

DEFERRED

Minute Item  
56

02/09/06

CALIFORNIA STATE LANDS COMMISSION

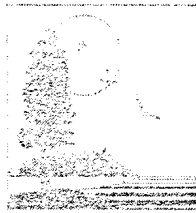
**Regular Item 56:** The Commission listened to a staff report on once-through cooling resolution and took comments from the public. The decision was made to postpone the item and hear it again at the April meeting.

CALENDAR ITEM  
**56**

A Statewide  
S Statewide

02/09/06  
P. Thayer

**COMMISSION CONSIDERATION OF A RESOLUTION SUPPORTING THE  
ELIMINATION OF ONCE THROUGH COOLING IN CALIFORNIA POWER  
GENERATING FACILITIES.**

**CALIFORNIA STATE  
LANDS COMMISSION**


CRUZ M. BUSTAMANTE, *Lieutenant Governor*  
STEVE WESTLY, *Controller*  
MICHAEL C GENEST, *Director of Finance*

EXECUTIVE OFFICE  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

PAUL D. THAYER, *Executive Officer*  
(916) 574-1800 Fax (916) 574-1810  
California Relay Service TDD Phone 1-800-735-2929  
Voice Phone 1-800-735-2922

**STAFF PROPOSED**
**RESOLUTION BY THE CALIFORNIA STATE LANDS COMMISSION  
REGARDING ONCE THROUGH COOLING IN CALIFORNIA POWER PLANTS**

**WHEREAS**, The California State Lands Commission and legislative grantees of public trust lands are responsible for the administering and protecting the public trust lands underlying the navigable waters of the state, which are held in trust for the people of California; and

**WHEREAS**, the public trust lands are vital to the recreational, economic and environmental values of California's coast and ocean; and

**WHEREAS**, the commission has aggressively sought correction of adverse impacts on the biological productivity of its lands including, litigation over contamination off the Palos Verdes Peninsula and at Iron Mountain, the adoption of best management practices for marinas and litigation to restore flows to the Owens River; and

**WHEREAS**, California has twenty-one coastal power plants which use once-through cooling, the majority of which are located on bays and estuaries where sensitive fish nurseries for many important species are located; and

**WHEREAS**, these power plants are authorized to withdraw and discharge approximately 16.7 billion gallons of ocean water daily; and

**WHEREAS**, once-through cooling harms the environment by killing large numbers of fish and other wildlife, larvae and eggs as they are drawn through fish screens and other parts of the power plant cooling system; and

**WHEREAS**, once through cooling also adversely affects the coastal environment by raising the temperature of adjacent water, killing and displacing wildlife and plant life; and

**WHEREAS**, various studies have documented the harm caused by once-through cooling including one study that estimated that 2.2 million fish were annually ingested into eight southern California power plants during the late 1970s and another that estimated that 57 tons of fish were killed annually when all of the units of the San Onofre Nuclear Generating Station were operating; and

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**WHEREAS**, regulations adopted under Section 316 (b) of the federal Clean Water Act recognize the adverse impacts of once-through cooling by effectively prohibiting new power plants from using such systems; and

**WHEREAS**, the Governor's Ocean Action Plan calls for an increase in the abundance and diversity of aquatic life in California's oceans, bays, estuaries and coastal wetlands, a goal which can be better met by eliminating the impacts of once-through cooling; and

**WHEREAS**, members of the California Ocean Protection Council have called for consideration of a policy at its next meeting to discourage once-through cooling; and

**WHEREAS**, the California Energy Commission and the State Water Resources Control Board have the authority and jurisdiction over the design of power plants and are conducting studies into alternatives to once-through cooling, such as air cooling, cooling with treated wastewater or recycled water and cooling towers; and

**WHEREAS**, in its 2005 Integrated Energy and Policy Report , the California Energy Commission adopted a recommendation to work with other agencies to improve assessment of the ecological impacts of once-through cooling and to develop a better approach to the use of best-available retrofit technologies; and

**WHEREAS**, the Commission recognizes that the coastal power plants currently utilizing once-through cooling make an important contribution to California's energy supply, but believes that the elimination of these cooling systems, through conservation, conversion, construction of new facilities, or utilization of other sources can be feasible and will be facilitated by establishing a deadline for this to occur; therefore, be it

**Resolved by the California State Lands Commission** that it urges the California Energy Commission and the State Water Resources Control Board to expeditiously complete all necessary studies and develop policies that eliminate once-through cooling from all new and existing power plants in California; and be it further

**Resolved**, that the Commission shall not approve new leases or extensions of existing leases for facilities associated with once-through cooling after 2020 and calls on public grantees of public trust lands to implement the same policy for facilities within their jurisdiction; and be it further

**Resolved**, that the Commission's Executive Officer transmit copies of this resolution to the Chairs of the State Water Resources Control Board, the California Energy Commission, and the California Ocean Protection Council, all grantees, and all current lessees of public trust lands that utilize once-through cooling.

**ITEM 56**

**02-09-06**

**CALIFORNIA STATE LANDS COMMISSION**

**LETTERS OF SUPPORT/CONCERN**

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February 8, 2006

California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

**Re: Agenda Item 56 - Resolution regarding once-through cooling in California power plants**

Dear Chair Westly, Commissioner Bustamante, and Commissioner Genest:

The undersigned individuals represent organizations that work to protect California's coastal and marine environment. We strongly support the proposed State Lands Commission resolution on the abolition of once-through cooling systems at California's coastal power plants. We commend your leadership on this issue and urge you to pass this resolution.

Once-through cooling is particularly taxing on the coastal environment in southern California, where 13 of the state's coastal power plants are permitted to consume over 10 billion gallons of seawater, and associated marine life daily. Combined, impingement at power plants south of Point Conception amounts to 30% of the recreationally caught fish in this region each year, which amounts to over 3.5 million fish annually.<sup>1</sup> A recent study conducted at Huntington Beach Generating Station estimates that the plant entrains, and subsequently kills 350 million fish larvae each year.<sup>2</sup> Clearly, the ecological impacts of once-through cooling are severe.

Furthermore, the cumulative impacts of closely sited power plants are likely even more damaging. Three facilities – Scattergood, El Segundo, and Redondo Beach Generating Stations – are all located within the same six mile stretch of the Santa Monica Bay. These plants consume 13% of nearshore waters in the Santa Monica Bay every six weeks.<sup>3</sup> The impact of the facilities on Alamitos Bay is even more astonishing; Haynes and Alamitos Generating Stations turn over the entire Bay every five days.<sup>4</sup> This indiscriminate take of plankton, fish, invertebrates, and other marine life may alter and stress marine and estuarine food chains; decrease diversity; deplete commercially and recreationally important species; alter ecosystem structure and function; and cause further threat to species at risk of extinction and fisheries at risk of economic collapse. These impacts can no longer be justified at coastal facilities, given that technologies to reduce or have existed for decades and are used at non-coastal power facilities in California.

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<sup>1</sup> CEC (2005) Staff Report: Issues and Environmental Impacts Associated with Once-Through Cooling at California's Coastal Power Plants, CEC-700-2005-013-AP-A, p.31

<sup>2</sup> AES Huntington Beach L.L.C. Generating Station Entrainment And Impingement Study, Final Report (April 2005), p.37

<sup>3</sup> CEC (2005) Staff Report: Issues and Environmental Impacts Associated with Once-Through Cooling at California's Coastal Power Plants, CEC-700-2005-013-AP-A, p.37

<sup>4</sup> Tenera Environmental and MBC Applied Environmental Science (October 2005) Summary of Existing Physical and Biological Information and Impingement Mortality and Entrainment Characterization Study Sampling Plan for Haynes Generating Station, p.2

California is a leader amongst the several states in strong policy and public support for protecting our coast and ocean. By approving this resolution, the State Lands Commission will help lead California in shaping a state policy on once-through cooling that is protective of our valuable coastal and marine resources.

Thank you for acting in a timely fashion on this critical issue.

Sincerely,

Sarah Abramson, MESM  
Staff Scientist  
Heal the Bay

Heather Hoecherl  
Director of Science and Policy  
Heal the Bay

Craig Schuman, D. Env.  
Director  
Reef Check California Program

Joe Geever  
Southern California Regional Manager  
Surfrider Foundation

Tracy J. Egoscue, Esq.  
Executive Director  
Santa Monica Baykeeper

**From:** THERESA ACERRO <thacerro@yahoo.com>  
**To:** <thayerp@slc.ca.gov>  
**Date:** 02/08/2006 10:59 am  
**Subject:** Eliminate once through cooling forever!!!!

Chairman Wesley and members of the commission,

PLEASE, please pass this suggested resolution today.

I LIVE IN CHULA VISTA. I HAVE OBSERVED OVER THE YEARS THE HORRIBLE destruction caused by once through cooling at the south bay power plant. please help us clean up our bay and restore it to a healthy state. step number one has to be ending forever once through cooling. it makes no sense if we care about our precious marine resources.

Resolved by the California State Lands Commission that it urges the California Energy Commission and the State Water Resources Control Board to expeditiously complete all necessary studies and develop policies that eliminate once-through cooling from all new and existing power plants in California; and be it further

Resolved, that the Commission shall not approve new leases or extensions of existing leases for facilities associated with once-through cooling after 2020 and calls on public grantees of public trust lands to implement the same policy for facilities within their jurisdiction; and be it further

Resolved, that the Commission's Executive Officer transmit copies of this resolution to the Chairs of the State Water Resources Control Board, the California Energy Commission, and the California Ocean Protection Council, all grantees, and all current lessees of public trust lands that utilize once-through cooling.

Theresa Acerro  
3730 Festival Court  
Chula Vista, CA 91911

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**From:** "The Adams" <bermudafam@socal.rr.com>  
**To:** <thayerp@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 2/9/2006 1:41:38 AM  
**Subject:** February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Agenda Item 56: Resolution on once through cooling in California power generating facilities - SUPPORT

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Guy and Vicki Adams  
bermudafam@socal.rr.com  
9021 Bermuda Drive,  
Huntington Beach, CA 92646  
(714) 964-7079

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**From:** Iryne Black <ayebblack@sbcglobal.net>  
**To:** <thayerp@slc.ca.gov>  
**Date:** 02/08/2006 4:00 pm  
**Subject:** Item 56 Feb. 9 agenda

I and my family strongly support the resolution to eliminate cooling pipes in power generating facilities in this state and urge all members of the commission to support it. Thank you.

Iryne Black and Family, Newport Beach 949-642-8145

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution once through cooling in California power  
generating facilities - SUPPORT

VIA FACSIMILE 916.574.1810

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination  
of once-through cooling in California power generating facilities, and urge  
the Commission to pass it during your meeting on February 9, 2006. I  
greatly appreciate the California State Lands Commission's effort to take a  
leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is  
time to eliminate this antiquated destructive methodology from our precious  
coastal waters.

Thank you.

Sincerely,

Debbie DeMeulle  
9441 Alii Circle  
Huntington Beach, CA 92646  
714-962-7661

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**Edward DeMeulle**  
**9441 Alii Circle**  
**Huntington Beach, Ca 92646**  
**Tel:714-962-7661 • Fax:714-965-0067**

February 8, 2006

VIA FACSIMILE 916.574.1810

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: SUPPORT  
Agenda Item 56: Resolution Regarding Once-through Cooling in California Power Generating facilities

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Sincerely,

Edward DeMeulle

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**From:** <contact-pro@mindspring.com>  
**To:** <thayerp@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 10:50 am  
**Subject:** February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities -  
SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

As Chair of a municipal planning commission, who's city has a power generating plant within its boundries (which uses the one pass [Sea Water] cooling system:

I strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and at times combine with other undesirable ocean outfalls to contaminate the local surf and beaches to the point of mandatory closure, it is well past the time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,  
Robert E. (Bob) Dingwall  
5832 Raphael Drive  
Huntington Beach, CA 92649

(714) 840-1811

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**From:** John Earl <admin@ocorganizer.com>  
**To:** <thayerp@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 6:56 am  
**Subject:** February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through  
cooling in California power generating facilities -  
SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed  
resolution on the elimination of once-through cooling  
in California power generating facilities, and urge  
the Commission to pass it during your meeting on  
February 9, 2006. I greatly appreciate the California  
State Lands Commission's effort to take a leadership  
role on this very important and timely issue.

Once-through cooling systems are highly destructive to  
marine life, and it is time to eliminate this  
antiquated destructive methodology from our precious  
coastal waters.

Thank you.

Sincerely,

John Earl  
616 1/2 Crest Ave.  
Huntington Beach, CA 92648  
714 595-3623

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WATERKEEPER® ALLIANCE

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution regarding once through cooling in California power  
generating facilities - SUPPORT

VIA FACSIMILE 916.574.1810

Dear Chair Westly and Commissioners:

Waterkeeper Alliance is an international non-profit environmental organization that connects and supports 157 local Waterkeeper programs to provide a voice for waterways and their communities worldwide. In California alone we have over a dozen programs, including Santa Monica Baykeeper, Orange County Coastkeeper, San Diego Baykeeper and San Francisco Baykeeper.

For more than a decade Waterkeeper Alliance and many of our member programs, including some in California, have been engaged in litigation against the U.S. Environmental Protection Agency for its failure to implement the requirements of Section 316(b) of the federal Clean Water Act and to eliminate once-through cooling at U.S. power plants. We greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important issue, and we wholeheartedly support a position by California to eliminate the destructive and unnecessary practice of once-through cooling at new and existing power plants.

Power plants use enormous quantities of water, nearly a hundred *trillion* gallons per year from the nation's rivers, lakes, oceans and estuaries, to condense steam used in generating electricity. A single large power plant can withdraw several billion of gallons of cooling water per day, more than a million gallons per minute, killing the overwhelming majority of organisms in this massive volume by *entraining* them into the facility or *impinging* them on intake screens. This staggering mortality – trillions of fish, shellfish, plankton and other species at all life stages – has stressed and depleted aquatic, coastal and marine ecosystems for decades, and has contributed to the collapse of some fisheries.

As you know, there are three basic types of cooling systems currently used by U.S. power plants:

- ✓ In a *once-through cooling system*, water is withdrawn directly from the source waterbody, diverted through a condenser where it absorbs heat from the boiler steam, and then discharged back into the source waterbody at elevated temperatures. Because once-through cooling systems do not re-circulate the cooling water, they can use more than a billion

gallons of water per day. Once-through cooling is used at roughly 52% of power plants in the United States.

- ✓ In a *closed-cycle recirculating cooling system*, the cooling water is sent from the condenser to cooling towers, where the heat from the boiler steam dissipates through evaporation and convection. The cooling water is then recirculated through the condensers. Closed-cycle cooling, which is used by approximately 47% of U.S. power plants, generally reduces water usage by about 95% when compared with once-through cooling.
- ✓ *Dry cooling systems* run the boiler steam through radiator-like coils, where heat is transferred directly to the air by convection. Power plants that are equipped with dry cooling use virtually no water and therefore virtually eliminate fish kills. Pursuant to a federal grant, our founding program Riverkeeper (on the Hudson River) conducted research and produced a comprehensive report on the feasibility, environmental benefits and costs of dry cooling technologies, which reduce fish kills to negligible levels. Their research indicated that dry cooling systems are technically feasible in all regions of the continental U.S. and Alaska, and reduce aquatic mortality by 95% or more as compared to wet cooling systems, while increasing costs by 3% or less. When passed onto consumers, the incremental cost of the technology to the average rate-paying household is about 30 cents per month - a penny per day.<sup>1</sup>

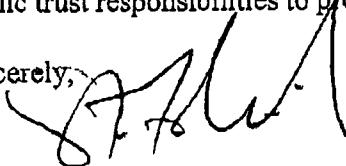
Put quite simply, cost-effective alternatives are available. Our nation – and California, which relies so heavily on its coastal economy – cannot afford to continue to allow this antiquated practice to continue indefinitely.

The Ocean Protection Council, state regulatory agencies, and the federal Environmental Protection Agency have all acknowledged that the impacts of once-through cooling are environmentally significant, and that they can be avoided. Your guidance in passing the proposed resolution will help to advance a statewide and national agenda to phase out this harmful technology on a schedule that will ensure the continued reliability of the electrical grid.

The Governor's *Ocean Action Plan* and the California Ocean Protection Act, signed into law in 2004, made California a national model for the management of ocean and coastal resources. We hope you will continue this practice by taking meaningful steps to eliminate the harmful and unnecessary destruction caused by once-through cooling at power plants.

Thank you for acknowledging this serious problem by taking decisive action to exercise your public trust responsibilities to protect California's world-renowned coastal resources.

Sincerely,



Steve Fleischli  
Executive Director

<sup>1</sup> The full report, including appendices and other important information, can be found at [http://riverkeeper.org/campaign.php/biodiversity/we\\_are\\_doing/622](http://riverkeeper.org/campaign.php/biodiversity/we_are_doing/622).



**From:** Kathryn Goddard <kgoddard@csulb.edu>  
**To:** <smallwl@slc.ca.gov>, <thayerp@slc.ca.gov>  
**Date:** 2/9/2006 12:11:46 AM  
**Subject:** February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California  
power generating facilities - SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the  
elimination of once-through cooling in California power generating  
facilities, and urge the Commission to pass it during your meeting on  
February 9, 2006. I greatly appreciate the California State Lands  
Commission's effort to take a leadership role on this very important and  
timely issue.

Once-through cooling systems are highly destructive to marine life, and  
it is time to eliminate this antiquated destructive methodology from our  
precious coastal waters.

Thank you.

Sincerely,

Kathryn E. Goddard  
Huntington Beach, California

**From:** "Pam & John Heatherington" <pheatherington@charter.net>  
**To:** <smallwl@slc.ca.gov>  
**Date:** 2/8/2006 9:11:20 PM  
**Subject:** February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities - SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Pamela Heatherington  
7790 Yesal Ave  
Atascadero, CA 93422  
805.461.3711

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Allison M. Horack  
21742 Fairlane Circle  
Huntington Beach, CA 92646  
(714)963-5200

February 8, 2006

The Honorable Steve Westly, Chair,  
Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

**RE: SUPPORT Agenda Item 56: Resolution on once-through cooling in California power generating facilities.**

Dear Chair Westly and Commissioners:

Your resolution to eliminate once-through cooling in California power plants is urgently needed to protect our magnificent beaches. You have my strongest support to vote in favor of the resolution. I urge the commission to pass the resolution during your meeting on February 9, 2006. Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive method from our precious coastal waters. Let's save our natural resources for future generations.

I greatly appreciate the California State Lands Commission's effort to take a leadership role in protecting California's natural treasure – our ocean.

Sincerely,



Allison M. Horack  
California Native

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Amanda Christina Horack  
21742 Fairlane Circle  
Huntington Beach, CA 92646  
(714)963-5200

February 8, 2006

The Honorable Steve Westly, Chair,  
Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

**RE: SUPPORT Agenda Item 56: Resolution on once-through cooling in California power generating facilities.**

Dear Chair Westly and Commissioners:

Your resolution to eliminate once-through cooling in California power plants is urgently needed to protect our magnificent beaches. You have my strongest support to vote in favor of the resolution. I urge the commission to pass the resolution during your meeting on February 9, 2006. Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive method from our precious coastal waters. Let's save our natural resources for future generations.

I greatly appreciate the California State Lands Commission's effort to take a leadership role in protecting California's natural treasure - our ocean.

Sincerely,



Amanda Christina Horack  
California Native

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Edward C. Horack  
21742 Fairlane Circle  
Huntington Beach, CA 92646  
(714)963-5200

February 8, 2006

The Honorable Steve Westly, Chair and  
Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

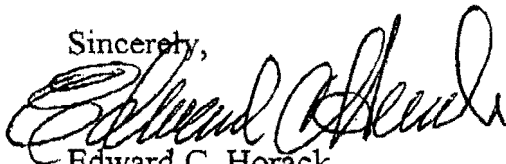
**RE: SUPPORT Agenda Item 56: Resolution on once-through cooling in  
California power generating facilities.**

Dear Chair Westly and Commissioners:

Your resolution to eliminate once-through cooling in California power plants is urgently needed to protect our magnificent beaches. You have my strongest support to vote in favor of the resolution. I urge the commission to pass the resolution during your meeting on February 9, 2006. Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive method from our precious coastal waters.

I greatly appreciate the California State Lands Commission's effort to take a leadership role in protecting California's natural treasure – our ocean.

Sincerely,



Edward C. Horack

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Marinka Horack  
21742 Fairlane Circle  
Huntington Beach, CA 92646  
(714)963-5200

February 8, 2006

The Honorable Steve Westly, Chair and  
Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

**RE: SUPPORT Agenda Item 56: Resolution on once-through cooling in  
California power generating facilities.**

Dear Chair Westly and Commissioners:

Your resolution to eliminate once-through cooling in California power plants is urgently needed to protect our magnificent beaches. You have my strongest support to vote in favor of the resolution. I urge the commission to pass the resolution during your meeting on February 9, 2006. Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive method from our precious coastal waters.

I greatly appreciate the California State Lands Commission's effort to take a leadership role in protecting California's natural treasure – our ocean.

Thank You for a Better California,



Marinka Horack  
California Resident for 56 Years

# Environmental Health Coalition

COALICION de SALUD AMBIENTAL

401 Mile of Cars Way, Suite 310 ♦ National City, CA 91950 ♦ (619) 474-0220 ♦ FAX: (619) 474-1210  
ehc@environmentalhealth.org ♦ www.environmentalhealth.org

February 8, 2006

Chairman Steve Westly and State Lands Commissioners  
100 Howe Avenue, Suite 100-south  
Sacramento, CA 95825  
FAX 916-574-1810

RE: Environmental Health Coalition **SUPPORT** for the Resolution regarding Once Through Cooling in California Power Plants

Dear Chairman Westly and Commissioners:

Environmental Health Coalition (EHC) is a 25-year old environmental justice organization based in the San Diego/Tijuana region. We are writing today to offer our **strongest support** for the resolution regarding Once Through Cooling (OTC) in California Power Plants.

The South Bay Power Plant located in Chula Vista is simply a travesty. It destroys the bay's marine environment, impacts the health of downwind residents, and is an economic blight on several communities desperately trying to increase economic development in their communities. The South Bay Power Plant has been allowed to utilize bay water out of the most shallow and sensitive estuary in the region, South San Diego Bay and it is time for this to stop.

We have read the letter to you from the California Council for Environmental and Economic Balance and find that they have failed to report the totality of the science on South Bay. We urge you to summarily reject their findings. Apparently, they are not aware of many of the studies done on the OTC in San Diego many of which have demonstrated significant impacts to the marine life in the Bay.

- Findings in a recent permit renewal for the by the local Regional Water Quality Control Board staff found that biotic communities near the discharge point and in the discharge channel have been degraded due to the once-through cooling water. The Regional Board also found that, because of the power plant discharge, up to 104 acres of the critical eelgrass habitat has been precluded in the South Bay. This habitat is important as turtle foraging and fish habitat.
- An independent assessment by the Pisces Conservation Ltd in July of 2004, reaffirmed the significant impacts of the cooling system on the Bay fishery and marine life.

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- SDSU Professor Emeritus of Biology, Dr. Richard Ford, reported in April, 2003 that the thermal impacts of the power plant discharges had adverse effects on several major groups of benthic invertebrates by reducing the number and diversity of species.
- Studies of halibut in the region show that South San Diego Bay is underproducing halibut as compared to what would be expected for a habitat its size. As you may be aware, the power plant discharge heats the habitat where juvenile halibut would be expected to thrive to temperatures that exceed their tolerance for heat.


The habitat of the region has been continually decimated due to this plant to the point where its degraded state is now considered the "normal" state of ecological health. There will be no "balance" in South Bay until the OTC is stopped.

The plant has operated, subsidized by the Bay, since 1960. Every year it kills up to 50% of some species depending on the species and the life stage. The kills a large number of anchovies and small fishes that are relied on by the many fish-eating nesting birds in the adjacent San Diego National Wildlife Refuge. Once-through cooling is old technology that is unsustainable and has no place in our future.

We encourage you to adopt the resolution. We thank you for your willingness to take a stand on one of the most important issues facing marine ecological health.

Thank you for your consideration of our comments.

Sincerely,

  
Laura Hunter, Director  
Clean Bay Campaign



**From:** Jono Kinkade <onojjono@gmail.com>  
**To:** <thayerp@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 10:25 am  
**Subject:** Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities - SUPPORT

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities - SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Jono Kinkade  
Santa Margarita, CA  
(805) 215-9930

000295

CALENDAR PAGE

000304

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**From:** m l <twopierooster@yahoo.com>  
**To:** <thayerp@slc.ca.gov>  
**Date:** 02/08/2006 4:55 pm  
**Subject:** once through cooling pipes

**CC:** <smallwl@slc.ca.gov>  
February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities -  
SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Mary E. Lewis  
2461 Ocean st. #A  
Oceano, CA 93445  
805-489-7991



February 8, 2006

Ms. Lynda Smallwood  
State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Subject: Resolution Supporting Development of Alternative Coatings and the Prohibition of the Use of Copper-Based Paints On Vessel Hulls - Regular Calendar Item 57, February 9, 2006 meeting.

Dear Ms. Smallwood:

The San Diego Unified Port District (District) appreciates the opportunity to express its support of this resolution. This issue is of critical importance to the District's mission as trustee of San Diego Bay Tidelands. Many small boat basins within San Diego Bay and throughout Southern California contain levels of dissolved copper above the National Ambient Water Quality Standard. These exceedances are generally attributable to copper antifoulant paint.

The draft resolution explains very well the current regulatory impasse between copper pesticide licensing and conformance with water quality standards. The State Water Resources Control Board has proposed listing all of San Diego Bay's enclosed marinas as impaired for dissolved copper on the 303(d) list of impaired water bodies. The District is being required by the Regional Water Quality Control Board, through the Total Maximum Daily Load (TMDL) program, to begin to take on the role of regulating pesticide application to correct what appears to be a widespread water quality problem.

The State Department of Pesticide Regulation (DPR) is charged with regulating the safe use of pesticides. DPR has not taken action to adequately restrict the use of copper antifoulant paint to ensure the state's marinas meet the National Ambient Water Quality Standard for dissolved copper. This antifoulant discharge of dissolved copper appears to be a statewide problem in need of a statewide solution. As explained in your resolution, only a statewide action on this issue can encourage the development of alternatives to copper antifoulant paint.

The District is in full support of this resolution and looks forward to continuing to work with State Lands to resolve this issue.

If you have any questions, please contact me at (619) 686-7239.

Sincerely,

A handwritten signature in black ink, appearing to read "David Merk".

David Merk, Director  
Environmental Services

PHB:jh

000297

000407

**From:** "reystoke@juno.com" <reystoke@juno.com>  
**To:** <thayerp@slc.ca.gov>  
**Date:** 2/9/2006 6:16 am  
**Subject:** One Pass Cooling Systems

**CC:** <smallwl@slc.ca.gov>  
The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California  
power generating facilities - SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the  
elimination of once-through cooling in California power generating  
facilities, and urge the Commission to pass it during your meeting on  
February 9, 2006. I greatly appreciate the California State Lands  
Commission's effort to take a leadership role on this very important and  
timely issue.

Once-through cooling systems are highly destructive to marine life, and  
it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Gus Mau  
1015 Alabama St.  
714 536 3010

LINDA SAPIRO MOON

Attorney at Law

Certified Specialist-Family Law  
The State Bar of California  
Board of Legal Specialization

2134 Main Street, Suite 140  
Huntington Beach, CA 92648  
(714) 960-8424 FAX (714) 960-9493

February 8, 2006

Via Facsimile Only (916) 574-1810

The Honorable Steve Westly, Chair, and Commissioners  
California Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

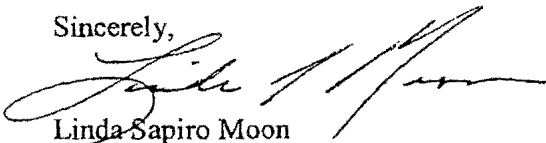
Re: Agenda Item 56: Resolution once through cooling in California power generating facilities -  
SUPPORT

Dear Chair Westly and Commissioners:

I strongly support the proposed resolution regarding elimination of once-through cooling systems in California's coastal power generating facilities. As stated in the resolution, once-through cooling systems are highly destructive to marine life and the coastal environment. Elimination of this destructive methodology is long overdue.

Thank you for addressing this important issue.

Sincerely,



Linda Sapiro Moon  
(Past President, Amigos de Bolsa Chica)  
(Board Member, Orange County League of Conservation Voters)

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CALENDAR PAGE

000400  
MINUTE PAGE

**From:** <PARS11@aol.com>  
**To:** <thayerp@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 9:38 am  
**Subject:** Support of Once through Cooling Resolution

I am e-mailing my support of the Once Through Cooling Resolution. Please do your best for the safety of the California Coastline.

Merle Moshiri  
8802 Dorsett Dr.  
Huntington Beach, CA 92646

000300

CALENDAR PAGE

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February 8, 2006

FAX# 916-574-1810

RE: Agenda Item 56 -- Once Through Cooling System

Chairman Westly and Commissioners,

My husband and I would like to ask your SUPPORT on the above-mentioned item. We are residents of Huntington Beach, CA., and have an antiquated power plant (AES) on our coastline. It is about to be given new life because of a proposed water desalination plant that uses it's outdated technology. I hope you will help thousands of us who feel strongly that this system is out of touch with saving our coast and ocean water.

Thank you.

Mr. & Mrs. Michael Moshiri  
8802 Dorsett Dr.  
Huntington Beach, CA 92646

**From:** <Murphyeile@aol.com>  
**To:** <thayerp@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 7:48 am  
**Subject:** February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

:

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities - SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

This method is being proposed in HB as I write. It was a failure in Tampa Bay and I hope we can stop it here.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

We are faced with a proposed 50 million gallons a day being taken from the ocean and killing all marine life with the entrainment and impingement of the cooling system.

Thank you.

Sincerely,

Eileen Murphy  
201 21st Street  
Huntington Beach, CA 92648

000302

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000477

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**From:** "Linda Nicholes" <LindaGraff@adelphia.net>  
**To:** <thayer@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 8:40 am  
**Subject:** Please support Once-Through Cooling Resolution, Feb 9 Agenda Item 56

Subject Line: February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities - SUPPORT

Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Linda Nicholes  
6261 East Fox Glen Dr  
714-974-5647

**RESOLUTION BY THE CALIFORNIA STATE LANDS COMMISSION REGARDING ONCE THROUGH COOLING IN CALIFORNIA POWER PLANTS**

WHEREAS, The California State Lands Commission and legislative grantees of public trust lands are responsible for the administering and protecting the public trust lands underlying the navigable waters of the state, which are held in trust for the people of California; and

WHEREAS, the public trust lands are vital to the recreational, economic and environmental values of California's coast and ocean; and

WHEREAS, the commission has aggressively sought correction of adverse impacts on the biological productivity of its lands including, litigation over contamination off the Palos Verdes Peninsula and at Iron Mountain, the adoption of best management practices for marinas and litigation to restore flows to the Owens River; and

WHEREAS, California has twenty-one coastal power plants which use once-through cooling, the majority of which are located on bays and estuaries where sensitive fish nurseries for many important species are located; and

WHEREAS, these power plants are authorized to withdraw and discharge approximately 16.7 billion gallons of ocean water daily; and

WHEREAS, once-through cooling harms the environment by killing large numbers of fish and other wildlife, larvae and eggs as they are drawn through fish screens and other parts of the power plant cooling system; and

WHEREAS, once through cooling also adversely affects the coastal environment by raising the temperature of adjacent water, killing and displacing wildlife and plant life; and

WHEREAS, various studies have documented the harm caused by once-through cooling including one study that estimated that 2.2 million fish were annually ingested into eight southern California power plants during the late 1970s and another that estimated that 57 tons of fish were killed annually when all of the units of the San Onofre Nuclear Generating Station were operating; and

WHEREAS, regulations adopted under Section 316 (b) of the federal Clean Water Act recognize the adverse impacts of once-through cooling by effectively prohibiting new power plants from using such systems; and

WHEREAS, the Governor's Ocean Action Plan calls for an increase in the abundance and diversity of aquatic life in California's oceans, bays, estuaries and coastal wetlands, a goal which can be better met by eliminating the impacts of once-through cooling; and

WHEREAS, members of the California Ocean Protection Council have called for consideration of a policy at its next meeting to discourage once-through cooling; and

WHEREAS, the California Energy Commission and the State Water Resources Control Board have the authority and jurisdiction over the design of power plants and are conducting studies into alternatives to once-through cooling, such as air cooling, cooling with treated wastewater or recycled water and cooling towers; and

WHEREAS, in its 2005 Integrated Energy and Policy Report, the California Energy Commission adopted a recommendation to work with other agencies to improve assessment of the ecological impacts of once-through cooling and to develop a better approach to the use of best-available retrofit technologies; and

WHEREAS, the Commission recognizes that the coastal power plants

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currently utilizing once-through cooling make an important contribution to California's energy supply, but believes that the elimination of these cooling systems, through conservation, conversion, construction of new facilities, or utilization of other sources can be feasible and will be facilitated by establishing a deadline for this to occur; therefore, be it

Resolved by the California State Lands Commission that it urges the California Energy Commission and the State Water Resources Control Board to expeditiously complete all necessary studies and develop policies that eliminate once-through cooling from all new and existing power plants in California; and be it further

Resolved, that the Commission shall not approve new leases or extensions of existing leases for facilities associated with once-through cooling after 2020 and calls on public grantees of public trust lands to implement the same policy for facilities within their jurisdiction; and be it further

Resolved, that the Commission's Executive Officer transmit copies of this resolution to the Chairs of the State Water Resources Control Board, the California Energy Commission, and the California Ocean Protection Council, all grantees, and all current lessees of public trust lands that utilize once-through cooling.

Linda Nicholes

LindaGraff@Adelphia.net

## OFFICE OF THE MAYOR

Stephen C. Padilla

Chairman Steve Westly  
State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202  
Fax (916) 574-1810

Dear Chairman Westly:

The City of Chula Vista is well-known for its leadership in many environmental initiatives and efforts. Our City Council is very involved in ensuring that development and economic development address environmental and human health concerns. As an appointed member of the California Coastal Commission and the elected Mayor of the City of Chula Vista, I have a tremendous interest in protecting the marine environment and our precious coastal resources. The Coastal Commission often works very cooperatively with the State and Regional Boards and State Lands Commission. I am strongly in support of the resolution before the Commission regarding once through cooling in California power plants.

As host to the South Bay Power Plant, the City of Chula Vista has a considerable experience in how these older power generating plants impact local bays and estuaries. The South Bay Power Plant is a 65 year old generation facility that utilizes San Diego Bay water for its once-through cooling system. While the South Bay Power Plant has served the region well for many decades, its antiquated technology and its inefficient use of natural gas now militate for its removal from the Bay.

It is well established that once-through cooling processes are devastating to marine life in the shallow bays and estuaries like San Diego Bay and in the near-shore zones in the ocean. These areas are the most biologically productive marine zones and absolutely the worst place to allow these impacts to continue. Many studies, even those conducted by the power plant owners themselves, have demonstrated massive impacts to the marine life in the Bay. Here are just a few examples:

- In a recent permit renewal, the local Regional Water Quality Control Board staff made things that biotic communities near the discharge point and in the discharge channel have been degraded due to the once-through cooling water. The Regional Board also found that, because of the power plant discharge, up to 104 acres of the critical eelgrass habitat has been precluded in the South Bay. This habitat is important as turtle foraging and fish habitat.

- An independent assessment by the Pisces Conservation Ltd in July of 2004, reaffirmed the significant impacts of the cooling system on the Bay fishery and marine life.
- Our local marine ecology expert, Dr. Richard Ford, Professor Emeritus of Biology of San Diego State University reported in April, 2003 that the thermal impacts of the power plant discharges had adverse effects on several major groups of benthic invertebrates by reducing the number and diversity of species.
- Last, the cumulative impacts of these cooling systems statewide are having a devastating impact. The June 2005 staff report issued by the California Energy Commission states that cumulative impacts of impingement at Southern California Coastal Power Plants may be as high as 30% of the fish caught in the Southern California recreational fishery. This did not even include impacts from Encina or the South Bay power plant.

Continuation of these avoidable impacts are no longer acceptable and the State Board should act to bring this era of such damage to sensitive resources to a close.

The South Bay Power Plant is also a significant blight on our Bayfront and has frustrated our efforts to redevelop our community in a manner that protects the environment and serves the community. The continued impacts to the marine ecosystem continue to impact our ability to promote ecotourism and public access on our Bayfront.

As the Mayor of the second largest city in San Diego County, I support the resolution before the State Lands Commission to urge the policy makers to expeditiously complete all necessary studies and develop policies that eliminate once-through cooling from all new and existing power plants in California. I urge you to set a phase out for once-through cooling systems as soon as possible. It is time that we set a schedule for the end of use of these archaic systems and to begin to heal our coastal ecosystems from the damage that decades of misuse has caused.

Thank you for the opportunity to comment on this important subject.

Sincerely,



Stephen C Padilla  
Mayor  
City of Chula Vista

000307

000477

**From:** Joey Racano <joeylittleshell@yahoo.com>  
**To:** <thayerp@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 9:11 am  
**Subject:** Resolution on OTC support!

Dear Chair and Commissioners,

Please pass the anti-single-pass cooling resolution.

This destructive practice must stop.

Our oceans are too important to allow a ever ending private enterprise of this destructive magnitude to continue.

Thanks for your leadership!

Joey Racano  
Ocean Outfall Group  
[www.stopthewaiver.com](http://www.stopthewaiver.com)

"Polite conservationists leave no mark save the scars upon the Earth that could have been prevented had they stood their ground."  
-David Ross Brower

Order my book 'An Activists Almanac'- it's a 'how to' book to save the world, forward by Capt. Paul Watson. Email me for details. -joey

-----  
Now share photos without attaching a thing.  
Check out PhotoMail from Yahoo! Mail.

**From:** <Brewgrad@aol.com>  
**To:** <thayerp@slc.ca.gov>, <smallwt@slc.ca.gov>  
**Date:** 2/8/2006 9:45:35 PM  
**Subject:** February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

Body of Email:

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities - SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Mike Ramsey  
7802 Rockwell Ave.  
Midway City, CA 92655  
714-893-4435

**From:** "Rizkalla, Baher S." <brizkalla@kforce.com>  
**To:** <thayerp@slc.ca.gov>, <smallwi@slc.ca.gov>  
**Date:** 02/08/2006 10:23 am  
**Subject:** February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California  
power generating facilities - SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the  
elimination of once-through cooling in California power generating  
facilities, and urge the Commission to pass it during your meeting on  
February 9, 2006. I greatly appreciate the California State Lands  
Commission's effort to take a leadership role on this very important  
and timely issue.

Once-through cooling systems are highly destructive to marine life, and  
it is time to eliminate this antiquated destructive methodology from our  
precious coastal waters.

Thank you.

Sincerely,

Baher Rizkalla  
21331 Pinetree Ln, Huntington Beach, 92646  
310-918-6533



Faxing to California State Lands Commission Resolution 916.574.1810

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This message has been scanned for known viruses.

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**From:** VOICEFORVETERANS

**To:** VOICEFORVETERANS, Jon V3

**Subject:** Faxing to California State Lands Commission Resolution 916.574.1810

**Date:** Wed, 08 Feb 2006 12:33:28 -0500

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February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution once through cooling in California power generating facilities - SUPPORT


VIA FACSIMILE 916.574.1810

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

  
Sincerely,  
OOG Staff Member,  
Robin J. Rustan  
PO Box 668  
Sunset Beach, Cal 90742  
(562) 592-9909  
[www.vfvs.com](http://www.vfvs.com)

000311

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000481

MINUTE PAGE

**From:** "Jayson Ruth" <jruth@hboilers.com>  
**To:** <thayerp@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 12:25 pm  
**Subject:** February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities -  
SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Jayson Ruth  
HBHS Science Teacher  
Co-Dept. coordinator  
714-536-2514 ext. 4241

---

Sent via the WebMail system at hboilers.com

000312  
CALENDAR PAGE

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MINUTE PAGE

**From:** "John" <4johnscott@earthlink.net>  
**To:** <thayerp@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 10:40 am  
**Subject:** Subject Line: February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California  
power generating facilities - SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the  
elimination of once-through cooling in California power generating  
facilities, and urge the Commission to pass it during your meeting on  
February 9, 2006. I greatly appreciate the California State Lands  
Commission's effort to take a leadership role on this very important and  
timely issue.

Once-through cooling systems are highly destructive to marine life, and  
it is time to eliminate this antiquated destructive methodology from our  
precious coastal waters.

Thank you.

Sincerely,

John F. Scott  
22032 Capistrano Lane  
Huntington Beach, CA 92646

(714) 962-1746

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CALENDAR PAGE

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MINUTE PAGE

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

**Re:** Agenda Item 56: Resolution regarding once through cooling in California power generating facilities - SUPPORT

**VIA FACSIMILE 916.574.1810**

Dear Chair Westly and Commissioners:

The undersigned groups, including working men and women in the fishing fleet whose livelihoods depend upon a healthy marine ecosystem, strongly support the above-described proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. We greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

The Governor's *Ocean Action Plan* and the California Ocean Protection Act, signed into law in 2004, made California the national model for the management of ocean and coastal resources. These documents are the symbols of the Golden State's appreciation of the marine and coastal environment—the same environment that fuels 86% of our state's total economic activity, according to the California's Ocean Economy report published in July 2005.<sup>1</sup>

Once-through cooling is an antiquated cooling system used by coastal power plants that pulls up to 16.7 billion gallons of seawater – and the life it contains – into the power plants each and every day. This daily assault on California's valuable coastal environment causes serious harm, which each of the regulatory agencies responsible for attempting to manage these impacts has acknowledged. For example, the California Energy Commission 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>2</sup>

As just one example, turning on one coastal power plant (San Onofre) destroyed over two hundred acres (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>3</sup> To understand the magnitude of just the kelp losses from that one plant, one need only compare the plant's

<sup>1</sup> Available at [http://resources.ca.gov/press\\_documents/CA\\_Ocean\\_Econ\\_Report.pdf](http://resources.ca.gov/press_documents/CA_Ocean_Econ_Report.pdf) (at page 1)

<sup>2</sup> CEC, Presentation to SWRCB (Sept. 26, 2005), [http://www.waterboards.ca.gov/plnspols/docs/pres\\_cecmckinney.pdf](http://www.waterboards.ca.gov/plnspols/docs/pres_cecmckinney.pdf).

<sup>3</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).

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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 clearly established level of ecological damage.

In the past, the regulated community has suggested that the older and less efficient plants would not justify additional retrofit costs of phasing out this harmful cooling technology.<sup>4</sup> However, multiple plants around the country have successfully begun implementing a range of alternatives to this technology, such as using recycled water for cooling. Put quite simply, cost-effective alternatives are available. These alternatives are used exclusively by inland power plants, who do not have access to the public resource that coastal plants currently exploit with essentially no recompense to the public, for whom the state holds these resources in trust. Our coastal economy cannot afford to continue to allow this antiquated practice to continue indefinitely.

The Ocean Protection Council, state regulatory agencies, and the federal Environmental Protection Agency have all acknowledged that the impacts of once-through cooling are environmentally significant, and that they can be avoided. Your guidance in passing this resolution will help to advance a statewide policy to phase out this harmful technology on a schedule that will ensure the continued reliability of the electrical grid.

Thank you for acknowledging this serious problem, and for taking decisive action to exercise your public trust responsibilities to protect California's world-renowned coastal resources.

Sincerely,

Linda Sheehan  
Executive Director  
California Coastkeeper Alliance  
[lsheehan@cacoastkeeper.org](mailto:lsheehan@cacoastkeeper.org)

Zeke Grader  
Executive Director  
Pacific Coast Federation of Fishermen's Associations  
[zgrader@ifrfish.org](mailto:zgrader@ifrfish.org)

Betty Winholtz  
Council Member  
City of Morro Bay  
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Jim Metropulos  
Legislative Representative  
Sierra Club California  
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Councilmember  
City of Morro Bay  
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David Beckman  
Senior Attorney  
Director, Coastal Water Quality Project.  
Natural Resources Defense Council  
[dbeckman@nrdc.org](mailto:dbeckman@nrdc.org)

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<sup>4</sup> [http://www.waterboards.ca.gov/plnspols/docs/wrkshp\\_oakland2005/transcript\\_wate1207.pdf](http://www.waterboards.ca.gov/plnspols/docs/wrkshp_oakland2005/transcript_wate1207.pdf)

Tracy Egoscue  
Executive Director  
Santa Monica Baykeeper  
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Tim Eichenberg  
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Teri Shore  
Clean Vessels Campaign Director  
Bluewater Network - a division of Friends of  
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[TShore@bluewaternet.org](mailto:TShore@bluewaternet.org)

Alan Ramo  
Director, Environmental Law and Justice Clinic  
Golden Gate University School of Law  
on behalf of Bayview Hunters Point Community  
Advocates  
[aramo@ggu.edu](mailto:aramo@ggu.edu)

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Craig Shuman, D. Env.  
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Don May  
President  
California Earth Corps  
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Garry Brown  
Executive Director  
Orange County Coastkeeper  
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Environmental Health Coalition  
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Director  
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[JonV3@aol.com](mailto:JonV3@aol.com)

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Co-president  
Coastal Alliance on Plant Expansion  
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Doug Buckmaster  
Secretary-Treasurer  
SLO Coast Alliance  
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Alan Levine  
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Conner Everts  
Executive Director  
Southern California Watershed Alliance  
[connere@west.net](mailto:connere@west.net)

Mati Waiya  
Executive Director  
Ventura Coastkeeper  
[matiwaiya@wishtoyo.org](mailto:matiwaiya@wishtoyo.org)

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**From:** <JonV3@aol.com>  
**To:** <thayerp@slc.ca.gov>, <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 1:12 am  
**Subject:** February 9 Agenda Item 56, Once-Through Cooling Resolution, Support

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution once through cooling in California power generating facilities - SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Jan D. Vandersloot, MD  
Director  
Ocean Outfall Group  
2221 E 16th Street  
Newport Beach, CA 92663  
(949) 548-6326

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**Surfrider Foundation**  
 Huntington Beach/Seal Beach Chapter



February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
 California State Lands Commission  
 100 Howe Avenue, Suite 100-South  
 Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution once through cooling in California power generating facilities -  
 SUPPORT

VIA FACSIMILE 916.574.1810

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Name: Donald P. Schulz P.E.

Address: 2722 Main Way Dr.  
 Los Alamitos CA. 90720

Phone Number: (562)430-2260

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**JAN D. VANDERSLOOT, M.D.**

2221 East 16<sup>th</sup> Street  
Newport Beach, CA 92663

Home Phone (949) 548-6326  
Office FAX (714) 848-6643

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution once through cooling in California power generating facilities -  
SUPPORT

VIA FACSIMILE 916.574.1810

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

*Jan D. Vandersloot, MD*

Jan D. Vandersloot, MD

**From:** <GVanDrie@aol.com>  
**To:** <thayerp@slc.ca.gov>, <samallwh@slc.ca.gov>  
**Date:** 02/08/2006 9:09 am  
**Subject:** Feb. 9 Agenda Item 56, Once-Through Cooling Resolution

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities - SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Name  
Address  
Phone Number

**From:** "S. Wines" <swines@socal.rr.com>  
**To:** <smallwl@slc.ca.gov>  
**Date:** 02/08/2006 8:48 am  
**Subject:** Once-through cooling resolution

February 8, 2006

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

Re: Agenda Item 56: Resolution on once through cooling in California power generating facilities -  
SUPPORT

VIA Email: Executive Officer Paul D. Thayer  
Lynda Smallwood

Dear Chair Westly and Commissioners:

I am writing to strongly support your proposed resolution on the elimination of once-through cooling in California power generating facilities, and urge the Commission to pass it during your meeting on February 9, 2006. I greatly appreciate the California State Lands Commission's effort to take a leadership role on this very important and timely issue.

Once-through cooling systems are highly destructive to marine life, and it is time to eliminate this antiquated destructive methodology from our precious coastal waters.

Thank you.

Sincerely,

Samuel T. Wines  
21812 Kaneohe Lane  
Huntington Beach, CA  
714-962-9604

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1204 Nipomo St.  
San Luis Obispo, CA 93401  
February 9, 2006.

The Honorable Steve Westly, Chair, and Commissioners  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

**Re: Agenda Item 56: Resolution regarding once through cooling in California power  
generating facilities - SUPPORT**


**VIA FACSIMILE 916.574.1810**

Dear Chair Westly and Commissioners:

The Environmental Center of San Luis Obispo (ECOSLO) would like to go on record as supporting the above-referenced resolution. We urge you to pass this resolution at your meeting today. We believe that once-through cooling is unnecessary and very harmful to the marine environment.

Thank you for your consideration.

Sincerely,



Bob Wolf  
Interim Executive Director, ECOSLO

Phone: 805-544-1777  
Fax: 805-544-1871  
Email: bobw@ecoslo.org

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**NRG WEST COAST LLC**

4600 Carlsbad Blvd.  
Carlsbad, CA 92008  
(760) 268-4069  
Fax (760) 268-4017

February 9, 2006

Mr. Paul D. Thayer  
Executive Officer  
State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825

RE: Comments on staff proposed Resolution Regarding Once-Through Cooling in California Power Plants

Dear Mr. Thayer,

NRG West Coast LLC is a co-owner of two large power stations that are located on the California coast, both of which have leases with the State Lands Commission. The Encina Power Station and the El Segundo Generating Station, located in the cities of Carlsbad and El Segundo, have used once-through sea water cooling since the 1950s pursuant to NPDES permits supervised and reissued every five years by the applicable Regional Water Quality Control Boards, under the auspices of the U.S. Environmental Protection Agency.

After prolonged public hearings (lasting nearly five years), we recently received a redevelopment siting permit to replace El Segundo's two oldest generating units with new combined cycle units, which the California Energy Commission found would generate nearly twice the electricity using approximately the same amount of natural gas and sea water for cooling, among many other project created enhancements and benefits. We are also in the middle of implementing and complying with the US EPA mandated Phase II 316(b) requirements for the El Segundo and Encina stations, which will require attainment of strict performance standards for reduction of impingement of fish and entrainment of fish larvae, either through implementation of control technologies, operational controls, and/or restoration measures.

As you many know, both the Encina and the El Segundo stations are hosts to demonstration sea water desalination plants, under the supervision of the Regional Water Boards. The intake and outflow structures are vital to the feasibility and economics of

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the extremely important full-scale desalination projects proposed for both stations. Finding new sources of potable water is extremely difficult and costly, and desalination projects co-located with power plant intake and outfall structures have been found to substantially lower the cost of desalinated water that, along with government subsidies, is equivalent to the price of imported water. Without co-location with power plants, these desalination projects may not ever be cost effective.

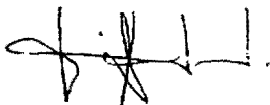
The continued operation of the existing El Segundo and Encina stations, as well as the near-term construction and operation of the El Segundo redevelopment project are vitally important to long term electrical reliability, both locally and regionally. Since these stations are located in the electrical load centers of Los Angeles and San Diego, they provide key electrical grid reliability and resource adequacy services. In fact, there are 21 power plants, representing approximately 24,000 megawatts of power generation capacity that use once-through cooling technology that also serve similar resource adequacy roles.

We can state without hesitation that the blanket denial of leases for power stations that use once through cooling beyond 2020 will, at a minimum, jeopardize the repowering project approved by the CEC for the El Segundo Station, will likely halt any further work on the desalination projects at these sites, and if broadly applied, would require drastic reductions in the efficiency of power generation and require major modifications to all these stations. The capital cost of such modifications are estimated to be as high a \$4 Billion statewide and would cause power generation efficiency losses roughly equivalent to the loss of one of the two large nuclear power plants in California (these estimates assume conversion of once through cooling to wet or dry cooling technology and the resulting energy efficiency penalties associated with such retrofits).

We believe that the categorical rejection of all sea water cooling without careful consideration of the facts described above and without conducting a robust cost-benefit analysis is unreasonable and contrary to the Commission's duties to the people of California in administering the public trust lands adjacent to these power stations.

We urge the Commission to remove this proposed resolution from the agenda, or at the very least, give us a full and fair opportunity to develop the issues identified in this letter.

Sincerely,



Jesús Arredondo  
Director, Regulatory and Governmental Affairs

Cc: The Honorable Arnold Schwarzenegger, Governor  
The Honorable Joseph Desmond, Chairman, California Energy Commission



Michael M. Hertel, Ph.D.  
Director  
Corporate Environmental  
Policy

February 8, 2006

Paul D. Thayer  
Executive Officer  
State Lands Commission  
100 Howe Avenue, Suite 100 South  
Sacramento, CA 95825

SUBJECT: Comments on Proposed Once Through Cooling in California Generating Stations, Agenda Item 56, Commission Meeting of February 9

Dear Mr. Thayer:

Southern California Edison (SCE) operates the San Onofre Nuclear Generating Station in Southern California. This generating station provides over 2200 megawatts of electricity to support of California's energy needs.

In addition to affecting our facility at San Onofre, the Commission's proposed resolution on once-through cooling systems (Agenda Item 56) could have major adverse impacts on the state's generating resources. Without revision, the resolution, if adopted and implemented by the Commission as it considers leases, could force the shut down of all coastal generating facilities. Coastal power generation with once-through cooling represents approximately 40% of the generation in the state.

As drafted, the proposed resolution does not address how existing coastal power plants are to continue operating and what the impact will be to the energy supply in the state or the cost of electricity to consumers. Before approving the resolution, the commission has the responsibility to evaluate the impact to the reliability and cost of the state's electrical supply system.

The proposed resolution could be viewed as setting regulatory policy. In any event, its scope is sweeping in its implications for the California's environment. This resolution has far ranging implications and may ultimately have the effect of regulations due to what could be seen as hard and fast dates. Therefore, a review under the California Environmental Quality Act may be triggered.

The proposed resolution fails to recognize the impacts of once-through cooling systems have already been thoroughly studied and addressed in federal regulations. The US Environmental Protection Agency issued rules governing existing and new once-through cooling systems. The regulations took over 20 years to complete. Electric utilities and energy service providers both here and around the nation are well on their way to finishing work to comply with these requirements at significant costs both in terms of the studies required, and in changes to the power plant operating systems. These regulations will, in some cases, reduce the environmental impact of river and coastal once-through cooling systems to aquatic life by 90%. