Staff Recommendation
October 25, 2018

Item 4c

Once-Through Cooling Interim Mitigation Program Award Guidelines
Tova Handelman, Program Manager

RECOMMENDED ACTION: Adoption of Ocean Protection Council's Once-Through Cooling Interim Mitigation Program Award Guidelines.

LOCATION: Statewide

STRATEGIC PLAN OBJECTIVES: 8.1: Support effective implementation of MPAs consistent with the Marine Life Protection Act (MLPA) through strategic partnerships. 8.2: Coordinate MLPA implementation with other ocean management agencies to improve management effectiveness.

EXHIBITS

Exhibit A: Once-Through Cooling Interim Mitigation Program Award Guidelines
Exhibit B: Public Comment

FINDINGS AND RESOLUTION:
Staff recommends that the Ocean Protection Council (OPC) adopt the following resolution pursuant to Sections 35500 et seq. of the Public Resources Code:

"The California Ocean Protection Council hereby adopts the Once-Through Cooling Interim Mitigation Program Award Guidelines, attached to the accompanying staff recommendation as Exhibit A."

Staff further recommends that the Council adopt the following findings:

"Based on the staff report and attached exhibits, OPC hereby finds that:

1. The Award Guidelines are consistent with the purposes of Division 26.5 of the Public Resources Code, the California Ocean Protection Act.
2. The Award Guidelines are consistent with the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling."

PROJECT SUMMARY:

The Award Guidelines under consideration establish the parameters by which OPC will invest Once-Through Cooling (OTC) Interim Mitigation Funds to increase marine life associated with California's marine protected areas. These funds can be distributed through two funding mechanisms: 1) a competitive award program, and 2) discretionary awards, including but not limited to interagency contracts and other projects addressing timely or emerging problems. These Award Guidelines create the high-level process and criteria that OPC will use to solicit applications, evaluate and select proposals, and distribute awards using OTC Interim Mitigation Funds, consistent with the State Water Resources Control Board's "Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling"[1] (Policy) and with OPC's OTC Interim Mitigation Program's (Program) priorities. The Program prioritizes payment investment through four categories:

- Enforcement of MPA regulations statewide;
- Outreach and education to improve compliance of MPA regulations statewide;
- Research to establish and quantify the expected ecological benefits of the MPA Network and understand what additional mitigation may be required to offset OTC impacts;
- Restoration that increases marine life in the geographic region of the facility.

OPC will allocate the funds across these four categories as determined by an ongoing needs assessment and the MPA Statewide Leadership Team Work Plan.[2] All projects funded through the competitive award process will be subject to Council review and approval. A minimum of a 10-day public comment period will be made available prior to the Council meeting for public review of the recommended projects.

BACKGROUND:

Once-through cooling technology pulls water from the ocean to cool power plants. Marine animals, seaweeds, and billions of eggs and larvae of fish and invertebrates are taken in with the seawater and killed as they are subjected to thermal, physical, and/or chemical stresses. Larger organisms may also be pinned against seawater intake screens, causing injury or death. These impacts contribute to the decline of fisheries and the degradation of marine habitats near power plants using once-through cooling.

To address these damaging impacts, the State Water Resources Control Board established the Policy in 2010 requiring power plants to stop using once-through cooling technology. This Policy establishes technology-based standards to comply with the Environmental Protection Agency-issued regulations of the Clean Water Act's section 316(b)[3] and reduces the harmful effects associated with cooling water intake structures for power generating facilities on marine and estuarine life. The Policy requires that mitigation payments assessed against power plants for use of OTC technology support "mitigation projects directed toward increases in marine life associated with the state's marine protected areas in the geographic region of the facility." A "mitigation project" is defined in the Policy as a project "to restore marine life lost through

[1] https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/otcpolicy_2017.pdf
[2] http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20181025/Item4a_Exhibit%20A_MSLT-Work-Plan-Design-FINAL_10.15.18.pdf
[3] https://www.federalregister.gov/documents/2014/08/15/2014-12164/national-pollutant-discharge-elimination-system-final-regulations-to-establish-requirements-for

impingement mortality and entrainment." The Policy further provides that "restoration of marine life may include projects to restore and/or enhance coastal marine or estuarine habitat, and may also include protection of marine life in existing marine habitat, for example through the funding of implementation and/or management of Marine Protected Areas".[4] Ten OTC facilities are still in operation and are required to make payments to mitigate the environmental impacts of impingement and entrainment until they come into compliance with the Policy.

