

W 19a & 20a

ADDENDUM #2 TO COMMISSION PACKET FOR ENERGY, OCEAN RESOURCES, and FEDERAL CONSISTENCY

For Wednesday, November 13, 2013

**Item No. W19a & 20a E-06-007 / A-5-HNB-10-225
Poseidon Water**

- Modifications to Staff Report/Response to Poseidon's November 8, 2013 Letter
- Ex Parte Communications
- Correspondence
- Redline Comparison of Poseidon's Proposed Conditions with Staff's Proposed Conditions

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W19a & 20a

November 12, 2013

TO: Coastal Commissioners and Interested Parties

FROM: Alison Dettmer, Deputy Director
Tom Luster, Senior Environmental Scientist

SUBJECT: Addendum for CDP Application A-5-HNB-10-225/E-06-007, Poseidon Water

This addendum provides staff responses to the main points in Poseidon's November 8, 2013 letter followed by staff's recommended revisions to the October 25, 2013 staff report shown below in ~~striketrough~~/**bold underline**.

RESPONSE TO APPLICANT'S CONTENTIONS (FROM POSEIDON'S NOVEMBER 8, 2013 LETTER AND NOVEMBER 2013 BRIEFING PACKET TO COMMISSIONERS)

New Permit Review

Poseidon contends that staff's recommendations would require Poseidon to undergo a new entitlement process before the City of Huntington Beach, State Lands Commission, and the Regional Board.

- Poseidon has known for at least 10 years that Commission staff believed that a subsurface intake was an environmentally preferable alternative. Staff requested in multiple letters dating back to May 2003 that Poseidon conduct the studies necessary to assess this alternative. Despite this, Poseidon chose not to pursue this alternative at its own risk that the Commission would concur with staff that it was an environmentally preferred alternative to an open ocean intake.
- In addition, Poseidon is already required to return to the City of Huntington Beach, the State Lands Commission and the Regional Board for additional review, regardless of the Commission's decision:
 - **City of Huntington Beach:** The City's SEIR requires Poseidon to conduct a number of studies for the City's additional review and approval, including several

that could require Poseidon to relocate or redesign parts of its project. The City has also required Poseidon to complete a Franchise Agreement and amend the existing Owner Participation Agreement.

- **Regional Board:** Poseidon's existing permit from the Regional Board allows it to operate only when the power plant is using its once-through cooling system or for short-term periods when that cooling system is not operating. The Regional Board's permit requires new review when the power plant ends its use of cooling water, currently scheduled for 2018.
- **State Lands Commission:** Poseidon must apply to the State Lands Commission for Poseidon to take on AES's lease obligations when AES retires its cooling water system. The lease also requires Poseidon to conduct benthic monitoring and anticipates that the State Lands Commission will require additional review of lease conditions based on results of that monitoring.

Regarding Consistency with Other Agency Approvals –

Poseidon contends that staff's recommendations conflict with those of the Regional Water Quality Control Board and therefore violate Coastal Act Section 30412.

- Regional Board staff do not agree that implementation of Commission staff's proposed conditions would result in a Commission action that conflicts with a Regional Board water quality determination in violation of section 30412.¹
- Section 30412 also explicitly preserves the Commission's authority to carry out the Coastal Act, with the limited relevant exception of actions that would conflict with Regional Board water quality standards. The Commission's selection of an alternative intake that protects marine resources, consistent with Coastal Act sections 30230 and 30231, does not establish a water quality standard.
- In addition, the Regional Board did not consider the same project the Commission is reviewing today. The Regional Board only assessed a scenario in which AES was already using the existing open ocean intake (so all entrainment and impingement impacts were attributable to AES's operations); it did not consider Poseidon's stand-alone operation of the intake.

Poseidon contends that staff's recommendations establish or modify an emission standard established by the California Air Resources Board (CARB) or air district and therefore violate Coastal Act section 30253(c).

- Staff's recommended conditions do not establish or modify an emission standard. They do not limit in any way Poseidon's emissions of greenhouse gases. The conditions simply require that the impacts of Poseidon's project be adequately mitigated.

¹ Personal communication with Regional Board staff on November 8, 2013.

- In addition, staff's recommended condition is based on protocols and criteria developed by CARB to implement the state's greenhouse gas emissions reduction plans.
- Finally, certified regulatory agencies, like the Commission, must consider cumulative impacts under CEQA. Poseidon's proposed project results in significant contributions of greenhouse gases for which mitigation is necessary.

Regarding Adverse Effects on Marine Life –

Poseidon contends that its proposed project would have minimal marine life effects and can be mitigated in compliance with the Coastal Act.

- Poseidon's entrainment would reduce marine life productivity in an amount equal to dozens of acres of nearshore water and habitat *every year* of operations.
- Poseidon's adverse effects are not based just on the proportion of larvae entrained, but also on the area in which they originate, which extends along dozens of miles of the shoreline.
- There are up to nine Marine Protected Areas within the Area of Production Foregone affected by the open ocean intake at Huntington Beach, so Poseidon's project would adversely impact areas of special biological significance.
- Poseidon's comparison of its volume of entrainment to the hundreds of thousands of eggs laid by halibut is misleading. The adverse environmental impacts to entraining larvae derive primarily from the significant loss of the base of the food web, not just the number of larvae of a given species that typically survive to adulthood.

Regarding Subsurface Intakes –

Poseidon contends it has provided the necessary documentation of site conditions to determine a subsurface intake is infeasible or would adversely affect the underlying Talbert Aquifer and any associated wells or wetlands.

- Until October 2, 2013, Poseidon provided little or no relevant data about offshore conditions.
- In October, Poseidon provided part of the data needed to determine intake feasibility. Although incomplete, those data show that a 25-30 acre infiltration gallery would be feasible and would be separated from the Talbert Aquifer by a 100-foot thick relatively impermeable layer of sediment that would allow the gallery to operate without affecting the Aquifer, nearby wells, or wetlands.

Poseidon contends that subsurface intakes are infeasible for large-scale facilities.

- Poseidon previously defined “large-scale” as greater than 20 mgd. There are at least seven desalination facilities in the world that produce 20 mgd or more that use a subsurface intake.²
- Subsurface intakes are modular. Rather than build a single 25-30 acre gallery, Poseidon could build five or six smaller 5-acre galleries, which would be the same size as the gallery successfully used for the past eight years in Fukuoka, Japan.

Poseidon states that the Commission found subsurface intakes to be infeasible and environmentally inferior for Poseidon’s Carlsbad facility.

- For Carlsbad, Poseidon showed that about 70% of the offshore area was sensitive rocky reef or hard bottom habitat, or was close to kelp beds, all of which are much more sensitive habitat types than the soft bottom habitat offshore of Huntington Beach.
- The area of disturbance for an intake gallery in Carlsbad was also estimated to be several times larger than the intake gallery for Huntington Beach.

Poseidon contends that a subsurface intake would require about double the electricity of Poseidon’s proposed project.

- Poseidon has provided no data to support this assertion.
- In contrast, studies prepared by the San Diego County Water Authority and the Municipal Water District of Orange County concluded that subsurface intakes would result in a significant *reduction* in electricity use because of the significant reduction in required pre-treatment and treatment of water obtained through a subsurface intake.

Regarding Economic Infeasibility -

Poseidon claims that it would be economically infeasible to construct the subsurface infiltration gallery recommended by staff.

- The only evidence in the record regarding the cost of a subsurface intake was provided by Poseidon and it demonstrates only that a subsurface intake would be more expensive to construct than the existing intake.
- The record does not include an independent assessment of any of Poseidon’s asserted costs of construction of an infiltration gallery.
- The record does not include an independent comparison of the cost of an infiltration gallery over the life of the desalination plant as compared to the cost of an open ocean intake over the life of the desalination plant.

² Missimer, Thomas, Noredine Ghaffour, Abudullah H.A. Dehwah, Rinaldi Rachman, Robert Maliva, and Gary Amy, *Subsurface intakes for seawater reverse osmosis facilities: Capacity limitation, water quality improvement, and economics*, Journal of Desalination Issue 322, Elsevier Publishing, 2013.

Regarding Compliance with Ocean Plan –

Poseidon proposes a special condition requiring Poseidon to comply with “all components of the Ocean Plan *applicable to the Project* as determined by the Regional Water Quality Control Board *through the Project’s NPDES Permit*.” (emphasis added)

- This condition removes the Commission’s authority, and its obligation, to ensure that the project is consistent with the marine resource protection requirements of the Coastal Act.
- The standards used by the Regional Board to analyze an NPDES permit are different than the standards in Chapter 3 of the Coastal Act, and the Commission should not defer to the Regional Board regarding marine resources protected by Coastal Act policies.
- Poseidon is actively seeking an exemption from the State Board’s expected desalination policy for its Carlsbad desalination plant.³

Regarding Poseidon’s Direct and Indirect Adverse Effects on Wetlands –

Poseidon contends that the project SEIR included a jurisdictional determination that showed no wetlands on the project site.

- One of the bases on which the Commission found substantial issue in this case was the City’s failure to adequately delineate and protect wetlands.
- The Commission has the authority to independently assess the extent of on-site wetlands for determining consistency with LCP requirements, regardless of the wetland analysis in the SEIR.

Poseidon contends that there are no wetlands within 100 feet of the project site and that the project and the City’s CDP comply with the LCP’s minimum required buffers.

- Poseidon’s own documentation provided to the Commission shows wetlands adjacent to the project footprint, including wetlands that were recently restored through funding by the state Coastal Conservancy and the National Oceanic and Atmospheric Administration.
- Restoration efforts in the marsh area adjacent to Poseidon’s project were focused on providing habitat to at least two endangered bird species, which require the protection afforded by staff’s recommended Special Conditions.
- In order for the 100 foot wetlands buffer required by the LCP to be reduced, CDFW would need to agree to the reduction. Commission staff worked with CDFW when preparing its special conditions, and CDFW did not recommend reducing the 100 foot buffer.

³ Personal communication with State Water Resources Control Board staff, October and November 2013.

Regarding Water Supply Need –

Poseidon states that a) the State Water Plan identifies a need for up to 400,000 acre-feet per year of desalination by 2030, b) the Metropolitan Water District has identified a need for up to 150,000 acre-feet per year, and c) the State Water Strategy identifies desalination as one method to increase regional self-reliance.

- Staff recognizes the role of desalination in State and regional water supply portfolios. Staff's recommended Findings and Special Conditions are meant to ensure that the approved project minimizes its adverse environmental effects and is consistent with the LCP and the Coastal Act.

Poseidon states that the project is necessary to reduce MWDOC demands on imported water and that without seawater desalination, Orange County's imported water demands will increase.

- Orange County's imported water demands are projected to increase regardless of Poseidon's project.
- MWDOC's most recent projections show that Orange County's imported water demands are expected to increase from about 220,000 acre-feet per year in 2010 to 250,999 acre-feet per year in 2035. Additionally, Poseidon's water would only be available to a relatively small part of Orange County. MWDOC also states only that any of several projects, including Poseidon's could result in a reduction of import purchases from the Metropolitan Water District.⁴

Regarding Poseidon's Proposed Special Conditions

Poseidon contends that the greenhouse gas mitigation plan that the Commission approved for Carlsbad is adequate for Huntington Beach.

- In a revocation hearing, the Commission found that the greenhouse gas plan approved for Carlsbad was based on Poseidon's intentional misrepresentations and omissions.
- Case law published since the Commission's approval of the Carlsbad desalination facility questions the legality of Poseidon's proposed approach, as it improperly defers a determination of the scope of Poseidon's impacts and the mitigation measures required to after approval of the permit for the proposed project.⁵

⁴ See Municipal Water District of Orange County, *2010 Urban Water Management Plan*, June 2011.

⁵ For example, see *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 95 in which the court found that the City of Richmond had violated CEQA by deferring its analysis of a project's greenhouse gas emissions to after the project was approved. In that case, the final EIR proposed "a generalized goal of no net increase in greenhouse gas emissions and then sets out a handful of cursorily described mitigation measures for future consideration that might serve to mitigate the 898,000 tons of emissions resulting from the project." Poseidon's proposed condition does not even go as far as the GHG plan *rejected* in *CBE*. It sets no generalized goal, nor does it describe any mitigation measures. It simply requires that the Commission approve an Energy Minimization and Greenhouse Gas Reduction Plan at some later date.

Poseidon proposes a “Flood and Tsunami Hazard Mitigation Plan” that simply requires compliance with its own March 2013 Seismic, Tsunami and Flood Design Mitigation and Emergency Response Plan.

- Poseidon’s plan underestimates the potential flood, tsunami, geologic and seismic-related hazards at the site of its proposed development.

Poseidon claims that the requirement in Special Condition 14 that Poseidon remove structures endangered by coastal hazards exceeds Coastal Act standards and would result in revocation of the CDP.

- The purpose of this condition is to ensure that in the event that structures approved by the Commission as part of a CDP become a nuisance or are otherwise “red tagged” by a governmental agency, it is the applicant, not the public, that is responsible for the cost of removing those structures.
- This condition does not in any way require the “revocation” of this CDP.
- The Commission has imposed this requirement on applicants in a number of permits (e.g. CDP A-3-SLO-11-064 (Lewis)).

Poseidon claims that Commission staff’s Special Condition 21 is not necessary because the SEIR addressed traffic impacts of the project.

- The SEIR did not address the cumulative impacts of Poseidon’s proposed project taking place at the same time as construction associated with AES’s transition away from once-through cooling and remediation of the nearby Ascon landfill site.
- In addition, the Commission must assess the project against Coastal Act standards and is not bound by the SEIR

Finally, Poseidon’s proposed special conditions remove the requirement for Executive Director review and approval of the documentation submitted by Poseidon in the following special conditions: 2(c) (approval of appropriate intake and discharge design) 2(d) (Wetland buffer); 3 (State Lands approval); 4 (California Department of Parks and Recreation approval); 6 (Hazardous Material Remedial Action Plan); 15 (Flood and Tsunami Hazard Mitigation Plan); and 16 (Structural Stability). The Commission requires Executive Director review and approval of plans and other documentation provided during condition compliance to ensure that the project as implemented is consistent with the Commission’s required conditions. It is inappropriate to remove this requirement.

Regarding Miscellaneous Items –

Poseidon claims that staff’s proposed conditions would require it to conduct “dozens” of new studies.

- Some of the studies required by staff’s proposed conditions are studies of offshore geotechnical conditions that Commission staff has requested of Poseidon for many years.

- The remaining conditions require 10 additional studies from Poseidon, including four that are already required by the City. Thus, Poseidon’s claimed “dozens” of new studies include just six that were not already requested by staff or required by the city, including: 1) a wetland delineation; 2) a study of potential wetland mitigation sites; 3) a noise attenuation study; 4) breeding and nesting surveys; 5) hydraulic and hydrodynamic modeling of flood and tsunami hazards to assess the effects of the project on adjacent sensitive habitat; 6) study of flood elevations.

Poseidon claims that the Commission staff recommendation ignores site-specific environmental investigations and analysis supporting Poseidon’s proposed project.

- The City’s SEIR is one such analysis supporting Poseidon’s proposed project. Commission staff commented extensively on the inadequacies of the City’s EIR, but its comments were generally disregarded.
- The Commission has already found that the project raises a substantial issue based on many of the shortcomings of the SEIR.
- The Commission is not bound by any of the determinations in the SEIR.
- Poseidon cites a number of studies in footnote 14 of its November 8, 2013 letter. These studies focused almost entirely on beach and inland locations and not on the offshore area where an infiltration gallery would be located.

STAFF’S RECOMMENDED MODIFICATIONS TO SPECIAL CONDITIONS

Special Condition 13, page 18:

“**Term of Permit.** This permit authorizes the approved seawater desalination plant and associated facilities until the year 2050. If Poseidon intends to keep the approved development in place after this authorization expires, then Poseidon shall apply for a new coastal permit authorization to allow the approved development (including, as applicable, any potential modifications to it requested by Poseidon). Provided an completed application completed as required pursuant to Section 13056 of the Commission’s regulations is received before the permit expiration, the expiration date shall be automatically extended until the time the Commission acts on the application.”

STAFF’S RECOMMENDED MODIFICATIONS TO FINDINGS

SECTION IV.F – MARINE LIFE AND WATER QUALITY

Entrainment Effects, page 33, last paragraph:

“The source water areas of species entrained in this intake extend up to about 100 miles of the shoreline. The Areas of Production Foregone calculated for the sampled species range from about seven acres to about 350 acres, with an average of about 110 acres. For example, the APF for queenfish, with a source water extending along about 53 miles of shoreline, is about 164 acres, while the source water distance and APF for the California halibut are 19 miles and 23.7 acres, respectively. Other APFs are shown below:

<u>Species or taxon</u>	<u>Expected Annual Entrainment (in millions)</u>	<u>Shoreline Distance (in miles)</u>	<u>Area of Production Foregone (in acres)</u>
<u>CIQ gobies</u>	<u>28</u>	<u>38</u>	<u>187</u>
<u>Northern anchovy</u>	<u>14.5</u>	<u>45</u>	<u>276</u>
<u>spotfin croaker</u>	<u>35</u>	<u>10</u>	<u>27</u>
<u>queenfish</u>	<u>8.9</u>	<u>53</u>	<u>292</u>
<u>white croaker</u>	<u>8.8</u>	<u>30</u>	<u>187</u>
<u>black croaker</u>	<u>3.6</u>	<u>12</u>	<u>12</u>
<u>salema</u>	<u>5.9</u>	<u>na</u>	<u>Na</u>
<u>blennies</u>	<u>3.6</u>	<u>8</u>	<u>54</u>
<u>diamond turbot</u>	<u>2.7</u>	<u>10</u>	<u>54</u>
<u>California halibut</u>	<u>2.5</u>	<u>19</u>	<u>42</u>
<u>rock crab</u>	<u>3.2</u>	<u>16</u>	<u>156</u>
Total:	116.7 million		Average: 143 acres

From 2005 AES Entrainment Study and August 30, 2006 California Energy Commission, Final Staff Analysis of AES Entrainment Study (00-AFC-013C).

The various source water areas encompass at least nine State Marine Conservation Areas (SMCAs) or State Marine Reserves (SMRs) established pursuant to California’s Marine Life Protection Act Initiative...”

Economic Feasibility, page 47, add after second full paragraph:

“An independent cost analysis and life-cycle cost analysis would also be beneficial, as the only cost analysis submitted to date was provided by Poseidon, without independent verification, and the Commission cannot adequately assess costs without a life-cycle cost analysis, which would account for overall project cost reductions along with projected construction costs. In the case of Poseidon’s Carlsbad facility, the Commission found, based on Poseidon’s cost estimates, that any of several alternative intakes would have rendered the project economically infeasible. Those findings now appear to likely be inaccurate. At the time, Poseidon stated the project would cost about \$300 million and its water would cost about \$900 per acre-foot, and that alternative intakes ranging from \$150 to \$646 million would have increased water costs to \$1300 per acre-foot, which would make the project economically infeasible (see Commission’s Final Adopted Findings for CDP E-06-013). After the Commission’s approval, however, the actual costs of the project have turned out to be over \$1 billion, with water costs about \$2000 per acre-foot – i.e., costs that are higher than those that would have resulted from a subsurface intake and higher than those Poseidon stated would make the project economically infeasible – yet the project is being built and Poseidon has contracts to purchase the produced water. That is, the project more than tripled in cost without subsurface intakes and yet remained economically feasible.

Poseidon also asserts that the electricity needed to operate its facility with a subsurface gallery would be about double the amount needed to operate the facility with an open intake. Again, this is not supported by site-specific or facility-specific data. As described elsewhere in these Findings, entities other than Poseidon have found that facilities using subsurface intakes benefit from drawing in cleaner source water, which results in less electricity needed for pre-treatment and treatment, as well as lower costs due to less frequent equipment replacement, less use of chemicals, fewer mitigation requirements, and other benefits. Without Poseidon providing the basis for its estimated electricity use and without an independent life-cycle cost analysis of the proposed facility, Poseidon’s contention of increased electrical use is only speculative and not supported by substantial evidence.

On October 23, 2013, Poseidon provided its critique of the above-referenced **peer reviewed** Missimer paper, stating that it does not provide information germane to Poseidon’s proposed project.³⁰ The critique **was not peer reviewed and was prepared by a former employee of Poseidon who invented the technology that is the basis for the patent, now held by Poseidon, for co-located desalination and power plant operations (see Exhibit A).** This critique provided examples of several subsurface intakes that did not function as designed and concluded that those examples illustrate the infeasibility of a subsurface intake for Poseidon’s project. It also challenged several

descriptions in the Missimer paper of subsurface intake performance, but provided incomplete or no data to support its contentions. For example, the critique stated that the above-described Fukuoka gallery was operating at only about 75% capacity due to operational problems and that the Missimer paper had not reviewed actual operating data for it or for other intakes described in the paper.

Commission staff contacted Dr. Missimer, who confirmed that the data in the paper were from actual operating data and were based on discussions and reports from facility operators, and that the data and his recent meetings with the Fukuoka operators showed it was operating at essentially its full design capacity. Poseidon’s critique also noted that a desalination facility in San Pedro de Pinatar, Spain that used a subsurface intake lost about 20% of its capacity. However, that intake is a different design than an infiltration gallery and is located in an area with different geophysical characteristics than offshore Huntington Beach. The critique did, however, concur with the Missimer paper’s key point that the selection, feasibility, and success of a subsurface intake relies heavily on site-specific information. As noted above, Poseidon has not yet provided the full suite of site-specific information Commission staff requested for its review, but the information Poseidon has thus far provided shows that at least one subsurface intake design is feasible offshore of Huntington Beach.”

Add new subsection at page 48 after second partial paragraph:

“Impacts of Subsurface Intake Gallery

Poseidon has made a number of claims, most recently in its November 8, 2012 letter, that an infiltration gallery would cause greater adverse environmental impacts than Poseidon’s proposed use of an open water intake. These claims are largely speculative, false, or misleading.

Seafloor Disturbance and Impingement and Entrainment Impacts

There is no support for Poseidon’s assertion that an unscreened open ocean intake in any way minimizes adverse impingement or entrainment impacts. Commission staff refers first to the State Water Resources Control Board’s policy decision to phase out this type of intake for power plants due to the extensive adverse marine life effects they cause along much of California’s nearshore waters.⁶ Other state agencies have also recognized the significant adverse harm caused by these intake systems, including the Ocean Protection Council,⁷ and through numerous individual permit decisions, the Regional Water Quality Control Boards and the Coastal Commission. For this particular intake at the Huntington Beach power plant, the Santa Ana Regional Water Quality Control Board, the California Department of

⁶ See State Water Resources Control Board, Resolution No. 2010-0020, Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, 2010.

⁷ See California Ocean Protection Council, Resolution of the California Ocean Protection Council Regarding the Use of Once-Through Cooling Technologies in Coastal Waters, adopted April 20, 2006.

Fish and Wildlife, the California Energy Commission, the National Marine Fisheries Service, and the Coastal Commission have specifically determined that the power plant's continued use of its cooling water system would cause significant adverse impacts.⁸ Although Poseidon would use less water than the power plant, its use of the intake would cause the same type and extent of impacts identified in these policies and permit decisions. That is, although Poseidon would pull in less water and therefore less marine life, the organisms would be drawn from the same source water areas, which as described above, extend along up to about one hundred miles of nearshore habitats. Additionally, populations of several of these species have undergone significant declines over the past several decades, and Poseidon's operations would likely exacerbate those declines.⁹

Poseidon has stated that its use of this particular intake would be less "environmentally impactful" than staff's recommended condition requiring a subsurface intake. Poseidon further states that Commission staff's recommendation of a 30-acre gallery is arbitrary. However, as noted above, Commission staff based the size of the gallery on figures provided by Poseidon, and those figures are consistent with other existing galleries of the proposed design.

Poseidon asserts that its facility would instead require a subsurface design that would disrupt 64 acres of beachfront and seafloor with its associated benthic community, would cause turbidity, and that construction would preclude fishing and adversely affect recreational opportunities. Staff's proposed design, however, would not require the use of recreational beach areas, other than temporary construction impacts that could be minimized and mitigated through conditions of approval, as with multiple other Commission projects involving construction on or near beaches. Similarly, and unlike Poseidon's proposed use of the existing open intake, the adverse effects to the seafloor would all be temporary and would have effects similar to dredging and beach replenishment projects that the Commission has routinely approved.¹⁰

Regarding Poseidon's contention that the subsurface intake would require dredging every one to three years, without a full suite of site-specific geological studies, this is entirely speculative, and it is not supported by the incomplete site-specific evidence that exists to date. It is also not consistent with operations at the above-referenced Fukuoka gallery, which is built in a similar environment as offshore of Huntington Beach. The Fukuoka gallery has not required any such maintenance for its

⁸ See California Energy Commission, *Huntington Beach Units 3&4 Entrainment and Impingement Study Results, Mitigation Options, Staff and Working Group Recommendations, and AES' Response and Objections to the Recommendations*, September 14, 2006.

⁹ See Herbinson, K., M. Allen, and S. Moore, *Historical Trends in Nearshore Croaker (Family Scianidae) Populations in Southern California from 1977 through 1998*, in S. Weisberg, ed., *Southern California Coastal Water Research Project Annual Report 1999-2000*, pp. 253-264, 2001.

¹⁰ See, for example, CDP 5-08-061, approved August 2008 for dredging in Talbert Marsh and disposal offshore Huntington Beach.

approximately eight years of operations. Further, when these galleries do require this type of maintenance, it is often no more than a raking of parts of the upper three to six inches of the gallery; however, in the open ocean environment, this function is often provided by the marine life that colonize the surface of the seafloor above the gallery and help maintain the system's effectiveness.¹¹

Poseidon has also noted that the Commission found subsurface intakes infeasible and environmentally inferior for Poseidon's Carlsbad facility. In that case, however, according to Poseidon's submittals to the Commission for that project, a gallery would have covered about 150 acres of seafloor, with about 70% of that area consisting of rocky reef and hard bottom habitat, which would have represented a significantly greater adverse effect than the much smaller gallery in soft bottom habitat required at Huntington Beach.

Finally, and importantly, Poseidon neglects to compare its ongoing entrainment effects with the above temporary adverse effects of constructing a subsurface intake. For example, Poseidon's November 8, 2013 letter states that its larval entrainment losses would represent "...only a small fraction of the larvae (0.02-0.28%) of the source water populations." This is misleading. As described above, determining the extent and severity of entrainment effects requires identifying both the fraction of larvae lost and the area from which they are lost. All recent entrainment studies done in California have used this approach, including studies conducted by Poseidon's consultants. For Poseidon's proposed use of its intake, and for just the species identified above that would be most frequently entrained, Poseidon's intake would result in an average Area of Production Foregone each year of about 110 acres, which would represent a loss of ocean and estuarine productivity of about 3300 acres (more than five square miles) over the intake's 30-year operating life. This is substantially more significant and "environmentally impactful" than either Commission staff's proposed 30-acre gallery or Poseidon's estimated 64-acre gallery. Additionally, the intake's source water areas from which the Area of Production Foregone is derived includes a number of sensitive habitat types – rocky reef, hard bottom, kelp beds, etc. – as well as areas within Marine Protected Areas. Staff notes, too, that Poseidon's most recent submittal, which understates its expected entrainment effects, is inconsistent with its previous submittals, including a proposed Marine Life Mitigation Plan, that appeared to acknowledge that Poseidon's entrainment effects resulted in an Area of Production Foregone of about 66 acres. Although that is about half of staff's estimate, it nonetheless represents a significant impact on marine life, and is roughly equal to that of its Carlsbad facility, which the Commission determined was a significant impact and for which extensive mitigation was required."

In its November 8, 2013 submittal, Poseidon also states that a subsurface intake would conflict with Coastal Act Section 30231, as it would adversely affect coastal wetlands because those wetlands would be dewatered by Poseidon's use of the

¹¹ Commission staff personal communication with Dr. Tom Missimer, November 5, 2013.

subsurface intake. Poseidon, however, submitted insufficient data or other evidence to support this speculative statement. And, in contrast, the recently submitted offshore data Poseidon submitted in October 2013 show a relatively impermeable barrier between the seafloor and Talbert Aquifer. Given this barrier, an infiltration gallery would not be expected to cause drawdown effects on nearby wetlands or wells.

Proposed Project Alternative, Page 49, first full paragraph:

“As a result, there is no certainty as to what the ongoing funding would be used for and what standards the restoration would meet. ~~Much of the wetland complex managed by~~ **Using funding from several sources,** the Conservancy includes ~~recently completed a~~ **significant restoration effort to remove** abandoned oil structures, areas of contaminated soil, and other remnants from use of the wetland areas for oil production, ~~so it is likely that at least some of the restored areas would not provide the full intended functions and values the Commission generally requires to ensure that a project meets Coastal Act requirements (these issues are discussed further in Section IV.G – Wetlands and ESHA).~~¹² While the funding from AES clearly resulted in beneficial wetland restoration, it is not clear how much, where, or to what standards that restoration has provided or is meant to provide in the future, so the Commission is unable to find that continuation of this restoration would comply with the Coastal Act.”

SECTION IV.G – WETLANDS AND ENVIRONMENTALLY SENSITIVE HABITAT AREAS

Direct Wetland Impacts, page 61, add to end of last complete paragraph:

“Neither of the proposed project’s first two CEQA reviews – in 2003 and 2005 – identified wetlands within the project site. Later, however, during a January 26, 2009 site visit, the Commission’s geologist, Dr. Mark Johnsson, took a number of photographs of areas within the proposed project footprint. Several of those photographs showed areas of what appeared to include wetland vegetation as well as ponded or standing water. Weather records showed only minimal rainfall in Huntington Beach during that month (less than 0.20”); suggesting that the photographed areas were likely wetlands, not just water ponding from a recent rainstorm **(see Exhibit B)**.”

Direct Wetland Impacts, Pages 62-63:

“Shortly after the City’s September 2010 certification of the SEIR and issuance of its CDP, the Commission determined at its November 2010 Substantial Issue hearing that additional on-site evaluation was needed to make a conclusive wetland determination. Commission staff requested another site visit to evaluate site conditions and the potential

¹² See Whitcraft, C., B. Allen, and C. Lowe, *Huntington Beach Wetlands Restoration Project Monitoring Program, Methodology, and Data Summary – October 2010 to July 2013*, prepared for Huntington Beach Wetlands Conservancy and National Oceanic and Atmospheric Administration, October 2013.

presence of wetlands; however Poseidon did not grant permission until July 2012, when Dr. Engel again visited the site and found that the areas she had previously identified as exhibiting wetland indicators had recently been disked and all vegetation removed. The grading and vegetation removal was apparently conducted by the power plant owner and is the subject of a separate enforcement action by Commission staff (see Exhibit C).⁴⁵”

Indirect Wetland and ESHA Impacts, page 66, first paragraph:

“As noted previously, the project site was formerly part of an extensive area of coastal wetlands and dunes that extended for several miles along this area of the coast. The project site is adjacent to the Magnolia Marsh, which is being partially restored by the Huntington Beach Wetlands Conservancy (see **Exhibit 9** – Huntington Beach Wetlands Conservancy Site Plan). A portion of Poseidon’s site adjacent to the flood channel includes approximately 0.5 acres of wetlands that are outside the Conservancy’s management area but contain similar habitat (see Exhibit D). Parts of the proposed development would occur within 100 feet of these wetlands and those of the Magnolia Marsh, resulting in two main types of indirect impacts – possible dewatering of wetland habitat during project construction, and effects of noise and vibration on listed sensitive species known or potentially occurring in those wetland areas. The project is additionally subject to LCP Policy C 7.1.4, which requires a minimum 100-foot buffer between new development and wetlands, which the current project does not provide.”

Construction Dewatering, page 68, add to end of third paragraph:

“In May 2013, Poseidon provided documentation stating that dewatering will be required for two of the facility’s main components – the pretreatment building and the intake pump station. Poseidon estimates the pretreatment building will require dewatering at a rate of up to 740,000 gallons per day for a total of 45.1 million gallons and that the intake pump station will require dewatering at a rate of up to 1,280,000 gallons per day for a total of 39 million gallons. If done concurrently, the total dewatering rate would be up to about 2.02 million gallons per day. Poseidon has also estimated that the radius of influence from dewatering operations – that is, the distance within which groundwater levels would be reduced – would be up to 225 feet from the dewatering activities. This distance would encompass parts of the adjacent ESHA/wetland areas and the flood control channel, as shown in Exhibit E.”

Project Noise, Vibration, and Lighting, page 71, last partial paragraph:

“This is consistent with the City’s approach in other nearby projects where the City has cited the 60 dBA threshold as causing adverse impacts to avian species and has prohibited noise- and disturbance-generating construction activities adjacent to the Magnolia Marsh during the Belding’s Savannah Sparrow breeding season, which runs between mid-February and early August (see, for example, City of Huntington Beach CDPs #2006-005 and #PW-08-003, both for nearby sidewalk replacement projects). It is also consistent with this project’s SEIR Mitigation Measure CON-40, which requires Poseidon’s construction activities at an inland pump station site to not exceed 60 decibels at any nearby nests of the federally-endangered least Bell’s vireo,

which is known to nest nearby. As noted above, the City did not establish a similar noise limit for project activities adjacent to similarly listed species in the Magnolia Marsh area.

Poseidon suggests instead that the Commission adopt a noise threshold of 65 dBA, rather than 60 dBA, as recommended by Commission staff. Poseidon bases this recommendation on the Commission's approval of a 65 dBA limit for a bridge construction project in Bolsa Chica and because the CDFW and USFWS did not comment or object to the SEIR's conditions. As noted above, the SEIR did use 60 dBA as an appropriate noise threshold, and there is no evidence establishing why CDFW or USFWS did not comment on this aspect of the SEIR. The evidence does show, however, as noted below, that other agencies, including the USFWS, and the California Energy Commission for the proposed AES power plant construction adjacent to Poseidon, recommend a 60dB noise threshold to protect sensitive bird species. Staff's proposed condition would ensure that Poseidon's project meets the same standard as the AES project.

The Commission similarly recognized this potential noise impacts in its approval of a wetland restoration project (see CDP #5-08-061 for the Huntington Beach Wetland Conservancy) for areas in and near the Magnolia Marsh by imposing a special condition that limited project activities to September through March. In nearby Bolsa Chica, the Commission recently conditioned its approval of a bridge construction project by requiring noise levels to not exceed 65 dbA within 100 feet of any active nests (see the Commission's May 2013 approval of CDP 5-12-191). This approval allowed for just up to six months of construction impacts, as compared with Poseidon's projected two years of noise impacts. Poseidon's much longer construction period has the potential for more significant impacts on sensitive resources. The Commission also generally requires that permittees conduct nest surveys to identify any active nests within 300 feet of a construction site and to prohibit noise levels greater than 65 dBA as long as those nests are active. In this case, however, the USFWS and CEC are proposing 60 dBA. It is important to note that decibels are a logarithmic scale (like the Richter scale for earthquakes), so noise at 65 dBA is actually five times as loud as noise at 60 dBA. This is a significant difference to sensitive wildlife species, which is why staff is recommending the 60 dBA threshold in this case.

LCP Buffer Requirement, page 73, add after third full paragraph:

"Poseidon's November 8, 2013 letter states that a Special Condition requiring a 100-foot buffer is unnecessary and unwarranted because its project does not include structures within 100 feet of any wetland and because its project design and the existing berm will prevent impacts to any nearby wetlands. It further describes the nearby wetland areas as degraded. Poseidon also states that the LCP policy allows buffers of less than 100 feet if wetlands are protected. However, as described below, these claims are incorrect.

Regarding the project's location in relation to adjacent wetlands, significant aspects of project development are within 100 feet of nearby wetlands, including site

demolition activities, site remediation, and site construction activities, as well as ongoing use of a road, parking area, chemical loading facility, and other project components. As described above, development in the form of demolition, remediation, and construction activities will occur over several breeding and nesting seasons and cause noise and activity levels expected to adversely affect nearby sensitive bird species. Although the existing berm will remain between Poseidon’s facility and the wetlands, it is not high enough or wide enough to prevent project development from causing adverse effects to these areas or the species within them.

Poseidon describes the wetlands as degraded, but they are part of a significant restoration recently implemented by the Huntington Beach Wetland Conservancy.¹³ That restoration effort, which was funded in part by the National Oceanic and Atmospheric Administration and the California Coastal Conservancy, includes planting and grading meant to support at least two of the above-referenced listed species – the Belding’s Savannah Sparrow and the Light-Footed Clapper Rail – in portions of the Magnolia Marsh closest to Poseidon’s proposed project. Thus, the Commission’s wetland protection conditions are particularly important to ensure that Poseidon’s project does not adversely impact newly restored wetlands.

