MRWPCA") certified the Final EIR and approved the GWR project in October 2015.²⁸

Finally, CalAm constructed and operated a test slant well at the CEMEX sand mining site. A separate environmental review document covered the test slant well construction and operation.²⁹ This DEIR/EIS does not evaluate the test slant well.³⁰ If the project with subsurface slant wells at CEMEX is not approved and implemented, the test slant well will be decommissioned.³¹

The Project requires a number of permits and approvals including incidental take permits, a Biological Opinion, and waste discharge permits, among others.³²

Based upon our review of the DEIR/EIS and pertinent agency records, we conclude that the DEIR/EIS fails to comply with CEQA and NEPA and must be withdrawn. The DEIR/EIS fails to include a complete project description, provide an adequate description of the environmental setting, adequately analyze and mitigate the project's potentially significant impacts, provides deferred, unenforceable, or otherwise inadequate mitigation measures, evaluate certain alternatives, and consider growth-inducing impacts. The CPUC and MBNMS must revise the DEIR/EIS and recirculate the revised DEIR/EIS for public review.

²⁷ *Id.*

²⁸ *Id.*, at pp. ES-6, 1-2.

²⁹ DEIR/EIS, p. ES-6, fn. 2 ("In October 2014, MBNMS finished its NEPA review of the construction of the test slant well and the operation of the pilot program. In November 2014, the City of Marina and the California Coastal Commission completed their CEQA review."); California American Water Slant Test Well Project Draft Initial Study/Mitigated Negative Declaration (State Clearinghouse No. 2014051060) (City of Marina, 2014), **Attachment A**.

³⁰ DEIR/EIS, p. ES-6.

³¹ *Id.*

³² *Id.*, pp. 3-62-67, Table 3-8.

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We prepared these comments with the assistance of Phyllis Fox, Ph.D., Renée Owens, M.Sc., and Radoslaw Sobczynski, Ph.D. Their technical comments are attached hereto and submitted to the CPUC and MBNMS, in addition to the comments in this letter.³³ Accordingly, the CPUC and MBNMS must address and respond to the comments of Dr. Fox, Ms. Owens, and Dr. Sobczynski, separately.

I. STATEMENT OF INTEREST

CURE is a coalition of labor organizations whose members construct, operate, and maintain industrial facilities throughout California. CURE has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for industry to expand along the Monterey Bay, and by making it less desirable for businesses to locate and people to live in the area, including the Project vicinity. Continued degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

CURE members live, work, recreate and raise their families in the Project vicinity along the Monterey Bay. Accordingly, CURE's members would be directly affected by the Project's adverse environmental impacts. The members of CURE's member organizations may also work on the Project itself. They will, therefore, be first in line to be exposed to any hazardous materials, air contaminants and other health and safety hazards that exist on the Project sites.

³³ See Letter from Phyllis Fox, to Linda Sobczynski, re: Comments on Draft Environmental Impact Report/Environmental Impact Statement for the CalAm Monterey Peninsula Water Supply Project, February 27, 2017 (hereinafter, "Fox Comments"), **Attachment B** (letter provided in hard copy and references are enclosed on a CD). See Letter from Renee Owens, to Linda Sobczynski re: Comments on the CalAm Monterey Peninsula Water Supply Project Draft Environmental Impact Report/Environmental Impact Statement, February 24, 2017 (hereinafter, "Owens Comments"), **Attachment C** (letter provided in hard copy and references are enclosed on a CD). See Letter from Radoslaw Sobczynski, to Linda Sobczynski re: Comments on Draft Environmental Impact Report/Environmental Impact Statement for the CalAm Monterey Peninsula Water Supply Project, February 24, 2017 (hereinafter, "R. Sobczynski Comments"), **Attachment D** (letter provided in hard copy and references are enclosed on a CD).

II. LEGAL BACKGROUND

A. National Environmental Policy Act (“NEPA”)

NEPA is “our basic national charter for protection of the environment.”³⁴ Its purpose is “to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.”³⁵ NEPA therefore requires federal agencies to take a “hard look at [the] environmental consequences” of their proposed actions.³⁶ In so doing, NEPA makes certain “that environmental concerns will be integrated into the very process of agency decision-making.”³⁷

NEPA requires all agencies of the federal government to prepare a “detailed statement” that discusses the environmental effects of, and reasonable alternatives to, all “major Federal actions significantly affecting the quality of the human environment.”³⁸ This statement is commonly known as an environmental impact statement (“EIS”). An EIS must describe: (1) the “environmental impact of the proposed action”; (2) any “adverse environmental effects which cannot be avoided should the proposal be implemented”; and (3) any “alternatives to the proposed action.”³⁹ It further requires that “the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth” therein.⁴⁰ The environmental “effects” that must be considered in an EIS include both “direct effects which are caused by the action” and “indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”⁴¹

³⁴ 40 C.F.R. 1500.1(a).

³⁵ *Id.* § 1500.1(c).

³⁶ *Robertson v. Methow Valley Citizens Council* (1989) 490 U.S. 332, 350.

³⁷ *Andrus v. Sierra Club*, 442 U.S. 347, 350 (1979).

³⁸ 42 U.S.C. § 4332(2)(C).

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ 40 C.F.R. § 1508.8(a), (b).

B. California Environmental Quality Act

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report (“EIR”) (except in certain limited circumstances).⁴² The EIR is the very heart of CEQA.⁴³ “The foremost principle in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.”⁴⁴

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.⁴⁵ “Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR ‘protects not only the environment but also informed self-government.’”⁴⁶ The EIR has been described as “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.”⁴⁷

Second, CEQA requires public agencies to avoid or reduce environmental damage when “feasible” by requiring “environmentally superior” alternatives and all feasible mitigation measures.⁴⁸ The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to “identify ways that environmental damage can be avoided or significantly reduced.”⁴⁹ If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has “eliminated or substantially lessened all significant effects on the environment where feasible” and

⁴² See, e.g., Public Resources Code § 21100.

⁴³ *Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652.

⁴⁴ *Communities. for a Better Env. v. Cal. Res. Agency* (2002) 103 Cal. App.4th 98, 109 (“*CBE v. CRA*”).

⁴⁵ 14 Cal. Code Regs. § 15002(a)(1).

⁴⁶ *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.

⁴⁷ *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm’rs.* (2001) 91 Cal. App. 4th 1344, 1354 (“*Berkeley Jets*”); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

⁴⁸ 14 CCR § 15002(a)(2) and (3); see also *Berkeley Jets*, 91 Cal.App.4th at 1354; *Citizens of Goleta Valley*, 52 Cal.3d at p. 564.

⁴⁹ 14 Cal. Code Regs. §15002(a)(2).

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that any unavoidable significant effects on the environment are “acceptable due to overriding concerns.”⁵⁰

While the courts review an EIR using an “abuse of discretion” standard, “the reviewing court is not to ‘uncritically rely on every study or analysis presented by a project proponent in support of its position. *A clearly inadequate or unsupported study is entitled to no judicial deference.*”⁵¹ As the courts have explained, “a prejudicial abuse of discretion occurs “if the failure to include relevant information precludes informed decision making and informed public participation, thereby thwarting the statutory goals of the EIR process.”⁵²

III. THE DEIR/EIS FAILS TO INCLUDE A COMPLETE PROJECT DESCRIPTION

The DEIR/EIS does not meet NEPA’s or CEQA’s requirements because it fails to include a complete project description, rendering the entire analysis inadequate. Without a complete project description, the environmental analysis under CEQA and NEPA will be impermissibly narrow, thus minimizing the project’s impacts and undercutting public review.⁵³

Under NEPA, a complete project description is necessary for the public and decision makers to understand the effects of the proposed action and its alternatives.⁵⁴ It follows that information in an EIS that is incomplete will skew the environmental consequences analysis and prevent informed public input. Courts have held that “[w]here the information in the initial EIS was so incomplete or misleading that the decision maker and the public could not make an informed comparison of the alternatives, revision of an EIS may be necessary to provide a

⁵⁰ PRC § 21081; 14 CCR § 15092(b)(2)(A) & (B).

⁵¹ *Berkeley Jets*, 91 Cal. App. 4th 1344, 1355 (emphasis added), quoting, *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391 409, fn. 12.

⁵² *Berkeley Jets*, 91 Cal.App.4th at 1355; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1117; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 946.

⁵³ See, e.g., *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1988) 47 Cal.3d 376.

⁵⁴ See 40 C.F.R. § 1502.15; see also *Laguna Greenbelt v. U.S. Dept. of Transportation* (1994) 42 F.3d 517, 528-29 [reviewing plaintiff’s claim that inconsistent definition resulted in misleading analysis of project’s positive and negative effects].

reasonable, good faith, and objective presentation of the subjects required by NEPA.”⁵⁵

CEQA places the burden of environmental investigation on the government rather than the public. Accordingly, a lead agency may not hide behind its failure to obtain a complete and accurate project description.⁵⁶ CEQA requires that the project description contained in a CEQA document that is circulated for public review contain sufficiently detailed information to permit a meaningful evaluation and review of the potential environmental impacts of a proposed project.⁵⁷ California courts have repeatedly held that “an accurate, stable and finite project description is the sine qua non of an informative and legally sufficient [CEQA document].”⁵⁸ In contrast, an inaccurate or incomplete project description renders the analysis of environmental impacts inherently unreliable. Without a complete project description, the environmental analysis under CEQA will be impermissibly narrow, thus minimizing the project’s impacts and undercutting public review.⁵⁹

A. The DEIR/EIS Fails to Describe the Decommissioning Phase of the Project

NEPA and CEQA require a full description of the Project, including its decommissioning phase. Under NEPA, federal agencies must analyze and disclose the impacts of major Federal actions. They may not segment the project into separate components. The Council on Environmental Quality regulations state in relevant part that an EIS must consider the following types of actions:

- (1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

⁵⁵ *Natural Resources Defense Council v. U.S. Forest Service* (2005) 421 F.3d 797, 811 (citing *Animal Defense Council v. Hodel* (1988) 840 F.2d 1432, 1439).

⁵⁶ *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311.

⁵⁷ 14 Cal. Code Regs. § 15124 (hereafter “CEQA Guidelines”).

⁵⁸ *County of Inyo v. City of Los Angeles* (3d Dist. 1977) 71 Cal.App.3d 185, 193.

⁵⁹ *See, e.g., Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376.

(i) Automatically trigger other actions which may require environmental impact statements.

(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.

(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

(2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

(3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.⁶⁰

In requiring agencies to analyze these types of actions in the same environmental review document, the agency is prevented from segmenting the project into multiple individual actions, each of which would have an insignificant impact, but collectively would have a significant one.⁶¹

CEQA is similar. It requires that a complete project description include the “later phases of the project, and any secondary, support, or off-site features necessary for its implementation.”⁶² The requirements of CEQA cannot be avoided

⁶⁰ 40 C.F.R. § 1508.25; see also *Kentucky Coal Ass’n, Inc. v. Tennessee Valley Authority* (W.D. Ky. 2014) 68 F.Supp.3d 685, 696–97.

⁶¹ *Kentucky Coal Ass’n, Inc. v. Tennessee Valley Authority* (W.D. Ky. 2014) 68 F.Supp.3d 685, 697 (citing *Delaware Riverkeeper Network*, 753 F.3d at 1314 (citing *NRDC v. Hodel*, 865 F.2d 288, 297 (D.C.Cir.1988))

⁶² *Bozung v. Local Agency Formation Com.* (1975), 13 Cal.3d 263, 283-84.

by chopping a large project into many small parts or by excluding reasonably foreseeable future activities that may become part of the project.⁶³

The DEIR/EIS must supply enough information so that the decision makers and the public can fully understand the scope of the Project.⁶⁴ The CPUC and MBNMS, as the lead agencies, must fully analyze the whole Project in a single environmental review document and may not piecemeal or split the Project into pieces for purposes of analysis.

Here, the DEIR/EIS fails to describe the full scope of the Project, and thus fails to disclose the full range and severity of the Project's environmental impacts. Throughout the document, the DEIR/EIS states that the Project will have an approximately "40-year operations phase."⁶⁵ The DEIR/EIS analyzes some of the impacts in this 40-year context. For example,

The timeframe during which the MPWSP could contribute to cumulative surface water hydrology and water quality effects includes the 24-month construction period, as well as the estimated 40-year operations phase.⁶⁶

Note, in the above example that the DEIR/EIS acknowledges that impacts will occur during the construction period and the 40-year operations phase, but not decommissioning. The DEIR/EIS must take into consideration impacts that occur during the decommissioning phase.

Where the DEIR/EIS does discuss decommissioning, the analysis is limited to coastal retreat — triggering decommissioning and abandoning the slant wells⁶⁷ —, and anticipated energy demand and energy efficiency of the proposed project as a whole, including decommissioning. This limited description and analysis of decommissioning is not enough to comply with CEQA's requirement to describe and analyze impacts from the whole project.

⁶³ Pub. Resources Code § 21159.27 (prohibiting piecemealing); *see also Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 370.

⁶⁴ *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 26.

⁶⁵ DEIR/EIS, at p. 4.18-14.

⁶⁶ *Id.*, at p. 4.3-120.

⁶⁷ *Id.*, at p. 4.2-71

1. Slant Wells' Decommissioning Is Not Adequately Described

For the slant wells, the DEIR/EIS admits that the presence of any slant well on the beach would result in a significant impact.⁶⁸ However, it states 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 decommissions before the beach migrates inland to the location of the subsurface slant wells.”⁶⁹

When it is anticipated that the slant well will become exposed in five years, “CalAm will implement the planning and permitting necessary to *abandon* the slant wells.”⁷⁰ Then, the affected slant wells would be removed from service. Their casing would be pressure grouted such that the screened section would be sealed and the section well casing and pipelines at risk of exposure would 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 or any permit condition.⁷¹ Because “the rate of coastal retreat may vary due to unforeseen changes in climate change,” this mitigation measure applies to all slant wells, even though the new slant wells would be located inland of the modeled anticipated inland extent of coastal retreat, unlike the test slant well, which might become exposed during the operational life of the project.⁷²

This mitigation measure only appears to be triggered when there is a risk of exposure. The DEIR/EIS does not discuss what will be done with the slant wells at the decommissioning phase of the Project.⁷³ This is a significant, and unexplained, deviation from the test slant well’s project description, discussing mitigation. In the 2014 Environmental Assessment for the test slant well, the lead agency, MBNMS, stated the well should be removed to an ultimate depth of no less than 40 feet below

⁶⁸ *Id.*

⁶⁹ *Id.*, at pp. 4.2-71-72.

⁷⁰ *Id.*, at p. 4.2-72 (italics added).

⁷¹ *Id.*

⁷² *Id.*, at pp. 4.2-71-72.

⁷³ *Id.*, at p. 4.2-72.

existing ground surface at project decommissioning.⁷⁴ That document provided the following Mitigation Measure:

At project decommissioning, the slant test well and all related infrastructure shall be removed to an ultimate depth of no less than 40 feet below existing ground surface to eliminate the possibility for future re-surfacing and exposure of submerged well casing or related project components as a result of coastal erosion and shoreline retreat. Removal of the well would take place upon completion of the test pumping and/or in segments over time as mutually agreed upon by MBNMS, MRWPCA, Cal Am, the California State Lands Commission, and other identified regulatory agencies. If removal to the total required depth of 40 feet below ground surface is not completed within 5 years following completion of the test pumping due to potential risk to the MRWPCA outfall, the applicant shall post a bond with the City to ensure future removal measures would be appropriately supported and timed to prevent any future resurfacing of the well casing or other project components and shall provide evidence of the bond to MBNMS.⁷⁵

Unlike the description above for the test slant well, the DEIR/EIS does not provide an adequate project description by failing to provide an explanation of the decommissioning phase for this Project's test slant well (which will be converted to a permanent well) and the proposed wells. This is significant because, as a result of the inadequate project description, the DEIR/EIS fails to analyze significant impacts from decommissioning the wells and fails to require this or another mitigation measure for the test slant well and the proposed wells.

During Project decommissioning, well materials may have to be removed or destroyed in accordance with state well destruction standards. For example, California Well Standards Bulletin 74-81 and 74-90 requires removal or destruction

⁷⁴ Final Environmental Assessment for the California American Water Slant Test Well Project, September 2014, *available at* http://montereybay.noaa.gov/resourcepro/resmanissues/desal_projects/pdf/140912calam-slantwell_ea-final.pdf ("NOAA EA, 2014"), at Appendix A. Avoidance, Minimization, and Mitigation Measures, at p. 121, Measure 28, **Attachment E**.

⁷⁵ *Id.*

of wells that are no longer useful or are abandoned.⁷⁶ The California Well Standards describe an intensive process for destroying wells, including cleaning, excavation, removing materials, filling, sealing and other activities.⁷⁷

The DEIR/EIS fails to mention the common sense impact on the environment from decommissioning and abandoning slant wells in the event of coastal erosion. Given the real possibility decommissioning and abandonment may occur at least for the test slant well, this omission renders the project description inadequate. The DEIR/EIS must also evaluate if the decommissioned slant wells would need to be replaced with new slant wells in the event decommissioning and abandonment occurs during the 40-year operational lifetime of the Project.

Even though Mitigation Measure 4.2-9 (Slant Well Abandonment Plan) would bring the Project into conformance with a number of policies,⁷⁸ the DEIR/EIS cannot avoid providing a complete description of the Project and the Project's impacts from its construction, operation, and decommissioning and abandonment phases.⁷⁹ By recognizing that slant wells may need to be decommissioned and abandoned, but failing to describe the impact of these wells after their operating lifetime, the DEIR/EIS fails to adequately describe the project.

2. Other Desalination Facilities' Decommissioning Is Not Adequately Described

Although the DEIR/EIS discusses decommissioning of the slant wells and decommissioning in the context of energy demand and energy efficiency,⁸⁰ the DEIR/EIS must consider *all* potentially significant impacts from decommissioning

⁷⁶ California Well Standards, http://www.water.ca.gov/groundwater/well_info_and_other/california_well_standards/www/www_combined_sec20-22.html#22, **Attachment F-1**.

⁷⁷ California Well Standards, http://www.water.ca.gov/groundwater/well_info_and_other/california_well_standards/www/www_combined_sec23.html, **Attachment F-2**.

⁷⁸ DEIR/EIS, at p. 4.2-71.

⁷⁹ *Id.*, at p. 4.2-72.

⁸⁰ The DEIR/EIS states that the "amounts of direct energy consumption that would occur at the end of the useful life of the project (in approximately 40 years) related to decommissioning is unknown; however, it is anticipated that the amounts would be similar to those required for construction, discussed above." *Id.*, at p. 4.18-14.

the *entire* Project. Decommissioning the desalination plant and related facilities (including, in part, abandoning the subsurface slant wells) would result in environmental impacts, including impacts to air quality, biological resources, water, and solid waste capacity.

In short, the DEIR/EIS's description and analysis of Project decommissioning do not come close to satisfying NEPA's and CEQA's requirements. Where the DEIR/EIS acknowledges that some Project components could be decommissioned, it completely fails to analyze the associated impacts. Further, the DEIR/EIS fails to even mention, let alone analyze, impacts from decommissioning the rest of the Project. As a result, the DEIR/EIS fails to identify the Project's potentially significant impacts from Project decommissioning and fails to incorporate mitigation measures to reduce those impacts to a less than significant level.

An accurate and complete project description is necessary to perform an adequate evaluation of the potential environmental effects of a proposed project. The CPUC and MBNMS must prepare a revised DEIR/EIS that fully describes decommissioning for all Project components, including the plant, the slant wells, pipelines, injection wells and other associated materials. Only by doing so will the agencies be able to properly analyze and mitigate impacts from decommissioning the whole Project.

B. The DEIR/EIS Fails to Describe the Operating Life of the Slant Wells

The DEIR/EIS fails to include a complete project description with respect to the operating life of the slant wells. The Project is designed to draw 24.1 mgd through ten slant wells (eight would be active, two would be on standby).⁸¹ Each slant well is capable of drawing approximately 3 mgd.⁸² The existing test slant well would be converted to a permanent one, and nine additional slant wells would be constructed.⁸³ Slant well construction would take approximately 15 months to complete, and could take place anytime throughout the overall 24-month

⁸¹ DEIR/EIS, at p. 3-56.

⁸² *Id.*

⁸³ *Id.*, at p. ES-10.

construction duration for the proposed project.⁸⁴ Yet, the DEIR/EIS states that the proposed slant wells would have a productive span of only 20-25 years, far short of the Project's 40 year expected operating phase.

[T]he proposed slant wells would now be located behind the predicted 2060, 100-year lower profile envelope. . . . 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.⁸⁵

Without providing further information, it is unclear how the Project will maintain consistent seawater intake over the 40-year operations phase if each well has a productive span of only 20-25 years. In order to maintain the Project's objective to draw 24.1 mgd over the span of 40 years, the Project would have to build another set of slant wells midway through the Project's operating phase.⁸⁶ The associated impacts with abandoning the no-longer-productive original slant wells, and building a new set of slant wells has not been evaluated, rendering the entire project analysis incomplete. What's more, the CPUC and MBNMS studied the location of the test slant well and proposed slant wells, but those studies never considered this possibility that more slant wells would need to be built to support the Project's objective to intake 24.1 mgd of water over the course of 40 years.⁸⁷

The DEIR/EIS fails to describe and analyze the 20- to 25-year operational life of the slant production wells and the Project's need to build more than 10 slant wells over the 40-year operational life of the Project.