Under the Policy, OPC is directed to develop and implement the OTC Interim Mitigation Program. OPC will receive up to $5,400,000 annually of the OTC payments to mitigate the impacts of OTC on marine life and MPAs. Any remaining funds received through the payments is directed to the State Coastal Conservancy. Funds will decrease as power plants come into compliance with the Policy; the Program is expected to end in 2029 when all power plants are required to be in compliance.

SCIENCE-BASED GUIDELINES:
The Award Guidelines were thoughtfully designed based on the best science available to ensure that funds are allocated to projects that are consistent with the Policy's intent to increase marine life associated with marine protected areas.

OPC developed the following Program priorities on the basis of key policy and scientific documents[4,5,6,7,8], and through collaboration with the State Water Resources Control Board, the MPA Statewide Leadership Team, tribal partners, and non-governmental stakeholders:

- **Enforcement of MPA regulations statewide**
  Enforcement of relevant MPA regulations is specifically mentioned in the Marine Life Protection Act[9] as essential to ensure a successful MPA Network that has the best chance to achieve the ecological goals in the Marine Life Protection Act. Recurring poaching of marine life in MPAs decreases diversity, populations, and reproductive output, and can therefore affect an ecosystem's ability to recover from or mitigate negative impacts.[10]

- **Outreach and education to improve compliance of MPA regulations statewide**
  Outreach and education to the public is a critical component of establishing and maintaining compliance with MPA regulations. Improved public awareness of MPA regulations can serve as OTC impact mitigation because it increases protection of

[4] https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/otcpolicy_2017.pdf
[5] http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20150922/Item5_Attach2_MPALeadershipTeam_Workplan_FINALv2.pdf
[6] http://www.opc.ca.gov/webmaster/_media_library/2016/10/FINALScience_PolicyFramework_LinkingMPAstoOTCmitigation_8.30.16.pdf
[7] http://www.opc.ca.gov/webmaster/_media_library/2016/02/MPA_Managment-Program_Budget-_FINALv4.pdf
[8] http://www.opc.ca.gov/webmaster/OST-Ocean-Restoration-Methods-Final-HighRes.pdf
[9] http://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=FGC&division=3.&title=&part=&chapter=10.5.&article=
[10] IUCN World Commission on Protected Areas (IUCN-WCPA) (2008). Establishing Marine Protected Area Networks—Making It Happen. Washington, D.C.: IUCN-WCPA, National Oceanic and Atmospheric Administration and The Nature Conservancy. 118 p https://cmsdata.iucn.org/downloads/mpanetworksmakingithappen_en.pdf

marine life within MPAs, which in turn maximizes the expected ecological benefits from these areas.[11]

- **Research to establish and quantify the expected ecological benefits of the MPA Network and understand what additional mitigation may be required to offset OTC impacts**
  The Marine Life Protection Act Master Plan[12] identifies research and monitoring as a key focal area to ensure that cutting-edge science informs adaptive management of the MPA Network. Research to establish and quantify the expected ecological benefits of the MPA Network is critical to understanding what additional mitigation projects may be required to offset for OTC impacts. A Working Group[13] of the OPC Science Advisory Team (OPC-SAT), convened by the Ocean Science Trust, identified this type of research as being essential to achieve the goals of the Policy.[14] MPAs can offset some negative ecological impacts caused by OTC, and understanding the quantitative proportion of that offset requires the same type of monitoring required to evaluate the performance of the MPA Network. Research supported by Program funds will help evaluate and quantify the degree to which the existing MPA Network may be mitigating for OTC impacts and document ecological benefits provided by the increasing biomass and reproductive output.