Regarding the LCP Policy, it states that buffers “shall be a minimum of one hundred feet,” but that lesser buffers may be permitted only if existing development or site configuration precludes a 100-foot buffer and only with review by CDFW. As noted above, Commission staff consulted with CDFW to develop the recommended Special Conditions, and CDFW did not recommend a buffer of less than 100 feet.

SECTION IV.H – FLOOD, TSUNAMI, AND SEA LEVEL RISE HAZARDS

Flooding, page 79, add after first full paragraph:

“The City has developed other planning documents meant to help implement the Environmental Hazards Chapter of the LCP. These include the City’s FEMA-approved Flood Management Plan, which describes the policies and actions the City is to implement to ensure its eligibility for FEMA flood insurance and other similar programs. FEMA has established that planning and siting for “critical facilities,” which include police and fire stations, hospitals, and water facilities such as the proposed project, be based on avoiding risks from the 500-year flood event.⁷¹ As noted in the project description, the project includes a water storage reservoir that Poseidon will build and turn over to the City. The City has designated its other reservoirs as critical facilities.⁷²

Poseidon’s November 8, 2013 letter stated both that its proposed facility is “critically important,” but that it is “not a critical facility.” It also stated that the

¹³ See xx letter from Huntington Beach Wetland Conservancy and Whitcraft, C., B. Allen, and C. Lowe, *Huntington Beach Wetlands Restoration Project Monitoring Program, Methodology, and Data Summary – October 2010 to July 2013*, prepared for Huntington Beach Wetlands Conservancy and National Oceanic and Atmospheric Administration, October 2013.

reservoir to be constructed as part of the project would not be turned over to the City for use as part of the City's water system, but would be owned and operated by Poseidon. However, the City's current Water Master Plan notes that this reservoir, which it acknowledges could be built by either the City or Poseidon, is meant to be part of the City's water supply system and is to provide storage, supply reliability, and an emergency supply for Southeast Huntington Beach.¹⁴ The Water Master Plan further notes that the City purchased the property at the power plant where Poseidon proposes to build the reservoir. Exhibit xx shows the role this reservoir is expected to play in the City's system, as it would be the only City reservoir to the west of the Newport-Inglewood Fault Zone."

SECTION IV – J CLIMATE CHANGE

Page 106, add to end of second full paragraph:

"These indirect emissions are expected to decrease over time as SCE and the energy producers it purchases electricity from are able to institute emission reduction measures required pursuant to AB 32, such as increasing the use of lower emitting energy sources, purchasing credits or offsets for generated emissions, etc. Commission staff received a letter from SCE stating that it would provide electricity to the facility; therefore, Poseidon's emission reduction measures are expected to reflect those not implemented by SCE."

ADDITIONS TO EXHIBITS

The following Exhibits are added to Staff's Recommended Findings:

- Exhibit A – Patent #6,946,081 – Voutchkov/Poseidon for co-located power plant and desalination operations
- Exhibit B – Photographs of wetland areas within project footprint
- Exhibit C – Photographs of above wetland areas after clearing
- Exhibit D – Photographs of adjacent wetland areas
- Exhibit E – Extent of construction dewatering
- Exhibit F – Map of City's Water Supply related to Newport-Inglewood Fault Zone

ADDITIONS TO SUBSTANTIVE FILE DOCUMENTS

The following Substantive File Documents are added to Staff's Recommended Findings:

Alden Research Laboratory, Inc., *Preliminary Evaluation of Narrow-Slot Wedge Wire Screen Pilot Studies at the Diablo Canyon and San Onofre Nuclear Generating Stations*, May 2013.

¹⁴ See City of Huntington Beach, Public Works Commission, Water Master Plan and Financial Plan Update, Agenda Item of January 16, 2013.

Tenera Environmental, *Proposal for Preparation of an Engineering and Study Design for Testing the Effectiveness of Wedge Wire Screens at Diablo Canyon Power Plant*, Proposal SLO2013-28, July 26, 2013.

Whitcraft, C., B. Allen, and C. Lowe, *Huntington Beach Wetlands Restoration Project Monitoring Program, Methodology, and Data Summary – October 2010 to July 2013*, prepared for Huntington Beach Wetlands Conservancy and National Oceanic and Atmospheric Administration, October 2013.

EX PARTE COMMUNICATIONS

Luster, Tom@Coastal

From: Staben, Jeff@Coastal
Sent: Monday, November 11, 2013 5:42 PM
To: Luster, Tom@Coastal
Cc: Dettmer, Alison@Coastal
Subject: FW: Ex Parte W 19a Poseidon McCabe

FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS

Name or description of project: W 19a Poseidon

Date and time of receipt of communication: 11/11/2013 4:30 pm

Location of communication: Santa Barbara

Type of communication (letter, facsimile, etc.): telecon

Person(s) initiating communication: Susan McCabe, Anne Blemker

She asked whether I received the November 8 letter. Staff is recommending approval with conditions. Claims subsurface intakes not demonstrated feasible on such a large scale anywhere. Disruption of 64 acres of ocean bottom, it works on a small scale, can't have a mud bottom. A lot of it is mud here, it just doesn't work from a technological point of view. Claims it is not financable.

Claims the staff recommendation requires that they start over with the City.

There was discussion of wetlands, they don't believe there are wetlands but they are separated by a berm in any case.

They had submitted a Marine Life mitigation plan and a GHG mitigation plan. They are proposing to take them off the table, because of the recommendation for subsurface, the staff have not analyzed these mitigations. If the Commission were to approve the project, they would come back at a later time with these mitigation plans.

There will be one other document for the administrative record.

11/11/13 - Jana Zimmer

DISCLOSURE OF EX PARTE COMMUNICATIONS

Date and time of receipt of communication:

November 4, 2013 at 4:30 pm

Location of communication:

Phone

Type of communication:

Teleconference

Person(s) in attendance at time of communication:

Joe Geever, Ray Hiemstra, Sara Townsend, Susan Jordan

Person(s) receiving communication:

Carole Groom

Description of project:

Item W19a & W20a – Water desalination facility (Poseidon Water)

Description of communication:

Representatives attest that the proposed project is in violation of Coastal Act and support Coastal Commission staff's recommendation of approval with conditions. They indicate that open ocean intake, which is proposed, was phased out in 2010 because of environmental impact. They indicate that the State Water Board ocean impact policies for coastal desalination will go into effect soon, and that they will likely require subsurface intake and brine diffusion as a recommended means of water intake and dispersion. Representatives maintain that subsurface intake in the form of infiltration galleries and subsurface wells are better for the environment because it minimizes the impact on organisms and use of chemicals. They also maintain that brine diffusion reduces toxic plume by dispersing output 1000 meters out versus the current 100 meters.

Representatives indicated that the impacts of development adjacent to marine preservation areas (MPAs) and their network is significant because the success of the downstream MPA and adjacent fishing areas are dependent on the success of larvae above. They also expressed concerns that there are no signed water purchase contracts at this time, only letters of intent, and that as a result, a smaller plant could be considered because the specific need is not clear at this time.

Date: Nov 7 2013

Signature of Commissioner: _____

Carole Groom

Dettmer, Alison@Coastal

From: Staben, Jeff@Coastal
Sent: Monday, November 11, 2013 11:56 AM
To: Luster, Tom@Coastal
Cc: Dettmer, Alison@Coastal
Subject: Ex Parte Poseidon W 91a and 20a

FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS

Name or description of project: W 19a Poseidon

Date and time of receipt of communication: 11/6, 5:30 -5:45 pm 11/11/2013 10:00 a.m.-11:00 a.m.

Location of communication: Santa Barbara

Type of communication (letter, facsimile, etc.): Conf/ Telecon

Person(s) initiating communication: Susan Jordan

11/6/2013 Jordan delivered briefing binder; brief introduction of location of topics in binder

11/11/2013 Susan Jordan CPCN
Sara Townsend with CPCN
Ray Hiemstra Orange County Coastkeeper
Leila Monroe NRDC
Joe Geever of Surfrider

Leila: specialist in MPA. The background is that NRDC typically focusses at state level, and on individual projects only when they have implications for statewide policies. There is very negative precedent here in lack of consideration of MPA in the context of major industrial projects, there are likely to be significant impacts. The proponents have not evaluated the connectivity of the protected areas, which were very carefully designed to be safe so that larva can flow between them and result in a replenishing effect all along the coast. The State of California spent tens of millions of dollars, ten years, hundreds of meetings, very significant investment in these protected areas. Karen Garrison of NRDC was involved in the implementation. Their materials are specific on expert opinions to which they referred. Dr. Raimondi and Dr. Carr are the experts they rely on for the connectivity issue and also the replenishment effects that MPA are supposed to have on larva in between the areas which is also significantly affected by the open intakes.

Ray: it is important that the source water area is the area where larvae will be drawn in from, its much larger than the immediate area along the coast. They travel long distances: this plant will affect a 100 mile length of coast from Dana Point up to Palos Verdes.

Jordan: as of a week and a half ago they had not submitted any information on the MPAs. They have chosen to ignore it .Jordan: State Water Boards would not have struggled over open intakes if the evidence of damage were not clear.

Ray Hiemstra re: credibility of their information on feasibility. There is a lack of information. There are several examples of subsurface intakes that do function- e.g. Doheny subsurface wells, there have been extensive hydrology tests of the local aquifer with no issue. Long Beach studied infiltration galleries. Poseidon says they need dredging, but there has been no evidence of that in Long Beach from the pilot project.

Water Globe Consulting, their primary expert that they rely on, is owned by Nikolai Voutchkov who wrote the technical memo of October 21 that is presented as an impartial peer review document. He does not disclose that he was Vice President for Poseidon when this project was proposed. He also applied for a patent for Poseidon and has a financial interest to assure that these facilities are reliant on co location with power plants.

In that capacity he wrote the feasibility analysis relied on by the Regional Board in issuing the NPDES permit and the City in its SEIR. That feasibility analysis was intentionally misleading because it relied on flawed assumptions: for example, it assumed the produced water would be 50 MGD, and assumed an additional 25% of intake water, which is not required to dilute the brine before they discharge it, they don't have to do that. It also assumed the need for surface pump stations on the beach. They said: "Nobody does that". They discussed that the picture they provided is from a third world country. We discussed that you can see the sign on the ugly beach structures that says, "Estrictamente prohibido a toda persona". They said actually, in California, on Doheny beach, Muni Water District of Orange County has a pump station which is buried under the beach under a volleyball court. No one knows it is there. So the claim that the staff alternative will result in access or aesthetic impacts is not credible.

They stressed that it was Voutchkov's evidence that led to flawed analysis and conclusions in the NPDES permit and SEIR. He did not disclose his financial interest in the project. The technical memorandum of 10/21 has a lot of the same flaws similar to what misled these other agencies in the past. The Coastal Commission should not allow itself to be misled.

They have had seven years, this report that they gave the staff two weeks ago looks at geological data and concludes that you can't use wells because the geological strata interferes. Galleries are man made systems that replicate what the natural system would do, that's why you do the galleries. Now they say since the wells wont work, that infiltration galleries wont work. Their information is again intentionally misleading. Nobody is proposing wells, everyone is trying to figure out whether infiltration galleries will work, and they keep responding that wells wont work. The burden is on them.

They state that everything that they have submitted is deliberately misleading, and this is the pattern of behavior with this company. In prior revocation hearings on Carlsbad the findings were made that there was misrepresentation and it was intentional. The findings in December 2009 were specifically that they had misrepresented the velocity of the intake, and where they were measuring the velocity of the water. In that case the misrepresentation was not found intentional. In Feb 2010 the Commission did find that the claim that their GHG plan would make the project carbon neutral was intentionally false. In no way would MWD reduce imports. They repeated dozens of times that their water would offset state water imports and they got caught.

They are making the exact same contentions on the Marine Life Management Plan and the GHG AGAIN. They are taking advantage of the fact that there are 10 new Commissioners. They are again requesting that the Commission defer the consideration of the GHG. This is totally inappropriate.

They stressed that there have been changes in policy and law since 2007, the biggest issue is that they were allowed an open ocean intake. The process was underway but not finalized. At that point they argued that it would be speculative, and they prevailed, there is no end date on that permit. Now the open ocean intakes are required to go away by 2020, and potentially even earlier.

They have relied on the Regional Board permit: they are showing selective language, omitted the language that they do have to come back. The Regional Board's finding under Porter Cologne only applies so long as the co located/power plant is withdrawing sea water. Once all the impacts are from the de sal that is a different calculation on feasibility of alternatives as well. They will have to come back before 2020. And that decision also relied on the reports from Voutchkov. So there is no way that the Commission is or should be bound by that Regional Board permit or their findings; its not applicable to the project without the power plant.

It is also not true that they have all their permits: the leases, the RWQCB permit, all have to be revised for the stand alone de sal.

With regard to their claim that the impingement impacts are minimal, they used a different type of calculation than what the experts at the State Water Board have used. The way suggested by the State Water Board is the measure of production foregone. What Poseidon did is fecundity hindcasting. That is not appropriate, per Dr. Raimondi. Does not provide any measurement of impacts on the environment from pulling in all the larvae and algae. Their method is not best available science. The best available is the 'area of production foregone'.

Poseidon is simultaneously relying on one method to prove the impact is insignificant- fecundity hindcasting,- to minimize the level of impact, and another for their mitigation plan. But that is not the standard in the Coastal Act- they have to do everything feasible to minimize. And to restore populations wherever feasible. They are using another method for calculating their mitigation plan- production foregone. They are using two different forecasting methods. If they don't use a consistent protocol it is very misleading. They also mix up the standard for EIR analysis for the standard under the Coastal Act.

Regarding the economic feasibility: they a private company, seeking to control water supplies for southern California. Maximizing their profit is not the Coastal Commission's responsibility. In terms of economics, Jordan stated there was a NYTimes article where they were queried on the potential to do subsurface in Carlsbad. They knew they could be required to convert at Carlsbad. The price for the facility went form \$300m to \$530, then they got tax exempt bonds for \$734m, now that facility is costed out at \$923 million. When they were queried, their response was we have already accounted for that eventuality of not using the open intake in our financial planning. Jordan stated that Page 58 of their Water Purchase Agreement talks about the potential for a change in law, and decommissioning of ocean intake triggering the subsurface. Now they are trying to tell us they wont get financing for this. They said they could not do things because they were going to sell water at \$900 AF, that went up now to almost \$2000/AF. They contend that this suggests a third time they have lied. In 2007 they told the Commission they don't have the money to do subsurface intake, now it is clear they had the money all along.

Their contention that there are no wetlands on site. They are saying our own biologist does not know how to do a delineation.

They expect Poseidon will come in at the last minute and offer additional conditions. A hail mary on the brine diffusers. But the Commission must remember that the lynchpin is the open ocean intake, allowing its continued use completely undermines the state policy.

They ask that we distinguish the decision on the appeal from retained jurisdiction. They have been requesting a hearing on their appeal for 7 years. They are undermining their right to a timely appeal.

The city would like the CCC to deny the permit and send it back to them.

FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS

Name or description of project, LPC, etc.:

Application No. E-06-007 (Poseidon, Huntington Beach) Poseidon Resources application for construction and operation of a desalination facility on the site of the AES Power Plant, 21730 Newland Avenue, Huntington Beach, Orange County.

Appeal No. A-5-HNB-10-225 (Poseidon Water, Huntington Beach) Appeal by Orange County Coastkeeper, Surfrider Foundation, Residents For Responsible Desalination, and Commissioners Wan and Mirkarimi from decision of City of Huntington Beach granting permit with conditions to Poseidon Water for removal of storage tanks, conduct remediation, and construction and operation of seawater desalination facility within the site of Huntington Beach Generating Station, 21730 Newland Ave., Huntington Beach, Orange County.

Date and time of receipt of communication: November 4, 2013 at 9:59 am

Location of communication: Sacramento, CA

Type of communication (letter, facsimile, etc.): Email

Person(s) initiating communication: Janelle Beland

Detailed substantive description of content of communication: (Attach a copy of the complete text of any written material received.)

Email exchange with Susan Jordan of Coastal Advocates regarding a briefing. Susan included a link to a drop box indicating I should read the Letters Section and the Facts Sheets Only Section. Link: <https://www.dropbox.com/sh/97p26estcsytiwb/q0R9DwS5GR>



November 8, 2013
Date

Signature of Commissioner

If the communication was provided at the same time to staff as it was provided to a Commissioner, the communication is not ex parte and this form does not need to be filled out.

If communication occurred seven or more days in advance of the Commission hearing on the item that was the subject of the communication, complete this form and transmit it to the Executive Director within seven days of the communication. If it is reasonable to believe that the completed form will not arrive by U.S. mail at the Commission's main office prior to the commencement of the meeting, other means of delivery should be used, such as facsimile, overnight mail, or personal delivery by the Commissioner to the Executive Director at the meeting prior to the time that the hearing on the matter commences.

If communication occurred within seven days of the hearing, complete this form, provide the information orally on the record of the proceeding and provide the Executive Director with a copy of any written material that was part of the communication.

Lockey, Heather@CNRA

From: Susan Jordan <sjordan@coastaladvocates.com>
Sent: Monday, November 04, 2013 1:09 PM
To: Beland, Janelle@CNRA
Cc: Lockey, Heather@CNRA
Subject: Re: Briefing on Poseidon Desalination Plant
Attachments: Appointments Reserved.docx

Great. Here is our briefing schedule. Those are the times already reserved.

And here is the Link to our Drop Box. I recommend reading the Letters Section and the Fact Sheets Only Section. We will be adding a group sign on letter by Wednesday that will include all the major environmental groups. It will be a much shorter summary of the Appellants Legal Comment Letter.

<https://www.dropbox.com/sh/97p26estcsytiwb/q0R9DwS5GR>

As I said, its not about whether desal plants should be approved, it is about how they should be approved and designed to comport with existing law and state policies. Poseidon's sets the bar so low, it is almost invisible ;-)

Best, Susan

Susan Jordan, Director
California Coastal Protection Network
2920 Ventura Drive
Santa Barbara, CA 93105

Ph: 805-637-3037
Email: sjordan@coastaladvocates.com

"Our lives begin to end the day we become silent about things that matter." - Martin Luther King, Jr.

The information contained in this communication may be confidential, is intended only for the use of the recipient(s) named above, and may be legally privileged. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication, or any of its contents, is strictly prohibited. If you have received this communication in error, please re-send this communication to the sender and delete the original message and any copy of it from your computer system. Thank you.

On Nov 4, 2013, at 9:59 AM, Beland, Janelle@CNRA wrote:

Susan,

I was thinking about you last week, but it was a little crazy around here and I didn't get a chance to ping you. Happy to have a briefing, heather can set us up a time. Probably have to be Thursday or Friday at this point. I have to travel to LA tomorrow/Weds for another meeting.

Talk to you soon.

Janelle Beland
Undersecretary
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814
Telephone: 916-653-5656
janelle.beland@resources.ca.gov

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From: Susan Jordan [<mailto:sjordan@coastaladvocates.com>]
Sent: Monday, November 04, 2013 7:29 AM
To: Beland, Janelle@CNRA
Cc: sjordan@coastaladvocates.org Jordan
Subject: Briefing on Poseidon Desalination Plant

Hi Janelle,

If possible, I would like to set up a time to brief you on the Poseidon Desalination Plant to be heard by the CCC on November 13th.

We have prepared a detailed briefing book which is now available on Drop Box and I will send you the link.

In short, this is not about whether or not there will be desalination plants in CA - there will be. It is about what is the least damaging technology over the long term. As you know, Poseidon hopes to continue the use of once-through cooling intakes that have been phased out under the OTC policy and they are strongly arguing against subsurface intakes which will be the preferred technology under the soon to be released SWRCB Ocean Plan Amendment. Poseidon argued in 2007 against being required to use subsurface intakes in Carlsbad and the Commission allowed them to use the open ocean intake. However, a 2013 article from The New York Times indicates that they have accounted for the possibility they will be required to convert to subsurface intakes in their "financial planning."

I hope that the Resources Agency will carefully consider the ramifications of what Poseidon is attempting to do here and not do anything that will jeopardize the phase out of these damaging open ocean intakes.

Please let me know what might work for you for a briefing.

Best, Susan
Susan Jordan, Director
California Coastal Protection Network
2920 Ventura Drive
Santa Barbara, CA 93105

Ph: 805-637-3037
Email: sjordan@coastaladvocates.com

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Appeal No. A-5-HNB-10-225 (Poseidon Water, Huntington Beach) Appeal by Orange County Coastkeeper, Surfrider Foundation, Residents For Responsible Desalination, and Commissioners Wan and Mirkarimi from decision of City of Huntington Beach granting permit with conditions to Poseidon Water for removal of storage tanks, conduct remediation, and construction and operation of seawater desalination facility within the site of Huntington Beach Generating Station, 21730 Newland Ave., Huntington Beach, Orange County.

Date and time of receipt of communication: November 4, 2013 at 7:29 am

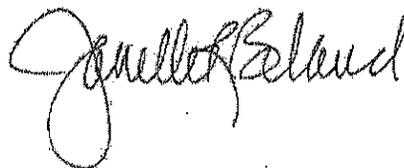
Location of communication: Sacramento, CA

Type of communication (letter, facsimile, etc.): Email

Person(s) initiating communication: Susan Jordan

Detailed substantive description of content of communication: (Attach a copy of the complete text of any written material received.)

Received email from Susan Jordan requesting to set up a briefing on the Poseidon Desalination Plant. In this email she states her objections to the use of OTC infrastructure as proposed by the project and her perspective that the upcoming SWRCB Ocean Plan amendment will identify subsurface intakes as the preferred technology. She also relayed that another Poseidon project was permitted using the open ocean intakes in 2007 and referred me to a 2013 New York Times article.



November 8, 2013

Date

Signature of Commissioner

If the communication was provided at the same time to staff as it was provided to a Commissioner, the communication is not ex parte and this form does not need to be filled out.

If communication occurred seven or more days in advance of the Commission hearing on the item that was the subject of the communication, complete this form and transmit it to the Executive Director within seven days of the communication. If it is reasonable to believe that the completed form will not arrive by U.S. mail at the Commission's main office prior to the commencement of the meeting, other means of delivery should be used, such as facsimile, overnight mail, or personal delivery by the Commissioner to the Executive Director at the meeting prior to the time that the hearing on the matter commences.

If communication occurred within seven days of the hearing, complete this form, provide the information orally on the record of the proceeding and provide the Executive Director with a copy of any written material that was part of the communication.

Lockey, Heather@CNRA

From: Susan Jordan <sjordan@coastaladvocates.com>
Sent: Monday, November 04, 2013 7:29 AM
To: Beland, Janelle@CNRA
Cc: sjordan@coastaladvocates.org Jordan
Subject: Briefing on Poseidon Desalination Plant

Hi Janelle,

If possible, I would like to set up a time to brief you on the Poseidon Desalination Plant to be heard by the CCC on November 13th.

We have prepared a detailed briefing book which is now available on Drop Box and I will send you the link.

In short, this is not about whether or not there will be desalination plants in CA - there will be. It is about what is the least damaging technology over the long term. As you know, Poseidon hopes to continue the use of once-through cooling intakes that have been phased out under the OTC policy and they are strongly arguing against subsurface intakes which will be the preferred technology under the soon to be released SWRCB Ocean Plan Amendment. Poseidon argued in 2007 against being required to use subsurface intakes in Carlsbad and the Commission allowed them to use the open ocean intake. However, a 2013 article from The New York Times indicates that they have accounted for the possibility they will be required to convert to subsurface intakes in their "financial planning."

I hope that the Resources Agency will carefully consider the ramifications of what Poseidon is attempting to do here and not do anything that will jeopardize the phase out of these damaging open ocean intakes.

Please let me know what might work for you for a briefing.

Best, Susan
Susan Jordan, Director
California Coastal Protection Network
2920 Ventura Drive
Santa Barbara, CA 93105

Ph: 805-637-3037
Email: sjordan@coastaladvocates.com

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The New York Times

February 28, 2013

In California, What Price Water?

By FELICITY BARRINGER

CARLSBAD, Calif. — On a calm day, a steady rain just about masks the sound of Pacific Ocean water being drawn into the intake valve from Agua Hedionda Lagoon. Listen hard, and a faint sucking sound emerges from the concrete openings, like a distant straw pulling liquid from a cup.

At the moment, the seawater is being diverted from the ocean to cool an aging natural-gas power plant. But in three years, if all goes as planned, the saltwater pulled in at that entryway will emerge as part of the regional water supply after treatment in what the project's developers call the newest and largest seawater desalination plant in the Western Hemisphere.

Large-scale ocean desalination, a technology that was part of President John F. Kennedy's vision of the future half a century ago, has stubbornly remained futuristic in North America, even as sizable plants have been installed in water-poor regions like the Middle East and Singapore.

The industry's hope is that the \$1 billion Carlsbad plant, whose builders broke ground at the end of the year, will show that desalination is not an energy-sucking, environmentally damaging, expensive white elephant, as its critics contend, but a reliable, affordable technology, a basic item on the menu of water sources the country will need.

Proposals for more than a dozen other seawater desalination plants, including at least two as big as Carlsbad — one at Huntington Beach, 60 miles north of here, and one at Camp Pendleton, the Marine Corps base — are pending along shorelines from the San Francisco Bay Area southward. Several of these are clustered on the midcoast around Monterey and Carmel.

The San Diego County Water Authority has agreed to buy at least 48,000 acre-feet of water from the plant each year for about \$2,000 an acre-foot. An acre-foot equals about 326,000 gallons, roughly enough for two families of four for a year. The authority has made a long-term bet that those costs — now double those of the most readily available alternative — will eventually be competitive. But it still means the authority will pay more than \$3 billion over 30 years for only about 7 percent of the county's water needs.

As Sandra Kerl, the deputy general manager of the authority, said in a recent interview, "There's a lot of eyes on this."

The technology used in the Carlsbad plant, known as reverse osmosis, was developed decades ago. It involves pushing the water through a series of microscopic sieves rolled up into larger cylindrical filters. The energy-intensive process separates pure water from both salt molecules and impurities.

The filters, some of which are made locally, are cheaper and more durable than they were a decade ago, industry accounts say, bringing down the overall price of the plant and its operations.

In the Western United States, where the complexities of water law and heavily subsidized federal and state water projects have complicated the economics of water delivery and hamstrung any widespread development of water markets, the Carlsbad plant offers a peek into a future when water prices reflect the actual cost of procurement and delivery. David Moore, a managing director of Clean Energy Capital, financial advisers to the San Diego County authority, said the water authority had "made the call that over time this water is going to be more affordable than other sources. That was the fundamental risk of the transaction." The price of water the authority now gets from the Metropolitan Water District of Southern California is about \$1,000 an acre-foot.

The bet on this technology was not an obvious one; the recent history of desalination in the United States and Australia has been mixed, at best. Some recently constructed Australian plants are flourishing while others stand idle some of the time. In this country, technological missteps, delays and bankruptcies dogged the first big plant, which finally opened in Tampa in 2007.

"Tampa was a buzz kill for the sector," Mr. Moore said.

So the Carlsbad plant is being watched not just for its performance or its effect on the local marine environment, but for its financial architecture.

Mr. Moore and other financial advisers are trying to make investors and bondholders comfortable with the technology by mimicking the financial approach of a merchant power plant — for instance, substituting a "water purchase agreement" for a "power purchase agreement," to show that Carlsbad's water has a guaranteed market.

The water purchase agreement was signed by the San Diego authority and the plant's developer, Poseidon Resources, of Stamford, Conn., in late November. Poseidon bears the responsibility for completing the plant and operating it; the authority does not pay for any water that is not delivered.

The project's costs are financed by two bond offerings totaling \$734 million and a \$189 million equity investment. In addition, the water authority is committing about \$80 million to other capital needs. All of these arrangements have interlocking guarantees and risks, with the costs of constructing the plant borne by the project developers and the water authority responsible for constructing a 10-mile pipeline to send the water on its way to San Diego's taps.

The public water authority did not want its ratepayers to be responsible for paying for water that was never delivered; it will pay only for water that meets its standards and goes into its reservoirs. That said, when the water is flowing in 2016 the county must pay as much as \$113 million annually, which could rise over time.

Late last year, this financial picture prompted Fitch Ratings to give the project's bond issue a BBB-rating, the lowest for investment grade debt. For Fitch executives, familiar with the unexpected obstacles in deployment of desalination technology, the water purchase agreement was a critical factor leading to a rating above junk level.

The cost comparison remains ugly for desalination right now, but the water agency has calculated that, given the history of annual rate increases from the Metropolitan Water District of Southern California, the desalinated water could be cheaper than the current supply by 2024.

Then there is the question of reliability. Water supplied by the Southern California water district comes from Northern California transfers and Colorado River diversions. Climate change is likely to cut into both sources over time. And San Diego and the Southern California district have a history of antagonism; the Carlsbad plant, which would supply as much as 7 percent of the region's needs, is the most recent of several San Diego efforts at diversification.

But water policy experts and local environmental activists are skeptical about the value of desalination compared with conservation and reuse. They will be watching the plant from a very different perspective.

Heather Cooley, a senior research associate with the Pacific Research Institute, an Oakland-based nonprofit group specializing in water supply questions, said that even if the Carlsbad plant worked well, a new rush to desalination was hardly certain.

It depended, she said, on whether "water demand continues to grow, as was likely in the past, or whether, as we've seen in the past 15 years, it stays the same or even declines, based on efficiencies and conservation and the structure of the economy."

She added that by promising to buy at least 48 million gallons a day from the plant, the county water authority has less incentive to step up its push for water conservation, or to invest further in water reuse.

The environmental group the Surfrider Foundation, which has fought the Carlsbad plant at every turn, expects the plant to be an object lesson in how not to guard against water shortages. Among other things, the foundation emphasizes the energy needs of the plant, which will consume 5,000 kilowatt-hours of electricity to produce an acre-foot of water.

As electricity costs go up over time, the county's water bill — already estimated to be \$5 to \$7 a month higher for each customer by 2016, thanks to Carlsbad — will rise in tandem.

But authority officials noted that water delivered from the Southern California district also required energy, and its cost, too, would go up in such circumstances.

The costs have been one focus of opponents.

"If the county had taken a holistic, practical approach to water management and water supply needs, it would never have done something so costly," said Belinda Smith, a member of Surfrider.

She and her colleagues see the surface water intake valve as the plant's Achilles' heel. The current state permit covering the intake's operations expires when the Encina natural gas power plant is no longer using cooling water. If the new permit required expensive changes — if, for instance, the entire intake had to be moved below the surface — the cost to ratepayers, and particularly to Poseidon, could increase significantly.

The county and the developers said this eventuality was covered in the financial planning.

But for the moment, Poseidon officials are energized by the prospect of beginning construction, after a decade of delays. Peter M. MacLaggan, a senior vice president at Poseidon, referred to the experience of the company's desalination technology partners when he said, "We're at desal 3.0 or 4.0 here at Carlsbad."

He added that the need for new water supplies could provide a ready market for the technology, if it is effective. "Water in California has been cheap and plentiful. And that's no longer the case," he said. In San Diego, he said, "We're facing it. The rest of California is facing it to different degrees. We're all challenged in finding new water supplies."

Luster, Tom@Coastal

From: Susan Jordan <sjordan@coastaladvocates.com>
Sent: Friday, November 08, 2013 5:08 PM
To: Luster, Tom@Coastal
Cc: Dettmer, Alison@Coastal
Subject: Re: Technical Question
Attachments: CPCFA Briefer Final.pdf

Then, here is a memo that I provided to Commissioner Kinsey after our ex parte.

It relates to the financing on Carlsbad through the CPCFA which relied on the WPA which included a section relevant to the installation of a new intake system per an anticipated change in law. This memo was prepared before the CPCFA voted and the WPA was signed.

Susan Jordan, Director
California Coastal Protection Network
2920 Ventura Drive
Santa Barbara, CA 93105

Ph: 805-637-3037
Email: sjordan@coastaladvocates.com

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On Nov 8, 2013, at 3:56 PM, Luster, Tom@Coastal wrote:

Hi Susan,

I believe the answer is yes – what one Commissioner gets, all should get (as well as staff...).

Tom L.

From: Susan Jordan [<mailto:sjordan@coastaladvocates.com>]
Sent: Friday, November 08, 2013 2:39 PM
To: Dettmer, Alison@Coastal; Luster, Tom@Coastal
Subject: Technical Question

If a Commissioner accepts an offer to see a memo I prepared on the CPCFA financing for Carlsbad, do I need to submit that to you and all the other Commissioners as well? Just want to make sure I follow the rules.

Susan Jordan, Director
California Coastal Protection Network
2920 Ventura Drive
Santa Barbara, CA 93105

Ph: 805-637-3037
Email: sjordan@coastaladvocates.com

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CALIFORNIA COASTAL PROTECTION NETWORK
2820 Ventura Drive, Santa Barbara, CA 93105 • 805-637-3037
WWW.COASTALADVOCATES.COM

California Pollution Control Financing Authority: Tax Exempt Private Activity Bonds (PABS) Poseidon Resources – Carlsbad

Prepared December 2012

Background:

In October 2011, The CPCFA passed an initial resolution to grant Poseidon Resources Channelside GP an allocation for \$780M in Tax Exempt Private Activity Bonds to finance the construction of a **private, for-profit** reverse-osmosis desalination plant and associated water delivery pipelines.

In January 2010, the California Debt Limit Allocation Committee approved an allocation of \$530M in Tax Exempt Private Activity Bonds for the same Poseidon Resources Carlsbad project. Poseidon was unable to deliver on its contractual requirements and the CDLAC allocation expired.

This increased allocation request represents a **47% increase** in project costs in the space of 22 months. No information has been provided for public review that documents why these costs have increased so substantially in such a short period of time. (It should be noted that Poseidon initially pegged the costs for the project at \$270 million.

If one considers the additional subsidies that Poseidon is requesting (\$350 million initially requested from the Metropolitan Water District (MWD) – now requested of the San Diego County Water Authority (SDCWA), \$280 million from the Local Water Supply Development Plan - recently found by the SDCWA to be ineligible, it becomes clear that this project is close to the \$1 billion dollar range with investor equity pegged at \$135 million. Given that the bond allocation request allows for repayment of certain prior 'project expenses', it is unclear how much or what percentage of investor equity is dedicated to the project.

Concerns:

1. **If constructed, the Poseidon Carlsbad ocean desalination facility would be the largest ocean desalination facility in the Western hemisphere and the first privately-owned and operated large-scale ocean desalination facility on the California coast. As such, it represents a precedent setting change in California water supply strategy.** California must give careful consideration when facilitating private for-profit companies that seek to utilize the ocean, a public trust resource, for private investor profit. If the project is a viable one that will produce investor profit, it is unclear why the project should receive substantial public subsidies and the advantages of a tax-exempt bond allocation.

2. **Because Poseidon Resources is a privately held company, there has been a lack of transparency and disclosure regarding the structure of the company, its real assets, and its controlling investors.** Attempts by other agencies and the public to get a complete picture of who Poseidon Water LLC (the parent company) is and what its real assets are has been stymied. Claims that trade secrets prevent Poseidon from revealing these important financial details have been asserted in various proceedings. In terms of the request for this \$780 million allocation, Poseidon has once again requested that the financing data for its application be kept confidential (Per email from Brian Dugan of Poseidon Resources included in a Public Records Act request made to CPCFA.)
3. **The CPCFA policy of relying on the bond rating agencies to do due diligence is insufficient assurance to the public that ratepayers will not be left on the hook should the project fail.** The CPCFA policy of not doing its own due diligence on the financial viability of project proponents is based on its intention to avoid state liability in the event that the proponents default on the bonds. While this may make legal sense, it is a risky decision when deciding to approve a project by a private, for-profit company that could ultimately control between 10 – 20% of San Diego and Orange County’s drinking water supply if both of their proposed ocean desalination projects are approved. (Poseidon can apply to increase its throughput in the future for both Carlsbad and its other proposed ocean desalination facility in Huntington Beach.)
4. **The CPCFA Staff Report fails to mention that Poseidon Resources has no prior experience in successfully building and operating an ocean desalination facility and its only prior attempt to do so in Tampa Bay resulted in bankruptcies, lawsuits and Poseidon being bought out in order for the municipal water agency to try to bring the project on-line.** According to Tom Pankratz, a Houston-based consultant on desalination plants, Tampa Bay gave ocean desalination in the United States a black eye. He attributed the failure, in part, to “Poseidon’s very aggressive contracting method that relied on the lowest price regardless of supplier experience.” While numerous articles have been written about the problems with Tampa Bay – many of which were the result of Poseidon’s original design, an overview is provided in the Pacific Institute’s 2006 report: Desalination, With a Grain of Salt: A California Perspective. As recently as 2009, the Tampa Bay Times reported that the \$158M plant, which opened five years late and cost \$40 million more than expected, remained unable to supply the full 25 MGD that was originally promised by.....Poseidon.
5. **CPCFA has indicated that denial of an allocation is rare, that policy issues are generally left to regulatory agencies, and that the defining criteria in most cases is the risk of default. In terms of the latter, there are a number of significant issues that could pose significant roadblocks for the Carlsbad project that are not mentioned in the CPCFA staff report. (In addition, Attachment B that was included in the CPCFA staff report was carried over from the CDLAC hearing is out of date and, as a result, contains inaccurate information regarding the project.):**
 - a. **Finalization of the State Water Resources Control Board (SWRCB) Policy on Once Through Cooling (OTC) and Ocean Desalination:** The Carlsbad project is co-located with the Encina Power Station is reliant on that power plant’s intake and discharge of ocean water to make their project financially viable. Based on the Once-Through Cooling Policy adopted by the SWRCB in 2010, that plant is scheduled to decommission its intake and discharge by 2017. Poseidon was well

aware of the OTC policy and the likelihood that it could be applied to ocean desalination facilities that co-located with existing coastal power plants and opted to proceed at its own risk. This has the potential to prevent Poseidon from operating beyond 2017 and thus not allow it to repay its bonds.