C. The DEIR/EIS Fails to Adequately Explain the Design of the Slant Wells

The DEIR/EIS fails to provide an adequate description of the slant wells to enable a meaningful evaluation and review of their associated environmental

⁸⁴ *Id.*, at p. 3-47.

⁸⁵ *Id.*, at p. 4.2-70.

⁸⁶ *Id.*, at pp. 3-56; ES-3

⁸⁷ See DEIR/EIS, at Appendices E1 (Lawrence Berkeley National Laboratories Peer Review) and E2 (Draft North Marina Groundwater Model Review, Revision, and Implementation for Future Slant Well Pumping Scenarios).

impacts.⁸⁸ The test slant well's purpose was to inform the design of the proposed slant wells. The test slant well was analyzed in an Environmental Assessment by The National Oceanic and Atmospheric Administration and the MBNMS in 2014 ("NOAA EA").⁸⁹

Cal Am proposes to construct a slant test well in the coastal foredunes and conduct a 24-month pumping and testing program to obtain information regarding the geologic, hydrogeologic and water quality characteristics of the underlying aquifers in the project area. The data obtained over the 24-month test period would be used to facilitate the planning and final design of a proposed subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula.⁹⁰

The test slant well was drilled at a 19° angle and was 724 feet long.⁹¹ The test slant well facilities include a "a submersible well pump, a wellhead vault, electrical facilities and controls, temporary flow measurement and sampling equipment, monitoring wells, and a temporary pipeline connection to the adjacent MRWPCA ocean outfall pipeline for discharges of the test water."⁹²

In contrast, according to the DEIR/EIS, the proposed slant wells will be at a 14° angle and will extend 900 to 1,000 feet.⁹³ They would not extend beyond a depth of 190 to 210 feet below the seafloor.⁹⁴ The proposed slant wells would be screened for approximately 400 to 800 linear feet at depths corresponding to both the Dune Sand Aquifer and the underlying 180-Foot-Equivalent Aquifer of the Salinas Valley Groundwater Basin.⁹⁵ The decision to adjust the angle of the proposed slant wells by 5° is not explained in the DEIR/EIS.⁹⁶

⁸⁸ CEQA Guidelines, § 15124.

⁸⁹ NOAA EA, 2014, *supra*.

⁹⁰ *Id.*, at Summary.

⁹¹ DEIR/EIS, at p. 3-15.

⁹² *Id.*

⁹³ *Id.*, at pp. 3-8, 3-15.

⁹⁴ *Id.*, at p. 3-8.

⁹⁵ *Id.*

⁹⁶ *Id.*, at pp. 3-15-16, 3-47, 4.2-69, 4.4-42, 4.15-3 (discussing 14-degree and 19-degree slant well angles, but failing to explain rationale for 5-degree difference).

The DEIR/EIS also lacks any reference to the location of the submersible well pump within the slant wells.⁹⁷ At most, the DEIR/EIS states that “[a] submersible pump would be lowered several hundred feet into each well.”⁹⁸ As Dr. Sobczynski points out in his comment letter, the location of the submersible pump is important for calculating the vertical infiltration rate,⁹⁹ which is necessary for evaluating impacts. However, the DEIR/EIS fails to disclose the location of the pump, rendering this DEIR/EIS inadequate as an information disclosure document.

The NOAA EA stated that, for the test slant well, the “water flow rate during the operational period would vary from 1,000 gallons per minute (gpm) to 2,500 gpm.”¹⁰⁰ According to the DEIR/EIS each proposed slant well would be equipped with a 2,500 gpm, 300 hp submersible well pump for a total feedwater supply of 24.1 mgd from 8 active slant wells;¹⁰¹ each active well would pump approximately 2,100 gpm.¹⁰² This raises the question as to when, if ever, the slant wells would run at their maximum capacity of 2,500 gpm, rather than their average operating rate of 2,100 gpm.

One possible time that the wells may run at maximum capacity may be after a shutdown, when the plant would need to “catch up on production” and produce 11.2 mgd of desalinated water, rather than its usual 9.6 mgd.¹⁰³ If, as the DEIR/EIS states, approximately 24.1 mgd of raw seawater is needed to produce 9.6 mgd of desalinated product water, then to produce 11.2 mgd of desalinated water after shutdown, approximately 28.11 mgd would be needed.¹⁰⁴ (Note, that the DEIR/EIS fails to provide a correct overall recovery rate. It states the recovery rate is 42 percent; however, 9.6 mgd out of 24.1 mgd is 39.8 percent.)¹⁰⁵ Under normal conditions, the eight active slant wells would draw approximately 3 mgd,¹⁰⁶ but in

⁹⁷ *Id.*, at pp. 3-15-16; 3-48.

⁹⁸ *Id.*, at p. 3-48.

⁹⁹ R. Sobczynski Comments, pp. 7-8 (discussing the possible location of the submersible pump).

¹⁰⁰ NOAA EA, 2014, *supra*, at p. 39.

¹⁰¹ DEIR/EIS, at p. 3-18.

¹⁰² *Id.*, at pp. 3-15; 3-18; 4.12-52.

¹⁰³ *Id.*, at p. 3-57.

¹⁰⁴ *Id.*, at p. 3-56 (based on the proportion of 9.6 mgd out of 24.1 mgd).

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

this post-shutdown scenario, the eight wells would need to draw closer to 3.5 mgd. At a rate of 2,500 gpm, the eight slant wells could draw up to 3.6 mgd. Alternatively, all ten slant wells could be activated to draw approximately 2.8 mgd. Yet, none of this information regarding the water flow rate is adequately explained. In describing a shutdown situation, the DEIR/EIS only concerns itself with the RO modules stating:

After a shutdown, CalAm might operate the plant with all RO modules in service (at the plant's maximum production capacity of 11.2 mgd) to catch up on production; however, the total annual production would not exceed 9.6 mgd.¹⁰⁷

Dr. Sobczynski explains in his comment letter that the submersible pump will impact the vertical infiltration rate, which may result in an adverse impact to the environment.¹⁰⁸ In failing to disclose how the Project would “catch up on production,”¹⁰⁹ the DEIR/EIS leaves the public guessing as to how this would be achieved. As will be described in further detail below, the DEIR/EIS must consider these types of events in its impact analysis for the slant wells.

The NOAA EA also explained that the test well would feature a “packer device,”¹¹⁰ which was used “to isolate one aquifer [either the Dune Sand or the 180-FTE] for testing and pumping.”¹¹¹ As Dr. Sobczynski explains, this device alters the flow of water to the slant well intake, which can alter the vertical infiltration rate and thereby lead to environmental impacts.¹¹² Yet, the DEIR/EIS is silent as to whether this device would be utilized. The DEIR/EIS should inform the public and decision makers about whether this device would be installed, and if so, when it would be used.

¹⁰⁷ *Id.*, at p. 3-57.

¹⁰⁸ R. Sobczynski Comments, at pp. 7-8.

¹⁰⁹ DEIR/EIS, at p. 3-57.

¹¹⁰ NOAA EA, *supra*, at p. 39; *see also* Williams, D.E., 2011, Slant Well Desalination Feedwater Supply System and Method for Constructing Same, U.S. Patent 8,056,629 B2 *available at* <https://www.google.com/patents/US8056629> (hereafter “Slant Well Patent”) **Attachment G**; R. Sobczynski Comments, at pp. 14-16.

¹¹¹ NOAA EA, *supra*, at p. 39.

¹¹² R. Sobczynski Comments, at pp. 14-16.

An adequate description of the design of the slant wells is important because, without it, the DEIR/EIS contains no discussion about slant wells' biofouling or corroding over time. Despite analysis pertaining to:

- corrosion at the MRWPCA outfall or diffuser¹¹³;
- corrosion in other Project components¹¹⁴; and
- fouling at the RO membranes due to “[t]he accumulation of salts or scaling (from to [*sic*] microbial contamination, turbidity, and other contaminants such as iron and manganese),”¹¹⁵

the DEIR/EIS leaves out long term degradation concerns regarding the slant wells. Even Dr. Williams (the slant well patent holder)¹¹⁶ points out in his article about slant well technology, that the slant wells will experience biofouling and corrosion.¹¹⁷ Dr. Williams writes:

The Monterey test slant well has an 18 in. pump house casing which can accommodate placement of large development pumps with capacities over 3,000 gpm. Properly developed wells constructed using corrosion resistant materials such as 2507 Super Duplex Stainless Steel minimize well deterioration due to corrosion and biofouling. As such, these design improvements result in less frequent well rehabilitation with intervals estimated at between 3–5 yrs.¹¹⁸

Though the DEIR/EIS does not provide the technical specifications of the slant well, the Request for Proposals call for the use of 2507 Super Duplex Stainless

¹¹³ DEIR/EIS, at p. 4.13-13.

¹¹⁴ *Id.*, at p. 4.2-23 (Table 4.2-4).

¹¹⁵ *Id.*, at p. 3-25.

¹¹⁶ See Slant Well Patent, 2011, *supra*.

¹¹⁷ Dennis Edgar Williams, President, Geoscience Support Services, Inc., USA, Yield And Sustainability of Large Scale Slant Well Feedwater Supplies For Ocean Water Desalination Plants, The International Desalination Association World Congress On Desalination And Water Reuse 2015/San Diego, CA, USA Ref: Idawc15_Williams_51564 [Http://201.199.127.109/Textos/Desalinizacion/Tomas%20de%20agua/Slant%20wells%202015.Pdf](http://201.199.127.109/Textos/Desalinizacion/Tomas%20de%20agua/Slant%20wells%202015.Pdf), at p.4, (hereafter “Williams, Yield, 2015”), **Attachment H**.

¹¹⁸ *Id.* at p. 4.

Steel,¹¹⁹ assuming, for the same reason described above, that it minimizes deterioration due to corrosion and biofouling.¹²⁰ By not discussing the slant wells' degradation (even while admitting that certain materials would need to be used to minimize biofouling and corrosion), the DEIR/EIS fails as an information disclosure document because it leaves out information that is necessary for evaluating and reviewing an adverse environmental impact from the Project.

The courts may not look for “perfection” but would expect “adequacy, completeness, and a good faith effort at full disclosure,”¹²¹ which has not occurred here. Incomplete information in an environmental review document will skew the environmental consequences analysis and prevent informed public input. The information described above about Project decommissioning, operating life, and design must be included in the DEIR/EIS because each component is necessary to inform the public and decision makers about the Project's potentially significant environmental impacts. By failing to provide an adequate and complete project description, the DEIR/EIS violates NEPA and CEQA.

IV. THE DEIR/EIS FAILS TO PROVIDE AN ADEQUATE DESCRIPTION OF THE ENVIRONMENTAL SETTING

The DEIR/EIS employs an incomplete baseline, thereby skewing the impact analysis. An accurate description of the environmental setting is important because it establishes the baseline physical conditions against which a lead agency can determine whether an impact is significant. The failure to adequately describe the existing setting contravenes the fundamental purpose of the environmental review process, which is to determine whether there is a potentially substantial, adverse change compared to the existing setting.

According to NEPA, an environmental review document must “succinctly describe the environment of the area(s) to be affected or created by the alternatives

¹¹⁹ Monterey Peninsula Water Supply Project: Subsurface Source Water Slant Wells Design Documents, 2015, pdf. p. 7, *available at* <https://www.dropbox.com/s/xs6tdmtg6qvk0fc/draft%20Source%20Water%20Slant%20Well%20supplemental%20conditions%20and%20tech%20specs%20and%20drawings.pdf?dl=0> (hereafter “MPWSP, Well Design, 2015”), **Attachment I-1**.

¹²⁰ Williams, Yield, 2015, *supra*, at p.4.

¹²¹ CEQA Guidelines, § 15151.

under consideration.”¹²² Without a description of the areas to be affected by a proposal, the potentially significant effects resulting from a proposal cannot be determined.¹²³ Indeed, “without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment and, consequently, no way to comply with NEPA.”¹²⁴ Moreover, adequate and accurate compilation of relevant data and information is critical in establishing whether the project would have a significant impact, while also allowing for public scrutiny and public participating in the decision-making process.¹²⁵

CEQA requires the lead agency to include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time environmental review commences.¹²⁶ The EIR must also describe the existing environmental setting in sufficient detail to enable a proper analysis of project impacts. “The adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project.”¹²⁷ “A legally adequate EIR . . . must contain sufficient detail to help ensure the integrity of the process of decision-making by precluding stubborn problems or serious criticism from being swept under the rug.”¹²⁸ Furthermore, special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project.¹²⁹

The description of the environmental setting in the DEIR/EIS is inadequate because it omits highly relevant information regarding existing water quality and biological and marine resources that may be significantly impacted by the Project.

¹²² 40 C.F.R. § 1502.15.

¹²³ *Half Moon Bay Fishermans’ Marketing Ass’n v. Carlucci* (9th Cir.1988), 857 F.2d 505, 510.

¹²⁴ *Id.*; see also *Am. Rivers v. Fed. Energy Regulatory Comm’n* (9th Cir.1999) 201 F.3d 1186, 1195, n. 15.

¹²⁵ *Northern Plains Resource Council, Inc. v. Surface Transp. Bd.* (9th Cir. 2011) 668 F.3d 1067, 1083-1085 (discussing lack of data in evaluating and understanding impact on species before construction).

¹²⁶ CEQA Guidelines, § 15125, subd. (a); see also *Communities For A Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 321.

¹²⁷ CEQA Guidelines, § 15024 subd. (a).

¹²⁸ *Kings County Farm Bureau v. City of Handford* (1990) 221 Cal.App.3d 692, 733.

¹²⁹ CEQA Guidelines, § 15125.

The CPUC and MBNMS are required to gather the relevant data and provide an adequate description of the existing environmental setting in a revised DEIR/EIS.

A. The DEIR/EIS Fails to Set Forth an Adequate Environmental Setting for Ocean Water Quality

In order to adequately determine the impacts of discharging brine, the DEIR/EIS must provide the ionic composition of the ocean water. Ocean water salts include much more than sodium and chloride ions, ex. Ba, Ca, K, Sr, Mg.¹³⁰

This Project must disclose the ionic composition of the ocean water due to the common ion effect.¹³¹ The common ion effect occurs when, by increasing the concentration of one ion, *i.e.*, chloride, another ion becomes more soluble or more insoluble.¹³² The interactions among the ions in ocean water are complex and failing to disclose the ionic composition deprives the public from knowing if certain compounds will precipitate out. For this reason, only taking aqueous samples without taking seafloor samples to determine compliance with the Ocean Plan may not suffice as some ions may precipitate out.¹³³ The Ocean Plan is not site-specific and the ionic composition in Monterey Bay must be disclosed to determine if there may be an impact due to the high increase of chloride ions being discharged.¹³⁴

B. The DEIR/EIS Fails to Set Forth an Adequate Environmental Setting for Marine Resources

The CPUC and MBNMS failed to conduct the requisite due diligence to investigate and disclose in the DEIR/EIS the physico-chemical character of ocean

¹³⁰ State Water Resources Control Board, Appendix I Responses to the External Peer Review of the Proposed Desalination Amendment, *available at* http://www.waterboards.ca.gov/water_issues/programs/ocean/desalination/docs/amendment/150320_appendix_i.pdf, at pp. "I"-29-30 (responding to a comment by Dr. Lisa A. Levin, one of the external peer reviewers) (hereafter "SWRCB, Appx. I"), **Attachment J-2**.

¹³¹ Chemistry: The Central Science, 12th Ed., pp. 703-704, 726-731, **Attachment K-1**; General Chemistry: Principles & Modern Applications, 9th Ed., p. 751 (showing that with the addition of iodide ion to an aqueous solution containing lead and iodide, the equilibrium shifts to form more lead iodide (solid)), **Attachment K-2**.

¹³² *Id.*

¹³³ DEIR/EIS, at p. 4,3-98; *see also id.* at Appendix D-3; *id.* at p. 4.3-104.

¹³⁴ SWRCB, Appx. I, *supra*, at p. I-20.

water and sediment in the Sanctuary. As Dr. Sobczynski explains in his comment letter, the DEIR/EIS does not provide critical information about the marine setting, which is important for an adequate impact analysis.¹³⁵ Without an adequate environmental setting, the lead agencies' finding that there would be less than significant impacts for marine resources is inaccurate.

1. DEIR/EIS Fails to Provide an Adequate Environmental Setting Due to Inconsistency Regarding Clay, and Lack of Data on Organic Matter

The DEIR/EIS provides inconsistent information about the existence of clay in the subsurface in the specific area of the slant wells.¹³⁶ On the one hand, the DEIR/EIS states that there is little to no silt, clay, and organic materials in the subsurface that would impede infiltration.¹³⁷ But, on the other hand, the DEIR/EIS states that, during slant well construction, clay and silt would be produced from the subsurface.¹³⁸ In examining the lithological bore logs from the test slant well, Dr. Sobczynski highlights that there are clay layers, which the slant well transects.¹³⁹ In failing to fully acknowledge the existence of clay in the subsurface, the DEIR/EIS failed to provide critical information about the existing subsurface environment.

As Dr. Sobczynski explains in his comments, even small amounts of clay will result in colloid buildup when microorganisms pass through the material.¹⁴⁰ The DEIR/EIS fails as an information disclosure document by providing inconsistent and unclear statements about the presence of clay in the subsurface, in the area where the slant wells are located, leading to potential colloidal buildup.¹⁴¹ This potentially significant impact is discussed in further detail below.

¹³⁵ R. Sobczynski Comments, at p. 2, *passim*.

¹³⁶ DEIR/EIS, at p. 4.2-67; *see also id.*, at pp. 27-29.

¹³⁷ DEIR/EIS, at p. 4.2-67.

¹³⁸ *Id.*

¹³⁹ R. Sobczynski Comments, at p. 29; Monterey Peninsula Water Supply Project: Subsurface Source Water Slant Wells Design Documents, 2015, *supra*, at Appendix A *available at* http://media.wix.com/ugd/28b094_d40d9b99079e40a687789b86742c997b.pdf (Boring Logs),

Attachment I-1.

¹⁴⁰ R. Sobczynski Comments, at pp. 27-28.

¹⁴¹ *Id.*, at pp. 27-29; *see also* DEIR/EIS, at p. 4.2-67 (“Clayey soils are potentially corrosive.”).

With respect to organic materials, the DEIR/EIS groups the existence of organic materials, or rather the lack thereof, with the existence of clay and silt.¹⁴² Yet, as described above, Dr. Williams (the slant well patent holder) and Geosciences (Dr. Williams' company) anticipate biofouling to occur, which is why they call for the special construction materials (Super Duplex 2507) to minimize corrosion and biofouling for the slant well.¹⁴³

The DEIR/EIS's unexplained silence on this issue of slant well biofouling is also evident in its minimal discussion about harmful algal blooms. The DEIR/EIS states that "Hazardous Algal Blooms would not be a reason for the [slant] wells to stop operating. Subsurface intakes are not affected by algal blooms."¹⁴⁴ Algae is organic matter and the location, quantity, intensity, and potential toxicity of algal blooms (including the extent of the dead algae's ultimate settling on the sea floor) should be adequately disclosed, particularly because the DEIR/EIS claims subsurface intakes would not be affected by algal blooms.¹⁴⁵ The DEIR/EIS must explain how this can be so. As is, the DEIR/EIS does not provide any evidence to reconcile the statement that organic matter would not impact slant well operations but that biofouling may occur at the slant well and its effects should be minimized through the use of Super Duplex 2507 stainless steel.¹⁴⁶

¹⁴² DEIR/EIS, at p. 4.2-67.

¹⁴³ Williams, Yield, 2015, *supra*, at p. 4.

¹⁴⁴ DEIR/EIS, p. 4.5-6; *id.*, at p. 3-57, fn. 14.

¹⁴⁵ See Harmful Algal Blooms, NOAA, *available at* <https://coastalscience.noaa.gov/research/habs/default>, **Attachment L-1**; What is a Harmful Algal Bloom, NOAA, *available at* <http://www.noaa.gov/what-is-harmful-algal-bloom>, **Attachment L-2**; Ocean Acidification Promotes Disruptive and Harmful Algal Blooms on Our Coasts, NOAA, *available at* <https://coastalscience.noaa.gov/news/climate/ocean-acidification-promotes-disruptive-and-harmful-algal-blooms-on-our-coasts/> (discussing that nutrient loading and acidification promote growth and increased toxicity of the red tide algal species *Alexandrium fundyense*), **Attachment L-3**; Impacts of Climate Change on the Occurrence of Harmful Algal Blooms, U.S. EPA: Office of Water, *available at* <https://www.epa.gov/sites/production/files/documents/climatehabs.pdf> ("[acidification] can change the competitive relationships between HABs and other algae, and can also change the ability of zooplankton to control HABs through their grazing activity"), **Attachment L-4**; Hutchins, D., Toxic Algal Blooms in a Changing Coastal Ocean, Univ. of Southern California, *available at* https://dornsife.usc.edu/assets/sites/142/docs/Toxic_Algal_Blooms_in_a_Changing_Environment_-_Hutchins.pdf ("Domoic acid production increases dramatically at lower pH (higher CO₂), especially during nutrient-limited growth"), **Attachment L-5**.

¹⁴⁶ See Williams, Yield, 2015, *supra*, at p. 4.

By failing to disclose the existing amount of dissolved organic matter, sedimentary organic matter, and microorganisms in the subsurface,¹⁴⁷ the DEIR/EIS fails to establish an adequate baseline. The DEIR/EIS's description that there is "little to no" organic material in the subsurface is not sufficiently detailed to enable an analysis of buildup, biofouling and algal blooms.¹⁴⁸ The DEIR/EIS's vague statements regarding existing subsurface material and organic matter conflict with the requirements of CEQA and NEPA because, without an adequate description of the existing setting, there is simply no way to determine what effect a project will have on the environment. This inhibits the decision makers and public from being able to determine if the Project will have significant impacts.

The DEIR/EIS must be revised and recirculated to adequately inform the public about the presence and extent of clay, and of organic matter, including the quantity and intensity of algal blooms.

C. The DEIR/EIS Fails to Set Forth an Adequate Environmental Setting for Biological Resources

CEQA requires agencies to place special emphasis on environmental resources that are rare or unique to a region.¹⁴⁹ According to independent expert biologist Renee Owens, the DEIR/EIS fails to acknowledge the high degree of importance of the Project area to conserving marine and terrestrial flora and fauna biodiversity.¹⁵⁰ As Ms. Owens explains, Monterey County has some of the most diverse flora in California.¹⁵¹ It is a "hot spot" due in part to its high endemism of species, and it has been described as one of the most essential coastal regions in the world in terms of plant and wildlife biodiversity conservation.¹⁵²

Both federal and state metrics indicate the biodiversity value of the Project area. The U.S. Fish and Wildlife Service reports that there are 35 listed threatened or endangered species within, or that may be affected by projects in, the Project

¹⁴⁷ DEIR/EIS, at p. 4.2-67.

¹⁴⁸ *Id.*

¹⁴⁹ CEQA Guidelines, § 15125

¹⁵⁰ Owens Comments, at pp. 3-4.

¹⁵¹ *Id.*

¹⁵² *Id.*

area.¹⁵³ The California Natural Diversity Database (“CNDDDB”) denotes within the Project area quads 17 Federal Endangered Species Act (“ESA”) listed species, 10 California Endangered Species Act (“CESA”) listed species, and 24 Species of Special Concern.¹⁵⁴ Due to the overall biological importance of the terrestrial habitats and species included in the Project footprint and buffer zone, the DEIR/EIS must emphasize the importance and resultant fragility of the ecosystems, habits, and sensitive species populations in describing the environmental setting.¹⁵⁵ The DEIR/EIS must analyze the Project’s biological impacts, mitigation measures, and cumulative impacts with respect to an accurate environmental setting, which should emphasize the Project area’s high degree of biological importance.

1. Sensitive species highlighted in the City of Marina’s Local Coastal Land Use Plan are not analyzed in the DEIR/EIS

Not only does the DEIR/EIS fail to provide an adequate environmental setting by minimally discussing the biological importance of the area, but the DEIR/EIS also fails to provide an adequate and accurate list of species in the area. Specifically, the DEIR/EIS fails to consider sensitive species highlighted in the City of Marina’s Local Coastal Land Use Plan (“LCLUP”), such as the globose dune beetle (*Coelus globosus*), Salinas Kangaroo Rat (*Dipodomys heermanni goldmani*), seaside painted cup (*Castilleja latifolia ssp. Latifolia*), and Eastwood’s Ericameria (*Ericameria fasciculate*).¹⁵⁶ These species are present in the region and the DEIR/EIS fails to explain why it did not include an analysis of impacts to these species.¹⁵⁷ As Ms. Owens explains, the DEIR/EIS must include these species in the environmental setting and evaluate the potential impacts to these species and their habitat,¹⁵⁸ as required by NEPA and CEQA.¹⁵⁹

¹⁵³ *Id.*, at p. 4.

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*, at pp. 4-9.

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*, at pp. 8-9.

¹⁵⁹ *See Northern Plains Resource Council, Inc. v. Surface Transp. Bd.* (9th Cir. 2011) 668 F.3d 1067, 1085-1086 (finding that the agency’s inability to conduct on-the-ground surveys as part of the EIS process, and instead relying on outdated aerial surveys, violated NEPA’s requirement that the agency takes a “hard look” at the potential environmental consequences.)

2. The DEIR/EIS Fails to Adequately Survey Terrestrial Sensitive Species

For this Project's 2015 DEIR, Ms. Owens provided comments that protocol surveys should have been included.¹⁶⁰ Although the DEIR/EIS appears to acknowledge this need to provide project-level, protocol or focused surveys, the CPUC and MBNMS failed to obtain these adequate surveys.¹⁶¹

Instead, the DEIR/EIS relies largely on databases and outdated reports, rather than formal scientific observations made on the ground by permitted biologists who specialize in identifying species for which protocol surveys are required.¹⁶² Furthermore, the DEIR/EIS's habitat assessment provides anecdotal observations or inferences from habitat onsite to make protected species status determinations.¹⁶³ As Ms. Owens explains, the CPUC and MBNMS must obtain results from protocol surveys to ensure specificity and accuracy in the DEIR/EIS for this Project, because many species may not actually be reported on the CNDDDB or on the California Native Plant Society's Inventory of Rare and Endangered Species.¹⁶⁴ The CPUC and MBNMS must obtain site-specific, protocol level surveys in order to accurately describe species in the existing setting in order to analyze the Project's impacts on those species in a revised and recirculated DEIR/EIS.¹⁶⁵

Ms. Owens also explains that the DEIR/EIS still fails to provide a thorough, up-to-date, written biological report that describes in detail the results of project-wide, or facility-wide focused or protocol level surveys of special status plant or animal species.¹⁶⁶ Instead, the DEIR/EIS provides an impact analysis that is based on special-status species observations available to Environmental Science Associates ("ESA") as of June 20, 2016, and other documents from 2010 to 2014.¹⁶⁷ However, the 2016 ESA document only includes GIS shape files and does not

¹⁶⁰ See Owens Comments, at pp. 9-16; see also Owens, R. Comments on Draft Environmental Impact Report for MPWSP (2015), at p. 5, **Attachment M**.

¹⁶¹ Owens Comments, at pp. 10-11.

¹⁶² *Id.*, at pp. 11-13.

¹⁶³ *Id.*, at p. 11.

¹⁶⁴ *Id.*

¹⁶⁵ *Id.*, at pp. 11-13.

¹⁶⁶ *Id.*, at p. 12.

¹⁶⁷ *Id.*, at pp. 12-13.

include a written analysis about the biological setting.¹⁶⁸ This haphazard compilation of GIS files deprives the public of the opportunity to participate in the decision-making process.¹⁶⁹

“Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.”¹⁷⁰ The same is true for CEQA, which states that the purpose of the “EIR is to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.”¹⁷¹ Here, as a result of the failure to provide data from surveys and an evaluation in a biological report, the information the DEIR/EIS provides is unverifiable and impossible to review for accuracy.¹⁷² Ms. Owens summarizes this lack of data:

Upon review of the entire discussion of terrestrial biological resources in the DEIR/S, it is apparent that every mention of focused, protocol, and most reconnaissance surveys for sensitive flora (not just habitat types) and fauna conducted for this Report hinge mostly upon data either not cited at all, vaguely alluded to by mentioning reports that covered only small sections of this Project footprint - some such report being 10 – 11 years old – and the citation of AECOM shape files, “AECOM 2016”. In fact, “AECOM 2016” is cited at least 50 times throughout the document. Yet no report of data on individual species accounts are provided. For such a large, well-funded, and public Project that has had ample opportunity to contract biological specialists to conduct protocol level surveys for threatened, endangered, and Special Concern species, this is an overt oversight.¹⁷³

To comply with NEPA and CEQA, the DEIR/EIS must adequately survey, and subsequently analyze the potential impact of the Project on, sensitive terrestrial species. As proposed, the DEIR/EIS fails to do so.

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*; see *Northern Plains Resource Council, Inc.*, *supra*, 668 F.3d 1067, 1085.

¹⁷⁰ 40 C.F.R. § 1500.1.

¹⁷¹ CEQA Guidelines, § 15003.

¹⁷² Owens Comments, at p. 12.

¹⁷³ *Id.*, at p. 13

3. The DEIR/EIS Biological Resources Maps are Inadequate for Determining Existing Conditions Regarding Special Status Species

The DEIR/EIS provides unclear maps to indicate the occurrences of animals and plants species. As Ms. Owens explains, the DEIR/EIS should provide maps that clearly indicate which, and how many species, occur in a given location in order to enable review of existing site conditions.¹⁷⁴ The DEIR/EIS's failure to include clear maps is indicative of a larger problem — the DEIR/EIS lacks focused and protocol level surveys of species in the Project area that are necessary to adequately inform the public and decision makers about the existing environment.¹⁷⁵

4. The DEIR/EIS Fails to Consider the Western Snowy Plover Background and Relative Status for the Project Region

Ms. Owens provides extensive background about the western snowy plover, its status relative to the Project region, and threats and types of impacts to the species.¹⁷⁶ Given the severity of impacts that this Project may pose to the western snowy plover,¹⁷⁷ the DEIR/EIS must provide detailed information about the species' status in the Project area.¹⁷⁸ Currently, the DEIR/EIS does not provide enough information to accurately assess the impact of the Project's activities on the area's snowy plover population, and thereby to the regional population as a whole.¹⁷⁹

D. The DEIR/EIS Fails to Set Forth an Adequate Environmental Setting for the Socioeconomics and Environmental Justice Impacts in the Area

The DEIR/EIS should incorporate the Office of Environmental Health Hazard Assessment's CalEnviroScreen 3.0 tool to inform decision makers and the public of

¹⁷⁴ *Id.*, at p. 16.

¹⁷⁵ *Id.*

¹⁷⁶ *Id.*, at pp. 16-20

¹⁷⁷ *Id.*

¹⁷⁸ CEQA Guidelines, § 15024 subd. (a) ("The adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project.")

¹⁷⁹ Owens Comments, at p. 19.

the environmental burdens that the communities near the Project will face.¹⁸⁰ Since this information is available, and NEPA requires a socioeconomic and environmental justice analysis, the tool should be utilized to better describe the Project's setting.¹⁸¹ By incorporating CalEnviroScreen 3.0, the DEIR/EIS can disclose relevant information needed to identify pollution burdens and vulnerabilities affecting communities near the Project. For example, the tool provides information such as potential burdens to communities posed by contaminants in drinking water, and potential social stressors relating to unemployment.¹⁸² For a complete environmental setting, the DEIR/EIS should incorporate the CalEnviroScreen 3.0 information.

V. THE DEIR/EIS FAILS TO ADEQUATELY ANALYZE AND MITIGATE THE PROJECT'S POTENTIALLY SIGNIFICANT IMPACTS

NEPA requires a full and fair discussion of every significant impact, as well as disclosure to the decision makers and the public of reasonable alternatives, which would avoid or minimize adverse impacts.¹⁸³ The impacts analysis must include a discussion of the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented.¹⁸⁴ The discussion of impacts must include both "direct and indirect effects (secondary impacts) of a proposed project."¹⁸⁵ The agency need not speculate about all conceivable impacts, but it must evaluate the reasonably foreseeable significant effects of the proposed action.¹⁸⁶ In this context, reasonable foreseeability means that "the impact is sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision."¹⁸⁷

¹⁸⁰ CalEnviroScreen 3.0 Report, CalEPA, *available at* <https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf>, **Attachment N-1**; *see also id.*, *available at* <https://oehha.maps.arcgis.com/apps/webappviewer/index.html?id=4560cfbce7c745c299b2d0cbb07044f5> (Map), **Attachment N-2**.

¹⁸¹ DEIR/EIS, at pp. 4.20-6, 4.20-22. (using U.S. Census Bureau data).

¹⁸² *See generally*, CalEnviroScreen 3.0 Report, *supra*.

¹⁸³ 40 C.F.R. § 1502.

¹⁸⁴ *Id.*, at § 1502.16.

¹⁸⁵ *Id.*; *see also* *Sierra Club v. Marsh* (1st Cir. 1992) 976 F.2d 763, 767.

¹⁸⁶ *Sierra Club v. Marsh*, *supra*, 976 F.2d at p. 767.

¹⁸⁷ *Ibid*; *see also* *Dubois v. Dept. of Agriculture* (1st Cir. 1996) 102 F.3d 1273, 1286.

NEPA also requires a discussion regarding possible conflicts between the proposed action and the objectives of Federal, regional, State, and local land use plans, policies and controls for the area concerned.¹⁸⁸

NEPA requires that agencies take a “hard look” at the environmental consequences of a proposed action.¹⁸⁹ A hard look is defined as a “reasoned analysis containing quantitative or detailed qualitative information.”¹⁹⁰ The level of detail must be sufficient to support reasoned conclusions by comparing the amount and the degree of the impact caused by the proposed action and the alternatives.¹⁹¹ An EIS must provide a “full and fair discussion of significant environmental impacts and shall inform the decision-makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment.”¹⁹² “General statements about ‘possible’ effects and ‘some risk’ do not constitute a ‘hard look’ absent a justification regarding why more definitive information could not be provided.”¹⁹³ “[L]ack of knowledge does not excuse the preparation of an EIS; rather it requires [the agency] to do the necessary work to obtain it.”¹⁹⁴

As described above in the legal background, CEQA has two basic purposes, neither of which the DEIR/EIS satisfies. First, CEQA is designed to inform decision-makers and the public about the potential, significant environmental effects of a project.¹⁹⁵ CEQA requires that an agency analyze potentially significant environmental impacts in an EIR.¹⁹⁶ The EIR should not rely on scientifically outdated information to assess the significance of impacts, and should result from

¹⁸⁸ 40 C.F.R. § 1502.16.

¹⁸⁹ *Robertson v. Methow Valley Citizens Council* (1989) 490 U.S. 332, 350; *Dubois, supra*, 102 F.3d at p. 1284; see also *South Fork Band Council Of Western Shoshone of Nevada v. U.S. Dept. of Interior* (9th Cir. 2009) 588 F.3d 718, 727 [“NEPA requires that a hard look be taken, if possible, before the environmentally harmful actions are put into effect”].

¹⁹⁰ Bureau of Land Management, NEPA Handbook, at p. 55 (Jan. 2008), available at http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_ha ndbook.Par.24487.File.dat/h1790-1-2008-1.pdf (hereinafter “NEPA Handbook”).

¹⁹¹ *Id.*, at p. 55; see also 40 C.F.R. § 1502.1

¹⁹² 40 CFR § 1502.1.

¹⁹³ *Neighbors of Cuddy Mountain v. U.S. Forest Service* (9th Cir. 1998) 137 F.3d 1372, 1380.

¹⁹⁴ *National Parks & Conservation Association v. Babbitt* (9th Cir. 2001) 241 F.3d 722, 733.

¹⁹⁵ CEQA Guidelines, § 15002, subd. (a)(1).

¹⁹⁶ See Pub. Resources Code § 21000; CEQA Guidelines, § 15002.

“extensive research and information gathering,” including consultation with state and federal agencies, local officials, and the interested public.¹⁹⁷ To be adequate, the EIR should evidence the lead agency’s good faith effort at full disclosure.¹⁹⁸ Its purpose is to inform the public and responsible officials of the environmental consequences of their decisions *before* they are made. For this reason, the EIR has been described as “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.”¹⁹⁹ Thus, the EIR “protects not only the environment but also informed self-government.”²⁰⁰

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures.²⁰¹ The EIR serves to provide public agencies, and the public in general, with information about the effect that a proposed project is likely to have on the environment and to “identify ways that environmental damage can be avoided or significantly reduced.”²⁰² If a project has a significant effect on the environment, the agency may approve the project only upon a finding that it has “eliminated or substantially lessened all significant effects on the environment where feasible,” and that any unavoidable significant effects on the environment are “acceptable due to overriding concerns” specified in CEQA section 21081.²⁰³

The DEIR/EIS fails to satisfy the basic purposes of CEQA. Specifically, the DEIR/EIS fails to reflect a good faith effort at public disclosure by failing to adequately analyze and mitigate the Project’s potentially significant impacts to ocean water quality, marine resources, biological resources, air quality, public health, and vibration issues, and others. The DEIR/EIS also fails to propose measures that could reduce these Project impacts to a less than significant level. In sum, the DEIR/EIS fails to inform decision-makers and the public of the Project’s

¹⁹⁷ *Berkeley Keep Jets Over the Bay Comm. v. Board of Port Comm.* (2001) 91 Cal. App.4th 1344, 1367; *Schaeffer Land Trust v. San Jose City Council* (1989) 215 Cal.App.3d 612, 620.

¹⁹⁸ CEQA Guidelines, § 15151; *see also Laurel Heights I* (1998) 47 Cal.3d 376, 406.

¹⁹⁹ *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

²⁰⁰ *Laurel Heights I* (1998), *supra*, at p. 392.

²⁰¹ CEQA Guidelines, § 15002(a)(2)-(3); *Berkeley Keep Jets Over the Bay Comm.*, *supra*, 91 Cal.App.4th at p. 1354.

²⁰² CEQA Guidelines, § 15002, subd. (a)(2).

²⁰³ *Id.*, at § 15092, subd. (b)(2)(A)-(B).

potentially significant environmental effects and to reduce damage to the environment *before* they occur.

A. The DEIR/EIS Fails to Adequately Analyze and Mitigate Potentially Significant Impacts to Ocean Water Quality

The Ocean Plan's Desalination Amendment provides regulations for desalination operations.²⁰⁴ Scientists reviewed and commented on the Desalination Amendment.²⁰⁵ The State Water Resources Control Board provided responses to the external, scientific peer review.²⁰⁶ The DEIR/EIS states that it will comply with the California Ocean Plan: Desalination Amendment.²⁰⁷ With respect to discharges the DEIR/EIS states:

Typically, constituent concentrations are permitted to exceed water quality objectives within the [Zone of Initial Dilution ("ZID")], which is limited in size. Thus, in the case of MPWSP, the Ocean Plan water quality objectives would apply to the edge of the ZID (Flow Science, Inc., 2014 in Appendix D2). Dilution occurring within the ZID from an operational discharge is conservatively calculated as the minimum probable initial dilution (Dm). The water quality objectives established in the Ocean Plan are considered in the context of the calculated Dm to derive the NPDES effluent limits for a wastewater discharge in-pipe (i.e., prior to ocean dilution).²⁰⁸

Although the Ocean Plan may permit constituents (defined as bacterial, physical, chemical, biological and chemical constituents) to exceed water quality objectives at the point of discharge, the Ocean Plan provides general regulations and does not provide site-specific impacts analyses for this Project.²⁰⁹ For example, Dr. Lisa A. Levin, in the external peer review for the Desalination Amendment,

²⁰⁴ State Water Resources Control Board (2015) Water Quality Control Plan: Ocean Waters of California, *available at* http://www.swrcb.ca.gov/water_issues/programs/ocean/docs/cop2015.pdf.

²⁰⁵ SWRCB, Appx. I, *supra*.

²⁰⁶ *Id.*

²⁰⁷ DEIR/EIS, at pp. 4.3-27-28.

²⁰⁸ *Id.*

²⁰⁹ SWRCB, Appx. I, *supra*.

stated that “subsurface intake options need to be evaluated in light of cumulative impacts and habitat status.” In response, the Water Board stated that:

Cumulative impacts will be evaluated on a project-specific basis taking into consideration site-specific considerations during the CEQA process for each desalination facility.²¹⁰

Thus, the DEIR/EIS must comply with the CEQA and NEPA and cannot rely on compliance with the Ocean Plan as a substitute for a site-specific impact analysis.²¹¹

Despite providing various modeling, the DEIR/EIS lacks evidence to support the statement that excessive constituents *within* the ZID would not result in a potentially significant impact. In fact, the DEIR/EIS seems to suggest the opposite that there would be a significant impact at the point of discharge, but because the Ocean Plan allows for water quality objectives to be exceeded at the point of discharge, the Project’s impact would be less than significant.²¹² Thus, all the DEIR/EIS commits to is that, in the case of the MPWSP, the Ocean Plan water quality objectives would apply to the edge of the ZID.²¹³ The DEIR/EIS completely omits any impact analysis and any identification of potential mitigation for the potential significant impact at the point of discharge.

The DEIR/EIS cannot “completely ignore[]” a potential impact.²¹⁴ For the purposes of NEPA and CEQA, the DEIR/EIS fails to adequately analyze and mitigate potentially significant impacts to ocean water quality *within* the ZID. The CPUC and MBNMS cannot rely on compliance with the Ocean Plan to avoid analyzing and mitigating significant impacts within the ZID.

As the DEIR/EIS points out, “[o]perational discharges of the MPWSP under certain scenarios may exceed Ocean Plan water quality objective thresholds.

²¹⁰ *Id.*, at p. I-20.

²¹¹ See also Guidelines for Desalination Plants in the Monterey Bay National Marine Sanctuary, NOAA (May 2010), available at <http://montereybay.noaa.gov/resourcepro/resmanissues/pdf/050610desal.pdf>, **Attachment O**.

²¹² See DEIR/EIS, at pp. 4.3-27-28.

²¹³ *Id.*, at p. 4.3-28.

