

RESPONSE TO WRITTEN COMMENTS

For the Determinations to Approve Mitigation Measures for the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (“Once-Through Cooling” or “OTC Policy”) for Huntington Beach Generating Station for the operating period of October 1, 2019, through September 30, 2020.¹

Comment Letter	Commenter	Submitted by
1	California Coastkeeper Alliance	Kaitlyn Kalua

No.	Comment	Response
1.01	<p>Nineteen California coastal and Delta power plants had previously used OTC systems that pulled in up to 16 billion gallons of marine waters every year – seawater that “...is not just water. It is habitat and contains an entire ecosystem of phytoplankton, fishes, and invertebrates.”¹</p> <p>Section 2.C(3) of the Policy requires owners or operators of existing power plants to implement measures to mitigate the interim impingement and entrainment impacts resulting from their cooling water intake structures. The interim mitigation period commenced on October 1, 2015, and continues up to and until owners or operators achieve final compliance with the OTC Policy. Today, eight of the original nineteen OTC power plants still operate and are scheduled to come in compliance with the OTC Policy within the next decade – four of which were originally scheduled to come offline by the end of 2020.</p>	<p>The OTC Policy regulates power plants that withdraw coastal and estuarine waters for cooling purposes using a single-pass system known as once-through cooling (OTC). The State Water Resources Control Board (“State Water Board”) acknowledges the impacts of cooling water intake structures on marine life. In an effort to address these impacts, the State Water Board adopted the OTC Policy in 2010 to implement Clean Water Act section 316(b) and establish requirements that existing power plants employ the best technology available to minimize the impacts of impingement and entrainment on marine life. Additionally, until final compliance is achieved, Section 2.C(3) of the OTC Policy requires that owners and operators of existing power plants implement measures to mitigate the interim impacts of impingement and entrainment to reduce the harmful effects associated with cooling water intakes on marine life.</p>

¹ No comments were received regarding determinations to approve mitigation measures for Alamitos, Diablo Canyon, Harbor, Haynes, Ormond Beach, Redondo Beach, and Scattergood Generating Stations.

	<p>Footnote:</p> <p>1. California Energy Commission, Issues and Environmental Impacts Associated with Once-Through Cooling at California’s Coastal Power Plants (2005).</p>	<p>Originally, nineteen power plants located along the California coast were required to comply with the OTC Policy. Ten of the original nineteen power plants have permanently retired since adoption of the OTC Policy and one power plant complied with Track 2.</p>
1.02	<p>We provide the following comments regarding the draft determination for the Huntington Beach Generating Station, based on its operation in 2019-2020, and regarding future mitigation requirements for facilities that received recent extensions.</p>	<p>Comment noted. Please see the following responses to individual comments.</p>
1.03	<p>I. THE DETERMINATION FOR THE HUNTINGTON BEACH GENERATING STATION MUST INCLUDE THE STIPULATED WETLANDS PAYMENT AND REMOVE THE ENTRAINMENT DEDUCTION FOR OTC OPERATIONS AFTER DECEMBER 31, 2020.</p>	<p>The proposed Interim Mitigation Determinations cover the period of October 1, 2019, through September 30, 2020 (“2019-2020 Determinations”). Comments regarding determinations for interim mitigation requirements after September 30, 2020, are outside the scope of the 2019-2020 Determinations. However, the State Water Board will evaluate if it is appropriate to provide credit for existing mitigation efforts to comply with the interim mitigation requirements in the OTC Policy past December 31, 2020, when preparing Huntington Beach Generating Station’s draft interim mitigation determination for October 1, 2020, through September 30, 2021.</p>
1.04	<p>A. The Final 2019-2020 Determination should include the stipulated wetlands mitigation payment of \$75,000 to ensure the management and monitoring payment is accurate.</p>	<p>AES-Southland’s prior purchase and improvement of 66.8 acres of wetlands, as required by the California Energy Commission’s (CEC) license and order to operate, meets the requirement in Section 2.C(3)(a) of</p>

In 2001, the California Energy Commission (CEC) approved the Huntington Beach Generating Station Retool Project for its OTC generating units with the requirement that AES-HB determine the actual impingement and entrainment losses caused by the operation of the OTC units and to compensate and mitigate for impacts to the Southern California Bight fish populations. Following consultation with the Santa Ana Regional Water Board, California Coastal Commission, California State Lands Commission, and the Huntington Beach Wetlands Conservancy, it was determined that the operation of the OTC generating units would result in an annual flow of 46,272.875 million gallons with direct impacts to marine species and would require the improvement and preservation of 66.8 acres. The CEC ultimately adopted Order No. 06 in 2006 with the stipulation that AES-HB mitigate the impacts to marine life by purchasing, improving, and preserving 66.8 acres for 10 years through a payment of \$5.5 million into a trust account for the land maintained and improved by the Huntington Beach Wetlands Conservancy.²

