



POSEIDON APPEAL SUMMARY OF ARGUMENTS (May 28, 2021)

The Regional Board's 2021 Poseidon Order violates Water Code 13142.5(b). The California Water Code Section 13142.5(b) states:

“For each new or expanded coastal powerplant or other industrial installation using seawater for cooling, heating, or industrial processing, the best available site, design, technology, and mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life.”

The Regional Board failed to require the Best Available Technology to minimize the intake and mortality of all forms of marine life. First, the Regional Board improperly deemed slant wells infeasible by relying on freshwater aquifer drawdown, which is not a technical feasibility criterion under the Ocean Plan Amendment. Even if freshwater drawdown was allowed to be a consideration, the Regional Board did not conduct a sufficient analysis to determine whether slant wells were infeasible due to freshwater drawdown. HydroFocus's expert review identified limitations and uncertainty with Poseidon's model and concluded the results were inconclusive until physical tests could verify the computer modeling. The HydroFocus 2 Report concluded that the analysis of freshwater withdrawn in slant wells must consider lowering the seawater intrusion elevation by reducing the volume of freshwater injected into the barrier. None of these conclusions were considered or addressed by the Regional Board despite conducting physical tests for slant well performance and impact on aquifer drawdown is a standard practice for other ocean desalination projects in California. If freshwater drawdown was a legally permissible factor in subsurface intake feasibility, the Regional Board should have only considered it in an economic analysis. The Regional Board arbitrarily relied on a freshwater withdrawal of 1,000 acre feet per year as the maximum “feasible” without any economic feasibility analysis.

The Regional Board wrongfully relied upon the Coastal Commission's ISTAP study to conclude that infiltration galleries were not feasible as the Best Available Technology. The ISTAP Review did not conduct a full analysis under the Desalination Amendment. The ISTAP Review failed to consider alternative sites when evaluating infiltration galleries. The Regional Board's findings that conclude subsurface infiltration galleries are economically infeasible for the Poseidon-Huntington Beach ocean desalination facility are not supported by the evidence. The Regional Board failed to demonstrate subsurface intakes would cause Poseidon to operate the desalination project without rendering a profit. The Regional Board's reliance on the ISTAP Study is flawed because ISTAP failed to properly consider an appropriate Reliability Premium. Additionally, the Regional Board's reliance on ISTAP is flawed because ISTAP failed to assess life-cycle cost savings, including the avoidance of pretreatment, as required by the Desalination Amendment. The Regional Board cannot rely upon the ISTAP's economic feasibility analysis for infiltration galleries because a “willingness to pay” standard must include a cost-benefit analysis.

The Regional Board failed to consider an open-ocean intake screen smaller than 1mm as the best available technology for minimizing all forms of marine life. According to the State Board, “the effectiveness of fine-mesh and wedgewire screens in reducing entrainment is largely a function of the size of the screen slot opening.” According to the Water Board's own report, “entrainment decreases as the screen slot size decreases and the size of the fish increases.” And yet the Regional Board never analyzed requiring Poseidon Water to install a smaller screen size.

The Regional Board erroneously relied on an artificially inflated need analysis to evade the subsurface intakes requirement under the Desalination Amendment. The Regional Board made a post-hoc decision on need without requested information or a proper deliberation requested by Board Members. The Regional Board had the discretion to evaluate the need for the Project beyond just the identification for 56 AFY in an Urban Water Management Plan. The Regional Board acted arbitrary and capricious by deferring judgement of need to self-proclaimed project partner OCWD instead of adequately considering MWDOC's expert analysis. Therefore, the Regional Board's 2021 Poseidon Order violates Water Code 13142.5(b) by failing to require the Best Available Technology to minimize the intake and mortality of all forms of marine life.

The Regional Board failed to consider a feasible range of Best Available Design capacities to minimize the intake and mortality of all forms of marine life. The Regional Board has a public trust duty to minimize marine life mortality. The Regional Board failed to independently consider a range of feasible design alternatives less than 50 MGDs to minimize intake and mortality of marine life. The Regional Board failed to determine whether subsurface intakes are feasible for a reasonable range of alternative intake design capacities. The Regional Board decided on the Best Available Design without all the information necessary. Therefore, the Regional Board's 2021 Poseidon Order violates Water Code 13142.5(b) by failing to require the Best Available Design to minimize the intake and mortality of all forms of marine life.

