



San Luis Obispo COASTKEEPER®



April 13, 2010

Charlie Hoppin, Chair and Board Members
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814
Via electronic mail: commentletters@waterboards.ca.gov

Re: Comments on Draft Final Substitute Environmental Document and Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (March 22, 2010)

Dear Chair Hoppin and Board Members:

The undersigned groups respectfully submit the following comments on the State Water Resources Control Board (“State Board”) Draft Substitute Environmental Document for the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (“SED”) and the draft Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (“Policy”). We include and incorporate by reference our previous five comment letters on this topic, dated December 8, 2009, September 30, 2009, May 20, 2008, September 15, 2006, and February 23, 2006, attached separately.

In brief, while we raised a number of points both of support and concern with the draft Policy last fall, the current draft is such a marked step backwards from previous versions that it not only fails to meet the letter and intent of the Clean Water Act, it also fails to meet CEQA requirements, and so requires additional environmental analysis and comment response before the Board may move forward. It is extremely disappointing after almost five years of hard work by all parties involved to see such significant changes, many of which ignore progress and agreements made to date. This deals a blow both to the protection of our ocean, coast, bays and estuaries and also to the future of stakeholder collaboration and active participation in Board processes. For these reasons, and the reasons expressed below, we oppose the Policy in its new form.

As the Water Board and multiple federal and state agencies have recognized, once-through cooling (“OTC”) causes significant, ongoing devastation to our valuable marine, coastal and Delta ecosystems and their inhabitants. Coastal power plants are permitted to withdraw more than 16 billion gallons of water for cooling *daily*, or over 17.9 million acre-feet per year. To put this into context, the State Water Project delivers “from 1.4 million acre-feet in dry years to almost 4.0 million acre-feet in wet years.”¹ That is, the amount of cooling water power plants may run through their facilities each year – killing virtually everything drawn in – is 4½ to almost 13 times the amount of water running through the entire State Water Project, which serves 23 million Californians and irrigates 755,000 acres of farmland.² The Water Board notes further in the SED OTC kills an estimated 79 billion fish and other marine life annually, and that just the 12 Southern California plants kill up to 30% of the number of fish recreationally caught in the Southern California Bight each year. These are fish that California is at the same time struggling to save

¹ DWR, “California State Water Project Water Contractors,” http://www.water.ca.gov/swp/contractor_intro.cfm.

² DWR, “California State Water Project Overview,” <http://www.water.ca.gov/swp/>.

through the Marine Life Protection Act, Marine Life Management Act³, and other initiatives. The proposed Policy moreover would contravene California’s own Water Code mandates to minimize the intake and mortality of marine life from the withdrawal of seawater for new and/or expanded industrial facilities.⁴ In sum, the unnecessary destruction of marine life through the use of “once-through cooling” is significantly undermining state policy to restore both the commercial value and intrinsic wealth of a healthy ocean, coast and Delta – and the true loss is inherently impossible to quantify.

Clean Water Act Section 316(b) was written almost 40 years ago to compel the development and use of technology to replace and minimize the adverse impacts of OTC, the cooling system employed at the time the law was enacted and the focus for change. After decades of inaction by the U.S. Environmental Protection Agency (U.S. EPA) to implement this mandate effectively, the Water Board OTC Policy was supposed to put California on track to phase out OTC impacts using the Clean Water Act’s “Best Technology Available” (BTA) standard. Unfortunately, because the Policy fails to ensure implementation of Clean Water Act protections, the Policy would (if adopted as is) potentially fail to meet federal regulations that are finally projected to be released in draft form later this year.

In brief, our main concerns with the latest Policy include the following:

- The Policy treats the Clean Water Act’s required “Best Technology Available” (BTA) standard as optional by eliminating the feasibility test required of an owner/operator before moving to Track 2, and then allowing for paths in Track 2 that fall short of the mandate to implement “best” technology.
- The Water Board weakens Track 2 so significantly, including by allowing use of “design” flow to determine compliance with entrainment mandates, that it is now not even “comparable to” BTA.
- The Policy allows certain facilities and units, including combined-cycle generators, to opt-out of compliance with BTA requirements by using “after the fact” mitigation and restoration, options that the courts have deemed illegal under *Riverkeeper II*.⁵

³ Fish and Game Code §§ 7050 *et seq.* The MLMA directs the Department of Fish & Game to manage fisheries for sustainable harvests based on the principles of “ecosystem-based management.” That is, the harvest of fish must consider the impacts of the loss of species on marine ecological systems. Complementing the overarching goal of a “sustainable ecological system” in the MLMA, the Marine Life Protection Act (MLPA) directs the State to set aside areas protected from the take of species to provide the citizens of the State the “intrinsic value” of healthy marine ecological systems. Fish and Game Code §§ 2850 *et seq.*

⁴ Calif. Water Code Section 13142.5(b).

⁵ *Riverkeeper, Inc. v. U.S. EPA*, 475 F.3d 83, 110 (2d Cir. 2007) (“*Riverkeeper II*”). “Restoration measures are not part of the location, design, construction, or capacity of cooling water intake structures, . . . and a rule permitting compliance with the statute through restoration measures allows facilities to avoid adopting any cooling water intake structure technology at all, in contravention of the Act’s clear language as well as its technology-forcing principle. As we noted in *Riverkeeper I*, restoration measures substitute after-the-fact compensation for adverse environmental impacts that have already occurred for the minimization of those impacts in the first instance. . . . The Agency’s attempt to define the word “minimize” to include “compensati[on] . . . after the fact,” . . . is simply inconsistent with that word’s dictionary definition: “to reduce to the smallest possible extent,” Webster’s Third New Int’l Dictionary 1438 (1986). . . . Accordingly, the

- The Policy undermines the Water Board’s authority to enforce compliance deadlines by illegally delegating virtually all deadline implementation power to outside entities, including a nonprofit corporation with no Clean Water Act expertise and far more limited public accountability than the Water Board. Prior versions of the Policy had the Water Board and energy agencies working together; that process has been eviscerated in the latest draft.
- The Policy provides for interim mitigation measures that may illegally allow mitigation and restoration in lieu of BTA, given lengthy compliance schedules and indeterminate deadlines for compliance with BTA.
- The Policy fails to place the burden on the regulated entities to support changes to deadlines, and instead illegally places that burden on the Board itself.
- The Policy allows unspecified and essentially unlimited loopholes for the nuclear facilities, contrary to prior U.S. EPA direction and to recent implementation of Section 316(b) by the State of New York at the Indian Point plant.⁶
- The Policy significantly dilutes monitoring requirements that are essential to show progress towards BTA and ecosystem health.
- The Policy fails to implement clear Clean Water Act compliance schedule requirements, contrary to a recent U.S. EPA audit of state compliance schedules and contrary to California’s own Compliance Schedule Policy.
- The Policy violates numerous CEQA requirements that the Board has acknowledged it must meet.
- The Policy fails to comply with Porter-Cologne OTC mandates.
- The Policy ignores the Water Board’s public trust responsibilities.
- The Policy retards the state’s progress toward its laudable goals of reducing greenhouse gas emissions, increasing generation efficiency, and increasing use of renewable energy.

We describe each of these concerns further below, and urge the Water Board to redirect the Policy back to a path of Clean Water Act compliance, sustainable management of our energy systems, and protection of our fragile marine, coastal bay and estuarine ecosystems.

EPA impermissibly construed the statute by allowing compliance with section 316(b) via restoration measures.”

⁶ New York Department of Environmental Conservation, “Notice of Denial of Joint Application for CWA § 401 Water Quality Certification NRC License Renewal – Entergy Nuclear Indian Point Units 2 and 3,” DEC Nos.: 3-5522-00011/00030 (IP2) and 3-5522-00105/00031 (IP3) (April 2, 2010), available at http://www.dec.ny.gov/docs/permits_ej_operations_pdf/ipdenial4210.pdf (last accessed April 10, 2010) and incorporated herein by reference.

I. RECENT, SIGNIFICANT CHANGES TO THE POLICY UNDERMINE THE PUBLIC PROCESS

A. Significant Changes from the Prior Draft Policy Require Further Analysis and Responses to Comments to Ensure Compliance with CEQA

The State Water Board is the lead agency for this project under the California Environmental Quality Act (CEQA), and is responsible for preparing environmental documentation for the proposed Policy.⁷ The SED describes the Water Board’s CEQA responsibilities as including the following:

the Water Board must comply with CEQA’s overall objectives, which are to: 1) inform the decision makers and public about the potential significant environmental effects of a proposed project; 2) identify ways that environmental damage may be mitigated; 3) prevent significant, avoidable damage to the environment by requiring changes in projects, through the use of alternative or mitigation measures when feasible; and 4) disclose to the public why an agency approved a project if significant effects are involved.⁸

The SED further notes that responses to public comments⁹ and consequent revisions to the information in the Draft SED must be included in a Draft Final SED for consideration by the State Water Board. It also notes that CEQA imposes specific obligations on the Water Boards when they adopt rules or regulations establishing performance standards or treatment requirements. Public Resources Code §21159 requires that the Water Boards concurrently perform an environmental analysis of the reasonably foreseeable methods of compliance.

One of the overarching goals of CEQA is to ensure that the public is not deprived of the opportunity to provide input on the new Policy.¹⁰ The public must have a “meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponents have declined to implement.”¹¹ The major new changes to core elements of the Policy since the last draft are in most cases unsupported by adequate analysis – and in some key cases are not even mentioned at all¹² – in the SED. Without an adequate presentation and analysis of the changes, the potential significant environmental effects of these changes to the Policy, the ways in

⁷ SED p. 10.

⁸ SED pp 10-11. *See also* Title 23, Cal. Code of Reg., Div. 3, Ch. 27, § 3777, “Documentation Required for Adoption or Approval of Standards, Rules, Regulations, or Plans.”

⁹ Title 23, Cal. Code of Reg., Div. 3, Ch. 27, § 3779.

¹⁰ *See, e.g.*, Public Resources Code Sec. 21003(b): “Documents prepared pursuant to this division [must] be organized and written in a manner that will be meaningful and useful to decisionmakers and to the public.” Substantial changes in the Policy itself unsupported by references in the SED have precluded the public from a meaningful opportunity to provide useful comments on key areas of the Policy that will significantly impact compliance with Section 316(b).

¹¹ CEQA Guidelines Sec. 15088.5, http://www.ucop.edu/facil/pd/CEQA-Handbook/chapter_02/pdf/2.3.11.pdf; *see also* Public Resources Code Sec. 21092.1.

¹² As just one example, the SED is silent on the significant delegation of authority to CAISO to call for compliance deadline suspensions (with a high burden on the Water Board to reject such suspension proposals), despite the clearly significant impacts of this change on the implementation of the Policy.

which the Board considered mitigation for such changes as needed, and the methods by which significant avoidable damage to the environment could be prevented by requiring changes in the Policy, the public has been deprived of the meaningful opportunity to comment, and the SED is inadequate under CEQA.

Applicable state regulations also require the Water Board to prepare written responses to comments “containing significant environmental points raised during the evaluation process, if such comments are received at least fifteen days before the date the board intends to take action on the proposed activity.” Copies of such written responses “shall be available at the board meeting for any person to review.”¹³ Moreover, pursuant to federal regulations applicable to Section 316(b) compliance, the State Board must include in the administrative record responses to “all significant comments raised” on the final draft Policy, which will guide all NPDES permit implementation of adopted OTC requirements.¹⁴ Given the numerous core elements of the Policy that have been significantly changed since the last draft, the Water Board cannot move forward without responding in writing to the public’s comments on these major new amendments and Policy directions. The comments contained herein raise “significant environmental points” that were previously unraised due to the significant departure of the current Policy from past directions on critical issues, such as when (or whether) deadlines will be implemented and enforced. In light of these requirements, and considering the significant changes on core environmental issues contained in the March 22, 2010 Policy, the Board must provide written responses to comments received on this latest Policy and consider them in its final decision.

Without staff’s provision of sufficient information and analysis related to the changes in the Policy, not only will the public and other agencies be shortchanged on their ability to provide meaningful comments, but the Water Board itself also will not be able to fully consider and mitigate (or prevent) the range of potentially significant impacts associated with the new Policy. State law requires that

[t]he board shall not approve a proposed activity if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the proposed activity may have on the environment.¹⁵

The SED fails to contain the analysis needed to allow the Board to approve the Policy as written consistent with CEQA and 23 CCR § 3780. The Board simply has not identified fully the significant adverse impacts of the Policy, let alone developed the required feasible alternatives or mitigation measures that should be adopted in place of the proposed changes.

In sum, the numerous, significant changes to the latest draft of the Policy have triggered CEQA requirements that the Water Board has yet to meet. Significant further analysis consistent with CEQA and its implementing regulations, as well as written responses to comments including the comments herein, need to be provided to ensure full compliance with CEQA’s important mandates.

¹³ Title 23, Cal. Code of Reg., Div. 3, Ch. 27, § 3779(a).

¹⁴ 40 CFR 124.17(a)(2); *see also Reytblatt v. Nuclear Regulatory Commission* (105 F.3d 715 (1997)) (failure of an administrative agency implementing federal laws to cogently explain why the agency acts in a certain way renders a decision arbitrary and capricious).

¹⁵ Title 23, Cal. Code of Reg., Div. 3, Ch. 27, § 3780.

B. Major New Changes to the Draft Policy Undermine Future Efforts at Collaboration on Policies and Permits

Multiple federal and state agencies, including U.S. EPA, CEC, OPC, and State Lands Commission (“SLC”), have studied, analyzed, recognized, commented on, and passed resolutions related to the significant impacts of OTC over the past five years.¹⁶ The Legislature has also expressed significant interest in this issue, with a letter from the Senate pro Tem and other Senate leaders last June calling for a strong Policy,¹⁷ and a letter on the current draft similarly calling for a protective Policy from nine Senators and Assembly Members.¹⁸ NGOs have provided five sets of joint, formal written comments to the Water Board alone, along with significant oral testimony and numerous individual comment letters. NGOs moreover have worked extensively in other venues with the OPC, SLC, SLC, CAISO, the Legislature and other lawmakers and decisionmakers to ensure a sound, workable Policy.

