Santa Ana Regional Water Quality Control Board

September 27, 2018

Mr. Scott Maloni
Vice President
Poseidon Water
5780 Fleet Street, Suite 140
Carlsbad, CA 92008

smaloni@poseidonwater.com

Request for Information Regarding Environmental Analysis of the 2018 Diffuser Modifications

Dear Mr. Maloni:

The Santa Ana Regional Water Board received the attached letter dated September 25, 2018 from the California State Lands Commission (Commission) concerning Poseidon Water's revised diffuser design for the Proposed Huntington Beach Desalination Facility. In the letter, the Commission asks for additional information concerning the potential environmental impact of the revised diffuser design. Please review the Commission's letter and provide the information requested.

If you have any questions, please contact Lauma Willis at Lauma.Willis@waterboards.ca.gov or Mark Smythe at Mark.Smythe@waterboards.ca.gov.

Sincerely,

Hope Smythe

Hope A. Smythe
Executive Officer

cc w/o attachment:
Cy R. Oggins, California State Lands Commission
Alexandra Borack, California State Lands Commission
Eric Gillies, California State Lands Commission
Cheryl Hudson, California State Lands Commission
Claire Waggoner, State Water Resources Control Board
Tom Luster, California Coastal Commission
Teresita Sablan, State Water Resources Control Board
Lauma Willis, Santa Ana Regional Water Quality Control Board
Mark Smythe, Santa Ana Regional Water Quality Control Board

STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

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September 25, 2018

Hope Smythe, Executive Officer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

VIA REGULAR & ELECTRONIC MAIL (Hope.Smythe@waterboards.ca.gov)

Subject: Proposed Diffuser Change: Poseidon Huntington Beach (PRC 1980.1)

Dear Ms. Smythe:

California State Lands Commission (Commission) staff has received and reviewed Alden's "14-port Diffuser Design" and Dudek's "Diffuser Modifications Environmental Analysis" (Dudek Memo) documents that Poseidon (Applicant) sent on August 3, 2018 to the Regional and State Water Boards (Water Boards) as part of the Water Code Section 13142.5(b) determination process. In reviewing these documents, Commission staff has identified several areas where additional information is needed to adequately analyze the modified diffuser design. Commission staff has drafted this letter to provide initial recommendations to the Water Boards regarding additional information that must be included in the Water Boards' California Environmental Quality Act (CEQA) analysis for the Commission to rely upon the document for its own decision-making process.

On October 19, 2017, the Commission certified the Supplemental Environmental Impact Report (EIR) and approved the Lease Modification Project, excepting out the proposed diffuser until it was determined to be acceptable by the Water Boards. The Supplemental EIR evaluated, among other activities, the impacts associated with the construction and operation of a 3-port diffuser that would be attached to the existing outfall riser. The Supplemental EIR also evaluated a 6-port diffuser design as an alternative to the Lease Modification Project. The August 3, 2018 transmittal to the Water Boards sets forth a proposed design change: a linear diffuser with a 212-foot-long pipe laid on the ocean floor, set with 14 ports, and attached to the existing outfall riser via a 24-foot-long bent pipeline. The proposed diffuser represents a potentially major change from both the diffuser approved by the Commission and the alternative analyzed in the Supplemental EIR. If the Water Boards do not adequately identify, discuss, and if needed, mitigate the potential new impacts of the modified diffuser then the Commission may not be able to use the Subsequent EIR (2010), the Supplemental

EIR (2017), and the Water Boards' CEQA document to fully evaluate a lease amendment application, which will be required for the diffuser. From our initial review, Commission staff has identified potential new impacts that should be thoroughly analyzed and recommends that, in addition to the impacts identified by Dudek in their memo, the Regional Water Quality Control Board include the following in its CEQA document:

Project Activities/Impacts

The Supplemental EIR evaluated a diffuser design that placed the three ports on top of the existing outfall tower and expanded the riprap footprint around the structure. This design fell within the existing Commission lease area. Commission staff understands that the new diffuser design will set the linear diffuser away from the existing outfall tower. Please have the Applicant provide design drawings that show the revised design relative to the existing lease area. Any portion of the new design that extends beyond the existing land description must be included in the Applicant's lease amendment.

