

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

**HAYNES 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 Haynes 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). 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 Haynes 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 Haynes 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 Panel's Final Report, the State Water Board used a three percent escalator to update the

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

<https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/interim_mitigation/fdi1617_haynes.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>

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 21, 2018 letter⁴, Los Angeles Department of Water and Power (LADWP) provided the intake volume for Haynes Generating Station for the 2017-2018 determination period of 171,543 MG. However, when the State Water Board compared the submitted intake volume with the data submitted in the National Pollution Discharge Elimination System (NPDES) permit monitoring reports for Haynes Generating Station, the total volume reported by LADWP was greater by 7,130 MG. In its February 14, 2019 email⁵, LADWP re-submitted intake flow data for Haynes Generating Station. The total volume reported in the re-submitted data table matched the intake volumes in the NPDES monitoring reports. The total intake volume for Haynes Generating Station for the 2017-2018 determination period totals 164,413 MG.

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

$$\$5.02/MG \times 164,413 \text{ MG} = \$825,353.26$$

Impingement Payment Calculation

In its December 21, 2018 letter, LADWP provided the total fish impingement biomass for Haynes Generating Station for the 2017-2018 determination period of 4.203 pounds. The State Water Board calculated the impingement payment using the estimated 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:

$$\$0.80/\text{pound} \times 4.203 \text{ pounds} = \$3.36$$

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:

$$0.20 \times (\$825,353.26 + \$3.36) = \$165,071.32$$

⁴ Letter from Katherine Rubin, LADWP, to Eileen Sobeck, State Water Board on December 21, 2018.
<https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa_april/hay_im1718.pdf>

⁵ Email from Michael Hanson, LADWP, to Julie Johnson, State Water Board on February 14, 2019.
<https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/cwa_april/hay2_im1718.pdf>

State Water Board's Draft Determination for Haynes 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 LADWP's Haynes Generating Station for the interim mitigation period of October 1, 2017, to September 30, 2018, is \$990,427.94.

$$\$825,353.26 + \$3.36 + \$165,071.32 = \$990,427.94$$