

**Public Comment to the California Ocean Protection Council**  
**General Comments: January 14 – April 14, 2006**

<b>Date</b>	<b>Name</b>	<b>Affiliation</b>	<b>Subject of Communication</b>
01-13-2006	Linda Sheehan, et al.	California Coastkeeper Alliance	Agenda Item 8E: Once-Through Cooling Systems for Coastal Power Plants
01-15-2006	Mike McCorkle	Southern California Trawlers Association	OPC Meeting in Santa Barbara, January 13, 2006
01-18-2006	Jim Kellogg	State of California Fish and Game Commission	Commission Support For Collaborative Research And Management For The Channel Islands MPAs
02-14-2006	Kim Delfino Jim Curland	Defenders of Wildlife	Southern California Sea Otters
02-15-2006	Warner Chabot, et al.	The Ocean Conservancy	Proposed April OPC Discussion of MLPA Monitoring and Evaluation Options
02-23-2006	Heather Hoecherl, et al.	Heal the Bay	State Policy Governing Once-Through Cooling at Coastal Power Plants
02-28-2006	Mark W. Coleman	Recreational Fisherman	2006 Salmon Season Prohibition
03-13-2006	Michael S. Foster	Moss Landing Marine Laboratories	Support for State Water Resources Control Board as California's lead agency for water quality.
03-19-2006	James Hudnall	Save-Our-Seals Coalition	La Jolla harbor seal rookery, Ocean Communicators New Update
03-30-2006	John G. Parrish	California Geological Survey	USGS Santa Barbara Channel Sea Floor Data Acquisition'
03-30-2006	Raynor Tsuneyoshi	Department of Boating and Waterways	Santa Barbara Seafloor Mapping Project
04-10-2006 to 04-14-2006	1000 form letters	Response to California Surfrider alert	State Policy on Once-Through Cooling at Coastal Power Plants

January 13, 2006

Mike Chrisman, Chair and Members  
California Ocean Protection Council  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

**Re:** Agenda Item 8E: Once-Through Cooling Systems for Coastal Power Plants

**VIA EMAIL:** COPCpublic@resources.ca.gov

Dear Chair Chrisman and Members of the Council:

The undersigned groups greatly appreciate the Ocean Protection Council's (Council) interest in taking a leadership role in the development of a clear and consistent state policy to protect marine resources from the harmful effects of once-through cooling (OTC), which is used at 21 coastal power plants. As Lt. Governor Bustamante stated, this issue is a "natural fit" for the Council. While the Ocean Protection Council Staff Report offers preliminary suggestions on how the Council can help to meet this goal, we believe the Council could go further in reducing the enormous impacts of once-through cooling systems.

First, the staff report appears to suggest that the ecological impacts of OTC are still under debate and require further study, and recommends that the Council conduct further evaluation of the environmental and economic impacts associated with OTC, and with OTC controls.<sup>1</sup> With respect to the environmental impacts, while the cumulative impacts have not been comprehensively described, it is clear that the use of OTC technology seriously impacts our coastal environment. This is described in part in our joint letter to the Council dated September 23<sup>rd</sup> and in the attached Fact Sheet. The California Energy Commission (CEC) released a comprehensive staff report on once through cooling in June 2005 that identified it as a contributing factor to the degradation of our fisheries, estuaries, bays and coastal waters, and offered several powerful recommendations as to how to phase out this damaging technology.<sup>2</sup> Indeed, the CEC testified before the State Water Board that "[o]nce-through cooling is a major, ongoing environmental issue with California power plants," with "potentially widespread" cumulative effects in Santa Monica Bay and the SF-Bay Delta Estuary in particular.<sup>3</sup>

It is not surprising, as noted in the staff report, that some in the regulated community would attempt to controvert years of research results and assert that the impacts of OTC are biologically insignificant. The science shows that this is simply untrue. As just one example, turning on one coastal power plant (San Onofre) has destroyed over two hundred acres

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<sup>1</sup> [http://www.scc.ca.gov/Councilbb/130106meeting/0601CCouncil8E\\_MEMO\\_Once\\_Through\\_Cooling.pdf](http://www.scc.ca.gov/Councilbb/130106meeting/0601CCouncil8E_MEMO_Once_Through_Cooling.pdf).

<sup>2</sup> [http://www.energy.ca.gov/2005\\_energypolicy/documents/2005-06-27+28\\_workshop/presentations/2005-06-28\\_CEC\\_Staff\\_White\\_Paper.PDF](http://www.energy.ca.gov/2005_energypolicy/documents/2005-06-27+28_workshop/presentations/2005-06-28_CEC_Staff_White_Paper.PDF).

<sup>3</sup> CEC, Presentation to SWRCB (Sept. 26, 2005), [http://www.waterboards.ca.gov/plns/pols/docs/pres\\_cecmckinney.pdf](http://www.waterboards.ca.gov/plns/pols/docs/pres_cecmckinney.pdf).

(59,000 kelp plants) of kelp forest. This, in turn, caused the displacement or death of thousands of individuals from numerous other species. In total it is estimated that the kelp fish population in the area has declined by 80%, all due to that single plant.<sup>4</sup> To understand the magnitude of only the kelp losses from that one plant, one need only compare the plant's destruction of 200 acres (0.3125 square miles) of kelp forest with all existing stands of kelp forest along the entire California mainland coast (3.7 square miles, according to DFG's Living Marine Resources Status Report). In other words, turning on just one coastal power plant destroyed almost 10% of the kelp forests along California's mainland coast. And that ignores the associated fish losses, as well as the ongoing destruction that occurs from this and the other 20 coastal power plants that use this technology. For example, a fish kill due to entrainment in the San Onofre cooling system last August wiped out over five tons of anchovies in a single event. Now is the time to make active decisions on how to phase out this harmful technology, not to wait for further evaluations of its potential ecological damage.

It is for this reason that the State Water Board's most recent OTC workshop discussed the State Water Board's options for creating a statewide policy to address OTC, not to debate the ecological impacts of OTC. Continued debate over the clear negative ecological impacts of OTC simply diverts attention and valuable staff resources from the real issue at hand, which is creating a statewide policy to address OTC impacts.

Second, the Council staff report repeats, without independent support, the industry's blanket assertions that the "cost of retrofitting plants is not commensurate with the value of the fish saved," and that the older and less efficient plants "would not justify additional retrofit costs, especially in a de-regulated energy market."<sup>5</sup> Plants have numerous legal and other incentives under current regulations to understate the benefits of the Phase II performance standards (e.g., to qualify for site-specific requirements). The true costs have yet to be ascertained, but certainly no mitigation to date has come close to fully compensating the public for the damages caused. Reliance on unsupported and varying economic assertions assures that California will continue to lag behind many other states in protecting marine ecosystems from this harmful technology. For example, multiple plants around the country have successfully begun using recycled water for cooling, yet this possibility has not similarly been the subject of rigorous analysis or use in California.

In the few months since the last Ocean Protection Council meeting in September 23, 2005, the State Water Resources Control Board held two workshops on this issue: one in Laguna Beach on September 26, 2005 and one in Oakland on December 7, 2005. At the workshop in December, SWRCB staff unveiled draft recommendations for a statewide policy on once-through cooling. The recommendations included the following:

1. Include an OTC policy in the State Water Board's statewide Thermal Plan
2. Standardize data collection methods

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<sup>4</sup> UN Atlas of the Oceans (2002), <http://www.oceansatlas.org>; *see also* CA Dep't of Fish and Game, "California's Living Marine Resources: A Status Report" (Dec. 2001).

<sup>5</sup> [http://www.scc.ca.gov/Councilbb/130106meeting/0601CCouncil8E\\_MEMO\\_Once\\_Through\\_Cooling.pdf](http://www.scc.ca.gov/Councilbb/130106meeting/0601CCouncil8E_MEMO_Once_Through_Cooling.pdf), page 4.

3. Use actual vs. permitted maximums for the baseline calculation
4. Use upper end performance standards (95% reduction in impingement and 90% reduction in entrainment)
5. Discourage cooling water use when no power is being generated
6. Mitigation/restoration: mitigate for net impact from target reductions, and strong preference for in-kind mitigation
7. Address cumulative impacts when more than one plant in close proximity
8. Additional surcharge for Regional Board review<sup>6</sup>

While we support many of the recommendations above, we have suggestions for improvement, which include but are not limited to the following:

- Performance Standards: We support upper end performance standards as targets, but there must be clear and enforceable deadlines set in order to meet those targets.
- Mitigation/Restoration: Although we appreciate the SWRCB staff's effort to specify types of mitigation that are acceptable (*e.g.*, "in kind" mitigation based on a standard method), we do not believe that mitigation/restoration should be an option for a compliance alternative. Restoration does not mitigate directly for the impacts of once through cooling, and it has been consistent practice in the past to vastly under-fund mitigation in comparison with the ecological costs of OTC impacts. This issue is currently in federal litigation

In addition, we request that the Council address the impacts associated with reliance of desalination plants on existing OTC systems; and in particular examine the role such plants will play in complicating and hindering efforts by the State Water Board and others to adopt and implement OTC rules in compliance with state and federal law.