The diffuser design change would require the "top several feet" of the ocean floor to be dredged,[1] and the excess material would be side-casted if possible. The Dudek Memo does not approximate the cubic yards of material that would be either allowed to settle naturally on the ocean floor or, if necessary, loaded onto barges and towed back to the Port of Long Beach. Both dredging activities will require Commission authorization and a lease amendment. Please have the Applicant clarify the volume of dredged sediments that could be moved as well as the maximum area of disturbance by dredging activities. Without this information, Commission staff cannot agree that the additional volume of dredged sediments and potential associated barge trips "would not substantially change with the new linear diffuser modifications."[2]

In addition, the diffuser design modification results in a different riprap footprint from what was evaluated in the Supplemental EIR. It appears that the current riprap located on the seaward side and half of the adjacent side of the diffuser tower would be removed and later placed around the linear diffuser, but that there would be no riprap replaced around the outfall tower,[3] also shown in the footprint in Figure 2 of the Dudek Memo. The Supplemental EIR only showed a general outline of the new riprap footprint, but this was because the existing tower would simply be centered within an expanded area. The new diffuser design seems to propose a different riprap configuration around the tower, and Commission staff requests that the Applicant provide the Water Boards with a more detailed figure that identifies the outfall tower, the connecting pipeline, and the linear diffuser locations within the riprap footprint.

Finally, the construction work to install the diffuser is estimated to take 1 to 2 months. Please clarify whether this diffuser work for the modified design would occur during the same timeframe as that evaluated in the Supplemental EIR, or whether there are new periods of overlap with the wedgewire screen activities for the intake.

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[1] Dudek Memo, page 5.
[2] Dudek Memo, page 2.
[3] Dudek Memo, pages 2-3.

Cultural/Tribal Cultural Resource Impacts

The Dudek analysis fails to provide any discussion regarding new potential impacts to submerged cultural or tribal cultural resources. The Supplemental EIR noted, for the wedgewire screen construction on the intake, that although dredged sediments were likely disturbed when the intake structure was initially installed, all ground disturbing activities that extend more than 3 feet below the ground surface have the potential to cause adverse direct and indirect impacts to presently unidentified cultural and tribal cultural resources. While the impacts for the linear diffuser dredging would be similar to those evaluated and mitigated for in the Supplemental EIR, the wedgewire screen pipeline extended no more than 54 feet (parallel to the shoreline) from the intake tower.[4] The proposed linear diffuser appears to extend more than 100 feet offshore from the outfall tower and into areas that may not have been initially disturbed during power plant pipeline and tower construction. Regional Water Board staff should both notify Native American tribes of these potential new impacts and evaluate the level of significance: please see pages 4-110 through 4-111 of the Supplemental EIR for a list of tribes who were contacted pursuant to the NAHC Native American Contacts List.

Air Quality/Greenhouse Gas Emissions

Page 3 of the Dudek Memo indicates that construction would involve the "same marine vessels operating at a similar frequency" to what was analyzed in the Supplemental EIR. The memo goes on to state that crew and supply vessels would be "operated the same as analyzed in the 2017 Supplemental EIR" but with additional trips needed for crew and supplies. Table 1 of the Dudek Memo, however, assumes that only one additional tug boat and barge roundtrip (in addition to 26 haul trips) will be used for the linear diffuser installation. Please clarify whether the following include vessels already evaluated in the Supplemental EIR (and where the activity would fit in the construction schedule), or whether they will constitute new round trips:

- Page 2: one derrick barge to bring the pre-assembled linear diffuser
- Page 4: one 77-foot long utility boat for personnel access

In addition, please have the Applicant clarify the additional number of barges that would be required (compared to those already evaluated in the Supplemental EIR) if the dredged sediments require disposal in a land-based facility, and also have Dudek confirm whether the additional barges that could be required for land-based disposal are already included the CalEEMod calculations found in Appendix A as part of the "worst case scenario" (that should be evaluated under CEQA). Table 1 includes only one tug boat trip for additional riprap, yet page 12 of the Dudek Memo reiterates that excess sediment could be placed on support barges and towed to the Port of Long Beach.

