

**Comment on Implementation of Federal Clean Water Act Section 316(b)
Regulations By
Communities for a Better Environment
and Bayview Hunters Point Community Advocates**

I. Introduction

The Environmental Law and Justice Clinic at Golden Gate University School of Law submits the following comment on behalf of Communities for a Better Environment (“CBE”), a statewide nonprofit organization that promotes environmental health and justice by providing organizing skills, education and leadership development for adults and youth; and legal, scientific and technical assistance to low-income communities of color facing pollution threats to their health; and Bayview Hunters Point Community Advocates (“Advocates”), a nonprofit organization in the predominantly low income community of color of Southeast San Francisco whose mission is to promote environmental justice and economic alternatives that contribute to environmentally safe neighborhoods and livelihoods in its community. Both organizations have members living near aging existing fossil fuel power plants.

The State Water Resources Control Board (“State Water Board”) requested public comment on the development of a statewide policy to implement federal Clean Water Act (“CWA”) §316(b) regulations on cooling water intake structures. CBE and Advocates appreciate this comment opportunity.

CBE and Advocates consider the power plant-specific and cumulative impacts of antiquated once-through cooling technology on our coast and bays to be alarming. Equally alarming is the fact that the California Energy Commission (“CEC”), an agency primarily charged with developing power resources, has found it necessary to blow the

whistle on this ongoing destruction of natural resources¹ because the state and regional boards have not adequately protected these sensitive habitats.

CEC staff report that only seven of California's 21 coastal power plants with once-through cooling have been studied for entrainment impacts adequately, all seven cause adverse entrainment impacts, additional thermal impacts are likely near plants discharging at the shoreline and in bays and estuaries, and impingement and entrainment impacts are equivalent to the *loss of thousands of acres of critical aquatic habitat*.

These plants—and likely most or all those still inadequately studied—have been causing these impacts for many years. This is unnecessary because proven dry cooling alternatives have been readily available and affordable to the energy companies for years. These facts, together with the declining condition of California's oceanic and estuarine resources resulting from these and other impacts, lead to a clear policy conclusion that allowing continued once-through cooling is unacceptable, and has been for a long time.

In the face of years of evidence of the impacts of once-through cooling and its destruction of habitat, the regional boards have not been doing their jobs. State laws more stringent than 316(b) authorize the regional boards to curtail discharges destroying habitat and aquatic life, but now, in the face of 316(b), the boards seem intent on misusing this provision to delay implementation of more stringent state laws, perpetuating once-through cooling, delaying permit issuance to conduct further studies and ducking minimum responsibility to require the best technology available as required by 316(b) to curtail these damaging discharges.

We recommend that the State Water Board:

¹ CEC, 2005. Issues and Environmental Impacts Associated with Once-through Cooling at California's Coastal Power Plants. Staff Report in Support of the 2005 Environmental Performance Report and 2005

- concur with the CEC staff that once-through cooling should be prohibited unless alternatives are both environmentally adverse and economically infeasible;
- direct Regional Boards to use their full enforcement authority under state law and local Basin Plans to remove these discharges from State Waters;
- advise regional boards that implementation and enforcement of other requirements, including especially any more protective state requirements, are not preempted and should not be undermined or delayed during implementation of CWA §316(b);
- advise regional boards that at a minimum under §316(b), best professional judgment must be used in CWA §316(b) permit decisions that come due before studies required by CWA §316(b) are completed;
- clarify that the State Water Board’s Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (“Thermal Plan”) does not prohibit more environmentally protective regional board limitations on discharges to shallow waters;
- reject consideration of habitat restoration for CWA §316(b) compliance in lieu of more protective state and regional policies that require alternative cooling systems in place of once-through cooling;
- reject any idea of initial statewide review of cooling permits since this would violate Cal-EPA’s Environmental Justice policy seeking the fullest possible community involvement in these decisions and would be impractical given the site-specific nature of cooling retrofit feasibility analysis;
- hold an evening workshop in the San Francisco Bay Area near the Potrero power plant so that members of the public in that community, who are affected by once-through cooling impacts and could not attend the Laguna Beach workshop, can participate in this policy matter.

II. Background: The Phase II regulations do not grant authority to the State to delay permit reissuance while studies are developed nor do they preempt state laws.