- b. **Lack of signed contract with the San Diego County Water Authority for purchase of Poseidon’s water:** Attachment B entitled Desalination Technology Review (1-26-10) prepared for CDLAC and included in the CPCFA staff report indicates that Poseidon has 30-year contracts (and two potential 30 year contract extensions) in place with nine water agencies. In fact, as of this time, Poseidon does not have a contract for purchase of its water. The prior contracts became infeasible when Poseidon lost the Metropolitan Water District subsidies. Poseidon is currently in negotiations with the San Diego County Water Authority for purchase of the desalinated water but that agreement has not been finalized or vetted for its relative strength or weakness.
 - c. **Likely changes to Poseidon’s current permits given the requirements of the SWRCB’s OTC policy:** Under current average conditions, the Encina Power Station does not meet the intake needs of the proposed desalination plant most of the time. In order to obtain the seawater it needs, the Carlsbad Desalination Plant will require more water that is currently available via Encina. This situation will only intensify as the Encina follows through on its plan (submitted to the California Energy Commission) to decommission all five units that currently use OTC. This situation will require changes to Poseidon’s existing NPDES permit and trigger changes to its California Coastal Commission permit.
 - d. **Outstanding litigation challenging Poseidon’s existing NPDES permit:** CPCFA staff is correct in stating that the San Diego Superior Court upheld the Regional Board’s May 13, 2009 approval of a mitigation plan for the project. This permit is being challenged in appellate court. Contrary to what is stated in Attachment B, Poseidon will not simply be allowed to take over Encina’s intakes. Further, the pending finalization at the State Water Board of the OTC policy as it relates to ocean desalination facilities could render this option moot.
6. **In its application to the CPCFA, Poseidon submitted two different charts detailing where the \$780 million in Bond Proceeds will be allocated adding further uncertainty on how the budget for this project will break down.** It is unknown how this varies from what Poseidon submitted in its February 2011 PowerPoint presentation to the CPCFA since that chart collapsed certain categories. The variations in Poseidon’s 2011 application (one document) to the CPCFA are cited below:

	<u>Cost of the Project</u> <u>Page 10</u>	<u>Attachment D</u> <u>Estimated Budget</u>
•Site Preparation	\$25M (Bond Proceeds)	\$5M (Bond Proceeds)
•Construction of New Building(s)	\$40M (Bond Proceeds)	\$30M(Bond Proceeds)
•Utilities Connection	\$25M (Bond Proceeds)	\$18.5M (Bond Proceeds)

•Engineering Architecture	\$63.5M (Bond Proceeds)	\$100M (Bond Proceeds)
•Legal Permit	\$65M (All Other Sources)	\$60M (All Other Sources)
• Other (Reserves, Wking Cap and Enviro Mitigation)	\$62M (Bond Proceeds) \$24M (All Other Sources)	\$62M (Bond Proceeds) \$31M (All Other Sources)

CORRESPONDENCE

- SUPPORT



POSEIDON WATER

November 8, 2013

Agenda Items W19a & 20a

VIA E-MAIL, HAND DELIVERY, AND FEDEX

Chair Shallenberger and Honorable Commissioners
California Coastal Commission
45 Fremont, Suite 2000
San Francisco, CA 94105-2219

Re: Huntington Beach Desalination Project: Appeal No. A-5-HNB-10-225 (Agenda Item W19a) and Application No. E-06-007 (Agenda Item W20a)

Dear Chair Shallenberger and Honorable Commissioners:

We are writing in response to the Staff Report regarding Poseidon Water's ("Poseidon") proposed Huntington Beach Desalination Project (the "Project"). At its November 13, 2013 meeting, the Coastal Commission (the "Commission") is scheduled to consider an appeal of the City of Huntington Beach's approval of a coastal development permit ("CDP") for those portions of the proposed Project within the City's certified Local Coastal Program ("LCP") jurisdiction, as well as Poseidon's application for a CDP for those portions of the proposed Project within the Commission's retained jurisdiction. The proposed Project consists of the construction and operation of a 50 million gallon per day ("MGD") seawater desalination facility as well as water conveyance pipelines and other associated development. The Project would create a local drought-proof supply of domestic water and reduce Orange County's dependence on imported water.

While Poseidon appreciates Staff's efforts over the past seven years processing Poseidon's CDP application, we strongly disagree with Staff's recommendation that the Commission approve the Project as conditioned in the Staff Report. **Though masked as an approval recommendation, the Staff Report is an effective denial of Poseidon's proposed Project.** By imposing a series of unnecessary Special Conditions, including a requirement that the proposed Project be redesigned entirely, Staff essentially recommends approval of a different project than what is before the Commission. While the proposed Project has been thoroughly vetted and approved by independent state, regional, and local agencies over a period of many years, Staff's alternative project has not been approved by any agency. Approving Staff's alternative project would require Poseidon to restart the entitlement and environmental review processes, prepare dozens of new studies, and seek new approvals from those agencies with jurisdiction over the Project, including potentially obtaining multiple amendments to any CDP approved by the Commission. **This would effectively terminate this very important Project, a vital component of Orange County's future water supply.**

Staff's approach is unnecessary. One of the Staff Report's primary defects is its recommendation, through the imposition of numerous and internally inconsistent Special Conditions, that the redesigned Project obtain new discretionary approvals from permitting agencies, which itself would require reanalysis of the Project's potential impacts. The proposed Project's potential environmental impacts have already been thoroughly assessed and feasible mitigation measures imposed by permitting agencies. In addition, the many expert technical reports and analyses submitted

These materials have been provided to the Coastal Commission Staff

Agenda Items W19a & 20a

to Staff over the past seven years demonstrate that the subsurface infiltration gallery proposed by Staff would be significantly more environmentally impactful than the proposed Project's use of an existing intake system. The proposed Project, as submitted by Poseidon, will minimize impacts to the marine environment, result in less than significant impacts to wetlands and environmentally sensitive habitat areas ("ESHA"), be designed and constructed to withstand worst-case scenario potential flooding, tsunami, and seismic risks, and is fully consistent with all applicable Coastal Act and LCP policies. In addition, the proposed Project's design takes into account a projected sea level rise of two feet by 2050, so is consistent with Staff's recently published draft guidance for incorporating sea level rise hazards and projections into LCP and CDP review.

In making its flawed recommendation, the Staff Report unreasonably: (i) fails to consider and/or summarily dismisses, without sound basis, significant information that Poseidon has submitted to Staff over the past seven years, which other agencies that have considered and approved the proposed Project have determined to be credible and relied upon; and (ii) misstates facts and makes inaccurate statements regarding the proposed Project. The Staff Report essentially ignores the comprehensive Subsequent Environmental Impact Report ("SEIR") certified by the City of Huntington Beach and the many technical reports regarding the proposed Project prepared by leading experts in the field, all of which found that the proposed Project will not have a significant, negative impact on the marine environment, wetlands, or ESHA.

As such, the Commission can approve the proposed Project as submitted by Poseidon. We acknowledge that the Commission is engaging in a site-specific and independent analysis of the proposed Project, and request that the Commission approve the proposed Project with the Special Conditions attached hereto as **Exhibit A**. Poseidon's proposed Special Conditions ensure the proposed Project is fully consistent with the Coastal Act and LCP. Given that the proposed Project is similar to and less impactful than the Carlsbad Desalination Project,¹ which the Commission approved and which has withstood numerous legal challenges, Poseidon's proposed Special Conditions are based in part on those imposed on the Carlsbad project, with modifications and additional conditions to address issues and circumstances unique to the proposed Project and its site.

Overall, the Staff Report bases its rejection of the proposed Project and recommendation that the Commission approve Staff's alternative project on a few key issues, described briefly below and in detail in Sections II to IV of this letter:

- **The Subsurface Infiltration Gallery Required By Staff's Alternative Project Is More Environmentally Impactful Than The Proposed Project's Use Of An Existing Intake.** Ignoring substantial evidence in the record that the use of an existing open water intake is the environmentally superior method of obtaining source water for the Project, the Staff Report seeks to require Poseidon to construct a far more environmentally impactful intake structure:

¹ For example, when Poseidon operates the existing Huntington Beach Generating Station's seawater intake system independently, the proposed Project's intake would have an average flow rate of 126.7 MGD, far less than the average flow rate of 304 MGD approved by the Commission for the Carlsbad Desalination Project.

These materials have been provided to the Coastal Commission Staff

Agenda Items W19a & 20a

a subsurface infiltration gallery impacting 64 acres of coastal habitat on the seafloor and beachfront and requiring hundreds of thousands of cubic yards of excavation.²

That excavation would impact many types of benthic communities within the construction footprint, including species of polychaete annelids, hermit crabs, and Pacific sand dollar. In addition, these habitats support adult, juvenile and larval stage demersal fishes, including the speckled sanddab, northern anchovy, queenfish, sand bass, white croaker, honeyhead turbot, and California halibut. Furthermore, the water column surrounding the construction area supports numerous species of invertebrates, fish and marine mammals that would be adversely affected by noise and other construction-related effects. Removal of 64 acres of seafloor and beachfront and construction of an infiltration gallery will require dredging, drilling, anchoring, and tunneling activities that would result in direct removal, burial, crushing, breaking, cutting, unearthing and displacing of organisms on the sea floor. Turbidity resulting from dredging and other construction activities would clog feeding and respiration structures of organisms that occupy the water column well beyond the directly affected area.

Construction would have recreational impacts to commercial and recreational fishing by precluding fishing and potentially affecting fish behavior and biology. If sheet piles and dewatering are used for construction, an area of 64 acres of the seafloor and beachfront would be unavailable for recreational or commercial fishing. Both sheet pile and dredging methods of construction could have adverse effects on the shore break, affecting recreational activities, including surfing, which is a treasured recreational asset in Huntington Beach. Further, construction would require substantial pumping facility(ies), including associated acoustical and visual shielding, service road(s), and security fencing on the shoreline, which would restrict public access to the beach, resulting in a significant impact on the beneficial use of the shoreline by the public. During operations, the Project would require regular maintenance including dredging every 1 to 3 years, which would have ongoing and similar impacts to those described above. Moreover, once in operation, the energy and indirect greenhouse gas impacts associated with conveyance of seawater from the infiltration gallery to the desalination plant will be approximately double those from collecting seawater from the Huntington Beach Generating Station's existing intake system.

In contrast, Poseidon's use of the existing intake would cause a *de minimis* estimated impingement loss of just 0.78 pounds per day, and based on a fairly constant pumping rate for the existing intake, larval entrainment losses are projected to affect only a small fraction of the larvae (0.02-0.28%) of the source water populations. In addition, Poseidon's use of the existing

² In the Special Conditions recommended by Staff, Staff proposes an arbitrary limitation of 30 acres of seafloor for the installation of a subsurface infiltration gallery, which conflicts with the Santa Ana Regional Water Quality Control Board's finding that a subsurface infiltration gallery would impact approximately 64 acres of benthic habitat and beachfront. Regional Board NPDES Order No. R8-2012-0007 (NPDES CA 80000403) at pp. F-27. The record supports that the construction of any subsurface infiltration gallery sized sufficiently to provide an average flow rate of 126.7 MGD would consist of 33 intake filtration bed cells and 33 connector pipelines. The intake filtration bed gallery would disturb about 30 acres of sea floor, and the connector pipelines would disturb an additional 30 acres of sea floor, resulting in an estimated seafloor impact of 60 acres. There would also be a loss of 3.6 acres associated with onshore components for a total loss of 63.6 acres. Staff suggests that Poseidon's design overstates the area of impact because a single connector pipeline could be used instead of 33. Staff has provided no evidentiary explanation of the feasibility or constructability of that design.

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intake would not result in construction on the seafloor and beachfront, nor any permanent beachfront structures, would not result in continued visual and recreational impacts along the beachfront, and would require less energy. In comparison, the infiltration gallery's impact to 64 acres of coastal habitat on the seafloor and beachfront would be significantly greater than the use of the existing intake.

- **The Subsurface Infiltration Gallery Required By Staff's Alternative Project Is Infeasible, Conflicts With The Coastal Act, And Cannot Be Legally Imposed By The Commission.**

The SEIR, technical reports and legal findings from permits issued for the Project, site-specific geotechnical data and analysis, and other evidence in the record demonstrate that a subsurface infiltration gallery for the Project is infeasible (under the Coastal Act definition of that term) and conflicts with applicable Coastal Act policies. Notably, the shallow sediments in the coastal margin offshore Huntington Beach are not beach sand, but are fine-grained "muddy sand" of low permeability. The muddy character of the shallow sea sediments would rapidly clog up the infiltration gallery and require dredging every 1 to 3 years, resulting in an ongoing impact to the benthic environment. Moreover, the cost of an infiltration gallery for the average 126.7 MGD intake required for the Project is estimated to be at least \$270 million.³ The cost for this type of intake system would significantly increase the construction cost of the Project. Because an infiltration gallery of the size and scale required for the Project has never been attempted worldwide, economical or cost-effective financing cannot be obtained.

In addition, the Santa Ana Regional Water Quality Control Board ("Regional Board"), the agency with primary legal authority over matters related to water quality, found that an infiltration gallery would be "technologically infeasible and/or environmentally inferior" and that the proposed Project's use of the existing intake would comply with Section 13142.5(b) of the Water Code. Under Section 30412(b) of the Coastal Act, the Commission is prohibited from taking any action in conflict with the Regional Board's determination. Put simply, the Commission cannot legally require Poseidon to construct an infiltration gallery as it would directly contradict the Regional Board's independent findings that an infiltration gallery is environmentally inferior to Poseidon's use of the existing intake.

- **Staff's Proposed Redesign Of The Project Is Not Necessary Because The Project Will Not Impact Wetlands And ESHA.** The proposed Project complies with all applicable Coastal Act and LCP policies governing development adjacent to wetlands and ESHA. However, the Staff Report raises two wetlands and ESHA issues. First, Staff erroneously claims that the proposed Project does not comply with the LCP's requirement that new development be set back 100 feet from all wetland areas. Staff's alternative project would require Poseidon to redesign the Project to locate its structures farther away from an alleged wetland in a degraded area adjacent to the eastern portion of the Project Site. Staff's requirement is unnecessary and unwarranted. The proposed Project complies with the LCP's minimum wetland setback policy, which allows less than 100-foot buffers if wetlands are protected. No structures are located within 100 feet of any purported wetlands and the Project's design and an existing berm ensure that no adverse

³ Water Globe Consulting, 2011, Evaluation of Alternative Desalination Plant Subsurface Intake Technologies, at p. 14. This cost is in 2011 dollars, so based on inflation and other factors, the cost would likely be greater.

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impacts to wetlands will occur. Although limited components of the proposed Project (portions of an access road and a few parking spaces) would be located within 100 feet of an alleged wetland in a degraded area east of the Project Site, all Project components are separated from that area by an existing 14-foot high, 60-foot wide containment berm, which assures that none of the development on the site will have an impact on this adjacent area. With the physical barrier provided by the existing containment berm, the proposed Project's buffer zone is consistent with LCP Policy C 7.1.4 and no redesign is required.

Second, Staff asserts that before the current property owner conducted routine vegetation removal on its property, the Project Site itself contained approximately 3.5 acres of wetlands. Staff's alternative project would require Poseidon to develop a mitigation plan to create and/or restore at least 14 acres of coastal wetland habitat. The Jurisdictional Determination prepared for the Project's SEIR confirms that wetlands did not exist on the Project Site (an industrial site) at the time of Staff's evaluation. Staff's assertion that there were wetlands on the Project Site is not supported by the evidence in the record. Accordingly, there is no nexus to condition the proposed Project to create and/or restore new coastal wetland habitat.

In sum, we respectfully request that the Commission reject Staff's recommendation, find that the proposed Project, as submitted and conditioned by Poseidon, is consistent with the Coastal Act and LCP, and approve the Project as submitted so that Poseidon can implement this critically important facility.

I. THE COMMISSION SHOULD APPROVE THE PROJECT WITH SPECIAL CONDITIONS IN LINE WITH THOSE IMPOSED ON THE CARLSBAD DESALINATION PROJECT

As noted above, to allow the Commission to approve the Project at its November meeting, Poseidon has prepared its own set of proposed Special Conditions, attached hereto as **Exhibit A**. As a starting point, Poseidon's proposed Special Conditions are based on the Special Conditions imposed by the Commission on the Carlsbad Desalination Project. In addition, Poseidon's proposed Special Conditions include several additional conditions that differ from those for the Carlsbad project to reflect issues and circumstances unique to the proposed Project and its site. These Special Conditions reflect issues such as structural stability, tsunami and flooding risks, among others. Despite our concerns with the Staff Report and its conclusions, Poseidon is proposing the adoption of several of Staff's proposed Special Conditions that relate to these issues, either in whole or with some modifications.

Poseidon's Special Conditions also provide necessary conditions in a variety of non-controversial areas in the exact same matter they were provided for the Carlsbad project, including Poseidon's liability for certain Commission costs and attorneys' fees, and imposition of a lease and deed restriction to restrict future use of the property, among others.⁴

⁴ One notable exception is that with respect to the Standard Conditions, Poseidon is requesting a three-year period to commence development, in light of the complexity of the Project and the time it will take to finalize plans and complete financing.

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In addition, given the differing views on marine life mitigation and climate change issues discussed in the Staff Report, Poseidon is proposing Special Conditions based on those imposed on the Carlsbad project, which require Poseidon to submit a Marine Life Mitigation Plan and Energy Minimization and Greenhouse Gas Reduction Plan (“GHG Plan”) for the Commission to consider at a future hearing.⁵ If the Commission chooses to approve the permit as proposed by Poseidon then these special conditions will provide the Commission with additional time to devote to analyzing these important issues and the differing perspectives on them.

However, many of Staff’s proposed Special Conditions are unnecessary and/or unwarranted. For instance, certain Staff Special Conditions would not be necessary should the Project be approved as submitted by Poseidon, including:

- Staff Special Condition 2 is not necessary because (1) the Commission would no longer need a reconfigured site plan to be approved by the City of Huntington Beach; (2) Poseidon is not developing any pipelines in the coastal zone in the City of Costa Mesa; and (3) Poseidon has provided all known agreements, easements or other forms of proof of legal interest demonstrating Poseidon’s ability to use the relevant property(ies) within the coastal zone for construction and operations of the proposed Project.
- Staff Special Condition 5 (with the exception of provisions governing lighting and windows) is not necessary because the Commission would not be requiring revised facility plans for the proposed Project.
- Staff Special Condition 9 is not necessary because the Project Site did not previously contain wetlands, so there is no nexus to condition the proposed Project to require wetland restoration.
- Staff Special Condition 16 is not necessary because the proposed Project is not required to be designed to be elevated above, and protected from, a 500-year flood event. The proposed Project is not a “critical facility.”⁶ In any event, pursuant to Poseidon’s proposed Special Condition 16, the proposed Project will be designed to resist without collapse or structural damage the forces resulting from flooding from the 500-year flood event.
- Staff Special Condition 19 is not necessary because the City of Huntington Beach has not identified the Project as a critical City facility. The desalination plant, including its water storage tank, will be privately owned when constructed.

⁵ Staff’s recommendation to modify Poseidon’s GHG Plan to require Poseidon to offset the Project’s gross indirect GHG emissions violates the Coastal Act by attempting to establish or modify an emission standard or air pollution control program. Section 30414(a) of the Coastal Act expressly prohibits the Commission from establishing such a program. In light of those limitations, the Commission may only ensure that new development shall “[b]e consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development,” and “minimize energy consumption and vehicle miles traveled.” Public Resources Code § 30253(c) – (d).

⁶ Staff incorrectly states that the aboveground product water storage tank to be constructed as part of the Project will be turned over to the City for use as a reservoir in the City’s water system. Rather, that tank will be owned and operated by Poseidon to store potable water before it is released to the product water transmission pipelines.

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In addition, other Staff Special Conditions would not be necessary because they are either duplicative of technical data and reports submitted by Poseidon, or are in excess of Coastal Act standards, including:

- Staff Special Condition 10 is not necessary because Poseidon has already provided data and analysis to the Commission concerning subsurface faults, liquefaction, lateral spread and dewatering.
- Staff Special Condition 11 and 12 are not necessary because they establish an arbitrary sound level at the boundary of an area that may not even support sensitive avian species, and require an intricate program of surveying and monitoring, only to default to a standard of prohibiting “any development that would disturb sensitive species or habitat,” an arbitrary standard open to subjective interpretation. Poseidon has proposed a new Special Condition 10 to replace Staff’s proposed conditions based on past actions taken by the Commission, and which will sufficiently protect sensitive species from potential impacts of construction noise and vibration. The main differences are that Poseidon’s proposed condition, which is based on past actions taken by the Commission, uses a 65 dBA standard rather than a 60 dBA standard, and is triggered with the discovery of any active nesting site of a special status species within 500 feet of the Project Site.⁷
- Staff Special Condition 14, which would require removal of Project structures or portions thereof should “an appropriate government agency” determine that such structures are not to be occupied or used due to “any coastal hazards,” exceeds Coastal Act standards and thus is not necessary. Neither the Coastal Act nor the LCP require the Commission to revoke issued CDPs if the Executive Director determines in the future that a particular site could become “threatened” by coastal hazards. Staff’s proposed condition gives the Commission and Executive Director the discretion to revoke the CDP based on speculative, future threats, and on standards that exist nowhere in the Coastal Act Regulations. The Commission’s authority and grounds to revoke a CDP are set forth clearly in the Coastal Act Regulations,⁸ and should not be expanded through an onerous permit condition which may be prone to subjective interpretation.
- Staff Special Condition 17 is not necessary because Poseidon has already provided the Commission with a Seismic, Tsunami and Flood Design Mitigation and Emergency Response Plan that fully addresses potential risks at the Project Site from seismic, tsunami, and flood risks, and provides compliance measures to ensure risks are minimized consistent with the requirements of the Coastal Act. These compliance measures are included as one of the Special Conditions proposed by Poseidon.

⁷ Staff claims the 60 dBA standard is based on conditions recommended on other projects by the California Department of Fish and Wildlife (“CDFW”) and the U.S. Fish and Wildlife Service (“USFWS”). To that end, we also note that the SEIR already includes a mitigation measure to protect potential construction impacts to nesting savannah sparrows. Neither CDFW, nor USFWS, the State and Federal regulatory agencies with primary oversight of listed and sensitive species, provided any comments or objections to the SEIR mitigation measure during the CEQA process.

⁸ Cal. Code Regs., tit. 14, §§ 13104 – 13108.

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- Staff Special Condition 21 is not necessary because the Traffic Management Plan required by the City of Huntington Beach (SEIR Mitigation Measure CON-34) will ensure that the Project's construction traffic will have a less than significant impact, and therefore that public access to the shoreline will not be impaired.

Prior to the Commission's November meeting, Poseidon will be providing the Commission with a further detailed response to the Staff Report which (i) responds to the many misstatements and inaccuracies set forth in the Staff Report, including supporting technical reports from Poseidon's consultants which also provide evidentiary and scientific support to many of the responses in this letter, (ii) provides a detailed explanation of the differences between Staff's proposed Special Conditions and Poseidon's recommended Special Conditions; (iii) provides a substitute Motion and Resolution to allow the Commission to approve the proposed Project as submitted by Poseidon, and (iv) includes substitute findings to replace those in the Staff Report, and which demonstrate that the proposed Project is consistent with all applicable Coastal Act and LCP policies. However, the remainder of this letter addresses several of the key issues raised in the Staff Report and Poseidon's response to them.

II. THE PROJECT'S USE OF THE EXISTING INTAKE AND OUTFALL SYSTEM WILL RESULT IN MINIMAL IMPACTS TO THE MARINE ENVIRONMENT

To obtain seawater to convert into potable drinking water, the proposed Project would use the adjacent AES Huntington Beach Generating Station's ("HBGS") existing open water intake and outfall system. As long as HBGS continues to use the intake for its once-through cooling water system, the proposed Project will use HBGS' cooling water discharge to provide source water (the "co-located scenario"). When HBGS ceases operations of its once-through cooling water system, either temporarily or when that system is retired, the Project would operate the existing intake independently to provide source water (the "stand-alone scenario"). Under either scenario, and in order to protect the marine environment, approximately 50 MGD of concentrated seawater would reenter the Pacific Ocean via the existing HBGS discharge pipe after blending with additional seawater for dilution.

The SEIR concluded that the proposed Project's use of the existing intake and outfall system would not result in any significant impacts to the marine environment. In addition, the Regional Board issued a NPDES permit to Poseidon that determined the proposed Project's use of the existing intake system would utilize the best available site, design, technology and mitigation measures feasible to minimize the intake and mortality of marine life, consistent with the requirements of Water Code section 13142.5(b). The Regional Board also confirmed that the Project's discharge through the existing outfall system complies with the California Ocean Plan and all state and federal receiving water quality requirements.

A. The Proposed Project Minimizes Impingement And Entrainment Impacts

The proposed Project will have insignificant impingement impacts under both the co-located and stand-alone scenarios. Under the co-located scenario, neither the intake volume nor the velocity would be increased, and so existing impingement losses from HBGS' operations would not increase. Under the stand-alone scenario, **Poseidon's use of the intake would cause an estimated impingement loss of just 0.78 pounds per day.** To put this in context, one brown pelican eats 4

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pounds of fish per day. The proposed Project's use of the intake during the stand-alone scenario at the Project's average flow rate of 126.7 MGD will result in a **92% reduction in impingement compared to the HBGS' impingement losses**. At the time of the hearing on the Carlsbad Desalination Project, which produces the same volume of desalinated water as the proposed Project, the Commission determined that project's even greater level of impingement was *de minimis* and insignificant.

The proposed Project also will have insignificant entrainment impacts under both the co-located and stand-alone scenarios. The most frequently entrained species in the existing intake structure are very abundant both in the local area as well as the Southern California Bight, and therefore actual ecological effects due to Project-related entrainment are insignificant and will have no effect on the ability of the species to sustain their populations. Based on a fairly constant intake pumping rate with an annual average of approximately 126.7 MGD, larval entrainment losses due to the long-term stand-alone operation of the Project are **projected to affect only a small fraction of the larvae (0.02-0.28%) of the source water populations**. Further, no state or federal threatened or endangered species are expected to be impacted by the Project, and the intake structure is not within or near an Area of Special Biological Significance or Marine Life Protection Area.

Staff inaccurately overestimates the proposed Project's expected impingement and entrainment impacts. With respect to impingement, Staff claims that data regarding HBGS' use of the intake shows higher impingement rates than described by Poseidon. Staff misconstrues the record. The data presented in the Staff Report combine results from monthly impingement sampling during normal HBGS operations with sampling during five HBGS heat treatments performed in 2011, when impingement is materially greater. As such, comparing this data to the proposed Project's estimated impingement losses is inappropriate because heat treatments will not occur during operation of the proposed Project.

With respect to entrainment, Staff notes that use of the intake would result in annual entrainment of about 80 million larvae of 11 different fish and invertebrate species (out of a total source water population of 115 billion larvae), including several with commercial or recreational value, such as California halibut. Staff overestimates the impact. For instance, the entrainment study used for the proposed Project, which followed generally accepted protocols, estimates the annual entrainment of 1.26 million halibut larvae. A typical 5-year old halibut releases approximately 300,000 eggs each time it spawns.⁹ Based on the number of spawnings per year, **the entrainment estimate for California halibut likely represents much less than the total annual output from a single female halibut**.

Substantial evidence in the record shows that the proposed Project's use of the existing intake will minimize both impingement and entrainment impacts.

⁹ See California Department of Fish and Wildlife, California Halibut Stock Assessment, July 2011, page A14, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=36257&inline=true>.

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B. Discharge Impacts Will Be Less Than Significant And Staff's Proposed Special Condition Is Unnecessary

The Project has an approved NPDES permit, confirming that the Project's discharge complies with the California Ocean Plan and all state and federal receiving water quality requirements. The NPDES permit sets limitations for the Project's discharge to avoid degradation consistent with the Ocean Plan's requirements. Neither the Project's discharge of trace amounts of cleaning compounds nor the slightly increased salinity levels resulting from the Project's discharge will degrade the quality of ocean water surrounding the Project Site. The Staff Report's recommendation that the Project be conditioned to require the installation of multiport diffusers on the existing outfall goes beyond the Commission's authority to impose mitigation. The State Water Resources Control Board ("State Board") and Regional Boards have primary responsibility for the regulation of water quality.¹⁰ As the Regional Board's issuance of the NPDES permit is a determination with respect to water quality, the Commission may not take any action in matters relating to water quality that conflict with that permit.¹¹

In any event, Poseidon recognizes that the State Board is preparing an amendment to the California Ocean Plan to address desalination intake and discharge impacts and related mitigation ("Desalination Policy"). Poseidon is proposing a Special Condition for the Commission's consideration requiring that the Project comply with all components of the approved Desalination Policy that are applicable to the Project, including any requirements that may require modifications to the existing HBGS outfall. (See Exhibit A, Special Condition 2.c.)

III. A SUBSURFACE INFILTRATION GALLERY IS MORE ENVIRONMENTALLY IMPACTFUL THAN USING THE EXISTING INTAKE SYSTEM, IS INFEASIBLE, CONFLICTS WITH KEY COASTAL ACT POLICIES, AND CANNOT BE LEGALLY IMPOSED UPON THE PROJECT BY THE COMMISSION

Despite substantial evidence in the record demonstrating that the proposed Project's use of the existing intake is the environmentally superior method of obtaining source water for the Project, the Staff Report ignores and/or rejects that evidence and seeks to require Poseidon to construct a far more environmentally impactful intake structure: **a subsurface infiltration gallery impacting 64 acres of coastal habitat on the seafloor and beachfront and requiring hundreds of thousands of cubic yards of excavation.**

The feasibility and environmental impacts of the type of infiltration gallery proposed by Staff have been thoroughly assessed. Staff portrays the subsurface infiltration gallery as a feasible and less damaging alternative to the existing intake. However, Staff ignores the SEIR, technical literature, and findings from permits issued for the Project, site-specific geotechnical data and analysis, and other information, all of which demonstrate that a subsurface infiltration gallery for the Project would be vastly more environmentally impactful than Poseidon's proposed use of the existing intake system,

¹⁰ See Water Code §§ 13001, 13160; Public Resources Code § 30412(b); *Pacific Lumber Co. v. State Water Resources Control Bd.* (2006) 37 Cal. 4th 921.

¹¹ Public Resources Code § 30412(b).

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would be infeasible, and would conflict with applicable Coastal Act policies. **Indeed, the Commission rejected the construction of an infiltration gallery for those same reasons when it approved Poseidon's Carlsbad Desalination Project.**

Moreover, the Regional Board found that an infiltration gallery would be "technologically infeasible and/or environmentally inferior."¹² As noted above, the Coastal Act prohibits the Commission from "modify[ing], adopt[ing] conditions, or tak[ing] any action in conflict with any determination by . . . any California regional water quality control board in matters relating to water quality or the administration of water rights."¹³ As such, the Commission cannot legally require Poseidon to abandon its proposed use of the existing intake and instead construct an infiltration gallery.

A. Staff's Proposed Subsurface Infiltration Gallery Is More Environmentally Impactful That Poseidon's Proposed Use Of The Existing Intake System

Staff asserts that a subsurface infiltration gallery would be more environmentally friendly for the Project. That is incorrect. Excavation required for an infiltration gallery sized to provide an average flow rate of 126.7 MGD would impact benthic organisms and fishes within the construction footprint and numerous species of invertebrates, fish and marine mammals in the water column surrounding the construction area, which would be adversely affected by noise and other construction-related effects. Removal of 64 acres of seafloor and beachfront and construction of an infiltration gallery will require dredging, drilling, anchoring, and tunneling activities that would result in direct removal, burial, crushing, breaking, cutting, unearthing and displacing of organisms on the sea floor. In addition, turbidity resulting from dredging and other construction activities would clog feeding and respiration structures of organisms that occupy the water column well beyond the directly affected area. Additional indirect effects would include construction noise and vibration that could injure, harass or kill a number of fish and marine mammal species.

In addition, the Staff Report fails to address that the infiltration gallery would require regular maintenance. That would likely include regular removal of unsuitable material regularly deposited in the area offshore of the Project Site. The San Gabriel and Santa Ana Rivers deposit fine-grained sediments that would clog the filter, and require dredging and removal every 1 to 3 years. **Thus, impacts on benthic communities would be ongoing on an annual or multi-year basis.**

Construction also would have recreational impacts to commercial and recreational fishing by precluding fishing and potentially affecting fish behavior and biology. Both sheet pile and dredging methods of construction could have adverse effects on the shore break, affecting recreational activities, including surfing, which is a treasured recreational asset in the City of Huntington Beach. Construction would also require substantial pumping facility(ies), including associated acoustical and visual shielding, service road(s), and security fencing on the shoreline, which would restrict public access to the beach, resulting in a significant impact on the beneficial use of the shoreline by the public. Moreover, once in operation, the energy and indirect greenhouse gas emissions associated with conveyance of seawater from the infiltration gallery to the desalination plant will be approximately

¹² Regional Board NPDES Order No. R8-2012-0007 (NPDES CA 80000403) at pp. F-23 to F-35.

¹³ Public Resources Code § 30412(b).

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double those from collecting seawater from the Huntington Beach Generating Station's existing intake system.

In contrast, Poseidon's use of the existing intake would cause a *de minimis* estimated impingement loss of just 0.78 pounds per day. To put this in context, one brown pelican eats 4 pounds of fish per day. Further, based on a fairly constant pumping rate for the existing intake, larval entrainment losses due to the long-term stand-alone operation of the Project are projected to affect only a small fraction of the larvae (0.02-0.28%) of the source water populations. In addition, Poseidon's use of the existing intake would not result in construction on the seafloor and beachfront, nor any permanent beachfront structures, would not result in continued visual and recreational impacts along the beachfront, and would require less energy. In comparison, the infiltration gallery's impact to 64 acres of coastal habitat on the seafloor and beachfront would be significantly greater than the use of the existing intake.

B. Staff's Proposed Subsurface Infiltration Gallery Is Infeasible

Site-specific study and analysis of alternative subsurface intakes has been a primary focus throughout the Project's CDP application process. Contrary to the assertions in the Staff Report, substantial site-specific evidence¹⁴ in the record confirms that subsurface intakes are not a viable option for the Project. **No large-scale operating desalination plants anywhere in the world today have effectively demonstrated that a subsurface intake system is feasible.** Indeed, the Fukuoka desalination plant, the facility Staff references to claim that a subsurface infiltration gallery is feasible for the proposed Project, is the largest reverse osmosis desalination plant worldwide with an infiltration gallery. That facility is much smaller than the proposed Project, and has been experiencing substantial operational problems.¹⁵

The Commission's review of the feasibility of a project's components or alternatives must be based on the Coastal Act's definition of that term. The Coastal Act defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."¹⁶ Here, the construction, operation and maintenance of a proposed subsurface infiltration gallery would not be "feasible" for the Project.

