bay restoration commission
STEWARDS OF SANTA MONICA BAY
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May 20, 2008

State Water Resources Control Board
C/O Jeanine Townsend, Clerk to the Board
1001 I Street, 24th Floor
Sacramento, CA 95814
Via FAX: (916) 341-5620
Via EMAIL: commentletters@waterboards.ca.gov

RE: Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling

Dear State Water Board Members:

The staff of the Santa Monica Bay Restoration Commission (SMBRC) thanks you for the opportunity to comment on the scoping document for the Development of a Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling. The SMBRC is an independent state agency charged with restoring the Santa Monica Bay, a National Estuary under the USEPA's National Estuary Program. Following our Bay Restoration Plan (updated in 2005), SMBRC works to build consensus on pressing environmental issues facing the Santa Monica Bay and its watersheds.

The use of once-through cooling is one such issue. Three of the twenty-one power plants in the State that use this technology pull their cooling water from the Santa Monica Bay. Together, they cycle an amount of water roughly equivalent to the entire volume of the Santa Monica Bay each and every year[1].

We support the Board's decision to develop a policy to comply with the clean water act and phase out once-through cooling technology. This is an issue that greatly impacts the ecosystem of the Santa Monica Bay and it should be addressed now. The area surrounding Santa Monica Bay is densely populated and still growing. This puts a lot of pressure on an already over-burdened system and already, certain activities are negatively impacting the viability of others, for example the loss of billions of fish larvae is an ongoing problem for the local fisheries. As new technology—such as desalination—develops, the potential for these types of conflicts increases.

Our biggest concern is that the policy does not clearly state how compliance will be measured and it offers power plants different standards for meeting the requirement. This

[1] California Energy Commission, *Issues and Environmental Impacts Associated with Once-Through Cooling at California's Power Plants*, California Energy Commission Staff Report Prepared in Support of the 2005 Integrated Energy Policy Report, June 2005, CEC Report No. 700-2005-013.

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is especially concerning to us, as two of the three power plants in our area would be allowed to follow the least protective of the alternatives and standards. Our detailed comments are below, organized by section.

Sec. 2(A). Compliance Alternatives

- The standard established by the policy should clearly state the percent reduction required for compliance. While the scoping document contains information on the reductions achieved by the optimally performing technology, this is not specified in the policy itself. This vagueness creates a loop-hole through which power plants could still operate with sub-standard performance.
- The impacts of once-through cooling do not differ from site to site. Therefore, the standard should be the same across the State. In contrast, the proposed policy would require power plants to reduce intake flow and velocity by 100% or 95%- (if the numbers from the scoping study are used), or the impingement mortality and entrainment of marine life by 85.5% (90% of 95%). In addition, the power plant decides which track it will follow, resulting in the lowest allowable standard being applied in most cases. We suggest the Board adopt one standard (i.e. 95%) and one metric (i.e. intake flow and velocity reduction).
- Basing the standard on reduction of intake flow rather than impingement mortality and entrainment will have the more certain results, but might eliminate the viability of some control methods. Using impingement mortality and entrainment is more specific to the problem, but will be very difficult and costly to monitor. This is a sensitive question which will have a significant impact on the ultimate success of this policy. We urge the Board to weigh both metrics carefully before choosing one and suggest the Board seek guidance and input from the Expert Review Panel.
- The policy should allow power plants to decide how they can feasibly meet the requirements of this policy while still complying with all other regulations (including air quality, water quality, and worker safety). Instead of a Track 1 and Track 2 alternatives, we recommend the Board adopt one standard, which power plants can meet using whatever methods (repowering, retrofitting, using treated wastewater, installing structural controls, using operational controls, or any combination thereof, but not restoration) are most feasibly for them. This flexibility should be balanced by requiring careful monitoring to ensure that the standard is being met, fees to cover the cost of monitoring, and fines for failures when they occur.
- The definition for feasibility should not include time as a factor.

Sec. 2(C). Interim Requirements

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- We support the Board's decision to include interim requirements. This acknowledges the pressing need to minimize the negative impacts of once-through-cooling.

Sec. 3(C).

- This section might be interpreted to give the responsibility of monitoring to the power plants. We urge the Board to clarify that monitoring be done by entities that are independent of the power plants. In addition, we suggest the Board collect a fee from power plants that opt to continue operating their intakes. This fee would cover the cost of monitoring and could be priced to provide additional incentives for employing those methods that wouldn't require monitoring.

Sec. 4. Track 2 Monitoring Provisions

- Baseline impingement and entrainment data are important, but the time allotted to the study needs to be considered carefully. Too much time, and implementation of the policy would be delayed; too little time and the baseline characterization may be inaccurate or misleading. For example, if the study lasts only one year and that year is a particularly good one for marine life and impingement and entrainment numbers will be unusually high, then this policy will be less effective at minimizing adverse environmental impact. We are encouraged to see that the Board has asked the Expert Review Panel to evaluate the monitoring requirements of the policy. We suggest the Board seek advice from the Expert Review Panel on this question.

- Impingement and entrainment studies should be conducted periodically to confirm compliance with the policy, but the policy is unclear on this point. Minimum times between studies should be specified in the policy. The policy should also be clear about what is meant by "new impingement studies" and "new entrainment studies," i.e. does this mean a redesigned study or simply to conduct one?

- The entrainment baseline should be based on ichthyoplankton and zooplankton, not zooplankton redefined to mean meroplankton as it is written now. Consider including a measurement of phytoplankton in the entrainment baseline too.

As the State continues to grow, more and more pressure will be placed on our coastal waters, making it necessary to find new ways of meeting old needs that minimize negative impacts on the environment. Establishing a policy to phase out once-through cooling does this and we commend the Board for taking this step. Once again, thank

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you for the opportunity to comment on the scoping document. We hope the Board will take our comments into consideration and we look forward to reading the draft policy when it becomes available.

Sincerely,

Lia Protopapadakis
Marine Science Policy Analyst