- **Restoration that increases marine life in the geographic region of the facility**
  The OPC-SAT Working Group - scientists with expertise in mitigation, restoration, larval dynamics, oceanography, kelp forests, MPAs, and OTC impacts - identified an ecological framework that would allow the evaluation of restoration projects that would have a high likelihood of meeting the requirements of the Policy to increase marine life associated with California's MPA Network. The Working Group also applied the best science available to interpret the Policy's key terms: "increases in marine life", "associated with the state's marine protected areas", and "geographic region of the facility". The scientific definitions for these key terms, as described in detail in their report, "Ocean Restoration Methods: Scientific Guidance for Once-Through Cooling Mitigation Policy"[14], played a critical role in the development of these Award Guidelines. The Working Group determined that an increase in marine life does not only refer to numerical changes species, but is about "improving the ecosystem functions within the MPA Network as a whole, and is in alignment with the goals in the Marine Life Protection Act".[11] The Working Group identified five metrics that are quantifiable and measurable, and are important to perpetuating the structure and integrity of a healthy, functioning ecosystem through time and therefore lead to increases in marine life. The five metrics are: density, biodiversity, biomass, function, and population size.

[11] https://www.jstor.org/stable/j.ctt1657v5d.27
[12] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=133535&inline
[13] http://www.oceansciencetrust.org/projects/scientific-guidance-for-once-through-cooling-mitigation-funds/
[14] http://www.opc.ca.gov/webmaster/OST-Ocean-Restoration-Methods-Final-HighRes.pdf

PUBLIC ENGAGEMENT:

OPC prioritized transparency and public engagement in creating the Program's Award Guidelines. A draft of the Award Guidelines was released on August 13, 2018 for a 30-day public comment period. OPC collaborated with the Ocean Science Trust to hold two informational webinars during this period to promote the Program and provide opportunities for the public to ask questions. A recording of the webinar[15] was also posted on OPC's website. Significant effort was made to promote the Program and the public comment period widely among OPC's various partners and stakeholders through OPC's email listserv and social media, and outreach by the Department of Fish and Wildlife, the MPA Statewide Leadership Team Tribal Representatives and other tribal partners, the Ocean Science Trust, the California Marine Sanctuary Foundation, the MPA Collaborative Network, Resources Legacy Fund, and others.

We received over 10 comment letters representing over 20 organizations (see Exhibit B), and carefully considered all comments. A short summary of changes made based on comments received is as follows:

- *To add clarity or use more accurate language*
  - A section was added to summarize the findings of the OPC Science Advisory Team Working Group that scientifically defined key terms of the Policy, and includes a map of the "geographic region of the facility". Text was added to clarify that wetlands and estuaries are included in the geographic region.
  - Language was updated to specifically call out the importance of collaboration with MPA partners, including but not limited to: government agencies including California Tribes and Tribal Governments; conservation, science, or fishing organizations; local MPA Collaboratives; city councils; NGOs; and other partners.

- *To broaden the criteria for eligible projects*
  - We clarified that projects that address water quality issues and show direct long-term benefits to MPAs in the geographic region are eligible to receive Program funds.
  - We included planning activities that will lead to the successful design and implementation of projects in an award. Such activities may include project development, implementation strategy development, watershed assessments, and baseline data collection.
  - The draft guidelines required projects to be completed within three years due to spending timeline requirements articulated in the state budget. OPC staff are pursuing options to extend these spending timelines to allow additional flexibility to support projects with longer time horizons. Language was updated to direct applicants to the solicitation for more information about the appropriate project duration.