CWA §316(b) requires that “the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.” EPA has promulgated its “Phase II” rules for existing

facilities under CWA §316(b) at 40 CFR Part 125, Subpart J, Sections 125.90 through 125.99.

The Phase II rules require existing facilities to submit studies as part of their reissued NPDES permit application to demonstrate that they are using the best technology available that meets various performance standards in the rules. 40 CFR §125.95. There is an exception in 40 CFR §125.95(a)(2)(ii) for permits that expire before July 9, 2008 regarding when the studies must be submitted: a permittee may request that the State establish a schedule for submitting studies no later than January 1, 2008 that demonstrate how the facility meets the requirements in the new Phase II rules. The rules further state that after an existing permit expires but before it is reissued containing “requirements consistent with [Subpart J],...the best technology available to minimize adverse environmental impact will” continued to be determined based on the State’s “best professional judgment.” 40 CFR §125.95(a)(2)(ii). This provision does not grant authority to the State to delay reissuance of the permit until the studies have been submitted so that the permit is consistent with the new technology requirements of Subpart J. Rather, it requires that during the period of time before studies are submitted, the State reissue the permit requiring the best technology available for minimizing adverse environmental impacts based on the State’s best professional judgment.

Further, the CWA provides a floor for environmental protection, not a ceiling. Specifically, Section 510 of the CWA states that the CWA does not prohibit States from adopting or enforcing “any standard or limitation respecting discharges of pollutants, or...any requirement respecting control or abatement of pollution...” as long as the State standard, limitation, or requirement is *not less stringent* than federal requirements. The

Phase II regulations mirror this by providing that “nothing in [Subpart J] shall be construed to preclude or deny the right of any State...to adopt or enforce any requirement with respect to control or abatement of pollution that is not less stringent than those required by Federal law.” 40 CFR § 125.90(d). Additionally, the Phase II regulations specifically allow a State to “establish more stringent requirements as best technology available for minimizing adverse environmental impact if” the state determines that “compliance with the applicable requirements of [40 CFR §125.94] would not meet the requirements of applicable State and Tribal law.” This means that the State has authority to require better technology rather than merely restoration to address violations of State law.

The Phase II regulations do allow facilities to choose from several compliance alternatives for establishing best technology available for minimizing adverse environmental impacts. 40 CFR §125.94. One alternative allows a facility to impinge and entrain an unlimited number of aquatic organisms as long as the facility takes other restoration measures to restore the ecology of the surrounding waters. 40 CFR §125.94(c). However, these regulations are suspect. In *Riverkeeper, Inc. v. EPA*, 358 F.3d 174 (2d Cir. 2004), the Second Circuit found that EPA exceeded its statutory authority by allowing compliance with CWA §316(b) through restoration measures, and remanded that aspect of the Phase I rules for existing cooling water facilities. For the same reasons that the Second Circuit remanded the Phase I rules, a court is likely to remand the Phase II rules: restoration measures have nothing to do with the “location, design, construction, and capacity of cooling water intake structures.” CWA §316(b). As discussed below, because California has more stringent requirements that must be

enforced, the State should not allow restoration to meet federal standards when state law prohibits damage.

III. The State Board Should Require Regional Boards to Apply More Stringent State Rules.

There are at least five examples of more stringent state requirements that the State should enforce. Basin Plan provisions may place more stringent requirements upon power plant discharges. For example, the San Francisco Regional Board's Basin Plan, includes a prohibition on shallow water discharges. The Basin Plan, under Table 4-1 entitled Discharge Prohibitions, Section One prohibits the discharge of "[a]ny wastewater which has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1, or into any nontidal water, dead-end slough, similar confined waters, or any immediate tributaries thereof."

Other examples of more stringent state requirements that the State should enforce are included in the State Board's Thermal Plan. First, Specific Water Quality Objective 4A on page 4 requires that for enclosed bays, existing elevated temperature waste discharges "shall comply with limitations necessary to assure protection of beneficial uses." Second, the State should enforce General Water Quality Provision 1 on page 6 of the Thermal Plan which states that "additional limitations shall be imposed in individual cases if necessary for the protection of specific beneficial uses."

The Regional Boards also have the authority and should issue a cease and desist order under Section 13301 of the California Water Code where power plants are violating their permits. Under Section 13301 of the California Water Code, when a regional board finds that a discharge of waste is taking place in violation of requirements or discharge

prohibitions prescribed by a regional board or the State Water Board, a regional board may issue an order to cease and desist and direct those persons not complying with the requirements or discharge prohibitions to comply forthwith or in accordance with a time schedule set by the board.