¹⁴ See, e.g., Psomas, 2005, Technical Memorandum on Feasibility of Vertical Extraction Wells for Poseidon Desalination Plant Feed Water Supply; Psomas, 2007, Feasibility of Alternative Seawater Intakes for the Huntington Beach Desal Project, May 2007; RBF, 2005, Draft Recirculated Environmental Impact Report for the Seawater Desalination Project at Huntington Beach; Dudek/RBF, 2010, Final Subsequent Environmental Impact Report for the Seawater Desalination Project at Huntington Beach; Water Globe Consulting, 2011, Evaluation of Alternative Desalination Plant Subsurface Intake Technologies; Water Globe Consulting, 2012, Well Intake Capacity Updated Based on 2012 Soil Transmissivity Study; Water Globe Consulting, 2013, Critical Review of 2013 Desalination Journal Publication on Subsurface Intakes; Regional Board NPDES Order No. R8-2012-0007; Tetra Tech, 2012, Technical Document Review for Site-Specific Hydraulic Conductivity Values; Geosyntec, May 2013, Review of Aquifer Properties and Potential Pumping, Huntington Beach Desalination Plant; Geosyntec, Sept. 2013, Feasibility Assessment of Shoreline Subsurface Collectors, Huntington Beach Desalination Plant.

¹⁵ Water Globe Consulting, Critical Review of 2013 Desalination Journal Publication on Subsurface Intakes at p. 4 (Oct. 21, 2013).

¹⁶ Public Resources Code § 30108.

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Substantial evidence in the record demonstrates the technical, economic, environmental, and other factors why such an infiltration gallery would be infeasible, including but not limited to:

- An infiltration gallery of the size required for the Project's water intake requirements has never been implemented. The existing Fukuoka plant, which has a capacity of 13.2 MGD, has the largest operational subsurface infiltration gallery in the world. Today the plant is actually operating at only 75% of its original capacity (i.e., 10 MGD) due to irreversible biological fouling of the infiltration gallery intake.¹⁷ To withdraw the seawater required for the Project, Poseidon and its public agency partners would be required to bear the uncertainty of a massive scale up in this technology;
- The shallow sediments in the coastal margin offshore Huntington Beach are not beach sand, but are fine-grained "muddy sand" of low permeability. The muddy character of the shallow sea sediments would rapidly clog up the infiltration gallery and require frequent dredging, resulting in an ongoing impact to the benthic environment;
- An infiltration gallery sized for the Project would impact approximately 64 acres of benthic habitat and beachfront habitat, including the installation of 33 connector pipes from the shore through the surf zone to the filter bed, and 33 wells on the beachfront needing electrical supply and service roads for regular maintenance. Even if an infiltration gallery could be designed with just one connector pipeline, as Staff contends, such a design would require the excavation and construction of a large intake well, a substantial pumping facility, including associated acoustical and visual shielding, as well as security fencing on the shoreline which would restrict public access to the beach, and still would impact over 30 acres (over 1.3 million square feet) of benthic environment;
- The need to dewater and dispose over 290,000 to 560,000 cubic yards of ocean bottom sediments to a sanitary landfill or ocean disposal site makes the use of a subsurface infiltration gallery infeasible. Despite Staff's assertion that such constraints are not a concern, the fine-grained sediments on the seafloor would likely not be suitable for beach nourishment, and any ocean disposal would require approvals by a number of agencies beyond the Commission, including the Army Corps of Engineers, among others; and
- The cost of an infiltration gallery for the average 126.7 MGD intake required for the Project is estimated to be at least \$270 million.¹⁸ The cost for this type of intake system would significantly increase the construction cost of the Project, imposing a significant burden on the purchasers of water with no measurable environmental benefits. Because an infiltration gallery of the size and scale required for the Project has never been attempted worldwide, economical or cost-effective financing cannot be obtained.

¹⁷ Water Globe Consulting, Critical Review of 2013 Desalination Journal Publication on Subsurface Intakes at p. 4 (Oct. 21, 2013).

¹⁸ See footnote 3.

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In sum, a subsurface infiltration gallery would undermine the Project's objective to use proven technology to reliably produce high-quality drinking water at an affordable cost without causing significant environmental impacts.

C. Staff's Proposed Infiltration Gallery Conflicts With Coastal Act Policies

In addition, construction, operation, and maintenance of Staff's proposed subsurface infiltration gallery would result in environmental impacts that are in direct conflict with several Coastal Act policies. The construction, operation and maintenance of such an intake system would cause significant impacts to the offshore benthic environment and marine resources, obstruct public access to the beach and impair visual resources, and increase energy consumption. Substantial evidence in the record demonstrates the many reasons such an infiltration gallery would conflict with Coastal Act policies, including but not limited to:

- **Marine Environment (Coastal Act Sections 30230, 30231).** As noted in detail above, excavation of the seafloor would permanently impact the offshore benthic environment, causing adverse impacts to coastal and biological resources. The infiltration gallery and filter bed also would need to be dredged every 1 to 3 years, resulting in the repeated disturbance of marine habitat;
- **Public Access and Recreation (Coastal Act Sections 30211, 30220, 30221).** The infiltration gallery would negatively impact public access and recreation, as it would require the construction of 33 intake water collection wells and trenches for connector piping along a one-mile strip of the shoreline, including service roads. Each of the 33 wells would require approximately 2,800 square feet of beachfront property, for a combined loss of over 2.1 acres of beachfront property. The collection pipeline would require an easement over 1.5 additional acres of shoreline. Even if an intake system could be designed with just one connector pipeline as Staff contends, such a design would require the excavation and construction of a large intake well, a substantial pumping facility, including associated acoustical and visual shielding, and security fencing on the shoreline which would restrict public access to the beach, and still would impact over 30 acres (over 1.3 million square feet) of benthic environment; and
- **Energy Consumption (Coastal Act Section 30253(d)).** Once in operation, the energy associated with conveyance of source seawater from the infiltration gallery to the desalination plant will be approximately 2 times higher than those from collecting seawater from the existing intake system.¹⁹ In addition, the removal and transportation of hundreds of thousands of cubic yards of ocean bottom sediments will significantly increase total direct greenhouse gas emissions associated with the Project.

¹⁹ Water Globe Consulting, 2011, Evaluation of Alternative Desalination Plant Subsurface Intake Technologies, at p. 13.

These materials have been provided to the Coastal Commission Staff

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D. The Commission Cannot Legally Require That The Project Be Redesigned With A Subsurface Infiltration Gallery

Pursuant to Coastal Act section 30412(b), the Regional Board has primary jurisdiction to enforce water quality policies, such as Water Code section 13142.5(b). In approving the Project's NPDES permit, the Regional Board found that the Project's proposed use of the existing intake complies with section 13142.5(b), but that subsurface intakes, including an infiltration gallery, are either technologically infeasible or environmentally inferior for the specific site of the Project. Because the Regional Board's issuance of the NPDES permit is a determination with respect to water quality, the Commission may not take any action in conflict with this NPDES permit in matters relating to water quality.²⁰ As such, the Commission cannot legally require that the Project be redesigned to include a subsurface infiltration gallery.

IV. THE PROPOSED PROJECT WILL NOT IMPACT WETLANDS AND DOES NOT NEED TO BE REDESIGNED

The proposed Project complies with all Coastal Act and LCP policies governing development adjacent to wetlands and ESHA, including the LCP policy that new development generally include a 100-foot setback from the landward edge of a wetland.²¹ Staff claims that the proposed Project does not comply with the LCP's 100-foot buffer zone policy. To compensate for that alleged deficiency, Staff's alternative project requires Poseidon to redesign its Project to locate all development over 100 feet from an alleged wetland in a degraded area adjacent to the eastern portion of the Project Site. Staff's proposed requirement is unnecessary and unwarranted.

The proposed Project is consistent with the LCP's wetland buffer zone policy. To the extent the area east of the Project Site is even wetlands, **all Project structures would be set back over 100 feet from that area.** The LCP policy also allows for a less than 100-foot buffer if certain standards are met to assure protection of the wetlands, and the proposed Project meets those standards. The only components of the Project within 100 feet of that area would be portions of a fire-lane access road surrounding the Project's structures that will be used for maintenance vehicles and in-plant traffic, but will carry very few trips per day, as well as portions of a few 20-foot long parking spaces adjacent to the road. All Project facilities would be separated from the alleged wetland area by an existing 14-foot high, 60-foot wide earthen containment berm that provides a physical barrier between the Project and the subject area.

For those limited portions of the Project (access road and parking spaces) less than 100 feet from the alleged wetland area east of the Project Site, the proposed Project's buffer zone satisfies all the factors that permit a less than 100-foot setback under LCP Policy C 7.1.4. With the separation provided by the existing containment berm, the buffer protects the functional relationship between the wetland and adjacent upland, is wide enough to allow for interception of material eroded as a result of

²⁰ Public Resources Code § 30412(b). See also Public Resources Code §§ 30400, 30401 (The Legislature did not intend for the Regional Board and the Commission to make separate and potentially conflicting determinations regarding water quality compliance for the same project; inter-agency duplication and conflict are to be avoided).

²¹ LCP, Policy C 7.1.4.

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the proposed development, and uses existing features to provide protection from the wetland. In addition, as the alleged wetland does not exhibit potential for use of any sort by the burrowing owl, western snowy plover, salt marsh skipper, California brown pelican, light-footed clapper rail, California least tern, Dorothy's El Segundo dune weevil or the California brackish water snail, and provides only marginal foraging habitat for the Belding's savannah sparrow due to the presence of pickleweed, the buffer ensures sensitive species are not disturbed significantly. Accordingly, the proposed Project's buffer zone is consistent with LCP Policy C 7.1.4 and no redesign is required. Moreover, to ensure compliance with this LCP policy, Poseidon has proposed a Special Condition requiring review of the proposed Project's buffer zone by the California Department of Fish and Wildlife prior to construction. (See **Exhibit A**, Special Condition 2.d.)

Further, Staff incorrectly asserts that until 2012 (when routine vegetation clearing occurred on the property), approximately 3.5 acres of the Project Site constituted wetlands. Staff's alternative project requires Poseidon to develop a Wetland Mitigation Plan that provides for the creation and/or restoration of at least 14 acres of coastal wetland habitat. In 2009, Poseidon's consultant prepared a wetlands Jurisdictional Determination ("JD") of the Project Site, which was included in the SEIR. The JD concluded that vegetation, soils, and hydrology on the Project Site were not wetlands in accordance with the federal or Coastal Act definitions. The Staff Report inaccurately characterizes components of the JD and fails to apply sound wetland science and practice to the Project Site. For instance, the Staff Report indicates that the presence of a single wetland parameter subjects an area to LCP policies related to wetland protection and restoration. That is incorrect and misconstrues the Commission's established wetlands delineation methodology, which allows a project applicant to demonstrate that, despite the presence of a single parameter, the other wetland parameters are not present and therefore the area is not a wetland. That is what the JD did here – all wetland parameters were fully evaluated, and the JD concluded that no wetlands were present. In addition, the Staff Report makes improper conclusions regarding wetland hydrology and wetland indicator plants, fails to document onsite observations, and fails to delineate actual wetland boundaries. In sum, none of the onsite areas meet the threshold for wetlands.²² Because no wetlands were impacted, there is no nexus to condition Poseidon to create and/or restore at least 14 acres of coastal wetland habitat.²³

V. CONCLUSION

The proposed Project is needed to reduce Orange County's demand for imported water, strengthen reliability and diversify the Orange County region's water supply portfolio. The Municipal Water District of Orange County's ("MWDOC") 2010 Regional Urban Water Management Plan ("RUWMP") includes a number of important findings relative to the need for further local resource projects, and includes the Project as one of the projects to help meet future demands. Water demand in

²² The California Energy Commission's Preliminary Staff Assessment for the Huntington Beach Energy Project ("HBEP") also indicates that the project area for the proposed HBEP (adjacent to the proposed Project's site) is "actively maintained to facilitate operation of existing power generation and therefore does not support wetlands or other waters potentially under the jurisdiction of USACE, CDFW, and/or the California Coastal Commission." See CEC Preliminary Staff Assessment – Part A, p. 4.2-33.

²³ See *Nollan v. Cal. Coastal Com.* (1987) 483 U.S. 825; *Dolan v. City of Tigard* (1994) 512 U.S. 374; see also Public Resources Code § 30607 (CDPs are subject to *reasonable* terms and conditions). In addition, we note that AES has confirmed that no enforcement action has been instituted against it, as the Staff Report claims.

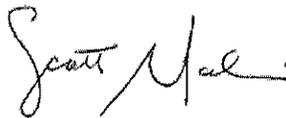
These materials have been provided to the Coastal Commission Staff

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the MWDOC service area has increased approximately 70 percent since 1970. Given the growth projected for the Orange County region over the next 25 years and the water demand that has been determined for that growth, should the Project not be constructed, Orange County would need to continue to rely on imported water. To that end, the RUWMP identifies seawater desalination as a vital component of the plan to diversify the County's water supply with a new local source.

In all, the Project is an urgently needed and environmentally responsible solution to the region's water supply needs, which is consistent with and will further Coastal Act and LCP policies and will provide significant public and environmental benefits. We urge the Commission to approve this important Project, as already reviewed and permitted by a number of independent regulatory authorities, and as designed, planned and proposed by Poseidon.

Sincerely,



Scott Maloni
Vice President, Poseidon Water

Attachments

cc: Alison Dettmer, California Coastal Commission
Tom Luster, California Coastal Commission

These materials have been provided to the Coastal Commission Staff

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EXHIBIT A

STANDARD CONDITIONS

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

SPECIAL CONDITIONS

- 1) **Liability for Costs and Attorneys' Fees:** Permittee shall reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys' fees – including (a) those charged by the Office of the Attorney General, and (b) any court costs and attorneys' fees that the Coastal Commission may be required by a court to pay – that the Coastal Commission incurs in connection with the defense of any action brought by a party other than Permittee against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.
- 2) **Evidence of Other Agency Approvals:**
 - a. **PRIOR TO COMMENCEMENT OF CONSTRUCTION,** the Permittee shall submit to the Executive Director for review and approval, documentation showing that the project has obtained the following final approvals, or documentation showing that these approvals are not needed:²⁴
 - NPDES Permit from the Regional Water Quality Control Board.

²⁴ Condition to be removed to the extent satisfied prior to issuance of the permit.

These materials have been provided to the Coastal Commission Staff

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EXHIBIT A

- Authorization from the Army Corps of Engineers to proceed pursuant to Nationwide Permit (NWP) No. 12 for Utility Line Activities.
 - b. WITHIN 90 DAYS FOLLOWING THE COMMENCEMENT OF COMMERCIAL PROJECT WATER DELIVERIES, the Permittee shall submit to the Executive Director documentation showing that the project has obtained a domestic water supply permit from the California Department of Public Health.
 - c. State Water Resources Control Board (State Board). If the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) is amended by the State Board to address desalination facilities, including intake and brine discharge impacts and related mitigation, the Permittee shall comply with all components of the Ocean Plan applicable to the Project as determined by the Regional Water Quality Control Board through the Project's NPDES Permit.
 - d. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director documentation from the California Department of Fish and Wildlife demonstrating that it has reviewed the project's buffer zone between nearby wetlands and determined the buffer is sufficient to avoid significant impacts to nearby wetlands.
- 3) **State Lands Commission.** Prior to cessation of the AES Power Plant's use of its seawater cooling system, the Permittee shall provide to the Executive Director documentation from the California State Lands Commission of a lease or lease amendment authorizing the Permittee's continued use of state tidelands for construction and operation of an ocean outfall and intake.
- 4) **California Department of Parks and Recreation (DPR).** Prior to cessation of the AES Power Plant's use of its seawater cooling system, the Permittee shall provide to the Executive Director documentation from the DPR of a grant of easement providing the Permittee any legal interest necessary to use those portions of the intake and outfall structures within DPR property, or documentation from the DPR stating that no easement is required.
- 5) **Lease, Agreement, or Deed Restriction:** PRIOR TO ISSUANCE OF THE PERMIT, the applicant shall provide to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against its interest(s) in the property where the desalination facility is to be located (i.e., the Huntington Beach Generating Station), and which is governed by this permit, a lease, agreement, or deed restriction (in which any private owner of the fee interest in such property shall join or to which it shall agree to be bound), in form and content acceptable to the Executive Director (a) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the property, subject to terms and conditions that restrict the use and enjoyment of the property; and (b) imposing all of the Special Conditions of this

EXHIBIT A

permit as covenants, conditions and restrictions on the use and enjoyment of the property. The restriction shall include a legal description of the property. It shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the Standard and Special Conditions of this permit shall continue to restrict the use and enjoyment of the property so long as either this permit or the development it authorizes – or any part, modification, or amendment thereof – remains in existence on or with respect to the property.

- 6) **Hazardous Materials at Facility Site:** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the Permittee shall provide the Executive Director documentation that a Remedial Action Plan has been approved by the Department of Toxic Substances Control for the site consistent with all relevant conditions of the project's SEIR.
- 7) **Construction Plan:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit two copies of a Construction Plan to the Executive Director for review and approval. The Construction Plan shall, at a minimum, include the following:

Best Management Practices (BMPs)

- a. The Construction Plan shall include a Stormwater Pollution Prevention Plan which shall clearly identify all BMPs to be implemented during construction and their location and comply with all Regional Board requirements. Such plans shall contain provisions for specifically identifying and protecting all natural drainage swales (with sand bag barriers, filter fabric fences, straw bale filters, etc.) to prevent construction-related runoff and sediment from entering into these natural drainage areas which ultimately deposit runoff into the Pacific Ocean. Silt fences, straw wattles, or equivalent measures shall be installed at the perimeter of all construction areas. At a minimum, such plans shall also include provisions for stockpile management, temporary stormwater detention facilities, revegetation as necessary, and restricting grading and earthmoving during rainy weather.

The Construction Plan shall indicate that:

- i. dry cleanup methods are preferred whenever possible and that if water cleanup is necessary, all runoff shall be collected to settle out sediments prior to discharge from the site;
- ii. all de-watering operations shall include filtration mechanisms;
- iii. off-site equipment wash areas are preferred whenever possible; if equipment must be washed on-site, the use of soaps, solvents, degreasers, or steam cleaning equipment shall not be allowed; in any event, such wash water shall not be allowed to enter any natural drainage;

EXHIBIT A

- iv. concrete rinsates shall be collected and they shall not be allowed to enter any natural drainage areas;
- v. good construction housekeeping shall be required (e.g., clean up all leaks, drips, and other spills immediately; refuel vehicles and heavy equipment offsite and/or in one designated prepared location; keep materials covered and out of the rain (including covering exposed piles of soil and wastes);
- vi. all wastes shall be disposed of properly, trash receptacles shall be placed on site for that purpose, and open trash receptacles shall be covered during wet weather);
- vii. all erosion and sediment controls shall be in place prior to the commencement of grading and/or construction as well as at the end of each day;
- viii. particular care shall be exercised to prevent foreign materials from making their way to the beach or Pacific Ocean;
- ix. contractors shall ensure that work crews are carefully briefed on the importance of observing the appropriate precautions and reporting any accidental spills; and
- x. construction contracts shall contain appropriate penalty provisions, sufficient to offset the cost of retrieving or cleaning up improperly contained foreign materials.

Construction Site Documents

- b. The Construction Plan shall provide that copies of the signed coastal development permit and the approved Construction Plan be maintained in a conspicuous location at the construction job site at all times, and that such copies are available for public review on request. Prior to any individuals commencing construction work onsite, those individuals shall be briefed on the content and meaning of the coastal development permit and the approved Construction Plan.

Construction Coordinator

- c. The Construction Plan shall provide that a construction coordinator be designated to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies), and that their contact information (i.e., address, phone numbers, etc.) including, at a minimum, a telephone number that will be made available 24 hours a day for the duration of construction, is conspicuously posted at the job site where such contact information is readily visible from public viewing areas, along with indication that the construction coordinator

EXHIBIT A

should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The construction coordinator shall record the name, phone number, and nature of all complaints received regarding the construction, and shall promptly investigate complaints and take remedial action as appropriate.

Notification

- d. Poseidon shall notify staff of the Coastal Commission's Energy and Ocean Resources Unit at least 3 working days in advance of commencement of construction, and immediately upon completion of construction.

Poseidon shall undertake development in accordance with the approved Construction Plan. Any proposed changes to the approved Construction Plan shall be reported to the Executive Director. No changes to the approved Construction Plan shall occur without a Commission approved amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

- 8) **Coordination with Other Concurrent Project.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall provide documentation from the Department of Toxic Substances Control showing that the location and timing of the Permittee's proposed pipeline construction will not interfere with proposed cleanup and remediation activities at the Ascon Landfill site.
- 9) **Change in Seawater Withdrawal:** If at any time during the life of the project the Permittee proposes or is required to withdraw more than an average annual flow of 127 MGD of seawater, it must obtain first an amendment to this permit.

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- 10) **Noise:** Noise generated by construction (including, but not limited to, pile driving) shall not exceed 65 dBA Leq(h)* at any active nesting site within 500 feet of project site for Belding's savannah sparrow's (*Passerculus sandwichensis beldingi*), light-footed clapper rail (*Rallus longirostris levipes*), western snowy plover (*Charadrius alexandrinus nivosus*) and the California least tern (*Sternula antillarum browni*), or other special status species. If construction occurs during the breeding season for these species (January through August), applicant shall conduct a nesting bird survey for these bird species. If active nests for any of these species are found, the applicant shall prepare a noise report to document the noise levels that would result from proposed construction activities at the location of the active nests. If construction noise exceeds 65 dBA Leq(h), or ambient, if ambient noise levels are determined to be higher than 65 dBA Leq(h), then alternative methods of construction and/or pile driving (including, but not limited to, vibratory pile driving, press-in pile placement, drilling, dewatered isolation casings, etc.) or other sound mitigation measures (including, but not limited to, sound shielding and noise attenuation devices) shall be used as necessary to achieve the required dB threshold levels. If these sound mitigation measures do not reduce noise levels to the prescribed levels, the applicant shall consult with the California Department of Fish and Wildlife to determine a course of action, which may include new sound mitigation or curtailment of construction until nesting is complete.

*dBA Leq (h) is the noise levels in decibels measured with a frequency weighting network, corresponding to the "A-Scale" on a standard sound level meter averaged on an hourly basis.

11) **Final Plans:**

- a. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval final plans for the project components located in the coastal zone.
- b. The final plans shall document that all exterior windows will be non-glare glass, and all other structures and surfaces constructed or installed as part of the project and that are visible from public areas shall be painted or otherwise finished in neutral tones that minimize their visibility from those public areas.
- c. The Permittee shall undertake development in accordance with the approved plans and any changes shall be reported to the Executive Director. No material changes within the coastal zone shall occur without a Commission-approved amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary. Changes to the project requiring review for amendment would include changes in the physical, operational, or delivery capacity increases, or extension of water supply distribution pipelines beyond those shown on the final plans.

EXHIBIT A

- 12) **Term of Permit:** This permit authorizes the approved seawater desalination plant and associated facilities for thirty-five years from the date the facility commences commercial project water deliveries. If the Permittee intends to continue operating the desalination facility and associated components after this authorization expires, then the Permittee shall apply for a new coastal permit authorization to allow the approved development (including, as applicable, any potential modifications to it requested by the Permittee). Provided an application is received before the permit expiration, the expiration date shall be automatically extended until the time the Commission acts on the application.
- 13) **Marine Life Mitigation Plan:** PRIOR TO ISSUANCE OF THE PERMIT, the Permittee shall submit to and obtain from the Commission approval of a Marine Life Mitigation Plan (the Plan) that complies with the following:
- a. To the maximum extent feasible, the mitigation shall take the form of maintenance, creation, enhancement, or restoration of aquatic or wetland habitat, or the payment of an equivalent mitigation fee.
 - b. Unless payment of an equivalent mitigation fee is required, goals, objectives and performance criteria for each of the proposed mitigation sites. It shall identify specific maintenance, creation, restoration, or enhancement measures that will be used at each site, including grading and planting plants, the timing of the mitigation measures, monitoring that will be implemented to establish baseline conditions and to determine whether the sites are meeting performance criteria. The Plan shall also identify contingency measures that will be implemented should any of the mitigation sites not meet performance criteria.
 - c. Unless payment of an equivalent mitigation fee is required, requires submittals of “as-built” plans for each site and annual monitoring reports for no less than five years or until the sites meet performance criteria.
 - d. Unless payment of an equivalent mitigation fee is required, defines legal mechanism(s) proposed to ensure permanent protection of each site – e.g., conservation easements, deed restriction, or other methods.

The Permittee shall comply with the approved Plan. Prior to implementing the Plan, the Permittee shall submit a proposed wetlands restoration project or projects that complies with the Plan in the form of a separate coastal development permit application for the planned wetlands restoration project(s). The Commission shall hold a hearing on the proposed Plan within ninety days of the Permittee’s request for such hearing.

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- 14) **Assumption of Risk and Waiver of Liability:** By acceptance of this permit, the Permittee acknowledges and agrees (1) that the site may be subject to hazards from ground motion, liquefaction, lateral spread, storm waves, storm surges, erosion, and flooding; (2) to assume the risks to Poseidon and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (3) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (4) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.
- 15) **Flood and Tsunami Hazard Mitigation Planning:** The Permittee shall comply with the specific measures identified in the Seismic, Tsunami and Flood Design Mitigation and Emergency Response Plan dated March 2013, as provided below:
- a. The Permittee shall implement SEIR mitigation measure HWQ-3: Prior to issuance of grading permits, the applicant shall submit to the City for approval a plan outlining the specific planning measures to be taken to minimize or reduce risks to property and human safety from tsunami during operation. Planning measures could include but would not be limited to the following: (a) provision of tsunami safety information to all facility personnel, in addition to posting signage on site; (b) identification of the method for transmission of tsunami watch and warnings to facility personnel and persons on the site in the event a watch or warning is issued; and (c) identification of an evacuation site for persons on site in the event of a tsunami warning.
 - b. The Permittee shall develop a Hazard Emergency Response Plan with AES HBGS prior to the commencement of project operations. The Permittee has submitted a Draft Hazard Emergency Response Plan tailored to the current AES plan but revised to address a non-essential water treatment plant. The Permittee will meet with AES HBGS to work together on a coordinated plan that is in accordance with the draft plan submitted.

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- 16) Structural Stability.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall provide to the Executive Director documentation from a qualified and licensed structural engineer, certifying that the new desalination plant owned by the Permittee is designed to resist without collapse or structural damage the forces resulting from any and all of the following seismic, geologic, flood, and tsunami hazards:
- a. The “design-level” earthquake, which, as specified in SEIR Mitigation Measure GEO-3, is to be determined based on methods required in the 2010 California Building Code;
 - b. Ground motion based on 2010 California Building Code requirements for Site Class F, with an acceleration response spectrum corresponding to 80% of the Site Class E response spectrum;
 - c. Soil settlement or displacement due to liquefaction or lateral soil spread of at least nine inches vertically and at least thirty-eight inches horizontally;
 - d. Groundwater table elevations at the ground surface;
 - e. Tsunami runup at the facility site of 11 feet above mean sea level with an additional two feet of sea level rise for a total of 13 feet above mean sea level; and
 - f. Flooding from the 100-year and 500-year flood events, including increased flood elevations resulting from two feet of sea level rise. Flood elevations shall be based on the flood map in the Environmental Hazards Element of the City of Huntington Beach General Plan.
- 17) Lighting Plan:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit a Lighting Plan to the Executive Director for review and approval. The Lighting Plan shall document that the facility’s exterior lighting is the minimum necessary for safety purposes. All lighting (exterior and interior) shall be sited and designed so that it limits the amount of light or glare visible from offsite areas (including but not limited to views from the shoreline, public accessways, and the adjacent wetlands and environmentally sensitive habitat areas managed by the Huntington Beach Wetlands Conservancy) to the maximum extent feasible (including through uses of lowest luminosity possible, directing lighting downward, etc.).
- 18) Energy Minimization and Greenhouse Gas Reduction Plan:** PRIOR TO ISSUANCE OF THE PERMIT, the Permittee shall submit to the Commission an Energy Minimization and Greenhouse Gas Reduction Plan. The permit shall not be issued until the Commission has approved an Energy Minimization and Greenhouse Gas Reduction Plan after a public hearing. The Commission shall hold a hearing on the Energy Minimization and Greenhouse Gas Reduction Plan within ninety days of the Permittee’s request for such hearing.

EXHIBIT A

- 19) **Stormwater and Drainage Plan:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director a Stormwater and Drainage Plan that complies with the stormwater and drainage requirements in the project's NPDES Permit.



CITY OF ANAHEIM
OFFICE OF THE MAYOR
AND CITY COUNCIL

RECEIVED
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CALIFORNIA
COASTAL COMMISSION

TOM TAIT, Mayor
GAIL E. EASTMAN, Mayor Pro Tem
KRIS MURRAY, Council Member
JORDAN BRANDMAN, Council Member
LUCILLE KRING, Council Member

November 6, 2013

Ms. Mary K. Shallenberger
Chair, California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

P.O. Box 354
Clements, CA 95227-0354

Re: Support - Huntington Beach Desalination Facility
[Coastal Commission Staff has received a copy of this communication.]

Dear Chairwoman Shallenberger and Commission:

I am writing to urge approval by the California Coastal Commission of the Coastal Development Permit for the Huntington Beach Seawater Desalination Facility (Facility). Both of Orange County's imported sources of water are suffering challenges that could significantly jeopardize the reliability of these supplies to our communities. Supplies from northern California via the State Water Project have been reduced nearly 30% and the Colorado River Basin is in a long-term drought.

Of key importance in your consideration of this matter is the need for development of local water sources and diversification to meet State Water Plan objectives. The proposed Facility would help reduce the region's dependence on imported water and improve supply reliability by providing a new drought proof water supply for the County and the region. It also encompasses all the same environmental protections as the Poseidon Carlsbad Desalination Project previously approved by the Commission. Therefore, I encourage the Commission to do the same for the proposed Huntington Beach Facility.

Sincerely,

Jordan Brandman
Council Member
City of Anaheim

cc: Mr. Steve Kinsey, Vice Chair, California Coastal Commission
Mr. Mark Vargas, Commissioner, California Coastal Commission
Ms. Danya Bochco, Commissioner, California Coastal Commission
Mr. Brian Brennan, Commissioner, California Coastal Commission
Dr. Robert Garcia, Commissioner, California Coastal Commission
Ms. Carole Groom, Commissioner, California Coastal Commission
Ms. Martha McClure, Commissioner, California Coastal Commission
Ms. Wendy Mitchell, Commissioner, California Coastal Commission
Ms. Jana Zimmer, Commissioner, California Coastal Commission
Ms. Sherilyn Sarb, Deputy Director, California Coastal Commission, South Coast Dist. Office/Orange County
Ms. Teresa Henry, District Manager, California Coastal Commission/South Coast Dist. Office/Orange County
The Hon. Edmund G. Brown, Jr., Governor, State of California
The Hon. Darrell Steinberg, State Senate Pro Tem, State of California
The Hon. John Perez, Speaker of the Assembly, State of California
Ms. Janelle Beland, Undersecretary, Natural Resources Agency
Dr. Charles Lester, Executive Director, California Coastal Commission
Mr. Tom Luster, Environmental Scientist, California Coastal Commission
200 South Anaheim Boulevard, Anaheim, California 92805
(714) 765-5247 • FAX (714) 765-5164 • www.anaheim.net



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

November 8, 2013

Ms. Mary K. Shallenberger
Chair
California Coastal Commission
45 Fremont Street
San Francisco, CA 94105-2219

Dear Ms. Shallenberger:

Support for the Huntington Beach Seawater Desalination Project

The Metropolitan Water District of Southern California (Metropolitan) is a regional water supply wholesaler supporting nearly 19 million people and a \$1 trillion-dollar economy. Metropolitan's long-term Integrated Resources Plan (IRP) calls for developing a diverse water resource portfolio to increase overall reliability for our customers. The IRP balances imported and local supplies, including advancing conservation savings and waste water recycling. Through two decades of implementing the IRP, Metropolitan and the water agencies in Orange County are statewide leaders in developing these progressive local supplies. Our recently adopted incentive for storm water capture via rain barrels is yet another tool incorporating age-old technology into our ongoing investments in innovation.

The IRP also calls for the development of seawater desalination to help manage long-term water supply risks and short-term disruptions to imported supplies. Consistent with the goals of the IRP, Metropolitan supports the development of the Huntington Beach Seawater Desalination Project. On a long-term average basis, the project is expected to reduce MWD's future demand for imported water in an amount equal to the project's production. This is similar to the regional benefit from new recycling projects, groundwater recovery projects and water use efficiency gains developed under MWD's longstanding local resource and conservation programs.

Metropolitan encourages the development of local supplies through financial incentives. The Orange County member agencies of Metropolitan, including the Municipal Water District of Orange County and the Cities of Anaheim, Fullerton and Santa Ana, have recently submitted an application on behalf of the project for incentives under Metropolitan's Local Resource Program (LRP). A fundamental goal of the LRP is to lessen the need for increased imported supplies in the future. As such, the LRP requires participating local supply projects to offset future imported water demands.

Ms. Mary K. Shallenberger
Page 2
November 8, 2013

Metropolitan supports the efforts of the Orange County agencies that are pursuing this important project. The completed project would help increase local supplies and reduce the region's reliance on imported supplies to meet expected future demands.

Thank you for considering these comments supporting your approval of the project's coastal development permit.

Sincerely,



Deven N. Upadhyay
Manager, Water Resource Management

WAT:vsm

cc: Mr. Robert J. Hunter
General Manager
Municipal Water District of Orange County
18700 Ward Street
Fountain Valley, CA 92708

Mr. Peter M. MacLaggan
Poseidon Resources Corporation
501 West Broadway, Suite 840
San Diego, CA 92101

CORRESPONDENCE

- NEUTRAL

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**CALIFORNIA
COASTAL COMMISSION**



CALIFORNIA STATE UNIVERSITY, LONG BEACH

Department of Biological Sciences, 1250 Bellflower Blvd., Long Beach CA 90840

Agenda Item 20, Nov.13, 2013

Application No. E-06-007

Position on Item: Neutral

California Coastal Commission
San Francisco, CA

November 8, 2013 via fax

Dear Chairwoman Shallenberger and Commission Members:

The purpose of this letter is to convey my strong opposition to comments made in the Staff Report on the item referenced above, the application from Poseidon Water to construct a desalination facility in Huntington Beach. I am faculty at California State University Long Beach (CSULB) in the Biology Department, and my research focuses on wetland ecology. For the past five years, I have been conducting wetland ecology research in the Huntington Beach Wetlands (HBW). In addition, for the past three years as part of a team from CSULB, I have been conducting the wetland restoration monitoring for the HBW. In this capacity, I have data to support that the HB Wetlands are not the site described in the Staff Report.

Page 49 of the Staff Report characterizes HB Wetlands as fraught with "abandoned oil structures, areas of contaminated soil, and other remnants from use of wetlands for oil production." The report goes on to conclude that these wetlands are not likely to be up to the restoration standards of the Coastal Commission and the Coastal Act.

Our data collected from 2010 - 2013 demonstrate that the tidal prism and the abiotic parameters (DO, turbidity, salinity, and pH) as well as the plant, fish and invertebrate communities are comparable to the neighboring reference marshes. These important structural metrics indicate a functioning marsh well on its way to restoration success. The study is available on our website at <http://hbwetlands.org/current.htm>.

Sincerely,

Christine Whitcraft

Christine Whitcraft
CSULB, assistant professor



**HUNTINGTON BEACH
WETLANDS CONSERVANCY**

A Nonprofit Corporation
www.hbwc.org

21900 Pacific Coast Highway
Huntington Beach, CA 92646
(714) 536-0141

Agenda Item 20, Nov.13, 2013
Application No. E-06-007
Position on Item: Neutral

California Coastal Commission
San Francisco, CA

November 8, 2013 via fax

Chairwoman Shallenberger and Commission Members:

The purpose of this letter is to convey our strong opposition to certain comments and conclusions made in the Staff Report on the item referenced above, the application from Poseidon Water to construct a desalination facility in Huntington Beach. The Huntington Beach Wetlands Conservancy owns and manages 128 acres of coastal wetlands located between Newland Street and the Santa Ana River, and we are soon to acquire an additional 44 acres of restorable wetlands.

Page 49 of the Staff Report characterizes our wetlands as fraught with "abandoned oil structures, areas of contaminated soil, and other remnants from use of wetlands for oil production." The report concludes that our wetlands are not likely to be up to the restoration standards of the Coastal Commission and the Coastal Act.

From the quote cited above, it is apparent that Commission staff have not visited our Talbert, Brookhurst and Magnolia Marshes, nor have they examined the various studies conducted on our wetlands. Each of our three marshes is a fully restored and biologically productive coastal wetland, and none is in the least impaired functionally by any remnants of oil production or contamination. The successful restoration of our wetlands is documented in a recently released three-year post-restoration monitoring study funded by NOAA. The study is available on our website at <http://hbwetlands.org/current.htm>.

The Huntington Beach Wetlands Conservancy is a community- and volunteer-based organization. Through federal and state grants over our 28 years of existence, we have succeeded in preserving, restoring and protecting a vital and scarce coastal resource. We should add that mitigation funding, such as that provided through the California Energy Commission cited in the Staff Report, has been enormously helpful to us in meeting management challenges such as eradication of invasive plants, removing trash and debris, and in continuing a program of re-vegetation.

Sincerely,

Gordon W. Smith, PhD
Chairman, HBWC Board of Directors

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CALIFORNIA
COASTAL COMMISSION



San Diego County Water Authority

4677 Overland Avenue • San Diego, California 92123-1233
(858) 522-6600 FAX (858) 522-6568 www.sdcwa.org

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COASTAL COMMISSION

VIA EMAIL

November 5, 2013

MEMBER AGENCIES

- Carlsbad Municipal Water District
- City of Del Mar
- City of Escondido
- City of National City
- City of Oceanside
- City of Poway
- City of San Diego
- Fallbrook Public Utility District
- Helix Water District
- Lakeside Water District
- Olivenhain Municipal Water District
- Otay Water District
- Padre Dam Municipal Water District
- Camp Pendleton Marine Corps Base
- Rainbow Municipal Water District
- Ramona Municipal Water District
- Rincon del Diabolo Municipal Water District
- San Dieguito Water District
- Santa Fe Irrigation District
- South Bay Irrigation District
- Vallecitos Water District
- Valley Center Municipal Water District
- Visita Irrigation District
- Yuma Municipal Water District

Ms. Mary K. Shallenberger, Chair
California Coastal Commission
45 Fremont Street
San Francisco, CA 94105

Re: Seawater Intake Feasibility for proposed Camp Pendleton Seawater Desalination Project

Dear Ms. Shallenberger:

On October 30, 2013, Commission staff released its report, dated October 25, 2013, on Poseidon Water's Huntington Beach seawater desalination project (A-5-HNB-10-225/E-06-007 (Poseidon Water)). In the report, staff referenced the Water Authority's proposed Camp Pendleton Seawater Desalination Project and planning and technical studies that were conducted to further evaluate various conceptual seawater intake designs.

As you are aware, the Water Authority's water supply diversification strategy for the San Diego region includes the development of multiple, local water resources including recycling, groundwater desalination, conservation and seawater desalination. In keeping with this strategy, and in collaboration with United States Marine Corps Base Camp Pendleton, the Water Authority has been conducting feasibility and planning studies regarding a proposed regional desalination plant on Camp Pendleton. I am writing you to clarify the status of those studies and the findings related to the potential feasibility of subsurface seawater intakes for a desalination plant at that location.

Since 2008, the Water Authority has completed both a conceptual "desktop" feasibility study and a follow-on site-specific investigation and evaluation of an offshore alluvial aquifer system in the study area (west of the mouth of the Santa Margarita River) in order to further evaluate the viability of a subsurface seawater intake for the proposed Camp Pendleton Seawater Desalination Project. Our initial 2009 "desktop" feasibility study, cited in the current Commission staff report, considered several subsurface intake configurations, including a deep infiltration gallery as well as a "Fukuoka" seabed infiltration gallery. However, the purpose of the study was to survey intake alternatives and to consider potential applicability to a future Camp Pendleton project, and should not be used to draw definitive conclusions on feasibility, sizing, cost or use.

OTHER REPRESENTATIVE

County of San Diego

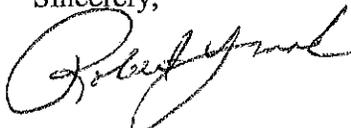
Our subsequent studies have focused on the significantly less disruptive and environmentally preferred deep infiltration gallery concept, given that our site-specific investigation revealed that the alluvial aquifer system offshore of Camp Pendleton consists of multiple paleo-channels stemming from the Santa Margarita and San Luis Rey Rivers and is a unique local feature that is known to exist at the project location. This evaluation of localized subsurface conditions was conducted to help identify the size, spatial extent and hydrogeologic characteristics of this offshore aquifer and consisted of geotechnical and hydrogeologic investigations, including an offshore geophysical survey utilizing seismic reflection, exploratory well drilling and pumping tests and groundwater modeling. The information derived from the surveys and investigations was used in the development and configuration of a potential subsurface intake system for the proposed desalination project.

The Water Authority wants to clarify that while the subsurface surveys and investigations provided valuable site-specific data, there remains much uncertainty regarding the viability of a subsurface intake for the proposed Camp Pendleton project. The construction of a subsurface intake system in the open ocean, on the scale that has been conceptualized for Camp Pendleton, has never been attempted. Until additional hydrogeologic investigation and demonstration testing is completed, we believe it is premature to conclude that a subsurface intake is viable for the Camp Pendleton site. In any case, the final determination of an intake technology would be based on multiple factors including life-cycle cost, ratepayer affordability, environmental impact, constructability as well as the practicality of operation and maintenance.

Finally, the Water Authority and MCB Camp Pendleton have made no commitment to move beyond the project feasibility and planning stage. Should the project move forward at some point in the future, the Water Authority would conduct further site-specific piloting, demonstration studies and investigations before selecting a preferred intake technology for the project.

Should you have any questions, please contact me at (858) 522-6744.

Sincerely,



Robert Yamada
Water Resources Manager
San Diego County Water Authority

Mary Shallenberger

November 5, 2013

Page 3

cc: Commissioner Gregory Cox, California Coastal Commission
Commissioner Steve Kinsey, California Coastal Commission
Commissioner Dayna Bochco, California Coastal Commission
Commissioner Brian Brennan, California Coastal Commission
Commissioner Robert Garcia, California Coastal Commission
Commissioner Carole Groom, California Coastal Commission
Commissioner Martha McClure, California Coastal Commission
Commissioner Wendy Mitchell, California Coastal Commission
Commissioner Mark Vargas, California Coastal Commission
Commissioner Jana Zimmer, California Coastal Commission
Mr. Charles Lester, Executive Director, California Coastal Commission
Mr. Tom Luster, Environmental Scientist, California Coastal Commission
The Hon. Edmund G. Brown, Jr., Governor, State of California
The Hon. Darrell Steinberg, Senate Pro Tem, State of California
The Hon. John Perez, Speaker of the Assembly, State of California
Ms. Janelle Beland, Undersecretary, California Natural Resources Agency
Mr. Scott Maloni, Vice President, Poseidon Water

CORRESPONDENCE

- OPPOSE

6 individuals had submitted this letter as of 11/12/13

Chairman Shallenberger and Commissioners:

I am opposed to Poseidon's plans for a Desalination Plant in HB. Do not support this project.

Our city already has the AES Power Plant and the Sewage Plant that dump 200,000,000 gallons of waste into the ocean at Huntington Beach daily.

Poseidon's plans will make our ocean more dirty and will jeopardize Huntington Beach's tourism industry.

Name

STEVEN

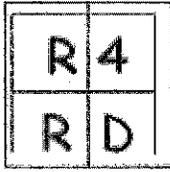
Email

Address

11616 BEACH

Signature

[Handwritten Signature]



November 11, 2013

Chair Mary K. Shallenberger and
Members of the California Coastal Commission
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, California 94105-2219

Tom Luster, Coastal Commission staff
VIA Electronic Mail (tluster@coastal.ca.gov)

**RE: Huntington-Poseidon Seawater Desalination Coastal Development Permits:
Appellant's Addendum to Comment Letter dated November 3**

Dear Chair Shallenberger and Members of the Commission:

We are writing in regards to the Staff Report and response to that report from the project Applicant for the Huntington-Poseidon Seawater Desalination permit appeal and retained jurisdiction application to be heard by the Coastal Commission November 2013. On behalf of the members of Residents for Responsible Desalination, Surfrider Foundation and Orange County Coastkeeper – “Appellants” – we thank you for your careful consideration of our previous letter and the additional comments below.

We assume that the motions contained in the Staff Report will be the motions considered and deliberated at the November hearing. As Appellants to the Coastal Development Permit issued by the City of Huntington Beach (“City CDP”), we are preparing testimony in response the recommended motions in the Staff Report. Adequate participation by our groups, and the members we represent, is dependent on knowing in advance what the Coastal Commission will be considering at the November hearing. To those ends, we strongly oppose any late amendments to the motions in the Staff Report without adequate notice to Appellants and/or copies of recommended motions being made available to the Appellants at the hearing. We understand there will likely be appendices to the Staff Report, and possibly recommended amendments submitted by the Applicant. We simply request 7 copies be made available to the Appellants as soon as possible, but at the very least, prior

to opening of the public comment portion of the hearing so that we have an opportunity to respond before the Commission goes into deliberations.

As articulated in more detail below, we support the findings and rationale in the Staff Report. However, given the numerous deficiencies in the project proposal, and the resulting inconsistencies with the City's certified Local Coastal Program (LCP) policies, and similar inconsistencies with Coastal Act policies, we disagree with the remedies for the numerous policy violations. The Staff Report, and the numerous conditions recommended for your consideration, serve to underscore what Appellants have recommended since the project was first proposed nearly a decade ago - the permits must be denied and the applicant must re-apply with a complete project application. The application must include, at a minimum, documentation of the need for a definitive volume of product water, a revised project description that is consistent with the City's LCP policies and the policies in the Coastal Act, and documentation of "legal interest" in the numerous properties needed to complete the project and necessary infrastructure.

In brief, the CDP issued by the City clearly violated the City's LCP. These inadequacies were documented in the Coastal Commission findings of substantial issue dating back to 2006 - and could have been remedied at the time. Further, the Coastal Commission's findings of substantial issue in 2010 clearly showed that the Applicant had refused to amend the project proposal from 2006, when the Coastal Commission found practically identical substantial issues needing resolution. The Applicant showed no regard for nor any effort to resolve the numerous flaws in the project proposal identified in 2006. Both the Coastal Commission and the Appellants have made it clear for nearly a decade that the project, as it was designed then and is still proposed now, was deeply flawed. The Applicant has been on notice of the violations with the City's LCP for nearly a decade, and has refused to correct the flaws in the project. The best remedy for these violations, and repeated resistance to bring the project into compliance with the City's LCP, is to deny the project as it has been, and still is, proposed.

And the application for a CDP under the Coastal Commission's retained jurisdiction is clearly incomplete and inadequate for approval. These inadequacies and the incomplete application cannot be remedied with conditions on the permits.

We appreciate your careful consideration of the comments below, and look forward to participating in the Coastal Commission's deliberation on November 13, 2013.

As Appellants, we strongly urge you to deny the City CDP due to a general lack of information and clear violations of the LCP, articulated in our comment letter of November 3, 2013. Further, we strongly urge you to deny the application for a CDP under your retained jurisdiction for the same reasons. That application is incomplete and clearly violates Coastal Act policies. The best, if not only, resolution of the inadequacies in the application, and the

flaws in the project, is denial of the application with a recommendation for the Applicant to work with City staff and Coastal Commission staff to re-apply.

Sincerely,

Dave Hamilton, for Residents for Responsible Desalination

Ray Heimstra for Orange County Coastkeeper

Joe Geever for Surfrider Foundation

ADDENDUM TO APPELLANTS' COMMENT LETTER OF NOVEMBER 3, 2013

By reference here, the Appellants incorporate our letter of November 3, 2013, and the references and attachments in that letter, to the comments in this addendum.

I. History of the Project Permits from City and Regional Water Quality Control Board

The City of Huntington Beach (City) first issued a Coastal Development Permit (CDP) for the proposed project in 2006. That CDP was appealed and subsequently found to raise substantial issues by the Coastal Commission.

The Applicant requested a postponement of the *de novo* hearing until they could complete an application for the required CDP under the retained jurisdiction of the Coastal Commission. Against the will of the Appellants, that postponement was granted. The Applicant did not complete the application for a retained jurisdiction CDP, the CDP issued by the City expired, and Appellants were denied a hearing.

Applicant again applied to the City for a CDP in 2010. The application made no mention of, nor attempt to remedy, the concerns raised by Appellants in 2006 and found to be substantial issues by the Coastal Commission. Nonetheless, the City approved a new CDP in 2010. Appellants again appealed and Coastal Commission again found substantial issue. Again, the Applicant requested a postponement and a "consolidated" hearing on the appeal and the retained jurisdiction CDP. The Coastal Commission again granted the Applicant's request -- against the expressed wishes of the Appellants.

This timeline of City CDP application and hearings is similar to the application and hearings for the NPDES permit issued by the Regional Water Quality Control Board (Regional Board). Like the CDP issued by the City and our appeals to the Coastal Commission, the Appellants petitioned the State Water Resources Control Board (State Board) for review of the NPDES permit.¹ That appeal is still under consideration by the State Board.

However, a significant difference between the CDP issued by the City, as well as the application for a retained jurisdiction CDP, is that the NPDES permit is a "temporary" approval that requires an amendment for operation of the facility after the co-located power plant ceases withdrawing seawater for cooling. The reasonable expectation is that this will occur in or before the year 2020. In contrast, the Applicant is requesting a 35-year permit from the Coastal Commission. Application for a long-term stand-alone project permit from the Coastal Commission

¹ Petition and NPDES submitted with our November 3 letter

is in stark contrast to the short-term co-located NPDES permit the Applicant requested from the Regional Board.

The Applicant erroneously argues that conditions on a temporary NPDES permit would constrain what the Coastal Commission can require for a long-term facility that meets the mandates of the Coastal Act. The Applicant erroneously argues:

Pursuant to Coastal Act section 30412(b), the Regional Board has primary jurisdiction to enforce water quality policies, such as Water Code section 13142.5(b). In approving the Project's NPDES permit, the Regional Board found that the Project's proposed use of the existing intake complies with section 13142.5(b), but that subsurface intakes, including an infiltration gallery, are either technologically infeasible or environmentally inferior for the specific site of the Project. Because the Regional Board's issuance of the NPDES permit is a determination with respect to water quality, the Commission may not take any action in conflict with this NPDES permit in matters relating to water quality. As such, the Commission cannot legally require that the Project be redesigned to include a subsurface infiltration gallery.

As explained below, the Regional Board's decision and the SEIR were based on reports provided by Globe Water Consulting, a firm with clear conflicts of interest and clear biases. Further, the NPDES permit is plainly limited in time, in contrast to the CDP applications. There is no conflict, other than what the Applicant has created.

Consequently, the Applicant cannot argue that:

"...the commission shall not . . . modify, adopt conditions, or take any action in conflict with any determination by the State Water Resources Control Board or any California regional water quality control board in matters relating to water quality or the administration of water rights'." (Coastal Act § 30412(b).)²

Not only is the Coastal Commission allowed to ensure the proposed project is consistent with the enforceable LCP and Coastal Act policies – you must. And in doing so, the decision will not be inconsistent with any action taken by the Regional Board nor the State Board.

Modifying, adopting conditions and any other action by the Coastal Commission would be in response to the Applicant requesting a 35-year CDP – and therefore would not be in conflict with approval of a very short-term permit the Applicant requested (and agreed to) from the Regional Board. These separate permits are not the same, and therefore cannot be in conflict. The durations of the separate permits was determined in the separate applications by the same Applicant. The Applicant cannot argue that the terms of the requested permits, in particular the time limits in the separate permits, constitute "entitlements" that may result in conflicting terms. The Applicant applied for the separate permits and specifically applied for different operational time limits.

² See Poseidon letter dated November 8, 2013

Alternatively, even if the NPDES permit was approval of a long-term operation of the facility, consistent with the applications for the CDPs, the Coastal Commission cannot be in conflict with a determination by the State Board. The State Board has not yet ruled on the Appellants' petition to appeal.

In conclusion, statements made by the Applicant are intentionally misleading and must be rejected by the Coastal Commission. The Applicant knows, or should know, that their separate applications for an NPDES permit and a CDP are not for equivalent durations of time and therefore cannot be in conflict, and the terms of the NPDES make that perfectly clear.

a. Numerous City Decisions Did Not Resolve LCP Violations

The violations of the City's LCP were first identified in our 2006 appeal. The issues raised in that appeal, found to be "substantial issues" by the Coastal Commission, were not addressed by the Applicant in their subsequent application for a CDP in 2010, nor resolved in the City's issuance of that CDP in 2010. The *de novo* hearing of both the 2006 and 2010 appeals were postponed on requests by the Applicant.

Now the Applicant is arguing the recommended "conditions of issuance" in the Coastal Commission's staff report is an "effective denial" and "effectively terminates" the project. These self-serving statements by the Applicant must be rejected. The findings in the Staff Report support the Appellants' complaints going back to 2006 – what the Coastal Commission has found to be "substantial issues" twice over the past 7 years. The findings and recommended conditions of issuance in the Staff Report are not an "effective denial" of the project nor do they "effectively terminate" the project. The findings and conditions of approval simply attempt to resolve the substantial issues raised in our appeals going back to 2006. The Applicant has been on notice of these potential modifications to the project, in our appeals and the findings of substantial issues by the Commission twice over the past seven years. The Applicant had ample opportunity to remedy the violations of the City's LCP policies in their project proposal, but instead requested postponement of the *de novo* hearing of our appeal twice.

It is not the responsibility of the Coastal Commission staff to design a feasible alternative site, design and technology that meets the mandates of the LCP and Coastal Act. The Applicant has the burden to prove preferable alternatives are not feasible – a burden of proof they have failed to achieve.

Nonetheless, now that the appeal is finally being heard, after years of requests for information, Coastal Commission staff had no choice but to research and analyze the needed remedies themselves, and undertook extensive and extremely difficult and time-consuming analyses to do so. Staff discovered that, contrary to the Applicant's claims, it is possible to modify the proposed project so it is consistent with both the LCP and the Coastal Act. Staff has, in essence, completed the work the Commission had requested of the Applicant.

In conclusion:

The Staff Report findings support our appeals. The Applicant's arguments opposing the staff recommendations "effectively denies" us a fair hearing on appeals submitted in 2006 and 2010. The substantial issues raised in our appeals have not been resolved, and now the project proponent is arguing they cannot be resolved in a timely manner – all the result of the Applicant's repeated requests to postpone the hearings on our appeals.

As discussed more below, the Applicant is still relying on flawed assumptions³ in reports drafted by Globe Water Consulting -- a clearly biased source given the author was a vice-president for Poseidon Resources and holds a patent with Poseidon to advance the design of co-located desalination facilities without any modifications to the current design being proposed in Huntington Beach.

It is hard to conceive a more cynical, convoluted and self-serving ploy to undermine the appeals process. The Coastal Commission must uphold our appeal and deny the CDP issued by the City. This is the only reasonable remedy for the multiple violations of the LCP asserted in our appeal, and now supported by the findings in the Staff Report. Adoption of the CDPs would be effectively denying our appeal without substantial evidence in the record to support that decision. The Applicant cannot repeatedly request postponement of our appeals over the course of 7 years, and now argue it is too late to modify their project proposal to come into compliance with the mandates of the City's LCP and the Coastal Act. Accepting that argument would violate the Coastal Commission's duty to provide the Appellants a fair hearing and resolution of our appeals dating back to 2006.

b. Amended NPDES Permit Did Not Resolve Violations of Relevant California Laws

The Applicant was initially granted an NPDES permit from the Regional Water Quality Control Board (Regional Board) for co-location of their proposed facility with the HBGS, and use of the cooling water discharge as the "source water" for the facility. Appellants argued that it was reasonably foreseeable, at that time, the power plant would be required to modify the intake system in order to reduce the intake and mortality of marine life. While our arguments were dismissed as "speculative" at the time, subsequent adoption of the "Once-Through Cooling Policy" by the State Water Resources Control Board (State Board) proved our predictions were correct.

³ For example, Globe Water Consulting assumes the intake volume would be 127mgd when the intake volume could be reduced by approximately 25% with preferable discharge alternatives. The Globe Water Consulting reports also assumes the necessity for multiple pumping stations on the surface of the beach -- unnecessarily creating visual, recreational and access impacts. That flawed assumption is clearly undermined by a pilot project nearby at Doheny Beach with a successful buried pumping station with none of the impacts assumed in the Globe Water reports.

After adoption of the "Once-Through Cooling Policy", in 2010 the project proponent applied for an amended NPDES permit for the proposed project. That amended NPDES permit was clearly limited to the time the desalination project would operate prior to the power plant discontinuing the withdrawal of seawater for cooling. That NPDES permit was overly permissive and based on biased and unsubstantiated support -- and we petitioned the State Board for review of the Regional Board decision. As discussed above, that appeal is still outstanding.

We note here that the Regional Board issued the temporary permit based on reports submitted by Poseidon, which were written by Water Globe Consulting. Nicholay Voutchkov is a principle of Water Globe Consulting and the former Poseidon Senior Vice President of Technical Services -- obviously not an independent and unbiased source of information. In fact, Mr. Voutchkov was granted a patent⁴, with Poseidon Resources listed as the "Assignee", for "co-located" desalination facilities like the one Poseidon is proposing in Huntington Beach. We also note the repeated reference to Water Globe Consulting opinions in the Poseidon letter in response to the Staff Report. Again, Mr. Voutchkov is clearly biased towards advancement of "co-location" and use of existing power plant intake systems for seawater desalination facilities -- particularly those proposed by Poseidon Resources, the Assignee to the patent in his name. Also, Water Globe Consulting prepared a response to the peer-reviewed and published paper on sub-surface intakes written by Missimer, et al. Once again, the Globe Water Consulting letter should be rejected and cannot be relied on by the Coastal Commission -- it is not a peer-reviewed analysis and is clearly biased in favor of Mr. Voutchkov's interest in the patent we have attached. Finally and ironically, Mr. Voutchkov told reporters in his role as Poseidon Senior Vice-President that spray brine diffusers could be used at the proposed facility in place of diluting the brine with the discharge from the existing cooling water discharge⁵ -- one of many preferred alternative designs Poseidon failed to include in the CDP application documents. Importantly, these brine diffusers that Mr. Voutchkov suggested were feasible when talking to reporters are plainly missing in his reports analyzing the feasibility of subsurface intakes for a 127mgd volume -- 25% more volume than necessary with spray brine diffusers.

Given the NPDES permit was only granted for a limited time, it is now perfectly clear that when the power plant quits withdrawing seawater for cooling, the project will need to revise the project proposal and apply for a revised NPDES permit. It is also reasonably foreseeable, given the Expert Reports already completed, that the Ocean Plan amendment for new desalination facilities will require modification of the project proposal -- both for the proposed intake and discharge. Use of the existing cooling water intake system, and an "augmented intake volume for in-plant dilution" will clearly not be the "best available site, design and technology for minimizing the intake and mortality of marine life" once the power plant discontinues using the intake structure. The project proponent may argue that, once again, our rationale is

⁴ See Attachment A1: Voutchkov and Poseidon patent

⁵ See Attachment A2: Water Technology Magazine article

“speculative” – but that cannot be determined until the State Board accepts and hears our appeal.

In the meantime, the Coastal Commission must decide how to resolve the substantial issues in our appeal of the CDP issued by the City. The Applicant argues the “temporary” NPDES permit sets the standards for the proposed project’s “long term” intake and discharge technology, and according to the Applicant the Coastal Commission cannot adopt a CDP for a life expectancy of 35-years that would conflict with the NPDES permit’s limited duration. We note that Poseidon, in response to the Staff Report, cites the NPDES permit Attachment F, pages F-23 to F-35.⁶ On page F-26, the Regional Board clearly states the findings and conditions of approval in the NPDES permit do not apply beyond the short-term:

“Under temporary stand-alone operations, the Discharger has little control over the intake structure. Under these conditions, the existing intake meets the best available design criteria. Pursuant to Water Code Section 13142.5(b), the direct connection of the desalination plant to the HBGS’s cooling water system pipelines represents the best available design feasible to minimize intake and mortality to marine life from the Facility’s temporary stand-alone operations. Because different and/or better designs may be feasible in the future under long-term stand-alone operations, the Regional Water Board will reevaluate the Facility’s compliance with Water Code section 13142.5(b), best design available requirement, under those conditions. (emphasis added)

Clearly the NPDES permit does not resolve the proposed project’s long-term consistency with Water Code section 13142.5(b). Nor does it resolve violations of the long-term CDPs under appeal and applied for from the Coastal Commission. And while it is unnecessary for the Coastal Commission to speculate what the State Board’s Ocean Plan amendment will require for long-term operation of the proposed project, the reports by independent experts submitted to the State Board clearly articulate what the “best available science” is for compliance with the Water Code and Coastal Act – despite what Globe Water Consulting and other contractors for Poseidon may argue.

The Coastal Commission does not need to ensure the long-term CDPs are consistent with the short-term conditional NPDES permit. It is abundantly clear that the terms of the NPDES permit are explicitly based on short-term operation. If Poseidon was requesting a CDP that expires when the power plant discontinues use of the cooling water intake, consistent with the terms in the NPDES permit, they may be able to argue the Coastal Commission needs to ensure consistency of the two permits. But that is not what the Applicant is requesting from the Coastal Commission.

Further, should Poseidon modify the retained jurisdiction CDP application for operation of the facility on a similar short-term operation as permitted by the

⁶ See Poseidon letter to Coastal Commission dated November 8, 2013 at page 11, fn 12.

NPDES permit, they would still need to resolve the outstanding appeal before the State Board prior to the Coastal Commission relying on the NPDES permit and any reports relied upon by the Regional Board. And it is too late to modify the duration of operation allowed in the CDP adopted by the City. That CDP issued by the City is inconsistent with the findings and recommendations of the expert panels convened by the State Board, and clearly violates the City's LCP policies. **The Coastal Commission must uphold our appeal, and must deny the CDP issued by the City.**

The confusion and flawed arguments in Poseidon's letter of November 8, 2013 are of their own making, and only create an illusion of conflict where none actually exists. They applied for and agreed to a short-term NPDES permit. They applied for the CDP before the Commission with a different operating life expectancy than the NPDES permit they cite.

And they are now falsely claiming that the recommended conditions of issuance in the Coastal Commission staff report will create a need to revise the NPDES permit -- when those necessary revisions are clearly required in the Regional Board's conditional approval of the "temporary" NPDES permit. The Coastal Commission must strictly enforce the City's LCP and the Coastal Act, and the findings in the Staff Report support denial of the CDP issued by the City.

To further complicate and confuse, the Applicant has made a last minute offer to draft a Marine Life Mitigation Plan in the future as a condition of approval. As stated above, the Applicant bears the burden of proving alternatives to the project as it is proposed, would not minimize maintain and restore biological productivity to the maximum extent feasible. Without adequate proof alternatives are not feasible, the Coastal Commission cannot consider, much less approve, any mitigation plan. Appellants are awaiting resolution of the substantial issues in our appeal(s) -- and have been for seven years. We strongly oppose the Applicants recommended condition of approval and request the Coastal Commission deny the 2 CDPs.

The Coastal Commission must uphold our appeal and deny the permits -- and can clearly do so without concerns about conflicts with the "temporary" NPDES permit. Poseidon can re-apply for a permit that is consistent with the City's LCP and the Coastal Act without any significant delays that they haven't created for themselves already, or that they may create in the future through a long standing pattern of resistance to any change to their patented business model. The necessary modifications to the project proposal for development and long-term operation are clearly spelled out in the repeated staff requests for information, the Staff Report findings, and our appeals starting in 2006 -- as well as the findings and recommendations of the expert panels advising the State Board.

II. Appeal is Long Overdue for Consideration and the CDP Issued by the City Must be Denied

The Applicant has requested delays in hearing our appeals going back to 2006, and the Coastal Commission staff has agreed to those delays twice. We have repeatedly requested timely resolution of the appeals and have been denied those repeated requests. Now, after repeated requests for delays, the Applicant is arguing modification of the project proposal requested by us as far back as 2006, and now finally included in the Staff Report findings and recommendations, would unnecessarily delay the proposed project and render it infeasible. For the reasons below, we request the Coastal Commission reject the Applicant's unsubstantiated arguments, and deny the CDP issued by the City as well as the retained jurisdiction CDP under consideration for the first time.

a. Appeal Should Have Been Heard in 2006 or 2010

As noted above, Appellants have been requesting resolution of the substantial issues in our appeals since 2006. The Applicant has repeatedly requested postponement of the *de novo* hearing(s) required in the Coastal Act – against the requests of the Appellants for a timely hearing.

Now Poseidon argues that the recommendations in the Staff Report are a “mask” for an “effective denial” of the project. The Applicant also argues that any delays in approval of the project, necessary to meet the Staff’s recommendations for bringing the proposal into compliance with the relevant LCP and Coastal Act policies, render the project infeasible.

First, the Applicant makes unverified assertions that the time it will take to meet the recommendations in the Staff Report are “infeasible” and an effective denial of the project. The law clearly places the burden of proof for claims of infeasibility on the Applicant, and clearly sets standards for what that burden of proof demands. The Applicants’ unverified claims fall short of meeting those standards and burden of proof. It is not the burden of the Coastal Commission or the Appellants to show preferred alternatives for aspects of the project are feasible, it is the Applicant’s burden to prove recommended modifications to the proposed project are not feasible. The Applicant has failed to meet that burden and their objections to the Staff Report findings must be rejected.

Further, the Applicant has repeatedly requested delays in hearing our appeals – dating back to 2006. It is simply unacceptable and self-serving for the Applicant to now assert that the multiple past requests for delay of this hearing they requested result in unacceptable delays to project completion.

Appellants strongly object to the Applicant’s arguments. Appellants have a right to a timely resolution of our appeals. The Coastal Commission staff have acquiesced to the requests of the Applicant to postpone the hearing we have a right to – twice over the past 7 years. Now the Applicant is arguing that any delays that may or may not

result from staff recommendations to ensure compliance with the Coastal Act, the City's LCP, and other applicable laws, are an "effective denial" without adequate justification. Ironically, the Applicant has not provided adequate proof that the findings and recommendations in the Staff Report will cause any changes to existing requirements for revisions in the conditional and temporary leases and permits. Without showing that proof, they cannot argue the staff recommendations would render the project infeasible. The Applicant cannot shift their burden of proof to the Coastal Commission staff, and then oppose the staff recommendations.

Further if delays in the issuance of the CDP until the project complies with the LCP and Coastal policies would have the effect of rendering the project infeasible, the Applicant should have requested a timely resolution of the appeals rather than repeatedly requesting the delays of this hearing. Allowing this last-minute unsubstantiated and clearly specious argument to guide the decision of the Coastal Commission would "effectively deny" the Appellants rights to a timely and adequate adjudication of our appeals.

The substantial issues on appeal are ripe for consideration, and have been since 2010 – several of them since 2006. Further, the 2010 CDP under appeal did not resolve the substantial issues raised in our 2006 appeal. Therefore, the appeals must be upheld and the CDPs denied. Adopting the CDPs would clearly reward the Applicant for the previous delays they created, and ignore the Appellants' requests for review of the project proposal in our appeals – requests dating back to the first appeal in 2006. Approval would put a "chilling effect" on the appeals process and set an unwanted and arguably illegal precedent for hearing appeals in a timely manner. It is now painfully apparent that Coastal Commission staff should not have agreed to the Applicant's requests for postponing adjudication of the appeals, and that their reward for complying with Poseidon's request is conflict that could have, and should have, been avoided by accepting our repeated requests for a timely *de novo* hearing.

b. Appellants and City Request Denial of the CDP

The Commission should also take note of the request from a majority of the City Council members to deny the permit the City adopted. Given recent scientific experts' reports, and what is now clearly mandated modifications to the project if it is to meet the policies of the City's LCP, it is a breath of fresh air into an otherwise stale political environment, to have a City Council reverse a decision that was clearly uninformed. We do not consider this an indictment of the approval of the past City Council. Giving past City Council decisions all due respect, we assume they made the best decision based on what they knew at the time – despite our objections. But given what we all know now, the CDP must be denied, and the City Council agrees.

c. Recommended Conditional Approval Inadequate and Inappropriate for Resolving LCP Violations

The recommended "conditions of issuance" in the Staff report are an inadequate and inappropriate resolution of our appeal. Our appeals in 2006 and 2010 should have been heard in a timely manner. It is apparent now, from the Poseidon letter of

November 8, the Coastal Commission staff unintentionally allowed unnecessary confusion and obfuscation by the Applicant by allowing a combined hearing on the appeal and the application for a CDP under the Commission's retained jurisdiction.

It is not appropriate for the Coastal Commission to adopt a CDP issued by the City in 2010 when it is perfectly clear now that the City violated the policies in their LCP. The Coastal Commission has authority to adopt or deny the CDP on appeal, and has had that authority since 2006. And the Staff Report findings and recommendations are clearly an attempt to bring the CDP issued by the City into compliance with the City's LCP policies – something that could have been done many years ago. However, the recommended adoption of the CDP with “conditions of issuance” as been rejected by Poseidon – setting up even more conflict and delays.

The Coastal Commission is now effectively threatened with a legal challenge from Poseidon for your efforts to condition approval of the CDP as recommended. However, Poseidon has not, and cannot, challenge a denial of the CDP issued by the City. As noted above, it is Poseidon's repeated request for postponements since 2006 that set the stage for their argument that the recommended conditions of issuance will “effectively terminate the project.”

The recommended conditions of issuance have been clearly rejected by the Applicant. Adoption of the permit without the Applicant meeting their burden to prove the proposed conditions of issuance would render the project infeasible would clearly violate procedural law. Timely adjudication of the appeals should have commenced on our appeal in 2006, or at least on the appeal in 2010 – long before now. **Denial of the CDP issued by the City is appropriate and justified.**

III. Project Application for Coastal Commission CDP is Incomplete and Must be Denied

a. NPDES Permit is Not Controlling on Coastal Commission Decision

Applicant argues the Coastal Commission cannot take any action that is inconsistent with the NPDES permit issued by the Regional Board in 2010. That argument is intentionally misleading as made perfectly clear in the short-term temporary NPDES permit. For example, the Regional Board found:

Under temporary stand-alone operations, the Discharger has little control over the intake structure. Under these conditions, the existing intake meets the best available design criteria. Pursuant to Water Code Section 13142.5(b), the direct connection of the desalination plant to the HBGS's cooling water system pipelines represents the best available design feasible to minimize intake and mortality to marine life from the Facility's temporary stand-alone operations. Because different and/or better designs may be feasible in the future under

*long-term stand-alone operations, the Regional Water Board will reevaluate the Facility's compliance with Water Code section 13142.5(b), best design available requirement, under those conditions.*⁷

Clearly, the NPDES permit is limited to the short-term and temporary operation of the proposed facility. In contrast, the CDPs requested by the Applicant are for the construction and long-term operation of the facility's life expectancy.

The assertion by the Applicant that:

"The Regional Board found that a subsurface would be "technologically infeasible and/or environmentally inferior"⁸ is taken out of context and intentionally misleading. As noted above, it is clear the Regional Board was only adopting findings for the temporary use of the power plant intake structure. Further, the Regional Board relied on a self-serving and biased report provided by Poseidon's former vice-president, Water Globe Consulting – which was also the basis for conclusions in the City's SEIR. The analysis provided by Globe Water Consulting, which is actually Poseidon's previous Vice President and current holder of a patent for co-located desalination facilities like the one proposed here, was based on flawed assumptions on the best design for sub-surface intakes, as documented in the Coastal Commission Staff report.

Applicant also claims:

*"Approval of a subsurface intake would violate the Coastal Act because 'the commission shall not . . . modify, adopt conditions, or take any action in conflict with any determination by the State Water Resources Control Board or any California regional water quality control board in matters relating to water quality or the administration of water rights'." (Coastal Act § 30412(b).)*⁹

Again, Applicant's argument is misplaced and intentionally misleading. As noted above, the application for CDPs lasting for the life expectancy of the facility differ from the "short-term temporary" NPDES permit issued by the Regional Board. The Commission would not be taking any action, including the denial of the permit or modifications and conditions on issuance, on a CDP application for construction and long-term operation of the proposed facility expressly requested by the Applicant.

b. "Legal Interest" in Properties Required in Application

The conditions of issuance recommended in the Staff Report require proof of legal interest – but only after adoption of the permit by a vote of the Commission on November 13. We oppose this condition because the Applicant should have already provided proof of legal interest prior to Coastal Commission staff accepting the application as complete.