Finally, while we appreciate the intent, we must oppose the proposed action to develop economic incentives to modify systems voluntarily. Based on years of litigation and rulemaking on this issue, we have little expectation that such actions, absent an equal or greater focus on mandatory controls, will result in meaningful environmental protection. Instead, we ask that the Council endorse, at a minimum, the CEC's standard of approving once-through cooling by power plants only where alternatives are shown to be both environmentally undesirable and economically unsound, including consideration of conservation and renewable sources of power as ways to meet electricity demands. A far more sound position, however, would be to exclude the consideration of economics on a site specific basis altogether, except where alternatives are physically not possible. Economics have already been considered by EPA in setting the performance standards, and by the State of California in the various balancing provisions in state laws that support the protection of all coastal resources and their various uses. Allowing each power plant to rebalance those legislative equations at will locally would be the equivalent of a piece-by-piece dismantling of

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<sup>6</sup> [http://www.waterboards.ca.gov/plnspols/docs/120705\\_swrcb\\_present.pdf](http://www.waterboards.ca.gov/plnspols/docs/120705_swrcb_present.pdf).

the overall legislative structure of coastal protection, given the enormous local impacts associated with these plants. The latter standard would be more consistent with the state's commitment to marine resources, as well as the objectives of the U.S. Clean Water Act and the presumption against once-through cooling expressed in the U.S. Environmental Protection Agency's regulations.

The Ocean Protection Council is in a unique position at an important moment to help develop a progressive statewide policy to begin to phase out the use of once-through cooling. We call on you now at this critical time to take an active, leadership role in protecting marine ecosystems from this harmful technology. Thank you.

Respectfully,

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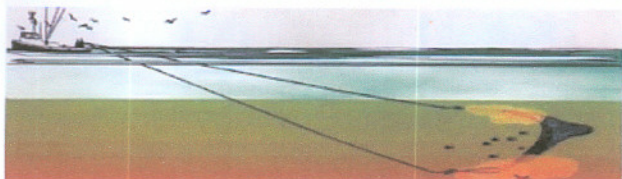
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## Southern California Trawlers Association

ME / BB

January 15, 2006

Mr. Mike Chrisman, Chairman  
California Ocean Protection Council  
c/o Secretary's Office, CA Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

RE: OPC MEETING IN SANTA BARBARA, JANUARY 13, 2006

Dear Chairman/Secretary Chrisman:

Thank you for holding the Council's most recent meeting in Santa Barbara. Unfortunately, I was not able to attend the Council's meeting. It was subsequently brought to our attention, however, that a subject arose during open public testimony related to an experimental spot prawn trawl fishery permit that our organization is in process of obtaining from the Pacific Fisheries Management Council and the California Fish and Game Commission. We would like to take this opportunity to set the record straight regarding this process, in order that no misunderstandings arise among Councilmembers regarding this experimental data collection effort in the Santa Barbara Channel.

After extensive review by the Council, its Groundfish Management Team, chaired by a member of the CA Dept. of Fish and Game, and the Groundfish Advisory Panel, the Council voted unanimously to permit this data collection effort, under very strictly limited conditions. This vote included endorsement by the DFG representative on the Council.

In order to complete the process, we were informed by DFG Marine Region that we also needed to obtain an experimental fishing permit from the Commission. When we contacted the Executive Director of the Commission to calendar the item, the ED recommended it be put on consent calendar as a non-controversial item. The item was continued at the December Commission meeting due to public comment by one member of the recreational fishing industry whose stated aim is to eliminate all commercial fishing in California state waters. It is our understanding that this same industry rep. requested the Council to weigh in regarding this experimental fishery permit. In order for the Council to respond with full knowledge of what this permit is designed to do, we would to offer relevant information to you and your fellow Councilmembers.

The full PFMC EFP proposal is attached to this letter, but, briefly, the point of this effort is to gather fisheries data to answer the question as to whether or not a trawl fishery may be conducted on selected mainland coastal soft-bottom habitat in the Santa Barbara Channel for spot prawns in such as way as to 1) minimize any/all bycatch, 2) not unduly affect seafloor habitat, 3) not affect deep sea corals or sponges of concern to ocean conservation interests, 4) not affect restoration opportunities for kelp beds or other biogenic organisms. When the PFMC terminated the spot prawn trawl fishery, followed by the F&G Commission, the expressed concern was bycatch of bocaccio, lingcod, and other rebuilding rockfish. The latest PFMC Newsletter relates, however, that lingcod have just been declared rebuilt, and the bocaccio STAR report indicates good growth of bocaccio stocks, especially in Southern California. Our small trawl boats began the spot prawn trawl fishery in the Santa Barbara Channel in the 1970s. Our experience in coastal spot prawn trawling in selected areas leads us to believe that few, if any,



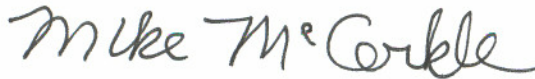
groundfish of concern are ever taken during prawn trawling in these areas, and, therefore, we may be able to conduct this fishery in an environmentally responsible fashion. But we were never given the chance to do demonstrate this. Thus, the present EFP provides our small boat trawl fishery the opportunity to gather the data necessary for both the Council and Commission to make informed decisions regarding the feasibility of this fishery in the future.

In our view, given the huge charge of the Ocean Protection Council, the large array of important policy issues currently before the Council including water quality, desalinization, LNG, offshore energy issues and others, it would seem micromanaging by the Council to step in front of the Commission and Council duties to regulate specific and experimental fisheries such as this spot prawn trawl EFP. This EFP withstood severe scrutiny before the Council and its scientific bodies, after which it was issued an exempted fishing permit, with extensive conditions, by the Council. Again, this decision was endorsed by DFG at Council meeting. We would also point out that it was passed with no objections from the public present at the Council meeting, including the recreational fishing industry representative who requested your Council to intervene in the Commission's process.

As a footnote, it should be brought to your attention that the Santa Barbara County Board of Supervisors' Resolution referred to during public comment at last Friday's Council meeting in the Supervisor's Hearing Room was developed, agendized, and passed without any notification to the small boat trawl fleet in Santa Barbara Harbor, nor with any discussion regarding the resolution whatsoever. Thus, there was no input from the County Fish and Game Commission, the State Department of Fish and Game, the CA Fish and Game Commission, nor the PFMC or its scientific advisory bodies in the development or passage of the County's resolution. It appears as though the wording of the resolution was taken partly, if not wholly, from recreational fishing industry literature readily available at trade show booths and other events.

Thank you for considering the information above and in the enclosed Council EFP proposal. We believe if fair attention is given this information, the Council will decide that it has far more pressing matters to attend to. Please have your staff call or write for clarification or further details of any of the above. I can be reached at (805) 886-4239 or by email at [mccorkle@cox.net](mailto:mccorkle@cox.net).

Sincerely,



Mike McCorkle, President



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**STATE OF CALIFORNIA  
FISH AND GAME COMMISSION**

**DATE:** January 18, 2006

**TO:** Mike Chrisman, Secretary for Resources  
Sam Schuchat, Executive Director, CA Coastal Conservancy

**FROM:** Jim Kellogg, President

**SUBJECT:** Commission Support For Collaborative Research And Management For The Channel Islands MPAs

The Commission, at its December 9, 2005, meeting in Concord, received an excellent presentation by Ms. Donna Schroeder as part of the proactive commercial fishermen from Santa Barbara and Ventura counties regarding "Integrating MPA Monitoring into Sustainable Fisheries Management". Ms. Schroeder's presentation highlighted areas where data gaps occur in the monitoring plan for the Channel Islands MPAs. The Commission took action to support their efforts to obtain funding to collect data necessary to determine the success and/or failure of the Channel Islands MPAs. Data needs to include, but are not limited to, stock assessments, performance criteria relating to EFI, and fisheries habitat mapping.