NGOs have also alerted the interested public to the Policy’s developments, with significant responses directed to the Water Board in favor of a strong Policy that phases out OTC expeditiously. We have attached separately to these comments a compilation of all responses as of April 13, 2010 to identical action alerts on the OTC Policy released by California Coastkeeper Alliance and Surfrider Foundation; these total 2,743 responses to date and the number is growing. Additional alerts just released by Sierra Club and Pacific Environment have resulted in another 6,185 letters sent directly to the Water Board, for a total of 8,928 letters in support of a protective OTC Policy. We fully expect that many more Californians will directly register their support to the Water Board for a strong Policy by the scheduled May 4th hearing.

We commented last September that “[the draft Policy] is a step in the right direction,” and requested specific clarifications to ensure that the final Policy would fully protect the beneficial uses of the state’s coastal and estuarine waters, and that it would be consistently applied throughout the state. The CEC, PUC and CAISO took a similar position in written comments in September, stating collectively that the draft Policy “incorporates a workable schedule and process to implement the WRCB’s objectives while considering the need to maintain reliable operation of the electric grid.”¹⁹ In light of such comments, and in light of unbiased, state-commissioned studies showing that the vast majority of power plants using OTC (including the two nuclear facilities)

¹⁶ Clean Water Act Section 316(b); California Energy Commission, “Issues and Environmental Impacts Associated with Once-Through Cooling at California’s Coastal Power Plants: Staff Report” (2005), available at: www.energy.ca.gov/2005publications/CEC-700-2005-013/CEC-700-2005-013.PDF; California State Lands Commission, *Resolution of the California State Lands Commission Regarding Once-Through Cooling in California Power Plants* (adopted April 17, 2006), available at <http://www.cacoastkeeper.org/document/resolution-on-otc.pdf>; California Ocean Protection Council, *Resolution Regarding the Use of Once-Through Cooling Technologies in Coastal Waters* (adopted April 20, 2006), available at: <http://www.opc.ca.gov/2006/04/resolution-of-the-california-ocean-protection-council-regarding-the-use-of-once-through-cooling-technologies-in-coastal-waters/>.

¹⁷ Letter from Senator Darrell Steinberg *et al* to Charlie Hoppin, Chair and Board Members, SWRCB, “State Policy Governing Once-Through Cooling at Coastal Power Plants” (June 22, 2009).

¹⁸ Letter from Senator Ellen Corbett *et al* to Charlie Hoppin, Chair and Board Members, SWRCB, “State Policy Governing Use of Coastal and Estuarine Waters for Once-Through Cooling” (April 12, 2010).

¹⁹ Letter from Karen Douglas, CEC, Michael Peevey, CPUC and Yakout Mansour, CAISO to SWRCB, “Comment Letter – Draft Statewide Water Quality Control Policy for the use of Coastal and Estuarine Waters for Power Plant Cooling,” p. 4 (Sept. 14, 2009) (emphasis added).

could feasibly comply with the Policy’s provisions, the extensive changes released at the end of March are unsupportable. Indeed, the dearth of necessary information and analysis in the SED regarding the majority of these significant changes raises significant concern about the Policy’s ability to ensure a permit program that complies with the Clean Water Act and considers the need to maintain reliable operation of the electric grid. It unfortunately remains to be seen how the public and other agencies, who spent their own funds on the studies supporting a sound implementation path for Section 316(b), will respond to future Water Board policymaking efforts that could similarly be undermined with a last-minute overhaul that steps well away from years of prior effort.

II. REMOVAL OF THE “INFEASIBILITY” TEST RENDERS BTA OPTIONAL, CONTRARY TO THE LAW AND SUBSEQUENT JUDICIAL INTERPRETATION

In 1972 Congress recognized the serious impacts of once-through cooling and consequently enacted CWA section 316(b), the language of which bears repeating at the outset:

32 U.S.C. § 1326(b). Cooling water intake structures

Any standard established pursuant to section 1311 of this title or section 1316 of this title and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the *best technology available* for minimizing adverse environmental impact.

(Emphasis added.)

“Track 1” of the Policy appropriately calls for BTA (closed-cycle cooling) to be implemented on a *unit-by-unit* basis. One of the most significant changes to the Policy is the elimination in Section 2.A. of the preference for Track 1. By removing the preference for compliance with Track 1 and the safeguard process requiring owner/operators to show that compliance with Track 1 is not technically feasible, the revisions make a major change in how this Policy will be implemented. In the current draft, no agency review is required of permit applicants who choose Track 2, which is also now considerably weaker than Track 1. Most plants will likely use Track 2 instead of Track 1, particularly in light of vocal December testimony with regard to seeking and taking advantage of any ambiguities and “loopholes” in the final regulations (a concern NGOs raised in our December written comments). Given the major revisions providing arguably illegal exemptions to the CWA for certain facilities, and given implementation and enforcement language rife with ambiguity, it is reasonably foreseeable that the Policy will fall significantly short of the law.

Congress intentionally drafted Section 316(b) to force improvements in technology by requiring the “best technology available” to minimize adverse impacts.²⁰ The court found in *Riverkeeper II* that Section 316(b) does not allow “second best” technology in place of the best technology available requirement.²¹ The sole issue appealed from *Riverkeeper II* to the Supreme Court was the question of using a cost-benefit analysis in determining BTA; the Supreme Court

²⁰ *Kennecott v. United States EPA*, 780 F.2d 445, 448 (4th Cir. 1985) found that it was the intention “of Congress to use the latest scientific research and technology in setting effluent limits, pushing industries toward the goal of zero discharge as quickly as possible.”

²¹ *Riverkeeper, Inc. v. U.S. EPA*, 475 F.3d at 108.

held that a cost-benefit test, while not expressly authorized in the §316(b) statute, is not prohibited either.²²

While the U.S. Supreme Court narrowly found that cost considerations in determining BTA were allowable, the Water Board has gone even further than permitted by Justice Scalia by allowing actions *less* than BTA. As discussed in more detail below, Track 2 can no longer be justified as even “comparable to” BTA, which the Water Board reasonably describes in Track 1 as closed cycle wet or dry cooling. By elimination of the “not feasible” showing, the Water Board would allow facilities to ignore both the BTA language in the statute and the resulting interpretation of that BTA requirement in subsequent litigation all the way to the U.S. Supreme Court.

The rationale behind the significantly problematic elimination of the feasibility test using Track 2 is limited primarily to a brief reference in the SED.²³

Staff believes the determination of infeasibility will be problematic and subjective, likely resulting in inconsistencies from Region to Region, and at the very least would burden the Regional Water Boards with an unnecessary additional workload.

In other words, the staff response to comments about defining when Track 1 is “not feasible” was to eliminate the requirement and associated analysis altogether. Contrary to both CEQA and the development of thoughtful public policy, there is no mention in the SED that staff considered any less environmentally harmful alternatives, of which there are numerous potential options.

For example, the 2008 Tetra Tech Report,²⁴ commissioned by the Ocean Protection Council (OPC) and discussed at length in the SED, actually did analyze the “feasibility of impingement and entrainment control technologies that can meet the 2006 [OPC] Resolution benchmark in the most cost-effective manner.”²⁵ The referenced benchmark in the OPC’s adopted Resolution called on the state to “implement the most protective controls to achieve a 90–95 percent reduction in [impingement and entrainment] impacts.”²⁶ The Report found that “[t]he most effective technology that can meet these criteria is closed-cycle cooling.”²⁷ Indeed, the Water Board relied on this finding in stating that the TetraTech report “supports State Water Board staff’s basis for establishing BTA based on closed-cycle wet cooling.”²⁸ The TetraTech Report concluded that “retrofitting existing once-through cooling systems with the preferred wet cooling design could be

²² *Entergy Corp. v. Riverkeeper, Inc. et. al.*, 129 S.Ct. 1498 (April 2009). As the SED remarks, “[n]otably, the *Entergy* decision does not require US EPA to consider a cost-benefit approach in any future §316(b) rulemaking effort, including a revised Phase II rule.” SED p. 7.

²³ SED p. 65 (*see also* below).

²⁴ TetraTech, “California’s Coastal Power Plants: Alternative Cooling System Analysis” (Feb. 2008) (TetraTech Report).; available at:

http://www.opc.ca.gov/webmaster/ftp/project_pages/OTC/engineering%20study/CA_Power_Plant_Analysis_Complete.pdf. The CEC also studied different cooling approaches back in 2002; *see* CEC, “Comparison of Alternate Cooling Technologies for California Power Plants: Economic, Environmental and Other Tradeoffs” (Feb. 2002), available at: http://www.energy.ca.gov/reports/2002-07-09_500-02-079F.PDF.

²⁵ TetraTech Report p. ES-1.

²⁶ *Id.*

²⁷ *Id.* p. ES-8.

²⁸ SED p. 63.

technically and logistically feasible at 12 of the 15 active coastal power plants (Table ES-2)”²⁹ – including the two nuclear facilities. The report was clear about the variables that were and were not considered in the analysis. If the Water Board so chose, it could require plants to duplicate this analysis, or add one or more variables to the analysis, to determine “feasibility.”³⁰

There are numerous other methodologies that could have been used to determine whether Track 1 was “not feasible.” One other approach would be similar to how penalties are set in enforcement cases under Water Code 13327, where a list of specific factors in determining administrative civil liability are given to the Regional Boards who then apply them.³¹ The Regional Boards apply these types of analyses regularly; with sufficient guidelines, this situation need be no different. Variables could be chosen based on past studies, and consistency provided in the form of a State and Regional Water Board coordinated oversight body. Given the relatively high volume of ACL fines the Regional Boards issue on an ongoing basis, versus the extremely limited number of “not feasible” determinations that would need to be made for the very few plants making this one-time argument, we think that this is a task that the Regional Boards can handle.

As we stated in our September 2009 comments, another definition of “feasible” would follow the generally-accepted definition of “capable of being done or carried out.”³² This is the definition being applied in New York State, which defines “feasible” as “capable of being done” with respect to the physical characteristics of the facility site but does not involve consideration of cost.³³ Application of this accepted definition of “feasible” allows Regional Board staff to apply objective technical knowledge and focus on technological infeasibility.

The fact that the Water Board nonetheless ignored the option to set criteria for making decisions that protect the environment – a task far from new for the state – is particularly ironic in the current instance. The SED states that even though the TetraTech Report did identify closed cycle cooling as feasible for almost all of the state’s power plants, “additional [unnamed] site-specific factors may make intake flow rate reductions infeasible at a particular site when a more detailed analysis is conducted.”³⁴ The SED then concludes from this statement that “[f]or this

²⁹ TetraTech Report p. ES-8.

³⁰ Indeed, many of the plants themselves already have collected some of the necessary data to help determine “feasibility”; for example, in the form of analyses begun under the old Phase II rule. In preparation for the Proposal for Information Collection (PIC) process, most facilities conducted source water monitoring and other activities that could be used to help inform the information baseline. The PIC was required for compliance with the Clean Water Act Section 316(b) Phase II Final Rule for existing electric generating stations, and was published in the *Federal Register* on July 9, 2004.

³¹ Water Code Section 13327: “In determining the amount of civil liability, the regional board, and the state board upon review of any order pursuant to Section 13320, shall take into consideration the nature, circumstance, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on ability to continue in business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters as justice may require.”

³² Merriam-Webster OnLine, <http://www.merriam-webster.com/dictionary/feasible>.

³³ State Water Resources Control Board, “Scoping Document: Proposed Statewide Policy on Clean Water Act Section 316(b) Regulations,” Appendix II, p. 4 (June 13, 2006), available at: http://www.waterboards.ca.gov/water_issues/programs/npdes/docs/cwa316b/316b_scoping.pdf.

³⁴ SED p. 63.

reason, the proposed Policy allows for a two track approach to determine BTA at each location.” The SED unfortunately ignores the clear discontinuity in its logic: that is, the Policy allows for Track 2 because other, unnamed factors could demonstrate Track 1’s infeasibility if “a more detailed analysis” is conducted, but the Policy now completely fails to require this “more detailed analysis.” If Track 2 may in fact needed because of “additional site-specific factors” that come out through further analysis, the Board can and must describe what power plants need to do to make that showing. Otherwise, the Board’s apparent concerns with implementing the infeasibility test could just as easily be addressed by eliminating Track 2 altogether.

III. THE RECENT, SIGNIFICANT WEAKENING OF “TRACK 2” PUSHES THE POLICY EVEN FURTHER FROM BTA

A. All Plants Must Reduce Impingement and Entrainment Consistent with BTA

As discussed in our comment letter dated September 30, 2009, the Policy suggests in Section 2.A.(2) that plants that fall under Track 2 will have to achieve a 90% reduction of the reduction that could be achieved under Track 1; in other words, 90% of 93%, which is 83%. In our September letter we urged the State Board to require that all plants reduce entrainment and impingement consistent with the Track 1 standard. This recommendation is even more appropriate now given the fact that there is no analysis or showing required to use Track 2.

The new changes in the Policy also allow plants to comply with IM/E requirements by reductions in mortality “comparable to” Track 1. However, the impingement studies under Section 4.A., and entrainment studies under 4.B., do not actually require any calculation or formal determination of the reductions would be achieved if Track 1 were pursued. Accordingly, it is impossible for staff or the public to know if the required 90% reduction in comparison to Track 1 has been achieved based on the studies in Section 4.A. and 4.B. As discussed in more detail in Section V. of this letter, we urge the State Board to amend the monitoring provisions to require a 2000-2005 baseline IM/E study to inform Track 2 compliance.

B. Generational Flow by Unit, Rather Than Design Flow Averaged over the Facility, Should Be the Baseline for Determining Compliance with Entrainment Standards for BTA

While Track 1 applies to each unit of a facility, Track 2 currently allows for measures of entrainment and impingement reduction to be applied to a plant “as a whole.” This creates a loophole where a facility could convert some of its units away from OTC, yet still run OTC on the remaining units, as long as the sum across all units is in compliance with the Policy. This loophole is significant because peaker plants only run as needed, and often only certain units within a peaker plant are utilized. It is inconsistent with the actual use of these plants to base Track 2 compliance on the facility as a whole, as the rare use of a facility at full capacity may create a scenario where the flow volume calculations can be fixed to achieve compliance without actually minimizing marine life mortality. Entrainment and impingement reductions need to be calculated on a unit-by-unit basis to truly achieve a reduction in marine life mortality at a “comparable level to that which would

be achieved under Track 1,³⁵ since intake flow rate reductions under Track 1 are determined on an individual *unit* basis. It has been suggested that allowing Track 2 as a compliance alternative for limited types of facilities rewards owners that have invested in more efficient generating units. While encouraging greater efficiency in generating capacity is a laudable goal, it is *not* a factor in determining BTA for cooling water intakes or crafting guidance for full enforcement of the CWA.