Examples of permit provisions that could trigger enforcement are found in the permit issued as long ago as 1994 for the Potrero power plant, discussed more fully below. The existing permit prohibits:

--the discharge from causing “deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, of water fowl...” Permit Provision C.1.d. at page 6.

--the discharge from causing “a violation of any applicable water quality standard for receiving waters adopted by the Board or State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder.” Permit Provision 3 at page 6. The San Francisco Bay Basin Plan Water Quality Objective for Surface Waters Regarding Population and Community Ecology requires that “the health and life history characteristics of aquatic organisms in waters affected by controllable water quality factors shall not differ significantly from those for the same waters in areas unaffected by controllable water quality factors.”

Under Section 13304(a) of the California Water Code, a regional board may also order a person who (1) “discharges wastes”...“in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board” or (2) causes or permits waste to be discharged creating “a condition of pollution...”, to “clean up the waste or abate the effects of the waste...”

California Water Code Section 13050(l) defines “Pollution” as an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) the water for beneficial uses; or (B) facilities which serve these

beneficial uses. “Pollution” may include “contamination.” The destruction of habitat from a heated and polluted discharge is the kind of harm intended to be avoided by Section 13304(a).

State law finally provides broad authority for the State Water Board to protect sensitive waters, including Ocean areas, from the impacts of once through cooling. California Water Code Section 13142.5(a) states that it is the policy of the state that:

Wastewater discharges shall be treated to protect present and future beneficial uses, and, where feasible, to restore past beneficial uses of the receiving waters. Highest priority shall be given to improving or eliminating discharges that adversely affect any of the following:

- (1) Wetlands, estuaries, and other biologically sensitive sites.
- (2) Areas important for water contact sports.
- (3) Areas that produce shellfish for human consumption.
- (4) Ocean areas subject to massive waste discharge.

California Water Code Section 13412.5(b) also states:

[E]ach new or expanded coastal powerplant or other industrial installation using seawater for cooling, heating, or industrial processing, the best available site, design, technology, and mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life.

These sections provide an independent basis for the State Board, under the term “feasible”, to do its own cost-effectiveness analysis and not depend upon EPA’s initial analysis under 316(b), so long as the state’s analysis results in protections equal to or more protective than the federal requirements. They command that the State Board act upon the information now available about the impacts of once through cooling to eliminate them where possible, and until then, mitigate them to the extent feasible.

IV. The Potrero Example

The Potrero Power Plant in San Francisco provides a glaring example of how state implementation is contrary to the proper implementation of 316(b) and state laws.² This 210-megawatt plant's old once-through cooling design draws an amount of water equal to one-sixth of the water in the entire southern reach of San Francisco Bay through its hot processes annually.³ It kills an estimated 297,000,000 larval fish annually.⁴ The San Francisco Bay Area Regional Water Quality Control Board ("Regional Board") staff has agreed that it causes significant entrainment impacts. See study of Prof. Peter Raimondi, UC Santa Cruz, on behalf of Regional Board presented at staff workshop on August 8, 2005 (demonstrating approximately 400-900 acres of habitat has been impaired by the discharge). The plant owner itself presented evidence to the CEC documenting significant thermal impacts caused by its 226 million gallon-per-day cooling water discharge at the shoreline in shallow water.⁵ The ongoing review of its NPDES permit has also uncovered evidence of chronic toxicity in its discharge.⁶ The Regional Board staff found that several persistent toxic chemicals in its discharge have a reasonable

² The following facts are taken from the comments of CBE submitted to the San Francisco Regional Water Quality Control Board on the RWQB's proposed reissuance of the Potrero NPDES permit dated January 10, 2005; and the supplemental comments of CBE and Bayview Hunters Point Advocates on this matter submitted by the Golden Gate ELJC on January 28, 2005, and the authorities therein cited, unless otherwise noted.

³ See e.g., SFBRWQCB Order 94-056 for flow; and Monroe et al., 1992. San Francisco Estuary Project State of the Estuary: A report on conditions and problems in San Francisco Bay/Sacramento-San Joaquin Delta Estuary, prepared under EPA/ABAG Cooperative Agreement #CE-009486-02, for Bay water volume south of the Oakland-San Francisco Bay Bridge.

⁴ See e.g., Mirant Potrero LLC, 2005. 316(b) Entrainment Characterization Report for Potrero Power Plant Unit 3. March 2005. Prepared by TENERA Environmental.

⁵ See e.g., Mirant's Construction and Thermal Impacts and First Quarter Larval Fish Assessment report submitted to the California Energy Commission in the Potrero Unit 7 proceedings in 2001 at pp. 5-8, 5-9.

⁶ See e.g., the SFRWQCB's November 15, 2004 Tentative Order for the Proposed Re-issuance of NPDES Permit CA0005657 for the Potrero Power Plant, San Francisco, CA at Finding 62.

potential to cause or contribute to violations of water quality standards.⁷ This discharge receives virtually no dilution in shallow water at the shoreline.

It is also important to note that the National Marine Fisheries Service recommended in 2003 that the existing Potrero Power Plant's once-through cooling system should be replaced with a cooling tower.⁸ Further, in 2003 the plant owner proposed building a cooling tower of the same size needed to replace the existing system on the same site.⁹ Although the company's proposal was for a different purpose, this nevertheless removes any doubt that a cooling tower could fit into the plant's site design. A cooling tower would eliminate all the impacts summarized above.

Yet despite this clear evidence of significant impacts and a readily available solution—and despite our recommendations and those of the city and county where the plant is sited—the Regional Board has delayed action six years beyond the deadline for review of the Potrero discharge permit (the current permit expired in 1999). Recently, the Regional Board staff proposed a further three-year delay, proposing only to write a letter to the power plant company under Water Code §13267 requesting studies already required under CWA §316(b).

EPA felt it necessary to remind the Regional Board of its obligations under CWA §316(b) to proceed with the permit. In a letter dated 9/23/04 from Douglas E. Eberhardt, Manager, CWA Standards and Permits Office, EPA Region IX, to Alan Ramo and Greg Karras (and copied to Lila Tang of the Regional Board) regarding the Potrero NPDES

⁷ See e.g., the SFBRWQCB's November 15, 2004 Tentative Order for Potrero at Finding 47.

⁸ See e.g., NMFS, 2003. Essential Fish Habitat Consultation with Conservation Recommendations (Magnuson-Stevens Fishery Conservation and Management Act Consultation). Project: Potrero Power Plant Unit 7 Project. File Number 151422-SWR-01-SR-447 at 16.

⁹ See e.g., Mirant Corp., 2003. Cooling System Amendment, Potrero Unit 7 Project. Submitted by Mirant to the California Energy Commission. July 2003.

Permit review, EPA stated that, “EPA expects the Regional Board to review and consider existing information and develop requirements based on best professional judgment.”

Remarkably, the Regional Board staff also has proposed to continue to not enforce its own Discharge Prohibition in shallow water regarding the Potrero Power Plant’s NPDES permit because the Regional Board claims that the Basin Plan is superceded by the State Water Board’s Thermal Plan. This is incorrect because the Thermal Plan applies only to routine discharges, while the Discharge Prohibitions address the prevention of catastrophic impacts from accidents related to the discharges.

Rather than using the Thermal Plan as a shield to continue damaging discharges, it should be used as a sword to protect the Bay. The thermal discharge from the Potrero Power Plant heats the water surface by more than four degrees above ambient temperature over a large area along the shoreline and at the surface of the Bay, causes significant adverse impacts on estuarine habitat and fish spawning, and threatens commercial fishing. Because beneficial uses are not being protected, more stringent limitations must be imposed on the discharge, such as requiring dispersion of the thermal discharge through the vertical water column, rather than at the surface or in shallow water.

The State Board should clarify for the Regional Boards that the Thermal Plan does not preempt more stringent protections for state waters. It should specifically direct that its provisions protecting beneficial uses should be enforced.

V. Conclusion

Based upon Federal and State laws, and the experience of the Potrero case, CBE and Advocates request the State Board to adopt the above-described recommendations.

These recommendations will assure that state law will be enforced, consistent with CWA §316(b)'s minimum requirements, and that permitting will proceed as originally intended by EPA in drafting the CWA §316(b) Phase II regulations. With these authorities, the State Board should direct the Regional Boards to eliminate once-through cooling as soon as possible and in the meantime, reduce its impacts by requiring available alternatives including the best technology available.