The Commission requests the California Ocean Protection Council's (Council) approval of the Proactive Fishermen's request to obtain funding for the above mentioned research projects. We believe their requests meet the Council's criteria to obtain subject funding. If you have any questions, please contact Mr. John Carlson, Jr., Executive Director, Fish and Game Commission at 916-653-4899.

cc: All Commissioners  
Director Broddrick  
Deputy Director Mastrup  
Gary Stacey, Regional Manager, Marine Region  
John Ugoretz, Marine Region Monterey  
Chris Miller, Commercial Fisherman  
Chris Hoeflinger, Commercial Fisherman  
Donna Schroeder, Marine Scientist  
Vern Goehring, California Fisheries Coalition

**From:** Jim Curland [mailto:jcurland@defenders.org]  
**Sent:** Tuesday, February 14, 2006 11:59 AM  
**To:** Brian Baird; Leah Akins; Amber Mace; Penny Harding; rpollock@scc.ca.gov  
**Subject:** Two Timely Requests for the CA Ocean Protection Council re: Southern Sea Otters

February 14, 2006

Secretary Mike Chrisman  
Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Dear Secretary Chrisman:

Defenders of Wildlife (Defenders) is writing to you to request that the California Ocean Protection Council (OPC) 1) support a very critical marine issue for California that is currently being reviewed by the federal government and to 2) schedule a presentation from Dr. Dave Jessup, Senior Wildlife Veterinarian, California Department of Fish and Game's Marine Wildlife Veterinary Care and Research Center, on the land-sea connection as it relates to sea otter mortality. Dr. Jessup, along with Dr. Melissa Miller and others are the leading researchers on sea otter disease/health and both give great presentations on the land-sea connection as it relates to sea otter mortality. This is a critical and timely issue exemplifying the impacts of land-based activities on indicator species, such as the southern sea otter. In our opinion, this would be an important presentation to have the OPC hear prior to completing the OPC's strategic plan.

The southern or California sea otter (*Enhydra lutris nereis*), which has been listed as threatened under the federal Endangered Species Act (ESA) since 1977 and as a "fully protected mammal" under California state law, is the focus of a review by the U.S. Fish and Wildlife Service (FWS). In the FWS Draft Supplemental Environmental Impact Statement (DSEIS) on the translocation of southern sea otters, released in October of this year, FWS has proposed a preferred alternative of terminating the Southern Sea Otter translocation program, ending the no-otter management zone south of Pt. Conception, near Santa Barbara, and allowing the sea otters currently residing south of Pt. Conception, including sea otters residing around San Nicolas Island (SNI), to remain. The DSEIS represents an important and scientifically responsible step toward successfully recovering the southern sea otter. In the DSEIS and proposed regulations to implement it, FWS has proposed an action that will allow sea otters to move freely and naturally expand their range, which will help ensure this species' survival and recovery.

Historically, the southern sea otter could be found all along the California coast and into Baja California, likely numbering 16,000 in the 1800s. Fur traders then killed almost all southern sea otters, with only a few dozen surviving in a remote cove off of Big Sur. Today there are about 2,500 sea otters along our coast. Sea otters are the classic example of a keystone species. Sea otters allow for a natural check in the nearshore ecosystem by keeping populations of invertebrate grazers, such as sea urchins, from overtaking the system and denuding the kelp forests. The near-extinction of sea otters along the California coast altered the coastal ecosystem; bringing back sea otters throughout their range represents a critical step to restoring coastal ecosystems—creating healthy kelp forests and diverse populations of fish and invertebrate species.

In 1987, the FWS began a translocation program to establish a new colony of southern sea otters on SNI in an attempt to protect the species from a catastrophic event (e.g. oil spill) and ultimately restore their dwindling numbers off the coast of California. Out of the original 140 sea otters translocated from 1987-1990 to SNI, just over 30 remain at the island today. The others either died or swam away and three years after the translocation program ended in 1990, there were fewer than 25 sea otters at SNI.

While the population at SNI has shown some signs of recruitment, it is far from the predicted viable population that FWS estimated at between 150-500 sea otters.

In addition, capturing and transporting sea otters tends to be unsuccessful because typically the sea otter is harmed or simply swims back to its initial location. For example, between 1987 and 1993, 24 sea otters were moved, 4 of those animals died.

Also introducing a new sea otter into an already existing group of sea otters may disrupt the established social hierarchy of that group. Because moving sea otters places them at risk, the FWS and the Southern Sea Otter Recovery Team concluded that moving otters and impeding natural range expansion southward is likely to jeopardize the species' continued existence.

The southern sea otter translocation program has failed to meet its objective of establishing a viable, independent colony of sea otters to serve as a safeguard for the population, as a whole, in the event of a natural or human-caused event. The recovery and management goals for southern sea otters cannot be met by continuing the program. Given that in the last ten years, the southern sea otter population has exhibited periods of growth and decline, and is still listed as threatened under the ESA, we are especially pleased to see the FWS recommendation to both protect and allow the sea otters currently in the translocation and management zones to remain.

Implementation of the preferred alternative in the DSEIS will ensure a sustainable sea otter population and will allow sea otters to expand their range. Defenders believes this is a very important issue for the OPC to review and support, and urge you support FWS in implementing the preferred alternative.

And, to reiterate, Defenders believes there is great value in having Dr. Jessup speak before the OPC before the strategic plan is completed. Due to Dr. Jessup being a CDFG employee, he has stated to me that he would have to be both invited and that his appearance before the OPC would need to be approved by the Director Broddrick.

Sincerely,

Kim Delfino, Director of California Programs  
Jim Curland, Marine Program Associate  
Defenders of Wildlife

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**Jim Curland, Marine Program Associate**  
Defenders of Wildlife  
P.O. Box 959

Moss Landing, CA. 95039  
831-726-9010 (phone)  
831-726-9020 (fax)

**SUPPORT THE DECISION TO ALLOW SEA OTTERS BACK INTO WATERS OFF SOUTHERN CALIFORNIA!**

*Please provide your comments of support on a critical document prepared by U.S. Fish and Wildlife Service. The comment period deadline is March 6, 2006. You can find out more information at:*

<http://www.saveseaotters.org>

*Defenders of Wildlife is dedicated to the protection of all native wild animals and plants in their natural communities. We focus our programs on what scientists consider two of the most serious environmental threats to the planet: the accelerating rate of extinction of species and the associated loss of biological diversity, and habitat alteration and destruction. Long known for our leadership on endangered species issues, Defenders of Wildlife also advocates new approaches to wildlife conservation that will help keep species from becoming endangered. Our programs encourage protection of entire ecosystems and interconnected habitats while protecting predators that serve as indicator species for ecosystem health.*

<http://www.defenders.org>

<http://www.kidsplanet.org>

<a href="http://www.defenders.org/wildlife/new/seaotters.html">http://www.defenders.org/wildlife/new/seaotters.html</a>	(Defenders' Main Sea Otter Page)
<a href="http://www.kidsplanet.org/espanol/espint.html">http://www.kidsplanet.org/espanol/espint.html</a>	(Defenders' Sea Otter Teaching Unit)
<a href="http://www.defenders.org/wildlife/new/marine.html">http://www.defenders.org/wildlife/new/marine.html</a>	(Defenders' Marine Program Page)
<a href="http://www.defenders.org/california/marine.html">http://www.defenders.org/california/marine.html</a>	(Defenders' California Marine Program)

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**From:** Warner Chabot [mailto:wchabot@oceanconservancy.org]  
**Sent:** Wednesday, February 15, 2006 7:25 PM  
**To:** Mike Chrisman  
**Cc:** Brian Baird; Sam Schuchat (work) (Sam Schuchat (work))  
**Subject:** Discussion of MPA monitoring & Evaluation at April OPC meeting

February 15, 2006

Michael Chrisman  
Secretary of Resources  
1416 9th St. Rm 1311  
Sacramento, 95814

Re: Proposed April OPC Discussion of MLPA Monitoring and Evaluation Options

Dear Secretary Chrisman:

We urge you to consider adding an item on the April agenda to discuss coastal ecosystem monitoring and specifically the monitoring and evaluation of Marine Protected Area (MPA) networks to be designated under the Marine Life Protection Act (MLPA) process. This topic could be part of an Ocean Protection Council (OPC) Agenda discussion on the draft OPC Strategic Plan or the discussion of specific projects. We believe the topic of MPA monitoring and evaluation is relevant, timely and necessary for the following reasons:

California's Marine Life Management Act and Marine Life Protection Act are landmark laws that provide the foundation for visionary, ecosystem-based management in the marine environment. Yet the implementation and effectiveness of both laws will require adequate staffing and an efficient system to monitor and evaluate the effectiveness of fisheries management and marine protected area policies. An effective monitoring and evaluation system for California's marine environment is a necessary and critical element of ecosystem-based and adaptive management.

Over the next six months, the California Department of Fish and Game and the Fish and Game Commission will be working with the Governor's MLPA Blue Ribbon Task Force to adopt and implement a marine protected area network on the central California coast including an effective monitoring and evaluation system for that network. This task must be completed within the context of a difficult fiscal environment for California's resources agencies.