One of the more glaring changes in Track 2 is the new compliance determination for entrainment reductions in Section 2.A.(2)(b)(i), which allow compliance based on a 93% reduction in design flow averaged over the entire plant, rather than actual or generational flow unit-by-unit.³⁶ We support the State Board's approach of providing a flow basis for entrainment compliance, as intake volume is widely recognized as the primary cause of entrainment.³⁷ However, the Policy's Track 2 entrainment reduction basis on design flow is severely flawed. This can be shown to allow plants to avoid action to achieve BTA. Most facilities operate well below their permitted maximum flows and none of the peaker plants are operating according to design flow.³⁸ Even some plants that operate regularly, such as Haynes and Huntington Beach Generating Stations, currently withdraw less seawater than their design flow. For example, according to the 2000-2005 five-year average flow volumes provided in Table 13 of the SED,³⁹ Haynes Generating Station operates at over 73% below its design flow, while Huntington Beach and Redondo Beach Generating Stations operate at over 65% below their original design flows. As a result, some facilities may have to take little to no action to "comply" with the Policy on paper. As the SED describes:

Because many of these units used to function as base-load units, with a correspondingly high capacity utilization rate, intake volumes were also higher as a proportion of the unit's intake capacity. The construction of more modern, more efficient power plants, combined with older units' declining efficiencies and deregulation of the electric power industry, have changed the status of many units to that of peaking or intermittent (load-following) generators that operate at a fraction of their boilerplate capacities. Thus, the amount of

³⁵ Policy Sec. 2.A.2

³⁶ SED p. 64: "While Track 1 is intended to require compliance on a unit-by-unit basis, Track 2 permits a facility as a whole to use alternative means to achieve an IM/E reduction that is the same or comparable to the Track 1 reduction, which is defined as no less than 90% of the IM/E reduction in Track 1... Credit may be taken for other technologies and/or operational measures if they were implemented prior to the effective date of the proposed Policy with the explicit intent of reducing IM/E." (Emphasis added.)

³⁷ SED p. 30: "Accordingly, the preferred method to reduce the adverse effects of entrainment is to prevent the interaction of susceptible organisms and the cooling system altogether. This can be accomplished in one of two ways: the use of a barrier technology with pores small enough to exclude entrainable organisms, or by reducing the facility's intake flow."

³⁸ SED p. 67: "Because many of these units used to function as base-load units, with a correspondingly high capacity utilization rate, intake volumes were also higher as a proportion of the unit's intake capacity. The construction of more modern, more efficient power plants, combined with older units' declining efficiencies and deregulation of the electric power industry, have changed the status of many units to that of peaking or intermittent (load-following) generators that operate at a fraction of their boilerplate capacities. Thus, the amount of cooling water used, on an annual basis, has dropped dramatically" from the original design flow, and "[a]nnual water usage (for conventional facilities) is not expected to increase in the future." Indeed, one could argue in the alternative that now that most of these older plants are never going to be used in their original capacity, the current flow is now arguably the "design" flow for their current use, and reductions accordingly need to be taken from that point.

³⁹ SED p. 68.

cooling water used, on an annual basis, has dropped dramatically as well [from the original design flow] and remains low. Annual water usage (for conventional facilities) is not expected to increase in the future.⁴⁰

Based on this information, the State Water Board's choice to base entrainment reduction compliance on "design" flow for an entire facility rewards owners and operators maintaining inefficient power generation activities well past their initial design function. We urge in the alternative that the State Board use monthly generational flow as the basis for entrainment reductions instead of design flow. Generational flow is an appropriate metric to achieve real reductions in marine life mortality, as it reflects the flow required to generate electricity, rather than flow volumes OTC facilities were designed for decades ago. In this scenario we recommend defining "generational flow" as the intake flow required for the generation of electrical power as currently articulated in the definition of "power generating activities." A basis on generational flow would account for the facilities that draw in more seawater than is necessary for generating electricity.⁴¹ For example, generating Units 1 & 2 at El Segundo Generating Station ceased producing electricity in 2002; however the mean annual flow at Intake 001 (which draws in cooling water for Units 1 & 2) from 2002-2004 continued *at or above* the level prior to 2002, in order to prevent biofouling.⁴² Without a compliance basis on generational flow, some plants may only have to make minor operational or structural changes to meet entrainment requirements that are supposed to satisfy, but fall short of, BTA.

Furthermore, Section 2.A.2(b)(i) of the Policy is unclear as to whether monthly flow compliance is calculated for each individual month, or if it is averaged across months. We are concerned that this ambiguity regarding monthly flow reduction calculations again could result in little-to-no operational change for many of the plants, in direct contravention of the Clean Water Act and the intent of this Policy to minimize marine life impacts. This uncertainty is significant because peaker plants run during times of peak energy demand – during the summer – when larval abundance for most species in Southern California is at its highest.⁴³ By averaging across months, these seasonal impacts would be unaccounted for, and peak summer intake may be diluted by a facility's low intake volumes throughout the rest of the year.

For example, Morro Bay Generating Station achieved an over 97% reduction from design flow during winter months (October through May) based on 2005 monthly median flows. Redondo Beach and Pittsburg (Units 5 & 6) generating stations also achieve an over 93% reduction from design flow in the winter based on 2005 monthly median flows.⁴⁴ Even in the summer months (June through September), Morro Bay achieves a 75% reduction from design flow from based on 2005

⁴⁰ SED p. 67.

⁴¹ See, e.g., SED at pp 40-41: "In some cases, the ratios of cooling water flow to generated electricity are elevated because the power plants operate the cooling water system operation without the production of energy."

⁴² El Segundo Power, LLC Monitoring Data for NPDES Permit No. CA0001147, Order No. 00-084.

⁴³ SED, p. E-10.; AES Huntington Beach L.L.C., "Generating Station Entrainment and Impingement Study Final Report," (April 2005), prepared by MBC Applied Environmental and Tenera Environmental, see Section 4.3.1 Entrainment Results;

"Southern California Time Series: SCOR WG125: Global Comparisons of Zooplankton Time-Series" (May 19, 2008), available at http://planktondata.net/time-series/calcofi-sc_us/index.html.

⁴⁴ Calculations based on Design Flow volumes from SED Table 4 and 2005 Monthly Median Flow volumes from SED Table 6.

monthly median flows due to the Policy's flaw of basing Track 2 entrainment compliance on a facility's original design. Our understanding within the Policy is that the volume must represent a 93% flow reduction *every month* for compliance; however this must be clarified to ensure consistent application. Moreover, the State Board should enumerate within the Policy how it will approach enforcement of this provision if a facility is noncompliant for a single month during the year.

In sum, we urge the State Board to base Track 2 entrainment reduction compliance on the monthly generational flow, rather than design flow, averaged over the past five years. If the State Board chooses not to move forward with a generational flow basis for Track 2 entrainment reduction requirements, at a minimum, the Policy should reflect current OTC operations and establish the mandated reductions on a recent five-year average of *actual* (not design) flow.

C. Loopholes for Combined-Cycle Facilities Are Unsupported and Inconsistent with Section 316(b)'s BTA Mandate

The Policy's new language for the combined-cycle generators in 2.A.(2)(d) creates significant and potentially illegal loopholes for Harbor, Haynes Units 9&10 and Moss Landing Units 1 and 2, all of which use combined-cycle generation. The SED justifies these actions, which are discussed further below, as follows:

State Water Board staff recognizes existing combined-cycle units as special cases requiring alternative requirements. Existing combined-cycle units are generally very energy efficient, produce lower air emissions for most pollutants and carbon dioxide, are more efficient in water use and therefore have fewer OTC impacts relative to electricity generated, and represent relatively recent capital expenditures. For these reasons, providing alternate requirements under Track 2 of the policy for combined cycle units, and plants where those units are located, would result in better statewide consistency and would reduce the burden on Regional Boards.⁴⁵

While energy efficiency, air emissions, the temporal nature of capital expenditures, Regional Board workload and statewide consistency are all variables that potentially could be considered in the development of strategies to comply with Section 316(b)'s BTA requirement, they do not "trump" the BTA requirement. They may only be considered in the larger context of how to best comply with the law. They cannot – as they do here – be used an excuse to ignore or violate it.

Virtually none of the above factors form a rational basis for compliance with CWA Section 316(b)'s mandate for BTA. First, the reduced air emissions are a laudable, albeit a side-benefit of, combined-cycle generators. The SED makes no argument that any associated air quality benefits are directly related to the reduction of entrainment and impingement. Second, technology changes that reduce cooling water use in proportion to electricity generated are positive steps toward Section 316(b) compliance. But they are not BTA and may not in fact significantly reduce entrainment and impingement – especially considering that many of the combined-cycle units work harder than the units they replaced, and considering the fact that any marginal reduction numbers are "diluted" because the benefit per unit is now calculated into the entire facility's reduction percentages. Finally, there is absolutely no rational basis for a narrowly tailored exemption for facilities with some or all combined-cycle units simply because the owner/operator recently invested "capital

⁴⁵ SED p. 65.

expenditures” in the new expansion.⁴⁶ The generator design efficiencies *should* show a greater return on investment than the units that were replaced from an economic perspective. This language seems to create a type of new “cost” exemption that has not been scrutinized by the courts – or in the Policy – as of yet. These facilities did not demonstrably invest for the purpose of complying with Section 316(b), and consequently their past “capital expenditures” are irrelevant to the prospective regulations.

1. Section 2.A.(2)(d)(i) Side-Steps Section 316(b)-Mandated Reductions

The new Policy amendments allow combined cycle facilities to get credit for reductions in IM/E based on reductions in intake flows. Because this “credit” amendment would allow facilities to side-step additional structural controls, it should be carefully scrutinized to ensure that the state is implementing BTA requirements in accordance with the statute and interpretive case law. Unfortunately, the Policy’s choice to allow for entrainment reductions based on differences in permitted discharges falls well short of that mark.

The Policy now would allow combined cycle facilities to get credit for reductions in entrainment based on reductions in intake flows, calculated by the difference between the facilities’ maximum permitted discharge⁴⁷ under the prior NPDES permits (for steam units) versus the permitted discharge now allowed for the plant (with the combined-cycle units). However, it is too simplistic to assume that the increased efficiencies of the combined-cycle units automatically and directly translates to reduced water use and hence reduced impacts. The level of operation, timing of operation, and other factors need to be considered to determine whether *in fact* there are IM/E reductions. This is particularly true where a technology *not* designed and implemented with 316(b) compliance in mind – like combined-cycle generation – is granted special status in the Policy.

Steam boilers replaced by the combined-cycle units generally had either barely operated or had been shut down in the years prior to their replacement with combined-cycle units. The combined-cycle units now have an increasing capacity factor compared to the older steam units.⁴⁸ Therefore, if the original intake (measured as original permitted discharge) is compared to the current permitted intake (measured as permitted discharge with the combined-cycle units in operation), the increasing levels of operation could yield a relatively *higher* level of intake (and

⁴⁶ Assuming the replacement of the old steam generators with combined-cycle units “expanded” the capacity of the facility, these facilities also must be regulated under Calif. Water Code section 13142.5(b).

⁴⁷ The use of the difference in *discharges*, as opposed to the difference in *intakes*, is unexplained. The language is at odds with Section 316(b), which specifically focuses on the “location, design, construction, and capacity of cooling water *intake* structures” (emphasis added), contrary to other sections of the Clean Water Act that specifically focus on discharges. The Policy thus overrides the Act’s distinction between intake and discharge regulation without an explanation of why this change was needed or how it would better ensure compliance with the Act. One concern with this choice of words is that if the discharge is intended to be used for desalination, it could further increase the difference between the permitted discharge before the combined-cycle units and after, allowing for more unearned “credits” toward entrainment reductions, as well as encouraging energy-inefficient water sources.

⁴⁸ ICF Jones & Stokes, “Electric Grid Reliability Impacts from Regulation of Once-Through Cooling in California,” prepared for OPC and SWRCB, Table 3-1: Coastal Plant Generation and Capacity Factors (2008), available at:

http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/power_plant_cooling/reliability_study.pdf (see, e.g., Moss Landing units broken out by capacity factor and type of unit).

hence discharge) flow than if only the efficiency of the plant – outside of the relative level of its use – is considered. As was the case in Section 2.A.2.(b)(i), the use of maximum permitted flows in the calculations may again show a paper reduction in intake flows, when the reality is the actual intake flow may have increased since the combined cycle units came online.

Accordingly, we urge the Board to look specifically at each relevant facility to determine the impacts of the combined-cycle units based not only on their increased efficiency but also other variables such as their potentially increased activity, which could mitigate the water savings of increased efficiencies and reduce the level of potential compliance. Of course, *every* unit at facilities with combined-cycle units needs to reduce impacts to the BTA level. Any technology-based reductions at individual combined-cycle units that can be demonstrated (rather than assumed) to reduce impingement and entrainment may apply only to those units.

2. *Past Mitigation Should Not Be Counted as Prior Entrainment Reductions*

The Policy also now provides other opportunities for combined cycle facilities to potentially side-step BTA in Section 2.A.2.(d)(i) (page 6 of red-lined Policy). This section allows credits for prior entrainment reductions through mitigation, presumably for actions such as Moss Landing’s payment about a decade ago of \$7 million into a fund for mitigation-related activities. The Policy attempts to argue that the mitigation should count toward compliance with entrainment requirements because the plant was already at BTA. However, this argument is circular – if the plant was indeed already at BTA, then there would be no need to mention the mitigation requirements or attempt to allow any kind of “credit” for them. Moreover, this argument is incorrect; for example, there was in fact no “BTA determination” for the combined cycle units at Moss Landing. The NPDES permit instead stated that BTA would be met through the mitigation funding, as the state vigorously argued during subsequent litigation. After *Riverkeeper II*, the state changed its argument, stating on appeal that BTA was determined first and the mitigation funding was added on top of BTA.⁴⁹ That is the issue now being litigated at the California Supreme Court. We would refer the Water Board to the best evidence on this matter, which is the permit language itself.