7 POSEIDON RESOURCES (SURFSIDE) L.L.C.HUNTINGTON BEACH DESALINATION FACILITY ORDER NO. RB-2012-0007
NPDES NO. CA8000403, Attachment F- Fact Sheet F-25

⁸ See Globe Water Consulting reports and letters.

⁹ See Poseidon letter of November 8, 2013

It would be counter to sound public policy to adopt and grant a CDP to any project proponent without the Applicant first showing legal interest in the property or properties. Such a practice invites confusion and misrepresentation. Without first ensuring proof of legal interest in a property, developers could simply apply for development permits for properties they have no right to develop, with only the promise they would show legal interest in the future. This type of misrepresentation should be discouraged, if not strictly prohibited.

In this case, the Applicant has had over a decade to perfect legal interest in the property or properties. Nonetheless, the Applicant has either failed to perfect that legal interest, or has refused to provide proof of it.

The application must be denied until the Coastal Commission, and specifically the Coastal Commissioners, have proof of legal interest in the necessary properties.

c. "Proof of Need" Required in Application

The Applicant claims: "the proposed project is needed to reduce Orange County's demand for imported water." Yet, the Applicant has failed to provide proof of the need, much less proof of a definitive volume of water needed.

The Applicant repeatedly asserts the Coastal Commission's decision on the Carlsbad project proposal is precedent setting. But the Applicant simultaneously diverts from the so-called precedent they assert. In fact, the CDP application for the Carlsbad proposed project included nine signed contracts for delivery of product water – a proven demand for a specific volume. By the Applicant's standard of precedent, the application in this case is incomplete.

More importantly, the findings on alternatives to critical aspects of the project, as it is currently proposed, are inherently linked to the need for 50 mgd of product water. For example, the preferred intake alternatives analyses are based on the presumption that the product water volume needs to be 50mgd, and consequently the intake volume needs to be approximately 100mgd.¹⁰ Without proof of the need for a specific volume of product water, the alternatives and feasibility analysis is based on flawed assumptions, too limited in scope and consequently inadequate.

Another example is the impacts to wetlands and ESHA. Without a proven need for the assumed 50mgd of product water, a feasibility analysis of different sized facilities is required. And the analyses of preferred alternatives to minimize the impacts to the greatest extent feasible, as well as mitigation alternatives, is inherently inadequate.

¹⁰ While the Applicant requests a permit for 127 mgd, we assume the project will be redesigned to eliminate the additional 27 mgd proposed for "in-plant brine dilution."

Again, by the Applicants own assertion that the Carlsbad process set some precedent, without proof of need in signed contracts, this application is incomplete and must be denied. Further, and more importantly, the lack of verifiable proof of the need for a specific volume of product water, renders several of the impact analyses flawed, and any consideration of preferred alternatives to minimize impacts to the maximum extent feasible flawed.

The Coastal Commission cannot adopt a permit prior to thorough and adequate analyses of the potential impacts, preferred alternatives that minimize potential impacts to coastal resources, and adequate feasibility analyses before resorting to less protective alternatives and mitigation. The burden of proof to start this analytic process rests with the Applicant, and the Applicant cannot comply without first proving a need for the project, including proof of a specific volume of water needed. Word of mouth evidence by the Applicant and supporters of the project, including potential water agencies interested in purchasing the product water, is insufficient proof.

IV. Conditional Approval is Not Adequate Nor Timely Resolution of Violations

a. "Feasibility" and "After the Fact" Mitigation Arguments Not Supported by Adequate Studies

As your staff report and our comments clearly point out, the Coastal Commission has approved permits necessary for thorough feasibility studies by several desalination project proponents in California. These studies of "site specific" conditions are exemplified by Coastal Development Permits issued to the City of Santa Cruz, Cal-Am Monterey, West Basin Water District, Long Beach Water District, and Municipal Water District of Orange County's Doheny Beach pilot study. And, the San Diego County Water Authority has recently conducted a preliminary feasibility study for a proposed project at Camp Pendleton in Oceanside.

These studies and pilot projects are examples of "feasibility studies" the Applicant could have completed long before the hearing on our appeal, and are in stark contrast to what limited studies the Applicant has provided – including the study recently submitted by the Applicant after years of Coastal Commission requests for information.

In contrast to the studies done by project proponents noted above, as well as studies done by AES in preparation for the concurrent demolition and construction associated with the Huntington Beach Energy Project proposal, the Applicant in this case has refused to conduct studies requested by the Coastal Commission in a timely manner. And it is now apparent the studies submitted by the Applicant, some only weeks before the hearing date, are deeply flawed in their design assumptions¹¹, are

¹¹ Global Consulting report

incomplete¹², lack substantiated conclusions¹³, and are contrary to findings and recommendations of unbiased and independent experts in the science community¹⁴.

Mere weeks before this hearing -- 7 years after the first appeal was filed, and after years of requests for information by the Coastal Commission staff -- it is too late for the Applicant to attempt "pulling a rabbit out of their hat" with unverified assertions that the preferred alternatives and project proposal modifications are not feasible. Unsubstantiated and self-serving claims by the Applicant need thorough evaluation by Coastal Commission staff and Appellants prior to a decision to conditionally approve the project.

Finally, the Applicant is now suggesting a condition of approval that postpones the full development of a Marine Life Mitigation Plan (MLMP). We strongly oppose this offer. Approving the CDP with a condition to develop a MLMP in the future would have to be supported by the Applicant with adequate studies the minimizing the marine life impact is not feasible. The Applicant has not met that burden of proof.

The Applicant has failed to adequately prove alternatives for minimizing impacts are infeasible, they have had over seven years to do so in response to our appeals, and only now is the Applicant offering to develop a Marine Life Mitigation Plan. **The Appellants urge the Coastal Commission to deny the permit and reject the last minute offer to draft a MLMP as a condition of approval. The Commission cannot approve the permit with the condition of approval suggested by the Applicant. The time has finally come to adjudicate our appeal, and the Applicant's offer to draft a MLMP in the future does not resolve the substantial issues in the appeal. The CDP issued by the City must be denied.**

We therefore request the Coastal Commission uphold our appeal and deny the CDP issued by the City on the grounds it was not based on the best science available.

b. "Economic Infeasibility" Argument is Flawed and Unsupported
The Coastal Commission must first ensure preferred alternatives to ensure compliance with the policies of the City's LCP and Coastal Act are fully enforced.¹⁵ The burden of proving preferred alternative sites, design and technology to minimize adverse impacts to coastal resources are "infeasible", is clearly the Applicant's burden of proof. Only after finding the Applicant has done adequate "feasibility studies" can the Applicant argue for after-the-fact mitigation in place of the preferred alternatives to meet the substantive policies of the LCP and Coastal Act. As noted above, those "feasibility studies" are absent here, and the Coastal Commission cannot approve a CDP prior to submittal of "adequate feasibility studies."

¹² See eg, California Energy Commission "Preliminary Staff Assessment" of wetland impacts

¹³ See eg, SDCWA feasibility report for Camp Pendleton

¹⁴ See: Missimer paper "2013 subsurface intake study"

¹⁵ See Attachment A3: Memo from Stanford Law Clinic on "feasibility" rules

The Applicant seems to argue that the project would be economically infeasible if preferred alternatives, consistent with the substantive policies of the LCP and Coastal Act, are fully enforced. Many of these arguments are based on the Applicant's own unverified assertions that the cost of compliance would make the project not "capable of being accomplished in a successful manner within a reasonable period of **time**."¹⁶ The Coastal Commission cannot accept these arguments without independent and adequate supporting evidence.

For example, the Applicant argues that sub-surface intakes are economically infeasible. As noted above, that assertion is not adequately verified. And, this assertion is undermined by the fact that the Water Purchase Agreement between Poseidon and the San Diego County Water Authority had provisions that would accommodate additional costs for preferred intake systems – and Poseidon and the purchaser knew it.¹⁷ In fact, the Term Sheet for consideration of Water Purchase Agreements for the Poseidon-Huntington proposed facility contain the exact same provisions.¹⁸

Further, published articles by experts in the field of sub-surface intakes show that increases to construction costs for sub-surface intakes can be returned in reduced operating costs.¹⁹ These potential "return on investment" benefits make the alternative preferred intakes "economically feasible." To our knowledge, Poseidon has never offered any verified and independent evidence that sub-surface intakes, or any of the recommended modifications to the project proposal, are economically infeasible – which is clearly their burden to prove.

Finally, as noted above, any delays in approval of the CDPs rest squarely on the Applicant's refusal to submit information requested by Coastal Commission staff and repeated requests to delay the appeal decision going back to 2006. And concerns about the inadequacy of the project as designed have been expressed in hearings before the City, as well as hearings by the Coastal Commission finding substantial issues with the project's compliance with applicable local and State policies, in both 2006 and 2010. Importantly, it is the Applicant who requested delaying the *de novo* hearings of the 2006 and 2010 appeals. Any possible delays in completing the project rest squarely on the Applicants past and future behavior. On the other hand, Appellants have consistently requested timely resolution of the substantial issues found by Coastal Commission going back to 2006, and repeated in 2010.

¹⁶ See Poseidon letter dated November 8, 2013.

¹⁷ See eg, The New York Times. February 28, 2013. *In California, What Price Water* available at <http://www.nytimes.com/2013/03/01/business/energy-environment/a-costly-california-desalination-plant-bets-on-future-affordability.html?pagewanted=2&r=0>

¹⁸ See: "**Term Sheet: Proposed Water Reliability Agreement Huntington Beach Seawater Desalination Project**" at page 14, condition 14B -- available at http://www.mwdoc.com/pages.php?id_pge=173

¹⁹ See: "2013 Subsurface Intake Report (Missimer)

CONCLUSION

In conclusion, for the reasons stated in our letter of November 3, 2013, as well as the reasons in this Addendum to that letter, we respectfully request the Coastal Commission deny the CDP issued by the City and on appeal to the Coastal Commission. Denial is appropriate to ensure compliance with the Coastal Act procedural appeal policies, to ensure a fair hearing for Appellants, and for to ensure enforcement of the City's LCP policies in a fair and timely manner. We also request denial of the CDP Poseidon is now applying for under the Coastal Commission's retained jurisdiction. Adoption of the requested CDP would set bad preceent for wat is required in an application before it is deemed "complete", would be inappropriate before allowing the City and Applicant to resolve the violations of the LCP through project modification agreed to by the City and Applicant, and would reward Applicants for submitting intentionally misleading information - a behavior already identified in the Applicant's Carlsbad CDP process.



CITY OF COSTA MESA

CALIFORNIA 92626-1200

P.O. BOX 1200

FROM THE OFFICE OF CITY COUNCIL MEMBER SANDRA L. GENIS

W19a & 20a

Nov. 8, 2013

Honorable Chair Mary Shallenberger and
Members of the California Coastal Commission
45 Fremont Street
Suite 2000
San Francisco, CA 94105-2219

Subject: Poseidon Resources, Appeal No. A-5-HNB-10-225 and Application No. E-06-007

Dear Chair Shallenberger and Commissioners,

I urge you not to approve the proposed Poseidon desalination project and related pipeline (Appeal No. A-5-HNB-10-225 and Application No. E-06-007). While much of the pipeline is located outside the California Coastal Zone, it is an essential component of the project. Further, as stated in the staff report dated October 25, 2013, it is likely that the pipeline will be subject to a consistency determination at some point in the future due to proposed extensions across water bodies subject to the jurisdiction of the United States Army Corps of Engineers.

Several pipeline alignments have been proposed through the City Of Costa Mesa. The City of Costa Mesa has long been on record that any such pipeline would be subject to City approval, as noted in the November 5 letter from Public Services Director Ernesto Munoz to Mesa Water District General Manager Paul Shoenberger, which has been copied to the Commission under separate cover and is attached to this letter as well.

The City of Costa Mesa has not given permission for the proposed pipeline to be constructed in our streets, our golf course or our parks, as is currently proposed. I, personally, am very concerned inasmuch as the environmental impact report failed to even describe adjacent land uses accurately, let alone analyze impacts to those uses. At least one proposed alignment would be just a few feet from existing homes resulting in noise, dust, and other impacts to residents. We have seen no adequate analysis of traffic impacts, including impacts on roadways providing coastal access for our residents.

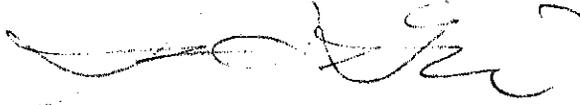
One proposed alignment would go through a natural park, home to several high interest species including burrowing owl, a nesting pair of northern harriers, and vernal pools/San Diego fairy shrimp. The park also includes extremely significant archaeological resources, referred to as

Page 1 of 2

ORA-58 and ORA-506. Archeological resources in the park are believed to be the remains of a large, millennia old village complex and are listed on the National Register of Historic Places as the "Fairview Indian Site". Poseidon's environmental documentation thus far not only fails to address potential impacts on these resources, the documentation does not even acknowledge that they exist.

I urge you to vote "NO" on this project. Thank you for your consideration.

Yours truly,

A handwritten signature in black ink, appearing to read 'Sandra Genis', written in a cursive style.

City Council Member Sandra Genis

ENDANGERED HABITATS LEAGUE

DEDICATED TO ECOSYSTEM PROTECTION AND SUSTAINABLE LAND USE



November 8, 2013

VIA ELECTRONIC MAIL

California Coastal Commission
45 Fremont Street Suite 2000
San Francisco, CA 94105-2219

RE: Poseidon Desalination Plant – *OPPOSITION*

Dear Chair and Commission Members

The Endangered Habitats League (EHL) urges denial of this permit application. For your reference, EHL is Southern California's only regional conservation group.

Poseidon would use open ocean intakes, which are *unacceptable* for use in ocean desalination projects, due to impacts to marine resources. Furthermore, desalinating ocean water uses the most energy of all the ways to secure water supplies. When water conservation and reuse are cheaper, more reliable, and practical, there is no excuse for desalination.

Please protect our coast from this project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dan Silver', is positioned above the typed name.

Dan Silver, MD
Executive Director



CITY OF COSTA MESA

CALIFORNIA 92628-1200

P.O. BOX 1200

FROM THE OFFICE OF THE DIRECTOR, DEPARTMENT OF PUBLIC SERVICES

RECEIVED
NOV 08 2013
CALIFORNIA
COASTAL COMMISSION

November 5, 2013

Paul E. Shoenberger, P.E.
General Manager
Mesa Water District
1962 Placentia Avenue
Costa Mesa, CA. 92627

SUBJECT: RESPONSE TO CALIFORNIA COASTAL COMMISSION LETTER AND RECOMMENDATIONS MADE BY MESA WATER DISTRICT WITH REGARDS TO CITY OF COSTA MESA'S REQUIRED APPROVALS FOR THE PROPOSED HUNTINGTON BEACH DESALINATION FACILITY

Dear Mr. Shoenberger:

The City of Costa Mesa is in receipt of the letter from Mesa Water District dated October 16, 2013 to the California Coastal Commission regarding the proposed Seawater Desalination Project in Huntington Beach. This letter provided information to the Commission and contained several inconsistencies regarding the City's required discretionary approvals and permits for the construction of the proposed Project's water delivery pipeline in the public right-of-way. The City of Costa Mesa hopes to clarify the applicability of the required discretionary approvals and permits required.

The project, proposed by Poseidon Resources Corporation, consists of the construction and operation of a seawater desalination facility within the City of Huntington Beach to include a 48-54 inch diameter product water transmission pipeline to go through the City of Costa Mesa within the right-of-way of several arterial streets, as per the attached map (Attachment 1). The arterials considered for placement of a pipeline in the City of Cost Mesa are major arterials and cannot be subjected to closures, especially during the day, and due to the proximity to residential development, closures at night will not be permitted.

Due to the extent of the pipeline network, the impacts are not considered routine to be addressed solely in the permit process, and would therefore require City Council approval prior to the issuance of any permits. The Costa Mesa City Council, during its regular meeting on November 1, 2005, considered the project and then passed a motion to oppose the construction of the mentioned pipeline in the City of Costa Mesa. This contradicts several statements made by the Mesa Water District in the letter to the Commission as set forth in the attachment to this letter:

"(1) Poseidon is not pursuing, and Mesa Water is not evaluating, a pipeline route for the Project within the coastal zone in Costa Mesa; (2) no additional discretionary permits are required from Costa Mesa for the pipeline routes within Costa Mesa's boundaries that Poseidon is pursuing as part of the Project, which are all located outside of the coastal zone."

Additionally, the project mitigation measures, among others, include the need for obtaining City approvals for construction of the pipeline in public right-of-way and city-owned properties (Attachment 2). Several of the City's general concerns on the construction and traffic impact of the pipeline project within the City of Costa Mesa are outlined in the City's comments to the Draft Subsequent EIR-Seawater Desalination Project, as follows:

1. CCM-3 The proposed network of distribution lines in the City of Costa Mesa is of significant environmental concern potentially creating significant traffic, noise, and air quality impacts of the neighborhoods and businesses. All significant impacts should be mitigated and approved by the City of Costa Mesa City Council;
2. CCM-4 The project applicant would obtain approval from the Fairview Development Center, Costa Mesa Country Club, and Orange County Fair and Exposition Center prior to construction on their property in the event the ultimate alignment of the pipeline conveyance facilities are located within the property limits. Any construction within the City of Costa Mesa would require proper governmental approvals and would include such measures as the exclusion of construction during rush hour periods, preparation of a Traffic Management Plan (TMP), and roadway re-striping, among others, as determined through a TMP review by the City;
3. CCM-5 There are several City-owned and non-city owned utilities that may be impacted with this project. The impacts to other utilities were not addressed in this analysis;
4. CCM-7 The City emphasizes the importance of a mitigation measure requiring that all pipeline construction within the City's limits be trenchless unless otherwise approved by the Public Services Director.

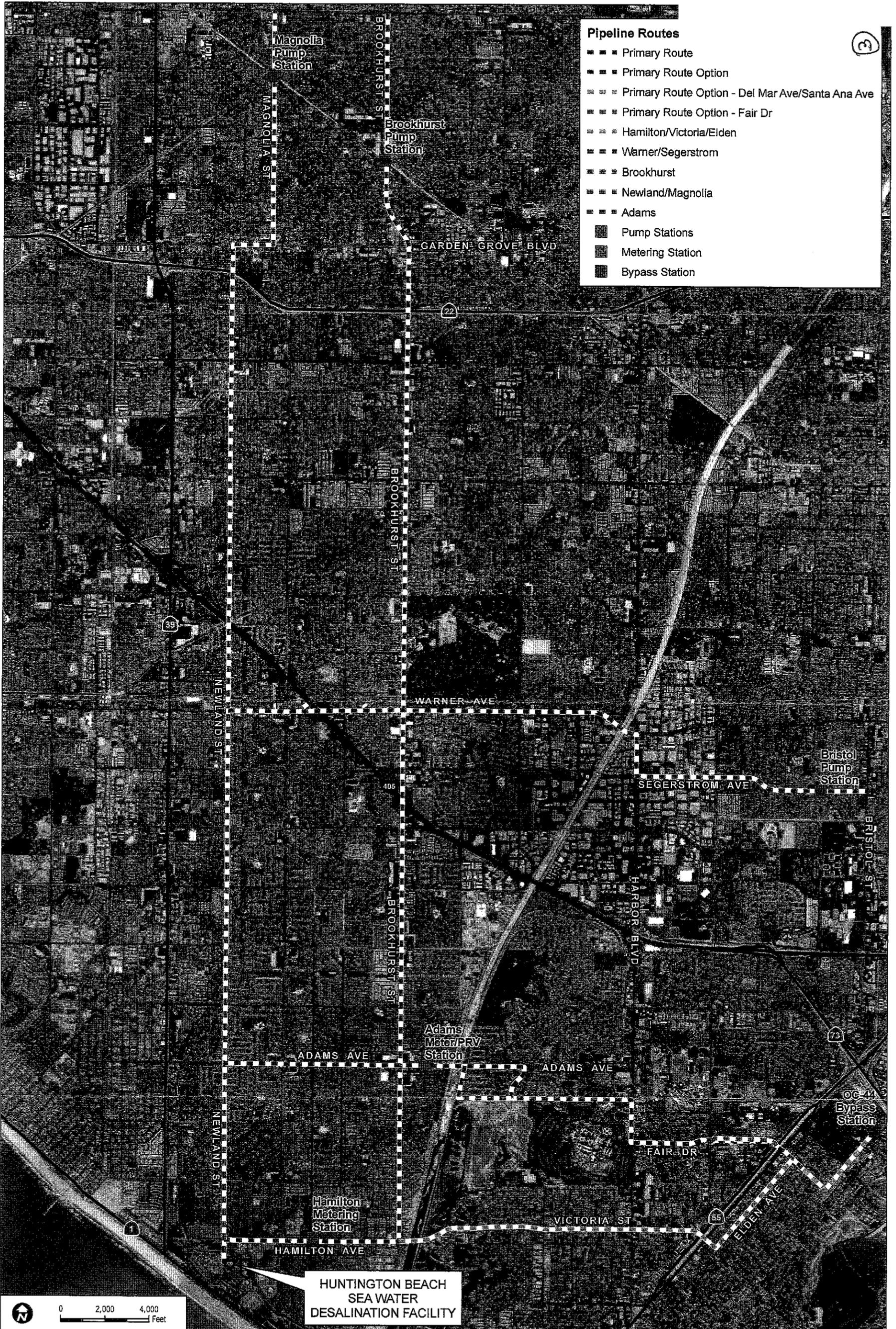
If you would like to further discuss any of the issues raised related to the City's approval process, please do not hesitate to contact me.

Sincerely,


Ernesto Munoz, PE
Public Services Director

Attachments: 1. Figure 3-3b - Offsite Water Delivery Facility Pipelines & Pump Stations
2. Comments to Draft Subsequent EIR

c Mesa Water District Board of Directors
Costa Mesa City Council
Tom Hatch, Chief Executive Officer
✓ Tom Luster, California Coastal Commission
Scott Maloni, Vice President, Poseidon Resources



SOURCE: Poseidon, April 2010; DigitalGlobe 2007

NOTE: See Figure 3-5 for the location of the Coastal Booster Station

6483-01

MAY 2010

Seawater Desalination Project at Huntington Beach

Offsite Water Delivery Facility Pipelines and Pump Stations

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CITY OF COSTA MESA

P.O. BOX 1200 • 77 FAIR DRIVE • CALIFORNIA 92628-1200

DEVELOPMENT SERVICES DEPARTMENT

June 21, 2010

City of Huntington Beach
Attn: Ricky Ramos
Planning Division, 3rd Floor
2000 Main Street
Huntington Beach, CA 92648

Subject: DRAFT SUBSEQUENT EIR – SEAWATER DESALINATION PROJECT

Dear Mr. Ramos:

Thank you for the opportunity to provide comments on the Draft Subsequent Environmental Impact Report (SEIR) for the Seawater Desalination Project. The project includes construction of a desalination facility in the City of Huntington Beach as well as water conveyance facilities across several jurisdictions including the City of Costa Mesa. The City has significant concerns on the construction and traffic impacts of the pipeline project within the City of Costa Mesa. We provide the following responses on the Draft SEIR:

} CCM-1

GENERAL:

- The SEIR includes detailed analyses on the desalination facility. However, there is no evaluation of impacts with the water conveyance system in the City of Costa Mesa;
- The proposed network of distribution lines in the City of Costa Mesa is of significant environmental concern potentially creating significant traffic, noise and air quality impacts to the neighborhoods and businesses. All significant impacts should be mitigated and approved by the City of Costa Mesa City Council;
- Any construction-related impacts to Fairview Park, Costa Mesa Country Club, and Orange County Fair and Exposition Center property (as applicable) shall be reviewed by the City of Costa Mesa Parks and Recreation Commission and City Council;
- There are several city-owned and non-city owned utilities that may be impacted with this project. The impacts to other utilities were not addressed in this analysis.
- All bicycle routes and pedestrian paths that are impacted should be identified and appropriate mitigation measures should be included;

} CCM-2
} CCM-3
} CCM-4
} CCM-5
} CCM-6

CONSTRUCTION IN THE PUBLIC RIGHTS-OF-WAY:

- The Draft EIR indicates that trenchless construction opportunities are favorable within the City of Costa Mesa along the primary route, especially from Harbor Boulevard to the eastern terminus of the route in Costa Mesa. Given that short-term construction impacts of the pipeline construction will be significant, the City is emphasizing the importance of a mitigation measure requiring that all pipeline construction within the City's limits be trenchless unless otherwise approved by the Director of Public Services.

} CCM-7

- All trees and any landscaping within public right-of-way that may be impacted due to the placement of pipeline shall be reviewed and appropriate measures approved by the City of Costa Mesa Parks and Recreation Commission;
- Geotechnical analyses for pipeline construction within City of Costa Mesa specific to all trenching activities should be submitted for review prior to issuance of any encroachment permit.

CCM-8

CCM-9

TRAFFIC IMPACTS:

- Trenching in the roadway may result in closure of two lanes of traffic during the day, which will not be allowed by the City of Costa Mesa. In addition, the SEIR refers to "Limit construction to one side of the road..." as mentioned in Section 4.9 that would create significant impacts to City streets. Please note that the arterials considered for placement of pipeline in City of Costa Mesa are major arterials and cannot be subjected to major closures, especially during the day and due to proximity to residential development, closures at night will not be permitted.
- The proposed primary alignment route is along Adams Avenue, Placentia Avenue, Fairview Park, Harbor Boulevard, Fair Drive and Del Mar Avenue. The impacts during construction on major arterials and adjacent residents and businesses in the City of Costa Mesa will need to be addressed in detail. Due to the extent of the pipeline network the impacts are not considered routine to be addressed with a permit process. The City of Costa Mesa requires City Council approval prior to issuance of any permit on this project.
- The traffic analysis should document at intersection and segment level the specific impacts that would be caused by construction;
- The alternative pipeline alignment along Victoria Street will cause extensive traffic impacts. One of the tables in the EIR, Table 4.9-17, quotes the Average Daily Traffic on Victoria Street as 10,000. Victoria Street carries approximately 30,000 vehicles per day. Adams Avenue, listed as 29,000 ADT is also low. In the vicinity of Santa Ana River, Adams Avenue carries approximately 40,000 vehicles per day. The City of Costa Mesa was not contacted to obtain any of the information contained in this analysis;
- Section 4.9 minimizes traffic impacts by including requirements for preparation of Traffic Management Plan. The City of Costa Mesa requires that a detailed review of traffic impacts be conducted and included as part of the review of the EIR. The findings of this analysis should be discussed with the City of Costa Mesa staff and public for any recommendations;
- The "Traffic" section as part of Section 4.9 – Construction-Related Impacts, is not adequate, as most of the language is generic and typical of any construction project. There should be discussion of actual impacts with the proposed project;

CCM-10

CCM-11

CCM-12

CCM-13

CCM-14

CCM-15

CCM-16

We look forward to additional discussion before completion of the final SEIR and thank you for considering the City's comments.

Sincerely,



KIMBERLY BRANDT, AICP
Development Services Director

cc: Peter Naghavi, Public Services Director
Raja Sethuraman, Transportation Svs. Manager
Claire Flynn, Planning Manager
Mino Ashabi, Senior Planner

ATTACHMENT



CITY OF COSTA MESA

CALIFORNIA 92626-1200

P.O. BOX 1200

FROM THE OFFICE OF THE TRANSPORTATION SERVICES MANAGER

November 30, 2005

Mr. Robert F. Beardsley, P.E.
Director of Public Works
City of Huntington Beach
2000 Main Street
Huntington Beach, California 92648

Subject: Proposed Seawater Desalination Plant Project

Dear Mr. Beardsley: *Bob*

The City of Costa Mesa is aware that Poseidon Resources Corporation is proposing to construct a Seawater Desalination Project in the City of Huntington Beach adjacent to the Applied Energy Services Corporation (AES) Huntington Beach Generating Station (HBGS). As part of this project, a 42" to 48" diameter pipeline is proposed to go through the City of Costa Mesa within the right-of-way of several arterial streets such as Adams Avenue, Harbor Boulevard, Fair Drive and Del Mar Avenue, with some sections located within Fairview Park, Fairview Developmental Center and the Orange County Fairgrounds.

The Costa Mesa City Council, during its regular meeting on November 1, 2005, considered the above Seawater Desalination Plant project. The City Council received a presentation from City staff as well as from a representative of Poseidon Resources Corporation. Several members of the public, from the Cities of Costa Mesa, Huntington Beach and Newport Beach, also provided their comments on the project. Following the receipt of comments, the City Council determined that the analysis of impacts in the City of Costa Mesa was not sufficient as presented in the Environmental Impact Report. The City Council then passed a motion to oppose the construction of the mentioned pipeline in the City of Costa Mesa, based on current information.

Information on City Council discussion and action on this item may be found on the City's website at ci.costamesa.ca.us. Under "City Council", you will find a "drop box" for "Council Agendas, Action Agendas, and Council Minutes". You will also find a streaming video of the meeting by going to <http://ci.costamesa.ca.us/news/cmestatv.htm> and clicking on "Video On-Demand".

It is requested that this letter be provided to the Huntington Beach City Council prior to their next consideration of the subject item.

Thank you for your cooperation and if you have any questions, please call Peter Naghavi, Transportation Services Manager, at 714-754-5182.

Sincerely,

William J. Morris
WILLIAM J. MORRIS
Director of Public Services

CCM-17

6

Council Member Monahan recused himself from the discussion and decision of the item claiming a conflict of interest due to his leasing of property that is within 500 feet of the rezoning request address. He then exited the Council Chambers.

The affidavits of publication and of mailing are on file in the City Clerk's office.

The Associate Planner summarized the agenda report.

There being no public comment the Mayor closed the public hearing.

Mayor Pro Tem Bever expressed interest in reducing the threshold for subdivisions to two per lot. Council Member Dixon concurred suggesting staff prepare the necessary ordinance and have it reviewed by the Planning Commission.

Moved by Mayor Allan Mansoor, seconded by Council Member Linda Dixon.

MOTION: Give Ordinance first reading, to be read by title only and waive further reading

The motion carried by the following roll call vote:

Ayes: Mayor Allan Mansoor, Mayor Pro Tem Eric Bever, Council Member Linda Dixon, Council Member Katrina Foley.

Noes: None.

Absent: None.

Abstain: Council Member Gary Monahan

Council Member Monahan returned to the Council Chamber.

NEW BUSINESS -

3. Proposed Huntington Beach Seawater Desalination Plant.

The Transportation Services Manager summarized the Agenda Report and he along with the City Attorney responded to questions from the City Council.

Bill Owen, Poseidon Resources Corporation, responded to questions from the City Council relative to the Poseidon Pipeline Project.

Communications received in opposition to the project were received from Stanley and Frances Jeranko, Roselyn Kondo, Eileen Murphy, Ray Rakunas, Jeanne Miller, Mr. and Mrs. James Peterson, and Mae Gale.

CCM-18

Dave Guido, Huntington Beach, President of Huntington Beach Tomorrow, cautioned the Council regarding the project and he urged the Council to look into why the facility in Tampa, Florida is still not open. For more information he encouraged people to e-mail info@hbtomorrow.org.

Topper Horack, Huntington Beach, spoke in opposition to the project and explained impacts, due to construction, that could be expected in Costa Mesa.

Anna Schaber, Newport Beach, stressed that the pipeline was not a public agency's project.

Larry Porter, Newport Beach, confirmed that no agreements have been made with the Orange County Water District or the Metropolitan Water District for the purchase of the water. He urged the Council to send a message to the Huntington Beach City Council expressing opposition to the construction of the pipeline due to the disruption to the City.

Robin Leffler, Costa Mesa, pointed out that the Environmental Impact Report indicates that the noise decibel level is to be at 92 decibels during construction, and expressed concern relative to residents in close proximity to the project.

Tim Geddes, Huntington Beach, he emphasized that the project does not provide a benefit to the City of Costa Mesa and is a private industry project.

Resident, Newport Beach, requested the Council deny the permit for the pipeline and to "weigh in" on the EIR for the project.

David Stiller, Costa Mesa, spoke regarding the lack of information and and felt that a decision on the project was premature.

Beth Refakes, Costa Mesa, expressed concern regarding the impacts on the City that "get's no benefit" from the project. She did not feel it was a project that should be done in a built out city.

Sandra Genis, Costa Mesa, expressed concern that there was not a Notice of Preparation sent to the residents of Costa Mesa, that there were not any public meetings scheduled in the City, and that the EIR that was certified by the City of Huntington Beach, does not address where the staging locations will be throughout the City. She urged the Council to consider the preparation of a separate EIR to reflect the impacts in Costa Mesa.

Muriel Jones, Costa Mesa, shared a notice that she had received regarding the project, expressed concern regarding the impacts to the City,

CCM-18
(Cont.)

and opposed the project which would be in her "backyard".

Byron de Arakal, Costa Mesa, encouraged the City to request Huntington Beach to reopen the EIR or that a supplement be prepared and to examine the impacts on Costa Mesa. He expressed concern of the Council taking a position at this point without first meeting with Poseidon Resources and discussing what mitigating benefits could be negotiated.

Council Member Dixon felt that there wasn't enough information to take a stance at this time.

Mayor Mansoor felt that there would be a negative impact on the City.

Moved by Council Member Katrina Foley, the motion died for lack of second

MOTION: Direct staff to prepare a request to Poseidon Resources for preparation of an EIR for the City of Costa Mesa with respect to the impacts on the City; schedule a public hearing in December relative to this project and request the City of Huntington Beach to discontinue any action on the application for a Conditional Use Permit, pending Costa Mesa's analysis and review.

Motion by Mayor Allan Mansoor, seconded by Council Member Katrina Foley.

MOTION: That the Council go on record opposing the construction of the pipeline in Costa Mesa.

Council Member Monahan concurring with comments made by Council Member Dixon, emphasized that taking a position on the project was premature. He pointed out that public hearings will be held, that staff has submitted comments on the EIR and will have an opportunity to dispute the EIR, or to request another to be prepared. He felt that there wasn't enough information to determine a position on the project.

Based on comments received by Council Member Monahan and Council Member Foley relating to determining a position and the information available or the lack thereof, Mayor Mansoor added to his motion that the position of the City Council is based on the information that is currently available. Council Member Foley agreed with the addition.

Mayor Pro Tem Bever indicated that due to the imposition the project would have on the City he could not support the project and felt the message should be expressed.

CCM-18
(Cont.)

Motion by Mayor Allan Mansoor, seconded by Council Member Katrina Foley.

MOTION: The Council go on record opposing the construction of a pipeline in Costa Mesa, based on current information.

The vote carried by the following roll call vote:

Ayes: Mayor Allan Mansoor, Mayor Pro Tem Eric Bever, Council Member Katrina Foley.

Noes: Council Member Linda Dixon, Council Member Gary Monahan.

Absent: None.

4. Resolution requesting the County of Orange's support of the Children's Health Initiative.

The Legislative and Public Affairs Manager summarized the Agenda Report. Council Member Foley shared her reasons for bringing the resolution forward and introduced Chris Lee, Chief of Staff for Supervisor Lou Correa's office who explained the current practices and the initiative that is being proposed.

Mayor Mansoor, expressed his opposition, referring to reasons stated in an editorial in the Orange County Register that since the program is "free" the list of interested individuals would grow, that the County is facing a multi-billion dollar unfunded liabilities, and that that the program is expected to expand to include illegal immigrants which will exceed the projected budget amount.

Moved by Council Member Linda Dixon, seconded by Council Member Gary Monahan.

MOTION: Adopt Resolution No. 05-79: A RESOLUTION OF THE CITY COUNCIL CITY OF COSTA MESA, CALIFORNIA, REQUESTING THAT THE COUNTY OF ORANGE SUPPORT THE CHILDREN'S HEALTH INITIATIVE, amending the last paragraph to read, "Now, therefore be it resolved that the Costa Mesa City Council hereby supports the concept that every child with legal residency status be insured so as to have access to basic health care services, and requests that the County of Orange adopt and implement the recommendations in the HCA report subject to funding available."

Substitute Motion moved by Mayor Allan Mansoor, seconded by Mayor Pro Tem Eric Bever.

SUBSTITUTE MOTION: Oppose adoption of the resolution requesting the County of Orange to support the Children's Health Initiative.