At the same time, your Ocean Protection Council is drafting a strategic plan with a mission to improve the protection, management and restoration of California's ocean and coastal ecosystems. The draft outline of that plan calls for using the tools of ecosystem-based management, governance, research and new technologies.

The implementation of the MLPA provides an appropriate and timely case study for the very concepts being considered by the OPC's strategic planning process. The MLPA has both immediate and long term policy implications for the success of the Governor's Ocean Action Agenda. The success of the Phase One (Central Coast) MLPA effort requires an immediate discussion of the options to structure and fund the interagency coordination necessary for a cost effective ocean ecosystem monitoring program.



Given the Ocean Protection Council's fiscal resources, your mission to identify and resolve cross-cutting marine management issues and the near term needs to resolve questions about MLPA monitoring, we believe that an April OPC briefing and discussion of this issue would be timely and appropriate. We would be happy to provide additional suggestions to insure that the discussion would be focused and productive.

Respectfully,

Warner Chabot  
The Ocean Conservancy

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Burr Heneman  
Commonweal

Mike Osmond  
World Wildlife Federation

Steve Shimek  
The Otter Project

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February 23, 2006

Ms. Tam Doduc, Chair  
Members of the Board  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814

**Re: State Policy Governing Once-Through Cooling at Coastal Power Plants**

**VIA EMAIL:** [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

Dear Chair Doduc and Members:

The undersigned groups respectfully submit the following comments regarding the development of a statewide policy on once-through cooling.

First of all, we thank the State Water Resources Control Board (“State Board”) for its attention to this issue, and for providing the opportunity for public participation at workshops in Laguna Beach and Oakland. We also appreciate the State Board’s continuing coordination with the California Ocean Protection Council in the development of a once-through cooling policy. We also support the efforts of other state agencies addressing once-through cooling. Many of us attended the State Lands Commission (SLC) hearing on February 9<sup>th</sup> to support their initiative opposing once-through cooling. We will send the State Board a copy of our separate comments to the SLC regarding this topic.

Through a statewide policy, the State Board, together with other agencies, can fulfill the Legislature’s recognition that “the preservation of the state’s ocean resources depends on healthy, productive, and resilient ocean ecosystems,” and that “the governance of ocean resources should be guided by principles of sustainability, ecosystem health, precaution, recognition of the interconnectedness between land and ocean, decisions informed by good science and improved understanding of coastal and ocean ecosystems, and public participation in decision-making.”<sup>1</sup> We look forward to playing a constructive role in developing a policy that is appropriately protective of the state’s invaluable coastal resources.

We strongly support the implementation of a consistent statewide policy and appreciate the State Board staff recommendations regarding this policy. We attended both the September 26<sup>th</sup> and December 7<sup>th</sup> workshops on this issue. This letter highlights our perspective on the draft recommendations for a statewide policy on once-through cooling presented by Regional Board staff at the December 7<sup>th</sup> workshop. We also take up elements of the pending policy that were not addressed by staff at either workshop.

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<sup>1</sup> Pub. Resources Code, section 35505(c).

Based on the information presented at these workshops, we have the following main points regarding a statewide policy on once-through cooling:

- Compliance alternatives that rely on restoration and mitigation should not be included;
- The cost exceptions presented in the federal rule as site-specific determinations of best technology available should not be included;
- A scientific and consistent approach should be used to determine the calculation baseline, which provides the basis from which impingement and entrainment reductions are evaluated;
- A rigorous analysis of all feasible technological and cooling alternatives should be conducted at each facility;
- Power plants going through repowering should be treated as “new facilities” and
- The Regional Boards should evaluate impacts on marine mammals, sea turtles, and other larger organisms, in addition to fish and invertebrates.

## **Response to State Board Staff Draft Recommendations for a Statewide Policy**

Following the preliminary State Board discussion at the Oakland workshop on December 7, 2005, we have recommendations about what to include in the state policy for Phase II facilities. Above all, we believe that restoration/mitigation and the site-specific compliance alternatives that allow for economically based exceptions (both elements permitted in the federal rule) should not be included in this policy.<sup>2</sup>

First, we strongly support the following staff recommendations for a statewide policy presented at the Oakland workshop:

- Utilize standardized data collection methods;
- Use actual flow, rather than the permitted maximum to determine the calculation baseline. Most power plants use a lower volume of seawater than permitted for normal operations; we support basing impingement and entrainment reductions on the actual flow used by each facility;
- Set targets at the upper end of the federal performance standards (95% reduction for impingement, and 90% for entrainment);
- Discourage cooling water use when power is not generated; and
- Require a cumulative impact evaluation for areas where power plants are in close proximity, such as Santa Monica Bay.

In addition to supporting these recommendations, we have further suggestions for improvement. In continuing to develop the statewide policy, it is imperative that the State Board recall Water Code section 13142.5, which mandates that 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.” This Water Code section echoes numerous other state authorities enacted to protect, enhance, and restore the State’s coastal resources. The following list summarizes our main points:

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<sup>2</sup> As has been noted in both workshops, the viability of restoration and the site-specific compliance alternatives (as provided in the federal Phase II rule) is pending litigation in the Second Circuit Court of Appeals.

- Calculation baseline: While we agree that calculation baseline should be based on actual rather than permitted flow levels, the term “actual flow” needs to be more clearly defined. Further recommendations regarding the calculation baseline are discussed below.
- Performance Standards: We support using the upper end of the performance standards as reduction targets, but there must be clear and enforceable deadlines set in order to meet these targets.
- Mitigation/Restoration: Although we appreciate the State Board staff’s effort to specify types of mitigation that are acceptable (e.g. in-kind mitigation), we do not believe that mitigation/restoration should be considered as an option for a compliance alternative. Restoration does not mitigate directly for the impacts of once-through cooling, and it has been consistent practice in the past to vastly under-fund mitigation in comparison with the ecological costs of once-through cooling impacts. Mitigation and/or restoration should be permitted in this policy only with respect to ensuring that 100% of the impacts associated with once-through cooling are mitigated; that is, mitigation would be allowed only for the difference between the upper end of the performance standards (95% for impingement and 90% for entrainment) and 100% of the damage.
- Thermal Plan: Although we support placing this policy in an enforceable document, we are concerned that amending the Thermal Plan may be a slow process. This policy is of high importance and needs to be implemented soon to provide guidance for the Regional Boards and industry. We encourage the State Board to proceed expeditiously with the policy and Thermal Plan amendment process, and to ensure that all permits issued include such policy requirements whether or not the Thermal Plan process is complete.

## **The State Policy Should Address the Potential Loopholes Afforded By the Federal Rule to Protect Water Quality and Marine Resources**

While we applaud many of the recommendations made by staff at the December workshop held in Oakland (summarized on slide 9 of the staff Presentation), all of staff’s good intentions could be meaningless unless the State closes off potential loopholes in the federal rule. If these loopholes remain, the time and resources spent by the State Board and other agencies on this issue *will likely result in little to no environmental benefit*. Loopholes exist in the form of site-specific determinations, the range of feasible options that must be considered, and the “new facility” definition currently allowed by the Phase II rule.<sup>3</sup>

### ***1. Site-Specific BTA Determinations: The “Cost Exceptions”***

Despite attempting to promote a national standard, the Phase II regulations allow for site-specific determinations of best technology available (“BTA”).<sup>4</sup> If either (1) the costs of compliance with

<sup>3</sup> Again, as stated above, the site-specific alternatives are currently subject to federal litigation in the Second Circuit. The same litigation also challenges the scope of the Phase I and Phase II rules as it relates to which facilities fall under each rule.

<sup>4</sup> 69 Fed. Reg. 41597-98; 40 C.F.R. Part 125.

the performance standards and/or restoration requirements would be significantly greater than the costs considered by the EPA Administrator for a similar facility (cost-cost exception), or (2) the costs of compliance with the performance standards and/or restoration requirements would be significantly greater than the benefits from compliance, the plant can request a site-specific BTA determination. In either case, the State Board must ensure that these requirements achieve an efficacy “as close as practicable to the performance standards and/or restoration requirements.” However, for the reasons stated below, the undersigned environmental groups oppose both avenues for site-specific determinations.