Despite this stipulation that this mitigation payment be applied for a period of 10 years, AES-HB was granted a 10 year extension of the 2001 CEC license until December 31, 2020 with the requirement that AES-HB continue yearly funding for the maintenance of the 66.8 acres of wetlands plus an additional \$20,000 per year for annual maintenance and monitoring between

the OTC Policy and equates to compensating for the impacts of up to 46,272.874 million gallons of OTC intakes per year. AES-Southland compensates for the impacts resulting from OTC intakes greater than 46,272.874 million gallons per year by providing interim mitigation payments to the Ocean Protection Council in accordance with Section 2.C(3)(b) of the OTC Policy.

Section 2.C(3) of the OTC Policy provides three measures by which owners and operators may comply with the interim mitigation requirement. AES-Southland complies with the interim mitigation requirements for Huntington Beach Generating Station through a combination of the options outlined in Section 2.C(3)(a) and Section 2.C(3)(b) of the OTC Policy. Section 2.C(3)(a) of the OTC Policy provides that owners and operators may comply with the interim mitigation requirement by demonstrating to the State Water Board's satisfaction that they are compensating for interim impingement and entrainment impacts through existing mitigation efforts, including any projects that are required by state or federal permits as of October 1, 2010. As such, the OTC Policy allows for credit to be given for existing mitigation.

In addition to yearly maintenance funding, AES-Southland has provided additional funding to the Huntington Beach Wetland Conservancy Trust for every year Huntington Beach Generating Station is operational in the amount of \$20,000 per year from 2012 through 2018 and \$75,000 per year from 2018

<p>2012 and 2018. The stipulation was explicit that if OTC units are still in operation after December 31, 2018, AES-HB is required to pay \$75,000 for every year OTC is operational until the CEC license ends on December 31, 2020.</p> <p>We respectfully request that the interim mitigation for the period of October 1, 2019 to September 30, 2020 be updated to capture the \$75,000 AES-HB is obligated to pay for every year OTC units were in operation after December 31, 2018 and that this \$75,000 be applied for the interim mitigation period of October 1, 2019 to September 30, 2020. Capturing the entrainment payment, even if it is deposited into the wetlands trust account, will properly account for the amount owed for management and monitoring since AES-HB is not obligated to pay the stipulated \$20,000 for maintenance and monitoring after 2018:</p> <p style="padding-left: 40px;">Entrainment Calculation $\\$5.33/\text{MG} \times (31,255.06\text{MG} - 46,272.875\text{ MG}) + \\$75,000 = \\$75,000^3$</p> <p style="padding-left: 40px;">Management and Monitoring Payment Calculation $0.20 \times (\\$75,000 + \\$307.46) = \\$15,061.49$</p>	<p>through 2020.² These additional funds were for maintenance, monitoring, and restoration activities to maintain the proper functioning of the 66.8 acres of mitigated wetlands. The \$75,000 payment made to the Huntington Beach Wetland Conservancy Trust is not appropriate for inclusion in the interim mitigation payment calculation for Huntington Beach Generating Station since these payments are for maintenance and monitoring activities that support the proper functioning of the 66.8 acres of mitigated wetlands that AES-Southland receives credit for in accordance with Section 2.C(3)(a) of the OTC Policy.</p> <p>Additionally, the commenter’s proposed modification to the interim mitigation calculation is not consistent with the method developed by the Expert Review Panel and adopted by the State Water Board in Resolution No. 2015-0057³. The entrainment payment is calculated by multiplying the total annual intake volume by either a site-specific or default entrainment cost. For Huntington Beach Generating Station, the entrainment payment is calculated using the default entrainment cost and a refined intake volume, which accounts for the existing mitigation credit. The management and monitoring payment is calculated by taking twenty</p>
--	---

² Christina Snow. 2010. [Huntington Beach Generating Station Retool Project \(00-AFC-13C\) Staff Analysis of Proposed License Extension.](#)

³ State Water Board. 2015. [Resolution No. 2015-0057 Delegates Authority to the Executive Director of the State Water Board to Approve Measures that Owners or Operators of Once-Through Cooling Facilities Shall Undertake to Comply with Interim Mitigation on a Case-by-Case Basis.](#)

	<p>Final Determination for Huntington Beach Generating Station</p> <p style="text-align: center;">$\\$0.0 + \\$307.46 + \\$15,061.49 = \\$15,368.95$</p> <p>Footnotes:</p> <ol style="list-style-type: none"> 2. 15-16 AES Interim Mitigation Information Submittal (November 18, 2016), available at https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/powerplants/huntington_beach/docs/huntington_imf16.pdf. 3. To be deposited into the trust account managed by the Center for Natural Lands Management. 	<p>percent of the sum of the entrainment and impingement payments.</p>
<p>1.05</p>	<p>B. OTC operations after December 31, 2020 should not receive an ongoing entrainment deduction, even if annual payments are made by AES-HB for wetland management.</p> <p>The State Water Board should require the Huntington Beach Generating Station to pay for the full mitigation of its ongoing use of OTC generating units beyond the original compliance deadline of December 31, 2020, even if AES-HB continues to make payments for the maintenance of the wetland acres. The extension of the CEC license required AES-HB to make yearly payments of \$20,000 between 2012 and 2018 for maintenance and monitoring of the wetland acres, and \$75,000 for every year OTC is operational until the license expires. If the AES-HB continues to make</p>	<p>See Responses to Comments 1.03 and 1.04.</p>

	<p>these payments while Unit 2 of the Huntington Beach Generating Station continues OTC operations, these payment should not apply to the extended use and ongoing mitigation for these OTC operations because AES-HB is responsible for the wetlands due to requirements under the California Environmental Quality Act (CEQA) imposed by the CEC, not the OTC Policy itself or the 2015 Mitigation Fee Calculation Resolution.</p>	
1.06	<p>Essentially, the prior mitigation for the Huntington Beach Generating Station is not consistent with current science or the State Water Board’s mitigation calculation approved in the 2015 Resolution. As part of the Huntington Beach Generating Station 2001 License Amendment, the CEC required AES to fund a study to determine environmental impacts on aquatic life from the OTC system. The study was completed in 2005 and a determination was made with regard to the environmental effect, and appropriate mitigation to lessen impacts to a less than significant level. It is important to note that this mitigation was required to comply with CEQA – not the OTC Policy and not in conformance with the 2015 Mitigation Fee Calculation Resolution. CEC staff concluded that the proposed license extension could have the potential for significant impacts and required the 66.8 acres of wetlands to be restored as mitigation. However, the science and expertise on mitigating OTC marine life impacts has changed dramatically since 2005. For example, the ability to translate APF into a cost value</p>	<p>See Responses to Comments 1.03, 1.04, and 1.05.</p> <p>The method used to determine the 66.8 acres of mitigation required by the CEC for Huntington Beach Generating Station is comparable to the method used by the Expert Review Panel. Furthermore, the method used is consistent with Section 2.C(3)(d) of the OTC Policy, which states that the Habitat Production Foregone (HPF) method, or a comparable alternate method, shall be used to determine the habitat and area, based on replacement of annual entrainment, for funding a mitigation project. It is neither arbitrary nor obsolete.</p> <p>The CEC required a detailed study on the entrainment and impingement impacts on aquatic resources resulting from the operation of OTC intakes. The results of the study were applied to the Empirical Transport Model to determine the HPF. The HPF is an estimate of the equivalent area of habitat that would be needed to compensate for resources lost due to entrained species on an annual basis due to OTC</p>

<p>was largely indeterminate in 2005. The final number of 66.8 acres and the associated cost to restore those acres was chosen arbitrarily and was not based on current science.</p> <p>The State Water Board cannot and should not rely on past mitigation determined on incomplete scientific values when new information is currently being relied upon. Realizing that California needed a better way to calculate mitigation fees for seawater intakes, the State Water Board created several Expert Panels to develop a scientifically-based mitigation fee. The State Water Board contracted Moss Landing Marine Laboratory to establish an Expert Review Panel on minimizing and mitigating intake impacts from power plants and desalination facilities (ERP II). ERP II developed a “scientifically defensible mitigation fee for power plant interim mitigation that would compensate for continued intake impacts due to impingement and entrainment.” If previous mitigation calculations – like the 66.8 acres determined by the CEC – were scientifically defensible, then ERP II would not have been necessary. Therefore, the only logical conclusion is that the science used in 2005 to come to 66.8 acres</p>	<p>intakes. Based on the results of this study, the CEC concluded that there would be an estimated loss of productivity of 66.8 acres of coastal habitat due to the impingement and entrainment impacts associated with the operation of Huntington Generating Station’s OTC intakes. Additionally, the associated cost to restore the 66.8 acres of coastal wetlands determined by the CEC was based on conservative assumptions and the costs of similar existing and proposed restoration projects.^{4,5}</p> <p>The Expert Review Panel was tasked with developing a method to calculate interim mitigation payments to comply with the interim mitigation option in Section 2.C(3)(b) of the OTC Policy. The Expert Review Panel developed a cost-based approach for calculating annual interim mitigation payments that would compensate for interim impacts of impingement and entrainment resulting from power plant OTC intakes.⁶ Similar to the method used to determine the 66.8 acres of mitigation for Huntington Beach Generating Station, the Expert Review Panel developed the entrainment cost calculation using the Empirical Transport Model coupled with the HPF method. Additionally, it is notable that the Expert Review Panel relied upon data and information from existing power plant mitigation</p>
---	--

⁴ CEC. 2006. Commission Order No. 06 on Huntington Beach Generating Station Retool Project (Docket No. 00-AFC-13C).

⁵ Donna Stone. 2006. AES Huntington Beach Generation Station Retool Project (00-AFC-13C) Huntington Beach Units 3 and 4 Entrainment and Impingement Study Results, Mitigation Options, Staff and Working Group Recommendations, and AES’s Response and Objections to the Recommendation.

⁶ Foster, et al. 2012. [Mitigation and Fees for Intake of Seawater by Desalination and Power Plants.](#)

	<p>is not scientifically defensible. The State Water Board should rely only upon its mitigation calculation, recommended to it by ERP II, and approved in August 2015 when determining the mitigation owed by AES-HB for the operations of the Huntington Beach Generating Station after December 31, 2020.</p>	<p>that was determined using the HPF method, including the 66.8 acres of existing wetland mitigation for Huntington Beach Generating Station, to develop the default cost of entrainment.</p>
<p>1.07</p>	<p>If mitigation for the Huntington Beach Generating Station is adjusted in any way, it should be limited only to mitigation payments for the annual maintenance and monitoring. For example, if AES-HB elects to continue the annual payments of \$20,000 after 2018 for the ongoing maintenance and monitoring of these wetlands, any mitigation reduction approved by the State Water should be limited to this \$20,000 annual payment for wetland maintenance and monitoring. Further, not only should the interim mitigation and deduction of 46,272.875 MG not apply to the Huntington Beach Generating Station interim mitigation calculation after December 31, 2020, AES-HB must be required to pay \$75,000 annually for every year OTC units were operational after December 31, 2020. We respectfully request that the entrainment payment calculation for the Huntington Beach Generating Station be updated for every period after December 31, 2020 to reflect the following calculation with no deduction, based on actual OTC volume, and include the annual \$75,000 payment, unless the annual \$75,000 payment is otherwise directly paid to the wetlands trust:</p>	<p>See Responses to Comments 1.03 and 1.04. Requiring the continuation of the annual payments of \$75,000 to the Huntington Beach Wetland Conservancy Trust after December 31, 2020, is outside of the State Water Boards authority. Furthermore, the commenter's proposed modification to the interim mitigation calculation is not consistent with the method developed by the Expert Review Panel and adopted by the State Water Board in Resolution No. 2015-0057.</p>

	<p style="text-align: center;"> $(\\$5.33/\text{MG}^4 \times \text{Actual OTC Volume}) + \\$75,000^5 =$ Entrainment Payment </p> <p>Footnotes:</p> <ol style="list-style-type: none"> 4. The default entrainment cost for each mitigation period should include the three percent escalator to update the average cost of entrainment to account for inflation, pursuant Resolution No. 2015-0057 and the Expert Review Panel's Final Report. 5. If the \$75,000 is applied to the wetlands trust, we request that this be explicitly denoted in the final determination, but still be used to calculate the management and monitoring payment calculation. 	
1.08	<p>A. The State Water Board should not continue to apply previous mitigation for the extended use of OTC units under the OTC Policy.</p> <p>Finally, the State Water Board impermissibly allowed the Huntington Beach Generating Station to avoid its obligations under the OTC Policy to mitigate for ongoing marine life impacts after October 1, 2015 by allowing a reduction in the interim mitigation fee for mitigation paid prior to the adoption of the OTC Policy in 2010. We urge the State Water Board not to repeat this mistake and ensure that prior mitigation is not applied to the interim mitigation calculation for the Huntington Beach Generating Station for OTC operations that occur after December 31, 2020.</p>	See Response to Comments 1.03 and 1.04.

1.09	<p>When adopting the 2015 Mitigation Fee Calculation Resolution, prior mitigation for the Huntington Beach Generating Station was not identified as eligible for interim mitigation. At the State Water Board August 18, 2015 hearing, CCKA raised substantive concerns regarding the lack of guidance or criteria for determining whether an OTC facility would be eligible for applying past mitigation to its interim mitigation requirements. CCKA further specifically noted in its written comment that the Huntington Beach Generating Station would attempt to argue that its past mitigation should be applied to current OTC impacts. However, CCKA's concerns went unaddressed because the State Water Board believed at the time that only two OTC facilities were eligible for applying past mitigation – those two facilities did not include Huntington Beach Generating Station.</p> <p>As we raised our concerns regarding past mitigation at the August 2015 hearing,⁶ then-Chair Marcus asked staff how many projects would be eligible for applying past mitigation to the interim mitigation requirements. The response from staff was they knew of only two facilities that would be eligible for applying past mitigation to the interim mitigation requirements: San Onofre Nuclear Generating Station and Moss Landing Power Plant. The Board members relied upon staff's</p>	<p>See Responses to Comments 1.03 and 1.04.</p> <p>The State Water Board staff's comments at the 2015 Board meeting were based on information available to them at the time.</p> <p>The State Water Board provided guidance on determining if existing mitigation efforts adequately meet the interim mitigation requirements in the Responses to Comments on the Resolution No. 2015-0057,⁷ which provided an owner or operator would need to demonstrate that (1) the HPF method was employed in those efforts or, if not, that the comparable method was used and (2) preferably, whether existing mitigation efforts are directed towards increases in marine life associated with the State's MPAs in the geographic region of the facility. Furthermore, the owner and operator would also need to include a comparison of the existing mitigation efforts to what the owner or operator would have provided by making payments to the OPC or the Coastal Conservancy. If it is determined that existing mitigation does not fully compensate the interim impacts of impingement and entrainment resulting from OTC intakes, the owner and operator would need to make up the difference by making interim mitigation payments to the OPC and the Coastal Conservancy up until the power plant achieves final compliance with the OTC Policy.</p>
------	---	--

⁷ State Water Board. 2015. [Responses to Public Comments on the Proposed Resolution Delegating Authority to the Executive Director to Approve Interim Mitigation Measures Under the Once-Through Cooling Policy.](#)

	<p>assertion – as did we – and concluded that additional guidance was moot and unnecessary since all past mitigation had been decided.</p> <p>The State Water Board materially changed its position regarding which facilities are eligible for applying past mitigation to its interim mitigation calculation. Our organization, the Board Members, and other stakeholders relied on staff’s assertion that they would only allow two facilities to use past mitigation. The State Water Board’s application of the prior mitigation paid by AES-HB under the CEC license directly conflicted with the assertions made at the August 18, 2015 hearing; we therefore urge that this past mitigation – now over a decade old – not apply for continued OTC operations beyond the CEC license date of December 31, 2020.</p> <p>Footnotes:</p> <p>6. See State Water Resources Control Board, Hearing (August 18, 2015), at approximately 3 hours and 30 minutes, available at: http://www.waterboards.ca.gov/board_info/medi a/aug2015/swrcb_brdmtg081815.shtml.</p>	<p>AES-Southland demonstrated that the 66.8 acres of wetlands mitigation for Huntington Beach Generating Station met the conditions listed above and equates to compensating for the impacts of up to 46,272.874 million gallons of OTC intakes per year. As such, it is appropriate to provide credit for this existing mitigation for Huntington Beach Generating Station for the 2019-2020 Determinations.</p>
1.10	<p>The OTC Policy provides a preference for mitigation directed toward increasing marine life lost as a result of ongoing OTC operations. CCKA acknowledges that interim mitigation Option A (past mitigation) is vague regarding how one shall demonstrate compliance,</p>	<p>See Responses to Comments 1.03, 1.04, and 1.09. The 66.8 acres of mitigated wetlands were in existence and providing species productivity from October 1, 2015, to September 30, 2016, and continue to do so today. The species productivity is an existing benefit</p>

which was the basis for our concerns in our July 2015 comments, and at the August 2015 hearing, requesting better guidance and criteria regarding past mitigation. The OTC Policy states that Option A can be achieved by “[d]emonstrating to the State Water Board’s satisfaction that the owner or operator is compensating for the interim impingement and entrainment impacts through existing mitigation efforts.”⁷

The Huntington Beach Generating Station, however, is not compensating for interim impacts through existing mitigation efforts. Any previous mitigation payment was for marine life impacts from 2001 through 2010. Critically, the CEC license upholding this past mitigation only applied to December 31, 2020 and clearly stipulated that AES-HB must pay an additional \$75,000 for every year that OTC units are operational after December 31, 2018 – indicating that the past mitigation is not sufficient to compensate for the ongoing harm to marine life caused by the operation of OTC units. We therefore respectfully request this past mitigation not apply to the mitigation owed by the Huntington Beach Generating Station for its operation of an OTC unit after December 31, 2020.

Footnote:

7. State Water Resource Control Board, Once-Through Cooling Policy, pg. 8 (May 2010); available at

and is appropriate for compensation for interim impingement and entrainment impacts. Furthermore, the additional annual payments of \$75,000 required by the CEC from 2018 to 2020 were to support activities that maintain the proper functioning of the 66.8 acres of mitigated wetlands and are not indicative that past mitigation was insufficient.

	http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/otc_2014.pdf .	
1.11	II. THE STATE WATER BOARD SHOULD IMPOSE ADDITIONAL MITIGATION FOR ALL OTC FACILITIES THAT RECEIVE AN EXTENSION AND OPERATE BEYOND DECEMBER 31, 2020.	See Response to Comment 1.03. Additionally, the assertion that additional mitigation is needed may imply that there are additional environmental impacts not previously analyzed or addressed in the 2010 Final Substitute Environmental Document ⁸ for the OTC Policy or in the addendum to the 2010 Final Substitute Environmental Document. In 2010, the State Water Board conducted a full California Environmental Quality Act analysis on the potential impacts of the proposed adoption of the OTC Policy, including significant or potentially significant adverse environmental impacts of the project and impacts associated with reasonably foreseeable methods of compliance. The extensions provided to Alamitos, Huntington, Ormond Beach, and Redondo Beach Generating Stations to operate through December 31, 2023, were considered within the scope of the OTC Policy as it was adopted in 2010, since the OTC Policy from its inception recognized the need for potential modifications to the original

⁸ State Water Board. 2010. [Final Substitute Environmental Document for the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling](#).

		compliance schedule to maintain grid reliability. ^{9,10} Any requirement for new or additional mitigation to satisfy California Environmental Quality Act would conflict with this conclusion.
1.12	A. The interim mitigation already required under the OTC Policy is insufficient to mitigate for new extensions to the OTC compliance schedule.	See Responses to Comments 1.03 and 1.11.
1.13	<p>When mitigation costs per gallon were determined in 2015, the State Water Board was clear that the mitigation was not intended to fully mitigate ongoing OTC impacts, but rather to encourage power plants to meet compliance deadlines. Specifically, during the adoption hearing of Resolution No. 2015-0057, staff acknowledged that calculating mitigation based on a value of per million gallons is not the typical method of calculating mitigation fees; rather, mitigation is generally calculated based on the life of the project or the disturbance caused by the project as whole. As was described by State Water Board staff during the August 18, 2015 hearing:</p> <p style="padding-left: 40px;">“When [the State Water Board] adopted the Once Through Cooling Policy, it included the</p>	<p>See Responses to Comments 1.01, 1.03, and 1.11.</p> <p>Owners or operators are required to satisfy interim mitigation requirements until the OTC facilities achieve final compliance with the OTC Policy. Although the State Water Board recognized that these requirements incentivize early compliance with the OTC Policy, interim mitigation is generally intended to address the interim impacts of impingement and entrainment due to continued operation of these facilities until final compliance. The interim mitigation requirements of the OTC Policy will continue to apply to power plants with extended compliance dates.</p> <p>Through Resolution No. 2015-0057, the State Water Board authorized the Executive Director, on a case-by-case basis, to approve the measures by which owners</p>

⁹ State Water Board. 2020. [Final Staff Report on the Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling to Revise the Compliance Schedule for Alamitos, Huntington Beach, Ormond Beach, and Redondo Beach Generating Stations and Diablo Canyon Nuclear Power Plant.](#)

¹⁰ State Water Board. 2021. [Final Staff Report on the Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling to Revise the Compliance Schedule for Redondo Beach Generating Station.](#)

<p>requirement that any facility that continues to operate after 2015 would have to pay some sort of mitigation based on an amount per million gallons. That was meant as an incentive for [owners and operators] to think about ending earlier and not waiting until the very end of their compliance schedule.”⁸</p> <p>The interim mitigation based on the per million gallons calculation was imposed explicitly as an incentive to encourage facilities to come in compliance with the OTC Policy ahead of schedule – not as mitigation for additional extensions and use of these facilities. As we now see with the last year’s extensions of the Alamitos, Huntington Beach, Redondo Beach, and Ormond Beach Generating Facilities, and second proposal to extend Redondo Beach to 2023, this incentive approach has proven to be unsuccessful.</p> <p>The State Water Board’s extension of the compliance deadlines for Alamitos, Huntington Beach, and Ormond Beach for three years until December 31, 2023 and Redondo Beach for one year until December 31, 2021,⁹ has the potential to increase the overall harm to California’s coast and marine life with a potential intake of 100 million gallons of seawater annually¹⁰ – instead of ending the environmental degradation caused by these plants altogether. The current interim mitigation that is already required is insufficient to offset the continued operation of these facilities, and has failed to incentivize early compliance</p>	<p>and operators proposed to comply with the interim mitigation requirements. Neither Resolution No. 2015-0057 nor the OTC Policy include provisions to increase interim mitigation requirements or payments if a compliance date is modified to ensure grid reliability. However, Resolution No. 2015-0057 does provide that the default entrainment cost shall be updated annually to account for inflation. To achieve this the State Water Board applies a cost escalator of three percent annually to the default entrainment cost.</p> <p>Additionally, the State Water Board acknowledges the environmental impacts of OTC facilities, including their contribution to impacts to marine life, air pollution, and land use. However, the State Water Board does not have statutory or regulatory authority to order mitigation measures as part of the OTC Policy beyond those affecting marine life impacts from coastal power plants.</p>
---	--

	<p>with the OTC Policy. The State Water Board should increase the mitigation fee required for the extended use of these plants to address both grid reliability and acknowledge the associated impacts to marine life, air quality, and land use from the continued operation of these plants beyond the current OTC compliance schedule.</p> <p>Footnotes:</p> <ol style="list-style-type: none"> 8. State Water Resources Control Board, Board Hearing (August 18, 2015). 9. State Water Resources Control Board, Draft Staff Report, 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 (March 18, 2020). 10. This average annual million gallons is based on the annual capacity reported by the California Energy Commission for each plant in 2018, with average capacity ranging from 2.2 to 8.4% for each plant. California Energy Commission – Tracking Progress (April 2019), available at https://www.energy.ca.gov/sites/default/files/2019-12/once_through_cooling_ada.pdf. 	
1.14	B. The State Water Board has discretion to impose greater mitigation than was approved in Resolution No. 2015-0057, and we recommend that mitigation be	See Responses to Comments 1.11 and 1.13.

doubled to account for the ongoing harm posed by these extensions.

Increased mitigation is needed to offset the full impacts any extension to the OTC Policy. The State Water Board has significant discretion to impose additional mitigation for the continued operation of OTC power plants, and we disagree with staff's findings that "[a]dditional mitigation would be above and beyond what was determined as appropriate in Resolution 2015-0057, implementing the findings of the OTC Policy."¹¹ The Executive Director is explicitly authorized "to approve, on a case-by-case basis, mitigation measures that owners or operators of OTC facilities shall undertake to comply with requirements for interim mitigation," and that all mitigation must be done "to the State Water Board's satisfaction," leaving the State Water Board with significant discretion to impose a higher mitigation fee than was previously calculated in 2015.¹²

The State Water Board has the discretion to assign mitigation fees on a case-by-case basis, and we strongly recommend the State Water Board double the mitigation fee by imposing a punitive fee on top of the already-calculated mitigation fee to mitigate for the comprehensive impacts of this extension. Further, the OTC extension recommendations provided by SACCWIS are primarily centered on achieving grid reliability as new energy sources come online, not the environmental impacts caused by the ongoing

The commenters statements misrepresent the authority provided to the Executive Director by the State Water Board through Resolution No. 2015-0057. While the Executive Director was provided with the authority to approve, on a case-by-case basis, the interim mitigation measures owners and operators of OTC facilities shall take, this authority is confined to approving the measures, or the options, an owner or operator has undertaken to complying with the interim mitigation requirements detailed in Section 2.C(3) of the OTC Policy. Additionally, if the owner and operator elects to comply by making interim mitigation payments in accordance with Section 2.C(3)(b) of the OTC Policy, the Executive Director has the discretion to determine if suitable data is available to calculate a site-specific HPF or if the default cost of entrainment shall be used in the calculation of the annual interim mitigation payment. However, Resolution No. 2015-0057 does not provide authority to the Executive Director to impose additional or increased mitigation.

Importantly, the State Water Board did not direct staff to undertake specific or additional mitigation efforts, but to analyze additional feasible mitigation. State Water Board staff has undertaken such an analysis of requiring additional mitigation to address marine life impacts associated with the continued operation of OTC facilities and concluded that, at a minimum, it would require the State Water Board to reconvene an expert review panel to assess intake impacts and determine whether additional marine life mitigation is

<p>operation of these plants. The consideration of impacts to water quality and the beneficial uses of California’s coastal waters, therefore, lands under the sole purview of the State Water Board and must be considered in any extension to the OTC Policy. As acknowledged and directed by Board Member Doduc during the State Water Board Meeting held on November 19, 2019, the State Water Board must:</p> <p style="padding-left: 40px;">“[R]ecognize that the SACCWIS recommendations are based on their perspective, their analysis, their concerns and expertise with respect to power regulation and grid reliability. However, in considering any proposed changes to the OTC policy, ... we need to consider a broader basis of factors, including potential impacts to the community as well as what it means for the natural resources. ... Be mindful that we have other factors we need to consider in any proposed changes [to the OTC Policy].”¹³</p> <p>The State Water Board must therefore consider the full range of impacts to marine life and the other beneficial uses that California’s ocean and estuarine waters support in any extension granted in an amendment to the OTC Policy. Vice Chair D’Adamo additionally expressed explicit interest in a “balanced packaged</p>	<p>scientifically supported. Once completed, any change to existing interim mitigation requirements could warrant revisiting State Water Board Resolution No. 2015-0057. However, imposing additional mitigation without an adequate scientific basis would be arbitrary.¹¹</p>
--	--

¹¹ State Water Board. 2021. [Revised Responses to Comments on the Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Power Plant Cooling to Extend the Compliance Schedule for the Redondo Beach Generating Station.](#)

that addresses grid reliability, and also looks at these other issues of marine life, air quality, and land use” during the April 21, 2020 Workshop.¹⁴

We therefore recommend that the mitigation for the extended use of these plants be doubled to mitigate for the continued degradation of California’s coast and marine life. Doubling the mitigation required for any OTC extension will provide a balanced approach to ensure grid reliability and offset the environmental harm caused by the continued operation of these plants.

Footnotes:

11. State Water Resources Control Board, Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Once-Through Cooling or OTC Policy) for Extension of Compliance Schedules of Alamitos, Huntington Beach, Ormond Beach, and Redondo Beach Generating Stations, Staff Report at p. 16.
12. OTC Policy § 2.C.3.a and b; See also, SWRCB Resolution No. 2015-0057 (allowing the Executive Director to bring cases with entrainment fee calculation greater than \$6.50 per million gallons to the State Water Board for approval).
13. State Water Resources Control Board, Board Hearing (November 19, 2019).

	<p>14. State Water Resources Control Board, Board Hearing and OTC Workshop (April 21, 2020).</p>	
<p>1.15</p>	<p>The Huntington Beach Generating Stations' mitigation for its OTC operations from 2001 to 2011 should not continue to result in a mitigation reduction for OTC operations that occur after the original December 31, 2020 compliance date. The CEC ultimately adopted the license for the Huntington Beach Generating Station with the stipulation that AES-HB mitigate the impacts to marine life by purchasing, improving, and preserving 66.8 acres for 10 years through a payment of \$5.5 million into a trust account, and extended this license to December 31, 2020. This prior mitigation payment should not continue to be double-counted for mitigation required under the OTC Policy for the continuing and ongoing operations of OTC units and the Huntington Beach Generation Station must pay its fair share of ongoing OTC impacts without receiving a reduction for this prior mitigation.</p> <p>The State Water Board should additionally impose increased mitigation payments for OTC operations that take place after December 31, 2020 to properly mitigate for the continued use of these plants.</p>	<p>See Responses to Comments 1.03, 1.04, 1.11, 1.13, and 1.14.</p>