The Regional Board failed to adequately require the Best Available Site to minimize the intake and mortality of all forms of marine life. In Phase I of the sites analysis, the Regional Board wrongfully dismissed alternative best available onshore sites based on a predetermined 50 MGD design capacity and in reliance on Poseidon Water's unsubstantiated claims. In Phase II of the sites analysis, the Regional Board erroneously dismissed alternative best available onshore sites based on the wrongful use of land use constraints, social impacts, and other CEQA considerations to eliminate the remaining subsurface intake sites. CEQA's broad definition of feasibility should not swallow the specific feasibility criteria outlined in the Desalination Amendment. Permit timing is not a justification for determining a site infeasible. Existing intake and discharge infrastructure was purposefully removed from the Desalination Amendment and the Regional Board wrongfully relied on existing infrastructure to deem sites infeasible. The Regional Board erroneously determined sites to be infeasible based on arbitrary criteria outside of the Desalination Amendment's specific feasibility criteria. In Phase III, the Regional Board failed to require the best available offshore site to minimize intake and mortality of all forms of marine life. Therefore, the Regional Board's 2021 Poseidon Order violates Water Code 13142.5(b) by failing to require the Best Available Site to minimize the intake and mortality of all forms of marine life.

The Regional Board failed to adequately determine the Best Available Mitigation to minimize the intake and mortality of all forms of marine life. Preservation is not mitigation under the Desalination Amendment, and yet the Regional Board authorized 25 percent of Poseidon's mitigation to come from preservation through the dredging of the Bolsa Chica inlet. The Regional Board's best available mitigation is unsupported by substantial evidence due to the reliance on outdated science and an inaccurate baseline. The Regional Board's best available mitigation is unwarranted by the facts because the Palos Verdes Offshore Reef Mitigation Project suffers from the fatal flaw of being located in the Red Zone for DDT contamination. The Regional Board made their best available mitigation determination without the information necessary to make a fully informed decision. Therefore, the Regional Board's 2021 Poseidon Order violates Water Code 13142.5(b) by failing to require the Best Available Mitigation to minimize the intake and mortality of all forms of marine life.

The Regional Board failed to act in accordance with Government Code Section 11425.10, also known as the "Administrative Adjudication Bill of Rights", by not disqualifying Board Members from the Poseidon Water adjudicative proceeding for bias, prejudice or a financial conflict of interest. Regional Board

Members should have been disqualified from the Project adjudicative proceedings due to a financial conflict of interest. Regional Board Member Kris Murray should have been disqualified from the Project proceedings due to a financial conflict of interest. Regional Board Member Leticia Clark should have been disqualified from the Project proceedings due to a financial conflict of interest. Therefore, the Regional Board failed to act in accordance with Government Code Section 11425.10 by not disqualifying Board Members from the Poseidon Water adjudicative proceeding for a financial conflict of interest.

Regional Board Members should have been disqualified from the Project adjudicative proceedings due to the prohibited ex parte communications. The Huntington Beach Desalination Project was a pending adjudicative action. The Governor and California EPA Secretary were prohibited from ex parte communications regarding the Project. Board Members Kerr, Murray, and Peterson should have been disqualified from participating in the Poseidon – Huntington Beach adjudicative proceeding due to receipt of prohibited Ex Parte communications. Regional Board Members should have been disqualified for not properly disclosing the prohibited ex parte communications while participating in Poseidon Water’s adjudicative proceedings. Regional Board Members and Regional Board Legal Counsel, Ms. Sablan, were aware of the prohibited ex parte communications prior to the August 7th Adoption Hearing and did not disclose the communications. Regional Board Members and Regional Board Legal Counsel, Ms. Sablan, were aware of the prohibited ex parte communications for over 6 months before disclosing them. Meetings between CalEPA and Poseidon leading up to the August 7th Adoption Hearing make the ex parte communication violations even more egregious. Therefore, the Regional Board failed to act in accordance with Government Code Sections 11430.40 and 11430.50 by not disqualifying Board Members from the Poseidon Water adjudicative proceeding for a financial conflict of interest.