The site-specific determinations raise a number of questions that will be nearly impossible to answer accurately and consistently. What are “significantly greater” costs? Are these greater costs offset by other advantages the plant possesses due to location or other attribute? How should environmental benefits be monetized? Are non-market and non-use values fully and accurately depicted? Should plants situated near commercial fisheries be favored or disfavored against plants in other locations? How do the Regional Boards know when proposed measures operate as close as practicable to the performance standards? These are just a few of the challenges awaiting Regional Board staff. Moreover, preliminary indications from the Proposals for Information Collection (PICs)<sup>5</sup> suggest that plant operators will frequently pursue site-specific determinations, not rarely as EPA apparently anticipated.<sup>6</sup>

Compounding these larger questions are uncertainties inherent in the calculation of compliance costs and environmental benefits. These uncertainties are likely to favor the plant operators at the expense of the coastal environment.

#### Calculation of Compliance Costs

Calculations of compliance costs are a critical basis for determining plant eligibility for the more lenient site-specific standards. However, calculation of these costs is notoriously difficult; the technical development documents supporting the Phase II rule attest to EPA’s own difficulties in this area. Under both cost exceptions as currently stated, plant operators have an incentive to overstate such costs because they are hard for regulators to verify and the lure of more lenient standards means higher profits. Complicating matters, because neither the State Board nor Regional Boards routinely evaluate the operations of electricity generators, the Boards are not currently prepared to rigorously evaluate the cost figures to be provided by the power plants.

One common sense requirement of these cost analyses is to evaluate compliance costs in the context of plant operations. For example, if a given technology costing \$20 million will satisfy the desired performance standards, how significant is this cost when compared to the annual or expected lifetime operating costs? How significant is the cost compared to other regulatory costs imposed on the plant to meet other regulations? Can the cost be financed over the lifetime of the plant? It appears that Regional Board staffs have historically not requested contextual data. And

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<sup>5</sup> 40 C.F.R. §125.95(b)(1) [The PICs are blueprints for impingement and entrainment studies which are required by the Phase II rule when plants elect not to reduce their flow commensurate with closed-cycle recirculating cooling systems.]

<sup>6</sup> 69 Fed. Reg. 41590. [“In most cases, EPA believes that these performance standards can be met using design and construction technologies or operational measures.”]



when environmental groups have requested these data directly from plants, plants have raised confidentiality concerns. However, when the allocation of public resources is in question, it is not sufficient to evaluate cost without reference to context, nor is it acceptable that necessary data are shielded from agency review.

If the State Board is to rely on a policy that depends on assertions of compliance cost, the Board should retain an independent panel of experts that is qualified to review such data in appropriate context. Data from the presentation by agency consultant John Maulbetsch at the Oakland workshop could be a good starting point for this panel's inquiry. In his presentation, Mr. Maulbetsch showed that fuel costs are by far the largest cost of production at combined cycle plants, and that capital costs, of which the cooling system is only one component, appear to range around 11 to 16 percent.<sup>7,8</sup> The independent panel could review these variables and other relevant ones in determining the true significance of compliance costs.

### Calculation of Environmental Benefits

Just as plant operators have an incentive to shield or overstate data on compliance costs, operators also have an incentive to understate the benefits of compliance with the Phase II performance standards under the second cost exception. Because the precise calculation of environmental benefits is challenging and subject to debate, plants will likely stop after calculating only the most immediate and transparent benefits. In doing so, plants will ignore or avoid the quantification of non-use and non-market benefits. Calculation of these benefits pushes the frontiers of environmental economics; indeed, EPA itself could not quantify the non-use benefits to be afforded by the national rule.<sup>9</sup> Given this reality, rather than encouraging a simplistic and inaccurate approach to benefits calculation, the State Board should reject any alternative that relies on it.

The latest example in the monetization of environmental benefits comes from a study concerning the Huntington Beach Generating Station. This study, published in 2005, focused only on the impacts of the plant to commercially valuable fish species. In doing so, the study ignored certain use and non-use categories. The study concluded that the power plant reduced environmental benefits by \$317-\$2887 annually, which is likely to be a gross underestimation.<sup>10</sup>

As can be seen at Huntington Beach, the cost-benefit exception would give plants an incentive to dramatically understate environmental benefits. In so doing, the exception essentially shifts the burden to the State Board to prove that other environmental benefits really do exist. This concept would turn environmental regulation on its head, asking government to prove harm before industry can be regulated. Clean Water Act section 316,<sup>11</sup> the statute on which the Phase II regulation is in principle based, takes a different approach, commanding simply that steps are

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<sup>7</sup> Fuel costs may be even higher at traditional steam plants, where more fuel is necessary for a given output of electricity.

<sup>8</sup> Maulbetsch Presentation at Oakland Workshop, December 7, 2005, Slides 28-29.

<sup>9</sup> EPA, Final Rule Economic and Benefits Analysis, Chapter D-1: comparison of Costs and Benefits, <http://www.epa.gov/waterscience/316b/econbenefits/final.htm>.

<sup>10</sup> AES Huntington Beach L.L.C. Generating Station Entrainment And Impingement Study Final Report, April 2005.

<sup>11</sup> 33 U.S.C. §1316(b).

taken to minimize environmental impact from once-through cooling systems. The State Board should do the same.

### California's Deregulated Energy Market

Finally, because California now has a deregulated energy market, the State Board's once-through cooling policy will affect not only coastal plants but *all* plants selling energy on this open market. In the free market, plants of all types compete to sell electricity to the public. At the same time, plants are subject to individual review when first built or when repowering. Because of water supply and other concerns, inland plants have been forced over time to operate with cooling systems that use small amounts of water. These plants have demonstrated that the use of such technologies is feasible even in the warmest areas of the State. In this context, prolonging the lifespan of the ageing fleet of once-through cooling systems, whether through site-specific exceptions or otherwise, amounts to an undeserved subsidy to coastal plants using the public's coastal resources to pay for it. Because sanctioning site-specific determinations will exacerbate and extend inequalities in the energy market, the State Board should further avoid them as a matter of public policy.

### ***2. The State Policy Should Require Rigorous Analysis of All Feasible Technological and Cooling Measures***

Although plants are still submitting the PICs required by the Phase II rule, those submitted to date suggest that plants are not evaluating all "feasible" measures. In past permit proceedings, the determination of what is "feasible" and what is "infeasible" appears to have resided with the plant operators, with little oversight from the Regional Boards. These assertions of technological or economic infeasibility have at times rested on a paragraph or less of support.

On this issue, the New York State policy takes a better approach. New York requires evaluation of *all* feasible alternatives, where feasibility is defined as "'capable of being done' with respect to the physical characteristics of the facility site but does not involve consideration of cost." Furthermore, New York requires that the power plant "explore the feasibility of closed-cycle cooling at each existing facility." Then, as part of a later technological review, New York considers the cost of each alternative.<sup>12</sup>

New York's feasibility policy is a good one. What has happened in California is that claims of infeasibility have rarely been aired before the Regional Board and contested by all stakeholders. Without a broad view of feasibility at the outset, the consideration of alternatives is artificially narrowed, and State and Regional Board staff and members are not able to choose meaningfully among alternatives. One example of this has been the limited analysis of the use of recycled water for cooling at coastal plants, despite efforts in the water supply and wastewater treatment communities to reclaim water. This approach neither furthers the goals of sound science nor the mission of the State and Regional Boards. It also hinders public participation.

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<sup>12</sup> Letter to Benjamin Grumbles from New York State Department of Environmental Conservation, January 24, 2005, p. 4.

### ***3. The State Policy Should Classify Plants As New Facilities When Old Generation Structures are Razed or New Discharge Permits are Required***

Under the current federal regulatory structure, the Phase I rule governs *new* power plants, while the Phase II rule controls *existing* power plants. While the contours of this distinction are presently the subject of litigation, the current federal policy focuses solely on changes to the capacity of a plant's cooling water intake structure in dividing new plants from existing plants. Thus, an entire power plant can be razed and built from new, but so long as the design capacity of the cooling structure is not increased, the plant will fall under the more lenient rules for existing plants.<sup>13</sup> In California, the same plant might be subject to *new* waste discharge requirements while perversely falling under the *old* intake requirements.

State policy can and should distinguish between existing and new plants more rationally. Under the federal rules, existing plants receive more lenient treatment because *retrofitting* a facility with an alternative cooling technology is thought to be significantly more costly than when building a new facility from the ground up. However, when plants "repower," a process in which generally all of the plant's structures are replaced except for the intakes, these higher retrofit costs do not exist. Thus, in cases of repowering, the reasons for more leniently treating "existing" facilities are no longer valid. Power plants that go through repowering should comply with either the federal rules for new facilities or more stringent state rules.

