

**DRAFT 2023-2024 DETERMINATION TO APPROVE MITIGATION MEASURES
FOR THE WATER QUALITY CONTROL POLICY ON THE USE OF
COASTAL AND ESTUARINE WATERS FOR POWER PLANT COOLING:**

**REDONDO BEACH GENERATING STATION
OCTOBER 1, 2023, THROUGH DECEMBER 31, 2023**

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 Cooling¹ (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.

Resolution No. 2015-0057² originally described the procedures for calculating mitigation payments for Once-Through Cooling power plants. This resolution was consistent with the recommendations in the 2012 Expert Review Panel's Final Report.³ On April 17, 2024, the State Water Board adopted Resolution No. 2024-0014,⁴ which revised the calculation to ensure annual payments continue to appropriately compensate for interim impacts to marine life based on current mitigation costs. Revisions to the interim mitigation calculation were based on findings in the 2023 Expert Review Panel's Final Report.⁵

The State Water Board approved AES-Southland'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 Determination for Redondo Beach Generating Station for the October 1, 2022, to September 30, 2023 interim mitigation period. Pursuant to this continued request, in the sections below, State Water Board staff calculated Redondo

¹ State Water Board. 2010. [Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling](#). Sacramento, CA: State Water Board.

² State Water Board. 2015. [Resolution No. 2015-0057](#). Sacramento, CA: State Water Board.

³ Cailliet, G.M. Callaway, J. Foster, M.S. Raimondi, P. Steinbeck, J. 2012. [Mitigation and Fees for the Intake of Seawater by Desalination and Power Plants](#) (2012 Expert Review Panel's Final Report). Sacramento, CA: State Water Board.

⁴ State Water Board. 2024. [Resolution No. 2024-0014](#). Sacramento, CA: State Water Board.

⁵ Dr. Peter Raimondi. 2023. [Recommendations to Update the Interim Mitigation Cost Calculation for Once-Through Cooling Intake Use Leading to Marine Life Entrainment and Impingement](#) (2023 Expert Review Panel's Final Report). Sacramento, CA: State Water Board.

Beach Generating Station's interim mitigation payment for October 1, 2023, through its retirement date, December 31, 2023. Consistent with Resolution No. 2024-0014, each interim mitigation payment is comprised of an entrainment payment, an impingement payment, and a management and monitoring payment.

Interim Mitigation Payment Calculation for Redondo Beach Generating Station

Entrainment Payment Calculation

To calculate the portion of the interim mitigation payment to offset entrainment impacts, State Water Board staff used the default cost of entrainment adjusted using a 3.1 percent escalator taken from California Department of Industrial Relations Consumer Price Index⁶ to account for inflation, consistent with Resolution No. 2024-0014. As a result, the default cost of entrainment increased from \$12.51/Million Gallon (MG) to \$12.90/MG for October 1, 2023, through September 30, 2024 (also known as the 2023-2024 determination period):

$$(\$12.51/\text{MG} \times 0.031) + \$12.51/\text{MG} = \$12.90/\text{MG}$$

In its June 12, 2025 letter to the State Water Board, AES-Southland provided the intake volume of 14,006.5 MG for Redondo Beach Generating Station's operations from October 1, 2023, through December 31, 2023. State Water Board staff verified the intake volume with the data submitted in the National Pollutant Discharge Elimination System permit monitoring reports for Redondo Beach Generating Station.

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

$$\$12.90/\text{MG} \times 14,006.5 \text{ MG} = \$180,683.85$$

Impingement Payment Calculation

To calculate the portion of the interim mitigation payment to offset impingement impacts, State Water Board staff used the default cost of impingement determined in Resolution No. 2024-0014, which is \$102.73 per pound of fish impinged. Consistent with Resolution No. 2024-0014, State Water Board staff then used a 3.1 percent escalator taken from California Department of Industrial Relations Consumer Price Index⁶ to update the default cost of impingement to account for inflation. As a result, the default cost of impingement increased from \$102.73 per pound of fish impinged to \$105.91 per pound of fish impinged for the 2023-2024 determination period:

$$(\$102.73/\text{pound} \times 0.031) + \$102.73/\text{pound} = \$105.91/\text{pound}$$

In its June 12, 2025 letter to the State Water Board, AES-Southland provided an estimate of fish impingement biomass of 2.03 pounds for Redondo Beach Generating

⁶ California Department of Industrial Relations. 2025. [Consumer Price Index – California](#). San Francisco, CA: Department of Industrial Relations.

Station's operations from October 1, 2023, to December 31, 2023.

To calculate the impingement payment, State Water Board staff multiplied the provided pounds of fish impinged by the default cost of impingement:

$$\$105.91/\text{pound} \times 2.03 \text{ pounds} = \$215.00$$

Management and Monitoring Payment Calculation

State Water Board staff calculated the management and monitoring payment by taking twenty percent of the sum of the entrainment and impingement payments, as determined by Resolution No. 2024-0014:

$$0.20 \times (\$180,683.85 + \$215.00) = \$36,179.77$$

State Water Board's Draft Determination for Redondo Beach 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 Redondo Beach Generating Station for the interim mitigation period of October 1, 2023, to December 31, 2023, is \$217,078.62.

$$\$180,683.85 + \$215.00 + \$36,179.77 = \$217,078.62$$