- *To increase benefit disadvantaged communities*
  - Though the Policy does not explicitly mandate OPC to spend a certain amount of OTC funds on projects that benefit disadvantaged communities, OPC strongly

[15] https://www.youtube.com/watch?v=0WOSbLbDRMQ&feature=youtu.be

encourages these types of projects in order to reach MPA stakeholders that may not always have access to MPA information or funding. The draft Award Guidelines included scoring criteria for projects that benefit disadvantaged communities, but the point value has been increased in the final document to elevate this priority to support underserved communities.

- *To address restoration concerns*
  - Some public comments expressed the position that outreach and education do not directly increase marine life associated with MPAs, and that restoration should be prioritized. We agree that restoration is an important component of OPC's funding priorities for OTC and have included it as one of the four priority funding areas. In addition, the State Coastal Conservancy will be using its OTC funds for restoration. We also recognize the important nexus between education, enforcement, monitoring, and the protection of marine life.
  - Other public comments suggested that the Program should prioritize restoration of OTC impacts closest in proximity and directly impacted by OTC activities. Bonus points were added to the scoring criteria to elevate projects that directly mitigate OTC impacts closest to the source of the intake pipe.

ELIGIBLE PROJECTS:

Proposed projects must be consistent with the State Water Resources Control Board's Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling. Proposals must demonstrate that the projected outcomes increase marine life associated with the State's marine protected areas, and fall within at least one of the four Program priorities categories (described above, and in Section 1.2 of the Guidelines – see Exhibit A). Projects should be focused within the geographic region of the facility, which has been defined as 100 km north and 100 km south of the power plant. The geographic region includes wetlands and estuaries. If the project has statewide application, the applicant must demonstrate that the projected outcomes are connected to the geographic region. Projects that address water quality issues must show direct long-term benefits to MPAs in the geographic region. Projects must be ready to start work upon approval. Specifics on the time to complete projects will be determined in the solicitation and during the proposal development process.

PROJECT TIMELINE:

These Award Guidelines are intended to remain through the duration of the Program until 2029 unless otherwise amended. Pending Council approval of these Guidelines, the schedule for the first round of competitive solicitations is as follows:

Once-Through Cooling Interim Mitigation Program Project Solicitation Schedule for 2018-2019	
Award Guidelines presented to the Ocean Protection Council for approval	**October 25, 2018**
Request for Proposals released (pending Council approval of Award Guidelines)	**November 1, 2018**
Letters of Intent due	**November 30, 2018**
Full proposal due	**February 1, 2019**
Proposals evaluated	**February – April 2019**
Select proposals recommended to Ocean Protection Council for approval	**May 15, 2019**
Approved projects finalize work plans and financial paperwork (work can begin once completed)	**Early Summer 2019**

PROGRAM FINANCING:

The funds for the Program will come from the ten power plants still using OTC technology until they come into compliance as mandated by the State Water Resources Control Board's Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling. OPC anticipates receiving $5,400,000 annually until 2024 when some power plants begin to come into compliance with the Policy. Funds will decrease as power plants come into compliance with the Policy, and the Program is expected to end in 2029 when all power plants are required to be in compliance.

CONSISTENCY WITH CALIFORNIA OCEAN PROTECTION ACT:

The proposed project is consistent with the California Ocean Protection Act, Division 26.5 of the Public Resources Code, because it is consistent with trust-fund allowable projects, defined in Public Resources Code Section 35650(b) as projects which:

- Improve management, conservation, and protection of coastal waters and ocean ecosystems
- Provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources

CONSISTENCY WITH THE OPC'S STRATEGIC PLAN:

This Program implements Focal Area C: Sustainable Fisheries and Marine Ecosystems. Specifically, projects funded by this Program will support effective management and implementation of MPAs consistent with the Marine Life Protection Act through partnerships between State agencies and their stakeholders.

COMPLIANCE WITH CEQA:

The Award Guidelines are not a 'legal project' that triggers the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section 21068 and Title 14 of the California Code of Regulations, section 15378. Future projects that may be funded by this Program will be required to comply with CEQA, the National Environmental Policy Act (NEPA), and other necessary environmental permitting requirements, or otherwise explain why permits are not applicable to the project.