### **The State Policy Should Take a Scientific and Consistent Approach to Determine the Calculation Baseline**

To date, much of the discussion concerning once-through cooling has involved simply trying to understand the federal Phase II rule. However, in fashioning a policy for California, the State Board, together with other agencies with responsibilities for the health of our ocean and coast, must ask: to what conditions shall our coastal waters be restored? Congress and the Legislature have already provided some answers. The Clean Water Act famously commands that waters be restored to fishable and swimmable conditions. The Porter-Cologne Act calls for activities affecting water quality to be regulated to attain the highest water quality reasonable and that measures be taken to minimize the intake and mortality of all forms of marine life. Similarly, the Coastal Act insists that uses of the marine environment be conducted in a manner that sustains biological productivity and maintains healthy populations of all marine species adequate for long-term commercial, recreational, scientific, and educational purposes. Most recently, similar goals were embraced in the California Ocean Protection Act.

Because the federal rule seeks only to impose a performance standard, without reference to existing or future environmental conditions, it is critical that the State Board develop a policy that will help achieve the goals our elected representatives have long pursued.

We especially urge the State Board to establish a method for determining the calculation baseline (the basis on which impingement and entrainment reductions are evaluated) using sound science,

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<sup>13</sup> 69 Fed. Reg. 41578-79.

involving reference sites, and to promote consistency for all coastal power plants in California. A clear approach for determining the calculation baseline is paramount to the state policy because it is the level from which all impingement and entrainment reductions are evaluated. We applaud the State Board for proposing to base the calculation baseline on actual rather than maximum permitted flows. However, we are concerned that allowing facilities to establish a calculation baseline derived solely from historic levels of intake, entrainment, and impingement, as well as potentially depleted source waters surrounding the facility, will produce biased results that result in no meaningful environmental improvement.

The decrease of biodiversity in the world's oceans and declining populations of commercially and non-commercially important marine species are well documented.<sup>14</sup> Recreational fish landings in the Southern California Bight have decreased from an annual mean of 4.25 million fish in 1963 to 2.5 million fish in 1998.<sup>15</sup> Many marine populations, including certain species of rockfish and abalone, are at strikingly low levels, and some species which were common decades ago are now rare off the coast of California. Historic impingement studies (1978-1979) at Harbor Generating Station document the take of pacific pompano, a species which is almost never seen today in the coastal waters of Southern California.<sup>16</sup>

The persistent use of once-through cooling at coastal power plants arguably contributes to the loss of biodiversity and the evident population decline of many marine species over the past 50 years. Thus, a balanced and scientific approach is needed for determining the calculation baseline. The historic data taken by power plant facilities is rarely comprehensive, and should not be the single basis for evaluation of impingement and entrainment reductions. Furthermore, determining the calculation baseline solely on present data does not account for the decades of destruction imparted by coastal power plants and other anthropogenic impacts on marine life. Taking a reference approach to determining the calculation baseline would help account for the years of slow degradation that have occurred in waters adjacent to power plant facilities, and it would be consistent with section 13142.5(d) of the Porter-Cologne Act (requiring such baseline studies), which to date has been largely ignored. Additionally, population sizes and species compositions have likely changed since the establishment of coastal power plants. This reference approach will help provide current data at a site that is undisturbed by once-through cooling for which to compare the density of marine life at coastal power plant facilities.

We recommend the State Board to convene an independent technical working group to determine the calculation baseline for all generating facilities in California. This group should be charged with collaboratively selecting a series of reference sites that represent habitats characteristic of each facility. In addition, we recommend that the team develop a monitoring plan to characterize the density of marine life at each reference site. Using the same methods and sampling regime as these reference surveys, the density of marine life should be determined in the source water at each power plant. Additionally, impingement and entrainment studies should be conducted at the

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<sup>14</sup> Myers and Worm, Rapid worldwide depletion of predatory fish communities, *Nature*, vol. 423, May, 2003; Hutchings and Reynolds, Marine Fish Population Collapses: Consequences for Recovery and Extinction Risk, *BioScience*, vol. 54, no. 4, April, 2004.

<sup>15</sup> Dotson and Charter, Trends in the Southern California Sport Fishery, CalCOFI Rep., Vol. 44, 2003, p.94.

<sup>16</sup> Tenera Environmental and MBC *Applied Environmental Sciences*, Summary of Existing Physical and Biological Information and Impingement Mortality and Entrainment Characterization Study Sampling Plan, October 2005, p.5.

intake pipes of each power plant. Based on the density of entrainable marine life in the source water and the reference site, a simple ratio can be used to determine the multiplier between these sites. This multiplier can be used to evaluate the entrainment reduction required for each facility. Similar methods can be used to determine the appropriate impingement reductions. We also recommend that the baseline is revisited every few years to monitor its effectiveness.

We understand that this proposal will require significant resources; however, it is essential if the state foresees any continuation of the use of once-through cooling technology, which is extremely damaging to the coastal and marine environment. This approach provides an unbiased approach to managing problems associated with potentially depleted source waters surrounding power plants due to decades of impingement and entrainment.

## **The State Policy Should Require Data Collection on All Natural Resource Impacts**

Neither Clean Water Act section 316(b) nor Porter-Cologne section 13142.5 make any distinction as to type or size of marine organism impacted by once-through cooled facilities. Nevertheless, Regional Boards do not appear to have gathered data on the impacts of these facilities on larger, non-fish species, such as marine mammals and sea turtles. Despite long-standing mandates in the Endangered Species Act, Marine Mammal Protection Act, and other authorities, the National Oceanic and Atmospheric Administration has also failed to routinely collect data of the impact of these power plants on larger organisms. However, voluntary reporting and information from marine mammal rescue efforts illustrate that it is not unusual for sea lions, harbor seals, and some sea turtles to be “taken” by these facilities.<sup>17</sup> We urge the state policy to require evaluation of these types of impacts in the permitting process.

## **Conclusion**

Thank you for the opportunity to provide our comments regarding the development of a California state policy on once-through cooling. As described in detail above, we encourage the State Board to exclude both the restoration and site-specific compliance alternatives from the impending state policy. We also urge the State Board to take a scientific approach in determining the calculation baseline for each power plant that involves the use of reference sites. A state policy on once-through cooling will affect coastal resources for decades into the future. With this policy, the State Board has the opportunity to either protect our marine and coastal environment, or subject it to continued harm. Thus we urge the State Board to take vigilant approach that upholds California’s legacy of coastal protection by adopting a protective policy regarding Phase II facilities to safeguard our valuable marine resources. Please contact us if you have any questions regarding our comments.

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<sup>17</sup> See, e.g., 67 Fed. Reg. 61 (Jan. 2, 2002), “Small Takes of Marine Mammals Incidental to Specified Activities; Taking of Marine Mammals Incidental to Power Plant Operations,” <http://www.epa.gov/fedrgstr/EPA-IMPACT/2002/January/Day-02/i32238.htm> (Letter of Authorization granted pursuant to Marine Mammal Protection Act to take certain number of harbor seals, gray seals, harp seals, and hooded seals from in power plant operations).



Respectfully,

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Cc: Dominic Gregorio, Division of Water Quality, State Water Resources Control Board  
The Honorable Steve Westly, Chair, and Commissioners, California State Lands Commission  
The Honorable Mike Chrisman, Chair, and Members of the Council, Ocean Protection Council  
Jim McKinney, Environmental Policy Specialist, California Energy Commission  
Tom Luster, Environmental Specialist, California Coastal Commission

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**From:** Mark Coleman [mailto:marksthespot@sbcglobal.net]

**Sent:** Tuesday, February 28, 2006 5:42 PM

**To:** Penny Harding

**Subject:** 2006 Salmon Season Prohibition

To Whom It May Concern:

I am writing in regards to a petition established that addresses the 2006 Salmon Fishing Season prohibition.

I stand among other recreational fisherman when I say 'closing this years salmon season is wrong and should not occur'. I understand completely the issue of "over-fishing" and I, as well as others in the recreational fishing community, would never want do anything to harm the salmon population nor abuse the sport of fishing in general. However I believe, and know, that over-fishing is not the underlying issue here, but a mere consequence of an irresponsible government action in 2002.

That year, water was taken from the Klamath River to irrigate farmlands; a harmful act that resulted in the death of an enormous percentage of the salmon population. The consequence of that destructive act leads us to the cause of this years' small salmon population in our waters.

It is not the fault of fisherman (recreational, tribal, or commercial) nor is it the sport of fishing itself, that led to the under population of these fish, yet we as fisherman are the ones suffering the consequences of a punishment that is a result of harmful governmental acts four years prior.

I not only write this letter in support of salmon fishing as a sport, but in support for the countless men and women who find salmon fishing as their very means of income this time of year; proving that by prohibiting fishing for salmon you are not just banning someone from a leisurely pastime, but you are keeping them away from their own jobs.