²¹⁴ *Citizens to Preserve the Ojai v. County of Ventura* (1985) 176 Cal.App.3d 421, 430.

Exceedances of these thresholds would be potentially inconsistent with Coastal Act policies.”²¹⁵ However, the operational discharge scenarios all provide estimated concentrations at the *edge* of the ZID for Ocean Plan constituents.²¹⁶ The common effect, described above, informs us that ions might become more or less soluble based on the influx of chloride ion at the point of discharge.²¹⁷ It does not appear from the DEIR/EIS that the various discharge scenarios considered an accumulation of constituents at the sea floor that had precipitated out at the point of discharge.²¹⁸ Certainly, accumulated constituents on the seafloor that are hazardous to marine (and human life) would pose a potentially significant effect. By failing to consider impacts at the point of discharge, and the complex chemical interactions due to the high level of chloride ions that would be discharged through the outfall, the DEIR/EIS fails to adequately analyze and mitigate potentially significant effects to ocean water quality.

Exacerbating matters regarding existing constituents, the DEIR/EIS proposes to add inert biodegradable additives for construction and cleaning, if needed.²¹⁹ CURE requested the Material Safety Data Sheets (“MSDS”) for these chemicals and was informed that such documents were unavailable because “We [Environmental Science Associations] are not in possession of any MSDS(s). The exact products CalAm would use are unknown.”²²⁰ Even if those chemicals may be inert, that does not mean they may not have significant impacts. The DEIR/EIS lacks evidence to support its conclusions and must disclose this information in a revised and recirculated DEIR/EIS.

²¹⁵ DEIR/EIS, at p. 4.3-24.

²¹⁶ *Id.*, at pp. 4.3-96-101 (Table 4.3-16).

²¹⁷ SWRCB, Appx. I, *supra*.

²¹⁸ DEIR/EIS, at p. 4.3-93 (“After compiling water quality data for the desalination brine and MRWPCA wastewater (described above), Trussell Tech (2016; Appendix D3) combined the data for the evaluated discharge scenarios.”)

²¹⁹ 4.3-111.

²²⁰ Letter from Eric Zigas to Linda Sobczynski (Feb. 13, 2017), **Attachment P**.

B. The DEIR/EIS Fails to Adequately Analyze and Mitigate Potentially Significant Impacts Related to Marine Resources

The DEIR/EIS fails to adequately analyze and mitigate potential significant impacts related to marine resources, particularly as those impacts are caused by the subsurface slant well technology.

1. Factors Influencing Vertical Infiltration Rates Are Not Adequately Analyzed

The DEIR/EIS does not include critical information, which will impact the vertical infiltration rate,²²¹ such as:

- the location of the submersible pump;²²²
- the sediment profile for the 19° test slant well and for 14° proposed slant wells;²²³
- the inflatable packers for the test slant well, and the possible packers in the proposed slant wells;²²⁴ and
- the clogging in the seabed.²²⁵

According to independent expert physical chemist, Dr. Radoslaw Sobczynski, these factors will result in a higher vertical infiltration rate, which has not been adequately disclosed and may lead to a significant, undisclosed impact.²²⁶ As Dr. Sobczynski provides in further detail in his letter, the vertical infiltration calculations were based on a calculation that Dr. Williams (the slant well patent holder) conducted based on site-specific information from the Doheny Desalination Plant's slant wells, and a calculation, which divided the amount of water (24.1 mgd) by the subsurface area above the slant wells (1,000,000 ft²).²²⁷ Because the CPUC and MBNMS considered these numbers to be sufficiently similar, it determined that

²²¹ R. Sobczynski Comments, at p. 7.

²²² *Id.*, at pp. 7-10.

²²³ *Id.*, at pp. 10 -14.

²²⁴ *Id.*, at pp. 14-16

²²⁵ *Id.*, at pp. 16-17.

²²⁶ *Id.*, at p. 17.

²²⁷ *Id.*, at pp. 5-7.

this vertical infiltration range was adequate for purposes of impact analysis.²²⁸ Dr. Sobczynski identifies a number of factors, which could change this vertical infiltration rate, and which have not been adequately disclosed in the DEIR/EIS.²²⁹ The implication of failing to provide an accurate infiltration rate is that there may be a significant, undisclosed impact.²³⁰

a) Submersible Pump

Critically, the DEIR/EIS fails to provide information about the location of the submersible pump.²³¹ As Dr. Sobczynski explains in his comments, the submersible pump's location is critical in evaluating the intake's environmental impact.²³² Based on information gleaned from the DEIR/EIS, the slant well patent, and Dr. Williams' article about the Monterey test slant well, Dr. Sobczynski assumed that the submersible pump is located at a depth of approximately 60-70 feet.²³³ The test slant well uses a telescoping design, meaning that the part of the well closest to the surface is progressively wider than it is at its lowest point.²³⁴

As Dr. Sobczynski describes in further details in his letter, the submersible pump will create a pressure gradient, which will draw most of the water in the area of the pump.²³⁵ By drawing most of the water in a limited area directly above the pump, the vertical infiltration rate will be higher, an important fact that the DEIR/EIS failed to consider.²³⁶

b) Sediment Profile

Next, the slant well is constructed through the Older Dune Sand and Terrace Deposits.²³⁷ The Older Dune Sand is described as having high permeability.²³⁸ The

²²⁸ *Id.*, at p. 7; *see also* DEIR/EIS, at p. 4.5-52.

²²⁹ *Id.*, at pp. 17-23.

²³⁰ *Id.*, at pp. 23-30.

²³¹ *Id.*, at pp. 7-10.

²³² *Id.*

²³³ *Id.*, at p. 8.

²³⁴ DEIR/EIS, at p. 3-48.

²³⁵ R. Sobczynski Comments, at pp. 7-10 (Figures 2 and 3).

²³⁶ DEIR/EIS, at p. 10.

²³⁷ R. Sobczynski Comments, at pp. 10-14.

²³⁸ DEIR/EIS, at p. 4.2-67.

DEIR/EIS views this as a positive characteristic stating, “[t]he high permeability of the dune sand would be suitable for the infiltration of water.”²³⁹ Notably, the DEIR/EIS does not make any statement about the permeability of the Terrace Deposits, yet this will impact the vertical infiltration rate. If water will flow more easily through the Older Dune Sand, then that portion of the well (approximately the upper third) will be more productive.²⁴⁰ This will once again result in a higher infiltration rate because most of the water will flow through the Older Dune Sand into the upper third of the slant well.²⁴¹

c) *Inflatable Packers*

Third, the test slant well had an inflatable packer feature.²⁴² This packer feature is also disclosed in Dr. Williams’ slant well patent.²⁴³ However, the DEIR/EIS is silent on whether the proposed slant wells would have this feature.

The packers may be on either, or both sides of the submersible pump.²⁴⁴ The slant well operator may inflate either or both of these packers.²⁴⁵ By inflating the lower packer, for example, any suction power from the pump would be lost and the lower portion of the slant well (below the submersible pump) would become inactive.²⁴⁶ Without providing further information, it is unclear from the DEIR/EIS if the proposed slant wells would include this feature. If they do include the packers, then the DEIR/EIS should disclose when either or both packers would be inflated (*i.e.*, to deal with a clog, or for regular maintenance).

By concentrating the water’s flow to the area directly above the submersible pump, the vertical infiltration rate might be higher.²⁴⁷ However, because the DEIR/EIS is silent about the presence of the inflatable packers, even though they could increase the vertical infiltration rate, Dr. Sobczynski did not include the

²³⁹ *Id.*

²⁴⁰ R. Sobczynski Comments, at p. 14.

²⁴¹ *Id.*

²⁴² *Id.*, at pp. 15-16.

²⁴³ *Id.*, at p. 14.

²⁴⁴ *Id.*

²⁴⁵ *Id.*

²⁴⁶ *Id.*, at p. 15.

²⁴⁷ *Id.*, at p. 14.

packers' presence in his calculations to determine the vertical infiltration rate.²⁴⁸ The CPUC and MBNMS must revise the DEIR/EIS to clarify whether and how the inflatable packers would be used and their effect on infiltration.

d) Clogging of the Seabed

Fourth, according to Dr. Sobczynski, there is a high likelihood that the slant wells' intake screens and seabed will clog over time.²⁴⁹ In fact, the intake screens are specially designed to minimize biofouling and corrosion and thereby to reduce the need for more frequent cleaning.²⁵⁰ Though the intake screens can be cleaned by lowering mechanical brushes and possibly adding inert chemicals, the seabed through which the water will be filtered cannot be cleaned in this way.²⁵¹

Clogging was an issue at the Doheny wells at Dana Point where the test slant wells lost their efficiency from an original value of 95% in 2006 to 52% in 2012.²⁵² Dr. Williams stated that the reason why the Doheny wells failed is because of technical limitations.²⁵³

“Due to the pump house casing limitation experienced at Dana Point and the inability to fully develop the well, the MPWSP test slant well included a larger diameter pump house casing. The Monterey test slant well has an 18 in. pump house casing which can accommodate placement of large development pumps with capacities over 3,000 gpm.”²⁵⁴

The Monterey test slant well has allegedly not lost efficiency since beginning operations in 2015.²⁵⁵ However, that is not to say clogging will not occur in the future for the test slant well and the proposed slant wells. The slant wells are

²⁴⁸ *Id.*, at p. 15.

²⁴⁹ *Id.*, at pp. 16-17.

²⁵⁰ Williams, Yield, 2015, *supra*, at p. 4.

²⁵¹ DEIR/EIS, at p. 3-57.

²⁵² R. Sobczynski Comments, at p. 16.

²⁵³ Williams, Yield, 2015, *supra*, at p.4.

²⁵⁴ *Id.*

²⁵⁵ DEIR/EIS, at Appendix G2, p.5 (“By the end of September 2016, the test slant well had been operating continuously for 5 months and intermittently since April 2015.”)

designed to draw brackish groundwater initially, but within 18 months²⁵⁶ to 4 years²⁵⁷ the slant wells should draw predominantly from ocean water that filters through the subsurface sediment (93% of source water).²⁵⁸

Assuming this is true, the buildup of sediment and organic matter traversing through the seabed will be at its highest when most of the source water will be coming from above the seafloor.²⁵⁹ Additionally, an operational report for the Doheny wells stated that future wells must be carefully constructed so that the wells do not become immediately clogged.²⁶⁰

Yet, the DEIR/EIS does not disclose that there is a high likelihood that sediment and organic matter will build up in the subsurface, especially when after some time most of the source water will come from above the seafloor.²⁶¹ As Dr. Sobczynski points out, unless the mechanical cleaning process includes displacing the seabed above the intake, then the slant wells will likely become clogged over time.²⁶²

2. The Recalculated Vertical Infiltration Rate is Higher than the Rate Provided

Dr. Sobczynski recalculated the vertical infiltration rate.²⁶³ He found that the infiltration rate was approximately ten times higher than what Dr. Williams calculated with respect to the Doheny wells and what the DEIR/EIS reported in its

²⁵⁶ Final Summary Report for the Doheny Ocean Desalination Project Phase 3 Investigation: Extended Pumping and Pilot Plat Test Regional Watershed and Groundwater Modeling Full Scale Project Conceptual Assessment, January 2014. Municipal Water District of Orange County (“MWDOC”), at p.19, *available at* <https://www.scwd.org/civica/filebank/blobdload.asp?BlobID=5592> (“MWDOC – Final Summary, 2014”), **Attachment Q**.

²⁵⁷ DEIR/EIS, at Appendix G2, p. 5 (“Figure 3 shows that it could take up to four years for the slant well to be drawing 96% seawater . . .”).

²⁵⁸ DEIR/EIS, at Appendix G2, p. 3 (“The slant wells for the MPWSP are projected to pull 93 percent seawater from the Monterey Bay and 7 percent groundwater from the surrounding area when the MPWSP is operating (GeoScience 2014b).”); *see also* R. Sobczynski Comments, at p. 4.

²⁵⁹ *See* R. Sobczynski Comments, at p. 26.

²⁶⁰ *Id.*, at p. 17; *see also* MWDOC – Final Summary, 2014, *supra*, at p. 57.

²⁶¹ R. Sobczynski Comments, at p. 26.

²⁶² *Id.*, at p. 16.

²⁶³ *Id.*, at pp. 17-23.

calculation dividing the area above the slant wells (one-million square feet) by the bulk flow of water (24.1 mgd).²⁶⁴ Dr. Sobczynski found a vertical infiltration rate of 0.16 mm/sec.²⁶⁵ Based on this new vertical infiltration rate, Dr. Sobczynski recalculated the ventilation parameter, which is important for determining whether microorganisms could be pulled into the seabed.²⁶⁶ Dr. Sobczynski found that the infiltration rate will increase wave induced bottom stress by 10%, rather than the previously calculated 1%.²⁶⁷ This increase was not adequately analyzed in the DEIR/EIS, because it was underestimated.²⁶⁸ As a result, the DEIR/EIS failed to disclose and evaluate significant impacts from the Project's higher infiltration rate.

3. Accumulation of Biomatter Above the Slant Well is Not Adequately Analyzed and Mitigated

The DEIR/EIS fails to adequately analyze and mitigate potentially significant impacts related to marine resources as a result of the slant well.²⁶⁹ Dr. Sobczynski describes the potential for the accumulation of biomatter above the slant wells.²⁷⁰ The DEIR/EIS should account for how it will handle the sediment layer at the bottom of the seafloor.

4. Impacts from Maintaining and Abandoning the Slant Well Have Not Been Adequately Analyzed and Mitigated

The DEIR/EIS fails to adequately analyze and mitigate potentially significant impacts related to maintaining²⁷¹ and abandoning the slant well materials in the ocean subsurface,²⁷² and to the wells' degradation over time. Whereas active slant wells would require maintenance every 5 years,²⁷³ the DEIR/EIS does not mention

²⁶⁴ *Id.*, at p. 19.

²⁶⁵ *Id.*, at p. 20.

²⁶⁶ *Id.*, at pp. 21-22.

²⁶⁷ *Id.*, at p. 22.

²⁶⁸ *Id.*

²⁶⁹ *Id.*, at pp. 23-30.

²⁷⁰ *Id.*, at p. 23.

²⁷¹ DEIR/EIS, at p. 3-57.

²⁷² *Id.*, at p. 4.2-72.

²⁷³ *Id.*, at p. 3-57.

maintenance activities associated with the decommissioned, abandoned slant wells, which would likely foul and corrode for as long as they remain in the subsurface.²⁷⁴ According to the abandonment plan, which does not consider removing abandoned slant wells, the wells would remain in the seabed in perpetuity, degrading over time.²⁷⁵ By not analyzing this degradation over the time, particularly in the context of slant well abandonment, the DEIR/EIS fails to adequately analyze and mitigate potentially significant impacts from the whole Project.

Given Dr. Sobczynski's findings about accumulation of biomatter above the slant well,²⁷⁶ the DEIR/EIS must also consider the impact of abandoning the slant wells and the resultant degradation arising from the wells' corrosion and biofouling, and the decomposing biomatter above the slant well.²⁷⁷ The biomatter accumulation and subsequent decay can lead to a potentially significant impact (*i.e.*, toxic gases) that has not been adequately disclosed and mitigated.²⁷⁸

C. The DEIR/EIS Fails to Adequately Analyze and Mitigate Potentially Significant Cumulative Impacts Related to Marine Resources

In evaluating significance, NEPA requires consideration of whether the action is related to other actions with individually insignificant but cumulatively significant impacts.²⁷⁹ The lead agency must make a finding of significance if it is "reasonable to anticipate a cumulatively significant impact on the environment."²⁸⁰ The CEQ regulations further require that significance "cannot be avoided by terming an action temporary or by breaking it down into small component parts."²⁸¹

An EIR is required to discuss the cumulative impacts of a project "when the project's incremental effect is cumulatively considerable."²⁸² An EIR is required to

²⁷⁴ Williams, Yield, 2015, *supra*, at p. 4.

²⁷⁵ DEIR/EIS, at p. 4.2-72.

²⁷⁶ R. Sobczynski Comments, at pp. 23-30.

²⁷⁷ *Id.*

²⁷⁸ *Id.*

²⁷⁹ 40 C.F.R. § 1508.27.

²⁸⁰ *Id.*

²⁸¹ *Id.*

²⁸² 14 C.C.R. § 15130(a).

discuss significant impacts that the proposed project will cause in the area that is affected by the project.²⁸³ “This area cannot be so narrowly defined that it necessarily eliminates a portion of the affected environmental setting.”²⁸⁴

The CEQA Guidelines specifically direct the lead agency to “define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.”²⁸⁵ The courts have held that it is vitally important that an EIR avoid minimizing the cumulative impacts. Rather, it must reflect a conscientious effort to provide public agencies and the general public with adequate and relevant detailed information about them.²⁸⁶ An EIR’s cumulative impacts discussion “should be guided by the standards of practicality and reasonableness,” but several elements are deemed “necessary to an adequate discussion of significant cumulative impacts” including “[a] list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.”²⁸⁷

Both the State Water Resources Control Board²⁸⁸ and the MBNMS Desalination Guidelines establish subsurface intakes as the preferred technology for seawater intakes.²⁸⁹ There are a number of desalination proposals for Monterey Bay and along the California Coast, which have considered or are evaluating the feasibility of subsurface intake systems.²⁹⁰ Consequently, there may be a significant

²⁸³ *Bakersfield Citizens*, 124 Cal.App.4th at p. 1216 (emphasis added); see 14 C.C.R. § 15126.2(a).

²⁸⁴ *Bakersfield Citizens*, 124 Cal.App.4th at p. 1216.

²⁸⁵ *Id.*; 14 C.C.R. § 15130(b)(3).

²⁸⁶ Pub. Resources Code, § 21061; *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal.App.3d 61, 79; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 723.

²⁸⁷ 14 C.C.R. § 15130(b); *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 928-29.

²⁸⁸ Ocean Plan with Desalination Amendment, State Water Resources Control Board, p. 39, available at http://www.waterboards.ca.gov/water_issues/programs/ocean/docs/cop2015.pdf (“the regional water board in consultation with State Water Board staff shall require subsurface intakes unless it determines that subsurface intakes are not feasible . . .”). **Attachment J-1.**

²⁸⁹ Guidelines for Desalination Plants in the Monterey Bay National Marine Sanctuary, NOAA, *supra*, at p. 6 (“Desalination project proponents should investigate the feasibility of using subsurface intakes as an alternative to traditional intake methods.”).

²⁹⁰ Resource Issues: Desalination, NOAA: MBNMS, available at <http://montereybay.noaa.gov/resourcepro/resmanissues/desalination.html> (“While only a few small-scale desalination facilities currently operate within the boundaries of the sanctuary, there has

cumulative impact from the subsurface slant wells due to bioaccumulation, as Dr. Sobczynski described.²⁹¹ Moreover, the Desalination Amendment uses the same Williams and Jenkins calculations, relied upon in this DEIR/EIS,²⁹² to demonstrate that there will be no impingement of organic matter on the seafloor.²⁹³ Dr. Sobczynski demonstrates that these calculations may not be correct and that the vertical infiltration may be much higher.²⁹⁴ Organic matter may become impinged and pulled through the sea floor.²⁹⁵ During maintenance, or upon abandonment, the subsurface slant wells are deprived of dissolved oxygen that normally flows through the subsurface.²⁹⁶ Multiple desalination plants with subsurface intakes — all of which draw organic matter through the subsurface — may lead to significant cumulative impacts, such as the ones Dr. Sobczynski described.

D. The DEIR/EIS Fails to Adequately Analyze and Mitigate Potentially Significant Impacts to Biological Resources

As described above, the DEIR/EIS fails to provide updated biological information in a meaningful way. Rather than provide an accurate analysis of the biological setting, the DEIR/EIS provides GIS shape files.²⁹⁷ GIS shape files do not provide the level of detail necessary for thoroughly assessing what sensitive species are present throughout the project site, as a biological technical report (with focused and protocol surveys) would.²⁹⁸ The DEIR/EIS's lack of focused and protocol surveys leads to an inability to accurately analyze the Project's impacts on biological

recently been an increase in interest for both private and public desalination plants, with several new facilities being pursued in the Monterey Bay and in Cambria”), **Attachment R-1**; *see also* Desalination Map, *id.* (map), *available at* <http://montereybay.noaa.gov/materials/mappages/desalinizationmap.html>, **Attachment R-2**; Williams, Yield, 2015, *supra*, at p. 2.

²⁹¹ R. Sobczynski Comments, at pp. 23-30.

²⁹² DEIR/EIS, at p. 5.5-52-53.

²⁹³ SWRCB, Appx. I, *supra*, at pp. I-19-20.

²⁹⁴ R. Sobczynski Comments, at pp. 19-22.

²⁹⁵ *Id.*, at p. 23, 27-30.

²⁹⁶ *Id.*, at pp. 27-30.

²⁹⁷ Owens Comments, at pp. 12-13.