Commission staff does not believe that Table 1 from the Dudek Memo clearly shows the change in emissions, for a worst-case scenario, from what was analyzed in the Supplemental EIR. First, the table only provides calculations for one additional tug boat round trip, and it is not clear whether additional vessels will be required for the diffuser

[4] Figure 2-7b, page 2-16, 2017 Supplemental EIR.

area dredging. In addition, the narrative does not explain why the additional emissions were simply added to the "typical daily construction emissions from the 2017 Supplemental EIR". The Supplemental EIR analyzed 73.85 lbs/day as the maximum emissions that could occur with concurrent wedgewire screen and diffuser construction. To provide a clear comparison between the maximum construction emissions calculated in the Supplemental EIR and those that would occur for the Lease Modification Project with the new diffuser design, the Applicant should provide a new CalEEMod analysis that includes all of the offshore construction activities (with the new diffuser) in a similar format to that presented in the Supplemental EIR, clearly noting any change in model parameters or assumptions. Without this new analysis, Commission staff is unable to determine how the Applicant has concluded that "...the maximum daily construction NO_x emissions from construction of the new linear diffuser would be the same as those analyzed for the Lease Modification Project (occurring during the last day of dredging)."[5] Once there is sufficient information to make a comparison, Commission staff expects Water Board staff to determine whether the appropriate threshold[6] should be the maximum emissions calculated in the Supplemental EIR, the SCAQMD air emissions threshold, or whether a different threshold should be applied.

Minor Notes/Corrections

1. Page 2 of the Dudek Memo states that the linear diffuser pipeline will be approximately 194 feet. The Alden design shows 212 feet. Please ensure that the impacts are evaluated with the full 212 feet of pipeline.
2. The Supplemental EIR evaluated a possible co-located operations scenario which required a 54-inch central port, to be closed later once stand-alone operations commenced.[7] Please clarify whether the new concrete cap would have the central port and under what circumstances it would be sealed.
3. Page 3 of the Dudek Memo notes that the Anchoring Plan, included as an Applicant Proposed Measure from the Supplemental EIR, would also need to include "the potential anchoring of the tug boat." Please clarify how many additional vessels, including both tug boats and barges, will be added to the area of disturbance. Page 12 of the document further states that there would be no increase in the area of temporary benthic disturbance due to the anchoring of marine vessels. Please have the Applicant explain why there would be no increase in the vessel anchor impact area.

Commission staff greatly appreciate your efforts to include this additional information in your analysis of the modified diffuser design. While these recommendations are only our initial response to the information currently available, these clarifications will greatly assist the Commission in its future review.

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[5] Dudek Memo, page 9. Commission staff notes that Table 1 does not show any values to support this statement, because there is no clear calculation for the last day of dredging and no clarification as to when the new diffuser installation would occur.

[6] CEQA Guidelines section 15162 subdivision (a)(3)(B): "Significant effects previously examined will be substantially more severe than shown in the previous EIR."

[7] 2017 Final Supplemental EIR, page 2-19.

Please refer questions concerning environmental review to Alexandra Borack, Environmental Scientist, at (916) 574-2399 or via email at Alexandra.Borack@slc.ca.gov. For questions concerning Commission leasing jurisdiction, please contact Cheryl Hudson, Public Land Management Specialist, at (916) 574-0732 or via email at Cheryl.Hudson@slc.ca.gov.

Sincerely,

For Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: C. Waggoner, State Water Resources Control Board
T. Luster, California Coastal Commission
C. Hudson, Commission
P. Griggs, Commission
J. Garrett, Commission
A. Borack, Commission