

**FINAL DETERMINATION 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 POLICY):**

EL SEGUNDO GENERATING STATION

Interim mitigation requirements of the Once-Through Cooling Policy

The Once-Through Cooling (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 their final compliance deadlines as outlined in the OTC Policy. Section 2.C(3) of the Policy provides three options for demonstrating compliance with interim mitigation:

- (a) Demonstrate to the satisfaction of the State Water Resource Control Board (State Water Board) that the owner or operator is compensating for the 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.
- (b) Demonstrate to the State Water Board's satisfaction that the interim impacts are compensated for by the owner or operator providing funding to the California Coastal Conservancy which will work with the California Ocean Protection Council to fund an appropriate mitigation project.
- (c) Develop and implement a mitigation project for the facility, approved by the State Water Board, which will compensate for the interim impingement and entrainment impacts.

El Segundo Generating Station

El Segundo Generating Station (ESGS) retired Unit 4 and achieved its compliance deadline of December 31, 2015. El Segundo Power, LLC (ESP) has requested to comply through interim mitigation option A and has requested to use a previous \$1 million payment to satisfy the OTC Policy's interim mitigation requirements for ESGS. State Water Board staff calculates that, if ESP were to comply with interim mitigation option B, using the default method for calculating the entrainment fee set forth in [Resolution 2015-0057](#), the maximum fee would be approximately \$100,000 (see "Estimate of interim mitigation fees for ESGS" below for calculations).

In 2005, the California Energy Commission (CEC) required ESP to provide up to \$5 million in funding to the Santa Monica Bay Restoration Commission (SMBRC) as [part of a condition of certification for a license to repower units for OTC in El Segundo](#). The CEC's decision recognized that the operation of the OTC cooling system had the potential to impact aquatic organisms through impingement, entrainment, and thermal effects. Consequently, the \$5 million requirement was intended, in part, to meet Coastal Act policies to maintain, enhance, and, where feasible, restore marine resources. Funding from ESP was to be used by the SMBRC to improve the understanding of biological dynamics of Santa Monica Bay and to improve the health of this habitat, where the intakes for ESGS are located. As directed by the

CEC, ESP provided \$1 million within six months after certification of the project. The SMBRC used ESP's payment to fund several projects:

- Economic valuation study
- Rocky reef assessment
- County-wide funding feasibility study
- Support for the SMBRC Marine Technical Advisory Committee
- Bight '08 rocky reef survey
- Dolphin study

In 2010, the CEC rescinded the \$5 million requirement when approving ESP's amended application for certification, which no longer proposed OTC repowering. Therefore, ESP's \$1 million payment has not been formally credited toward mitigation for OTC impacts.

Estimate of interim mitigation fees for ESGS

To estimate interim mitigation fees, staff used the average cost of entrainment, as set forth in [Resolution 2015-0057](#). Staff relied on data provided in a letter from ESP dated July 6, 2015 to calculate an estimate of the entrainment fee for ESGS. ESP stated that the maximum intake flow for the interim mitigation period of October 1 to December 31, 2015 would be 18,407 million gallons. To estimate the entrainment fee, staff multiplied the intake flow by the \$4.60/million gallon average cost of entrainment set forth in [Resolution 2015-0057](#).

$$18,407 \text{ million gallons} \times \$4.60/\text{million gallons} = \$84,672.20$$

Staff estimated the impingement fee using the value for fishes estimated from catch totals and the average indirect economic value of the fisheries as determined in the Expert Review Panel II final report (\$0.80 per pound) and the 2008 impingement and entrainment report for ESGS, which stated an impingement mass of 473 pounds for Units 3 and 4. The impingement mass actually should be lower for this calculation because only Unit 4 at ESGS still needs to come into compliance with the OTC Policy.

$$\$0.80/\text{pound} \times 473 \text{ pounds} = \$378.40$$

Staff estimated the management and monitoring fee by taking twenty percent of the sum of the entrainment and impingement fees.

$$0.20 \times (\$84,672.20 + \$378.40) = \$17,010.12$$

Staff took the sum of the fees for entrainment, impingement, and management and monitoring to get the total estimate of approximately \$100,000 for the interim mitigation fee for ESGS.

$$\$84,672.20 + \$378.40 + \$17,010.12 = \$102,060.72$$

State Water Board's final determination for ESGS

The State Water Board approves the \$1 million payment by ESP to the SMBRC to comply with the OTC Policy's interim mitigation requirements for ESGS. The State Water Board determines

that ESP's payment for Santa Monica Bay-wide studies and habitat improvement aligns with the OTC Policy's requirement to compensate for interim impingement and entrainment impacts resulting from cooling water intake structures of power plants. ESP's previous \$1 million payment to the SMBRC fulfills the interim mitigation obligation for ESGs for the operating period of October 1 to December 31, 2015, and no additional mitigation measures are required.