²⁹⁸ *Id.*, at p. 12.

resources.²⁹⁹ Consequently, the DEIR/EIS fails to mitigate potentially significant impacts to biological resources.³⁰⁰

As Ms. Owens explains, an updated Biological Technical Report would provide real data from protocol surveys required for listed species, and details on how the surveys were conducted, so that others may determine if the methodology was done correctly.³⁰¹ Focused and protocol survey data are essential for conservation and mitigation analysis.³⁰² Not only are they important for an adequate CEQA review but also for section 7 and section 10 consultation under the federal ESA.³⁰³ Since this Project may significantly impact ESA listed species, take is likely to occur.³⁰⁴ The DEIR/EIS must require that qualified biologists conduct surveys not just at a habitat level, but also on an individual species level.³⁰⁵ As is, the DEIR/EIS violates NEPA and CEQA by failing to adequately analyze and mitigate potentially significant impacts to biological resources.

1. Snowy Plover Impacts are Not Adequately Analyzed and Mitigated

Ms. Owens explains that the DEIR/EIS fails to adequately analyze and mitigation impacts to snowy plover critical habitat.³⁰⁶ The snowy plover's critical habitat must be minimally disturbed.³⁰⁷ Yet, the Project will border approximately 9 miles of coastal snowy plover critical habitat.³⁰⁸ Additionally, to properly protect the snowy plover, the Project must avoid impacts to non-breeding season snowy plover habitat.³⁰⁹ In failing to adequately analyze the impacts to plovers during both breeding and non-breeding season, the DEIR/EIS has not proposed sufficient mitigation measures to adequately protect the species.³¹⁰

²⁹⁹ *Id.*, at p. 14.

³⁰⁰ *Id.*, at p. 15.

³⁰¹ *Id.*, at p. 12; *see also id.*, at p. 31.

³⁰² *Id.*, at p. 15

³⁰³ *Id.*

³⁰⁴ *Id.*

³⁰⁵ *Id.*

³⁰⁶ *Id.*, at p. 21-22.

³⁰⁷ *Id.*, at p. 22.

³⁰⁸ *Id.*, at pp. 22-24.

³⁰⁹ *Id.*, at p. 24.

³¹⁰ *Id.*, at p. 24-29.

Additionally, the DEIR/EIS should provide a more accurate cumulative impact analysis with respect to snowy plovers.³¹¹ There are a number of project in the coastal zone in the vicinity of the Project that have not been adequately analyzed to determine their contribution to the cumulative impact of the species.³¹² Additionally, compensatory mitigation details are necessary for complete snowy plover impact analysis. Ms. Owens suggests that the compensatory mitigation measure should incorporate collaboration with local snowy plover conservationists.³¹³

2. Wildlife Corridors Impacts are Not Adequately Analyzed and Mitigated

The DEIR/EIS states that there would be no significant impacts to species due to the lack of wildlife corridors.³¹⁴ This, however, is inaccurate as Ms. Owens explains.³¹⁵ According to Ms. Owens, species use wildlife corridors and nurseries in agricultural and industrial areas.³¹⁶ The DEIR/EIS's conclusion, therefore, is not supported.³¹⁷ Ms. Owens concludes that this impact must be analyzed with greater detail and supporting documentation.³¹⁸

3. Coastal Dunes Impacts are Not Adequately Analyzed and Mitigated

The DEIR/EIS does not adequately analyze coastal dune habitat. This critical habitat must be managed pursuant to Environmentally Sensitive Habitat Area requirements.³¹⁹

³¹¹ *Id.*, at p. 32-34.

³¹² *Id.*, at p. 33.

³¹³ Owens Comments, at p. 34-35.

³¹⁴ DEIR/EIS, at p. 4.6-119.

³¹⁵ Owens Comments, at pp. 45-47.

³¹⁶ *Id.*, at p. 45.

³¹⁷ *Id.*, at p. 47.

³¹⁸ *Id.*

³¹⁹ *Id.*, at p. 47; *see also* DEIR/EIS, at p. 4.6-207 (“Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values . . .”).

E. The DEIR/EIS Fails to Adequately Analyze and Mitigate Potentially Significant Impacts to Air Quality

The DEIR/EIS fails to adequately analyze and mitigate potentially significant impacts to air quality, with respect to significant pollutants, criteria pollutants, and indirect emissions.

1. Construction Criteria Pollutant Emissions are Significant and Unmitigated

The DEIR/EIS estimated maximum daily emissions of ROG, NO_x, CO, PM₁₀, and PM_{2.5} from Project construction and concluded that emissions of NO_x and PM₁₀ are significant and require mitigation.³²⁰ Dr. Fox explains that the impact analysis is unsupported and the mitigation is inadequate to reduce impacts to less than significant.³²¹

First, the construction emissions from off-road and on-road construction equipment are not supported by substantial evidence.³²² As Dr. Fox states, the DEIR/EIR fails to provide adequate documentation for some of its off-road emissions estimates.³²³ In addition, the DEIR/EIS does not include input and output sheets or provide adequate explanation for its on-road construction emissions estimates.³²⁴ The DEIR/EIS's assumptions used in emissions modeling should be subject to public review.³²⁵ As such, the DEIR/EIS fails to disclose information pertaining to construction emission calculations and should be recirculated to include identification of all Project-specific assumptions and input parameters, a copy of the model run inputs and outputs, and any documentation used to make the final construction emission calculations.³²⁶

³²⁰ Fox Comments, at p. 3.

³²¹ *Id.*

³²² *Id.*, at pp. 3-4.

³²³ *Id.* at p. 3.

³²⁴ *Id.*, at pp. 4-5.

³²⁵ *Id.*

³²⁶ *Id.*

Second, Dr. Fox explains that construction mitigation is not adequate to reduce impacts to less than significant.³²⁷ The DEIR/EIS concludes that the air quality impact with respect to ozone and NO₂ standards would be significant and unavoidable even with implantation of Mitigation Measures 4.10-1a and 4.10-1b.³²⁸ However, the CPUC and MBNMS cannot simply conclude that an impact is significant and unavoidable without requiring all feasible mitigation. Additional feasible mitigation is possible to mitigate for ozone and NO₂.³²⁹

Mitigation Measure 4.10-1a proposes the use of equipment that meets asserted high-tiered engine standards.³³⁰ Dr. Fox explains that Tier 3 engines are not the highest tier (lowest emission) off-road engines available; rather, this measure should require Tier 4 engines.³³¹ If Tier 4 engines cannot be obtained, then the mitigation measure should be expanded to require the consideration of leasing or renting from private vendors within 1,000 miles of the Project site.³³² The request to deviate from the use of Tier 4 engines should only be considered after all feasible actions have been taken to comply.³³³

Mitigation Measure 4.10-1b establishes limits on idling time for on-road and off-road engines.³³⁴ Idling should be limited to no longer than five minutes, which is consistent with California Code of Regulations, title 13, § 2449, subd. (d)(3).³³⁵ Therefore, this is not a valid mitigation measure because this is already what the law requires.³³⁶ Dr. Fox states that this mitigation measure should be modified to limit idling to two minutes, which has been required for other similar projects.³³⁷ This policy should be distributed to employees and enforced by the on-site construction manager.³³⁸

³²⁷ *Id.*, at p. 6.

³²⁸ *Id.*

³²⁹ *Id.*

³³⁰ *Id.*, at p. 7.

³³¹ *Id.*

³³² *Id.*

³³³ *Id.*

³³⁴ *Id.*, at p. 8.

³³⁵ *Id.*

³³⁶ *Id.*

³³⁷ *Id.*

³³⁸ *Id.*

Third, additional feasible mitigation for construction ozone and NO₂ emissions exists.³³⁹ The Project's Draft Initial Study and Mitigated Negative Declaration provided feasible measures, which are not included in this DEIR/EIS.³⁴⁰ Feasible mitigation measures for NO_x and ROG can also be found in the Monterey Bay Unified Air Pollution Control District's CEQA Guidelines, other projects (i.e., Chevron Modernization Program), and U.S. EPA programs.³⁴¹ In her letter, Dr. Fox includes these feasible mitigation measures for NO_x and ROG, which are not included in the DEIR/EIS.³⁴² The DEIR/EIS fails to include all feasible mitigation for an impact that is significant and unavoidable.

2. The DEIR/EIS Omits Indirect Operational Emissions

The DEIR/EIS estimates operational emissions from on-road vehicle exhaust, emergency generator testing, and slant well maintenance.³⁴³ However, according to Dr. Fox, the major source of Project emissions is indirect emissions from the generation of electricity.³⁴⁴ The DEIR/EIS does not include those emissions. The CPUC and MBNMS argue that “[i]t is generally not possible to determine the exact generator source(s) of electricity on the power grid that would supply the proposed project, or whether or not the electricity would even be generated within the Air Basin.”³⁴⁵ The lead agencies are wrong.

CEQA does not allow the CPUC and MBNMS to exclude this major source of emissions from the DEIR/EIS.³⁴⁶ As noted by Dr. Fox, EIRs routinely include indirect emissions from electricity generation.³⁴⁷ In fact, the GHG section of this DEIR includes indirect GHG emissions from power generation.³⁴⁸ Furthermore, the Monterey Bay Unified Air Pollution Control District's (“MBUAPCD”). CEQA Guidelines state: “The following thresholds apply to all indirect and direct

³³⁹ *Id.*, at pp. 8-9.

³⁴⁰ California American Water Slant Test Well Project Draft Initial Study/Mitigated Negative Declaration, *supra*; DEIR/EIS, at p. 4.15-21.

³⁴¹ Fox Comments, at p. 9.

³⁴² *Id.*, at 9-11.

³⁴³ *Id.*, at p. 12 (citing DEIR/EIS, Table 4.10-7).

³⁴⁴ *Id.*, at p. 12.

³⁴⁵ *Id.*

³⁴⁶ *Id.*

³⁴⁷ *Id.*

³⁴⁸ *Id.*

emissions, whether or not they are subject to District permit authority, unless noted otherwise.”³⁴⁹ The MBUAPCD’s guidelines indicate that the NO_x and ROG significance thresholds should be compared to “direct + indirect” emissions.³⁵⁰ Thus, Dr. Fox concludes that “the DEIR/EIS must include the increase in emissions from the net increase in power production to support the Project.”³⁵¹

Furthermore, Dr. Fox explains that indirect emissions need not be limited to the Project’s Air Basin.³⁵² Dr. Fox states that “[e]lectricity from any generator in California could be used at the Project site. As the significance criteria are based on the maximum day, finding the ‘maximum’ is all that is required.”³⁵³

The DEIR/EIS indicates that PG&E would supply the power for the Project. According to Dr. Fox, the sources of PG&E’s power are known and “emissions should be estimated for the plausible worst case daily maximum emissions. . . .”³⁵⁴ However, the DEIR/EIS does not include any of the information required to estimate these emissions.³⁵⁵ Thus, the DEIR/EIS fails as an informational document under CEQA, leaving the public to generate independent emissions estimates in order to evaluate the Project’s impacts.³⁵⁶

Dr. Fox provides her own estimates.³⁵⁷ Dr. Fox finds that “the Project would increase NO_x emissions by up to 363 lb/day, which exceeds the MBUAPCD’s NO_x significance threshold of 137 lb/day.”³⁵⁸ The NO_x emissions from producing a net increase of 51,698 MWh per year of electricity “is large enough taken alone to exceed the MBUAPCD’s NO_x significance threshold.”³⁵⁹ This is a significant impact not disclosed or mitigated in the DEIR/EIS.

³⁴⁹ *Id.* (citing Monterey Bay Unified Air Pollution Control District (“MBUAPCD”) 2008), p. 5-4.

³⁵⁰ *Id.* (citing MBUAPCD 2008, Table 5-3.)

³⁵¹ *Id.*

³⁵² *Id.*, at pp. 12-14.

³⁵³ *Id.*, at p. 12.

³⁵⁴ *Id.*, at p. 13.

³⁵⁵ *Id.*

³⁵⁶ *Id.*

³⁵⁷ *Id.*, at pp. 13-14.

³⁵⁸ *Id.*, at p. 13.

³⁵⁹ *Id.*

In addition, Dr. Fox identified all PG&E owned power plants in California, determining the maximum daily emissions from each, using EPA's CAMD daily data for 2014.³⁶⁰ She then concludes — assuming 1,152 lb of NO_x is emitted on the maximum day from the Gateway Generating Station — that operational NO_x emissions would increase to 1,179 lb/day,³⁶¹ which exceeds the MBUAPCD's NO_x threshold (137 lb/day) by a significant amount.³⁶² Thus, Dr. Fox concludes that operational NO_x emissions from power production are a significant impact not disclosed in the DEIR/EIS that must be mitigated.³⁶³ This significant impact is not disclosed or mitigated in the DEIR/EIS.

Dr. Fox offers suggestions for mitigating this impact, including “purchasing local and contemporaneous emission reduction credits or by collaborating with a nearby NO_x source to reduce their NO_x emissions. Alternatively, the increase in electricity demand could be met by using 100% renewable sources of electricity.”³⁶⁴

CEQA requires the lead agencies' to disclose, analyze, and require mitigation for the Project's indirect electricity generation emissions for all criteria pollutants and to require mitigation for the resulting significant NO_x impacts.

3. The DEIR/EIS Fails to Evaluate All Air Quality Impacts

Under CEQA, a lead agency has discretion to determine how to classify the significance of impacts.³⁶⁵ However, an agency's judgment must be supported by scientific information and other factual data, and the agency does not have discretion to simply not evaluate the significance of impacts.³⁶⁶ In her letter, Dr. Fox states that the DEIR/EIS fails to evaluate the significance of pollutants for which the Monterey Bay Unified Air Pollution Control District (“MBUAPCD”) has not set official CEQA significance thresholds.³⁶⁷ Specifically, the DEIR/EIS fails to evaluate the significance of impacts from two pollutants: NO_x emissions for impacts

³⁶⁰ *Id.*, at p. 14.

³⁶¹ *Id.*

³⁶² *Id.*

³⁶³ *Id.*

³⁶⁴ *Id.*

³⁶⁵ CEQA Guidelines, § 15064(b).

³⁶⁶ *Id.*

³⁶⁷ Fox Comments, p. 14.

other than its contribution to ozone, and ROG for its impacts other than its contribution to ozone.³⁶⁸

a) *NO_x*

The MBUAPCD's significance criteria for *NO_x* (137 lb/day) is based only on ozone.³⁶⁹ Thus, the DEIR/EIS only evaluates *NO_x* as an ozone precursor.³⁷⁰ However, as Dr. Fox points out, *NO_x* "can also causes adverse health effects, acid rain, form particulate matter, and contribute to global warming, water quality deterioration, and visibility impairment."³⁷¹ *NO_x* can damage lung tissue and reduce lung function.³⁷² The DEIR acknowledges that there are primary and secondary state and federal ambient air quality standards for nitrogen oxides established using *NO₂* as a surrogate for all nitrogen oxides.³⁷³ The primary standards (1-hour) are set to protect public health, including the health of sensitive populations.³⁷⁴ The secondary standards (annual) are set to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.³⁷⁵ The DEIR/EIS fails to evaluate these primary and secondary impacts of *NO_x*.³⁷⁶

The absence of a MBUAPCD "CEQA significance threshold" for non-ozone precursor *NO_x* impacts does not obviate the need to evaluate this impact as the ambient air quality standards themselves can be used as CEQA significance thresholds.³⁷⁷ According to Dr. Fox, when a CEQA significance threshold is missing, a lead agency can model emissions to determine if they cause or contribute to an exceedance of the ambient standards or look to other sources, such as other air districts, for significance criteria expressed as emission rates.³⁷⁸

³⁶⁸ *Id.*, pp. 15-19.

³⁶⁹ *Id.*, pp. 15-17.

³⁷⁰ *Id.*

³⁷¹ *Id.*

³⁷² *Id.*

³⁷³ *Id.* at p. 15 (citing DEIR/EIS, Table 4.10-2).

³⁷⁴ *Id.*

³⁷⁵ *Id.*

³⁷⁶ *Id.*

³⁷⁷ *Id.*, at p. 16.

³⁷⁸ *Id.*, at pp. 16-17.

In *Bakersfield Citizens For Local Control v. City of Bakersfield*, the Fifth District appellate court held that an EIR was inadequate because it failed to correlate adverse air quality impacts to resulting adverse health impacts.³⁷⁹ In that case, a local citizens group filed a CEQA petition challenging the EIRs for two retail shopping centers planned for the southwestern portion of Bakersfield, California.³⁸⁰ Both EIRs concluded that the shopping center projects would have significant and unavoidable adverse impacts on air quality, yet the court found:

neither EIR acknowledges the health consequences that necessarily result from the identified adverse air quality impacts. Buried in the description of some of the various substances that make up the soup known as ‘air pollution’ are brief references to respiratory illnesses. However, there is no acknowledgement or analysis of the well-known connection between reduction in air quality and increases in specific respiratory conditions and illnesses. After reading the EIR’s, the public would have no idea of the health consequences that result when more pollutants are added to a nonattainment basin.³⁸¹

The court concluded that the disclosures were inadequate and stated that the health impacts resulting from the adverse air quality impacts must be identified and analyzed in new EIRs.³⁸²

Here, although the DEIR/EIS acknowledges the impacts of NO_x as an ozone precursor, it fails to identify the respiratory impacts and other impacts resulting from NO_x emissions.³⁸³ The CPUC and MBNMS must prepare a revised DEIR/EIS that adequately discloses, analyzes and mitigates all potentially significant impacts from the Project’s NO_x emissions. Furthermore, and discussed in further detail below, the NO_x and Reactive Organic Gases emissions reported exceed the non-ozone significance thresholds established by four air districts pursuant to CEQA.³⁸⁴

³⁷⁹ *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219–1220.

³⁸⁰ *Id.*, at p. 1193.

³⁸¹ *Id.*, at p. 1220.

³⁸² *Id.*

³⁸³ Fox Comments, at pp. 15-16.

³⁸⁴ *Id.*, at p. 17.

b) *Reactive Organic Gases (ROG)*

Reactive Organic Gases (“ROG”), in addition to forming ozone, can cause “severe eye, nose, and throat [irritation] and increases susceptibility to respiratory infections.”³⁸⁵ As with NO_x, the DEIR/EIS only evaluates ROG as an ozone precursor.³⁸⁶ The Volatile Organic Compounds (“VOCs”) present in ROG before it is converted into ozone include compounds that are hazardous to human health.³⁸⁷ The DEIR/EIS’s health risk assessment (“HRA”) only evaluated diesel particulate matter; it did not evaluate the health impacts from toxic air pollutants (“TAC”) subsumed in ROG that are not converted to ozone when they reach sensitive receptors.³⁸⁸ According to Dr. Fox, these TACs include “acutely and chronically toxic chemicals such as toluene, xylene, ethylbenzene, and 1,3 butadiene and carcinogens such as benzene, formaldehyde, acrolein, and acetaldehyde.”³⁸⁹

Like the NO_x discussion above, Dr. Fox states that other air districts have established CEQA significance thresholds for ROG.³⁹⁰ The DEIR/EIS does not take this approach and the DEIR/EIS must include TAC impacts in a revised HRA.³⁹¹ The DEIR/EIS fails to meet CEQA standards because it does not evaluate the Project’s non-ozone impacts from ROG emissions.³⁹²

F. The DEIR/EIS Fails to Adequately Evaluate Health Risks

The DEIR/EIS evaluated health risks of Project construction from Diesel Particulate Matter (“DPM”) at two sites, the Carmel Valley Pump Station and ASR Injection/Extraction Wells.³⁹³ As Dr. Fox notes, this analysis concluded that cancer and chronic health risks are less than significant.³⁹⁴ However, the analysis is flawed and when corrected, Dr. Fox finds that there would be a significant health impact.

³⁸⁵ *Id.*, p. 18.

³⁸⁶ *Id.*, at pp. 17-18.

³⁸⁷ *Id.* at p. 18.

³⁸⁸ *Id.*

³⁸⁹ *Id.*

³⁹⁰ *Id.*, at p. 17.

³⁹¹ *Id.*, at p. 18.

³⁹² *Id.*

³⁹³ *Id.*, at p. 20.

³⁹⁴ *Id.*

Further, she finds that the HRA analysis is unsupported, incomplete, and fails to include acute impacts.³⁹⁵

First, all sensitive receptors were not evaluated.³⁹⁶ As Dr. Fox points out, there are other facilities that are near sensitive receptors that were excluded from the HRA, including Wells ASR-5 and ASR-6, which would be constructed within 50 feet of existing residences.³⁹⁷ The ASR Conveyance Pipeline, ASR Recirculation Pipeline, and the ASR Pump-to-Waste Pipeline would be within 250 feet of Seaside Middle School, and within 50 to 100 feet of residences in the Fitch Park military housing area along Hatten Road and Ardennes Circle.³⁹⁸

Second, the DEIR/DEIS did not follow OEHHA Guidelines, which resulted in the DEIR/EIS substantially underestimating the Project's health risk.³⁹⁹ The OEHHA guidelines, adopted in March 2015, provide recommendations for preparing health risk assessments.⁴⁰⁰ Dr. Fox points out that the DEIR/EIS analysis only evaluated risk for exposures of 0.25 years, or 3 months after birth.⁴⁰¹ However, if exposure is increased to 6 months after birth, per OEHHA guidance, then the cancer risk increases from 5.2 in one million to 10 in one million, which is per se significant.⁴⁰² The 10 in one million number is the significance threshold for a lifetime exposure, which dilutes the short term risk.⁴⁰³ Instead, the DEIR/EIS should have a lower significance threshold than the 10 in one million used for a 70 year exposure.⁴⁰⁴ Dr. Fox provides differing scenarios in evaluating the cancer risk.⁴⁰⁵ In either scenario, however, the cancer risk from diesel exhaust alone would be highly significant and unmitigated. This significant impact is not disclosed in the

³⁹⁵ *Id.*

³⁹⁶ *Id.*

³⁹⁷ *Id.*

³⁹⁸ *Id.*

³⁹⁹ *Id.*, at pp. 20-21.

⁴⁰⁰ *Id.*

⁴⁰¹ *Id.*, at p. 21.

⁴⁰² *Id.*

⁴⁰³ *Id.*

⁴⁰⁴ *Id.*

⁴⁰⁵ *Id.*, at pp. 21-22.

DEIR/EIS.⁴⁰⁶ At a minimum, all diesel fuel equipment should have diesel particulate traps to mitigate this significant impact.⁴⁰⁷

Third, all hazardous pollutants were not included in the HRA.⁴⁰⁸ As already mentioned, the HRA only evaluated diesel exhaust, which is emitted from construction equipment and on-road vehicles.⁴⁰⁹ But there are also VOCs, present in ROG before it is converted into ozone, which are hazardous to human health.⁴¹⁰ The HRA should have evaluated toxic air pollutants subsumed in ROG that are not converted to ozone when they reach sensitive receptors.⁴¹¹ By failing to include unconverted VOCs, the HRA underestimates health impacts and further fails to evaluate acute health impacts.⁴¹²

G. The DEIR/EIS Fails to Identify Significant Health Impacts Due to Valley Fever

Dr. Fox provided evidence in her 2015 comments that the DEIR/EIS fails to identify significant health impacts due to Valley Fever.⁴¹³ Yet the DEIR/EIS continues to dismiss the risk of Valley Fever to Project workers and nearby sensitive receptors.⁴¹⁴ In the attached comments, Dr. Fox provides evidence about the health risks associated with Valley Fever for this Project, which is located in an endemic zone.⁴¹⁵ Valley Fever is contracted by inhaling *Coccidioides ssp.* (“Cocci spores”), a component of PM10, or PM2.5.⁴¹⁶

First the DEIR/EIS misrepresents the status quo by stating that Valley Fever is declining.⁴¹⁷ However, the decline recorded in 2014 (to which the DEIR/EIS relies

⁴⁰⁶ *Id.*

⁴⁰⁷ *Id.*, at p. 22.

⁴⁰⁸ *Id.*

⁴⁰⁹ *Id.*

⁴¹⁰ *Id.*

⁴¹¹ *Id.*

⁴¹² *Id.*

⁴¹³ *Id.*, at p. 25; see Dr. Fox Comments (2015) at p. 38, **Attachment S**.

⁴¹⁴ *Id.*

⁴¹⁵ *Id.*, at p. 23.

⁴¹⁶ *Id.*, at p. 27.

⁴¹⁷ *Id.*, at p. 25.

on for its support) was an anomaly.⁴¹⁸ In fact, there were 50% more cases in 2016 than in 2015.⁴¹⁹

Second, the DEIR/EIS makes assertions that are inconsistent with CEQA and are unsupported and incorrect.⁴²⁰ The DEIR/EIS concludes that much of the population of Monterey County has already been exposed to Cocci spores.⁴²¹ Valley Fever is contracted by inhaling Cocci spores, which become airborne during earth moving construction, which increases PM10 and PM2.5.⁴²² Project construction would disturb over 173 acres of endemic land, likely to contain spores.⁴²³ Additional disturbance would occur during maintenance.⁴²⁴ Therefore, the DEIR/EIS concludes that Valley Fever-related impacts would not be considered significant because residents are continually exposed to spores and construction would not represent an increased risk to public health.⁴²⁵ Even if everyone in Monterey County has been exposed to Cocci spores, Dr. Fox states, this does not mean that an increase in the number of Cocci spores due to Project construction would not result in new cases, or that construction workers from non-endemic areas would not contract Valley Fever.⁴²⁶

Dr. Fox writes, “[w]hile some residents of Monterey County may have been exposed to Cocci spores as they live adjacent to agricultural fields or a construction site, this does not mean that an increase in the number spores due to Project construction would not result in an increase in Valley Fever cases.”⁴²⁷ Additionally, the record contains no evidence that all residents downwind of Project construction and all construction workers who would build the Project have in fact been exposed to Cocci spores in sufficient amounts to assure immunity.⁴²⁸ Dr. Fox challenges this

⁴¹⁸ *Id.*

⁴¹⁹ *Id.*

⁴²⁰ *Id.*, at p. 26.

⁴²¹ *Id.*

⁴²² *Id.*

⁴²³ *Id.*, at p. 28.

⁴²⁴ *Id.*, at pp. 28-29.

⁴²⁵ *Id.*, at p. 29.

⁴²⁶ *Id.*, at p. 29.

⁴²⁷ *Id.*, at p. 26.

⁴²⁸ *Id.*

immunity argument, stating that being exposed to Cocci spores does not imply nor can it guarantee immunity to Valley Fever from increased exposure.⁴²⁹

Moreover, the Requests for Proposal for the slant wells and conveyance facilities state that the Contractor must make a good faith effort to employ individuals, who have lived for at least one year out of the three years prior to the opening of proposals, from Monterey, San Benito, or Santa Cruz Counties.⁴³⁰ Therefore, Dr. Fox states that it is a highly unlikely scenario that all potentially exposed parties have already been exposed in Monterey County.⁴³¹

The DEIR/EIS must evaluate the significance of Cocci spore exposure relative to the baseline, just as it had evaluated the significance of PM10 and PM2.5 emissions relative to the baseline.⁴³² By stating that residents have already been exposed to Cocci spores (present in PM10, or PM2.5) is a statement of the baseline.⁴³³ It does not adequately inform the public about the Project's Valley Fever health risk.

Construction workers who would be exposed to land disturbance activities would be at considerable risk of catching Valley Fever.⁴³⁴ Construction workers, alongside agricultural workers, are the most at-risk populations.⁴³⁵ This is because these labor groups are in intimate contact with soil in a Valley Fever endemic area and many may be from non-endemic zones or may have never worked in an endemic area.⁴³⁶ The DEIR/EIS fails to adequately evaluate this significant construction impact, not only on construction workers, but also on the nearby sensitive receptors and the larger population (spores can travel as much as 500 miles).⁴³⁷ Since the DEIR/EIS evaluated the increase of PM10 and PM2.5, of which Cocci spores are a component, the DEIR/EIS should also disclose that Cocci spores will increase.⁴³⁸

⁴²⁹ *Id.*, at p. 27.

⁴³⁰ *Id.*, at pp. 26-27.

⁴³¹ *Id.*, at p. 27.

⁴³² *Id.*

⁴³³ *Id.*

⁴³⁴ *Id.*, at p. 30.

⁴³⁵ *Id.*

⁴³⁶ *Id.*

⁴³⁷ *Id.*, at pp. 29-30.

⁴³⁸ *Id.*, at p. 31.

Third, the DEIR/EIS fails to mitigate the significant Valley Fever health risks.⁴³⁹ Although the DEIR/EIS provides Mitigation Measure 4.10-1c (a conventional construction fugitive dust mitigation measure that would allegedly mitigate the risk to a less than significant level), this measure is ineffective at controlling Valley Fever.⁴⁴⁰ Conventional dust control measures are effective at controlling visible dust or larger dust particles (PM10), but not the very fine particulate matter (PM2.5), where Valley Fever spores are found.⁴⁴¹ Dr. Fox states that the spores, which may be difficult to see and have low settling rates, are not controlled by conventional dust control measures.⁴⁴² Additionally, the Project's construction period coincides with a period when there might be a higher risk of catching Valley Fever.⁴⁴³

Dr. Fox provides a number of recommended mitigation measures to reduce the risk of Valley Fever.⁴⁴⁴ These recommended measures go beyond the conventional dust control measures for controlling PM10 emissions.⁴⁴⁵ These recommendations include continuously wetting the soil before and while digging, thoroughly cleaning equipment, vehicles and other items before they are moved off-site to other work locations, developing a protocol with medical professionals to medically evaluate employees who have symptoms of Valley Fever, and others.⁴⁴⁶ Dr. Fox also identifies flaws in Mitigation Measure 4.10-1a, such as required daily sweeping, which generates fugitive dust that may contain spores.⁴⁴⁷

Not only do the PM10 mitigation measures not adequately control Valley Fever, but they also fail to mitigate PM10 impacts.⁴⁴⁸ Projects that have implemented conventional PM10 dust control measures, like the ones for this Project, have experienced several incidences of severe dust storms and reported

⁴³⁹ *Id.*

⁴⁴⁰ *Id.*

⁴⁴¹ *Id.*

⁴⁴² *Id.*, at pp. 31-32.

⁴⁴³ *Id.*, at pp. 32-33.

⁴⁴⁴ *Id.*, at pp. 33-36.

⁴⁴⁵ *Id.*

⁴⁴⁶ *Id.*

⁴⁴⁷ *Id.*, at pp. 37-39.

⁴⁴⁸ *Id.*, at p. 38.

cases of Valley Fever.⁴⁴⁹ The DEIR/EIS must adopt an enhanced dust control plan, as suggested by Dr. Fox, to reduce the risk to construction workers, on-site employees and the public of contracting Valley Fever.⁴⁵⁰ These measures are feasible as many of them have been adopted by the County of Monterey in other EIRs.⁴⁵¹ Still, even if all of the above feasible measures are adopted, a recirculated DEIR/EIS is required to analyze whether these measures are adequate to reduce the Valley Fever significant impact to a level below significance.⁴⁵²

H. The DEIR/EIS Fails to Adequately Explain Why the Project's GHG Impacts Are Significant and Unavoidable and Improperly Defers Mitigation

In *Keep Berkeley Jets Over the Bay Com. v. Board of Port Comrs.*, the First Appellate court concluded that “simply labeling the effect ‘significant’ without accompanying analysis” violates “the environmental assessment requirements of CEQA.”⁴⁵³ Before the lead agencies can make a “significant and unavoidable” finding, it must specifically identify the GHG mitigation measures and estimate the reduction in GHG achieved by each.⁴⁵⁴

An agency may defer mitigation only when three narrow, specific prerequisites are met: (1) an EIR contains criteria or performance standards to govern future actions implementing the mitigation; (2) practical considerations preclude development of the measures at the time of initial project approval; and (3) the agency has assurances that the future mitigation will be *both* “feasible and efficacious.”⁴⁵⁵ An agency may not satisfy its mitigation requirements by merely

⁴⁴⁹ *Id.*

⁴⁵⁰ *Id.*

⁴⁵¹ *Id.*

⁴⁵² *Id.*, at pp. 38-39.

⁴⁵³ *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1371 [111 Cal.Rptr.2d 598, 618], *as modified on denial of reh'g* (Sept. 26, 2001); *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1996) 42 Cal.App.4th 608.

⁴⁵⁴ *See Berkeley Keep Jets Over the Bay Com.*, *supra*, at p. 1373.

⁴⁵⁵ *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 94-95; *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 669-71; CEQA Guidelines § 15126.4(a)(1)(B).

ordering a project proponent to “obtain a . . . report and then comply with any recommendations that may be made in the report.”⁴⁵⁶

In *Communities for a Better Environment v. City of Richmond*,⁴⁵⁷ an EIR for a Chevron refinery project was deemed legally inadequate in part because the mitigation measures for GHG emissions were impermissibly deferred. The EIR in that case was “legally required to describe, evaluate and ultimately adopt feasible mitigation measures which would ‘mitigate or avoid’ [GHG] impacts.”⁴⁵⁸

The mitigation measure at issue in the Chevron project EIR stated that “[n]o later than one (1) year after approval of this Conditional Use Permit, Chevron shall submit to the City, for approval by the City Council, a plan for achieving complete reduction of GHG emissions. . . .”⁴⁵⁹ As the court explained, the mitigation measure “required Chevron, within one year of Project approval, to hire and fully fund ‘a qualified independent expert’ to complete an inventory of greenhouse gas emissions and to identify potential emissions reduction opportunities.”⁴⁶⁰ Furthermore, the measure stated that Chevron “shall consider implementation of measures that achieve GHG reductions including, but not limited to, the following measures . . .”⁴⁶¹ The measure then listed several potential mitigation measures. The respondents in the case argued that the EIR failed to adequately formulate a plan to mitigate GHG emissions, but instead offered “a menu of potential mitigation measures, with the specific measures to be selected by Chevron and approved by the City Council a year after Project approval.”⁴⁶²

The court found that the measure was deferred mitigation, which is impermissible under CEQA. The court stated, in part, that the measure amounted to “a generalized goal of no net increase in greenhouse gas emissions and . . . a handful of cursorily described mitigation measures for future.”⁴⁶³ Furthermore, the court found that “[n]o effort [was] made to calculate what, if any, reductions in the

⁴⁵⁶ *Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261, 1275.

⁴⁵⁷ *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 95.

⁴⁵⁸ *Id.*, at p. 91.

⁴⁵⁹ *Id.*

⁴⁶⁰ *Id.*, at p. 92.

⁴⁶¹ *Id.*

⁴⁶² *Id.*

⁴⁶³ *Id.*, at 93.

Project’s anticipated greenhouse gas emissions would result from each of these vaguely described future mitigation measures” and that the list of potential mitigation measures was “nonexclusive, undefined, untested and of unknown efficacy.”⁴⁶⁴

As Dr. Fox explains, the DEIR/EIS fails to substantiate that its GHG emissions cannot be reduced to an insignificant level and fails to include all feasible mitigation measures.⁴⁶⁵ It also improperly defers mitigation by stating it will implement a GHG Emissions Reduction Plan and Construction Equipment Efficiency Plan prior to the start of construction, but after Project approval.⁴⁶⁶

The DEIR/EIS concludes that GHG emissions from construction and operation of the Project are significant and unavoidable.⁴⁶⁷ The DEIR/EIS then proposes Mitigation Measure 4.11-1 to reduce the Project’s GHG emissions from construction and operation and Mitigation Measure 4.18-1 for construction GHG emissions.⁴⁶⁸ The DEIR/EIS concludes that even after complying with these measures, “it is not possible to substantiate numerically that the GHG emissions would be reduced to a less-than-significant level.”⁴⁶⁹ Consequently, the GHG emissions remain significant and unavoidable.⁴⁷⁰

The DEIR/EIS must provide further explanation for its conclusion that the Project’s GHG emissions impacts are significant and unavoidable.⁴⁷¹ Furthermore, it must explain the Project’s consistency with the State’s energy and climate objectives.⁴⁷²

The CPUC’s inability to numerically substantiate the Project’s mitigated emissions is a result of its improper deferral of the identification of mitigation

⁴⁶⁴ *Id.*

⁴⁶⁵ Fox Comments, at pp. 39-40.

⁴⁶⁶ *Id.*, at pp. 40-47.

⁴⁶⁷ *Id.*, at p. 40.

⁴⁶⁸ *Id.*

⁴⁶⁹ *Id.*, at p. 39 (citing DEIR/EIS, at p. 4.11-19).

⁴⁷⁰ *See id.*

⁴⁷¹ *Id.*

⁴⁷² *Id.*, at p. 40.

measures.⁴⁷³ Indeed, as Dr. Fox points out, other applicants and lead agencies have successfully quantified GHG emission reductions.⁴⁷⁴

Mitigation Measure 4.11-1 requires that CalAm prepare a GHG Emissions Reduction Plan and submit it to the CPUC for approval prior to the start of construction.⁴⁷⁵ CalAm shall also make a good faith effort to ensure that at least 20 percent of the approved project's operation energy use requirements are achieved with "clean" renewable energy.⁴⁷⁶ Mitigation Measure 4.11-1 improperly defers mitigation and is inadequate for six reasons, which Dr. Fox explains in further detail in her letter.⁴⁷⁷

First, a "good faith effort" to use renewable energy for 20% of the Project's operational needs is not adequate CEQA mitigation because for a significant and unavoidable impact, all feasible mitigation under CEQA must be implemented.⁴⁷⁸ One-hundred percent of the Project's operational electricity demand can be met through renewable energy.⁴⁷⁹ The County of Monterey has also included a similar policy with respect to desalination plants.⁴⁸⁰

The EIRs prepared for the desalination plants are expected to require that construction equipment use alternative fuels or other means to reduce their emissions of ozone precursors. Although, depending upon the intensity of construction, there is the potential for a significant impact on air quality from ozone precursors. . . Taking a conservative view, the indirect impacts of the water supply projects to be built would potentially make considerable contributions to air quality, biological, and electrical energy use.⁴⁸¹

⁴⁷³ *Id.* at p. 39.

⁴⁷⁴ *Id.*

⁴⁷⁵ *Id.*, at p. 40.

⁴⁷⁶ *Id.*

⁴⁷⁷ *Id.*, at pp. 40-45.

⁴⁷⁸ *Id.*, at pp. 40-41.

⁴⁷⁹ *Id.*

⁴⁸⁰ Monterey County General Plan EIR: Section 6.4.3.3, at p. 6-14, *available at* http://www.co.monterey.ca.us/planning/gpu/2007_GPU_DEIR_Sept_2008/Text/Sec_06_Other_CEQA.pdf. **Attachment T.**

⁴⁸¹ Fox Comments, at pp. 40-41.

Second, preparing the Emissions Reduction Plan is improperly deferred until after Project approval.⁴⁸² This plan must be part of the DEIR/EIS and circulated for public review, as explained by the Court in *CBE v. Richmond*.⁴⁸³

Third, “good faith effort” measures are not adequate because they are not enforceable, as required under CEQA.⁴⁸⁴ Under CEQA, an EIR must not only discuss measures to avoid or minimize adverse impacts, it also must ensure that mitigation measures are fully enforceable through permit conditions, agreements, or other legally binding instruments.⁴⁸⁵ Mitigation measures cannot be vague or have uncertain effectiveness or feasibility.⁴⁸⁶

Fourth, the DEIR/EIS should require that a registered professional (mechanical) engineer in California confirm that the Plan includes all feasible measures.⁴⁸⁷

Fifth, the Plan should have ongoing monitoring by a registered professional engineer to ensure successful mitigation under CEQA.⁴⁸⁸

Sixth, and last, the Plan should include construction GHG emissions, and opportunities throughout the CalAm system, not just Project operational facilities.⁴⁸⁹

Mitigation Measure 4.18-1 requires that CalAm contract a “qualified professional” to prepare a “Construction Equipment Efficiency Plan” that will increase the efficient use of construction equipment to the maximum extent feasible.⁴⁹⁰ This mitigation measure has some of the same deficiencies as Mitigation 4.11-1.⁴⁹¹

⁴⁸² *Id.*, at p. 41.

⁴⁸³ *Id.*

⁴⁸⁴ *Id.*, at pp. 41-42.

⁴⁸⁵ *Id.* (citing CEQA Guidelines § 15126.4, subd. (a)(2).)

⁴⁸⁶ *Id.* (citing *Kings County Farm Bur. v. County of Hanford* (1990) 221 Cal.App.3d 692, 727-28; *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79.)

⁴⁸⁷ *Id.*, at p. 42.

⁴⁸⁸ *Id.*

⁴⁸⁹ *Id.*, at pp. 42-45.

⁴⁹⁰ *Id.*, at p. 45.

⁴⁹¹ *Id.*, at pp. 45-47.

First, the Efficiency Plan is deferred until after the Project is approved, preempting public review.⁴⁹² This Plan must be part of the DEIR/EIS and circulated for public review, as required by the Court in *CBE v. Richmond*.⁴⁹³

Second, the measure should be modified to require that a registered professional (civil) engineer confirm that the Plan includes all feasible construction equipment efficiency measures.⁴⁹⁴

Third, the Plan must include all feasible mitigation measures, such as NO_x and ROG mitigation measures identified above.⁴⁹⁵ Dr. Fox provides a list of additional measures that were recently required as GHG construction mitigation in the Chevron Modernization Final EIR,⁴⁹⁶ including maintenance of construction equipment, further idling restrictions and other measures.⁴⁹⁷

Fourth, the measure fails to identify any method to verify compliance.⁴⁹⁸ Dr. Fox proposes “a comprehensive inventory of all off-road equipment that will be used to construct the Project . . . The inventory should include the horsepower rating, engine production year, hours of use, and amount and type of fuel used.”⁴⁹⁹ Furthermore, “[a]t least 48 hours prior to the use of heavy-duty off-road equipment at a new construction site, the project representative shall provide the inspector and MBUAPCD with the construction timeline, including start date and name and phone number of project manager and on-site foreman.”⁵⁰⁰

⁴⁹² *Id.*, at p. 45.

⁴⁹³ *Id.*

⁴⁹⁴ *Id.*, at pp. 45-46.

⁴⁹⁵ *Id.*, at p. 46.

⁴⁹⁶ *Id.*

⁴⁹⁷ *Id.* (citing Chevron Refinery Modernization Project EIR, March 2014, Chapter 4.8, Greenhouse Gases, available at http://chevronmodernization.com/wp-content/uploads/2014/03/4.8_Greenhouse-Gases.pdf and Chapter 5, Mitigation Measure Monitoring and Reporting Program, available at https://s3.amazonaws.com/chevron/Final+EIR/5_MMRP.pdf).

⁴⁹⁸ *Id.*, at pp. 46-47.

⁴⁹⁹ *Id.*

⁵⁰⁰ *Id.*, at pp. 46-47.

Finally, the Efficiency Plan fails to provide adequate monitoring, according to Dr. Fox, who suggests a similar monitoring program as stated above.⁵⁰¹ Dr. Fox concludes that the Efficiency Plan “fails to adequately mitigate the air quality impacts resulting from Project construction.”⁵⁰²

The CPUC must ensure that all feasible mitigation is incorporated in the DEIR to address the significant and unavoidable GHG impacts. As stated in *CBE v. Richmond*, “the time . . . to formulate mitigation measures to minimize or avoid those impacts [is] during the EIR process, before the Project was brought to the [approving body] for final approval.”⁵⁰³ The DEIR/EIS must be revised in accordance with these comments and recirculated before the Project can be lawfully approved under CEQA.

I. Vibration Impacts Are Significant and Unmitigated

The DEIR/EIS fails as an information document with respect to construction activities that can produce significant ground born vibration that can damage nearby buildings and annoy sensitive receptors.⁵⁰⁴ The Project fails to provide supporting calculations, citations to specific pages from the methodology it used, or disclose input values used in calculations, which would have allowed Dr. Fox to reproduce and verify the vibration analysis.⁵⁰⁵ The DEIR/EIS concluded that vibration from pipeline installation using both compactors and pile drivers would result in significant building damage and annoyance from constructing the Castroville Pipeline and Source Water Pipeline, the new Desalinated Water Pipeline, and the new Transmission Main where trenchless construction methods are required.⁵⁰⁶ The DEIR/EIS imposes Mitigation Measures 4.15-1a and Measure 4.12-3, which it asserts would allegedly make the vibration impact no longer significant.⁵⁰⁷ These, however, are fundamentally flawed and are not adequate to reduce vibration impacts to a less than significant level.⁵⁰⁸

⁵⁰¹ *Id.*, at p. 47.

⁵⁰² *Id.*

⁵⁰³ *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 95.

⁵⁰⁴ Fox Comments, at pp. 47-48.

⁵⁰⁵ *Id.*

⁵⁰⁶ *Id.*

⁵⁰⁷ *Id.*, at pp. 48-50.

⁵⁰⁸ *Id.*, at p. 48.

Mitigation Measure 4.15-1a is not described.⁵⁰⁹ Although there is an Impact 4.15-1, there is no mitigation measure associated with that impact and therefore no way to determine what Mitigation Measure 4.15-1a entails.⁵¹⁰

Mitigation Measure 4.12-3 proposes vibration reduction measures, which are not practically enforceable.⁵¹¹ Additionally, there are more aggressive mitigation measures that this city should comply with in order to mitigate the potentially significant vibration impact.⁵¹² However, without supporting analysis to demonstrate that the vibration impacts would be less than significant with the proposed mitigation, the DEIR/EIS fails as an information disclosure document.⁵¹³ The City of Monterey includes a “Vibration Control Plan for Monterey Pipeline Project,” which includes more aggressive mitigation measures for vibration impacts than what is identified in the DEIR/EIS.⁵¹⁴ The City’s Vibration Control Plan should replace the weak measures in the DEIR/EIS and should be included for public review in an appendix to the DEIR/EIS.⁵¹⁵

However, without providing reproducible analysis to demonstrate that the vibration impacts would be less than significant with the proposed mitigation, the DEIR/EIS fails as an information disclosure document.⁵¹⁶

J. The DEIR Fails to Adequately Analyze and Mitigate Potentially Significant Impacts to Historic Resources

The DEIR/EIS states that construction will not cause an adverse impact to historical resources.⁵¹⁷ However, as Dr. Fox explains, this impact was narrowly evaluated.⁵¹⁸ The DEIR/EIS only looked at historical resources listed in or eligible

⁵⁰⁹ *Id.*

⁵¹⁰ *Id.*

⁵¹¹ *Id.*, at p. 49.

⁵¹² *Id.*, at pp. 49-50.

⁵¹³ *Id.*, at p. 48.

⁵¹⁴ *Id.*, at pp. 49-50.

⁵¹⁵ *See id.*

⁵¹⁶ *Id.*, at p. 47.

⁵¹⁷ *Id.*, at p. 50-51.

⁵¹⁸ *Id.*

for listing in the California Register or historic properties listed in or eligible for listing in the National Register that are within the Area of Potential Impact of all project components.⁵¹⁹ In so doing, the DEIR/EIS neglects evaluating the impact of construction equipment induced vibration on properties listed in the City of Monterey's Vibration Control Plan.⁵²⁰ This list includes 24 historic structures that are close enough to be damaged — constituting a significant adverse impact to historical resources.⁵²¹ This new impact was not disclosed or mitigated in the DEIR/EIS.⁵²²

K. The DEIR/EIS Fails to Adequately Analyze and Mitigate Potentially Significant Impacts from Decommissioning Activities

At the end of the Project's 40-year life, the Project would be decommissioned. As explained above, the decommissioning phase of the Project is part of the whole Project.⁵²³ CEQA requires the CPUC to analyze all phases of the Project. Similarly, NEPA requires that an environmental document analyze all stages of a project to the extent they are interdependent.⁵²⁴ Despite this requirement, the DEIR/EIS provides no analysis of the Project's decommissioning activities and, therefore, violates CEQA and NEPA.

As explained above, the DEIR/EIS only briefly mentions decommissioning in the context of coastal erosion for the slant wells.⁵²⁵ The CPUC and MBNMS must provide a complete description of the decommissioning activities necessary to assess all of the Project's impacts, including those that our independent experts identified (e.g., terrestrial sensitive species impacts, biomatter accumulation, Valley Fever.)⁵²⁶

⁵¹⁹ *Id.*

⁵²⁰ *Id.*

⁵²¹ *Id.*, at p. 51.

⁵²² *Id.*

⁵²³ 40 C.F.R. § 1508.25; *see also Kentucky Coal Ass'n, Inc. v. Tennessee Valley Authority* (W.D. Ky. 2014) 68 F.Supp.3d 685, 696–97; *Bozung v. Local Agency Formation Com.* (1975), 13 Cal.3d 263, 283-84; Pub. Resources Code § 21159.27 (prohibiting piecemealing); *see also, Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 370.

⁵²⁴ *Thomas v. Peterson* 753 F.2d 754, 760 (9th Cir. 1985).

⁵²⁵ DEIR/EIS, at pp. 4.2-64, 4.2-71-72.

⁵²⁶ *See also California American Water Slant Test Well Project Draft Initial Study/Mitigated Negative Declaration, supra*, at p. 41 ("Earthwork (i.e., trenching and excavation) would generate

The public and decision makers cannot engage in a meaningful assessment of these potential impacts without a proper description and analysis of decommissioning-related impacts.

Furthermore, the CPUC and MBNMS have enough information, such as the type of equipment to be utilized and range of activities to be performed, as well as baseline knowledge of impacts resulting from the Project's construction and operation, to make a reasonable assessment of impacts from decommissioning.⁵²⁷ For example, the DEIR/EIS fails to adequately investigate and mitigate air and water quality impacts related to decommissioning, which may be similar in nature to construction emissions and discharges.⁵²⁸ For example, the construction phase already produces emissions beyond an acceptable threshold, and Dr. Fox identified problems with the Construction Equipment Efficiency Plan, which considers both construction and decommissioning activities.⁵²⁹ The flawed equipment efficiency plan is inadequate as a mitigation measure.⁵³⁰

To properly disclose the Project's impacts from decommissioning, the CPUC and MBNMS must revise the DEIR/EIS to include the type (*i.e.*, direct, indirect, or cumulative), the duration (*i.e.*, temporary or permanent), the nature (*i.e.*, source) and extent (*i.e.*, scale) of the associated potential impacts.⁵³¹ The CPUC and MBNMS must then develop mitigation measures that are certain, enforceable and linked to measurable performance standards.⁵³² Absent additional information, the CPUC and MBNMS cannot conclude that the Project's impacts have been fully assessed and properly mitigated.

fugitive dust during construction and decommissioning activities.”); *see also* https://www.miga.org/documents/Befesa_Desalination_EIA_Report.pdf (international desalination plant that considered decommissioning), **Attachment U**.

⁵²⁷ *See, e.g.*, DEIR/EIS, at p. 4.10-25 (describing construction equipment).

⁵²⁸ *Id.*, at p. 4.18-14.

⁵²⁹ *Id.*, at p. 4.18-14-15; *see also* Fox Comments, at pp. 45-47.

⁵³⁰ Fox Comments, at pp. 45-47.

⁵³¹ *See* DEIR/EIS, at p. 4.1-2.

⁵³² *See* CEQA Guidelines, § 15126.4(a)(2).

VI. MITIGATION MEASURES PROPOSED IN THE DEIR/EIS ARE DEFERRED, UNENFORCEABLE OR OTHERWISE INADEQUATE

An EIS must include a discussion of “appropriate mitigation measures not already included in the proposed action or alternatives.”⁵³³ An EIS is not complete unless it contains “a reasonably complete discussion of possible mitigation measures.”⁵³⁴ Mitigation includes “avoiding the impact altogether by not taking a certain action or parts of an action.”⁵³⁵ It also includes “minimizing impacts by limiting the degree or magnitude of the action and its implementation.”⁵³⁶ The mandate to thoroughly evaluate all feasible mitigation measures is critical to NEPA’s purposes.⁵³⁷ Hence, a “perfunctory description” or a “mere listing” of possible mitigation measures is not adequate to satisfy NEPA’s requirements.⁵³⁸ That individual harms are somewhat uncertain due to limited understanding of the Project characteristics and baseline conditions does not relieve an agency of the responsibility under NEPA to discuss mitigation of reasonably likely impacts at the outset.⁵³⁹

Courts have interpreted these provisions further. In *Northern Plains Resource Council, Inc. v. Surface Transp. Bd.*, the agency provided a mitigation measure, which stated that the agency would gather baseline data at a later point.⁵⁴⁰ The court found the agency’s mitigation measures to be inconsistent with NEPA’s requirements.⁵⁴¹ Consequently, the court found that the agency acted arbitrarily and capriciously.⁵⁴² Without baseline data, the agency could not have

⁵³³ 40 C.F.R. § 1502.14(f).

⁵³⁴ *Robertson v. Methow Valley Citizens Council* (1989) 490 U.S. 332, 352.

⁵³⁵ 40 C.F.R. § 1508.20(a).

⁵³⁶ *Id.*, § 1508.20(b).

⁵³⁷ *Id.*, § 1500.1(c).

⁵³⁸ *Neighbors of Cuddy Mountain v. U.S. Forest Service* (9th Cir. 1998) 137 F.3d 1372, 1380; *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1151 (9th Cir. 1998).

⁵³⁹ *See South Fork Band Council Of Western Shoshone of Nevada v. U.S. Dept. of Interior* (9th Cir. 2009) 588 F.3d 718, 727, citing *National Parks & Conservation Association v. Babbitt* (9th Cir. 2001) 241 F.3d 722, 733.

⁵⁴⁰ *Northern Plains Resource Council, Inc. v. Surface Transp. Bd.* (9th Cir. 2011) 668 F.3d 1067, 1084–85.

⁵⁴¹ *Id.*

⁵⁴² *Id.*

carefully considered information about significant impacts.⁵⁴³ Even if the mitigation measures guaranteed that data would be collected at some point in the future, the data was not available during the EIS process and was not available to the public for comment.⁵⁴⁴ The EIS process, therefore, did not serve its larger informational role.⁵⁴⁵ In essence, data must exist “*before approval* so that [an agency] can understand the adverse environmental affects *ab initio*.”⁵⁴⁶ Where baseline data exists through some scientific study or methodology that the agency’s experts deem reliable, the court will not “act as a panel of scientists” instructing the agency how to make its scientific determinations.⁵⁴⁷ However, where mitigation measures are deferred for gathering baseline data, or where the agency deprives the public of reviewing data, the EIS will not be sufficient for NEPA purposes.⁵⁴⁸

In enacting CEQA, the Legislature declared that it is “the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects.”⁵⁴⁹ An EIR is inadequate unless it includes “a detailed statement setting forth . . . mitigation measures proposed to minimize [the project’s] significant effects on the environment.”⁵⁵⁰ CEQA requires lead agencies to incorporate all feasible mitigation measures into a project to reduce the project’s potentially significant impacts to a level of insignificance.⁵⁵¹ Finally, CEQA requires the lead agency to find, based on substantial evidence, “that the mitigation measures are required in or incorporated into the project; or that the measures are the responsibility of another agency and have been, or can and should be, adopted by the other agency.”⁵⁵²

⁵⁴³ *Id.*

⁵⁴⁴ *Id.*

⁵⁴⁵ *Id.*

⁵⁴⁶ *Id.*, at p. 1085.

⁵⁴⁷ *Id.*, at p. 1075.

⁵⁴⁸ *Id.*

⁵⁴⁹ Pub. Resources Code, § 21002.

⁵⁵⁰ *Id.*, § 21100(b)(3); CEQA Guidelines, § 15126(e).

⁵⁵¹ *See* Pub. Resources Code, § 21081(a)(1)-(3); CEQA Guidelines, §§ 15002(a)(3), 15021(a)(2), 15091(a)(1).

⁵⁵² *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1260 (internal quotations omitted).

Courts have imposed several parameters for the adequacy of mitigation measures. We address some of the relevant criteria here. First, the lead agency may not defer the formulation of mitigation measures until a future time, unless the EIR also specifies the specific performance standards capable of mitigating the project's impacts to a less than significant level.⁵⁵³ Deferral is impermissible where an agency "simply requires a project applicant to obtain a . . . report and then comply with any recommendations that may be made in the report."⁵⁵⁴ Second, a public agency may not rely on mitigation measures of uncertain efficacy or feasibility.⁵⁵⁵ Third, "[m]itigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments."⁵⁵⁶ Fourth, mitigation measures that are vague or so undefined that it is impossible to evaluate their effectiveness are legally inadequate.⁵⁵⁷

As explained in the following paragraphs, there are several mitigation measures in various sections of the DEIR/EIS that are deferred, unenforceable or otherwise inadequate. The DEIR/EIS must be revised to include effective and enforceable mitigation for all significant impacts.

A. Mitigation Measures Proposed for Terrestrial Biological Resources Are Inadequate to Reduce Impacts to Less-Than-Significant Levels

The DEIR/EIS provides a number of mitigation measures to address significant impacts to terrestrial species.⁵⁵⁸ Ms. Owens addresses some of these measures and explains that the mitigation measures, which in some cases are improperly deferred, do not reduce the impacts to terrestrial species to a less-than-significant level.

⁵⁵³ CEQA Guidelines, § 15126.4(a)(1)(B); *Endangered Habitats League v. County of Orange* (2005) 131 Cal.App.4th 777, 793-94; *Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261, 1275.

⁵⁵⁴ *Defend the Bay, supra*, at p. 1275.

⁵⁵⁵ *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 (finding groundwater purchase agreement inadequate mitigation measure because no record evidence existed that replacement water was available).

⁵⁵⁶ CEQA Guidelines, § 15126.4(a)(2).

⁵⁵⁷ *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79.

⁵⁵⁸ See DEIR/EIS, at pp. 4.6-131-132.

Mitigation Measure 4.6-1a, states a lead biologist should be retained to oversee implementation of protective measures.⁵⁵⁹ Ms. Owens states that this measure should have some standard or assurance within the mitigation measure to ensure that the lead biologist, onsite, has the irrevocable authority to stop work when needed.⁵⁶⁰ Ms. Owens also explains that this mitigation measure is vague as it does not explain what “at risk” means with respect to relocating special status species that are at risk.⁵⁶¹

Mitigation Measure 4.6-1d, aimed at addressing impacts to the Western Snowy Plover is improperly deferred.⁵⁶² Additionally, visual barriers will not serve to significantly reduce the direct and indirect impacts of noise on breeding birds.⁵⁶³ Ms. Owens also challenges the DEIR/EIS’s assertion that displacement can be easily mitigated, which she states is contrary to the Snowy Plover Recovery Plan.⁵⁶⁴ Mitigation Measure 4.6-1n is inadequate because the measure should require collaboration with local snowy plover conservationists.⁵⁶⁵

Mitigation Measure 4.6-1e, which states that CalAm or its contractor shall conduct focused botanical surveys for special-species plants.⁵⁶⁶ Ms. Owens states that these types of surveys are insufficient for sensitive species and their habitat protection.⁵⁶⁷ The measures must include appropriate site-specific considerations, such as timing (*i.e.*, dormant season).⁵⁶⁸ The DEIR/EIS fails to provide appropriate mitigation measures, which are specific to species, and to each site, including parcels set aside for habitat loss compensation.⁵⁶⁹ Without sufficient information,

⁵⁵⁹ Owens Comments, at p. 35.

⁵⁶⁰ *Id.*

⁵⁶¹ *Id.*, at p. 36.

⁵⁶² *Id.*, at pp. 24 (consultation with USFWS is improperly deferred, onsite biologist survey for nests is improperly deferred, Habitat Mitigation and Monitoring Plan is improperly deferred).

⁵⁶³ *Id.*, at pp. 31-32.

⁵⁶⁴ *Id.*, at p. 32.

⁵⁶⁵ *Id.*, at p. 34.

⁵⁶⁶ *Id.*, at p. 15.

⁵⁶⁷ *Id.*, at pp. 15-16.

⁵⁶⁸ *Id.*

⁵⁶⁹ *Id.*, at p. 16.

the mitigation measure may not effectively reduce potential impacts for rare plants to below significant.⁵⁷⁰

Mitigation Measure 4.6-1f for the Smith's Blue Butterfly is premised on a lack of data, which skews the impact analysis and this mitigation measure.⁵⁷¹ Ms. Owens provides information about the species specific flight period, which is important for the species' success.⁵⁷² Yet, there is no information about this specific flight period and therefore the mitigation measure does not provide a way to avoid impacts.⁵⁷³

Mitigation Measure 4.6-1g for the Black Legless Lizard, Silvery Legless Lizard, and Coast Horned Lizard is inadequate for some of the same reasons mentioned above.⁵⁷⁴ There is a lack of data on the reptiles, which deprives the public from being able to determine if the mitigation measures will be adequate.⁵⁷⁵

Mitigation Measure 4.6-1i for nesting birds should apply throughout the duration of construction to ensure that nesting birds are not impacted.⁵⁷⁶ According to Ms. Owens continuous surveying will ensure the birds are not harassed by Project activities.⁵⁷⁷

Finally, Mitigation Measure 4.6-1n describes the Habitat Mitigation and Monitoring Plan, which Ms. Owens explains does not reduce impacts to below significant.⁵⁷⁸ The compensatory mitigation lacks data, description, detail, and standard criteria to analyze its efficacy and success.⁵⁷⁹

⁵⁷⁰ *Id.*

⁵⁷¹ *Id.*, at p. 38.

⁵⁷² *Id.*, at pp. 39-40.

⁵⁷³ *Id.*

⁵⁷⁴ *Id.*, at pp. 40-41.

⁵⁷⁵ *Id.*

⁵⁷⁶ *Id.*, at p. 42.

⁵⁷⁷ *Id.*, at pp. 42-43.

⁵⁷⁸ *Id.*, at pp. 43.

⁵⁷⁹ *Id.*

B. Substantial Evidence Shows the Project Would Result in Potentially Significant Impacts, Despite Compliance with Laws

The DEIR/EIS concludes in several sections that the Project's compliance with laws and regulations are sufficient to mitigate potentially significant impacts to a level of insignificance. In many cases, the DEIR/EIS simply concludes that impacts are less than significant by assuming compliance with laws. However, compliance with a regulation or law is not an indication of the sufficiency of mitigation measures where there is substantial evidence that the project may result in significant impacts.⁵⁸⁰ CEQA requires a lead agency to fully assess the significance of a Project's impacts in light of substantial evidence "notwithstanding compliance with the adopted regulations or requirements."⁵⁸¹ Furthermore, the DEIR/EIS may not simply assert "a bare conclusion . . . not supported by facts or analysis."⁵⁸²

In *Communities for a Better Env't v. California Res. Agency*, the court struck down a CEQA Guideline because it "impermissibly allow[ed] an agency to find a cumulative effect insignificant based on a project's compliance with some generalized plan rather than on the project's actual environmental impacts."⁵⁸³ The court concluded that "[i]f there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding that the project complies with the specified plan or mitigation program addressing the cumulative problem, an EIR must be prepared for the project."⁵⁸⁴ Thus, the ruling supports the notion that compliance with an applicable standard outside of the CEQA process does not automatically obviate a lead agency's obligation to consider substantial evidence and analyze and mitigate potentially significant impacts.

In *Keep our Mountains Quiet v. County of Santa Clara*, neighbors of a wedding venue sued over the County's failure to prepare an EIR due to significant noise impacts. The court concluded that "a fair argument [exists] that the Project

⁵⁸⁰ *Keep our Mountains Quiet v. County of Santa Clara* (2015) 236 Cal.App.4th 714, 733;

Communities for a Better Env't v. California Res. Agency (2002) 126 Cal.Rptr.2d 441.

⁵⁸¹ CEQA Guidelines § 15064.4.

⁵⁸² *Association of Irrigated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1390-1391.

⁵⁸³ *Communities for a Better Env't v. California Res. Agency* (2002) 126 Cal.Rptr.2d 441, 453.