The Regional Board’s arbitrary decision to preclude some public comments while allowing other comments of a similar nature to proceed violated the public’s due process. The Regional Board refused to hear public comment on the lack of need for Poseidon from anti-Poseidon speakers, while allowing pro-Poseidon speakers to comment on the drought. The Regional Board violated the public’s general public discussion right under California Government Code Section 11125.7. The Regional Board failed to permit all parties to provide written or oral comments on the issues pursuant to Government Code Section 11445.40(b). The public right to discussion afforded by Government Code 1125.7(a) is applicable here given that the right is not precluded by Government Code 1125.7(f). The public right to discussion afforded by Government Code 1125.7(a) agenda item had not been previously considered. Therefore, the Regional Board failed to act in accordance with the Government Code by arbitrarily precluding some public comments while allowing Pro-Poseidon speakers to proceed with similar comments.

The Regional Board was the Lead Agency for the Poseidon-Huntington Beach CEQA Project and unlawfully segmented its environmental review of the Project. The Project has not yet received a full environmental review, despite the existence of the Interagency Permit Sequencing Framework Agreement. Regulatory circumstances have changed since the completion of 2010 FSEIR. CEQA flatly prohibits piecemealing of project EIRs. The Regional Board unlawfully deferred required analysis under CEQA to other agencies. The Regional Board unlawfully refused to consider reasonably foreseeable project changes. There is diminishing water demand and overall need for the Project. Irvine Ranch Water District’s Water Quality Concerns Are Not Speculative, Have Not Been Analyzed Under CEQA, and Will Result in Modifications to the Project Resulting in More Public Trust Impacts and a Revised Mitigation Credit Calculation. Irvine Ranch Water District has raised serious concerns regarding the water quality impacts to the groundwater aquifer when OCWD injects Poseidon Water’s water into the aquifer. The injection of Poseidon Water’s water into the groundwater aquifer is not speculative. The need for a two-pass system will require the additional intake and discharge of seawater, resulting in additional impacts that have not been analyzed or fully mitigated. After OCWD’s May 15th, 2020 testimony, the injection of the Project water into the aquifer is not speculative. The Regional Board was Required to Conduct Additional CEQA Analysis for the Proposed Mitigation within Attachment K. Neither the Regional

Board, nor any other agency, conducted a proper CEQA review of the proposed mitigation required under Attachment K. Neither the Regional Board, nor any other agency, has conducted a revised cumulative impacts assessment based on the mitigation proposed under Attachment K.

The Regional Board or the State Board had a duty to perform a Waste and Unreasonable Use analysis for the Poseidon Project. For nearly a century, a self-executing provision of Article X, section 2 of the California Constitution has required that *all* water resources of the State be put to reasonable and beneficial use to the maximum extent possible and has prohibited any waste and unreasonable use of a water resource. Thus, the State Board and the nine Regional Boards must ensure uses are both beneficial and reasonable and prevent waste and unreasonable use when regulating all water resources in California. The Regional or State Board never conducted any evaluation of the 2021 Order regarding whether Poseidon Water's use of water is a waste or unreasonable. The Regional Board did not evaluate whether desalinating 56,000 AFY is wasteful when evidence from MWDOC's Reliability Study concludes there is only a need for 0 – 22,000 AFY in the region. The Regional Board did not evaluate whether it is wasteful and unreasonable to take the Project's desalinated water and inject it into OCWD's aquifer because nobody else wants to purchase it. Therefore, the State and Regional Board failed to act in accordance with the law by not performing a Waste and Unreasonable Use analysis for the Poseidon Project.

The Regional Board failed to meet its Human Right to Water requirements. Water Code Section 106.3 declares it is the "established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." California's Human Right to Water statute applies to the 2021 Order. The Regional Board failed to consider and promote the Human Right to Water. The Regional Board failed to consider water affordability, safety and cleanliness, and water accessibility. The Regional Board failed to conduct meaningful engagement of environmental justice and tribal communities. Therefore, the State Board should reject or remand the 2021 Order to ensure the Human Right to Water requirements are met.