So I ask you to reinstate the 2006 Salmon Season, as well as for your continued support in this matter. Make the season shorter, impose stricter regulations, but please, on behalf of all recreation, tribal, and commercial fisherman and women of California and parts of Oregon, I ask you do not suspend and prohibit salmon fishing for the 2006 season.

Thank You for your time and support in this matter.

Respectfully,

*Mark W. Coleman*

Recreational Fisherman

Pacifica, California



# Moss Landing Marine Laboratories<sup>1</sup>

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13 March 2006

Mr. Mike Chrisman  
Chair, Ocean Protection Council  
Secretary for Resources  
Resources Agency  
1416 Ninth St., Suite 1311  
Sacramento, CA 95814

Dear Mr. Chrisman:

I urge the Ocean Protection Council (OPC) to support the State Water Resources Control Board, as California's lead agency for water quality, in establishing a state-wide Technical Working Group to advise all relevant state agencies on environmental issues related to once-through cooling systems (OTC) of coastal power plants.

California needs an OTC Technical Working Group (TWG) because:

- These issues, their assessment, and their resolution are extremely complex and highly technical.
- These issues need to be analyzed on a site by site basis.
- A consistent state-wide approach is direly needed.
- Technical review of the study proposals being submitted to the Regional Water Boards is needed immediately.

The need for such review became apparent in the mid 1980's when the California Coastal Commission formed a TWG (called the Marine Review Committee) to use modern scientific approaches in evaluating the environmental impacts of the OTC for new generating units at the San Onofre Nuclear Generating Station. TWGs that review and advise on impact assessment and reduction have since been used by the Central Coast Regional Water Quality Control Board and the California Energy Commission (CEC) at five other power plants. I have served as an independent expert on all these TWGs. I, CEC staff and other independent experts also recently reviewed the history and adequacy of such impact studies for all such power plants in California (CEC report, reference below).

Why is a TWG needed? OTC impacts occur from the discharge of heated water (thermal impacts), and from mortality of organisms in the water used for cooling. The latter result from impingement of large organisms on cooling system intake screens and entrainment of organisms that pass through the screens into the power plant. In either case, mortality is likely 100%. Estimating impingement impacts is straight forward:



organisms caught on the screens are identified and counted. Thermal effects are more difficult to estimate, but the approach and methods are also reasonably straight forward. Entrainment impacts are much more difficult to estimate accurately, requiring an understanding of ocean circulation, species present, their life history characteristics (birth, growth and death rates, larval biology), and the distribution and abundance of larvae in space and time at and around the intake. This information must then be incorporated into complex population models to estimate the magnitude and spatial extent of the impact. Once these estimates are obtained, evaluation of possible impact reduction via modification of the cooling system or mitigation is required. These are all very technical processes requiring knowledge of physical oceanography, the biology of numerous fish and invertebrate species, mathematical population modeling, and civil and mechanical engineering. Moreover, while assessment approaches are similar, sampling designs and interpretation of the results are necessarily site specific as they depend on the characteristics of the local marine environment.

At present, assessment study designs, studies and reduction plans are proposed and done by consulting firms hired by power plant owners. Unless the generating capacity of the power plant is being modified, regulatory oversight is the responsibility of Regional Water Quality Control Boards, with the California Department of Fish and Game, Coastal Commission and US National Marine Fisheries Service (and other agencies depending on the particular power plant) providing advice to the Regional Boards. The problem is that none of these agencies have the breadth and depth of technical expertise required for oversight, and often do not have the time to do the thorough, critical review required.

The California State Water Resources Control Board now recognizes that the Regional Boards need more guidance on such assessments, and State Board staff are in the process of writing new regulations, including a state-wide TWG, that could become part of the Thermal Plan. I am currently working with the CEC to assist the State Board with this effort. Unfortunately, even if the new regulations are approved, the process is unlikely to be completed in the near future.

In my opinion, a state-wide TWG is needed now. In 2004, the US EPA announced new regulations requiring all coastal power plants to greatly reduce their marine impacts. In many cases compliance is required by 2008. These new regulations are resulting in new impact assessments at all plants, and consideration of a range of plant modifications and perhaps mitigation to meet the required reductions. Power companies are currently submitting Proposals for Information Collection (PICs) to Regional Boards that outline what information is needed to decide how to bring each power plant into compliance.

Given that the State Board regulations are unlikely to be in effect until after most of these assessments are completed but technical expertise is needed now to assist the responsible agencies, this seems a very opportune time for the OPC to support the State Board in establishing a state-wide TWG prior to the adoption of new regulations. This TWG would review the PICs, initial study results, and impact reduction plans, and advise relevant agencies accordingly.

California power plants are currently permitted to use 17 billion gallons/day of ocean and estuarine water for cooling. Based on data available in 2005, the CEC report estimated that entrainment mortality alone from this use could be eliminating organisms equivalent to those produced by 14,000 acres of coastal habitat, 10,000 acres of which are wetlands. There is clearly need for a State Board TWG to help more accurately assess this loss, and to help reduce it. Assistance with the formation of such a group seems to well fit the mission of the OPC.

Sincerely,

A handwritten signature in dark ink, appearing to read "Michael S. Foster", with a long horizontal flourish extending to the right.

Michael S. Foster  
Professor Emeritus and Chair of the Faculty

cc: S. Schuchat, OPC Executive Officer and Secretary

Reference:

California Energy Commission. 2005. Issues and Environmental Impacts Associated with Once-Through Cooling at California's Coastal Power Plants. Staff Report: CEC-700-2005-013. Appendices: CEC-700-2005-013-AP-A. Available as PDFs on the CEC website.



-----Original Message-----

From: balaena [<mailto:balaena@pacbell.net>]

Sent: Sunday, March 19, 2006 11:09 AM

To: Brian Baird; Leah Akins; Amber Mace; Penny Harding;  
rpollock@scc.ca.gov

Subject: Fw: La Jolla harbor seal rookery, Ocean Communicators News  
Update

Mike Chrisman, Chair  
California Ocean Protection Council  
California Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95815

Dear Mr. Chrisman,

I recently sent out the e-mail bulletin below regarding the La Jolla harbor seal rookery. In considering the presence of harbor seals in Southern California waters, one might wish to keep in mind several factors:

1. Harbor seals are a completely different species from sea lions, with different behavioral patterns and different habitat requirements.
2. According to the Southwest Fisheries Center's latest marine mammal status report prepared for the Marine Mammal Commission, harbor seals, numbering about 27,000 animals in California waters, may be at OSP with a slightly declining population.
3. Harbor seals play a little-understood role in the nearshore ecosystem, with indications derived from land-mammal studies and anecdotal evidence that the presence of this top predator enriches rather than depletes seal habitat and foraging areas.

It is my belief that the benefits of the La Jolla harbor seal rookery to the ecosystem and to us recreationally far outweigh any negative impacts of their pocket-beach rookery-occupancy and/or localized high seal coliform bacteria counts in the immediate vicinity of their rookery.

James Hudnall  
La Jolla  
858-454-2425

> To: Various Recipients

> Sent: Thursday, March 16, 2006 4:16 PM

> Subject: La Jolla harbor seal rookery, Ocean Communicators News  
Update

>

>

>> If you are wondering what has happened with respect to the La Jolla  
>> harbor seal rookery and the City of San Diego's plans to destroy it,  
>> read

>> on:

>>

>> You may recall that a swimmer sued the city of San Diego claiming  
>> that her right to swim from the rookery beach was being impaired by  
>> the presence of harbor seals. A judge ordered the removal of the  
>> rookery seals and most of the beach, but the City is appealing this  
>> judgment and several amicus briefs are being filed, including one by

