

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF May 10-11, 2018

Prepared on April 13, 2018

ITEM NUMBER: 7

SUBJECT: Use Of Mitigation Funds Related to the State Water Board's Once-Through Cooling Policy, California Ocean Protection Council and Marine Protected Areas

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THIS ACTION: Board Discussion/Information only

SUMMARY

The State Water Board adopted its Once-Through Cooling Water Policy (OTC Policy) in 2010. The OTC Policy gives the State Water Board jurisdiction over the regulation of cooling water intake structures at power plants, including the three power plants on the Central Coast (Moss Landing, Morro Bay, and Diablo Canyon). The OTC Policy allows two tracks for compliance: 1) reduce cooling water flows by 93% (equivalent to a closed cycle cooling system); or 2) if track one is infeasible, reduce impacts comparably through other means. The OTC Policy also requires 'interim' mitigation, beginning in 2015, for the loss of marine organisms as operators come into compliance. The OTC Policy does not address issues related to the thermal discharge; regional boards maintain jurisdiction over this issue via their usual permitting processes.

PG&E, the owner of the Diablo Canyon Power Plant, is complying with the OTC Policy by closing the facility in 2024-25, and in the meantime paying annual 'interim' mitigation payments. PG&E's initial annual payment for operating year 2015 was \$3.8 million based on actual cooling water flows for that year. PG&E's annual payments will continue until Diablo Canyon Power Plant closes. The State Water Board OTC Policy states that the preferred use of these mitigation funds is to support California's network of Marine Protect Areas¹. Accordingly, this Central Coast Water Board item includes a presentation by Cyndi Dawson, Program Manager

¹ California Marine Protected Areas: <https://www.wildlife.ca.gov/Conservation/Marine/MPAs>

for the California Ocean Protection Council, regarding the use of PG&E's annual mitigation payments to support Marine Protected Areas on the Central Coast. Attachment 1 provides locations for Marine Protected Areas along the Central Coast.

Brief Background

The two main issues associated with once-through cooling water systems are 1) the entrainment and impingement of marine organisms as cooling water is drawn into the cooling system, and 2) the discharge of warm water and the resulting effect on local receiving water habitat and marine life. This staff report and presentation focuses on the first issue only—entrainment and impingement.

Historically, power plant cooling water intake systems have been regulated by the US EPA via the Clean Water Act. The use of once-through cooling water has been an extraordinarily contentious issue in the United States, with many regulatory agencies being involved in litigation with utility companies and third parties for several decades. The main reasons for the contentious litigation are the real-world limitations of cooling water intake technologies and the very high costs associated with modifying large-scale cooling water systems (up to billions of dollars).

Between the late 1990's and 2005, Central Coast Water Board staff presented and discussed options for addressing the once-through cooling water issues associated with the three power plants in the Central Coast Region. In 2004, the US EPA issued new regulations, which were highly contentious, and the US EPA subsequently announced suspension of the regulations in 2007. In 2005, the State Water Board began developing its own OTC Policy. Central Coast Water Board staff participated in this policy development process for several years and recommended mitigation methodologies. The State Water Board subsequently adopted their OTC Policy in 2010, which includes recommendations by Central Coast Water Board staff. Pursuant to the OTC Policy, the State Water Board (not regional water boards) has jurisdiction over regulating and resolving once-through cooling issues related to entrainment and impingement.

As noted above, with respect to the Diablo Canyon Power Plant, PG&E will comply with the OTC Policy by providing interim annual mitigation payments until they shut down the Power Plant in 2024-25.

With respect to the Morro Bay Power Plant, Dynegy shut down the facility in 2013.

With respect to the Moss Landing Power Plant, Dynegy intends to comply with the OTC Policy by 2020, via track two. Dynegy shut down two power units at Moss Landing in 2016, and now operates only the two most modern remaining units. Dynegy's compliance with the State Water Board OTC Policy includes a previous agreement with the Central Coast Water Board to resolve entrainment and impingement issues, which consisted of providing \$7 million to the Elkhorn Slough Foundation to implement the Elkhorn Slough Watershed Restoration Plan.

CONCLUSION

This informational item provides the status of regulatory efforts regarding entrainment and impingement issues for power plants on the Central Coast. The State Water Board has jurisdiction over these issues via its OTC Policy. Dynegy closed the Morro Bay Power Plant and negotiated an OTC Policy compliance settlement with the State Water Board for Moss Landing Power Plant. PG&E and the State Water Board have resolved compliance with the OTC Policy for the Diablo Canyon Power Plant, which is closing in 2024-25. In the meantime, PG&E's annual mitigation payments through the OTC Policy are being used to support Central Coast Marine Protected Areas.

This is an information item only; no board action is necessary. Cyndi Dawson, Program Manager for the California Ocean Protection Council, will provide a presentation on Marine Protected Areas.

ATTACHMENTS

Attachment 1 – California Central Coast Marine Protected Areas