⁵⁸⁴ *Id.*

may have a significant environmental noise impact” and reasoned that although the noise levels would likely comply with local noise standards, “compliance with the ordinance does not foreclose the possibility of significant noise impacts.”⁵⁸⁵ The court ordered the County to prepare an EIR.

C. The DEIR Fails to Require Compliance with Laws as Enforceable Mitigation

1. Project Fails to Require Compliance with NPDES and the Ocean Plan

The DEIR/EIS states that the Project will be consistent with the Ocean Plan and the NPDES permit process:

The MPWSP would be consistent with the Monitoring and Reporting Plan requirements of the Ocean Plan because such requirements form a part of the NPDES permit process and, further, CalAm would submit and, once approved by the RWQCB and MBNMS, execute a facility specific Monitoring and Reporting Plan.⁵⁸⁶

The Ocean Plan requires more than a monitoring and reporting plan. CalAm must also meet certain reporting requirements, such as providing a Marine Life Mortality Report. Based on the results of this Marine Life Mortality Report, CalAm must either complete a mitigation project or implement a fee-based mitigation program to mitigate for the mortality of all forms of marine life.⁵⁸⁷

2. Project Fails to Require Compliance with City of Marina Local Coastal Land Use Plan (LCLUP)

The Project fails to comply with habitat management and conservation plans, policies, or regulations in local regional land use plans.⁵⁸⁸ The following regions

⁵⁸⁵ *Keep our Mountains Quiet*, *supra*, 236 Cal.App.4th, at p. 733.

⁵⁸⁶ DEIR/EIS, at p. 4.3-34.

⁵⁸⁷ SWRCB, California Ocean Plan, *supra*, at pp. 43-44.

⁵⁸⁸ Owens Comments, at pp. 4-8.

have habitat management and conservation plans: the City of Marina General Plan, the City of Marina Local Coastal Land Use Plan, the Marina Municipal Code, the Fort Ord Dunes State Park General Plan and EIR, the Monterey City Code, the Seaside General Plan, the Seaside Municipal Code, Carmel Valley Master Plan, Greater Monterey Peninsula Area Plan, Monterey County Code, Monterey County General Plan, North County Land Use Plan, Fort Ord Reuse Plan.⁵⁸⁹

The DEIR/EIS concludes that where this Project may be inconsistent with the applicable plan, policy, or regulation, the impact will be separately identified.⁵⁹⁰ Where the impact would be considered significant, then feasible mitigation would be identified to resolve or minimize that conflict.⁵⁹¹ Yet, the DEIR/EIS does not adequately address all of the potential conflicts with these plans and, as a result, fails to require mitigation measures to ensure consistency with those plans.

As Ms. Owens explains, the City of Marina Local Coastal Land Use Plan has very specific policies and mitigation measures regarding potential impacts to sensitive species and habitats.⁵⁹² These policies include establishing a list of biologists qualified to prepare habitat evaluation reports, determining the extent and landward boundary of a wetland, and identifying plant and animal species which are locally or generally rare, endangered, threatened, or are necessary for the survival of an endangered species.⁵⁹³

The City of Marina Local Coastal Land Use Plan has specific minimum habitat mitigation and restoration plan requirements to protect the biodiversity in the area.⁵⁹⁴ All direct and potential impacts to primary and secondary habitats shall be fully mitigated.⁵⁹⁵ Habitat restoration plans should be prepared by a qualified biologist, and where appropriate with a qualified hydrologist. Plans should be developed in consultation with the Department of Fish and Wildlife and the U.S. Fish and Wildlife Service in cases where these agencies have jurisdiction.⁵⁹⁶ To

⁵⁸⁹ *Id.*, at p. 4.

⁵⁹⁰ *Id.*, at p. 5; *see also* DEIR/EIS, at p. 4.6-99.

⁵⁹¹ Owens Comments, at p. 5.

⁵⁹² *Id.*, at pp. 5-8.

⁵⁹³ *Id.*

⁵⁹⁴ *Id.*, at p. 6.

⁵⁹⁵ *Id.*

⁵⁹⁶ *Id.*

enforce these plans, they should be authorized by a coastal development permit and must be approved prior to issuance of any grading or building permits.⁵⁹⁷ The plan shall include at a minimum: (1) a detailed site plan; (2) a baseline ecological assessment; (3) goals, objectives, performance standards and success criteria for the site; (4) management methods to ensure the site achieves the goals, objectives, and performance standards; (5) provisions for the full restoration of any impacts that are identifies as temporarily necessary to install the restoration or enhancement elements; (6) submitting documentation at the completion of initial restoration work; (7) provision for a detailed monitoring program to include a provision for assessing the initial biological and ecological status of the site; and (8) provision for the prompt remediation of a site if the monitoring results indicate the site does not meet the goals, objectives and performance standards identified in the approved mitigation program.⁵⁹⁸

The DEIR/EIS admits that it is potentially inconsistent with the City of Marina LCLUP with respect to installing the subsurface slant wells, source water pipeline, new desalinated water pipeline, and new transmission main, and maintenance of the subsurface slant wells.⁵⁹⁹ These installations and maintenance will occur within special status species habitats, including wetlands and primary and secondary habitat in the City of Marina.⁶⁰⁰ Ms. Owens notes that although the DEIR/EIS proposes mitigation measures to reduce or avoid impacts on special-status species, the measures are insufficient because they may not include all direct, indirect, and cumulative impacts.⁶⁰¹ Further, and as provided above, the DEIR/EIS must comply with the City of Marina's minimum habitat mitigation/restoration plan requirements, which are more aggressive at ensuring protection of biological resources than the mitigation measures provided in the DEIR/EIS.⁶⁰²

⁵⁹⁷ *Id.*

⁵⁹⁸ *Id.*, at pp. 6-8.

⁵⁹⁹ DEIR/EIS, at p. 4.6-101 (Table 4.6-4).

⁶⁰⁰ Owens Comments, at p. 8.

⁶⁰¹ *Id.*, at pp. 8-9.

⁶⁰² *Id.*

3. Project Fails to Require Compliance with Other Laws

The DEIR/EIS abdicates its duty under CEQA in several resource areas. For example, under Impact 4.2-1 (increased soil erosion or loss of topsoil during construction), the DEIR/EIS finds that the Project could result in substantial soil erosion or loss of topsoil during construction.”⁶⁰³ However, the DEIR/EIS simply concludes that “the proposed project would be required to comply with the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ) (Construction General Permit), the Monterey County Grading Ordinance, and Monterey County Erosion Control Ordinance, all of which are described in Section 4.2.2, Regulatory Framework”; therefore, “impacts associated with substantial increases in soil erosion during construction would be less than significant for all project components.”⁶⁰⁴ The DEIR/EIS fails to provide further substantive analysis and mitigation for soil erosion impacts aside from requirements under the applicable laws. In addition, compliance with these laws is not encapsulated as enforceable mitigation. Simply assuming the Applicant will comply with laws outside of CEQA does not satisfy CEQA’s requirement for a full analysis and mitigation of potentially significant impacts.

Additional impacts that are assumed to be less than significant based on compliance with other laws include:

damage to structural elements from earthquake (Impact 4.2-3);⁶⁰⁵
exposure of people or structures to substantial adverse effects related to liquefaction and lateral spreading (Impact 4.2-4);⁶⁰⁶ water quality impact associated with construction activities (Impact 4.3-1);⁶⁰⁷
discharges of treated water and disinfectant from existing and newly

⁶⁰³ DEIR/EIS, at p. 4.2-54.

⁶⁰⁴ *Id.*

⁶⁰⁵ DEIR/EIS, p. 4.2-59 (compliance with California Building Code).

⁶⁰⁶ *Id.*, at p. 4.2-61 (compliance with Monterey County requirements for geotechnical study, standard engineering practices, implementation of design recommendations, and standard construction methods).

⁶⁰⁷ *Id.*, at p. 4.3-58 (compliance with NPDES).

installed pipelines during construction (Impact 4.3-3);⁶⁰⁸ degradation of water quality due to discharges associated with maintenance of the subsurface intake wells and ASR injection/extraction wells (Impact 4.3-6);⁶⁰⁹ alteration of drainage patterns such that there is a resultant increase in erosion, siltation, or the rate or amount of surface runoff (Impact 4.3-7);⁶¹⁰ and construction-related impact to water quality in jurisdictional waters related to increased soil erosion and/or inadvertent releases of toxic construction chemicals (Impact 4.6-3).⁶¹¹

In the analyses for all of these impacts, the DEIR/EIS acknowledges the impacts could be significant, but then concludes no significant impact based on compliance with laws without actually analyzing the impact and incorporating any enforceable mitigation. For example, under Impact 4.3-3, the DEIR/EIS states:

The treated water generated from the draining of existing pipelines and the effluent generated from disinfection of newly installed pipelines would be discharged to the local storm drainage system. Without proper controls, these discharges could adversely affect water quality in downstream receiving water bodies by increasing turbidity (if discharged directly without appropriate treatment) or due to high chlorine (the primary disinfectant used for drinking water) concentrations.⁶¹²

The DEIR/EIS further states that “General [Waste Discharge Requirements (Order No. R3-2011-0223, NPDES Permit No. CAG993001)] WDRs require that CalAm neutralize the residual chlorine remaining in disinfection effluent such that detectable chlorine levels are less than 0.02 mg/L, and require that the total dissolved solids be within surface water and groundwater quality objectives.”⁶¹³ The DEIR then concludes that “[c]ompliance with the General WDRs and the conditions therein would protect water quality in receiving water bodies [and] the impact would be less than significant,”⁶¹⁴ without requiring any mitigation. Under

⁶⁰⁸ *Id.*, at p. 4.3-65 (compliance with NPDES).

⁶⁰⁹ *Id.*, at p. 4.3-110 (compliance with NPDES).

⁶¹⁰ *Id.*, at p. 4.3-112 (compliance with Construction General Permit requirements).

⁶¹¹ *Id.*, at p. 4.6-209 (compliance with NPDES).

⁶¹² *Id.*, at p. 4.3-65.

⁶¹³ *Id.*

⁶¹⁴ *Id.*

CEQA, the DEIR/EIS must actually analyze the potential for the increased turbidity and high chlorine levels, and incorporate compliance with the WDR standards as enforceable mitigation.

The CPUC and MBNMS may not rely solely on compliance with regulations or laws as reducing impacts to less than significant levels without a full analysis of impacts or enforceable mitigation. As the DEIR/EIS is currently presented, the CPUC and MBNMS cannot conclude that the Project's impacts have been fully assessed and properly mitigated to less than significant.

VII. THE DEIR/EIS FAILS TO EVALUATE CERTAIN ALTERNATIVES

NEPA regulations identify the need to consider reasonable alternatives.⁶¹⁵ NEPA requires consideration of all aspects that may be relevant and important to decision-makers, including factors that are not related to environmental quality. NEPA requires substantial treatment of each alternative, including the proposed action, so that reviewers may evaluate their comparative merits.⁶¹⁶

Under CEQA, the lead agency is required to consider project alternatives that might eliminate or reduce the Project's significant adverse environmental effects. CEQA requires that an EIR "[d]escribe a range of reasonable alternatives . . . which could feasibly attain the basic objectives of the project and evaluate the comparative merits of the alternatives."⁶¹⁷ An EIR must "produce information sufficient to permit a reasonable choice of alternatives so far as environmental aspects are concerned."⁶¹⁸ The key issue is whether the alternatives analysis fosters informed decision-making and informed public participation.⁶¹⁹

The discussion must focus on alternatives capable of either eliminating any significant adverse environmental effects or reducing them to a level of

⁶¹⁵ 40 C.F.R. § 1502.14(c).

⁶¹⁶ *Id.*, at § 1502.14.

⁶¹⁷ CEQA Guidelines, § 15126(d); *Village Laguna of Laguna Beach v. Board of Supervisors* (1982)134 Cal.App.3d 1022, 1028; *Citizens of Goleta Valley v. Board of Supervisors (Goleta I)* (1988) 197 Cal.App.3d 1167, 1180-81.

⁶¹⁸ *San Bernardino Valley Audubon Soc'y v. County of San Bernardino* (1984) 155 Cal.App.3d 738, 750-51.

⁶¹⁹ CEQA Guidelines, § 15126.6.

insignificance, even if such alternatives would be more costly or to some degree would impede the project's objectives. One of the most substantive aspects of CEQA is that section 21002 of the statute forbids agencies from approving projects with significant adverse impacts when feasible alternatives (or feasible mitigation measures) can substantially lessen such impacts.⁶²⁰

Aside from the proposed Project and the No Project alternative, the DEIR/EIS provides six different alternatives:

- Alternative 1 – Slant wells at Potrero Road⁶²¹
- Alternative 2 – Open-Water Intake at Moss Landing⁶²²
- Alternative 3 – Monterey Bay Regional Water Project (MBRWP or DeepWater Desal Project)⁶²³
- Alternative 4 – People's Moss Landing Water Desalination Project (People's Project)⁶²⁴
- Alternative 5a – Reduced Project 6.4-mgd Desalination Plant (Intake Slant Wells at CEMEX)⁶²⁵
- Alternative 5b – Reduced Project 6.4-mgd Desalination Plant (Intake Slant Wells at Potrero Road)⁶²⁶

All of these project alternatives rely on the same basic technology: reverse osmosis. Yet, there is no discussion of other desalination technologies that would allow for CalAm to meet its water production objective, such as:

- Electrodialysis
- Multi-stage flash distillation
- Multiple effect distillation
- Vapor compression desalination⁶²⁷

⁶²⁰ *Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41; *Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, 440-41; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 711, 730-31; Pub. Resources Code, § 21081.

⁶²¹ DEIR/EIS, at § 5.4.3.

⁶²² *Id.*, at § 5.4.4.

⁶²³ *Id.*, at § 5.4.5.

⁶²⁴ *Id.*, at § 5.4.6.

⁶²⁵ *Id.*, at § 5.4.7.

⁶²⁶ *Id.*, at § 5.4.8.

Among these processes are also those that embrace renewable energy, such as:

- Solar humidification
- Membrane distillation⁶²⁸

The DEIR/EIS proposes a reduced project alternative, which is the environmentally superior option.⁶²⁹ But it fails to consider aggregated, small scale desalination projects.⁶³⁰ This is particularly relevant given that other desalination proposals are being considered in Monterey Bay, which may provide sufficient water quantities to the County.⁶³¹

VIII. OTHER CONSIDERATIONS

A. Growth Related Impacts Must Be Adequately Considered

CEQA requires a separate and distinct analysis of growth-inducing impacts. The requirement to assess “growth-inducing impacts” must include the following:

[T]he ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is

⁶²⁷ I. El Saliby et al., Desalination plants in Australia, Review and Facts, *Desalination* 247 (2009) 1–14, at p. 2, **Attachment V**.

⁶²⁸ *Id.*, at p. 2.

⁶²⁹ DEIR/EIS, at p. 1-2 (discussing Alternative 5a).

⁶³⁰ I. El Saliby et al., *supra*, at p. 2.

⁶³¹ See Desalination Map, NOAA: MBNMS, *supra*, available at <http://montereybay.noaa.gov/materials/mappages/desalinizationmap.html>.

necessarily beneficial, detrimental, or of little significance to the environment.⁶³²

In *City of Davis v. Coleman*, the court set aside a Negative Declaration and required preparation of an EIR where evidence supported the finding that the construction of a highway interchange would cause urban growth.⁶³³ However, the court reached its holding in reliance on the common sense conclusion that a project that is intended to support future growth *will* also cause potentially significant urban growth impacts which must be analyzed in an EIR.⁶³⁴ As articulated by the court:

The growth-inducing effects of the Kidwell Interchange project are its raison d'être, and with growth will come growth's problems: increased population, increased traffic, increased pollution, and increased demand for services such as utilities, education, police and fire protection, and recreational facilities.⁶³⁵

In Monterey, water scarcity has constrained development.⁶³⁶ Removing this constraint would allow for development projects to move forward.⁶³⁷ The impacts associated increased development, such as impacts on air quality and water quality, in particular, as compared to the current "constrained" environmental setting may be significant.⁶³⁸ New building will lead to water quality impacts from urban runoff, which the DEIR/EIS has not considered.⁶³⁹ With respect to ocean water quality, the levels of contaminants are already at the brink of exceeding Ocean Plan thresholds.⁶⁴⁰ Allowing additional development to go forward, with the associated air and water impacts, will likely cause these thresholds to be exceeded.

⁶³² CEQA Guidelines, § 15126.2(4) (emphasis added).

⁶³³ *City of Davis v. Coleman* (1975) 521 F.2d 661, 674-76.

⁶³⁴ *Id.*, at p. 675.

⁶³⁵ *Id.*

⁶³⁶ DEIR/EIS, at p. 6-5-6.

⁶³⁷ *Id.*

⁶³⁸ *See id.*

⁶³⁹ *See* DEIR/EIS, Table 4.3-8

⁶⁴⁰ *See id.*, Table 4.3-16.

Although the DEIR/EIS claims that additional growth would be consistent with adopted land use plans, consistency with adopted goals, polices and guidelines is not a valid basis for finding that impacts of a Project are not cumulatively considerable.⁶⁴¹

While an EIR's cumulative impact analysis generally may rely on a summary of projections contained in an adopted general plan or related planning document instead of on a list of past, present, and probable future projects⁶⁴², it may not do so if the projections in the general plan or related planning document are inaccurate or outdated and thus do not adequately evaluate the potentially significant cumulative impacts of the project.⁶⁴³ The fact that a particular project's incremental impact may not have been found significant under old, out-of-date growth projections, does not mean that the same project will not contribute to a cumulatively considerable impact when development projections change. Accordingly, consistency with existing zoning, community plan or general plan policies does not relieve a lead agency from the requirement to conduct environmental review of potentially significant cumulative impacts that were not analyzed, discussed or identified in the EIR prepared for the planning document.⁶⁴⁴ An EIR's reliance on out-of-date growth projections that do not take into account identified probable future projects thus violates CEQA.

In *Bakersfield Citizens for Local Control v. City of Bakersfield*, the court found that an agency's reliance on projections contained in a general plan was improper where the general plan's projections did not take into account new projects that were not identified at the time the general plan was prepared, but were reasonably foreseeable at the time of the current EIR.⁶⁴⁵ In reaching this decision, the court held that "use of a planning document does not preclude challenge to the accuracy or sufficiency of the cumulative impacts analysis."⁶⁴⁶ The Court further held that the "summary-of-projections approach may present problems if the projections in the general plan or related planning document are inaccurate or

⁶⁴¹ DEIR/EIS, at p. 6-5.

⁶⁴² CEQA Guidelines § 15130, subd. (b).

⁶⁴³ *Bakersfield Citizens for Local Control*, *supra*, 124 Cal.App.4th, at p. 1217

⁶⁴⁴ CEQA Guidelines, § 15183, subd. (b).

⁶⁴⁵ *Bakersfield Citizens for Local Control*, *supra*, 124 Cal.App.4th at p. 1217.

⁶⁴⁶ *Id.*

*outdated.*⁶⁴⁷ The Port's position is also inconsistent with the Court's decision in *Citizens to Preserve the Ojai v. County of Ventura*.⁶⁴⁸ In that case, the Court held that an EIR's cumulative analysis of air quality impacts was inadequate where it relied upon a prior Air Quality Management Plan that did not take into account new evidence of the cumulative contribution to air pollution from offshore emissions.⁶⁴⁹

Consistency with adopted goals, polices and guidelines is not a valid basis for finding that impacts of a Project are not cumulatively considerable.⁶⁵⁰ Impacts do not become automatically less than significant merely because the actions are consistent with adopted goals, polices and guidelines.

The same is true here. Lifting the water constraint will open the Monterey Peninsula to foreseeable growth that must be adequately accounted for, as required by NEPA and CEQA.

IX. CONCLUSION

The DEIR/EIS does not satisfy CEQA's procedural and evidentiary standards for preparing an EIR, or NEPA's standards for preparing an EIS. The DEIR/EIS fails to include an adequate description of the Project and fails to adequately describe the environmental setting. The DEIR/EIS also fails to address the Project's potentially significant impacts to biological resources, marine resources, air quality, public health, vibration issues, and others. Furthermore, the DEIR/EIS proposes mitigation measures that are deferred, unenforceable, or otherwise inadequate to mitigate impacts to below a level of significance. In the case of significant and unavoidable impacts, the DEIR/EIS fails to propose all feasible mitigation. It also fails to propose legally sufficient alternatives. For these reasons, the CPUC and MBNMS must withdraw the DEIR/EIS and prepare and recirculate

⁶⁴⁷ *Id.* (emphasis added).

⁶⁴⁸ *Citizens to Preserve the Ojai v. County of Ventura* (1985) 176 Cal.App.3d 421, 427.

⁶⁴⁹ *Id.*

⁶⁵⁰ *Bakersfield Citizens for Local Control v. City of Bakersfield, supra*, 124 Cal.App.4th at 1217.

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a revised DEIR/EIS that adequately analyzes and proposes all necessary and feasible mitigation to reduce the Project's potentially significant environmental and public health impacts.

Sincerely,

A handwritten signature in black ink that reads "Linda T. Sobczynski". The signature is written in a cursive style with a large initial 'L' and 'S'.

Linda T. Sobczynski

LTS:acp
Attachments

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