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July 16, 2021

VIA ELECTRONIC MAIL

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
Box 100, Sacramento, CA 95812-2000  
[commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

Re: Comment Letter - OTC Policy Amendment

Dear Chair Esquivel and Members of the State Water Resources Control Board:

It is with great disappointment and disbelief that we again write to oppose another extension of the final compliance deadline for the AES Redondo Beach Generating Station (AES Redondo Beach) under the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy). The City of Redondo Beach has long opposed any extension of AES Redondo Beach's final compliance deadline, and with good reason. AES Redondo Beach is a significant source of water and air pollution in our community, it is antiquated and inefficient, and it should have discontinued operations last year.

Despite certain representations that another compliance extension was unlikely, the State Water Resources Control Board (Water Board) is now considering an extension for two more years based on flawed, scant evidence. It is doing so based solely on the representations of the State's energy agencies, without any consideration for the significant environmental impacts of this decision. For the reasons stated below, the City opposes any further extension in the strongest possible terms.

## **I. BACKGROUND**

The City, its elected officials, and its residents are experiencing déjà vu. On September 1, 2020, the Water Board extended the final compliance deadline for the Alamitos, Huntington Beach, and Ormond Beach power plants by an additional three years from December 31, 2020 through December 31, 2023. At the same time, it extended the final compliance deadline for AES Redondo Beach through the end of this year. The Water Board did so based on evidence that this package of extensions would be sufficient to address the State's energy demands through

2023, when additional sources of renewable energy would be available. While the City and its residents disagreed, and continue to disagree, with the analysis that supported the 2020 OTC Policy extension, we took some measure of assurance that AES Redondo Beach would finally cease operations at the end of 2021.

The City's understanding was supported by repeated Board Member statements at the September 2020 hearing. There, Chair Joaquin Esquivel clearly and correctly stated "we don't want to be here again."<sup>1</sup> Board Member Firestone then commented "I think it's important for us to have our deadlines to mean something, and that's especially true when there's a decade of runway time to achieve them. I think it's really frustrating for all of us to have to extend compliance dates at a really late hour."<sup>2</sup> She went on to say "I think it is a huge deal to do an additional amendment and I think we all want to not have to have this come back next year with a further extension."<sup>3</sup> Board Member Maguire commented "I want to have as much assurance and rigor in the analysis as we can reasonably expect to say that these dates are best guess and we won't have to come back again or twice more or three times more."<sup>4</sup> Despite the Board's clear direction, here we are considering another two-year extension of AES Redondo Beach's compliance deadline.

Even the State's energy regulators oppose a further extension of AES Redondo Beach's lifeline. As reported in the Los Angeles Times on April 21, 2021, "When the California Public Utilities Commission recommended 17 months ago that a gas-fired power plant on the Redondo Beach waterfront remain open beyond 2020 — over the objections of local officials and clean energy activists — Commissioner Martha Guzman Aceves made a commitment to the city's mayor. 'I pledge to you, Mayor Brand, that I will never support a further extension,' she said."<sup>5</sup> In fact, in 2019, when Commissioner Guzman made that commitment, the California Public Utilities Commission (CPUC) ordered the procurement of an additional 3,300 MW "to account for the requested ramp-down in OTC capacity."<sup>6</sup> The additional 3,300 MW of capacity appears to be on schedule. AES Redondo Beach on the other hand is a 70-year old gas-fired, once-through-cooling (OTC) facility. It is inefficient and unreliable. During the August 2020 blackouts, one AES Redondo Beach unit was completely unavailable during both of the August 14 and August 15 blackout days, and the other two were de-rated. Yet, here we are again.

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<sup>1</sup> <https://www.youtube.com/embed/LYcESaHotgs?modestbranding=1&rel=0&autoplay=1>, at 15:54:23.

<sup>2</sup> *Id.* at 6:28:51.

<sup>3</sup> *Id.* at 6:40:11.

<sup>4</sup> *Id.* at 6:07:34.

<sup>5</sup> <https://www.latimes.com/environment/newsletter/2021-04-01/how-a-beachfront-gas-plant-explains-californias-energy-problems-boiling-point>, attached as Exhibit 1.

<sup>6</sup> CPUC D.19-11-016, p. 63.

## **II. THE WATER BOARD SHOULD NOT CONTINUE TO ALLOW THE ENVIRONMENTAL HARM CAUSED BY AES REDONDO BEACH**

Why does the Water Board continue to discount any of the environmental impacts associated with AES Redondo Beach?

As detailed in our prior May 18, 2020 comment letters to the Water Board in conjunction with last year's OTC Policy amendment, extending the deadline for AES Redondo Beach is inconsistent with protecting the environment.<sup>7</sup> The operations at AES Redondo Beach, which have been described by AES as presenting an imminent and substantial risk to human health and safety, are causing significant harm to the environment. Such operations are causing degradation of at least 5.93 acres of wetlands on which the plant is located, emitting polluted water into King Harbor and the Pacific Ocean, and, most pertinent to the OTC Policy, continuing to entrain and impinge marine life in its OTC system. As noted by the Los Angeles Times, "The story begins in 2010, when the state water board voted to phase out the use of ocean water for cooling machinery at 19 power plants along the coast. As The Times reported back then, intake pipes at those facilities 'suck in enough seawater to fill Lake Arrowhead, then spit it out again, a little warmer and a lot deader,' killing fish that can get trapped against intake screens and larvae that are small enough to make it through the screens."<sup>8</sup>

The Water Board has an obligation to achieve statewide compliance with Section 316(b) of the Clean Water Act, which requires that OTC structures implement the best technology available for minimizing adverse environmental impacts. Under the OTC Policy, the best available technology is closed-cycle wet cooling, or equivalent technology. AES Redondo Beach does not use this best available technology. The Water Board is inappropriately excusing compliance with Section 316(b) and its implementing regulations. Importantly, the Water Board, in acting to adopt compliance standards on a site-specific basis, has failed to consider the relevant factors required by 40 CFR §125.94(d) when permitting existing OTC structures.<sup>9</sup> The Water Board must consider the following factors:

- (i) Numbers and types of organisms entrained, including, specifically, the numbers and species (or lowest taxonomic classification possible) of Federally-listed, threatened and endangered species, and designated critical habitat (e.g., prey base);

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<sup>7</sup> May 18, 2020 comment letter, attached as Exhibit 2. Many of the arguments raised in the comment letter remain pertinent to the issues before the Water Board and to the extent they are not raised herein, they are incorporated by this reference.

<sup>8</sup> Exhibit 1.

<sup>9</sup> Although this is a policy-level decision, the Chief Counsel's office has previously informed the City that it considers this proceeding to be akin to a permitting action because it deals with a specific OTC facility.

- (ii) Impact of changes in particulate emissions or other pollutants associated with entrainment technologies;
- (iii) Land availability inasmuch as it relates to the feasibility of entrainment technology;
- (iv) Remaining useful plant life; and
- (v) Quantified and qualitative social benefits and costs of available entrainment technologies....<sup>10</sup>

Neither the Staff Report nor the proposed OTC Policy amendment contain a discussion of these factors required by EPA regulations. More importantly, if the proposed OTC Policy amendment is adopted, AES Redondo Beach will continue to defer compliance with the best technology available standard required by Section 316(b).

In addition, if the proposed OTC Policy amendment is approved, then the Regional Board will be tasked with considering another modification to AES Redondo Beach's NPDES permit and, presumably, an extension of the time schedule order (TSO) for DDT, temperature, pH, copper, and nickel. The City disagrees with the Staff Report's representation that the NPDES permit may be extended administratively upon submission of a complete report of waste discharge. The Los Angeles Regional Board's modification of the NPDES permit specifically incorporated the "Final Compliance Date for the Discharger of December 31, 2021" pursuant to the September 1, 2020 OTC Policy amendment in both the permit and its fact sheet.<sup>11</sup> A further modification to the permit would be needed to extend the NPDES permit's OTC Policy compliance schedule, given that the OTC Policy is implemented through the permit.

More importantly, any further extension of the NPDES permit and TSO is detrimental to the water quality of King Harbor and the Pacific Ocean. Since 2019, AES Redondo Beach has exceeded permissible limits of pH, TSS, and zinc. Just last month, on June 7, 2021, AES settled these recent violations.<sup>12</sup> There is little question that, if allowed to continue to operate, AES Redondo Beach will continue to discharge harmful pollutants into our waters.

AES Redondo Beach also produces a substantial amount of air pollution. The topology of the area causes this air pollution to accumulate and stagnate along the coast, rather than dissipate. AES Redondo Beach pollutes the environment in one of the most densely populated communities in California and in the presence of enormous summer crowds at the adjacent beach. The City of Redondo Beach has 11,000 residents per square mile. Directly across the street from AES Redondo Beach is the City of Hermosa Beach - the most densely populated community on the California Coast. Hermosa Beach has over 13,000 residents per square mile.

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<sup>10</sup> 40 CFR §125.98(f)(2).

<sup>11</sup> Order R4-2016-0222-A01.

<sup>12</sup> See Stipulated Order On Settlement Offer No. R4-2021-0022: AES Redondo Beach, LLC, Redondo Beach Generating Station, 1100 N. Harbor Drive, Redondo Beach, California, Order No. R4-2016-0222, NPDES No. CA0001201, CI No. 0536.

Additionally, more than 6,500 Redondo Beach students report to schools located within 1.5 miles of AES Redondo Beach. A 2015 study, reflected in the chart below, found that there were an estimated 21,632 people living within one mile of AES Redondo Beach, which is about 500 more people than the other three plants at issue, **combined**.<sup>13</sup>

Generating Station	Population within 1 mile
REDONDO BEACH	21,632
ORMOND BEACH	17
ALAMITOS	11,811
HUNTINGTON	8,336

As that study noted, the vast majority of power plants are sited in locations with very low population density as they should be. Of the 102 power plants that were analyzed, 46 were located at sites with surrounding populations of less than 1,000; 85 had populations of less than 10,000; and only 6 (including Redondo Beach) had populations above 20,000.

In 2019 alone, the AES Redondo Beach facility had at least two “abnormal startups” that resulted in panicked community members overwhelming the City’s 911 services with calls regarding the situation and the plant is also a large source of noise complaints from City residents.

The Water Board should not condone this pollution.

### **III. AES REDONDO BEACH IS NOT THE SOLUTION TO MEET THE STATE’S ENERGY DEMANDS**

As addressed in more detail below, the above detrimental environmental impacts can be avoided because AES Redondo Beach is not the correct solution to ensure the reliability of California’s electrical supply.

The City has retained energy expert Jaleh Firooz, P.E., to assist with evaluating whether AES Redondo Beach is an appropriate solution to meet the State’s energy demands. Ms. Firooz is a licensed Professional Electrical Engineer in the State of California with more than thirty-five years of utility and consulting experience in transmission planning, resource planning, generation interconnection, transmission regulatory policy, competitive wholesale energy markets and market design. She holds a Master of Business Administration and a Bachelor of Science degree in Electrical Engineering. She worked for the San Diego Gas and Electric Company for twenty-four years in the areas of Operations, Transmission and Resource

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<sup>13</sup> Study of Population Densities Near Gas-Fired Power Plants in California, California Energy Commission Docket Number: 01-AFC-03, TN Number: 206059, September 10, 2015.

Planning, Power Procurement, California Independent System Operator Corporation (CAISO) formation and markets, and Regulatory areas of the company. She also has expertise in power flow and production cost modeling and analysis. She is currently president of Advanced Energy Solutions, a consulting company specializing in California's energy sector. The results of Ms. Firooz's analysis are set forth below.

**a. Unreliable OTC Units Will Not Improve Energy System Reliability**

When we were here last year, and before the CPUC in late 2019, the City used the CAISO's and the CPUC's numbers, to show that the AES Redondo Beach units were not needed to meet local nor system capacity requirements. The CPUC responded by saying the OTC units were needed just in case the 3,300 MW of new procured generation were delayed (i.e., as insurance).<sup>14</sup> There is no indication from the CAISO, CPUC, or SACCWIS that any of the new procurement is behind schedule or will not be available in 2021, 2022, and 2023, as expected. Additionally, there is no evidence of resources being unexpectedly decommissioned. To the contrary, the Staff Report at page 12 notes that in 2020 the CAISO Board of Governors authorized a "system-level Reliability-Must-Run designation for 400 MW of resources that had previously notified the CAISO of their intent to retire or mothball." As such, the "insurance" should no longer be needed.

Yet, here we are again. Noting the CPUC's decision to increase the Planning Reserve Margin (PRM) on a temporary basis, the Staff Report states this increase "underpinned the need for retention of all available capacity during summer months in 2022, such as Redondo Beach."<sup>15</sup> Not so. As the Staff Report also notes, the CAISO recommended that temporary increase to "'account for increased levels of forced outages currently being experienced by California's fleet.'"<sup>16</sup> But, as explained in the *Final Root Cause Analysis Mid-August 2020 Extreme Heat Wave* report, published by the CAISO, CPUC, and CEC, most of these "outages were comprised of the natural gas-fired fleet...."<sup>17</sup> If outages among California's fleet are a problem, extending the compliance deadline for AES Redondo Beach units that are known to have outages when needed and were not fully available during the August 2020 blackouts is not the solution.

The energy agencies may think intuitively that any generation -- even an unreliable generation - is better than no generation. The City cautions that such thinking is misguided. The CAISO's options for getting energy to meet grid reliability are reduced significantly as it approaches real time. The units designated to provide possible emergency relief should be the most reliable units, not the least reliable units. Relying on old and unreliable units--such as AES Redondo Beach (one of the oldest OTC units), whose owners have very little economic incentive to spend

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<sup>14</sup> D.19-11-106, p. 19 ["Extension requests are an insurance policy...."].

<sup>15</sup> Staff Report, p. 14.

<sup>16</sup> *Id.*

<sup>17</sup> CAISO, CPUC, and CEC, *Final Root Cause Analysis for the Mid-August 2020 Extreme Heat Wave*, p. 87.

money on operations and maintenance for the units planned to be retired soon--actually decreases system reliability.

In the past twenty years, none of the outages, including the one last year in the CAISO service territory, were the result of having insufficient installed resources. There has been no year in which the planning reserves were below the CPUC's requirement. These planning reserve requirements have been used for decades throughout the country without any problem. Every instance of firm load loss in California, including last year's outages, were caused by unexpected and unplanned events. These events include transmission outages, operator errors inside or outside CAISO territory, incorrect operation of equipment, out-of-date equipment settings (e.g., tie tripping scheme between SDG&E and SCE), lack of visibility and communication with a neighboring Balancing Authority; and in the case of last year's outage: software errors<sup>18</sup>, lax CAISO generator outage management, and generator dispatch error.<sup>19</sup> As happened last summer, many triggering events happen with little or no advance warning and the CAISO has very little time to react and replace the lost capacity/energy.

In building a reliable energy grid, it matters less how *many* megawatts of capacity are added in the planning phase; but more how *reliable* those megawatts of capacity are when needed. That capacity needs to be able to operate during emergencies when operator options are limited. The AES Redondo Beach units and other OTC units, if not retired, are contracted by the load serving entities to meet their Resource Adequacy (RA) obligation because they are the easiest resource to contract with (i.e., they are already built and perhaps cheaper than other alternatives -they are fully depreciated). But they are usually the last units to be dispatched (committed) by the CAISO to meet the load since they are the least efficient units (most expensive energy) on the system. During emergency conditions, especially when the emergency arises with little advance notice, the operator has very limited options available to remedy the unanticipated event. Unreliable units such as OTCs provide a false sense of security for the operators.

In addition, most of the OTC units are considered "long start" (meaning they take a long time for the unit to be able to start from a cold condition to reach operational capability) and in

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<sup>18</sup> The CAISO's software allowed large amounts of exports out of the CAISO Balancing Authority area at the same time firm load was being curtailed. There were 3,500 MW of exports when the CAISO initiated rolling blackouts within the CAISO Balancing Authority on August 14-15, 2020. (CAISO Daily Outlook, Supply, August 14, 2020, net imports = 7,126 MW at 6:35 pm; and Final Root Cause Analysis, January 13, 2021, Figure B.36: Total Day-Ahead Scheduled Exports by Category, p. 122.) This software problem has been acknowledged by both the CAISO and CAISO's Department of Market Monitoring and has since been corrected. Had the exports been cut, even partially, as was intended by the original market design concept, California would not have experienced the August 14-15, 2020 blackouts.

<sup>19</sup> These circumstances are explained in more detail in the City's March 25, 2021 letter to SACCWIS, incorporated by reference.

some cases have to be started a day prior to when they are actually needed. Long start limitations make these units physically incapable of being available during system emergencies if the unanticipated event occurs with little or no advance knowledge.

On the other hand, if the CAISO is not relying on such units, and determines a month, week, or a few days ahead, that it might be short of resources, the CAISO can come up with alternative ways to meet the load. These alternatives may include paying customers to reduce load, or the use of emergency generators and other resources not counted towards supply requirements such as additional imports. To reduce the possibility of outages caused by relying on units which are unable to produce when needed, higher quality capacity is required. The OTC units and AES Redondo Beach units in particular, are exactly the opposite of what is needed to reduce the risk of outages as unexpected events often occur with little advance notice, thereby limiting the CAISO's options.

If the AES Redondo Beach units are retired as planned, they would not be contracted by load serving entities and not counted towards those load serving entities' RA obligations. They could not be relied upon by the CAISO operators and the CAISO would necessarily look for other, more dependable, capacity to address short term emergencies.

#### **b. OTC Units Are Not Reliable**

While the outage rates of newer gas-fired generators are around 5%, the data shows that California's obsolete and uncompetitive OTC units have outage rates closer to 40%. For example, on August 14, 2020 at the time of the first summer 2020 rolling blackout, the CAISO outage report<sup>20</sup> indicated that 1,418 MW out of 3,733 MW (Net Qualifying Capacity of nine Southern California OTC units) were unavailable, an outage rate of 38% ( $1,418 \div 3,733$  MW).

More recently, on June 17, 2021, the day CAISO called the first Flex Alert of 2021, the CAISO Outage Report<sup>21</sup> indicated 1,366<sup>22</sup> MW out of 3,777 MW of the nine Southern California OTC units were unavailable, a 36% outage rate ( $1,366 \div 3,777$ ).

Most importantly here, according to the same CAISO outage data, one AES Redondo Beach unit was completely unavailable during both of the August 14 and August 15 blackout days, and the

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<sup>20</sup> R.20-11-003, Prepared Opening Testimony Of Bill Powers, P.E. On Behalf Of The Protect Our Communities Foundation, (January 11, 2021) p. 9.

<sup>21</sup> <http://www.caiso.com/Documents/Curtailed-non-operational-generator-am-report-20210617.html>. The Protect Our Communities Foundation Comments On The Proposed Decision On Track 3b.2 Issues: Restructure Of The Resource Adequacy Program, p. 8.

<sup>22</sup> Alamitos 5, 30 MW; Ormond Beach 1&2, 1,241 MW; Redondo Beach 6, 95 MW ( $30 + 1,241 + 95 = 1366$  MW).

other two were de-rated.<sup>23</sup> On June 17, 2021, AES Redondo Beach unit 6 was de-rated by 95 MW.

The owners and operators of obsolete OTC units have little economic incentive to spend money on the maintenance of these units. Most OTC units were planned to already be retired, so it does not pay to spend capital to improve their availability. Therefore, there is no reason to believe these units will be more dependable during the next heat wave.

Another deficiency of the OTC units, as mentioned above, is their long start time. During the 2020 blackouts, the CAISO failed to dispatch all of the available “long start” OTC units. For example, neither Alamitos 4 (336 MW net qualifying capacity) nor Ormond Beach 1 (741 MW net qualifying capacity) were in a planned or forced outage condition on August 13, 2020, but neither was dispatched in sufficient time to provide significant power on August 14, 2020, when the rolling blackout was initiated by the CAISO. The combined net qualifying capacity of these two units totals 1,077 MW.<sup>24</sup> The magnitude of the blackout on August 14th was about 1,000 MW.

### **c. Additional Reliable Resources Are Planned**

To bridge any perceived gap between the one-year focus of the RA program and the 10-year planning horizon of the Integrated Resource Planning (IRP) effort, the CPUC has ordered additional resource procurement. In Decision (D.) 18-06-030, the CPUC adopted a three-year forward procurement requirement for Local RA Capacity. In D.19-11-016, the CPUC in the IRP proceeding ordered procurement of 3,300 MW of system capacity for 2021-2023 “to address the potential for electricity system resource adequacy shortages beginning in 2021.”<sup>25</sup> More recently, the CPUC authorized emergency procurement of resources needed to avoid shortages in the summers of 2021 and 2022<sup>26</sup> and three weeks ago ordered procurement of 11,500 MW of mid-term capacity for 2023-2026.<sup>27</sup> At this time, there is no reason to believe that any of these deadlines will not be met.

In addition to adding new resources, the CAISO is planning on shifting load from on-peak hours to off-peak hours, when plenty of solar energy is available, through a variety of means including

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<sup>23</sup> <http://www.caiso.com/Documents/08132020-08162020-ActiveOutages-Public.xlsx>. A fact sheet is also available at <http://www.caiso.com/Documents/Aug14-15-OutageFactSheet.pdf>.

<sup>24</sup> CAISO, Response of CAISO to Data Request Number PCF-CAISO-2020RA-02, R.19-11-009, November 16, 2020, Attachment A.

<sup>25</sup> D.19-11-016, p. 1.

<sup>26</sup> D.21-02-028, D.21-03-056.

<sup>27</sup> D.21-06-035.

allowing load to bid into its market and change in retail rates.<sup>28</sup> This will further reduce the system peak demand and thus reduce the need for a resource such as AES Redondo Beach. Shifting load is a far more efficient, better for environment, and reliable solution than attempting to rely on the unreliable obsolete AES Redondo Beach units.

#### **IV. THE WATER BOARD HAS FAILED TO COMPLY WITH CEQA**

With respect to the California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000, *et seq.*), the Water Board is erroneously relying on an addendum to the previously approved 2010 Final Substitute Environmental Document (SED) to satisfy the Water Board's environmental review obligations in connection with the OTC Policy amendment. Relying on the 2010 baseline environmental conditions to justify a lengthy extension of AES Redondo Beach's final compliance deadline is inappropriate under CEQA.

Under CEQA, a subsequent environmental document must be prepared when there are substantial changes in the circumstances under which the project is undertaken revealing: new, significant environmental effects or a substantial increase in the severity of previously identified significant effects; or new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous environmental document was adopted, showing that there will be significant effects that were not previously discussed or which are more severe than previously shown.<sup>29</sup> Use of an addendum is reserved for situations where "some changes or additions are necessary" but the conditions for a subsequent environmental document are not met.<sup>30</sup>

The OTC Policy amendment and its addendum do not meet this test. For example, the addendum does not sufficiently account for changed conditions under which the OTC Policy amendment would occur, including the discovery of at least 5.93 acres of wetlands and related wildlife on site, which the California Coastal Commission confirmed in 2015. The addendum also does not sufficiently consider and analyze the adverse air quality, noise, and health impacts that will occur due to changes in land uses since the SED, including new residential uses, a hotel, and a heavily used bike track near the power plant. Instead, the addendum summarily

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<sup>28</sup> See Comments of the California Independent System Operator Corporation, Dated: July 1, 2021, <http://www.caiso.com/Documents/Jul1-2021-TechnicalConferenceComments-ElectrificationandGridFuture-AD21-12.pdf>, page 6 ["The CAISO supports both the integration of flexible demand into wholesale markets and leveraging load modifications through grid informed time variant and dynamic retail rates for newly electrified resources to mitigate stress on the system by beneficially shifting and shaping load to create a flatter and more manageable system load profile"].

<sup>29</sup> 14 CCR §15162(a).

<sup>30</sup> 14 CCR §15164(a).

concludes that no changed circumstances or significant new information has occurred in the more than a decade since the SED was approved.<sup>31</sup>

The operation of AES Redondo Beach already has resulted in adverse environmental impacts, including those substantial enough to result in the California Coastal Commission issuing a Notice of Violation to AES Redondo Beach and the underlying property owner “for illegally dewatering the wetlands through the unpermitted installation and use of groundwater pumps in the former tank basin area and the installation and use of new portable pumps to dewater utility vaults that may be hydrologically connected to the wetlands in the former tank basin.”<sup>32</sup> While the Staff Report notes at page 26 that “AES submitted by June 30, 2020, a complete coastal development permit application to the City of Redondo Beach seeking authorization to remove the dewatering system in the former tank basin and either retain or remove the vault pumping system,” the application was not deemed complete until October 2020 and the hearing at which AES must present additional information and analysis has not yet occurred. In any event, the application does not absolve the Water Board of its obligation to disclose, analyze, and attempt to mitigate the adverse biological resources impacts from a further period of operation of AES Redondo Beach.

The Staff Report also acknowledges that “Extending the compliance date of Redondo Beach will extend existing air, noise, and aesthetic impacts; however, impacts are expected to remain less than the baseline condition established in the 2010 Final SED.”<sup>33</sup> The Staff Report and addendum concede that the 2010 Final SED determined that it could not accurately assess air quality impacts related to compliance with the OTC Policy but, rather than attempting to undertake any quantitative or qualitative analysis now, the Water Board simply asserts, without any basis, that “continued operation of Redondo Beach is not expected to result in air impacts greater than those reported as baseline air emissions in Section 2.6 of the 2010 Final SED.”<sup>34</sup> There is no evidence to support this conclusion, and the Water Board has not engaged in a good faith effort to disclose potential environmental impacts.

The Water Board’s Staff Report demonstrates the problems with, and lack of information disclosure resulting from, the failure to undertake any meaningful analysis of air quality impacts. The Staff Report notes that AES Redondo Beach has experienced mechanical failures, including as recently as July 2019, which “caused the unit to emit dark, black smoke for approximately six minutes.”<sup>35</sup> AES Redondo Beach is also under investigation by South Coast

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<sup>31</sup> Addendum section of Staff Report, pp. 34-35.

<sup>32</sup> Staff Report, p. 26.

<sup>33</sup> Staff Report, p. 27.

<sup>34</sup> *Id.*

<sup>35</sup> Staff Report, p. 28.

Air Quality Management District for “deviations” from permit terms.<sup>36</sup> This information rises to the level of significant new information rendering use of an addendum inappropriate.

The onus is on the Water Board to provide the necessary information for the public and decisionmakers to be apprised of the environmental consequences of further amending the OTC Policy and extending the environmental harm created by AES Redondo Beach. The addendum and the supporting Staff Report both fail to satisfy this Water Board’s legal obligation and fail as informational documents under CEQA. A subsequent SED is required. The City objects to any further action being taken on the OTC Policy amendment until the Water Board fully complies with CEQA.

Pursuant to Public Resources Code Section 21167(f), the City also intends these comments to serve as a written request for a copy of any notice of determination that may be filed related to this Project or any part or component thereof.

#### **V. CONCLUSION**

The City and its residents have anticipated the closure of AES Redondo Beach for over a decade. AES Redondo Beach should not be used as a safety net or insurance policy at the expense of the environment and surrounding community. Given that AES Redondo Beach is not a reliable solution to meet the State’s energy demands, the Water Board should not sacrifice water and air quality impacts in our community by extending the power plant’s OTC Policy compliance deadline for one more day, much less two more years.

Sincerely,



Michael W. Webb  
City Attorney of the City of Redondo Beach



William C. Brand  
Mayor of the City of Redondo Beach

Enclosures

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<sup>36</sup> Staff Report, pp. 28-29.

**ATTACHMENT: APRIL 1, 2021 LOS ANGELES TIMES ARTICLE**

7/13/2021

This coastal gas plant explains California's energy problems - Los Angeles Times

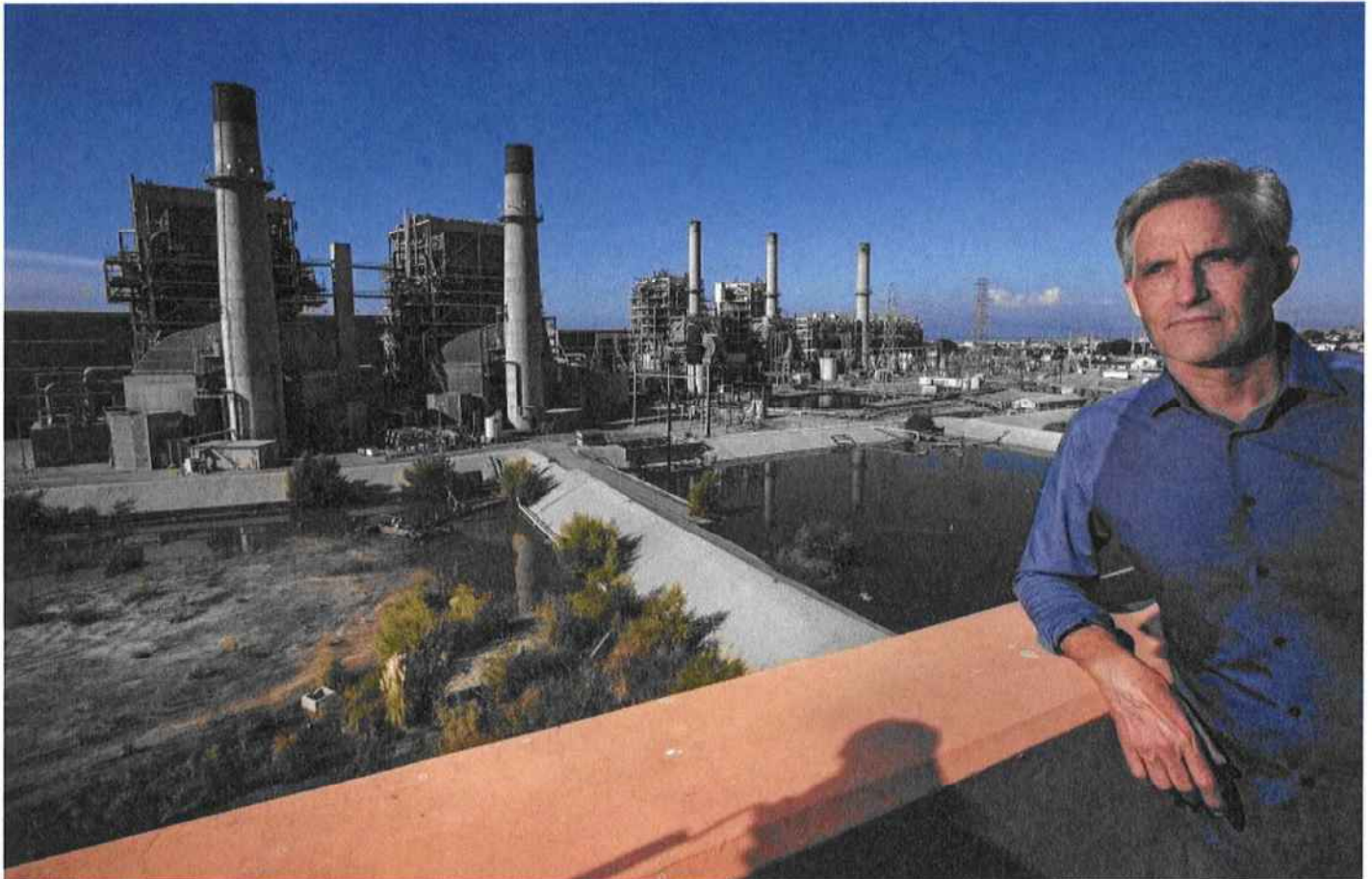


Los Angeles Times

LOG IN

CLIMATE & ENVIRONMENT

## How a beachfront gas plant explains California's energy problems



Redondo Beach Mayor Bill Brand has fought for years to shut down the gas-fired AES power plant in his city. (Mel Melcon / Los Angeles Times)

By SAMMY ROTH | STAFF WRITER

APRIL 1, 2021 6 AM PT



<https://www.latimes.com/environment/newsletter/2021-04-01/how-a-beachfront-gas-plant-explains-californias-energy-problems-boiling-point>

**The fight over Redondo Beach Generating Station is a fascinating microcosm of the clean energy challenges confronting California and the nation. So let's take a step back and look at how we got here.**

7/13/2021

This coastal gas plant explains California's energy problems - Los Angeles Times

The story begins in 2010, when the state water board voted to phase out the use of ocean water for cooling machinery at 19 power plants along the coast. As The Times [reported](#) back then, intake pipes at those facilities “suck in enough seawater to fill Lake Arrowhead, then spit it out again, a little warmer and a lot deader,” killing fish that can get trapped against intake screens and larvae that are small enough to make it through the screens.

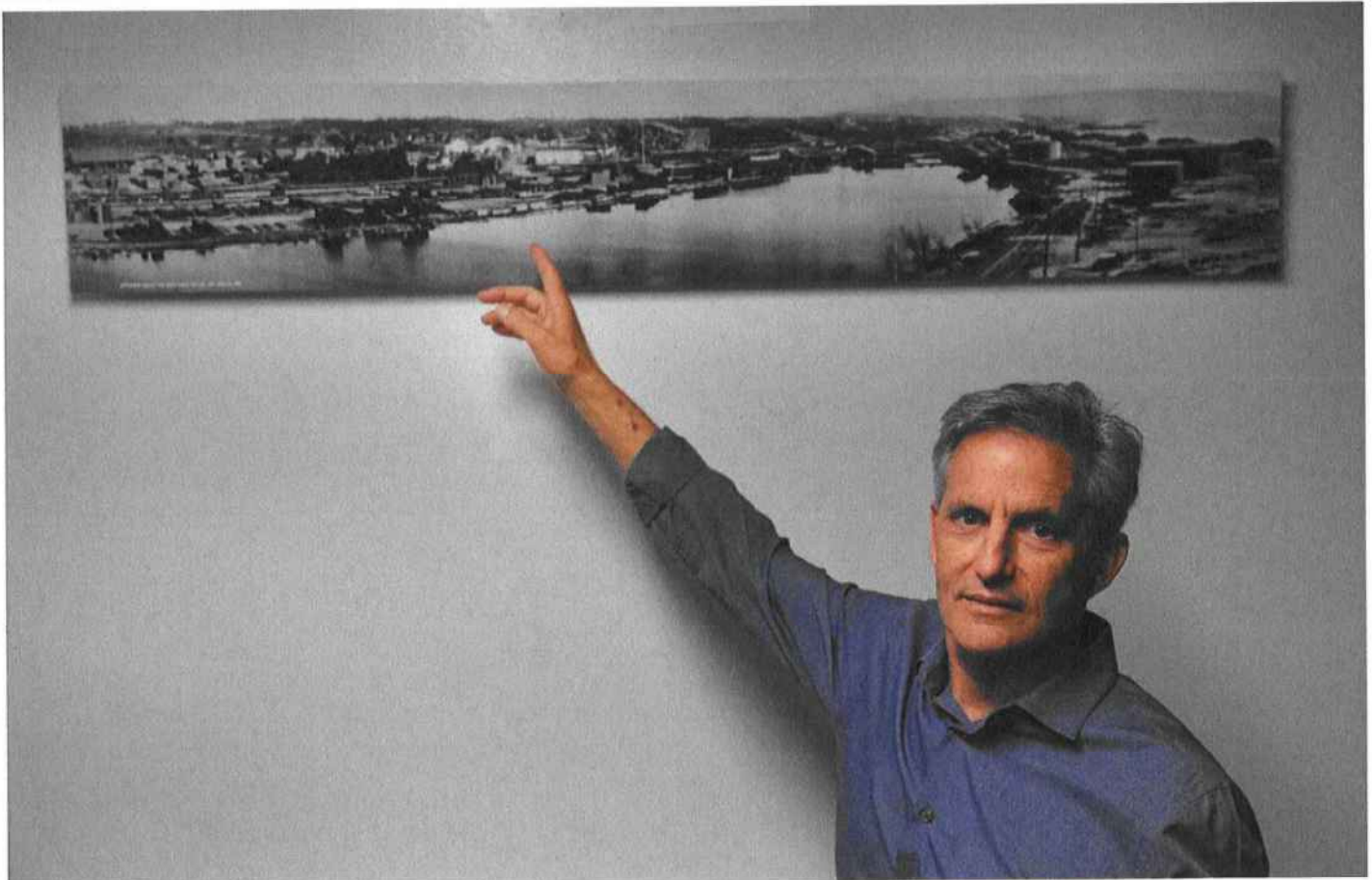
The owners of most of the power plants have since complied, either by shutting down the offending generators, replacing them with fancy new units that don't use ocean water for cooling, or otherwise dramatically reducing harm to marine life.

Redondo Beach Generating Station was one of several gas plants that was supposed to ditch so-called “once through cooling” by Dec. 31, 2020. Plenty of time to install fish-friendly technology or figure out how to replace all that energy generation, right?

**That's not how it worked out.** The plant's owner, AES Corp., spent the next decade [fighting with local residents](#) who wanted to see the facility replaced with a public park. A coalition that included Bill Brand, who was eventually elected Redondo Beach mayor, defeated several AES redevelopment plans, as well as an effort to rebuild the gas plant with air-cooling technology.

7/13/2021

This coastal gas plant explains California's energy problems - Los Angeles Times



Mayor Bill Brand points to a photo of the AES power plant site in Redondo Beach in 1908, when much of it was wetlands. (Mel Melcon / Los Angeles Times)

Then in 2019, the California Public Utilities Commission and the California Independent System Operator [began warning](#) that the state could face power shortfalls in summer 2021. They asked the state water board to please extend the shutdown deadline for Redondo Beach and three other Southern California gas plants.

**Disaster struck sooner than expected.** Or if not disaster, then at least hardship. The state suffered its [hottest August on record](#) last year, with Death Valley hitting [130 degrees Fahrenheit](#) during a midmonth heat wave. The entire American West baked, limiting California's ability to import electricity from its neighbors. The Independent System Operator [ordered blackouts on two consecutive evenings](#), putting as many as half a million homes and businesses out of power for as long as 2½ hours.

To no one's surprise, two weeks later the state water board voted to let the four Southern California gas plants [stay open past Dec. 31, 2020](#). Three of the four were given three-year extensions; Redondo Beach's reprieve was limited to one year, in a concession to Brand and other local officials who opposed any kind of leeway.

**That brings us to today.** State officials are mostly focused on lining up new energy resources for this summer, but they're also looking ahead to next year. And last week, the Statewide Advisory Committee on Cooling Water Intake Structures — the acronym is SACCWIS, for those of you keeping score at home — voted to recommend that the Redondo Beach gas plant be given another new lease on life, with the shutdown deadline delayed until the end of 2023.

7/13/2021

This coastal gas plant explains California's energy problems - Los Angeles Times

I called Brand to ask his opinion. He was not happy.

**"If the state of California is going to rely on one 70-year-old power plant to secure their energy needs, we've got big problems," he said. "There's no question this was a failure in planning and a failure in grid management."**

Whether or not the state should have been prepared — I'll leave that for you to judge — we're in this situation because of the rapidly changing nature of the power grid.

It used to be that as long as utility companies had enough electricity lined up to serve customers on the hottest summer afternoons, they'd be fine the rest of the year. But solar power has changed the equation. Now it's the evening hours — when the sun goes down yet temperatures can remain high — that are increasingly dicey. That was the problem period last summer.

Utilities are adding thousands of megawatts of lithium-ion batteries, which are useful for banking solar energy generated during the middle of the day and saving it for the evening. But the batteries revolution is a work in progress. For now, gas plants do the bulk of the work keeping the lights on after sundown. Hence last week's vote by the SACCWIS.

"One of the toughest parts of this job is we have to make really, really difficult decisions that are painful," said David Hochschild, chair of the California Energy Commission, when I asked him about Redondo Beach. "We are going down a road where we have to keep that facility open longer than we like. However, it will not be operating much."



Redondo Beach Generating Station is owned by AES Corp. (Mel Melcon / Los Angeles Times)

The Energy Commission and other agencies conducted a [“stack analysis”](#) of summer 2022 energy supplies, concluding California could once again find itself short of power, specifically in July and September, without Redondo Beach. If the plant were to stay open, they found, the shortfall would mostly vanish.

State officials described the projected shortfall as “conservative,” saying it could actually be worse if utilities don’t get batteries and other new power supplies online as fast as they’re supposed to, or if importing electricity from other western states gets harder — which seems likely, by the way. Yet another coal plant, this one in Montana, closed [just yesterday](#).

**At the same time, it’s clear that Gov. Gavin Newsom’s administration is being extra cautious after last year’s blackouts, which the governor does not want to repeat, especially with a likely [recall vote looming](#).** A Redondo Beach extension is one of many strategies his appointees are pursuing, from [building batteries](#), to [paying people to use less electricity](#), to [adding capacity at existing gas plants](#), to [technical market fixes](#).

“The imperative right now, given the events of last August, is to be absolutely certain we can provide electric reliability,” Hochschild told me. “When you have a threat to reliability like we did last August — even if it’s only four hours over two days — that becomes a very significant event. We cannot have people lose confidence in the reliability of the electric grid.”

**And therein lies the challenge of transitioning California's economy away from fossil fuels, which I [described last week](#) as, "Move fast, don't break things."** Close the Redondo Beach gas plant too quickly, and maybe hundreds of thousands of people find themselves without air conditioning on a hot summer night. Choose not to close it, and you're only putting off the day when bold steps will be needed to wean the state off fossil gas — and the longer you wait, the more the planet warms.

**This one gas plant will not make or break California's climate goals, or the electric grid.** But it's a useful case study because the choice is so stark. Shut the plant on deadline, or let it keep running. There's no middle ground.

These types of decisions impact real communities in tangible ways. More than 20,000 people live within a mile of Redondo Beach Generating Station and breathe the [nitrogen oxides and fine particulates](#) it emits. Redondo and neighboring Hermosa Beach are actually [suing](#) the state water board, arguing the agency failed to properly analyze the environmental impacts of last year's gas plant extensions, a claim agency officials have rejected.

I also reached out to AES Corp. for comment. I got a written statement from Mark Miller, market business leader for California, who said the company is "committed to support the responsible transition to a carbon-free energy future." He suggested two more years of operation in Redondo Beach "can help achieve this goal" by reducing the risk of blackouts during extreme heat.

**There's a final twist to this story: It turns out one of the three gas units at Redondo was [completely unavailable](#) during both days of rolling outages last August, due to what state officials describe as "plant trouble."** The other two units were generating slightly less electricity than usual — in one case, ironically, because of the extreme heat.

On the power grid, nothing is easy.

**ATTACHMENT: MAY 18, 2020 COMMENT LETTER**



**redondo**  
B E A C H

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May 18, 2020

VIA EMAIL

Ms. Jeannine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24th Floor, Sacramento, CA 95814  
[commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

Re: Comment Letter – OTC Policy Amendment

Dear Chair Esquivel and Members of the State Water Resources Control Board:

The City of Redondo Beach thanks the Chair and the Members of the State Water Resources Control Board (Water Board) for this opportunity to comment on the Draft Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling for Extension of Compliance Schedules of Alamitos, Huntington Beach, Ormond Beach, and Redondo Beach Generating Stations (OTC Policy Amendment) and Draft Staff Report. The City has reviewed the proposed OTC Policy Amendment and Staff Report and writes to express its adamant opposition to any extension of the compliance deadline for the AES Redondo Beach Generating Station (AES Redondo Beach). The City urges the Water Board to adopt an alternative that does not extend the compliance deadline for AES Redondo Beach and also to direct the Los Angeles Regional Water Quality Control Board (Regional Board) to investigate taking jurisdiction over the wetlands (Old Salt Lake) pursuant to the Porter-Cologne Water Quality Control Act.

The following persons and entities also submitted comment letters to the Water Board opposing any extension of the deadline for AES Redondo Beach: State Assemblymember Al Muratsuchi; State Senator Ben Allen; Los Angeles County Supervisor Janice Hahn - Fourth District; the City of Hermosa Beach; Mayor of Torrance

Pat Furey; the Redondo Beach School Board; the Hermosa Beach School Board; Ventura County Supervisor Linda Parks- Second District; City of Beverly Hills Councilmember Julian A. Gold, M.D.; and the Beach Cities Health District, and many others.

The City asks the Water Board to maintain the existing compliance deadline that requires the antiquated AES Redondo Beach plant to cease operations this December in order to protect wetlands and marine life, as well as to prevent air pollution impacts on residents of the City and the surrounding communities.

## **I. INTRODUCTION**

AES Redondo Beach is the oldest and least efficient of the four once-through-cooling (OTC) facilities under consideration in the proposed amendment to the existing OTC Policy. The operations at AES Redondo Beach, which have been described (until very recently) by the owner as presenting an imminent and substantial risk to human health and safety, are causing significant harm to the environment. The operations at the power plant are causing unpermitted degradation of the acres of wetlands on which the plant is located. AES Redondo Beach produces more air pollution per megawatt-hour (MWh) generated than the other three plants. Moreover, the topology of the area causes this air pollution to accumulate and stagnate along the coast, rather than dissipate. AES Redondo Beach pollutes the environment in one of the most densely populated communities in California, with more than 21,000 people living within one mile of the plant and enormous summer crowds at the adjacent beach. The plant also requires more OTC intake water and produces more cooling water discharge per unit of energy generated than the other three plants combined.

The above detrimental environmental impacts can be avoided because AES Redondo Beach is unnecessary to ensure the reliability of California's electrical supply. Extending the compliance deadlines of the Alamitos, Huntington Beach, and Ormond Beach power plants, as proposed in the Staff Report, already provides more than enough electrical capacity needed to maintain system-wide grid reliability.

The City and its residents have anticipated the closure of AES Redondo Beach for nearly a decade. In the mid-2010s, the City and its residents mounted an extraordinary campaign to oppose AES Redondo Beach's application to build a new power plant at the site, and were successful in convincing AES Redondo Beach to abandon its plans for the plant. Given that AES Redondo Beach is unnecessary to meet the State's energy demands, the Water Board should not sacrifice water and air quality impacts in our community by extending the power plant's OTC Policy compliance deadline for even one

year. Because the AES Redondo Beach capacity can be covered by the remaining plants, AES Redondo Beach should be closed as soon as possible, as it is the least efficient and most environmentally damaging of the four power plants under consideration for an extension.

## **II. THE ENVIRONMENTAL HARM CAUSED BY AES REDONDO BEACH SHOULD NOT CONTINUE**

Extending the deadline for AES Redondo Beach is inconsistent with protecting the environment because operations at AES Redondo Beach cause (a) unpermitted degradation of wetlands; (b) severe localized air pollution; and (c) damage to marine life.

### **a. AES Redondo Beach Causes Unpermitted Degradation of Wetlands**

The Staff Report has not addressed the illegal degradation of at least 5.93 acres of wetlands caused by AES Redondo Beach's operations at the site.

Before it was home to a power plant, the AES Redondo Beach site contained a salt lake located near the sea fed by fresh water springs and was described by an 1894 newspaper article as "one of the most delightful places we have had the pleasure of visiting."<sup>1</sup> The photograph below from the Library of Congress shows the lake as it was in 1908.<sup>2</sup>



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<sup>1</sup> Galen Hunter, Curator, Old Salt Lake Virtual Museum; Redondo Beach, CA., Report: The Story Begins With Water, [http://www.oldsaltlake.org/portfolio/story\\_begins\\_with\\_water/index.html](http://www.oldsaltlake.org/portfolio/story_begins_with_water/index.html); *Laguna De La Salina*, Daily Alta California, Aug 22, 1854, page 2.

<sup>2</sup> See also <https://easyreadernews.com/redondo-wetlands-complicate-power-plant-plans/>.

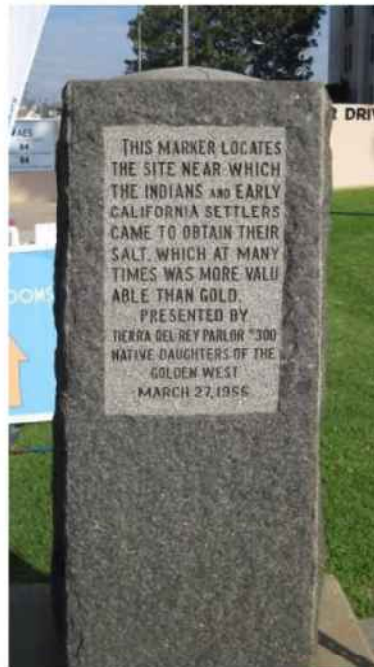
In time, business arrived and the lake was used for the manufacturing of salt until the late 1800s. In 1906, Henry Huntington built the first major power plant at the site beside the lake, as seen in the below photographs from 1912 and 1920.<sup>3</sup>



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<sup>3</sup> <http://blogs.dailybreeze.com/history/2011/10/05/redondo-beachs-power-plant/>;  
<https://www.southbayparks.org/aes-power-plant-and-power-lines>.

This plant was used intermittently until 1933, when it was shut down and abandoned. In 1941, the State of California designated the Old Salt Lake as a historical landmark, as shown by the below granite marker.<sup>4</sup>



The application described the lake as “the wintering place of shorebirds.” *Id.* In 1946, Southern California Edison demolished the old plant and built a new one, which it expanded in 1956 and 1964. As part of this new construction, Edison destroyed the Old Salt Lake: “As part of this development, the [AES Redondo Beach] site was filled and graded and five aboveground fuel oil tanks were constructed and placed within tank basin areas at low topographic areas at the site.”<sup>5</sup> (See below photograph.)<sup>6</sup>

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<sup>4</sup> Galen Hunter, Curator, Old Salt Lake Virtual Museum; Redondo Beach, CA., Exhibit: Bertha Fuller and the 1940 California Historical Landmark Application "Old Salt Lake", [http://www.oldsaltlake.org/exhibits/exhibit\\_21.html](http://www.oldsaltlake.org/exhibits/exhibit_21.html) which contains the application by Bertha Fuller, an early advocate of protecting wetlands and lakes for migratory waterfowl, and a photograph of the historical granite marker at the AES Redondo Beach site.

<sup>5</sup> Application by AES for Coastal Development Permit, April 2019 (AES CDP Application) at 1.

<sup>6</sup> Galen Hunter, Curator, Old Salt Lake Virtual Museum; Redondo Beach, CA., Exhibit 42 [http://www.oldsaltlake.org/exhibits/exhibit\\_42.html](http://www.oldsaltlake.org/exhibits/exhibit_42.html) [Figure 4 - November 24, 1952 photograph of Old Salt Lake site by G. Haven Bishop, "Bogged down tractor on fuel oil storage tank foundation", 02 - 41627, Southern California Edison Photographs and Negatives, The Huntington Library, San Marino,



In the late 1960s, “groundwater seepage began to occur” so Edison installed a dewatering system. *Id.* The change in landscape caused by these actions is obvious and stark, as shown in this photograph:<sup>7</sup>



In January 2014, a Coastal Commission staff ecologist visited the AES site and determined that—despite the many years of development at the site—the tank basins contained approximately 5 to 6 acres of Coastal Commission-jurisdictional wetlands. Energy Commission staff conducted a more detailed review and determined that there

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California.] This URL for metadata and zoom-in capability:  
<https://hdl.huntington.org/digital/collection/p16003coll2/id/41704>

<sup>7</sup> Photograph of AES Redondo Beach, January 1990. (See Sam Gnerre, *Redondo Beach's Power Plants*, Daily Breeze, Oct. 5, 2011; <http://blogs.dailybreeze.com/history/2011/10/05/redondo-beachs-power-plant/>).

were 5.93 acres of jurisdictional wetlands. The Coastal Commission confirmed this determination when it issued its final “30413(d) Report” in July 2015.<sup>8</sup>

At approximately the same time, the dewatering system broke down and water began accumulating in the tank basins. In the latter half of 2014, AES removed the water pumps and installed new ones without obtaining a Coastal Development Permit (CDP), in violation of the Local Coastal Program (LCP) and the Coastal Act. While the dewatering system was out of commission, the tank basins began filling with water and the historic wetlands habitat began to flourish and expand, as demonstrated in the photograph below:



In August 2015, the Coastal Commission sent a notice of violation letter to AES demanding that AES stop all dewatering activity and apply for a CDP to remove the illegally installed pumps. (A copy is attached to this comment letter as Exhibit 1.) After the City began increasing enforcement pressure, AES applied for and received 60-day emergency CDP in August 2017. The emergency CDP was granted on the condition that, prior to the expiration of the emergency CDP, AES would submit a regular (non-emergency) CDP application to either authorize the existence and operation of the dewatering system or remove the system. AES failed to comply with this condition. Instead, AES applied for and received two 60-day extensions of the emergency CDP, each on the condition that AES would submit a regular CDP application prior to expiration of the emergency CDP. AES did not comply. It requested a fourth consecutive emergency CDP and was denied.

In its applications for the emergency CDPs, AES alerted the City that the water accumulating in the tank basins created a significant hazard that interfered with the safe operation of the power plant:

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<sup>8</sup> <https://documents.coastal.ca.gov/reports/2015/7/w12a-7-2015.pdf>.

**“The Flooded Areas present an imminent and substantial risk to human health and safety, including risks relating to grounds, faults, arc flash, and electrocution, which in turn present substantial and imminent risks associated with electric reliability and operations at the Facility.”<sup>9</sup>**

In May 2018, representatives of the City and the California Coastal Commission were present for a tour of AES Redondo Beach. In a joint letter dated June 15, 2018, the Coastal Commission and City both expressed their “alarm regarding the potentially dangerous conditions AES reported ... during the visit,” in part, because the representatives were “repeatedly told that the **conditions at the site were potentially very dangerous to employees and the public**, as a result of water flooding underground tunnels containing high voltage wires.”<sup>10</sup>

Under pressure from the City, AES finally submitted an application for a regular CDP in April 2019. In May 2019 the City notified AES that the application was incomplete. AES did not provide the materials needed to complete the application, and it formally withdrew the application in April 2020.

In its letter withdrawing the CDP application, AES suddenly reversed its long-held position that the water accumulating in the tank basins is a serious hazard. It asserted, “The plant has fully addressed the previous [water hazard] issue by installing a system of portable pumps to remove water in the electrical vaults when necessary to mitigate water infiltration, which allows for continuous safe operation of the plant.” The City has been provided with no evidence to support the assertion that the facility is now safe. Moreover, it is not at all clear why using the new “portable pumps” to dewater the tank area does not constitute a new violation of the LCP and the Coastal Act.

The City responded on May 14, 2020, with a letter notifying AES that it was still in violation of the LCP and Coastal Act for two reasons: (1) the dewatering system remains in place and constitutes unpermitted development in the Coastal Zone; and (2) the use of portable pumps to dewater the vaults is likely a new violation of the LCP and the Coastal Act.

Since 2015, AES has periodically operated the dewatering system, without notice to the City. AES conducted significant dewatering as recently as February of this year, as

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<sup>9</sup> <http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=317095147> (City of Redondo Beach’s Motion for Official Notice in CPUC Rulemaking 16-02-007, Ex. D, p. 2, filed October 9, 2019 (emphasis added)). A copy of this application is attached to this comment letter as Exhibit 2.

<sup>10</sup> *Id.*, Ex. C. A copy of this letter is attached to this comment letter as Exhibit 3.

was demonstrated by the comments and materials presented at the April 21, 2020 workshop. The following two images provided to the Water Board by the South Bay Parkland Conservancy show that the dewatering activity dropped the wetlands water depth by approximately two feet in less than a week at the AES Redondo Beach site.<sup>11</sup>



In response to the City's request for assistance pursuant to Public Resources Code Section 30810, the Coastal Commission is preparing to send a new Notice of Violation to AES, demanding that AES cease all pumping and take immediate action to remove the dewatering system.

The City believes it is probable that since the issuance of the 30413(d) Report by the Coastal Commission in 2015, additional wetland acreage has reestablished on the

<sup>11</sup> South Bay Parkland Conservancy April 16, 2020 comment letter to Water Board.

property. In addition, these wetland areas may be subject to Regional Board jurisdiction as “waters of the State” as defined by the Porter-Cologne Act. These areas are subject to ponding and provide beneficial uses as defined in the Los Angeles Basin Plan, specifically for wildlife such as waterfowl. It is not known what direct effect the dewatering has caused to the water table and indirectly to the wetlands. **The Water Board should therefore consider whether the wetlands (Old Salt Lake) also falls within the permitting and enforcement jurisdiction of the Regional Board.**<sup>12</sup>

In making its recommendation to the Water Board, the California Public Utilities Commission (CPUC) expressly stated that it “**trusts that the Water Board will take [the issue of the safety of the dewatering system used at the Redondo Beach facility] into consideration when deciding whether to extend the OTC compliance deadline for the Redondo Beach facility.**” (CPUC Decision, 19-11-016, pp. 67-68, emphasis added.) The Staff Report makes no mention of the dangerous conditions existing at AES Redondo Beach or the degradation of wetlands caused by its operation. The City implores the Water Board to seriously consider this issue. If the pumping persists, it will likely result in an enforcement action by the City, the California Coastal Commission, or both. Nor is it accurate to state that any additional protections will be provided to the wetlands as part of the sale of the property. The City and the new owners have failed to reach any agreement on protection of the wetlands at the site.

At the July 8, 2015 Coastal Commission meeting regarding a Proposal to Upgrade the Redondo Beach Generating Station, Tom Luster, Senior Environmental Scientist, stated: “Regarding the Wetlands **this is basically a case of nature batting last.** The Wetlands continue to persist despite there being a thin layer of fill placed over them a number of years ago.”<sup>13</sup>

The Water Board should let nature continue its “at bat” and not permit AES Redondo Beach’s operations to continue to degrade the wetlands for even one more year.

b. AES Redondo Beach Causes Air Pollution

Any extension of the compliance deadline for AES Redondo Beach will extend the existing air, noise, and aesthetic impacts of the plant. (Staff Report, p. 17.)

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<sup>12</sup> At a minimum, the Regional Board should consider adding the AES wetlands to the surface water and wetlands tables of its Basin Plan.

<sup>13</sup> <https://cal-span.org/unipage/?site=cal-span&owner=CCC&date=2015-07-08> at 4:20:14 to 4:20:27.

All OTC facilities emit greenhouse gases and air pollution as a by-product of burning fossil fuels, but not all facilities emit these poisonous gases at the same rate. Prior to the adoption of the OTC policy in 2010, the Water Board compiled air emissions data for the then active OTC facilities using reported values obtained from the USEPA's Clean Air Markets database for 2006. Tables 7 and 8 of the Water Board's 2010 Final Substitute Environmental Document (SED) contain emissions information, the relevant portions of which are reproduced below.

**Table 7. 2006 Criteria Pollutant Emissions**

	Gross Output	SO <sub>2</sub>	NO <sub>x</sub>	CO	TOG	ROG	PM <sub>10</sub>
Facility	(MWh)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
Alamitos	1,747,348	4.1	38.4	520.9	36.4	15.4	11.2
Huntington Beach	1,112,942	4.6	30.8	289.9	22	9.3	10.8
Ormond Beach	489,545	1.4	19.3	106.7	7.9	3.3	5.9
<b>Redondo Beach</b>	<b>585,240</b>	<b>1</b>	<b>39.8</b>	<b>553.5</b>	<b>24.2</b>	<b>10.4</b>	<b>12.3</b>

SO<sub>2</sub> = sulfur dioxide

NO<sub>x</sub> = nitrogen oxides

CO = carbon monoxide

TOG = total organic gases

ROG = reactive organic gases

PM<sub>10</sub> = fine particulate matter of 10 microns or less in diameter

tons/yr = tons per year

(SED, p. 43, Table 7.)

**Table 8. 2006 Carbon Dioxide Emissions**

	CO <sub>2</sub>	CO <sub>2</sub>
Facility	(tons/yr)	(lbs/MWh)
Alamitos	1,179,464	1,350
Huntington Beach	777,045	1,396
Ormond Beach	293,630	1,200
<b>Redondo Beach</b>	<b>422,884</b>	<b>1,445</b>

(Id., p. 44, Table 8.)

As shown in these tables, in the year 2006, despite producing less than half the energy output of the Alamitos and Huntington Beach facilities, AES Redondo Beach still emitted more nitrogen oxide, carbon monoxide, and fine particulate matter than each of those facilities. On a per unit of energy basis, AES emits more greenhouse gases than the other three facilities and more criteria pollutants than the other three facilities combined.

The Staff Report does not suggest that the AES Redondo Beach facility has become more efficient in the decade plus since the SED was published. As noted at the April 21, 2020 workshop, in 2019 alone the AES Redondo Beach facility had at least two “abnormal startups” that resulted in panicked community members overwhelming the City’s 911 services with calls regarding the situation.<sup>14</sup>



As we learn more about the harmful effects of these pollutants, AES Redondo Beach’s inefficiencies become even more alarming. A recent Harvard study links poor air quality to increased mortality rates from COVID-19. The study specifically references power plants as producing fine particulate air pollution that contributes to the higher mortality rate, as follows:

“People with COVID-19 who live in U.S. regions with high levels of air pollution are more likely to die from the disease than people who live in less polluted areas, according to a new nationwide study from Harvard T.H. Chan School of Public Health. The study is the first to look at the link between long-term exposure to fine particulate air pollution (PM2.5)—generated largely from fuel combustion from cars, refineries, and **power plants**—and the risk of death from COVID-19 in the U.S.” (Emphasis added.)<sup>15</sup>

The fact that AES Redondo Beach is located in one of the most densely populated communities in California amplifies these concerns. The City of Redondo Beach has

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<sup>14</sup> This photograph of the July 25, 2019 incident appeared in the Daily Breeze.

<https://www.dailybreeze.com/2019/07/25/aes-power-plant-in-redondo-beach-belches-black-smoke-alarming-residents/amp/>

<sup>15</sup> <https://www.hsph.harvard.edu/news/hsph-in-the-news/air-pollution-linked-with-higher-covid-19-death-rates/>

11,000 residents per square mile. Directly across the street from AES Redondo Beach is City of Hermosa Beach - the most densely populated community on the California Coast. Hermosa Beach has over 13,000 residents per square mile. Additionally, more than 6,500 Redondo Beach students report to schools located within 1.5 miles of AES Redondo Beach.

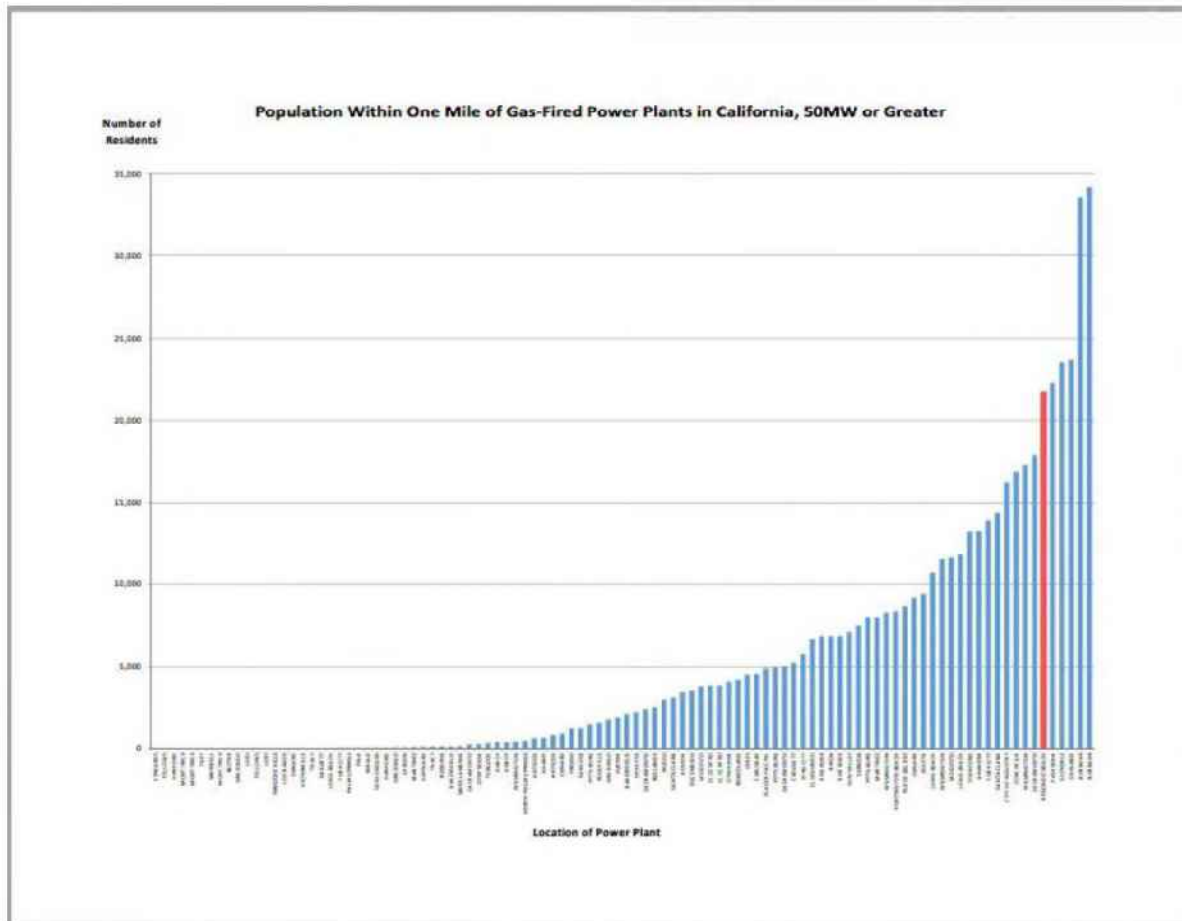
A 2015 study, reflected in the chart below, found that there were an estimated 21,632 people living within one mile of AES Redondo Beach, which is about 500 more people than the other three plants at issue, **combined**.<sup>16</sup>

Generating Station	Population within 1 mile
REDONDO BEACH	21,632
ORMOND BEACH	17
ALAMITOS	11,811
HUNTINGTON	8,336

As that study noted, the vast majority of power plants are sited in locations with very low population density as they should be. Of the 102 power plants that were analyzed, 46 were located at sites with surrounding populations of less than 1,000; 85 had populations of less than 10,000; and only 6 (including Redondo Beach) had populations above 20,000.

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<sup>16</sup> Study of Population Densities Near Gas-Fired Power Plants in California, California Energy Commission Docket Number: 01-AFC-03, TN Number: 206059, September 10, 2015.



Those population numbers do not include the millions of people that visit the City and the neighboring City of Hermosa Beach each year. Combined, Redondo and Hermosa Beaches have **averaged over 6.6 Million visitors each year.**<sup>17</sup> The photographs below<sup>18</sup> further demonstrate pollution emitted from the AES Redondo Beach facility.

<sup>17</sup> Annual and monthly attendance statistics provided by Los Angeles County Lifeguards.

<sup>18</sup> Top photograph by City of Redondo Beach Councilmember Nils Nehrenheim, bottom photograph from April 15, 2020 comment letter by City of Redondo Beach Councilmember Todd Loewenstein.



The Staff Report states that these OTC plants are expected to be used “primarily as peakers,” which “are used during contingency times, periods when demand for power is high and reliability of imports is low, such as on hot summer days.” (Staff Report, p. 13.) In the hottest summer months (when peaker plants are most likely to run) Redondo and Hermosa Beaches have averaged nearly **1.7 Million visitors during the month of July** and nearly **1.07 Million visitors during the month of August alone**.<sup>19</sup> Unfortunately, operating AES Redondo Beach on a hot summer day ensures that the pollution emitted from the plant affects the maximum number of people because hot summer days are when individuals from the community and visitors, including those from nearby disadvantaged communities, are most likely to be at the beach (see photograph below).<sup>20</sup>

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<sup>19</sup> Annual and monthly attendance statistics provided by Los Angeles County Lifeguards.

<sup>20</sup> Any amendment of the OTC Policy should integrate environmental justice concerns by taking into account the effect of AES Redondo Beach on neighboring disadvantaged communities.



Furthermore, the air impacts caused by AES Redondo Beach are significantly amplified by the unique meteorological conditions and terrain features at Redondo Beach. There is a nearly 200-foot high bluff within the City just east of the plant. (See figure below.) The bluff prevents the air pollution emitted by the plant from dispersing, and causes the air pollution to stagnate in densely populated Redondo Beach and Hermosa Beach. Moreover, the conditions at Redondo Beach sometimes cause pollution to travel offshore during the night and return to shore at ground-level during the day, where they stagnate.<sup>21</sup> These conditions were brought to the attention of the California Energy Commission during AES' failed attempt to obtain certification to build a new plant at Redondo Beach. These unique conditions have not been addressed in the Staff Report.

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<sup>21</sup> See McRae, Gregory J., Shair, Fredrick H., and Seinfeld, John H., Convective Mixing of Plumes in a Coastal Environment, *Journal of Applied Meteorology*, Vol. 20. No. 11, November 1981.

### RBEP Shoreline Location



In addition to the air pollution created by AES Redondo Beach, the plant is also a large source of noise complaints from City residents. A snapshot of the large number of noise complaints the City received as a result of the plant is attached as Exhibit 4.<sup>22</sup> AES Redondo Beach was never designed for use as a peaker plant, as is envisioned in the proposed OTC modification. Like most of the units under consideration, AES Redondo Beach was designed to be a 'load-following' plant that operates constantly and spins up and down as demand from the grid increases and decreases. It was not designed to start-up on short notice and so can take up to 24 hours to start-up, thus explaining why upset conditions often occur during start-up. Upset conditions cause noisy pressure relief valves to trigger all hours of the day and night, and the plant to emit the black smoke seen in the photographs herein.

This Board should not allow AES Redondo Beach to continue to pollute our environment for even one additional year.

#### c. AES Redondo Beach Damages Marine Life

"The consensus among regulatory agencies at both the state and federal level is that OTC systems contribute to the degradation of aquatic life in their respective ecosystems." (Staff Report, p. 13.) The OTC Policy was adopted in 2010 and establishes standards to implement federal Clean Water Act Section 316(b) and reduce the harmful

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<sup>22</sup> This information was previously provided to the California Energy Commission for its consideration in Docket No. 12-AFC-03.

effects associated with cooling water intake structures on marine and estuarine life. (Staff Report, p. 5.) AES Redondo Beach is not in compliance with the OTC Policy and is scheduled to retire on or before December 31, 2020. The Staff Report does not provide any valid reason to extend the compliance date for AES Redondo Beach.

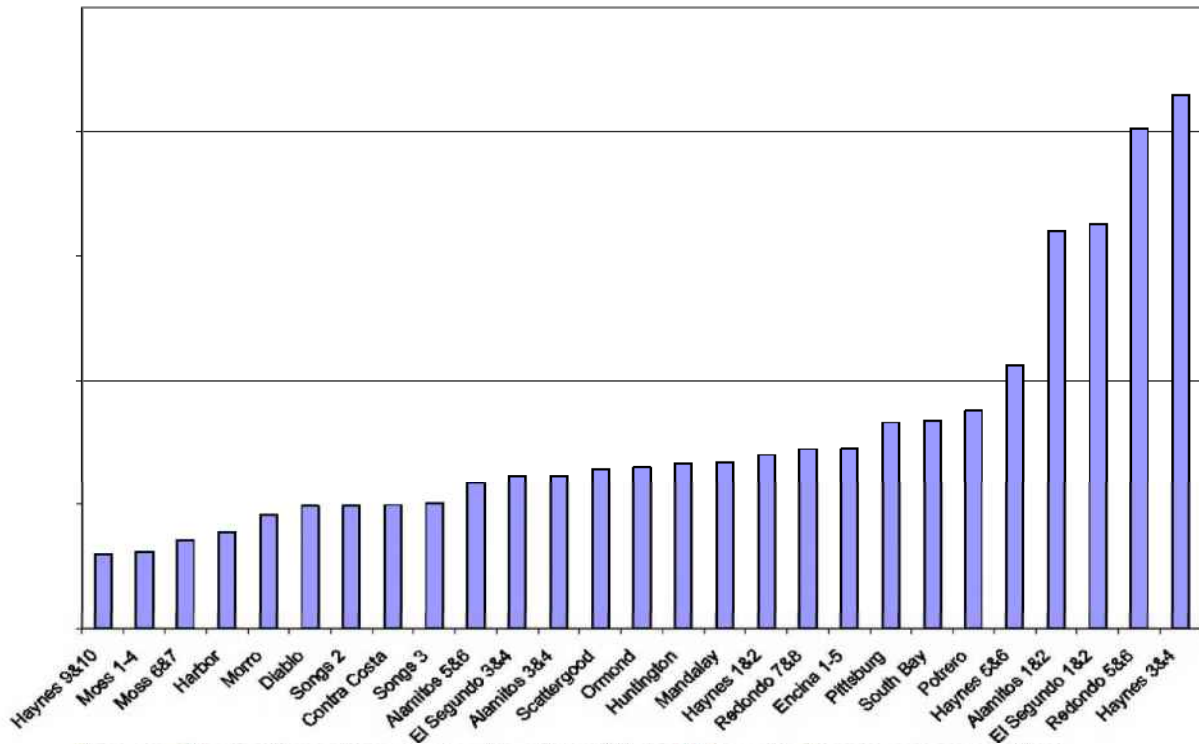
As the Staff Report acknowledges while discussing the water pollution produced by the four power plants: “Of the four power plants, Redondo Beach is the least efficient, requiring more OTC intake water to produce a megawatt-hour than the other power plants, and resulting in potential impacts to marine life (Figure 11 in the 2010 Final SED).” (Staff Report, p. 14.)

According to Figure 11 of the SED, **AES Redondo Beach is one of, if not the, least efficient plants in all of California**, producing more cooling water discharge per unit energy generated than Alamitos, Huntington Beach, and Ormond Beach, **combined**.

The chart below from the SED demonstrates how inefficient the AES Redondo Beach facility is compared to other OTC plants in California. (SED, p. 41, Figure 11.<sup>23</sup>)

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<sup>23</sup>[https://www.waterboards.ca.gov/water\\_issues/programs/ocean/cwa316/docs/cwa316may2010/sed\\_final.pdf](https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa316may2010/sed_final.pdf).



**Figure 11. Ratios of Average Cooling Water Flow to Energy Generation**

The Water Board should not just dismiss these water pollution concerns. AES Redondo Beach discharges into King Harbor and continues to pose a danger to the larger Santa Monica Bay's beneficial uses. These important beneficial uses included recreational activities, ocean life, and endangered species. Moreover, King Harbor is impaired by toxic pollutants including DDT and PCBs. Water Board documents indicate that AES Redondo Beach is permitted to discharge up to 898 million gallons per day of waste consisting of OTC water, treated chemical metal cleaning wastes, groundwater seepage, and other low volume wastes into Santa Monica Bay.<sup>24</sup> An additional year of discharges from AES Redondo Beach will result in continued exceedances of these toxic chemicals into King Harbor, further impacting its beneficial uses.

The intent of the OTC Policy "is to ensure that the beneficial uses of the State's coastal and estuarine waters are protected while also ensuring that the electrical power needs essential for the welfare of the citizens of the State are met." (OTC Policy, ¶ 1(G).) Extending the compliance deadline for AES Redondo Beach would frustrate that

<sup>24</sup>[https://www.waterboards.ca.gov/losangeles/water\\_issues/programs/tmdl/Established/SantaMonica/FinalSantaMonicaBayDDTPCBsTMDL.pdf](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/SantaMonica/FinalSantaMonicaBayDDTPCBsTMDL.pdf) (p. 28.)

intent. The continued operation of AES Redondo Beach endangers the coastal and estuarine waters of the State, and the Staff Report cites no evidence that doing so is necessary to ensure a reliable electric grid.

In fact, the Staff Report states that the Alamitos, Huntington Beach, Ormond Beach, and AES Redondo Beach plants are expected to be used “primarily as peakers and would be expected to run at or below their current operating capacity,” which over the past three years has been 4.8% of capacity. (Staff Report, p. 13.) Based on an analysis of information provided in the March 8, 2019 Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) report,<sup>25</sup> the AES Redondo Beach units being considered for extension only ran at 2.6% capacity from 2016 through 2018. This analysis suggests that AES Redondo Beach is not needed to maintain system-wide grid reliability. Furthermore, the reasoning in the Staff Report ignores that AES Redondo Beach is more harmful to coastal waters than the other three plants combined. If each of the four plants were to produce one megawatt (MW) of energy, AES Redondo Beach would be responsible for more than half of the total intake water required by the four plants to produce the four MW of energy. If AES Redondo Beach were to retire, the same four MW of energy would be generated by the remaining three OTC plants with only half as much intake water needed.

While California has made great strides in reducing the overall ocean water usage by OTC plants since the adoption of the OTC Policy in 2010, the work is not done. (Staff Report, p. 14.) The harmful effects caused by AES Redondo Beach have persisted long enough and it should be required to comply with the OTC Policy by the current deadline.

### **III. AES REDONDO BEACH IS NOT NEEDED FOR GRID RELIABILITY**

The Water Board is considering the OTC Policy Amendment in response to concern for “a potential system capacity shortfall of between 2,300 and 4,400 MW in the [California Independent System Operator (CAISO)] Balancing Authority Area beginning in the summer of 2021” and continuing through 2023. (Staff Report, pp. 10, 6.) The CPUC has recommended the extension of the compliance dates for all four OTC plant. But, the CPUC recognized “the potential for some OTC retirement date extensions not to be granted by the Water Board....” (D. 19-11-016, pp. 33-34.) As explained below, AES Redondo Beach is not needed to meet this potential shortfall and its compliance date should not be extended.

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<sup>25</sup> March 8, 2019 SACCWIS Report, p. 8.

To address the potential shortfall, the CPUC has already directed the investor-owned-utilities to procure a total of 3,300 MW of new non-OTC capacity, with 1,650 MW to come on-line by the summer of 2021. (D.19-11-016, pp. 70, 76; Staff Report, pp. 10-11.) For example, the CPUC required Clean Power Alliance (CPA) to procure at least 98.4 MW of new capacity by 2021. On April 2, 2020, CPA approved the 100 MW Luna Storage standalone battery project that will provide new procurement by August 2021.<sup>26</sup> Then, on May 7, 2020, CPA, on a motion made by City of Redondo Beach Councilmember Christian Horvath in his role as a Director of CPA, approved two additional projects, Sanborn Storage (100 MW) and the High Desert Storage Portion (50 MW), which will result in a surplus of 160.4 MW in 2021 above and beyond the 98.4 MW ordered by the CPUC. Subtracting the new non-OTC generation ordered by the CPUC leaves a potential shortfall of between 650 and 2,750 MW. Accepting the CPUC's very conservative assumptions, the 2,750 MW shortfall can be covered by an extension of the Alamitos, Huntington Beach, and Ormond Beach OTC plants, without a need to delay retirement of the AES Redondo Beach units for insurance.

Combined, the four OTC facilities at issue can produce approximately 3,742 MW. The amount of capacity available from each generating station is shown in the following chart.

**Available MW from OTC power plants:**

<b>Generating Station</b>	<b>Capacity in MW<sup>27</sup></b>
Alamitos (Units 3, 4, 5)	1,163
Huntington Beach (Unit 2)	215
Ormond Beach (Units 1, 2)	1,516
AES Redondo Beach (Units 5, 6, 8)	848
<b>Total</b>	<b>3,742</b>

The Staff Report analyzes five proposed amendments to the current OTC Policy. Alternative 1 proposes no extension of any of the compliance deadlines. The remaining

<sup>26</sup> <https://cleanpoweralliance.org/2020/04/09/clean-power-alliance-signs-large-scale-100mw-battery-energy-storage-agreement/>.

<sup>27</sup> See Staff Report, p. 11.

proposals (Alternatives 2 through 5) would each extend the compliance deadlines for all four of the OTC power plants by at least one year. As requested by Board Member Sean Maguire at the April 21, 2020 workshop, the Water Board should consider a sixth alternative that would extend the compliance deadlines for the Alamitos, Huntington Beach, and Ormond Beach plants, but not for AES Redondo Beach. As shown in the following chart, the projected need of 2,750 MW of OTC generated power (the upper end of the potential capacity shortfall) can be obtained without AES Redondo Beach.

Description	OTC MW Available in 2021	Effect on 2,750 MW Potential Shortfall
No Change in OTC Policy. All plants close in 2020.	0	Potential shortfall of 2,750 MW.
Extend all four power plants for 3 years	3,742	No projected shortfall. A surplus of 992 MW available.
Extend Alamitos, Huntington Beach, and Ormond Beach, but <b>NOT AES Redondo Beach</b>	<b>2,894</b>	<b>No projected shortfall. A surplus of 144 MW available.</b>

The Staff Report recommends Alternative 5, which would extend the compliance deadline for AES Redondo Beach by one year and the remaining three plants by three years each. The Staff Report contends its recommendation “balances the need for grid reliability with marine life, land use and air quality concerns.” (Staff Report, p. 18.) As noted in detail above, however, AES Redondo Beach has a greater negative effect on marine life, land use, and air quality than any of the other facilities, and extending this plant for even one year is not needed to maintain grid reliability.

In August 2019, the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) acknowledged there could be a shortfall beginning in 2021 and recommended that the Water Board extend the OTC Policy compliance deadline for the Alamitos facility, and consider extending the compliance dates for “one or more additional OTC resources” for “**no longer than necessary to maintain grid reliability.**” (Report of the Statewide Advisory Committee on Cooling Water Intake Structures, Local

and System-Wide 2021 Grid Reliability Studies, August 23, 2019, p. 6, emphasis added.) Over the next four months and without explanation, the idea of extending “one or more additional OTC resources” for “no longer than necessary” was abandoned. In its January report, SACCWIS recommended that the Water Board extend the OTC Policy compliance deadlines for each of the four OTC plants for at least one year. (Final Recommended Compliance Date Extensions for Alamitos, Huntington Beach, Ormond Beach, and Redondo Beach Generating Stations, January 23, 2020, p. 6.)

The SACCWIS recommendation is based in part on the recommendation of the CPUC. Notably, however, the CPUC never made a finding regarding the amount of projected shortfall, nor did it ever state that an extension of the OTC Policy compliance deadline for all four OTC plants was necessary to maintain grid reliability. To the contrary, the CPUC stated “it is impossible to predict the size and length of a bridge we may need retiring OTC units to provide.” (D.19-011-016, p. 19.) The CPUC also recognized that the compliance deadlines for all four of the OTC facilities may not be extended. (D.19-011-016, p. 33 [recognizing “the potential for some OTC retirement date extensions not to be granted by the Water Board”]; pp. 67-68 [“The Commission ... trusts that the Water Board will take this [safety issues at AES Redondo Beach] into consideration when deciding whether to extend the OTC compliance deadline”].) The City asks the Water Board to revert back to the original August 2019 recommendation by SACCWIS and extend the OTC Policy compliance deadline only for those facilities **necessary to maintain grid reliability**, of which AES Redondo Beach is not one.

In determining system resource adequacy, the CPUC requires a 15 percent planning reserve margin (PRM). That is, the CPUC requires utilities as a whole to procure 15 percent more dependable electrical generation capacity than the CPUC projects will be needed during peak hours. The PRM is insurance to account for seen and unforeseen changes and outages. The 4,400 MW shortfall identified in the Staff Report falls within the PRM; i.e., if an additional 4,400 MW of dependable electrical generation capacity is added by 2021, there will be 15 percent more dependable electrical generating capacity available during peak load periods than is required to meet the forecasted peak electric demand.<sup>28</sup> As explained above, assuming the CPUC’s very conservative modeling assumptions, the projected shortfall can still be met without extending the compliance deadline for AES Redondo Beach. Therefore, extending the

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<sup>28</sup> Modeling suggests electric loads in California are running 5% lower than what would be expected without the current COVID-19 health crisis. (“Electricity Demand In The Time Of COVID-19”, Roger Conrad, March 30, 2020; <https://www.forbes.com/sites/greatspeculations/2020/03/30/electricity-demand-in-the-time-of-covid-19/#27d045577e86>.)

compliance deadline for AES Redondo Beach would only add additional insurance on top of the CPUC's already conservative PRM. This additional insurance is simply not needed and is much too costly in terms of the damage to the environment. The PRM is the insurance with additional insurance already built-in through the conservative modeling input assumptions.

The Staff Report identifies a need to extend the OTC Policy compliance dates for 2,750 MW of OTC facility generation. That need can be met without extending the compliance deadline for AES Redondo Beach.

#### **IV. ADDITIONAL ENVIRONMENTAL REVIEW IS NECESSARY**

The Staff Report improperly proposes an addendum to the previously approved 2010 Final Substitute Environmental Document (SED) in order to satisfy the Water Board's environmental review obligations in connection with the OTC policy amendment.

There is a question as to whether an addendum to a decade old SED is appropriate under these circumstances. An addendum is usually appropriate if the lead agency determines that some changes or additions are necessary to the SED, but none of the conditions described in CEQA Guidelines Section 15162 have occurred. (CEQA Guidelines § 15164.) (See, e.g. CEQA Guidelines §15162 indicating that an addendum to a previously certified environmental impact report is only appropriate when there are no changes to a project, there are no changes in circumstances in which the project is being undertaken, and no new information of substantial importance, which was not known and could not have been known, shows that there are significant environmental impacts or more effective mitigation measures.) The Staff Report does not address any of the conditions that might require the preparation of a subsequent or supplemental SED. Nor did the Staff Report evaluate a separate alternative of no extension for AES Redondo Beach.

For example, the SED states: "State Water Board staff cannot accurately assess air quality impacts related to criteria pollutants because it is difficult to estimate the method of compliance for each facility." (SED, p. 112.) The Water Board now has more than 10 years' worth of data to consider since it adopted the SED. New information about air quality impacts from the OTC facilities, which was not known in 2010, should be evaluated to determine whether it shows different environmental impacts.

Furthermore, the Staff Report fails to acknowledge any of the additional impacts caused by extending the AES Redondo Beach facility beyond its originally scheduled

compliance date. These impacts received no environmental analysis as part of this proposed extension. The Staff Report simply assumes that there will be no air or water quality impacts. The proposed addendum is therefore not appropriate and further environmental review is needed.

The Water Board should also consider other changes in conditions since 2010, such as:

- Two medium density condo products on Catalina Ave just east of the facility
- A new hotel in front of the power plant
- A new and heavily used bike track on Harbor Drive
- A new retail development (Green Street) just east of the power plant
- Replacement of industrial and retail buildings with medium density residential on streets perpendicular to the power plant
- The discovery of active wetlands and related wildlife on the property, such as the geese shown in the photograph below



Prior to moving forward, the Water Board should evaluate a separate alternative of extending the deadlines for the other three plants, without extending the deadline for AES Redondo Beach, as well as evaluate whether an addendum is satisfactory under the circumstances.

## **V. CONCLUSION**

The Water Board has an obligation to achieve statewide compliance with Section 316(b) of the Clean Water Act, which requires that OTC structures implement the best

technology available for minimizing adverse environmental impacts. If the proposed OTC Policy amendment is adopted, AES Redondo Beach will continue to defer compliance with the best technology available standard required by Section 316(b).

Those of us who live here, go to school here and have businesses here do not want to endure another year of the visual blight of the 50-acre power plant and power-line corridor, and see all the momentum of the last 18 months of State, County and City efforts to restore the wetlands and remake this blighted brownfield site evaporate. Only retiring this plant on time will eliminate the negative impacts to our community and the marine environment. The Water Board should decline to extend the AES Redondo Beach compliance deadline, consistent with its mandate to protect water quality under federal and state law. The Water Board can accomplish this objective by omitting the one-year extension for AES Redondo Beach under the proposed amendment to the OTC Policy. The remaining extensions are sufficient to ensure statewide electrical grid reliability next year.

AES Redondo Beach should not be used as a safety net or insurance policy at the expense of the environment and surrounding community. It should retire on time at the end of 2020 as planned for over a decade. The City urges the Water Board to adopt an alternative that does not extend the compliance deadline for AES Redondo Beach and also consider whether the wetlands (Old Salt Lake) also falls within the permitting and enforcement jurisdiction of the Regional Board.

In closing, the City wishes to thank the Chair, the Board Members and Staff for their continuing hard work on the OTC Policy Amendment and appreciates consideration of the City's concerns. Although the recommendation of a one-year extension for AES Redondo Beach is intended to address the City's concerns, it does not go far enough for a community that has been living with the plant's impacts for decades and eagerly awaiting the power plant's retirement at the end of this year.

Sincerely,



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Michael W. Webb  
City Attorney of the City of Redondo  
Beach



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William C. Brand  
Mayor of the City of Redondo Beach

**DOCKETED**

<b>Docket Number:</b>	12-AFC-03
<b>Project Title:</b>	Redondo Beach Energy Project
<b>TN #:</b>	205956
<b>Document Title:</b>	Coastal Commission Enforcement Staff letter to AES
<b>Description:</b>	N/A
<b>Filer:</b>	Tom Luster
<b>Organization:</b>	California Coastal Commission
<b>Submitter Role:</b>	Public Agency
<b>Submission Date:</b>	8/31/2015 4:02:25 PM
<b>Docketed Date:</b>	8/31/2015

**CALIFORNIA COASTAL COMMISSION**

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**SENT BY REGULAR AND CERTIFIED MAIL**  
**Certification No. 7006 2760 0005 5883 3015**

August 27, 2015

Jennifer Didlo  
Stephen O'Kane  
AES Southland Development, LLC  
690 Studebaker Road  
Long Beach, CA 90803

Coastal Act Violation File No: **V-9-15-0092 (AES Southland Development, LLC  
Redondo Beach Generation Station)**

Location: Former tank portion of the AES Redondo Beach  
Generating Station located at 1100 North Harbor Drive in  
Redondo Beach, Los Angeles County; APNs 7503-013-  
014, 7503-013-015, 7503-013-819, and 7503-013-820.

Violation<sup>1</sup> description: Unpermitted installation and operation of water pumps for  
the purpose of groundwater dewatering affecting  
approximately 5.93 acres of wetlands at the former tank  
portion of the site.

Dear Ms. Didlo and Mr. O'Kane:

I am writing in regard to a violation of the Redondo Beach Local Coastal Program ("LCP") and

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<sup>1</sup> Please note that the description herein of the violation at issue is not necessarily a complete list of all unpermitted development on the subject property that is in violation of the Coastal Act or the City of Redondo Beach LCP. Accordingly, you should not treat the Commission's silence regarding (or failure to address) other unpermitted development on the subject property as indicative of Commission acceptance of, or acquiescence in, any such development. Please further note that the term "violation" as used throughout this letter refers to alleged violations of the Coastal Act or the City of Redondo Beach LCP.

the Coastal Act<sup>2</sup> on property owned by AES Southland Development, LLC ("AES") at 1100 North Harbor Drive in Redondo Beach, Los Angeles County. We are writing because of the unpermitted development activity being undertaken or threatening to be undertaken including, but not limited to, installation and operation by AES of new water pumps adversely affecting, or having the potential to adversely affect, approximately 5.93 acres of Coastal Commission-jurisdiction wetlands within the former tank portion ("subject site") of the AES Redondo Beach Generating Station.

The Coastal Act was enacted by the State Legislature in 1976 to provide long-term protection of California's 1,100-mile coastline through implementation of a comprehensive statewide planning and regulatory program designed to manage conservation and development of coastal resources. The California Coastal Commission ("Commission") is the state agency created by, and charged with, administering the Coastal Act. In making its permit and land use planning decisions, the Commission carries out Coastal Act policies, which, amongst other goals, seek to protect and restore sensitive habitats; protect natural landforms; protect scenic landscapes and views of the sea; protect against loss of life and property from coastal hazards; and provide maximum public access to the sea. The Commission plans and regulates development, including development in wetlands, within the statutorily defined "Coastal Zone" jurisdictional area consistent with the requirements of Chapter 3 of the Coastal Act. The Commission also reviews and certifies LCPs submitted by local governments that have part or all of their jurisdictional area within the Coastal Zone and delegates permitting authority to them after LCP certification so that they may regulate development within their certified LCP jurisdictions. The City of Redondo Beach ("the City") has a certified LCP and, thus, primary permitting and enforcement authority within its certified LCP jurisdiction. However, in this case, the City has requested Commission staff's assistance in this enforcement matter; as discussed later.

One of the habitats the Commission and local governments with certified LCPs are charged with protecting is that of wetlands. Wetlands are among the most important ecosystems in the world.<sup>3</sup> They produce high levels of oxygen, filter toxic chemicals out of water, reduce flooding and erosion, recharge groundwater, and serve as critical habitat for wildlife, including a large percentage of plants and animals on California's endangered species list.

The Coastal Act and the City's LCP contain several policies that afford protection to wetlands and sensitive habitat:

Coastal Act Section 30231 and LUP Section VI, Subsection D -- Land Use, Policy 20 state:

*The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms*

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<sup>2</sup> The California Coastal Act of 1976 ("Coastal Act") is codified in Division 20 of the Public Resources Code (sections 30000 to 30900).

<sup>3</sup> Source: California's Wetlands, A Briefing: Water Education Foundation, 2000.

*and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Coastal Act Section 30233 and LUP Section VI, Subsection D – Land Use, Policy 21 state (in relevant part):

*(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
- (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
- (4) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
- (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
- (6) Restoration purposes.*
- (7) Nature study, aquaculture, or similar resource-dependent activities.*

Applicable Coastal Act and LCP provisions require generally that biological productivity in wetlands be protected and allowable uses in or near wetland areas be limited. While much of the Redondo Beach Energy Project ("RBEP") site has been developed for more than a century, it contains areas of Coastal Commission-jurisdictional wetlands. This conclusion is based on 2013 wetland data provided by AES, observations made during a site visit by the Coastal Commission ecologist, Dr. Jonna Engel, in January 2014, and review of historic information by both Energy Commission and Coastal Commission staff. It has been determined that there are approximately 5.93 acres of Coastal Commission-jurisdictional wetlands in the area of the site containing bermed retention basins that formerly held fuel oil tanks that were retired in the 1990s and removed in 2006. In July 2015, the Commission adopted findings that concurred with staff's determination that Commission-jurisdictional wetlands were present at the RBEP site.<sup>4</sup>

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<sup>4</sup> See Coastal Commission's Final Adopted 30413(d) Findings for Redondo Beach Energy Project, submitted to California Energy Commission and available at:

We are aware that AES disputes the conclusion that there are wetlands at the site, and has stated that any wetland characteristics within the site were artificial hydrologic features resulting from water moving to the site from a series of injection wells located from about one half-mile to a mile from the site and operated by the West Basin Water District. These injection wells have been operated since the 1960s to provide a salt water intrusion barrier. AES has stated that this injection well program created an artificially high groundwater table, which led to AES installing and operating a dewatering system at the site meant to keep groundwater about three to five feet below the ground surface. AES stated that in 2012 it determined its dewatering system was underperforming and allowing wetland hydrology and hydric soils to develop at the site.

Commission staff has found, however, that portions of the site appear to have exhibited wetland characteristics at several times during the past century, including before the Water District's injection well pumping system was installed and during power plant operations. It appears that, instead of the injection well system creating artificial hydrology, the power plant's dewatering system has acted to mask existing wetland characteristics within the site. However, these characteristics appear to be present even when the dewatering system is apparently functioning as intended.

The Commission has already formally addressed this issue, and found, when it adopted its 30413(d) review of the AES Redondo Beach Energy Project, that AES's proposal to install and operate new pumps would likely further mask or remove the wetland features already identified at the site.

#### **Coastal Act/LCP Violation**

AES indicated that, in December 2014, it replaced one of its water pumps intended for groundwater dewatering on the former tank portion of the site, and that another pump was scheduled to be installed in June of 2015. We do not know if the new pumps are currently operating.

Pursuant to Section 30106 of the Coastal Act and Section 10-5.2204(a)(13) of the City's LCP:

*"Development" means, on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act...change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or*

*alteration of the size of any structure, ... and the removal or harvesting of major vegetation other than for agricultural purposes...* (Emphasis added)

As such, the installation and operation of water pumps for the purpose of groundwater dewatering on your property constitutes development under the Coastal Act and the City's LCP because it is both the placement of a solid material or structure on land and the removal of wetland material. Section 30600(a) of the Act, as well as Section 10-5.2206(a) of the City's certified LCP, requires that any person wishing to perform or undertake development in the coastal zone must first obtain a Coastal Development Permit ("CDP"), in addition to any other permit required by law, before carrying out any development. Any development activity conducted in the coastal zone without a valid CDP constitutes a violation of the Coastal Act/LCP. Thus, the unpermitted installation and use of water pumps in an unused portion of the site that has been determined by both the Coastal Commission and the Energy Commission to contain Coastal Commission-jurisdictional wetlands constitutes a Coastal Act/LCP violation. We do not consider the installation and use of these water pumps to be exempt development. In fact, the fuel oil tanks were removed in 2006 and this portion of the site containing wetlands has not been used for its originally intended purpose for nearly ten years. Thus, the installation and operation of the subject water pumps is unpermitted development, and operation of these pumps will be considered knowing and intentional performance or undertaking of development in violation of the Coastal Act and the City's certified LCP.

### **Enforcement Remedies**

Pursuant to Coastal Act Section 30810(a)(1), the Commission may issue an order to cease and desist to enforce the requirements of a certified local coastal program if the local government requests the commission to assist with, or assume primary responsibility for, issuing a cease and desist order. Accordingly, the City has requested that the Commission assist in enforcement of the alleged Coastal Act violation described herein that has occurred on the subject property (see enclosed letter).

Chapter 9 of the Coastal Act contains enforcement remedies to address Coastal Act/LCP violations. Section 30809 of the Coastal Act provides for the Executive Director to issue an order if he determines that any person **has undertaken, or is threatening to undertake**, any activity that may require a coastal development permit without first securing said permit. Further, as noted above, Section 30810 provides that the Coastal Commission may also issue a cease and desist order if it determines that any person **has undertaken, or is threatening to undertake**, any activity that requires a coastal development permit without first securing said permit. These cease and desist orders may be subject to terms and conditions that are necessary to ensure compliance with the Coastal Act/LCP. Moreover, Section 30811 authorizes the Commission to order restoration of a site where development occurred without a coastal development permit, is inconsistent with the Coastal Act/LCP, and is causing continuing resource damage. Finally, The Executive Director is also authorized, after providing notice and

the opportunity for a hearing as provided for in Section 30812 of the Coastal Act, to record a Notice of Violation against your property.

In addition to the above, Section 30820 of the Coastal Act provides for civil liability to be imposed on any person who performs or undertakes development without a coastal development permit and/or that is inconsistent with any coastal development permit previously issued by the Commission in an amount that shall not exceed \$30,000 and shall not be less than \$500 per violation. The Act also provides that additional civil liability may be imposed on any person who performs or undertakes development without a coastal development permit and/or that is inconsistent with any coastal development permit previously issued by the Commission when the person intentionally and knowingly performs or undertakes such development, in an amount not less than \$1,000 and not more than \$15,000 per day for each day in which each violation persists. The Coastal Act also provides for additional penalties for violations of either a cease and desist order or a restoration order, and exemplary damages in cases of knowing and intentional violations of the Coastal Act.

### **Resolution**

In some cases, when unpermitted development takes place in the Coastal Zone, the alleged violator may seek an after-the-fact CDP from the relevant permitting authority, which in this case is the City, as the area in which the unpermitted development took place lies within the City's LCP jurisdiction. However, the unpermitted installation and operation of water pumps for the purpose of dewatering wetlands are not development activities allowed in wetlands under applicable laws. Therefore, Commission Staff does not recommend you seek an after-the-fact CDP for this development. In order to resolve the subject Coastal Act/LCP violations on the subject property and avoid penalties, as well as additional harm to coastal resources, you must:

1. **CEASE ALL UNPERMITTED ACTIVITIES.** This includes ANY water pumping of the former tank site for the purposes of groundwater dewatering;
2. Provide to me by September 9, 2015 written confirmation that all such unpermitted pumping has ceased. If no such pumping is currently taking place, confirm in writing that it has not taken place nor will take place;
3. Submit a complete CDP application by September 28, 2015 to the City of Redondo Beach for removal of the subject pumps and restoration of any damaged resources. Once a valid CDP is issued, you must complete the project, as approved, and comply with all conditions, including any monitoring requirements, before this violation file can be closed;
4. Contact me by September 14, 2015 regarding how you intend to resolve this violation.

We hope that we can work cooperatively with you to resolve this matter quickly. I can be reached at **415-904-5269**.

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Failure to meet the deadlines noted above may result in formal action by the Commission to resolve this Coastal Act violation. The formal action could include a civil lawsuit, recording a Notice of Violation on your property, the issuance of an Executive Cease and Desist Order or Commission Cease and Desist and/or Restoration Order, and/or imposition of monetary penalties.

Thank you for your cooperation and prompt attention to this matter. We look forward to hearing from you soon.

Sincerely,



JO GINSBERG  
Enforcement Analyst

Enclosure: Letter from Joe Hoefgen, City Manager, City of Redondo Beach

cc: Alison Detner, CCC, Deputy Director  
Lisa Haage, CCC, Chief of Enforcement  
N. Patrick Veasart, CCC, Enforcement Supervisor  
Tom Luster, CCC, Coastal Program Analyst  
Amber Dobson, CCC, Coastal Program Analyst  
Matt Christen, CCC, Staff Counsel  
Mike Webb, City of Redondo Beach, City Attorney  
Joe Hoefgen, City of Redondo Beach, City Manager