>> the San Diego Sierra Club.  
>>  
>> Meanwhile citizen volunteers from the Save-Our-Seals Coalition are  
>> now guarding the rookery 24/7 through the Rake-A-Line, Hold-A-Sign  
>> Program, and the seal pupping season is in full swing, with 24 live  
>> pups born on the beach to date. (The first pup of the season was  
>> found apparently stillborn on February 9th; the first live birth  
>> occurred on February  
>> 16th.)  
>>  
>> The five or six anti-seal older La Jolla men, who have insisted on  
>> their legal right to enter the rookery, often flushing dozens of  
>> seals including pregnant females, held their last beach party (with  
>> beach fire) in the rookery on January 28th. They have not appeared  
>> recently, perhaps due to increased media coverage and public  
pressure  
>> from recreational sealwatchers..  
>>  
>> National Marine Fisheries Service, often thought of as the protector  
>> of marine mammals in the United States through enforcement of the  
>> Marine Mammal Protection Act, has advised the U.S. Marine Mammal  
>> Commission (on February 27th) that the City of San Diego is  
>> anticipated to destroy the La Jolla rookery without NMFS  
>> authorization using Section 109(h) of the MMPA, normally reserved  
for  
>> the removal of nuisance animals and/or health and safety risks.  
>> James Lecky of the NMFS Office of Protected Resources has encouraged  
>> the City to use this loophole. Anyone who thinks this is abuse of  
>> the MMPA is encouraged to contact NMFS, the Commission, and their  
>> Congress-person. The use of 109(h) to destroy an entire harbor seal  
rookery will set precedent in the United States.  
>>  
>> An ongoing policy of appeasement by NMFS agents with respect to  
>> swimmers and divers wishing to utilize the rookery beach was  
>> discovered in February and complaints were filed with NMFS  
Enforcement superiors.  
>> Swimmers and divers are no longer advised by NMFS agents to use the  
>> bluff side of the rookery while seals are present on the beach,  
since  
>> doing so scares the seals.  
>>  
>> Research into the history of La Jolla harbor seal rookery-habitat  
>> has shown that the seawall on the west side of the rookery was built  
>> directly on top of a rock complex known to early mapmakers as "Seal  
>> Rock." The claim that "the seals have invaded" a human space is  
thus  
>> refuted; the seals have simply returned to ancestral habitat as  
their  
>> population has rebounded from the period of hunting which existed  
>> almost to 1972, when the MMPA was enacted.  
>>  
>> The La Jolla harbor seal rookery continues to enrich the nearshore  
>> ecosystem by its presence while entertaining our general public  
>> through recreational seal watching. Growing global awareness of the  
>> City's plans to destroy this rookery is causing increased public  
>> outcry for protected status. Go to [www.savesandiegoseals.com](http://www.savesandiegoseals.com) for  
more information.

James Hudnall, Coordinator  
Save-Our-Seals Coalition  
La Jolla  
858-454-2425

>>>

>>>

>>



# DEPARTMENT OF CONSERVATION

## CALIFORNIA GEOLOGICAL SURVEY

801 K STREET • MS 12-30 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 445-1825 • FAX 916 / 445-5718 • TDD 916 / 324-2555 • WEBSITE [conservation.ca.gov](http://conservation.ca.gov)

March 30, 2006

Mike Chrisman, Chair  
California Ocean Protection Council  
c/o Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

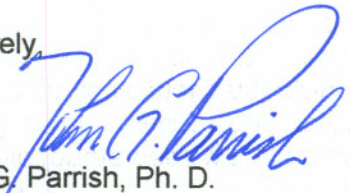
Re: USGS Santa Barbara Channel Sea Floor Data Acquisition

Dear Mr. Chrisman:

The California Geological Survey (CGS) enthusiastically supports the United States Geological Survey's (USGS) proposal to acquire and interpret additional multibeam sonar bathymetry and backscatter data in the eastern, shallower Santa Barbara Channel area. High quality, recent data is available for the deep-water areas of the channel. The USGS has completed a survey off Carpinteria, and will be conducting additional surveys off Santa Barbara and Ventura. CGS has completed new onshore geologic mapping, including extensive re-interpretation of recent depositional environments on the Oxnard Plain. Together, the onshore CGS and offshore USGS and Monterey Bay Research Institute data provide a nearly complete record of the effects of sediment erosion, transport, deposition and tectonic deformation in this highly active environment. The missing piece of the puzzle is detailed data and interpretation in the shallow water adjacent to the Oxnard Plain. With acquisition and interpretation of these data, and its integration into habitat and geologic maps, we will be much better able to address issues on the volumes, transport mechanisms, sea floor characteristics, and contaminants of sediments in this area.

In addition to basic data on sediment budgets, complete geologic and habitat mapping of the Santa Barbara Channel will allow federal, state, and local agencies to address important questions including: characterizations of habitats; mapping areas of potential sand resources for beach replenishment; mapping areas of active sedimentation that could be appropriate for disposal of harbor dredge spoils; analyzing the effects of the planned removal of Matilija Dam on riparian and offshore habitats; mapping the active faults beneath the channel for potential earthquake hazards; and mapping submarine landslides that could trigger tsunamis. The USGS effort to acquire and interpret new multibeam data in the shallow waters of the eastern Santa Barbara Channel is a key component in constructing an integrated and coherent geological and habitat picture along California's shoreline.

Sincerely,



John G. Parrish, Ph. D.  
State Geologist

*The Department of Conservation's mission is to protect Californians and their environment by:  
Protecting lives and property from earthquakes and landslides; Ensuring safe mining and oil and gas drilling;  
Conserving California's farmland; and Saving energy and resources through recycling.*



**DEPARTMENT OF BOATING AND WATERWAYS**

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*mc / Baird*

March 30, 2006

Douglas Bosco  
Chair, State Coastal Conservancy  
1330 Broadway, 11th floor  
Oakland, CA 94612

Mike Chrisman ✓  
Chair, California Ocean Protection Council  
Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Dear Sirs:

In fall of 2005 the California Ocean Protection Council (OPC) adopted the California Ocean and Coastal Information and Outreach Strategy which identifies the goal, objectives and needs for information, research and monitoring, and outreach to coordinate efforts with federal, state and local governments. Seafloor mapping is one of the major cross-cutting informational needs identified by the various research disciplines. The U.S. Geological Survey has applied to the OPC for financial assistance to further this important research need along the California coast.

The California Department of Boating and Waterways strongly supports the Santa Barbara Seafloor Mapping Project currently proposed by the U.S. Geological Survey's Coastal and Marine Geology Program (USGS) in California. The Department of Boating and Waterways is the state agency mandated with studying and remediating the affects of severe coastal and beach erosion in California on public beaches. Our beaches and nearshore marine resources are world renowned tourist destinations that generate billions of dollars in economic activity and sustain over 500,000 jobs that return substantial tax income to our state. With over 12 % of the nation's population residing in California and over 75% living within one-hour of the coast, Californians utilize coastal resources at nearly three times the national average.

The mapping project proposes to infill significant areas of the seafloor bottom that have not been mapped to date. Identifying and understanding the characteristics of the seafloor bottom through high-resolution mapping techniques will provide resource managers with valuable baseline map information of substrate type, habitat and ecosystems, surface geologic structure, potential geologic hazards, sediment pathways along with man-made bottom perturbations such as shipwrecks, oil wells, pipelines and sewage outfalls.

In the last few years, we have worked with the USGS to develop and foster several successful partnerships between our organization, and several other state and local agencies. These active collaborative research projects focus on (1) understanding the transport and fate of fine-grained (mud) sediment, the major transporter of chemical contaminants in the coastal environment, and


Mr. Douglas Bosco  
Mr. Mike Chrisman  
March 30, 2006  
Page Two

(2) understanding coastal processes and erosion in the San Francisco Bight and Santa Barbara channel areas. We are also working together on proposals to understand the impact of turbidity (from sediment) in the coastal water column. These are valuable studies that will have significant local and regional impact. We are continually impressed with the communication, energy, creativity, and focus that USGS brings to this collaborative work.

In summary, mapping and characterizing the coastal nearshore seabed along the Santa Barbara Channel is of great importance to the many cities, regional governments and state and federal agencies that look to the State of California for leadership and assistance. In turn, state and local agencies look to the USGS for its valuable and impartial applied technical expertise and research capabilities. It is our hope that the USGS will continue to grow its research in this area and we pledge to help support this effort through any applicable means.

We encourage your support of this important project.

Sincerely,



Raynor Tsuneyoshi  
Director

RT:ks:ms

cc: Mr. Samuel Y. Johnson  
Mr. David Johnson  
Mr. Kim Sterrett

Subject: Please Phase Out Once-Through Cooling  
To: Chairman Mike Chrisman

Dear Chairman Chrisman,

I am writing to urge you to pass a resolution phasing out "once through cooling." These outdated cooling systems unnecessarily destroy marine life and dramatically impact coastal economies that rely on healthy oceans. There are viable and readily available alternatives to once-through cooling currently in use at inland power plants, and coastal generators must transition to these technologies as soon as possible.

California's economy greatly relies on healthy coasts and oceans that support tourism, fishing communities, and other ocean related recreation and industry. It is well documented that once-through cooling unnecessarily destroys the marine life that supports vibrant coastal communities and the natural heritage we will leave for future generations. We must end once-through cooling now in order to stop the daily assault on our marine and estuarine environments and do everything in our power to restore the natural abundance that Californians once enjoyed.

Californians have historically supported heightened protection of our coast and ocean. We recently supported California's "Ocean Action Plan" which called for an increase in the abundance and diversity of aquatic life in California's oceans, bays, estuaries and coastal wetlands. Now is the time to put those promises into practice.

Please do everything in your power to phase out the use of once-through cooling as soon as possible.

Sincerely,