CCM-18
(Cont.)

gallons double-walled, underground storage tanks, respectively. Generally, the diesel fuel would be used to operate the emergency generators for testing and maintenance, which is expected to occur no more than about 50 hours per year. Given the low volatility of diesel fuel and low turnovers of the fuel, it is expected that storage of diesel fuel would result in minimal emissions of volatile organic compounds. Aqueous ammonia for disinfection of product water will be stored in a 3,000-gallon aboveground tank at a concentration of 10 to 20%. It will be stored in concentrations and volumes less than the regulatory limits (20% concentration, 20,000 gallons) to mitigate concerns associated with accidental releases. Fluorosilicic acid for fluoridation of product water will be stored in a 5,200-gallon aboveground tank at a concentration of 23%. The fluorosilicic acid tank is expected to be exempt from permitting under Rule 219 and not a significant source of air emissions.

The Final SEIR errata includes a description of the applicable requirements of Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines) and additional description of Rule 431.2 (Sulfur Content of Fuels). The primary requirement in these rules related to diesel fuel is that it may not contain more than 15 parts per million of sulfur by weight. Because Rule 431.2 applies to any fuel sold in the SCAQMD, this requirement would be met by the proposed project.

12.3.2 MUNICIPALITIES/DISTRICTS

CITY OF COSTA MESA (CCM), JUNE 21, 2010

- ~~CCM-1~~ This comment contains introductory or general information. Please refer to responses to specific comments and recommendations below. No further response is required.
- CCM-2 The commenter is incorrect that there is no evaluation of the water conveyance system being proposed within the City of Costa Mesa. Extensive analysis of the potential environmental impacts associated with construction of the water conveyance system is provided within the DSEIR in Section 4.9, Construction-Related Impacts.
- CCM-3 As seen in response CCM-2, extensive analysis of impacts to sensitive receptors is provided within the EIR in Section 4.9, Construction-Related Impacts, in regards to air quality, noise, and traffic. Mitigation to minimize impacts to less than significant levels (including the preparation of a Traffic Management Plan) is provided within the section.
- CCM-4 The project applicant would obtain approval from the Fairview Developmental Center, Costa Mesa Country Club and Orange County Fair and Exposition Center prior to construction on their property in the event the ultimate alignment of the pipeline conveyance facilities are located within the property limits. Any construction within the City of Costa Mesa would require proper governmental approvals and would include such measures as the exclusion of construction during rush hour periods, preparation of a Traffic Management Plan (TMP), and

roadway re-striping, among others, as determined through a TMP review by the City.

- CCM-5** The project applicant would consult with the City of Costa Mesa during 90% plan stage to minimize potential conflicts with existing utilities. As seen in mitigation measure, CON-16, the project engineer will perform geophysical surveys to identify subsurface utilities and structures, and incorporate the findings into site design prior to construction. Pipelines or conduits which may be encountered within the excavation and graded areas shall either be relocated or cut and plugged according to the applicable requirements.
- CCM-6** The DSEIR provides mitigation measures to minimize potential impacts to bicycle and pedestrian facilities during construction. Mitigation measure, CON-34 identifies that alternate bicycle routes and pedestrian paths shall be provided where existing paths/routes are disrupted.
- CCM-7** In analyzing the potential short-term construction impacts of the pipeline construction, the DSEIR reviewed open trenching construction for a 48- to 54-inch pipe along the pipeline route options (see page 4.9-10 of the DSEIR). Where appropriate, the differences in potential impacts between trenchless construction methods and open trench construction methods were addressed (see, for example, the discussion of potential construction noise impacts on page 4.9-40 of the DSEIR). As seen in Section 4.9, Construction-Related Impacts, with implementation of the proposed mitigation measures, short-term construction impacts of the pipeline construction would be reduced to a level below significance (except for short-term air quality impacts as discussed on page 4.9-29 of the DSEIR). Therefore the trenchless construction methods being proposed by the commenter are not necessary for all pipeline construction within the City of Costa Mesa limits, as the impacts of open trench construction methods would be reduced to a level below significance (except for short-term air quality impacts), with implementation of the mitigation measures provided in the DSEIR.
- CCM-8** Portions of the pipeline proposed within the City of Costa Mesa would be subject to the applicable governmental approval process. Consistent with that process, the right-of-way will be returned to pre-construction conditions following construction of the below-grade water conveyance facilities.
- CCM-9** Portions of the water conveyance facilities proposed within the City of Costa Mesa would be subject to the applicable governmental approval process. Geotechnical reports required as part of the review process will be submitted by the project applicant prior to construction.
- CCM-10** Construction of water conveyance facilities will require one to two lanes to be closed during construction. The extent of these lane closures could be minimized through the contract documents to prevent a significant stretch of the road from being reduced by two lanes (500-foot minimum). In addition, hours of construction may be limited to exclude rush hour periods. Finally, lanes may also be re-striped to balance the number of lanes in each direction, effectively resulting in the loss of one lane in each direction. All pipeline design and

construction within the City of Costa Mesa will be subject to the applicable governmental approval process.

- CCM-11** The comment is noted. Portions of the pipeline proposed within the City of Costa Mesa would be subject to the applicable governmental approval process.
- CCM-12** The DSEIR identifies the roadway segments and intersections that would be impacted for the construction of proposed pipeline conveyance facilities. The level of service would be reduced during construction; however impacts would be temporary and a traffic control plan will be prepared and implemented to minimize impacts. A traffic analysis for roadway and intersection level of service is not necessary as construction impacts would be temporary and would not be at any one location for an extended period of time.
- CCM-13** The traffic counts utilized in the DSEIR were based on a traffic volume map for the City of Costa Mesa/County of Orange, Transportation Services Division that was obtained from the City of Costa Mesa's website. The commenter is correct that traffic volumes may be higher than those provided in the DSEIR because the DSEIR provides the lowest ADT volume along any given roadway segment where pipeline construction is proposed because this represents a worst-case scenario in terms of construction traffic being added to the existing ADT. As seen in Table 4.9-17, the DSEIR provides the percentage increase along roadways from construction traffic to determine the potential impacts. The worst-case increase is measured against the segment of any given roadway segment with the lowest existing ADT figures, which will result in the highest percentage of increase. Also see Response SCOT-2.
- CCM-14** The DSEIR includes an extensive analysis of potential impacts related to traffic during construction. Based on the analysis provided in the DSEIR, significant impacts were identified and mitigation has been provided consisting of a traffic control plan. The City of Costa Mesa will review and comment on the traffic control plan issued as part of the applicable governmental approval process for construction of pipelines in roadways located within the City of Costa Mesa. The DSEIR meets CEQA requirements and a further investigation is not required and/or warranted.
- CCM-15** Extensive analysis of impacts to traffic during construction is provided within the DSEIR in Section 4.9, Construction-Related Impacts. The commenter does not state why the discussion is not adequate. No further response is required.
- CCM-16** This comment contains concluding or general information. It is not a direct comment on the content or adequacy of the DSEIR, and does not raise any specific environmental issue. No response is required.
- CCM-17** The commenter provided a comment letter submitted on November 30, 2005, on the subject REIR. The comment letter has been included as part of the project record for the decision makers to consider during the hearing process.

- CCM-18** The commenter provided meeting minutes from a November 1, 2008 Costa Mesa City Council Meeting. The meeting minutes have been included as part of the project record for the decision makers to consider during the hearing process.

CITY OF FOUNTAIN VALLEY (CFV), JUNE 21, 2010

- CFV-1** This comment contains introductory or general information and is not a direct comment on the content or adequacy of the DSEIR, and does not raise any specific environmental issue.
- CFV-2** Comment noted. The commenter states that the City of Fountain Valley is a signatory to a Memorandum of Understanding with the project applicant for the purchase of potable water. No further response is required.
- CFV-3** Comment noted. The commenter believes the proposed project will enhance the water supply reliability for Orange County. No further response is required.
- CFV-4** This comment contains concluding or general information. It is not a direct comment on the content or adequacy of the DSEIR, and does not raise any specific environmental issue.

CITY OF WESTMINSTER (CW), JUNE 16, 2010

- CW-1** This comment contains introductory or general information and is not a direct comment on the content or adequacy of the DSEIR, and does not raise any specific environmental issue. No further response is required.
- CW-2** The DSEIR has been revised to include a list of Cities and Agencies that have submitted a Letter of Intent (LOI) and those that have yet to execute letters. This clarification is made in the Final SEIR errata. This modification has been included to provide clarification for cities and agencies that have submitted a letter of intent and those that are signatories to the Memorandum of Understanding with Poseidon but have not signed a letter of intent to purchase water from the desalination project. This change is not significant new information because it does not involve a new substantial impact or propose a new feasible way to mitigate or avoid an unmitigated impact that the applicant declines to implement.
- CW-3** The comment is noted. The project applicant will be required to obtain all applicable governmental approvals prior to the construction of any optional pipeline conveyance facilities located within the City's jurisdiction. This comment does not relate to the content or adequacy of the DSEIR, and does not raise any specific environmental issue. No further response is required.
- CW-4** This comment contains concluding or general information. It is not a direct comment on the content or adequacy of the DSEIR, and does not raise any specific environmental issue.



November 5, 2013

Chair Shallenberger and Members of the California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Re: Appeal No. A-5-HNB-10-225 (Poseidon Water, Huntington Beach)
Application No. E-06-007 (Poseidon Water, Huntington Beach)

Dear Coastal Commissioners,

The nine signatory organizations represent hundreds of thousands of Californians who are dedicated to protecting and restoring the health and vitality of our valuable coastal and marine resources. On behalf of our organizations and our members, we write to strongly urge you to deny as submitted the permits sought by Poseidon Resources for a proposed 50 million gallon per day (“mgd”) seawater desalination plant in Huntington Beach. A detailed legal comment letter citing inconsistencies with the Local Coastal Plan and the Coastal Act prepared by the Appellants, as well as Fact Sheets prepared by several of the signatories to this letter have been provided to the California Coastal Commission (“CCC”) for its review.

We appreciate staff’s hard work in preparing the extremely detailed Staff Report to Appeal No. A-5-HNB-10-225 and Application No. E-06-007, dated 10/25/2013 (hereinafter “Staff Report”), and we assess the recommended Special Conditions to set the appropriate bar if the CCC was to consider approval of Poseidon’s application. Staff has provided a very careful exposition of the facts relevant to the Poseidon Water Huntington Beach seawater desalination facility (“the facility” or “proposed project”), and has clearly outlined the significant adverse effects this project will have on the marine and coastal environment. While we support the Special Conditions proscribed as appropriate to avoid and minimize potential adverse effects of the project, because these Special Conditions require extensive additional planning and modification of the project application by Poseidon Resources (“project proponent” or “Applicant”), we respectfully submit that the Appeal should be upheld and the Application denied until the project has been modified to meet those conditions and resubmitted to the Commission.

Under no circumstances should the project permit be granted without the inclusion of the Special Conditions described in the Staff Report and compliance with all relevant laws, including the Coastal Act. Our Assessment is based on the following primary concerns, as well as issues outlined in aforementioned additional submissions.

- I. **Poseidon’s Coastal Development Permit should be denied to protect marine life and water quality as required by the Local Coastal Program and the Coastal Act.**

The Huntington Beach Local Coastal Program (“LCP”) and the California Coastal Act policies generally require that marine life be maintained, enhanced, and restored and that impaired water quality be restored for the protection of human health as well as species of marine organisms adequate for long-term commercial, recreational, scientific and educational purposes.¹ Specifically, LCP Policy C 6.1.19 seeks to “minimize damage to marine organisms due to entrainment in accordance with State and Federal law.” This LCP policy is specifically written to address harm caused by “new or expanded seawater pumping facilities,” such as the proposed project – both from the intake of seawater and from the discharge of concentrated brine. Additionally, Coastal Act Section 30231 directs the biological productivity of coastal waters be maintained and restored with a requirement that special protection be provided to areas and species of special biological significance.

As briefly outlined here, and described in extensive detail in our submitted Fact Sheets and the Staff Report, the proposed project will have numerous negative impacts that make it inconsistent with the LCP and Coastal Act policies.² These impacts include the entrainment of substantial amounts of marine organisms, the degradation of biological productivity of the coastal ecosystem, and discharge of brine that potentially degrades coastal water quality. For example, “Poseidon’s use of the intake will entrain more than 80 million fish larvae, eggs, and invertebrates each year that originate in areas along about 100 miles of shoreline, including areas within [MPAs].”³

While we agree with staff that full implementation of the Special Conditions contained in the Staff Report could effectively make the proposed project consistent with the LCP and the Coastal Act, we request that the project proponents be required to meet these conditions *prior to* the review and approval of their Application by the Commission. We strongly encourage the Commission to uphold the Appeal and deny the Application, requiring Applicant to resubmit a new application that meets all of the Special Conditions from the outset. This course of action is appropriate because the adverse effects of the proposed project are extensive, yet the project proponents have not been willing to make necessary project modifications to minimize these impacts through use of readily available, less impactful, water supply and brine dispersal options. Applicant’s resistance has been illustrated throughout the process, for example, with their repeated failure to fill large information gaps, for which they repeatedly received Notices of Incomplete Application, as described in the Staff Report.⁴

II. Denial is necessary to ensure consistency between related state laws and policies and conformity with best available science and technology.

If the project is approved as currently configured, it will undermine the purpose and strength of the State Water Resource Control Board (“SWRCB” or “State Water Board”) Ocean Plan Amendments to create a statewide policy for seawater desalination (“SWRCB Statewide Policy”), which is currently under development.⁵ Although the SWRCB Statewide Policy is not yet finished, the SWRCB has issued reports from expert panels to provide technical and scientific recommendations on the best and least impactful technology for seawater intake and brine disposal. The Staff Report acknowledges that these expert panel reports constitute much of the best available science regarding the impacts of seawater desalination and the technology appropriate to minimize these impacts. For example, staff bases Special Condition 5 on the findings of the expert panel advising the SWRCB that brine discharges be no more than 5% greater than

¹ See, Huntington Beach LCP Policy C 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.1.9; also referenced at California Coastal Commission Staff Report to Appeal No. A-5-HNB-10-225 and Application No. E-06-007, 10/25/2013 (hereinafter, “Staff Report”) at 30-31, available at <http://documents.coastal.ca.gov/reports/2013/11/W19a-s-11-2013.pdf>.

² See, e.g., Cal. Pub. Res. Code §§ 30230.

³ Staff Report at 2.

⁴ Staff Report at 24-25

⁵ See, State Water Resources Control Board Ocean Plan Water Quality Amendment process for Desalination Facilities and Brine Disposal, at http://www.swrcb.ca.gov/water_issues/programs/ocean/desalination/

ambient salinity at the edge of a mixing zone that extends no further than 100 meters from the discharge point.⁶

If the Commission approves a project using outdated technology, it will undercut the strength and consistency of the SWRCB Statewide Policy and will act counter to the best available science recently collected by California state agencies for the very purpose of assessing and minimizing the impacts of seawater desalination facilities. Approval of the Huntington Beach proposed project as currently configured would set extremely bad precedent for future project applicants, possibly encouraging them to rush their project's approval prior to finalization of the Statewide Policy and could create an inconsistent array of negative impacts to the detriment of California's public natural resources.

III. Poseidon's use of the Huntington Beach Generating Station's open ocean intake would undermine the California Once-Through Cooling Policy.

Our organizations have spent years working with state and federal agencies to develop regulations to minimize the intake and mortality of marine life from open ocean intakes and antiquated "once-through cooling" technology for coastal power plants. Regulations adopted by the State Water Board documented the significant impact to marine ecosystems from these intake structures, and required power plants on our coast and estuaries to employ "Best Technology Available" to reduce the entrainment and impingement of marine life.⁷ These regulations were adopted to implement the federal Clean Water Act.

To comply with the State Board's policy, the Huntington Beach Generating Station is required to phase out reliance on open ocean cooling water by 2020. The plant operators, AES Corporation, expect to phase out use of open-ocean intakes by 2018 converting to a dry-cooling system.⁸ Nonetheless Poseidon Resources is seeking a Coastal Development Permit to continue using the same seawater intake system prohibited by the State due to its negative impacts to marine ecosystems. We strongly encourage the Coastal Commission to deny the permits requested, and recommend Poseidon Resources work with the City of Huntington Beach and Coastal Commission staff to re-apply once the project has been substantially revised to be consistent with state laws and policies and the measures contained in the Staff Report Special Conditions.

IV. Under no condition should the application be approved without all of the Special Conditions recommended by staff.

Should the Coastal Commission determine that project approval is appropriate, we strongly urge that, under no circumstances, this occur without inclusion of all of the Special Conditions recommended by staff. We offer particular emphasis on the following Special Conditions:

- Elimination of open ocean intakes and a new design to use subsurface intake determined by Commission staff to be feasible to draw in up to 135 million gallons per day of seawater from beneath the seafloor. These alternative intakes would entirely avoid or significantly reduce "[t]he project's largest and most significant adverse effect on marine life [which] would result from its proposed use of an open intake."⁹
- Modifications to ensure that the facility's discharge results in salinity concentrations of no greater than 5% over ambient seawater salinity within 100 yards of the point of discharge to ensure salinity

⁶ Staff Report at 55, citing Jenkins, S., J. Paduan, P. Roberts, D. Schlenk, and J. Weis, *Management of Brine Discharges to Coastal Waters: Recommendations of a Science Advisory Panel*, Technical Report 694, submitted to State Water Resources Control Board, March 2012.

⁷ See: "Once Through Cooling Water Policy" available at

http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/policy.shtml

⁸ Staff Report at 24.

⁹ Staff Report at 2, 9, 33.

concentrations within 100 meters of the discharge are not harmful to marine life, as recommended by an expert panel convened by the State Water Board.¹⁰

- Modification of the Greenhouse Gas Emissions Reductions Plan to include "only those proposed mitigation measures, offsets and credits approved by the Executive Director, including those described by Poseidon as "project-related" emission reduction measures, consistent with the requirements and protocols established pursuant to California's implementation of AB 32."¹¹
- Reconfiguration of the facility layout to include a 100-foot buffer from nearby wetlands and measures to ensure noise effects on nearby endangered, threatened, and sensitive species are avoided or minimized and wetland mitigation for approximately 3.5 acres of direct wetland impacts.¹²
- Implementation of a number of Special Conditions necessary to avoid and minimize potential adverse effects related to known and anticipated coastal and geologic hazards at the site.¹³
- Other critically important conditions including stormwater and drainage requirements, measures to minimize noise on sensitive species, and measures to ensure public Access.¹⁴

We appreciate the effort of Coastal Commission staff to carefully outline Special Conditions that would help to minimize the negative impacts of the proposed project, bringing it in line with state and local coastal protection mandates. However, it is our view that these changes are of such critical importance, and Poseidon Resources has heretofore demonstrated such reluctance to acknowledge the appropriateness or feasibility of these changes, that these changes must be made and accepted by the project applicant prior to approval of the permit. We therefore respectfully request that the Appeal be upheld and the Application denied until the project has been modified to meet those conditions and resubmitted to the Commission.

Thank you for consideration of our views.

Sincerely,



Leila Monroe
Oceans Program Senior Attorney
Natural Resources Defense Council



Joe Geever
Surfrider Foundation
Water Programs Manager



Susan Jordan
Director
California Coastal Protection Network



Sean Bothwell
Staff Attorney
California Coastkeeper Alliance

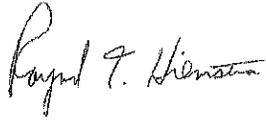
¹⁰ Staff Report at 9.

¹¹ Staff Report at 21.

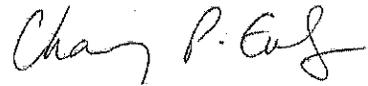
¹² *Id.* at 10.

¹³ *Id.*

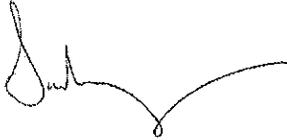
¹⁴ *Id.* at 10, 16, and 22.



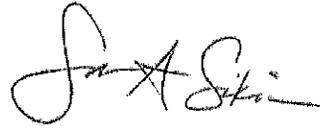
Ray Hiemstra
Associate Director
Orange County Coastkeeper



Charming Evelyn
Chair, Water Committee
Angeles Chapter Sierra Club



Samantha Murray
Director, Pacific Program
Ocean Conservancy



Sarah Sikich
Science and Policy Director
Heal the Bay

Dave Hamilton
Vice President
Residents for Responsible Desalination

Cc: Tom Luster, Coastal Commission staff at tluster@coastal.ca.gov



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Jean Watt, President
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Theresa Sears
Carolyn Wood

Supporting Organizations
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Audubon, Sea & Sage Chapter
Bolsa Chica Conservancy
Caspers Wilderness Park
Volunteers
Earth Resource Foundation
Equestrian Coalition of O.C.
Huntington Beach Wetlands
Conservancy
Huntington Beach Wildlife Care
Center
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Sierra Club, Orange County
Surfrider, Newport Beach
Stop Polluting Our Newport
St. Mark Church Ecophilians

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Post Office Box 9256
Newport Beach, CA 92658-9256
www.fhbp.org

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NOV 06 2013

CALIFORNIA
COASTAL COMMISSION

November 4, 2013

California Coastal Commission
45 Fremont Street; Suite 2000
San Francisco, CA 94105-2219

Dear Chair Shallenberger and fellow Commissioners:

Friends of Harbors, Beaches, and Parks (FHBP) is a regional non-profit working to protect the natural lands, waterways, and beaches of Orange County. Recently we've been involved with the implementation of SB 375 and AB 32, and we are writing to oppose the Huntington Beach Ocean Desalination project that you will consider at your November hearing.

This massive ocean desalination project is just one of many the Coastal Commission will consider in the near future. Many facilities are currently being planned, and many more may be proposed in the future. Each project must be evaluated not only for its unique impact to local coastal resources, but also for its cumulative impact in tandem with multiple proposed facilities statewide.

We believe that the Huntington Beach Ocean Desalination project fails to meet scientific thresholds for:

- protecting marine life from intake impacts;
- protecting against degradation of water quality and habitat destruction from the discharge of concentrated brine; and
- ensuring that the energy-intensive facility will fully mitigate its increased greenhouse gas emissions that will conflict with SB 375 and AB 32 regulations.

A thorough evaluation of the proposal should also include a detailed assessment as to the need for the project. Less costly water supply options exist that would actually restore and protect coast and ocean water quality and habitat. Local water supply agencies have not committed to purchase the water from the proposed facility, so it is not necessary to approve this flawed project at this time.

We support efforts to restore and protect our ocean and coastal environment, for this and future generations, through strict enforcement of the Coastal Act. We strongly encourage the Commission to deny the Huntington Beach Ocean Desalination project permit until the proponent can demonstrate it is absolutely the last option, and the project design is revised to protect our precious coast and ocean environment.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Weilborn", with a stylized flourish at the end.

Michael Weilborn, Vice-President
Friends of Harbors, Beaches and Parks

November 8, 2013

California Coastal Commission
Attn: Chair Mary Shallenberger and
Members of the California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

RE: Huntington-Poseidon Seawater Desalination Coastal Development Permit

Dear California Coastal Commission,

Whereas the mission of the California Coastal Commission is to "Protect, conserve, restore, and enhance environmental and human-based resources of the California coast and ocean for environmentally sustainable and prudent use by current and future generations".

We, the residents of Orange County, believe the proposed Huntington Beach Desalination Facility does not honor this mission and should not be awarded a Coastal Development Permit. The plant, as proposed, would not conserve our marine resources, and is not a sustainable or prudent source of water while other sources are readily available. We are concerned about this project's impacts on the Southern California coast, which this region heavily relies on to fuel our tourist driven economy.

The State of California is phasing out the use of destructive 'Once Through Cooling' facilities for power plants, including the one in Huntington Beach, due to the vastly negative impacts incurred on marine life. Allowing Poseidon to operate their Huntington Beach plant with this outdated technology would be a big step backwards for the state and would continue the fish kills and damage to marine resources that the state is trying to stop. In addition, zooplankton and phytoplankton along with billions of other invertebrates would be sucked into intake pipes and killed. Plankton play a critical role in our coastal ecosystems - including carbon dioxide sequestration and it would be devastating to lose them.

Desalination plants also produce a hyper-saline brine as a byproduct, and discharges it into the ocean. This will degrade water quality at these discharge points as it contains heavy metals and cleaning chemicals, in addition to being too salty for most marine life to remain in the nearby habitat. None of these practices are good for the health of our coasts and our people.

The State of California has also committed to reducing its contribution to climate change and sea level rise through legislation requiring a reduction in greenhouse gas emissions. In its required greenhouse gas plan, Poseidon originally predicted needing to purchase 16,000 metric tons of carbon dioxide equivalents to offset its production. This number assumed that the desalinated water would replace imported water, which Poseidon later admitted it would not. Poseidon put its revised greenhouse gas emissions at about 83,500 MtCO₂e instead. That is a huge addition of greenhouse gasses contributing to climate change when there are existing alternatives with much lower costs for the environment.

Creating freshwater from saltwater takes an immense amount of energy; the Poseidon Huntington Beach Desalination Facility is projected to use 289,715 MWh of electricity per year. That's enough electricity to power 30,000 homes. As costs for energy use keep increasing, so will the cost of producing desalinated water, and that will be reflected in ratepayer water bills of the agencies purchasing the desalinated water. Since Poseidon Resources is a private, for-profit company, they can continue to raise rates without answering to ratepayers. In an uncertain economy, that is a concerning direction in which to take our water supply.

We are also concerned that the plant will produce water that is significantly more expensive than options currently available, and will pass that burden on to ratepayers. The tentative price for buying Poseidon's water will be \$1800 per acre-foot per year. Compare that to around \$800 per acre foot for imported water, and \$400 for groundwater. Furthermore, according to our water districts, we don't need additional sources of water. In the 25 year outlook included in the 2011 Municipal Water District of Orange County's Urban Water Management Plan it states that no additional water sources will be needed at least until 2035, including increased demand from population growth and drought years. We should be increasing our conservation, efficiency, and recycling efforts rather than seeking out the most expensive option available.

Proponents of desalination argue that we should diversify our water sources for protection against disasters or droughts. However, the water produced by Poseidon is not intended for local use. The proposed pipelines taking desalinated water across the county are no more secure from earthquakes or tsunamis than any of our current sources. In fact, since the desalination plant is located so close to the coast, in a known tsunami run up zone and near an active fault zone, it is more likely to be damaged from earthquakes, coastal storms, flooding, tsunamis, or sea level rise than other water supply options. Conservation, groundwater, and recycled water are much more secure options that are already in use. We have already spent the time and money to implement Marine Protected Areas along our coasts, and allowing the desalination plant would greatly compromise these efforts.

For these reasons, we request that the Coastal Commission upholds its mission to protect our coast and deny the Coastal Development permit to Poseidon Resources.

Thank you,

David Yasutake
Sasha Medlen
Teddi Alves
Debbie McCormick
Lorna Farnum
Dan Silver
Anonymous
Courtney Kelley
Anonymous
Cheryl Pulcini
Bruce Pulcini
John Nosel
Sonia Waraich
Natalie Etcheverry
Anonymous

Monika Christenson
Barbara Reiten
Anonymous
Joanne Catey
Tim Deng
Heather Lewis Sebring
Anissa Medina
Ronald Lee
Anonymous
Hailey Harrison
Kate Bentley
Glenn Cajar
Celia Kutcher
Trisha DiPAola
Daniel Madden
Anonymous
D'Anna Benson
Anonymous
Steven Bastian
Charlotte Masarik
Sharon Collins
Anastasia Figueroa
Christy McCoy
Stephanie Pacheco
Karina Tarpinian
Anonymous
Jerry Berger
Christina Funck
Amy Riddering
Anonymous
Jules Luna
Chris Christiansen
Nicole Rorden
Connor Chilcott
John Binaski
Jim McElroy
Bill Conrad
Jan Conrad
Penny Elia
Michael Balchin
Herbert Marshall
Jackie Evans
Susan McCortney
Guy Adams
Ryan Stanfield
Whitney Redfield
John Griffith
Donald MacLean

Jeff Coffman
Tony Soriano
Flossie Horgan
Kim Kramer
Merle Moshiri
Suzanne Smith
Robert Smith, Ph.D.
David Hamilton
Joel Robinson
Anonymous
Patricia Williams
Donald Schulz
Dan Silver
Celia Kutcher
James Krause
Anonymous
Yvonne Gerlach
Mrs. Stephanie Pacheco
Jewel Seeburg
Mr. Jacob Skaggs
Ms. Briana Madden
Pamela Crouch
Ms. Siobhan Dolan
Julie Coffey
Sue Watson

Signatures gathered from:

<http://www.gopetition.com/petitions/stop-huntington-beach-desalination-project.html>

Luster, Tom@Coastal

From: Boxall, Bettina <Bettina.Boxall@latimes.com>
Sent: Monday, November 11, 2013 4:46 PM
To: Luster, Tom@Coastal
Subject: Forwarded from a reader

Tom,

I am forwarding this at a reader's request.

Bettina

Bettina Boxall
Staff Writer / Los Angeles Times
213.237.7069
bettina.boxall@latimes.com
[@boxall](mailto:boxall@boxall.com)
[Science Now](#)

From: David Ross [<mailto:mtbross2@gmail.com>]
Sent: Monday, November 11, 2013 10:13 AM
To: Boxall, Bettina
Subject: Desalination

Dear Ms. Boxall:

Perhaps you can forward this to the coastal commission for me. I cannot believe that we are seriously considering a plant that would have such a potentially harmful effect on the marine life on our coast! While it is obvious that a desalination plant is at least, in part, a long-term solution to the water supply in Southern California, it is just as obvious that the technology, or at minimum this company's technology, is absolutely NOT the solution. Between the constant attack at the top of the marine food chain with pollution, rising ocean temperatures, over-fishing, and the Navy sonic testing, we now are even *considering* a project that would undermine the bottom of the food chain is beyond my comprehension. Send Poseidon back to the drawing board and come back when they have an environmentally responsible solution, or don't come back at all. Crazy.

David Ross
Burbank, CA

To: Honorable Coastal Commission
Ref: Appeal No A-5-HNB-10-225
Poseidon Water

Nov 9, 2013

The following page is information I passed on to my neighborhood located at Hamilton & Newland, Huntington Beach, CA.

I wish for your members to recognize that the proposed "pumps" dB levels cannot possibly operate within our City Standards and would be against the law.

55 decibels is max....81 db is criminal.

Thank You Commission.

A handwritten signature in black ink, appearing to read "BAR-PS", followed by a long, horizontal, wavy line that extends to the right.

LETTER TO MY NEIGHBORS

From: Barry Repsher
21141 Greenboro Lane
Huntington Beach, CA 92646
714 330-2919

November 7, 2013

NOISE LEVELS

DECIBELS- dB Loudness.

Level at which "sustained exposure may result in hearing loss"
90 - 95 dB.

OSHA Daily permissible "Noise Level Exposure"
8hr day 90 dB.

HUNTINGTON BEACH APPLICABLE EXTERIOR STANDARDS
55 dB daytime
50 dB at night

PROPOSED PUMPS AT POSEIDON PROJECT
101 dB to 108 db
24 HOURS A DAY
7 DAYS A WEEK

If mitigation NO-1 (Nov 2010) is used..... "reduction by 20 dB by addition of pump enclosures", the dB levels still won't meet City of Huntington Beach Noise Standards.

The dB levels during the estimated 27 months of construction
Will be: 77 dB to 85 db.

**REDLINE COMPARISON OF
POSEIDON'S PROPOSED
CONDITIONS WITH STAFF'S
PROPOSED CONDITIONS**

I. STANDARD CONDITIONS

~~This permit is granted subject to the following standard conditions:~~

I. STANDARD CONDITIONS

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

II. SPECIAL CONDITIONS

~~This permit is granted subject to the following special conditions:~~

- 1. Liability for Costs and Attorneys' Fees**—~~Poseidon:~~ Permittee shall reimburse the Coastal Commission in full for all Coastal Commission costs and ~~attorneys~~attorneys' fees – including (a) those charged by the Office of the Attorney General, and (b) any court costs and ~~attorneys~~attorneys' fees that the Coastal Commission may be required by a court to pay – that the Coastal Commission incurs in connection with the defense of any action brought by a party other than ~~Poseidon~~Permittee against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.
- 2. Proof of Evidence of Legal Interest**—~~PRIOR TO ISSUANCE OF THIS PERMIT,~~
~~Poseidon~~Other Agency Approvals:

2.a. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to

the Executive Director for review and approval, documentation of showing that the project has obtained the following: final approvals, or documentation showing that these approvals are not needed:¹

City of Huntington Beach

~~An updated and approved Conditional Use~~

- ~~• NPDES Permit (CUP) for the project as approved by the Coastal Commission, or confirmation from the City Regional Water Quality Control Board.~~
- ~~• Authorization from the Army Corps of Engineers to proceed pursuant to Nationwide Permit (NWP) No. 12 for Utility Line Activities.~~

b. WITHIN 90 DAYS FOLLOWING THE COMMENCEMENT OF COMMERCIAL PROJECT WATER DELIVERIES, the Permittee shall submit to the Executive Director documentation showing that the existing September 2010 CUP is valid for the project as configured has obtained a domestic water supply permit from the California Department of Public Health.

a.c. State Water Resources Control Board (State Board). If the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) is amended by the State Board to address desalination facilities, including intake and brine discharge impacts and approved related mitigation, the Permittee shall comply with all components of the Ocean Plan applicable to the Project as determined by the Coastal Commission Regional Water Quality Control Board through the Project's NPDES Permit.

~~An updated~~

- ~~— PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director documentation from the California Department of Fish and approved Franchise Agreement for Wildlife demonstrating that it has reviewed the project's proposed water delivery pipeline, or confirmation from the City that the existing October 2010 Franchise Agreement is valid for the project as currently configured and as approved by the Coastal Commission.~~
- ~~— An updated and approved Owner Participation Agreement (OPA), or confirmation from the City that the existing September 2010 OPA is valid for the project as currently configured and as approved by the Coastal Commission.~~

City of Costa Mesa

- ~~— All discretionary approvals for construction and operation for those portions of the project's water delivery pipeline within the City's coastal buffer zone, or confirmation from the City that no such development requiring discretionary approvals is proposed within the City's coastal zone boundaries.~~

Private Landowners and Easement Holders

- ~~— All approvals, agreements, easements or other forms of proof of legal interest demonstrating Poseidon's ability to use the relevant property(ies) within the coastal zone for construction and operations of the desalination facility, water delivery pipelines and pump stations.~~

¹ Condition to be removed to the extent satisfied prior to issuance of the permit.

d. ~~If any of the above approvals result in changes to the project as approved by the Commission, Poseidon shall notify the Coastal Commission's Energy and Ocean Resources Division of the required changes. No changes to the approved project shall occur without a Commission approved amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.~~ between nearby wetlands and determined the buffer is sufficient to avoid significant impacts to nearby wetlands.

3. State Lands Commission. ~~At least six months prior~~Prior to cessation of the AES Power Plant's use of its seawater cooling system, Poseidon~~the Permittee~~ shall provide ~~for~~to the Executive Director ~~review and approval~~ documentation from the California State Lands Commission of a lease or lease amendment authorizing Poseidon's ~~sole~~the Permittee's continued use of state tidelands for construction and operation of an ocean outfall and a subsurface-intake.

4. California Department of Parks and Recreation (DPR). ~~At least six months prior~~Prior to cessation of the AES Power Plant's use of its seawater cooling system, Poseidon~~the Permittee~~ shall provide ~~for~~to the Executive Director ~~review and approval~~ documentation from the DPR of a grant of easement providing Poseidon~~the Permittee~~ any legal interest necessary to use those portions of the intake and outfall structures within DPR property, or documentation from the DPR stating that no easement is required.

2. Revised Facility Plans. ~~PRIOR TO ISSUANCE OF THIS PERMIT,~~ Poseidon shall submit two full size sets of Revised Plans to the Executive Director for review and approval. ~~The Revised Plans shall be substantially in conformance with the plans submitted to the Coastal Commission on April 11, 2011 as part of Poseidon's amended permit application, but shall show the following required changes and clarifications to the project:~~

Subsurface Intake

~~b. The open ocean intake shall be eliminated from the plans.~~

~~b. The Revised Plans shall include a proposed subsurface intake designed to draw in up to 135 million gallons per day of seawater from beneath the seafloor. The intake may be installed within up to approximately 30 acres of seafloor and require up to approximately 540,000 cubic yards of excavation. The intake may consist of a single intake design and unit or separate intake designs and modular units. The Plans shall include sufficient site specific geotechnical and hydrogeologic data to confirm that the intake will maintain sufficient cover of sand or other substrate to result in no more than *de minimis* levels of entrainment or impingement of marine life.~~

Modified Ocean Outfall

~~b. The existing outfall shall be modified to ensure that the facility's discharge results in salinity concentrations of no greater than 5% over ambient seawater salinity within 100 yards of the point of discharge. The proposed modifications may include installation of multiport diffusers or similar devices that ensure sufficient mixing within the zone of initial dilution (i.e., within 100 yards of the point of discharge). The Revised Plans shall describe the modeling and other methods used to determine the discharge concentrations and shall~~

~~include concurrence from the State or Regional Water Quality Control Board showing that the discharge will meet the above 5% salinity limit. The methods used shall not include increased dilution resulting from additional seawater intake.~~

Wetland Buffer

5. All development, other than Lease, Agreement, or Deed Restriction: PRIOR TO ISSUANCE OF THE PERMIT, the applicant shall provide to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against its interest(s) in the property where the desalination facility is to be located (i.e., the Huntington Beach Generating Station), and which is governed by this permit, a lease, agreement, or deed restriction (in which any private owner of the fee interest in such property shall join or to which it shall agree to be bound), in form and content acceptable to the Executive Director (a) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the property, subject to terms and conditions that restrict the use and enjoyment of the property; and (b) imposing all of the Special Conditions of this A-5-HNB-10-225/E-06-007 (Poseidon Water) permit as covenants, conditions and restrictions on the use and enjoyment of the property. The restriction shall include a legal description of the property. It shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the Standard and Special Conditions of this permit shall continue to restrict the use and enjoyment of the property so long as either this permit or the development it authorizes – or any part, modification, or amendment thereof – remains in existence on or with respect to the property.

~~— Hazardous Materials at Facility Site: PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the Permittee shall provide the Executive Director documentation that associated with demolition of the storage tanks and site remediation required pursuant to the a Remedial Action Plan described in Special Condition 6, shall be located at least 100 feet from the ESHA/wetland areas within and adjacent to the eastern portion of the project footprint. Poseidon shall provide, for Executive Director review and approval, a delineation of all ESHA and wetland areas in within 200 feet of the project footprint conducted by a qualified biologist has been approved by the Executive Director. The approved delineation shall serve as the basis Department of Toxic Substances Control for the 100-foot setback.~~

Hazard Mitigation Structures and ESHA/Wetland Mitigation Structures

- ~~— The Revised Plans shall identify all grading and structural components proposed to avoid and reduce flooding, tsunami, and geologic hazards at the project site.~~
- ~~— The Revised Plans shall identify all temporary or permanent sound barriers to be installed as described in the Sound Mitigation Plan approved pursuant to Special Condition 11.~~

Height Limits

—The Revised Plans shall include documentation from the City of Huntington Beach showing the project is consistent with zoning height limits established by the City.

site

Lighting Minimized

f. —The Revised Plans shall document that the facility's exterior lighting is the minimum necessary for safety purposes. All lighting (exterior and interior) shall be sited and designed so that it limits the amount of light or glares visible from offsite areas (including but not limited to views from the shoreline, public accessways, and the adjacent wetlands and environmentally sensitive habitat areas managed by the Huntington Beach Wetlands Conservancy) to the maximum extent feasible (including through uses of lowest luminosity possible, directing lighting downward, etc.).

Windows and Other Surfaces

i. —The Revised Plans shall document that all exterior windows will be non-glare glass, and all other structures and surfaces constructed or installed as part of the project and that are visible from public areas shall be painted or otherwise finished in neutral tones that minimize their visibility from those public areas.

Stormwater and Drainage

i. —The Revised Plans shall clearly identify all stormwater and drainage infrastructure and related water quality measures (e.g., pervious pavements, etc.), with preference given to natural BMPs (e.g., bioswales, vegetated filter strips, etc.). Such infrastructure and water quality measures shall provide that all project area stormwater and drainage is: filtered and treated to remove expected pollutants prior to discharge, and directed to inland stormwater and drainage facilities (and is not allowed to be directed to the beach or the Pacific Ocean). Infrastructure and water quality measures shall retain runoff from the project onsite to the maximum extent feasible, including through the use of pervious areas, percolation pits and engineered storm drain systems. Infrastructure and water quality measures shall be sized and designed to accommodate runoff from the site produced from each and every storm event up to and including the 85th percentile 24-hour runoff event. In extreme storm situations (>85% storm) excess runoff shall be conveyed inland off-site in a non-erosive manner. Stormwater and drainage apparatus shall be coordinated in conjunction with the Huntington Beach Wetlands Conservancy to determine the best locations to avoid any adverse impacts on adjacent wetlands and environmentally sensitive habitat areas.

The submitted Revised Facility Plans shall be consistent with the requirements of Special Condition 18 and include documentation from a licensed structural engineer certifying that all structural components are designed to resist expected seismic, geologic, flooding, and tsunami-related hazards. Upon the Executive Director's approval of the Revised Plans, Poseidon shall submit a complete application to amend this permit for those components of the proposed

development in the Revised Plans the Executive Director determines require an amendment. Poseidon shall undertake development in accordance with the approved Revised Plans. Any proposed changes to the approved Revised Plans shall be reported to the Executive Director. No changes to the approved Revised Plans shall occur without a Commission approved amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

15.6. Hazardous Materials at the Facility Site. Following demolition of the project site's fuel oil storage tanks and prior to the start of construction of the desalination facility, Poseidon shall provide for Executive Director review and approval a Phase II Hazardous Materials Investigation and a final Remedial Action Plan (RAP) for the site, as approved by the City and consistent with all relevant conditions of the project's SEIR. The RAP shall include, at a minimum:

- p. A description of the sampling locations used to determine the extent of contaminated soils and groundwater within the facility site.
- q. Results of testing done on those samples to determine the concentrations of contaminants within the site's soils and groundwater;
- r. A description of all measures Poseidon will implement to conduct site remediation and mitigation, including measures proposed to treat contaminants that may be mobilized during remediation or construction dewatering activities.
- s. A description of contingency measures Poseidon will implement if it finds additional contaminants or additional areas of contaminants, including unrecorded or unknown oil or gas wells.

Poseidon shall undertake development in accordance with the approved Phase II Hazardous Materials Investigation and Remedial Action Plan. If the remediation or mitigation measures required in the City approved Remedial Action Plan exceed those described by Poseidon in its proposed May 9, 2013, "reasonable worst case scenario" analysis, or if the required remediation or mitigation measures require Poseidon to undertake development other than that authorized in this permit, Poseidon shall submit an application to amend this coastal development permit, unless the Executive Director determines that an amendment is not legally required.

23.7. Construction Plan; PRIOR TO ISSUANCE/COMMENCEMENT OF THIS PERMIT, Poseidon CONSTRUCTION, the Permittee shall submit two copies of a Construction Plan to the Executive Director for review and approval. The Construction Plan shall, at a minimum, include the following:

Best Management Practices (BMPs) Property Owner Consent

- a. The Construction Plan shall be submitted with evidence indicating that the owners of any properties on which construction activities are to take place, including properties to be crossed in accessing the site, consent to such use of their properties.

~~Sound Mitigation~~ include a Stormwater Pollution Prevention Plan

~~d. The Construction Plan shall incorporate provisions of the approved Sound Mitigation Plan required pursuant to Special Condition 11.~~

~~which Best Management Practices (BMPs)~~

~~g.a. The Construction Plan shall clearly identify all BMPs to be implemented during construction and their location and comply with all Regional Board requirements. Such plans shall contain provisions for specifically identifying and protecting all natural drainage swales (with sand bag barriers, filter fabric fences, straw bale filters, etc.) to prevent construction-related runoff and sediment from entering into these natural drainage areas which ultimately deposit runoff into the Pacific Ocean. Silt fences, straw wattles, or equivalent measures shall be installed at the perimeter of all construction areas. At a minimum, such plans shall also include provisions for ~~stockpiling and covering graded materials~~ stockpile management, temporary stormwater detention facilities, revegetation as necessary, and restricting grading and earthmoving during rainy weather.~~

The Construction Plan shall indicate that:

- i. dry cleanup methods are preferred whenever possible and that if water cleanup is necessary, all runoff shall be collected to settle out sediments prior to discharge from the site;
- ii. all de-watering operations shall include filtration mechanisms;
- iii. off-site equipment wash areas are preferred whenever possible; if equipment must be washed on-site, the use of soaps, solvents, degreasers, or steam cleaning equipment shall not be allowed; in any event, such wash water shall not be allowed to enter any natural drainage;
- iv. concrete rinsates shall be collected and they shall not be allowed to enter any natural drainage areas;
- v. good construction housekeeping shall be required (e.g., clean up all leaks, drips, and other spills immediately; refuel vehicles and heavy equipment ~~off-site~~ offsite and/or in one designated prepared location; keep materials covered and out of the rain (including covering exposed piles of soil and wastes);
- vi. vi. all wastes shall be disposed of properly, trash receptacles shall be placed on site for that purpose, and open trash receptacles shall be covered during wet weather);
- vii. all erosion and sediment controls shall be in place prior to the commencement of grading and/or construction as well as at the end of each day;
- viii. particular care shall be exercised to prevent foreign materials from making their way to the beach or Pacific Ocean;

- ix. contractors shall ensure that work crews are carefully briefed on the importance of observing the appropriate precautions and reporting any accidental spills; and
- x. construction contracts shall contain appropriate penalty provisions, sufficient to offset the cost of retrieving or cleaning up improperly contained foreign materials.

Construction Site Documents

h.b. The Construction Plan shall provide that copies of the signed coastal development permit and the approved Construction Plan be maintained in a conspicuous location at the construction job site at all times, and that such copies are available for public review on request. ~~All persons involved with the~~ Prior to any individuals commencing construction work onsite, those individuals shall be briefed on the content and meaning of the coastal development permit and the approved Construction Plan, and the public review requirements applicable to them, prior to commencement of construction.

Construction Coordinator

i.c. The Construction Plan shall provide that a construction coordinator be designated to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies), and that their contact information (i.e., address, phone numbers, etc.) including, at a minimum, a telephone number that will be made available 24 hours a day for the duration of construction, is conspicuously posted at the job site where such contact information is readily visible from public viewing areas, along with indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The construction coordinator shall record the name, phone number, and nature of all complaints received regarding the construction, and shall promptly investigate complaints and take remedial action, ~~if necessary, within 24 hours of receipt of the complaint or inquiry, as appropriate.~~

Notification

j.d. Poseidon shall notify staff of the Coastal Commission's Energy and Ocean Resources Unit at least 3 working days in advance of commencement of construction, and immediately upon completion of construction.

Poseidon shall undertake development in accordance with the approved Construction Plan. -Any proposed changes to the approved Construction Plan shall be reported to the Executive Director. No changes to the approved Construction Plan shall occur without a Commission approved amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

26.8. Coordination with Other Concurrent Project. PRIOR TO ISSUANCE/COMMENCEMENT OF THIS PERMIT, Poseidon/CONSTRUCTION, the Permittee shall provide documentation from the Department of Toxic Substances Control showing that the location and timing of Poseidon's/the Permittee's proposed pipeline construction will not interfere with, and is

consistent with, proposed cleanup and remediation activities at the Ascon Landfill site.

9. Wetland Mitigation-Change in Seawater Withdrawal: If at any time during the life of the project the Permittee proposes or is **required** to withdraw more than an average annual flow of 127 MGD of seawater, it must obtain first an amendment to this permit. A-5-HNB-10-225/E-06-007 (Poseidon Water) EXHIBIT A 23 These materials have been provided to the Coastal Commission Staff Agenda Items W19a & 20a

10. Noise: Noise generated by construction (including, but not limited to, pile driving) shall not exceed 65 dBA Leq(h)* at any active nesting site within 500 feet of project site for Belding's savannah sparrow's (*Passerculus sandwichensis beldingi*), light-footed clapper rail (*Rallus longirostris levipes*), western snowy plover (*Charadrius alexandrinus nivosus*) and the California least tern (*Sternula antillarum browni*), or other special status species. If construction occurs during the breeding season for these species (January through August), applicant shall conduct a nesting bird survey for these bird species. If active nests for any of these species are found, the applicant shall prepare a noise report to document the noise levels that would result from proposed construction activities at the location of the active nests. If construction noise exceeds 65 dBA Leq(h), or ambient, if ambient noise levels are determined to be higher than 65 dBA Leq(h), then alternative methods of construction and/or pile driving (including, but not limited to, vibratory pile driving, press-in pile placement, drilling, dewatered isolation casings, etc.) or other sound mitigation measures (including, but not limited to, sound shielding and noise attenuation devices) shall be used as necessary to achieve the required dB threshold levels. If these sound mitigation measures do not reduce noise levels to the prescribed levels, the applicant shall consult with the California Department of Fish and Wildlife to determine a course of action, which may include new sound mitigation or curtailment of construction until nesting is complete.

* dBA Leq (h) is the noise levels in decibels measured with a frequency weighting network, corresponding to the "A-Scale" on a standard sound level meter averaged on an hourly basis.

11. Final Plans:

~~1. a. PRIOR TO ISSUANCE/COMMENCEMENT OF THIS PERMIT, Poseidon CONSTRUCTION, the Permittee shall submit, for to the Executive Director for review and approval, a Wetland Mitigation Plan that provides for creation and/or restoration of no less than fourteen acres of coastal wetland habitat similar to wetland habitat found in the vicinity of the approved development. The creation and/or restoration may take place on up to two proposed sites. The Plan shall include the following:~~

~~b. Identification of up to two mitigation sites- final plans for the project components located in the vicinity of (i.e., within 10 miles) of Poseidon's development site, each of which is capable of providing no less than five acres of the required 14 acres of creation and/or restoration. The proposed site(s) shall be consistent with local and/or regional wetland restoration goals. coastal zone.~~

~~A detailed review of existing physical, biological and hydrological conditions at the site(s), including vegetation present, hydrologic regime of the site(s), known or expected fauna at~~

the site(s), including any known or expected listed sensitive species, known or suspected contaminants that may be present at the site(s), and an analysis of existing ecological functions and values at the site(s). The review shall also identify any known site constraints that may limit successful creation or restoration efforts.

A description of legal interests at the site(s), and any landowner approval that Poseidon may need to use the proposed site(s) for wetland creation or restoration.

Proposed goals, objectives and performance criteria for the proposed mitigation site(s) that identify specific creation or restoration measures to be implemented, including proposed habitat types to be created or restored, grading and planting plans, the timing of the mitigation measures, and monitoring that will be implemented to establish baseline conditions and to determine whether the sites are meeting performance criteria. Monitoring shall be for at least 5 years and final monitoring for success shall take place after at least 3 years with no remediation or maintenance other than weeding. The Wetland Mitigation Plan shall also identify contingency measures that will be implemented should any of the mitigation sites not meet performance criteria.

These goals, objectives, and performance criteria shall include:

- Creation or restoration of habitat types that will support wetland-dependent species and may support rare or endangered species.
- Created or restored areas shall be provided a buffer of a size adequate to ensure protection of wetland functions and values, and at least 100 feet wide, as measured from the nearest upland edge of the transition area. The Wetland Mitigation Plan may propose a lesser buffer width if the mitigation area is sited within existing wetland areas that are protected by a buffer meeting these criteria.
- The Wetland Mitigation Plan shall identify measures to be implemented if soil or groundwater contamination is found at the site(s).
- The Wetland Mitigation Plan shall include a planting program that includes initial and ongoing removal of invasive or non-native species and identifies the vegetation species to be planted, local sources of those plants or seeds, measures needed to protect any existing native wetland vegetation species, timing of planting, plans for irrigation if needed to establish plants, and locations of plants. The Wetland Mitigation Plan shall also identify soil sources and amendments to be used.
- The Wetland Mitigation Plan shall include a formal sampling design to assess performance criteria and shall identify the means by which success will be assessed. Where statistical tests are utilized, the plan shall include a requirement for a statistical power analysis to demonstrate that there will be sufficient replication to enable a robust test with beta equal to alpha.
- Creation and/or restoration shall be completed concurrent with construction of Poseidon's desalination facility.

Topographic drawings for the final mitigation site(s) and construction drawings, schedules, and a and a description of equipment to be used in the project.

The Wetland Mitigation Plan shall provide for submittal of "as-built" plans and annual monitoring reports for no less than five years or until the sites meet performance criteria.

The Wetland Mitigation Plan shall include provisions that, if after five years the restoration has not achieved the success criteria, Poseidon shall submit within 90 days a revised or supplemental plan to compensate for those portions of the original plan which did not meet

~~the approved success criteria. The revised plan shall be processed as an amendment to the coastal development permit unless the Executive Director determines that no permit amendment is legally required.~~

~~The Wetland Mitigation Plan shall identify legal mechanism(s) proposed to ensure permanent protection of the mitigation site(s) — e.g.,~~

~~b. The final plans shall document that all exterior windows will be non-glare glass, and all other structures and surfaces constructed or installed as part of the project and that are visible from public areas shall be painted or otherwise finished in neutral tones that minimize their visibility from those public areas.~~

~~c. The Permittee conservation easements, deed restriction, or other methods.~~

~~Poseidon shall comply with the approved Wetland Mitigation Plan. Prior to implementing the Wetland Mitigation Plan, Poseidon shall submit a proposed wetlands restoration project that complies with the Wetland Mitigation Plan in the form of a separate coastal development permit application for the planned wetlands restoration project.~~

~~**Geotechnical Investigation.** Following demolition of the project site's fuel oil storage tanks and prior to construction of the desalination facility, Poseidon shall submit, for Executive Director review and approval, a proposed Geotechnical Investigation Plan as described in SEIR Mitigation Measures GEO-1 and GEO-2. The proposed Plan shall include, at a minimum:~~

~~*Subsurface Fault Investigation*~~

~~The Geotechnical Investigation Plan shall identify measures required pursuant to California Geologic Survey Note 49 for determining the potential for surface fault rupture at the project site and to identify whether project structures require a setback from potential rupture areas.~~

~~*Liquefaction and Lateral Spread*~~

~~The Geotechnical Investigation Plan shall identify measures needed to determine the depth and extent of liquefiable soils within the project footprint and the extent of lateral spread expected at the site.~~

~~*Dewatering*~~

~~The Geotechnical Investigation Plan shall identify measures needed to determine the expected expected volumes of dewatering (hourly, daily, and total) that will be needed during construction, and the spatial extent of drawdown expected from that dewatering. It shall~~

also identify measures needed to ensure the dewatering does not affect environmentally sensitive habitat areas and wetlands adjacent to the project site.

Poseidon shall undertake development in accordance with the approved Geotechnical Investigation Plan and shall submit the results of the investigation to the Executive Director, along with a determination by a licensed structural engineer that the proposed desalination facility and its associated components at the project site are designed to resist without collapse or structural damage the forces identified through investigations conducted pursuant to the Geotechnical Investigation Plan. If the investigation finds evidence for hazards greater than those evaluated as part of these coastal development permit findings, or results in the need to undertake development other than that authorized in this permit, Poseidon shall submit an application to amend this coastal development permit, unless the Executive Director determines that an amendment is not legally required.

~~Minimization of Noise Effects on Sensitive Species. PRIOR TO ISSUANCE OF THIS PERMIT, Poseidon shall submit, for Executive Director review and approval, a Sound Mitigation Plan that identifies measures to be implemented that will limit project generated noise to no higher than 60 dBA at the nearest wetland boundary as delineated pursuant to **Special Condition 5**. The Sound Mitigation Plan shall include, at a minimum:~~

- ~~— Identification of expected sound levels to be generated during project construction and operation, including those that will be generated during site preparation activities, storage tank removal, site remediation, and facility construction and operation. The Sound Mitigation Plan shall include sound levels to be generated during construction and operation of the adjacent power plant repowering project, if that project is approved by the California Energy Commission. The Sound Mitigation Plan shall describe the basis for the sound levels provided, identify modeling methods used, and include the results of that modeling to show expected sound levels at the above-referenced wetland boundary. Pile driving is specifically prohibited at any location in the project site between January 1 and September 15 of any year.~~
- ~~— Identification of all measures to be implemented to reduce sound levels at that wetland boundary to the maximum extent feasible. These may include enclosing sound generating sources within structures or temporary sound barriers, moving sound generating sources to locations farther from that boundary, reducing the number of concurrent sound generating activities, using sound baffles to redirect sound away from the ESHA/wetland area, etc.~~
- ~~— Description of sound monitoring equipment to be installed at two locations on the nearest wetland boundary that will allow continuous monitoring of sound levels.~~
- ~~— Description of how monitoring data will be compiled and plans and any changes shall be reported to allow confirmation that sound levels do not exceed 60 dBA at the wetland boundary.~~

Poseidon shall undertake development in accordance with the approved Sound Mitigation Plan. Any proposed changes to the approved Sound Mitigation Plan shall be reported to the Executive Director, the Executive Director. No material changes to within the approved Sound Mitigation Plan coastal zone shall occur without a Commission-approved amendment to this coastal

development permit, unless the Executive Director determines that no amendment is legally required.

~~Protection of Sensitive Avian Species. PRIOR TO ISSUANCE OF THIS PERMIT, Poseidon shall submit, for review and written approval of necessary. Changes to the Executive Director, at least two (2) copies of an Avian Species Protection Plan, prepared by a qualified biologist(s) approved by the Executive Director, for ensuring that the authorized demolition, remediation and construction of the desalination plant and associated facilities avoid adverse effects to sensitive avian species. The Avian Species Protection Plan shall, at a minimum, include the following:~~

~~— A provision for breeding behavior and nesting surveys that requires:~~

~~— Prior to commencement of construction or remediation activities between January 1 and August 31 of any year, the biologist(s) shall conduct two breeding behavior and nesting surveys for birds protected by the Fish and Game Code, the Migratory Bird Treaty Act, and any birds that are included on state or federal lists of threatened or endangered species. The first survey shall take place no more than 30 days before the start of construction activity. The second survey shall take place at least 10 days after the first survey and within 14 days of the start of construction. The surveys shall encompass all environmentally sensitive habitat areas, wetlands, and other areas of potential nesting habitat within 500 feet of project development activities.~~

~~— Follow-up surveys are to be conducted by the approved biologist(s) if there is a period of construction inactivity of three weeks or more between January 1 and August 31 of any year.~~

~~— If any survey identifies any occupied nests, or if any sensitive species are discovered in the survey area, construction and remediation activities shall not occur within 300 feet of the nest, and within 500 feet for raptor and owl nests, or within any increased buffer width recommended by the approved biologist(s). All other construction and remediation activities shall be implemented to ensure that noise levels do not exceed 60 dB peak at the wetland boundary delineated pursuant to **Special Condition 5** until the approved biologist(s) certifies that the nest is vacated, juveniles have fledged, left the area, and are no longer being fed by the parents, and there is no longer any evidence of a second attempt at nesting.~~

~~— A provision for monitoring surveys that requires:~~

~~— Prior to undertaking any development, including, but not limited to, construction, grading or excavation, the approved biologist(s) shall survey areas within 100 feet of the project site to determine whether sensitive bird species, including but not limited to Belding's savannah sparrow, western snowy plover, brown pelican, light-footed clapper rail, black skimmer, and/or California least tern, are present within 100 feet of the project site.~~

~~— The approved biologist(s) shall monitor the proposed development for disturbance to sensitive species or habitat area at least once a week during any week in which construction occurs and daily if development which has the potential to significantly impact biological resources is taking place.~~

~~— The biologist(s) shall advise Poseidon regarding methods to avoid significant impacts to sensitive species or habitat area.~~

~~— A prohibition on any development that requiring review for amendment would disturb sensitive species or habitat areas unless Poseidon obtains an amendment to this coastal development permit that would permit such disturbance.~~

~~— A provision that the breeding behavior and nesting surveys and the monitoring surveys shall be provided to Coastal Commission staff upon request.~~

~~Poseidon shall undertake development in accordance with the approved Avian Species Protection Plan. Any proposed include changes to the approved Avian Species Protection Plan shall be reported to the Executive Director. No changes to the approved Avian Species Protection Plan shall occur without a Commission approved amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required in the physical, operational, or delivery capacity increases, or extension of water supply distribution pipelines beyond those shown on the final plans. A-5-HNB-10-225/E-06-007 (Poseidon Water)~~

~~27.12. **Term of Permit:** This permit authorizes the approved seawater desalination plant and associated facilities until the year 2050. If Poseidon for thirty-five years from the date the facility commences commercial project water deliveries. If the Permittee intends to keep the approved development in place continue operating the desalination facility and associated components after this **authorization** expires, then Poseidon the Permittee shall apply for a new coastal permit authorization to allow the approved development (including, as applicable, any potential modifications to it requested by Poseidon the Permittee). Provided a completed an application is received before the permit expiration, the expiration date shall be automatically extended until the time the Commission acts on the application.~~

13. Marine Life Mitigation Plan: PRIOR TO ISSUANCE OF THE PERMIT, the Permittee shall submit to and obtain from the Commission approval of a Marine Life Mitigation Plan (the Plan) that complies with the following:

- a. To the maximum extent feasible, the mitigation shall take the form of maintenance, creation, enhancement, or restoration of aquatic or wetland habitat, or the payment of an equivalent mitigation fee.
- b. Unless payment of an equivalent mitigation fee is required, goals, objectives and performance criteria for each of the proposed mitigation sites. It shall identify specific maintenance, creation, restoration, or enhancement measures that will be used at each site, including grading and planting plants, the timing of the mitigation measures, monitoring that will be implemented to establish baseline conditions and to determine whether the sites are meeting performance criteria. The Plan shall also identify contingency measures that will be implemented should any of the mitigation sites not meet performance criteria.
- c. Unless payment of an equivalent mitigation fee is required, requires submittals of “as-built” plans for each site and annual monitoring reports for no less than five years or until the sites meet performance criteria.

d. Unless payment of an equivalent mitigation fee is required, defines legal mechanism(s) proposed to ensure permanent protection of each site – e.g., conservation easements, deed restriction, or other methods. **Coastal Hazards Response.** By acceptance of this permit, Poseidon acknowledges and agrees, on behalf of itself and all successors and assigns, that:

- The intent of this permit is to allow for the approved development to be constructed and used consistent with the terms and conditions of this permit for only as long as it remains safe for use without additional substantive measures beyond ordinary repair and/or maintenance to protect it from coastal hazards; however, Poseidon may apply to relocate threatened development elsewhere on the site;
- In the event that the approved development, including, but not limited to, the desalination facility and its associated structures and components, its intake and outfall structures, and the product water delivery pipeline, and any future improvements, is threatened with damage or destruction from coastal hazards, or is damaged or destroyed by coastal hazards, protective structures (including but not limited to seawalls, revetments, groins, deep piers/caissons, etc.) shall be prohibited;
- Any rights to construct such protective structures, including rights that may exist under Public Resources Code Section 30235 are waived;
- If an appropriate government agency has ordered that the approved development or portions of the approved development are not to be occupied or used due to any coastal hazards, and such safety concerns cannot be abated by ordinary repair and/or maintenance, then Poseidon shall remove such development or portions of such development. Prior to removal, Poseidon shall submit two copies of a Removal Plan to the Executive Director for review and approval. If the Executive Director determines that an amendment to this permit or a separate coastal development permit is legally required, Poseidon shall immediately submit the required application. The Removal Plan shall clearly describe the manner in which such development is to be removed and the affected area restored so as to best protect coastal resources, and shall be implemented immediately upon Executive Director approval or approval of the permit or amendment application.

The Permittee shall comply with the approved Plan. Prior to implementing the Plan, the Permittee shall submit a proposed wetlands restoration project or projects that complies with the Plan in the form of a separate coastal development permit application for the planned wetlands restoration project(s). The Commission shall hold a hearing on the proposed Plan within ninety days of the Permittee's request for such hearing.

28.14. Assumption of Risk, and Waiver of Liability and Indemnity: By acceptance of this permit, Poseidon ~~the Permittee~~ acknowledges and agrees (1) that the site may be subject to hazards from ground motion, liquefaction, lateral spread, storm waves, storm surges, erosion, and flooding; (2) to assume the risks to Poseidon and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (3) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (4) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages,

costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

~~PRIOR TO ISSUANCE OF THIS PERMIT, Poseidon shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition and recording them against the property on which the development is taking place.~~

- ~~2. **Flood Damage Prevention.** PRIOR TO ISSUANCE OF THIS PERMIT, Poseidon shall submit, for Executive Director review and approval, certification from a licensed engineer approved by the Executive Director, that the facility is elevated above, and protected from, a 500-year flood event at the project site that includes an additional 24 inches of sea level rise. The engineer's determination shall describe the methods and include the calculations used to determine the elevation of the current 500-year flood event at the site and those used to determine the elevation of a future 500-year flood event with the additional 24 inches of sea level rise expected during the facility's thirty year operating life.~~

- ~~15. **Flood and Tsunami Hazard Mitigation Planning.** PRIOR TO ISSUANCE OF THIS PERMIT, Poseidon shall submit, for Executive Director review and approval, a Facility Hazard; The Permittee shall comply with the specific measures identified in the Seismic, Tsunami and Flood Design Mitigation and Emergency Response Plan developed in coordination with the City of Huntington Beach, AES, Southern California Edison, and the Orange County Flood Control District, dated March 2013, as provided below:~~

- ~~a. The Facility Hazard Emergency Response Plan shall include, at a minimum: Permittee shall implement SEIR mitigation measure HWQ-3; Prior to issuance of grading permits, the applicant shall submit to the City for approval a plan outlining the specific planning measures to be taken to minimize or reduce risks to property and human safety from tsunami during operation. Planning measures could include but would not be limited to the following: (a) provision of tsunami safety information to all facility personnel, in addition to posting signage on site; (b) identification of the method for transmission of tsunami watch and warnings to facility personnel and persons on the site in the event a watch or warning is issued; and (c) identification of an evacuation site for persons on site in the event of a tsunami warning.~~

~~The results of hydraulic and hydrodynamic modeling using methods approved by the Federal Emergency Management Agency (FEMA) or the National Oceanic and Atmospheric Administration (NOAA) showing the effects of Poseidon's proposed structures on other nearby structures (including, but not limited to: those structures associated with the existing adjacent power plant, including new structures that may be approved as part of the California Energy Commission's review of a new proposed power plant pursuant to 12-AFC-02; the on-site Southern California Edison substation; and the Orange County Flood Control Channel) during: (1) a tsunami runoff of 11 feet above mean sea level with an additional two feet of sea level rise (for a total runoff of 13 feet above mean sea level); and, (2) the 500-year flood events as determined pursuant to Special Condition 16.~~

- ~~— Concurrence from AES, Southern California Edison and the Orange County Flood Control District that the modeling efforts accurately reflect expected hazard levels at these nearby structures.~~
- ~~— Structural and non-structural measures Poseidon will implement to avoid, or if infeasible to avoid, to reduce any identified adverse effects of tsunami and flood events of its facility's structures on the above-referenced adjacent structures and to ensure human safety. Structural measures shall include either those that allow facility personnel immediate vertical evacuation to safe areas above tsunami runup elevations or those that allow facility personnel to remain inside structures that are not subject to inundation. The structural measures identified and required by this Plan shall be determined through the structural engineer approval required by Special Condition 18 to be fully tsunami-resistant.~~

~~Poseidon shall undertake development in accordance with the approved Facility Hazard Emergency Response Plan. Any proposed changes to the approved Facility Hazard Emergency Response Plan shall be reported to the Executive Director. No changes to the approved Facility Hazard Emergency Response Plan shall occur without a Commission approved amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.~~

Structural Stability. ~~PRIOR TO ISSUANCE OF THE PERMIT, Poseidonb. The Permittee shall develop a Hazard Emergency Response Plan with AES HBGS prior to the commencement of project operations. The Permittee has submitted a Draft Hazard Emergency Response Plan tailored to the current AES plan but revised to address a non-essential water treatment plant. The Permittee will meet with AES HBGS to work together on a coordinated plan that is in accordance with the draft plan submitted.~~

~~30-16. **Structural Stability.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall provide for to the Executive Director review and approval documentation from a qualified and licensed structural engineer approved by the Executive Director, certifying that the new desalination facility and its associated components in the coastal zone (as modified by these special conditions and including its seawater intake and outfall and its product water delivery pipeline), are plant owned by the Permittee is designed to resist without collapse or structural damage the forces resulting from any and all of the following seismic and, geologic, flood, and tsunami hazards:~~

- ~~a. a. The "design-level" earthquake, which, as specified in SEIR Mitigation Measure GEO-3, is to be determined based on methods required in the 2010 California Building Code;~~
- ~~b. b. Ground motion based on 2010 California Building Code requirements for Site Class F, with an acceleration response spectrum corresponding to 80% of the Site Class E response spectrum;~~
- ~~c. c. Soil settlement or displacement due to liquefaction or lateral soil spread of at least nine inches vertically and at least thirty-eight inches horizontally;~~
- ~~d. d. Groundwater table elevations at the ground surface; and,~~
- ~~e. e. Tsunami runup at the facility site of 11 feet above mean sea level with an additional two feet of sea level rise for a total of 13 feet above mean sea level; and~~
- ~~f. f. Flooding from the 100-year and 500-year flood events, including increased flood elevations resulting from two feet of sea level rise. -Flood elevations shall be based on the requirements flood map in the Environmental Hazards Element of **Special Condition 16** the City of Huntington Beach General Plan.~~

~~17. **Lighting Geologic Stability and Project Reliability Plan:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit a Lighting Plan to the Executive Director for review and approval. The Lighting Plan shall document that the facility's exterior lighting is the minimum necessary for safety purposes. All lighting (exterior and interior) shall be sited and designed so that it limits the amount of light or glare visible from offsite areas (including but not limited to views from the shoreline, public accessways, and the adjacent wetlands and environmentally sensitive habitat areas managed by the Huntington Beach Wetlands Conservancy) to the maximum extent feasible (including through uses of lowest luminosity possible, directing lighting downward, etc.).~~

~~31. **Energy Minimization and Greenhouse Gas Reduction Plan:** PRIOR TO ISSUANCE OF THIS PERMIT, Poseidon shall provide for Executive Director review and approval documentation from the City of Huntington Beach showing that the project is consistent with the City's most recent Hazard Mitigation Plan and Multi-Hazard Mitigation Plan prepared pursuant to California Government Code Sections 8685.9 and 65302.6 and Section 44 CFR 201.6 et seq.~~

~~32. **Greenhouse Gases.** PRIOR TO ISSUANCE OF THIS PERMIT, Poseidon shall submit a Revised the Permittee shall submit to the Commission an Energy Minimization and Greenhouse Gas Emissions Reductions Plan (GHG Plan) for Executive Director review and~~

approval. The Revised GHG Reduction Plan shall be substantially in conformance with the April 2010 plan provided with the project SEIR, but shall be revised as follows:

- a. ~~The Revised GHG Plan permit shall include only those proposed mitigation measures, offsets and credits not be issued until the Commission has approved by the Executive Director, including those described by Poseidon as "project-related" emission reduction measures, consistent with requirements and protocols established pursuant to California's implementation of AB 32.~~
- b. ~~an Energy Minimization and Greenhouse Gas Reduction Plan after a public hearing. The Revised GHG Plan's annual accounting measures Commission shall be modified to ensure that the amount of mitigation measures, offset, hold a hearing on the Energy Minimization and credits Poseidon implements each year are sufficient to offset the total indirect emissions from Poseidon's electricity use, less those exempted under the CEQA threshold and those implemented by Poseidon's electricity provider(s).~~

~~Poseidon shall undertake development in accordance with the approved Revised GHG Greenhouse Gas Reduction Plan. Any proposed changes to the approved Revised GHG Plan shall be reported to the Executive Director. No changes to the approved Revised GHG Plan shall occur without a Commission approved amendment to this coastal development permit, unless within ninety days of the Executive Director determines that no amendment is legally required.~~

34. ~~**Public Access.** PRIOR TO ISSUANCE OF THIS PERMIT, Poseidon shall submit, Permittee's request for Executive Director review and approval, a Traffic Management Plan approved by the City of Huntington Beach that includes all measures necessary to ensure project-related traffic does not result in a decreased Level of Service on roadways within the coastal zone that provide public access to the shoreline.~~

~~In addition, and upon approval by the City of a proposed Traffic Management Plan for activities resulting from the Department of Toxic Substances Control's Remedial Action Plan for the Aseon Landfill and/or for activities resulting from the California Energy Commission's approval of the Huntington Beach Energy Project (pursuant to 12-AFC-02), Poseidon shall submit, for Executive Director review and approval, a Revised Traffic Management Plan approved by the City of Huntington Beach documenting that Poseidon's project, in association with one or both of the above projects, does not result in a decreased Level of Service on roadways within the coastal zone that provide public access to the shoreline.~~

18. such hearing.