

**DRAFT DETERMINATION TO APPROVE MITIGATION MEASURES
FOR THE WATER QUALITY CONTROL POLICY ON THE USE OF
COASTAL AND ESTUARINE WATERS FOR POWER PLANT COOLING:**

**ALAMITOS GENERATING STATION
OCTOBER 1, 2017 THROUGH SEPTEMBER 30, 2018**

Interim Mitigation Requirements and Determinations

The State Water Resources Control Board's (State Water Board) Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (also known as the Once-Through Cooling or OTC Policy) requires owners or operators of existing power plants to implement measures to mitigate 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.

The State Water Board approved Alamitos Generating Station's continued request to comply with the interim mitigation measures described in Section 2.C(3)(b) and Section 2.C(3)(e) of the OTC Policy in the Final Determination¹ for the October 1, 2016 to September 30, 2017 interim mitigation period (2016-2017 Final Determination). The 2016-2017 Final Determination included the interim mitigation payment for the period of October 2016 through September 2017. Consistent with Resolution No. 2015-0057² and the recommendations in the Expert Review Panel's Final Report³, the interim mitigation payment is comprised of an entrainment payment, an impingement payment, and a management and monitoring payment.

In the sections below, the State Water Board has calculated Alamitos Generating Station's interim mitigation payment for October 1, 2017, through September 30, 2018 (also known as the 2017-2018 determination period). This calculation is consistent with the methods and calculations applied in the 2016-2017 Final Determination.

Interim Mitigation Payment Calculation for Alamitos Generation Station

Entrainment Payment Calculation

To calculate the portion of the interim mitigation payment to offset entrainment impacts, the State Water Board used the default average cost of entrainment determined in the Expert Review Panel's Final Report. Consistent with Resolution No. 2015-0057 and the Expert Review

¹ State Water Board 2016-2017 Final Determination for Alamitos Generating Station.

<https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/interim_mitigation/fdi1617_alamitos.pdf>

² State Water Board Resolution No. 2015-0057.

<https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0057.pdf>

³ Final Report from the Expert Review Panel.

<https://www.waterboards.ca.gov/water_issues/programs/ocean/desalination/docs/erp_intake052512.pdf>

Panel's Final Report, the State Water Board then used a three percent escalator to update the average cost of entrainment from the 2016-2017 Final Determination to 2018 dollars to account for inflation. The resulting average default entrainment cost for October 1, 2017, through September 30, 2018, increased from \$4.87 per million gallons (MG) to \$5.02/MG:

$$(\$4.87/MG \times 0.03) + \$4.87/MG = \$5.02/MG$$

In its December 26, 2018 letter⁴, AES Southland provided the intake volume for Units 1 through 6 for the 2017-2018 determination period of 130,464.8 MG. The State Water Board verified intake volume with the data submitted in the National Pollution Discharge Elimination System permit monitoring reports for Alamitos Generating Station.

To calculate the entrainment payment, the State Water Board multiplied the intake volume by the updated average default cost of entrainment:

$$\$5.02/MG \times 130,464.8MG = \$654,933.30$$

Impingement Payment Calculation

In its December 26, 2018 letter, AES Southland provided an estimate of fish impingement biomass for Units 1 through 6 for the 2017-2018 determination period of 3.224 pounds. AES Southland calculated its estimate of fish impingement by using the flow for this interim mitigation period and a quarterly average impingement rate derived from impingement data collected between October 1, 2017, and September 30, 2018. The State Water Board calculated the impingement payment using the calculated total pounds of fish impinged multiplied by the average indirect economic value of the fisheries as determined in the Expert Review Panel's Final Report of \$0.80 per pound:

$$\$0.80/pound \times 3.224 pounds = \$2.58$$

Management and Monitoring Payment Calculation

The State Water Board calculated the management and monitoring payment by taking twenty percent of the sum of the entrainment and impingement payments:

$$0.20 \times (\$654,933.30 + \$2.58) = \$130,987.18$$

State Water Board's Draft Determination for Alamitos Generating Station

Based on the sum of the entrainment, impingement, and management and monitoring payment calculations, the total payment to fulfill the interim mitigation obligation for AES Southland's Alamitos Generating Station for the interim mitigation period of October 1, 2017, to September 30, 2018, is \$785,923.06.

$$\$654,933.30 + \$2.58 + \$130,987.18 = \$785,923.06$$

⁴ Letter from Weikko Wirta, AES Southland, to Karen Larsen, State Water Board on December 26, 2018.
<https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa_april/ala_im1718.pdf>