As was the case for the Phase I rules, the court in *Riverkeeper II* found illegal the Phase II rule’s use of restoration or mitigation measures as a substitute for BTA standards under Section 316(b). The court based its analysis on its prior holding in *Riverkeeper I* that the restoration provision in the Phase I Rule “contradicts Congress’s clearly expressed intent” because it “was not based on a permissible construction of the statute.”⁵⁰ The Second Circuit reiterated its prior holding that “however beneficial to the environment, [restoration measures] have nothing to do with the location, design, the construction, or the capacity of cooling water intake structures, because they are unrelated to the structures themselves. Restoration measures *correct* for the adverse environmental impacts of impingement and entrainment . . . but they do not *minimize* those impacts

⁴⁹ *Voices of Wetlands v. California State Water Resources Control Bd.*, 69 Cal.Rptr.3d 487 (Cal. App. 6 Dist., 2007); see also *Voices of Wetlands v. California State Water Resources Control Bd.*, 74 Cal.Rptr.3d 453 (Cal., 2008).

⁵⁰ *Riverkeeper, Inc. v. U.S. EPA*, 475 F.3d 83 at 109. See also SED p. 7: Findings in *Riverkeeper II* included the clear directive that “Restoration provisions are plainly inconsistent with the statute and impermissible in the Phase II rule.”

in the first place.”⁵¹ This issue was not appealed to the Supreme Court and, therefore, constitutes the definitive minimum legal standard that California must implement. Accordingly, the Policy’s attempt to use mitigation as a replacement for actual, technology-based reductions that meet BTA must be rejected.

3. *New Section 2.A.(2)(d)(ii)’s Exception for Existing Combined Cycle Units is Patently Illegal and Unsupported by the Evidence and the Findings.*

New Section 2.A.(2)(d)(ii) of the Policy attempts to allow existing combined cycle generating units to be deemed in compliance with the Policy if they address impingement by reducing the through-screen intake velocity 0.5 fps, and if they (presumably) address entrainment through the same interim mitigation requirements outlined in Section 2.C., but here for the *life* of the unit. While we have concerns, raised in prior comment letters, about the methodology for calculating intake flow,⁵² we are astonished at this new attempt to avoid BTA and flatly contradict the clear directive of *Riverkeeper II*, which prohibited mitigation as a compliance option. There is not even a pretense that there will be additional action to ensure that the combined cycle units meet BTA requirements for entrainment; mitigation is simply allowed forever, no questions asked.

Nowhere does the Policy or the SED state that Section 2.A.(2)(d)(ii) is the equivalent of BTA or that BTA has been previously achieved at all the facilities eligible for this section. Not only has the Board failed to make a finding that the new section achieves BTA, the proposed provisions in this section are *directly contrary* to the SED findings regarding BTA. Indeed, the SED clearly states that “the BTA standard is technology driven and cannot include restoration, which compensates for an adverse impact after it [has] occurred rather than minimizing its occurrence in the first place.”⁵³ And even if the provision was not patently illegal in its use of restoration as a means of compliance, there is no evidence in the record that for entrainment impacts, “complying with the immediate and interim requirements described in Section 2.C...for the life of the combined cycle power generating units” is anything on par with a 93% reduction in intake flow, or even the equivalent of other, weaker provisions of Track 2.

The SED discussion ostensibly supporting Section 2.A.(2)(d)(ii) only makes matters worse. Instead of addressing the BTA question directly, the SED merely makes a conclusory finding that the exception is justified for combined cycle units as “special cases requiring alternative requirements.”⁵⁴ This exception is not supported by the evidence or the findings, nor is it consistent with Section 316(b)’s requirements for facilities to achieve BTA. Again, the SED and the Draft Policy do not conclude that the provisions in this exception are the equivalent of BTA. The SED and the Draft Policy also do not conclude that the exception is justified based on a cost-benefit analysis or prior compliance with BTA at these facilities. Nor do the SED and the Draft Policy state that the exception is based on thermal efficiencies or water reduction achieved from combined-cycle units.

⁵¹ *Riverkeeper, Inc. v. U.S. EPA*, 475 F.3d 83 at 109-110.

⁵² See September 30, 2009 joint NGO comments, recommending use of a definition for “intake flow rate” as “the instantaneous rate at which water is withdrawn through the intake structure, expressed as gallons per minute per kilowatt hour generated.”

⁵³ SED p. 59.

⁵⁴ SED p. 93.

Instead, the SED attempts to claim, in a wholly unsupported way, that *all* of these reasons are justification for the Policy, while at the same time acknowledging that *none* of them are. While these issues are discussed only in broad generalities, the SED acknowledges that neither a detailed cost analysis nor a cost-benefit analysis was actually conducted.⁵⁵ The SED also acknowledges that the Policy language is not specifically based on thermal efficiency issues.⁵⁶ The Policy moreover does not limit the exception as being applicable to low water demand units or even compare water intake from combined-cycle units using OTC with the water demand from steam units on closed-cycle cooling. Further, even if one accepts that combined cycle units may use less water than steam boilers to produce the same amount of energy, the State Board has not provided any explanation as to how that is the equivalent of BTA, particularly if the combined-cycle units are working harder than their predecessors. The water use in Figure 17 of the SED certainly does not equate to a 93% reduction in water use or demonstrate how it is the equivalent of BTA under Track 1. The State Board also fails to recognize that some of these units may now be producing *more energy* than the unit was before the retrofit, so water efficiency *per energy unit* is less relevant to the combined cycle unit's overall use of water.

The SED attempts to justify such alternative requirements for the combined cycle units (and nuclear facilities, see below) with no analysis – cost-benefit, cost-cost, wholly disproportionate,⁵⁷ or otherwise – on the basis that such analyses are difficult to do and burdensome on the Regional Boards. The SED also cites statewide consistency concerns:⁵⁸

simply stating the alternate requirements in the policy, without requiring a complex and likely problematic cost-benefit test, would result in better statewide consistency and would reduce the burden on Regional Boards.⁵⁹

⁵⁵ SED p. 92 (“A detailed cost analysis *would* account for these investments when determining BTA”) (emphasis added). To claim to consider economics without providing any data or findings on the costs that were considered is improper. *See, e.g., Kuhn v. Department of General Services* (1994) 22 Cal.App.4th 1627, 1633 (“evidence [supporting agency action] must be of ponderable legal significance” and “inferences that are the result of mere speculation or conjecture cannot support a finding.”); *See also Kolender v. San Diego County Civil Service Commission* (2005) 132 Cal.App.4th 716, 721 (“The agency’s discretion is not unfettered, and reversal is warranted when the administrative agency abuses its discretion, or exceeds the bounds of reason.”).) *See also* SED p. 93 (the preferred alternative does not require “a complex and likely problematic cost-benefit test”).

⁵⁶ SED p. 93 (the preferred alternative “would not use a minimum thermal efficiency”).

⁵⁷ The June 30, 2009 Draft Policy allowed for an exception from Tracks 1 and 2 based on a formal process to determine wholly disproportionate cost-benefit at nuclear and combined cycle units. Now the State Board provides an even broader exception for these same facilities (*i.e.* allowing the use of interim measures for the duration of the unit’s lifecycle) without even bothering to conduct formal wholly disproportionate analysis. (*See* June 30, 2009 Draft Policy p. 9.) In essence, the new Policy concludes that a wholly disproportionate test should not be considered in order to justify a future exception for nuclear and combined cycle facilities; instead, the exception should just be given now. This makes the Policy even worse, from both a legal and procedural standpoint, than the one with which this process began.

⁵⁸ SED pp. 93-94 (the SED did not examine the idea of having the state do all the analyses for the limited number of combined cycle and nuclear facilities to promote the desired consistency and reduce the cited burden on the Regional Boards).

⁵⁹ SED p. 93.

Granting an exception to BTA under the rubric that it reduces the burden of having to do a complete analysis is not proper under the technology-forcing Section 316(b). In addition, the exception is further unjustified – and contrary to the evidence in the record – as the Tetra Tech feasibility study cited in the SED specifically found that closed cycle wet cooling is “technically and logistically feasible” at Harbor, Haynes and Moss Landing.⁶⁰ The economic analysis on pages 122-123 of the SED further justifies the economic feasibility of compliance by these facilities.

Finally, providing this exception for Harbor Unit 10A is especially egregious in that this unit does not even fit the weak explanation provided in the SED on energy and cost issues. For example, Harbor Unit 10A, by staff’s own account, does not meet the 8500 BTU/kWh threshold and is on par with the average heat rates and efficiencies of existing steam boiler units.⁶¹ It also is 15 years old⁶² and has had significant time to recoup much of the initial investment. Initial capital costs at Harbor, as presented in the SED, are also the lowest among those listed.⁶³

In sum, there is no rational basis in the law supporting this “get out of jail free” card for combined cycle units. Section 2.A.(2)(d)(ii) must be struck in its entirety.

IV. NEW, EXCESSIVELY BROAD LOOPHOLES FOR THE NUCLEAR FACILITIES ARE UNSUPPORTED AND INCONSISTENT WITH SECTION 316(b)’S BTA MANDATE

Contrary to the recent actions in New York State to comply with the Clean Water Act,⁶⁴ there are now loopholes in Sections 2.D and 3.D. so large for the two nuclear facilities that they are now essentially exempt from Section 316(b).⁶⁵ Rather than focusing on safety, the new loopholes allow consideration of permitting, site design, economic and “any other relevant information” in determining alternatives to compliance with Track 1 or Track 2.⁶⁶

⁶⁰ SED p. 62 (also found feasible for the two nuclear facilities).

⁶¹ SED p. 90.

⁶² SED p. 92.

⁶³ SED p. 92.

⁶⁴ See, New York Department of Environmental Conservation, Notice of Denial of Joint Application for CWA § 401 Water Quality Certification NRC License Renewal – Entergy Nuclear Indian Point Units 2 and 3, DEC Nos.: 3-5522-00011/00030 (IP2) and 3-5522-00105/00031 (IP3) (April 2, 2010), available at http://www.dec.ny.gov/docs/permits_ej_operations_pdf/ipdenial4210.pdf (last accessed April 10, 2010) and incorporated herein by reference.

⁶⁵ SED p. 94 lists the new criteria that could be used to “modify this Policy” just for nuclear facilities; they now go well beyond the previous, appropriate focus on NRC-supported safety issues.

⁶⁶ Interestingly, the SED Introduction has not been updated in this regard; e.g., SED p. 14 states: “The Policy allows for alternative requirements for nuclear facilities in the event compliance with Track 1 or Track 2 would conflict with Nuclear Regulatory Commission (NRC) safety requirements.” No mention is made of all the new opportunities in the revised Policy for the nuclear facilities to off-ramp themselves. Further, the SED notes on p. 50 that the *Riverkeeper III* court examined the issue of nuclear facility alternatives based on a broad industry challenge, and that the 2nd Circuit court “rejected the challenge,” concluding that “the site-specific compliance alternative deferring to the NRC in the event of a conflict provided sufficient protection for nuclear-fueled facilities....” *Riverkeeper, Inc. v. U.S. EPA*, 475 F.3d 83 at 127-28. In this respect, it appears that this Policy may be giving nuclear facilities even more than the U.S. EPA under President George W. Bush was willing to give.

A. Section 2.D Has Been Weakened without Findings or Legal or Evidentiary Justification

Section D of the Policy originally contemplated site specific determinations of BTA for nuclear power plants where compliance with Track 1 or Track 2 resulted “in a conflict with a safety requirements established by the Nuclear Regulatory Commission [(“NRC”).” This safety-focused provision has now been changed to allow site specific determination of BTA where compliance with Track 1 and Track 2 results in a conflict with *any* requirements of the NRC. However, the justification for this change is not explained anywhere in the SED. Indeed, the SED continues to reflect that Alternative 3 is the preferred alternative and that this section should include “an explicit provision that defers to NRC requirements if compliance with the proposed Policy compromises *safety*.”⁶⁷ The Policy now allows for many more off-ramp opportunities than just safety. Yet nowhere does the SED make mention of any other NRC requirement that should be considered or that would be justification for a site specific determination. This change is not even discussed in the SED and has been made without any support in the findings or the evidence, contrary to the above-discussed CEQA mandates. Other nuclear issues are explored much later in the SED, which then simply lists – rather than analyzes the need for – numerous other exemption options and not in the context of the NRC.⁶⁸

In addition to the above deficiencies, this section is now inconsistent with the language used by EPA in its Phase II regulation – language that, as the SED acknowledges, was upheld by the court in *Riverkeeper II* decision as providing sufficient protection for nuclear facilities.⁶⁹

We recommend returning to the language in Section 2. D. of the prior draft, which made clear that exceptions are only warranted for NRC public safety concerns.

B. New Loopholes Have Been Added to Section 3.D. without Adequate Findings or Legal or Evidentiary Support.

Under the latest draft of the Policy, the State Board shall consider, in special studies just for nuclear facilities, factors such as cost, engineering, space & permitting constraints, public safety, air emissions and “any other relevant information.” The Policy then proposes to use the information obtained from the special studies to determine whether alternatives to Track 1 and Track 2 are warranted based on whether costs and other “factors” are “wholly out of proportion to the costs considered by the State Water Board in establishing Track 1 and Track 2.” This approach suffers numerous flaws and should be abandoned in favor of strict compliance with BTA, with the above-described safety consideration.

First, this approach appears to be taking a BPJ approach to nuclear facilities rather than BTA. Yet, the SED concludes that “there is no basis to assume the case-by-case BPJ approach that has been in effect for 30 years will yield any better results now than it has in the past.”⁷⁰ There is

⁶⁷ SED p. 51 (emphasis added).

⁶⁸ SED p. 94.

⁶⁹ SED p. 50.

⁷⁰ SED p. 51. In fact, the SED concludes that “impacts associated with OTC operation, including those from Diablo and SONGS, have not been sufficiently addressed such that they can be considered compliance with § 316(b)’s technology-based mandate.” *Id.*

no explanation of how this approach will prove better than the past 30 years of failure⁷¹ to regulate these facilities under BTA, or why factors other than safety are worthy of consideration in creating exceptions to Track 1 and Track 2. In this respect, the approach proposed in the latest draft is not supported by the evidence or the findings. One also must ask what the purpose of the Policy is if the facilities with the largest impact on California's coastal waters are simply eligible for such a broad exception from both Track 1 and Track 2.

Second, the proposed policy now also includes multiple exceptions to be considered after "special studies" have been conducted. This approach is also flawed and unsupported.

For example, the draft Policy contains new "cost-cost" considerations for nuclear facilities that allow alternatives to compliance if costs for nuclear facilities "to implement Track 1 or Track 2 . . . are wholly out of proportion to the costs considered by the State Water Board in establishing Track 1 or Track 2." In providing the option for an exception from Track 2 based on a cost-cost comparison, the proposed Policy fails to recognize that neither the SED nor the State Board has in any way considered or evaluated the costs of complying with Track 2, which makes this calculation impossible and unsupportable.

Further, the SED only provides justification for exceptions to the Policy for nuclear facilities based on safety⁷² with some limited discussion of costs. The SED makes no mention of how or why the other "factors" to be considered under Section D.(7) are relevant to BTA or a cost-cost calculation. In particular, the SED does not provide any explanation of: (1) how or why the other factors in paragraph 7 are being considered, or (2) how the factors of paragraph 7 are relevant to a cost-cost approach or to BTA. While we disagree with the use of cost-cost as a component of this policy, if the State Board is going to include a cost-cost approach, it may not sweep in matters other than those strict economic considerations inherent in a cost-cost approach to achieve BTA. The additional "factors" listed in 3.D.(7), such as engineering, permitting and space constraints, are not relevant to the determination of BTA or a cost-cost calculation. Indeed, how will the Water Board determine that "permitting constraints," for example, are "wholly out of proportion to the costs considered by the State Water Board in establishing Track 1 or Track 2?" "Permitting constraints" are not "costs" unless they are converted into an economic value. Neither the SED nor the Policy explains how such a process will – or even could – be undertaken. There is also no definition of "other relevant information," nor an explanation of how such information might be relevant to costs. This new language also ignores the TetraTech report, which found upgrades were "feasible" at the nuclear facilities.⁷³ For all these reasons, Paragraph 3.D.(8)'s consideration of "factor(s) of paragraph 7" in addition to "cost" is illogical and not supported by the record.

Finally, the proposed Policy now allows for mitigation in lieu of BTA for the nuclear facilities, in violation of *Riverkeeper II*. We disagree with this unlawful approach for the reasons discussed above with respect to the combined-cycle facilities.

⁷¹ See *infra* Section VI. regarding attempted, significant rollbacks in agreed-upon SONGS mitigation. Letter from Warner Chabot and Linda Sheehan, Center for Marine Conservation to Chair Louis Calcagno and Commissioners, California Coastal Commission, "Coastal Commission Meeting, October 8, 1996, Agenda Item # 15: SONGS Permit Amendment Proposal" (Oct. 7, 1996) (available upon request).

⁷² SED p. 51.

⁷³ Tetra Tech Report p. ES-8; see also SED p. 62.

V. MEANINGFUL MONITORING REQUIREMENTS HAVE BEEN REDUCED TO INSIGNIFICANCE

With loss of preference for Track 1, we believe most plants will opt for Track 2 compliance, particularly in light of December industry testimony to this effect. Therefore, sound monitoring strategies and a sound baseline understanding are of utmost importance. According to the Policy, monitoring for Track 2, Sections 2.A.2(a)(i) and 2.A.2(b)(i) will be based on flow reductions. However, as discussed in Section III(B) of this letter, it is critical that these flow reductions reflect current facility operations, rather than design flow, as is called for within the Policy. As noted above, we urge the State Board to base Track 2 entrainment reductions on monthly generational flow, averaged over a recent five-year period (2000-2005).

Furthermore, the current entrainment and impingement monitoring requirements in the Policy are insufficient for measuring marine life mortality reductions based on operational and structural changes.⁷⁴ The Track 2 monitoring provisions, described in Sections 4.A and 4.B, are insufficient for gauging whether compliance measures under Track 2 Sections 2.A.2(a)(ii) and 2.A.2(b)(ii) effectively minimize impingement and entrainment.

First, the Policy only requires a 12 consecutive month monitoring period as a baseline for facilities to determine past impingement and entrainment impacts for future compliance monitoring. This design fails to account for annual variability and source water depletion in the determination of baseline entrainment and impingement impacts. It also gives discretion to power plant operators to choose an advantageous 12-month period that would potentially create a scenario where impingement and entrainment reductions are easier to meet. We recommend that a longer duration of time be used to determine the Track 2 operational and structural control impingement and entrainment baseline; for example a five-year average based on source water and impingement monitoring from 2000-2005. As noted above, in preparation for the Proposal for Information Collection⁷⁵ process, most facilities conducted source water monitoring, which could be used to help inform the entrainment baseline. Additionally, most facilities have conducted impingement monitoring (species impinged and impingement rates) for the last decade or more as part of their NPDES permit requirements, which should be used to help determine baseline impingement impacts.

More importantly, the monitoring provisions in the Policy only require 12 consecutive months of monitoring after Track 2 operational and structural controls are implemented. As previously discussed, this limited time frame will not reflect annual variability. It will also fail to reflect any changes in the effectiveness of these alternative Track 2 controls (*e.g.* increased impingement due to biofouling or other complications). Regular monitoring (at a minimum monthly) should be required to accurately reflect the ability of operational and structural Track 2

⁷⁴ There are also potential monitoring issues for Track 1 compliance. We interpret Track 1 to require repowering or retrofitting to closed-cycle cooling. However, if a facility opts for a different approach to achieve “a level commensurate with that which can be attained by a closed-cycle wet cooling system,” which is also permissible under Track 1, no detail is provided in the monitoring provisions to inform how that “commensurate level” will be determined.

⁷⁵ The Proposal for Information Collection (PIC) is required for compliance with the Clean Water Act Section 316(b) Phase II Final Rule for existing electric generating stations published in the *Federal Register* on July 9, 2004.

controls to meet impingement and entrainment reduction requirements. Regular monitoring by permittees is not a new concept under the State Board; NPDES waste water dischargers are required to perform continuous monitoring of numerous constituents in their discharges for the entire lifespan of their permit. Likewise, OTC permits should require impingement and entrainment monitoring throughout the permit lifecycle to capture seasonal and annual variability, and to ensure that accurate information is provided regarding the effectiveness of Track 2 controls at meeting marine life mortality reductions.

VI. THE REVISED POLICY LACKS CLEAR, ENFORCEABLE, SUPPORTABLE INTERIM AND FINAL DEADLINES

After almost four decades since enactment of Section 316(b), the state is nearing adoption of a Policy to address the ongoing, devastating impacts of once-through cooling. Though the regulated facilities have known for many years of their Section 316(b) responsibilities, the Policy nonetheless builds in lengthy deadlines for compliance. Indeed the most recent version extends deadlines three to four more years for two facilities; the last deadline is currently 2024.

While we understand that construction of needed improvements takes time, the Policy provides more than sufficient consideration of the requests for extra time sought by facilities and utilities. The Policy should balance this consideration with *strengthened* requirements on the part of the facilities to show cause for altering the compliance schedules, rather than weakened requirements as the Policy now reads. The hurdle for being granted an extension should be high; it should occur only when the owner/operator has fully exhausted every alternative to comply with their deadline, and it should require significant evidentiary support that demonstrates extraordinary changes from the circumstances at the time this Policy is finalized. Only Section 3.D.(8) makes any mention of the responsibilities on parties requesting alternative requirements (here in the narrow context of nuclear facilities exercising the cost-cost option), stating that “[t]he burden is on the person requesting the alternative requirement to demonstrate that alternative requirements should be authorized.” This burden requirement should at a minimum be extended to all requests for deadline changes or suspensions, compliance alternatives, etc.; currently, there is no articulation of any burden on the part of facilities seeking to avoid meeting responsibilities within a definitive time frame.

Past experience indicates, unfortunately, that a clear, strong assertion of the regulated entities responsibilities, and effective oversight to ensure that those responsibilities are carried out effectively, is essential in the context of addressing the impacts of once-through cooling. As just one example, the owners and operators of the San Onofre Nuclear Generating Station avoided addressing the massive OTC impacts of their units for decades; when finally forced to agree to conduct at least some restoration activities, they not only avoided compliance but actively sought to reduce key elements of the necessary and required restoration by *over 90%* of the original agreement.⁷⁶ Decades of such delays and attempted rollbacks demand that the Water Board

⁷⁶ Letter from Warner Chabot and Linda Sheehan, Center for Marine Conservation to Chair Louis Calcagno and Commissioners, California Coastal Commission, “Coastal Commission Meeting, October 8, 1996, Agenda Item # 15: SONGS Permit Amendment Proposal” (Oct. 7, 1996) (available upon request).

exercise strenuous, vigilant oversight and insist on a significant burden on regulated entities to deviate from the steps or timelines required to meet 316(b)'s mandates "as soon as possible."⁷⁷

The Policy as written will not ensure that these goals are met. Rather, the recent changes to the Policy make enforcement of Section 316(b)'s mandate far more difficult and staff-intensive, and will likely lead to the continued delays that unfortunately have plagued this program. In particular, the Policy does not address the need for specific commitments in facility permits to ensure adherence to and progress towards the extended compliance deadlines. It also substantially increases the likelihood of potentially unsupported and unnecessary extensions by delegating, to a nonprofit corporation (CAISO) unaccountable to the Water Board or U.S. EPA, the *right* to start the process for changing deadlines, without at the same time establishing the requisite *responsibilities* to ensure that those requesting deadline extensions or suspensions bear the burden of demonstrating the need for such changes. These sections must be revised to ensure that the Policy, and the permits written based on the Policy's direction, comply with the range of Clean Water Act safeguards and mandates that have been set up to ensure that the Act's provisions are carried out.

A. Compliance Schedules in the Policy Run Afoul of Clean Water Act Mandates

The Clean Water Act is clear on the need for demonstrated, specific, measureable, reported and *actual* compliance by regulated entities towards meeting the Act's mandates. Section 316(b) calls for "the location, design, construction, and capacity of cooling water intake structures [to] reflect the best technology available for minimizing adverse environmental impacts." It does not say BTA "at some indefinite point in the future." Implementing regulations do acknowledge the time necessary for establishing specific compliance technologies, but they are narrowly tailored to ensure compliance "as soon as possible" and require clear accountability in the permits on the part of the regulated entity.

Implementing regulations at 40 CFR § 122.2 define "schedule of compliance" as a "schedule of remedial measures included in a 'permit,' including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the CWA and regulations." Regulations at 40 CFR § 122.47 describe the mandates for such schedules of compliance as follows:

(a) General. The permit may, when appropriate, specify a schedule of compliance leading to compliance with CWA and regulations.

(1) Time for compliance. Any schedules of compliance under this section shall require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA

(3) Interim dates. Except as provided in paragraph (b)(1)(ii) of this section, if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year

(ii) If the time necessary for completion of any interim requirement (such as the construction of a control facility) is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

⁷⁷ 40 CFR § 122.47(a)(1).

Note: Examples of interim requirements include: (a) Submit a complete Step 1 construction grant (for POTWs); (b) let a contract for construction of required facilities; (c) commence construction of required facilities; (d) complete construction of required facilities. (4) Reporting. The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the permittee shall notify the Director in writing of its compliance or noncompliance with the interim or final requirements, or submit progress reports if paragraph (a)(3)(ii) is applicable.

(Emphasis added.)

The State Board's Resolution adopting its Policy for Compliance Schedules in NPDES Permits similarly states unequivocally that "the entire compliance schedule, including interim requirements and final permit limitations, *shall* be included as enforceable terms of the permit, whether or not the final compliance date is within the permit term."⁷⁸ The Resolution also makes clear that a compliance schedule must include an "enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitations, prohibition, or standard."⁷⁹

U.S. EPA has been paying increasing attention to the adequacy of compliance schedule documentation and adherence. In a relatively recent audit of numerous compliance schedules in 12 randomly-selected NPDES permits, prompted by a settlement agreement on the issue with environmental groups, U.S. EPA found that *none* of the 12 adequately explained why any of the compliance schedules were "appropriate" as required by 40 CFR § 122.47(a).⁸⁰ EPA also found that none of the randomly-selected permits required compliance with final effluent limits "as soon as possible" as required by 40 CFR § 122.47(a)(1), and none of them contained adequate justification for the specific length of the compliance schedule.⁸¹ The EPA Audit emphasized that:

[t]he CWA and its implementing regulations define a compliance schedule as an "enforceable sequence of actions or operations leading to compliance with an effluent limitation..." EPA regulations at 40 CFR § 122.47(b)(3) require any compliance schedule longer than a year to "set forth interim requirements and the dates for their achievement." The regulation includes a note giving examples of interim requirements such as (a) submit a construction grant application, (b) let a construction contract, (c) commence construction or (d) complete construction of required facilities....⁸²

EPA's emphasis on the need for specific interim requirements in permits that go beyond planning and studies is particularly relevant here. Given the decades of delays to date and the need for facilities to take action, careful adherence not just to planning but also to action will be essential to avoid further delays and avoid the situation of a critical mass of plants waiting until the end of shared deadlines. The need for strict adherence to the Clean Water Act's regulations for

⁷⁸ SWRCB, Resolution No. 2008-0025, "Policy for Compliance Schedules in NPDES Permits," para. 8, p. 6 (April 15, 2008) (emphasis added); available at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2008/rs2008_0025.pdf.

⁷⁹ *Id.* para. 1(a), p. 2.

⁸⁰ U.S. EPA Region IX and Office of Water, "California Permit Quality Review Report on Compliance Schedules," p. 2 (Oct. 31, 2007) (EPA Audit).

⁸¹ *Id.* p. 3.

⁸² *Id.* p. 4.

compliance schedules is also essential in light of the extraordinary rights – without equivalent responsibilities – that the Policy now proposes to grant to CAISO with respect to changing and suspending deadlines.

A close look at the Policy’s Implementation language in Sections 3.A. and 3.C., and in the Table 1 Schedule, demonstrates that the needed adherence to Clean Water Act mandates and regulations is lacking. This is particularly true in light of the changes to the Policy allowing other entities to call for deadline suspension hearings with only a written notification (and without reopening the permit). For example, Section 3.A. calls for power plant operators (other than the nuclear facilities) to submit an “implementation plan” within six months of Policy adoption. As described in Section 3.A.(1), the implementation plan must, among other things,

identify the “compliance alternative selected by the owner or operator, describe the general design, construction, or operational measures that will be undertaken to implement the alternative, and propose a realistic schedule for implementing these measures that is as short as possible.

Assuming that these provisions are written in a manner sufficiently specific to satisfy 40 CFR § 122.47, they potentially could be dropped into the permit renewal applications that virtually all of the power plants presumably will have to complete to move forward with reissuance under the Policy. However, no mention is made in Section 3.A. of 40 CFR § 122.47 requirements; instead permit reissuance and modification is addressed in Section 3.C. Disturbingly, clear guidance in Section 3.C. with respect to a key element of the regulations – that the permittee comply “as soon as possible” – has been deleted in the last round of amendments. Section C.(1) had previously required compliance schedules that require compliance “as soon as possible” but no later than the Policy’s deadlines; the “as soon as possible” language has been deleted, allowing further latitude to power plants to continue long-established pattern of delay. Other useful language that provided direction to the Regional Boards on 40 CFR § 122.47’s mandates has also been deleted; specifically the following in Section 3.C.(1):

The compliance schedule shall be as short as possible, given the type of facilities being constructed, and industry experience with the time typically required to construct similar facilities; and, taking into account the amount of time reasonably required for the discharger to implement actions, such as designing, permitting, securing, financing and constructing facilities.

The only significant language left in Section 3.C.(1) is language emphasizing the State Water Board’s ability to allow for a *longer* compliance schedules (“[i]f the State Water Board determines that a longer compliance schedule is necessary . . .this delay shall be incorporated into the compliance schedule”).⁸³

⁸³ As discussed in more detail below, the new Policy provision in Section 3.C.(4) allowing suspensions and modifications to permit compliance schedules *without* reopen permits runs contrary to the mandates of 40 CFR § 122.47 to ensure compliance “as soon as possible” by precluding U.S. EPA and public review of the impacts of the proposed changes within the context of the permit as a whole. This provision must be changed to allow for the necessary input.

Through its recent NPDES permit audit, U.S. EPA has put California clearly on notice that the state's use of compliance schedules will be closely scrutinized to ensure compliance "as soon as possible" and to avoid more delays. We urge the Water Board to revise the Policy to provide far more specific guidance to the Regional Boards and the regulated community with regard to what is required and expected to be included in permit-based compliance schedules, to ensure consistency with the Clean Water Act and 40 CFR § 122.47. Specific guidance is essential in light of the substantial workload facing the Regional Boards in reissuing long-expired permits for virtually all of the power plants in the Policy. As EPA noted in comments last fall:

the Policy must "provide a consistent framework which will allow the Regional Water Quality Control Boards to better manage the substantial workload of reissuing the expired NPDES permits for the existing power plants. Keeping NPDES permits current is important to ensure permit quality and consistency throughout the State. According to EPA's records, one-quarter of California's NPDES permits that expired during or prior to 2006, and are still expired, are power plants listed in the draft policy."⁸⁴

U.S. EPA's focus on prompt reissuance of these expired permits in a manner that ensures "permit quality and consistency throughout the State," as well as its findings in the EPA Audit, both require the Policy to be far more specific in its guidance to the Regional Boards with regard to the mandates that compliance schedules must follow.

At a minimum, the deleted language in Section 3.C.(1) must be reinstated, and additional guidance that reflects the language of 40 CFR § 122.47 must be added so that the Regional Boards and the regulated community are put on notice as to their obligations. Language should also be added to clarify the need for specific interim requirements other than studies and permit applications, consistent with 40 CFR § 122.47(a)(3). For example, an interim requirement could be the installation of variable speed pumps that reduce impacts while larger changes are implemented at the facility. Additional changes need to be made to SACCWIS' review of the implementation plans in Section 3.B. to narrow SACCWIS' focus to Section 316(b) compliance and grid reliability, and away from extraneous permit matters that add to compliance delays.⁸⁵ Finally, 40 CFR § 122.47 applies equally to the nuclear powered facilities as to the fossil fueled plants; the mandates of this section in ensuring clear, enforceable, supportable, permit-based interim and final deadlines must be written into the Policy as well.⁸⁶

B. The Water Board Has Effectively and Illegally Delegated Its Deadline Compliance and Enforcement Authority to Other Agencies

Commenters recognize and support the important roles of CAISO, LADWP, CEC and CPUC in maintaining and managing the energy needs of the state. Accordingly, we support a meaningful coordination and collaboration process among the Water Boards and energy entities to ensure implementation of each entity's mandates. Indeed, in joint comments, CAISO, CEC and

⁸⁴ Letter from Alexis Strauss, U.S. EPA Region IX, to SWRCB, "Comment Letter – Power Plant Cooling Policy" (Sept. 30, 2009) (emphasis added).

⁸⁵ SACCWIS' expanded role in the current draft of the Policy is discussed further in Section VIII. below.

⁸⁶ Policy Sections 2.D. and 3.D. as recently amended will significantly and inappropriately expand the ability of nuclear powered facilities to seek compliance deadline extensions based on factors other than safety. The problems and implications associated with these new Policy amendments are discussed in Section IV. above.

CPUC similarly indicated their support for the Policy’s “workable schedule and process to implement the WRCB’s objectives while considering the need to maintain reliable operation of the electric grid.”⁸⁷ The current changes to the Policy unfortunately are a marked departure from last fall’s agreements on a coordinated process draft and require significant revision to ensure the Policy provides the appropriate legal guidance to the regulated community and to the Regional Boards reissuing or modifying permits.

1. The Revised Policy Grants Unprecedented, Inappropriate and Illegal Authority to Entities Other than the State and Regional Water Boards with Regard to Implementation of the Clean Water Act

Our concerns with the most recent changes to the Policy in Section 2.B. “Final Compliance Dates,” are not with regard to the Board’s appropriate consideration of specific, supported concerns by CAISO, LADWP, CEC and CPUC with regard to grid reliability. We fully expect that the Board will indeed closely coordinate with these entities and respect their expertise in grid and energy related matters. Rather, the issue is more with regard to the changes in the Policy that skew power over the decisionmaking process to an entity unaccountable under the Clean Water Act. The prior version of the Policy balanced the decisionmaking authority and responsibility appropriately to ensure that grid reliability concerns were carefully considered in light of the Water Board’s mandate to comply with the Clean Water Act. The current draft Policy takes away this balanced decisionmaking process and allows CAISO merely to provide a “written notification” – unsupported by any evidence – of grid reliability issues, to which the Water Board *must* respond. Moreover, the evidentiary hurdle that the Water Board must meet is unprecedented and contrary to its mandate to implement Section 316(b) consistent with the Clean Water Act, implementing regulations, and the Board’s own mandates pursuant to its status as a delegated agency. These issues are discussed in more detail below.

Specifically, the new Policy in Section 2.B. provides for essentially automatic deadline compliance date suspension for 90 days if CAISO notifies the State and Regional Water Board that it has determined this extension is “necessary to maintain the reliability of the electric system in the short-term.” No showing or hearing is required for this extension. The CEC or CPUC may object to this notification within ten days; notably, the Water Boards are *not* allowed to object, and instead must simply comply without a hearing unless another agency requests one. Moreover, neither the Policy nor the SED provide discussion or direction for the potential scenario in which multiple, or back-to-back, automatic “short-term” extensions are ordered, which could be a potentially significant loophole.

The new Policy similarly provides CAISO with great latitude to suspend or extend compliance deadlines in the longer term. The CAISO may notify (again, with no documentation) the State and Regional Water Board that it is suspending final compliance dates for 90 days where CAISO determines that is “necessary to maintain the reliability of the electric system.” In this case the Water Board “shall” conduct a hearing within that 90 days to determine whether to suspend the final date longer than 90 days “pending, if necessary, full evaluation of amendments to final

⁸⁷ Letter from Karen Douglas, CEC, Michael Peevey, CPUC and Yakout Mansour, CAISO to SWRCB, “Comment Letter – Draft Statewide Water Quality Control Policy for the use of Coastal and Estuarine Waters for Power Plant Cooling,” p. 4 (Sept. 14, 2009).

compliance dates contained in the policy.”⁸⁸ The Policy then goes on to institute an unprecedented burden on the Board to “implement the recommendations of the CAISO [to suspend final compliance dates] *unless* the State Water Board finds there is compelling evidence not to follow a recommendation *and* makes a finding of overriding considerations.”⁸⁹ No guidance is provided to the Water Board or CAISO with regard to setting a new compliance deadline; rather, the section simply calls for “suspension of final compliance date” rather than the “adoption of a revised compliance date.” Indeed, without some boundaries on the duration of allowable suspensions, it is unclear whether they could simply continue *ad infinitum* in violation of the Section 316(b) and the Act’s regulations with regard to compliance schedules.⁹⁰ There also appear to be no requirements on the facilities to address BTA mandates in the interim while the deadlines are “suspended,” which also leaves open the issue (discussed further in Section VII. below) as to when the proposed “interim” mitigation measures become illegal substitute mitigation for BTA.

These concerns with regard to the removal of much of the Water Board’s – and hence the public’s – oversight and implementing authority are heightened by the status of CAISO as a nonprofit corporation. As a legislatively created nonprofit corporation, CAISO, unlike the Water Boards, is not bound by the protections afforded the public by the California Public Records Act⁹¹ and other safeguards required of state agencies.⁹² As a result, the Policy’s current refusal to assign CAISO specific documentation responsibilities for its assertion of the need for Section 316(b) compliance schedule suspensions is exacerbated by the relative inability of the public to access this information from CAISO through the PRA. In other words, the legislative finding expressed in the PRA that “access to information concerning the conduct of the people’s business is a *fundamental and necessary right of every person in this state*,”⁹³ a finding reinforced by the public’s overwhelming approval of Proposition 59,⁹⁴ is compromised by the new Policy. CAISO new right

⁸⁸ Policy Section 2.B.(2)(b).

⁸⁹ (Emphasis added.) See also similar new language in Section 3.B.(5).

⁹⁰ 40 CFR § 122.47.

⁹¹ California Public Records Act, Calif. Government Code §§ 6250 *et seq.* (“PRA”).

⁹² CAISO does have disclosure rules that were very recently revised and that somewhat parallel the PRA. California ISO, “Information Availability Policy” (rev’d March 26, 2010), available at: <http://www.caiso.com/275e/275eed0c218e0.pdf>. Significant differences in language, however, raise questions with regard to the public’s (and the Water Boards’) ability to obtain necessary information to inform compliance deadline decisions prompted by CAISO. For example: (a) the PRA allows the disclosure of “[p]reliminary drafts, notes and memoranda” not retained in the ordinary course of business *only* if “the public interest in withholding those records clearly outweighs the public interest in disclosure” (Gov’t Code § 6254(a)), while the CAISO’s Information Availability Policy (IAP) would prohibit their disclosure completely (IAP Sec.2.3.1); (b) the PRA allows agencies to withhold documents if the agency can “justify” its position by “demonstrating” that the public interest served by not disclosing the record clearly outweighs the public interest served by disclosure (Gov’t Code § 6255(a)), while the IAP allows the CAISO Board to make that broad exclusion determination with *no* justification or demonstration to the public at all (IAP Sec.2.3.9). The IAP also allows CAISO to withhold requested documents that may be particularly necessary to a determination of whether compliance deadlines should be extended as per the new Policy. For example, the IAP allows CAISO to withhold requested documents such as individual generator outage programs (IAP Sec.2.3.2), market monitoring activities (IAP Sec.2.3.2), and records referring to “commercially sensitive matters” that may “compromise the efficiency of the market as a whole or of the efficient and nondiscriminatory access to the transmission grid” (IAP Sec.2.3.6).

⁹³ Calif. Gov’t Code § 6250 (emphasis added).

⁹⁴ Proposition 59, “Public Records, Open Meetings” (Nov. 2004), available at: <http://vote2004.sos.ca.gov/propositions/prop59-title.htm> (approved with over 83% of the vote).

to call for deadline suspensions to the CAISO is given without the responsibility to provide the public – and the Water Board – with the information necessary to make that judgment consistent with other Clean Water Act decisionmaking processes. As changed, the Policy severely limits the ability of the public and the Board to get the information needed to participate meaningfully, an exclusion whose negative impacts are heightened by the extraordinary evidentiary burden now placed on the Board.

The CAISO’s purposes and objectives, as articulated in its By-Laws,⁹⁵ focus on the operation and maintenance of the ISO Controlled Grid. The Water Board’s responsibilities under Section 316(b) of the federal Clean Water Act can of course coordinate with the CAISO’s grid responsibilities, but it is inappropriate and illegal to allow one to so trump the other.⁹⁶ Moreover, the case-by-case, virtually automatic deadline suspension process further *erodes*, rather than sustains, grid reliability by creating a state of continued uncertainty brought about by suspended and amended deadlines on a facility-by-facility basis. Such ongoing deadline changes could have a spillover effect on the next facilities in line, further complicating the compliance process, delaying the Policy’s implementation, and throwing grid reliability into more uncertainty than if a more orderly process were followed.

Finally, it should be noted that there are no requirements on the *facilities* themselves for making specific showings for proposed deadline suspensions. Facilities under the current Policy could raise the issue of grid reliability, which facilities have done repeatedly over the development of this Policy despite the conclusions of multiple studies (and the energy entities themselves) that grid reliability *and* Section 316(b) compliance could be achieved. CAISO could then take those claims and provide only “written notification” to the Water Board of deadline suspensions, again with the burden on the Water Board, not on the facility. The potential opportunities in the new Section 2.B. for circumventing compliance deadlines are thus magnified.⁹⁷

2. State Board Authority over Water Protection Matters Must Be Maintained

The Policy’s new Section 2.B.(2)(d) provides that in revisiting compliance deadlines based on grid reliability issues, the State Board “shall implement the recommendations of the CAISO unless the State Water Board finds there is compelling evidence not to follow a recommendation and makes a finding of overriding considerations.” However, it is an abuse of discretion and contrary to the authority delegated to the State Board for the State Board to choose to defer to CAISO in this manner and impose an arbitrary standard constraining its authority, ability and obligation to implement the Clean Water Act.

⁹⁵ California ISO, “Bylaws of California Independent System Operator Corporation, a California Nonprofit Public Benefit Corporation,” pp. 1-2 (Oct. 8, 2009), available at: <http://www.caiso.com/2441/244191b7370c0.pdf>.

⁹⁶ Indeed, the PRA states that “[a] state or local agency may not allow another party to control the disclosure of information that is otherwise subject to disclosure pursuant to this chapter.” Calif. Gov’t Code § 6253(b). The delegation of authority by the Water Board to CAISO to set the terms and conditions of information provided to the public appears to violate this PRA provision.

⁹⁷ The LADWP may similarly seek suspension of final compliance deadlines within its service area. Unlike CAISO, a “public process” is required to make that determination. However, the final burden on the Water Board to overcome LADWP’s determinations only through “compelling evidence” and a “finding of overriding considerations” raises the same issues of concern as for the CAISO deadline suspension process. We accordingly oppose this process as well, for the reasons discussed in this and the following section.

Congress empowered approved state agencies to implement the NPDES permitting program.⁹⁸ Federal regulations at 40 CFR §§ 123.1 *et seq.* establish the procedures for U.S. EPA approval of a state program and for assigning the responsibilities of that program. Program approval can be withdrawn under the procedures at 40 CFR § 123.63 if the program “no longer complies with the requirements of this part, and the State fails to take corrective action.”

The NPDES Memorandum of Agreement between the U.S. EPA and the State Water Board recognizes the State Board as the state water pollution control agency for purposes of the Clean Water Act.⁹⁹ The USEPA/California MOA makes clear that it is the *State Board* that administers California’s NPDES program as meant by the federal regulations.¹⁰⁰ The USEPA/California MOA also makes clear that the State Board is responsible for “[d]eveloping and implementing regulations, policies, and guidelines as needed to maintain consistency between State and federal policy and programs operations....”¹⁰¹ Moreover, the State Board is to act “on its own motion as necessary to assure that the program is administered in conformance with Federal and State legislation, regulations, policy, [and] this MOA...”¹⁰² The Legislature confirmed the State Board’s role in the Porter-Cologne Act.¹⁰³

Meanwhile, CAISO is *not* delegated such authority under the Clean Water Act or through agreement with U.S. EPA, nor is CAISO delegated such authority under California law. While the State Water Board should of course coordinate and collaborate with CAISO, the Water Board still has its own, independent obligation to review and address matters relating to water protection.

The California courts recently confronted a similar situation in *Pacific Lumber Co. v. California State Water Resources Control Bd.* (2004) 116 Cal.App.4th 1232, *aff’d*, 37 Cal.4th 921 (2006). In *Pacific Lumber*, a timber company advanced a claim that the Forest Practices Act ousted the State Board from properly exercising its authority under the Porter-Cologne Act. The courts found such preclusion inappropriate, and the Court of Appeal summarized it thusly: “[t]he Department of Forestry may permit trees to be cut, but the State Water Board may require that when trees are cut, water quality be preserved.”¹⁰⁴ Case law with regard to the interplay between energy regulation and environmental protection is in accord.¹⁰⁵

⁹⁸ 33 U.S.C. § 1342(b).

⁹⁹ See 54 Fed.Reg. 40664 (Oct. 13, 1989); see also “NPDES Memorandum of Agreement between the U.S. Environmental Protection Agency and the California State Water Resources Control Board” (“USEPA/California MOA”) (Sept. 22, 1989).

¹⁰⁰ See, e.g., *id.* at 1 (“State Board is the State water pollution control agency for all purposes of the Clean Water Act....”).

¹⁰¹ *Id.* at 5.

¹⁰² *Id.*

¹⁰³ Cal. Water Code § 13160.

¹⁰⁴ *Pacific Lumber*, 116 Cal.App.4th at 1247.

¹⁰⁵ See *Orange County Air Pollution Control Dist. v. Public Util. Com.* (1971) 4 Cal.3d 945, 953-954 (“We conclude that the Legislature has established one statutory scheme for the general regulation of public utilities, another for the general regulation of air pollution. . . [The PUC] must share its jurisdiction over utilities regulation where that jurisdiction is made concurrent by another (especially a later) legislative enactment.”).

Likewise, in the present case, while CAISO may have authority over energy transmission issues, the State Board may require that when energy is generated, water resources be protected. While it is fair and appropriate for CAISO to have an important advisory role in State Board Section 316(b) matters, neither state nor federal law imposes any additional, unique burdens or restrictions on the State Board when it is fulfilling its statutorily mandated duties where energy transmission is involved. The draft language, while not directly ousting the State Board from its proper role, nevertheless achieves the same result by imposing a fundamentally new standard and burden for how the State Board is to implement its duties under the Clean Water Act and Porter-Cologne. Indeed, the draft language invents a new standard requiring that the State Board make a “finding of overriding consideration” based on “compelling evidence” if it chooses to not follow the recommendations of CAISO. Under this draft language, Section 316(b) no longer dictates or constrains the outcome of the State Board’s analysis, contrary to the mandates that the State Water Board must follow as the designated entity responsible for implementing this program. Instead, the new Section 2.B.(2)(d) creates an arbitrary standard that allows the unsupported and undocumented wishes of a nonprofit corporation (not even a state agency) to constrain State Board decisions. Despite the Policy’s straining to the contrary, the State Board is charged with administering the Clean Water Act, and this role does not allow the agency to ignore or abdicate that duty. Indeed, “the right of the public must receive active and affirmative protection at the hands of the [agency].”¹⁰⁶ So, too, must the statute that the State Board is charged with administering be given full effect.¹⁰⁷ For the State Board to execute anything less than its delegated duties is also a violation of the State’s memorandum of agreement with EPA, an action that makes the State Board’s delegation authority vulnerable under 40 CFR § 123.63.

The Regional Boards’ responsibilities under the Act have been similarly compromised in the Policy by the recent changes to the Policy. In addition to the discussion above with regard to Section 2.B.(2), the Regional Boards’ authority is impacted by a new Section 3.C.(4), which states that:

3.C.(4). NPDES permits issued by the Regional Water Boards *shall* include appropriate permit provisions to implement suspensions of final compliance dates authorized in Section 2.B(2) and modifications to final compliance dates specified in this policy, *without reopening the permits*.

(Emphasis added.) To require the Regional Boards to insert suspensions of compliance schedules, or modifications of such schedules, *without* reopening permits runs contrary to the mandates of 40 CFR § 122.47 to ensure compliance “as soon as possible.” It also precludes appropriate U.S. EPA and public review of the impacts of the proposed changes within the context of the permit as a whole. Public process in the oversight of the use of the public’s waterways is a core element of the Clean Water Act that is severely compromised by this proposal.¹⁰⁸ This provision must be changed

¹⁰⁶ *Scenic Hudson Preservation Conference v. Federal Power Commission*, 354 F.2d 608, 620 (2 Cir. 1965).

¹⁰⁷ *See, e.g.*, 5 U.S.C. § 706(2)(c) (providing legal basis for reversal where agency action is “short of statutory right”; *See also, Marathon Oil Co. v. Lujan*, 937 F.2d 498, 500 (10th Cir.1991) (holding that “[a]dministrative agencies do not possess the discretion to avoid discharging the duties that Congress intended them to perform”).

¹⁰⁸ 33 U.S.C. § 1251(e) (“Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this chapter shall be provided for, encouraged, and assisted by the Administrator and the States”).

to allow for the necessary public and agency review and oversight of such significant changes as permit deadline modifications, and particularly deadline *suspensions* that can (under the Policy) occur with no new deadlines specified at all.

Despite the mandate on the State Board (and Regional Boards) to perform statutory duties, the record is void¹⁰⁹ of any legal or factual justification for this change in the State Board’s operating standard – and, indeed, none exists, contrary to clear CEQA direction as discussed above in Section I.A. Moreover, even if the State Board intends (as is expected) to give strong deference to the recommendations of CAISO, it would be unprecedented, illegal and irresponsible for this Water Board to impose the proposed new legal standard on itself – let alone on future Boards – charged with the protection of our waterways and aquatic habitats.

For the reasons articulated above, we oppose the significant, unwise, and illegal changes to Section 2.B.(2), which allow for almost indefinite extension of compliance deadlines with little meaningful input allowed by the public and the State and Regional Boards as compared with current NPDES permit processes, including the Water Board’s Compliance Schedule Policy. We urge the amendments to this language that will ensure the implementation of Section 316(b) in accordance with the Act, and in consideration of – *not* in almost total deference to – the energy oversight entities in the state.

VII. EXTENDED OPPORTUNITIES TO COMPLY MAY RENDER INTERIM MITIGATION ILLEGAL UNDER *RIVERKEEPER II*

As discussed above, *Riverkeeper II* followed the lead of *Riverkeeper I* with respect to mitigation and restoration in lieu of BTA. Specifically, the *Riverkeeper II* court held that “a rule permitting compliance with the statute through restoration measures allows facilities to avoid adopting any cooling water intake structure technology at all, in contravention of the Act’s clear language as well as its technology-forcing principle.” The court concluded that U.S. EPA had “impermissibly construed the statute by allowing compliance with section 316(b) via restoration measures.”¹¹⁰ This holding was not appealed to the U.S. Supreme Court and so remains the law of the land.

The Second Circuit was presented with a relatively black-and-white decision with regard to the question of whether to use mitigation and restoration in lieu of BTA. The court was not required to address the question of when allowed “interim” mitigation/restoration for facilities that ostensibly are on the road to BTA becomes illegal due to excessively long and/or suspended compliance deadlines. The Policy in Section 2.C. has chosen to allow the use of “interim” mitigation measures during the period that the plants should be coming into compliance with Section 316(b). However, these extended deadlines can reach out many years and be suspended on only an *assertion* of grid reliability by another entity (with an extremely high rebuttal burden on the

¹⁰⁹ In fact, the SED makes not a single mention of why this change has been made, or what “compelling evidence” would be required to justify a finding of “overriding considerations.” It also fails to discuss the reason for the almost insurmountable burden placed on the Water Board in comparison with CAISO’s right to initiate the deadline suspension process with only an unsupported “written notification.” Policy, Section 2.B.(2) and 2.B.(3).

¹¹⁰ *Riverkeeper II* 475 F.3d at 110.

Water Boards). Based on the new Policy’s language, for some facilities it may well be the case that “interim” mitigation at some point turns into long-term mitigation with no BTA implementation in sight – thereby becoming *de facto* illegal use of mitigation and restoration in lieu of BTA.

The SED articulates that “[i]nterim measures are appropriate when the compliance period is lengthy for some facilities (up to ten years for fossil fueled units) and IM/E impacts are expected to continue unabated.”¹¹¹ Since six of the fossil-fueled plants already have deadlines over ten years out, and another facility just under ten, this raises the question of the appropriateness of “interim” mitigation for such extended periods in light of the likelihood of even more deadline extensions and suspensions under Section 2.B.¹¹²

While we support interim mitigation measures that are written into those permits that have clear, enforceable, effective interim and final BTA-focused deadlines which demonstrably lead to compliance “as soon as possible,”¹¹³ we do *not* support the illegal use of mitigation *in place of* BTA. Accordingly, the Policy should clarify the use of “interim” mitigation consistent with these comments, and should include unambiguous, accountable direction to the Regional Boards to ensure all permits make demonstrable progress toward BTA within a definite timeframe, strictly considered “as soon as possible.”

VIII. SACCWIS’ NEWLY EXPANDED AUTHORITY CONFLICTS WITH LEGAL AND EFFECTIVE IMPLEMENTATION OF SECTION 316(b)

The significant revisions to the Policy under Section 3.B. effectively constitute wholly new review authority for SACCWIS that goes well beyond the issue of local area and grid reliability. This in turn effects the implementation of the Policy within any predictable timeframe.

As discussed in Section VI. above, we oppose making exceptions to compliance schedule deadlines that will undermine the clear, coordinated implementation of the Policy (and reissued permits) on a schedule that meets Section 316(b) while ensuring grid reliability through pre-determined timing. Indeed, as noted above, continued uncertainty brought about by suspended and amended compliance dates could have a spillover effect on the next facilities in line, further complicating the compliance process and delaying the Policy’s implementation. It is reasonably foreseeable that a new suspension of the deadline of any one facility could trigger something of a “leap frog” effect where facilities “race for last position” in the now overly flexible implementation schedule.

¹¹¹ SED p. 83 (emphasis added). Note that the nuclear facilities’ schedules extend far past this reference, which addresses fossil-fueled plants.

¹¹² Further, as described above with regard to SONGS, past experience illustrates that the facilities may not even complete or fund the “interim” mitigation as expected or agreed, further extending the impacts already suffered by affected ecosystems for decades.

¹¹³ Along the same lines, we support use of appropriate (*i.e.* legal) use of interim mitigation and restoration *immediately* – not in five years, as suggested in Section 2.C.(3). Impacts have been continuing for decades, and the environment and the public need to be made whole. Permits, almost all of which are overdue, will be soon updated, and interim mitigation should be included in the new permit conditions. If time for project planning is an issue (*i.e.* for facilities that are close to compliance with BTA), funding for appropriate projects can be used in the alternative.

The regulated community has had decades since the enactment of Section 316(b), and five years since the commencement of this Policy development process, to consider and plan for the phase out of OTC impacts consistent with the Clean Water Act. Accordingly, the Policy should establish a high burden on any facility to show cause for an exemption to the again-revised Implementation Schedule. Further, the State Board should have broad discretion to reject an application for an extension – contrary to the new revision placing the burden on the State Board and severely limiting their current discretion. The new language in Section 3.B. runs counter to this common-sense approach by significantly expanding the opportunities for facilities to seek further deadline extensions.

Moreover, as is the case in the new Section 2.B.(2), the new Policy amendments to Section 3(B)(5) have inexplicably shifted a significant burden onto the Water Board for overriding SACCWIS decisions. Unlike in Section 2.B.(2), however, the new language here is not just limited to grid reliability, but also includes self-identified “permitting constraints.” Further, there is no enforceable burden of proof or standards for facilities seeking deadline extensions to exhaust all remedies to seek other permit requirements.¹¹⁴ This new section instead puts the burden on the *Board* to demonstrate as specious a facility’s claim that it cannot obtain “required” permits – not just in the area of grid reliability, but with respect to any permitting issue that the facility claims is related to the Policy. If the Board cannot meet its new burden to make this determination, then the Board “shall” suspend the final compliance date for the applicant for up to two years. This is an inappropriate use of the Policy to address compliance deadline issues unrelated to grid reliability. SACCWIS’ prior role as providing useful recommendations that ensure movement toward Section 316(b) compliance while ensuring grid integrity has been impermissibly expanded in the current Policy

The problems associated with the potential new opportunities for significant juggling of permit compliance dates is exacerbated by changes to Section 3(B)(3) mandating yearly “reliability studies.” These yearly studies run counter to the prior Policy’s conclusion that, at most, biennial studies were sufficient. Again, the constant re-review of compliance schedule deadlines, as opposed to clear, mandatory deadlines, will only increase concerns about grid reliability as the orderly upgrade of facilities collapses. We understand there may be circumstances demanding extensions, but the Policy should be clear that these are to be unusual exceptions, limited to grid reliability issues that have been raised by the appropriate oversight entity, and supported by clear evidence with the burden on the applicant for the extension to provide such evidence.

Such major revisions raise numerous objections. For example, as discussed earlier, the State Board cannot effectively delegate their authority to enforce the Clean Water Act to other entities. We support the coordination of the energy agencies (and the Air Resources Board) in the implementation of this policy, but the burden of proof for any exception to the Implementation

¹¹⁴ For example, we understand that the El Segundo partial re-power application was being held up over an inability to secure air quality permits. However, it is also our understanding that the owner/operator has offered to demolish the remaining generators on-site to resolve the problem of finding credits in the market. It is unlikely, in our view, that opponents to complying with the mandates of BTA would go to such creative measures without some regulatory burden of proof they have exhausted their alternatives, as well as opportunity for the public to suggest alternatives.

Schedule should clearly and unambiguously rest with the facilities seeking the exception and the coordinating agencies assembled in the SACCWIS – not the Water Board.

Finally, the Policy must reinstate the language in Section 3.C.(1) requiring implementation dates “as soon as possible.” As the Policy is currently written, the two-year extension may become the norm. Consistent enforcement of current deadlines, developed over an intensive five-year process with significant stakeholder input and independent studies, will far better ensure implementation of Section 316(b)’s mandates and the integrity of the electric grid than continued suspensions and extensions.

IX. THE POLICY MUST COMPLY WITH PORTER-COLOGNE

Porter-Cologne addresses OTC issues at Water Code Section 13142.5(b) as follows:

For each 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.

(Emphasis added.) The Policy must comply with both state as well as federal law. However, the Policy in fact appears to violate Porter-Cologne’s mandates with respect to “expanded” power plant units. For example, at Moss Landing, old units 1-5 were mothballed in 1995, before deregulation. The new, combined-cycle replacement units did not come on line until several years later, and after the new owner had applied for a new NPDES permit and CEC site license; therefore they were an “expansion” of existing operations at the time. Accordingly, the proposed Policy’s significant exceptions for combined-cycle units would contravene California’s own Water Code mandates to “minimize the intake and mortality of all forms of marine life” for new and/or expanded units. “After the fact restorative measures,” which are allowed in the current draft Policy but prohibited by *Riverkeeper I* and *II*, do not minimize or mitigate the intake and mortality of marine life. For these reasons and the reasons stated above, we urge the Board to eliminate these exceptions, which threaten ecosystems and violate state and federal law.

We also urge the State Board to better implement the protections afforded under Porter-Cologne for new and expanded facilities by including in this Policy a clear definition of “new” and/or “expanded” operations to include all major re-tooling projects. These additions would clarify that capital investments at California’s industrial facilities must include full and strict compliance with the law and policies of this state, and ensure that we fully protect and restore our precious, yet threatened, aquatic ecosystems.

X. THE POLICY RUNS COUNTER TO THE STATE WATER BOARD'S PUBLIC TRUST RESPONSIBILITIES

As described in a detailed memorandum prepared by the California State Lands Commission,¹¹⁵ consistent with State Water Board summaries of the topic,¹¹⁶ the public trust doctrine is an valuable tool and mandate in ensuring healthy, resilient coastal and ocean ecosystems. The origins of the public trust doctrine are traceable to Roman law, under which the air, the rivers, the sea and the seashore were incapable of private ownership and instead were dedicated to the use of the public.¹¹⁷ Under English common law, this principle evolved into the public trust doctrine, under which the sovereign held the navigable waterways and submerged lands “as trustee of a public trust for the benefit of the people” for uses such as commerce, navigation and fishing.¹¹⁸ After the American Revolution, each of the original states succeeded to this sovereign right and duty and became trustee of the tide and submerged lands within its boundaries for the common use of the people.¹¹⁹ Subsequently admitted states, like California, possess the same sovereign rights over their tide and submerged lands under the equal-footing doctrine.¹²⁰ That is, title to lands under navigable waters up to the high water mark is held by the state in trust for the people. These lands are not alienable, in that all of the public’s interest in them cannot be extinguished.¹²¹

Today the public trust doctrine creates a duty for states to protect the common heritage of their coastal lands and waters for preservation and public use. The California Supreme Court has specified that the public trust doctrine protects a wide variety of environmental and recreational uses in addition to the traditional navigation, commerce and fishing uses.¹²² These include “the preservation of those lands *in their natural state*, so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and *climate* of the area (emphasis added).”¹²³ Even where it no longer owns tidelands and submerged lands, a state’s retained public trust easement allows it to protect public trust uses.

Given the importance of the public trust doctrine in ensuring the State Water Board’s stewardship over, and accountability for, the use of public trust resources, the failure of both the

¹¹⁵ Calif. State Lands Commission, “The Public Trust Doctrine: (2001), available at: http://www.slc.ca.gov/policy_statements/public_trust/public_trust_doctrine.pdf; see also Memorandum from Will Travis and Tim Eichenberg, BCDC to BCDC Commissioners, “Using the Public Trust Doctrine to Adapt to Climate Change in San Francisco Bay” (Feb. 27, 2009), available at: http://www.bcdc.ca.gov/meetings/commission/2009/03-05_Public_Trust_Climate.pdf.

¹¹⁶ See, e.g., SWRCB, “The Water Rights Process – Public Trust,” available at: http://www.waterboards.ca.gov/waterrights/board_info/water_rights_process.shtml#public (“Under the public trust doctrine, certain resources are held to be the property of all citizens and subject to continuing supervision by the State. Originally, the public trust was limited to commerce, navigation and fisheries, but over the years the courts have broadened the definition to include recreational and ecological values.”).

¹¹⁷ Institutes of Justinian 2.1.1.

¹¹⁸ *Colberg, Inc. v. State of California ex rel. Dept. Pub. Works* 67 Cal.2d 408, 416 (1967).

¹¹⁹ *Martin v. Waddell*, 41 U.S. (16 Pet.) 367, 410 (1842).

¹²⁰ *Pollard’s Lessee v. Hagen*, 44 U.S. 212, 228-29 (1845).

¹²¹ *People v. California Fish Co.*, 166 Cal. 576, 597-99 (1913); *City of Berkeley v. Superior Court*, 26 Cal.3d 515, 524-25 (1980).

¹²² *National Audubon Society v. Superior Court*, 33 Cal.3d 419 (1983).

¹²³ *Marks v. Whitney*, 6 Cal. 3d, 251, 259-60 (1971).

Policy and the SED to even mention the significant role of the doctrine in guiding the Water Board's implementation of the Policy is a significant oversight. This is particularly true in light of the major changes in the Policy discussed above that allow for almost indefinite extension of compliance deadlines. We urge the Water Board to specifically incorporate the directives of the doctrine in the Policy and SED to ensure that permits appropriately implement the doctrine in a way that protects and enhances the coastal, marine and estuarine ecosystems being damaged.

XI. THE POLICY WILL PROP UP CONTINUED OPERATION OF AGING COASTAL STEAM GENERATING PLANTS CONTRARY TO CALIFORNIA'S GREENHOUSE GAS REDUCTION, GENERATION EFFICIENCY AND RENEWABLE ENERGY GOALS

Fourteen of the 19 once-through cooled power plants covered under the Policy are aging, inefficient coastal steam generating plants. The coastal steam generating facilities were largely built in the 1950-60s, operate at a 35% efficiency rate, and have very low usage rates; *collectively* contributing less than 5% of California's electricity needs.¹²⁴ As the ISO has noted, the aging coastal steam generating plants "tend to have higher heat rates than newer combined-cycle generating plants, and ... higher green house gas emission rates and other pollutants than new generation sources."¹²⁵

The use of coastal waters for cooling offers a significant subsidy to the inefficient coastal steam generating plants, allowing them to continue to operate despite their limited overall contribution to California's energy needs and relatively high air quality impacts. These high environmental and efficiency costs are placed on the environment and the public. A Policy that effectively phases out the impacts of once-through cooling would encourage retirement or modernization of the coastal steam plants. Modernization of these plants is a stated goal of California's Energy Action Plan and AB 1576 (Nunez, 2005).¹²⁶ Unfortunately, the current Policy, for the reasons described in detail above, fails to require this expeditious and certain phase-out of the impacts of OTC at these facilities. An unfortunate byproduct of the inadequacy of the Policy will be the continued use of these highly inefficient and polluting plants.

The Substitute Environmental Document finds that "the age and relative inefficiency of many OTC units ... increase the likelihood that facilities will opt to comply with the proposed Policy by retiring one or more units or replacing them with new, more efficient generation technologies that use dry or alternative cooling systems."¹²⁷ The SED further recognizes that "new power plants have been constructed that use more advanced generating technologies and operate

¹²⁴ All but one of the coastal steam plants produce less than 1% of California's total energy; in many cases the plants produce much less than 1%. See SED, p. 39, Figure 9 - Percentage of Total Energy Production by OTC Power Plants in 2005.

¹²⁵ California Independent System Operator, "Mitigation of Reliance on Old Thermal Generation Including Those Using Once-Thru Cooling Systems," Study Plan, Draft Version 2.0, p.1 (Sept. 14, 2007), available at: <http://www.caiso.com/1c58/1c58e92e2cc30.pdf>.

¹²⁶ AB 1576 (Nunez, 2005) authorizes utilities to enter into long-term contracts for the electricity generated from the replacement or repowering of older, less-efficient electric generating facilities.

¹²⁷ SED p. 67.

more efficiently and cost effectively compared to the older steam OTC units”¹²⁸ However, the current version of the OTC Policy does not support this positive outcome, instead retreating from binding deadlines for compliance with the Policy that would have encouraged these aging, inefficient facilities to be retired or repowered.

Repowering the inefficient coastal facilities would not only bring about cleaner and more efficient energy sources, it also would help the state meet its renewable energy goals.¹²⁹ For example, new combined cycle units that operate at high efficiencies and have “fast start”/“fast shut” down capabilities can provide “integration services” critical to grid reliability when renewable energy sources experience temporary shortages. These attributes are important to California’s success in reaching its renewable energy mandate—which in turn is crucial to the state’s greenhouse gas (GHG) emissions reduction goals. Accordingly, the longer the deadlines are for compliance with the OTC Policy, the longer these older facilities will be propped up by the indirect subsidy of free coastal waters, rather than be encouraged to consider development of new, more efficient and more versatile units.

Power plant operators have demonstrated that repowering is often a preferred alternative for compliance with Section 316(b), one that offers an opportunity to address multiple environmental impacts and improve energy efficiency.¹³⁰ Some companies, such as NRG, appropriately view repower projects as an investment in the future transition to a renewable portfolio. To date four power plants, including El Segundo, Encina, Humboldt and Gateway, have announced their intention to repower to combined-cycle operation without the use of once-through cooling.¹³¹ Additionally, approximately 3,000 MW of new combined cycle replacement projects have been permitted at coastal steam plants.¹³²

The SED recognizes that GHG emissions would likely go down when OTC power plants are replaced, finding that:

[t]he effects of the proposed Policy on net power plant sector emissions would be significant only if *all* OTC plants (*including the nuclear units*) are retired, which would result in a modest one to 2% increase in carbon dioxide emissions sector-wide. Under the current Policy, nuclear plants are scheduled last for compliance, at which point the power sector and available replacement technologies could be considerably different. Any potential for GHG emissions impacts is merely a basis for further study, as required under previous versions of the Policy. *All other scenarios* examined showed either no change or a modest *reduction in net carbon dioxide emissions* because the plants replacing the retired OTC plants in general would be considerably more efficient.¹³³

¹²⁸ SED p. 67.

¹²⁹ California’s renewable energy targets under AB 32 are 20% by 2010 and 33% by 2050.

¹³⁰ See California Energy Commission, “2007 Environmental Performance Report of California’s Electrical Generation System,” Draft Staff Report, CEC Report No. 700-2007-016-SD, p. 54 (Nov. 2007) available at: <http://www.energy.ca.gov/2007publications/CEC-700-2007-016/CEC-700-2007-016-SD.PDF>.

¹³¹ *Id.*

¹³² ICF Jones & Stokes, “Electric Grid Reliability Impacts from Regulation of Once-Through Cooling in California,” (April 2008), Table 1-1, p. 9, available at:

http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/power_plant_cooling/reliability_study.pdf.

¹³³ SED pp. 119-20 (emphasis added).

In sum, a strong OTC Policy will advance the state's laudable goals of reducing GHG emissions, increasing efficient energy generation, and enhancing the use of renewable energy in the state.

XII. CONCLUSIONS

In sum, after five years of significant effort, numerous studies, and several Resolutions to phase out OTC, the proposed changes to the Policy have now moved the state *further* away both from compliance with Section 316(b) and from a reliable process for maintaining grid integrity. The Policy is now significantly more confusing and difficult for the Regional Boards to implement (especially given the now-shifting nature of compliance deadlines), and is more significantly more harmful to the ecosystems that have waited almost 40 years for compliance with this mandate. If compliance with the Clean Water Act, increased clarity, reduction in Regional Board burdens, and statewide consistency were all initial goals of an OTC Policy, this Policy fails to achieve them. The Policy also fails to meet several key CEQA requirements, which is not only a legal and policy failing but also a lapse in the exercise of the Water Board's overarching responsibility to implement fully the Clean Water Act and protect the public trust resources of the people of California.

Accordingly, we must regretfully oppose the current version of the Policy, and urge the Water Board to correct its deficiencies as outlined above.

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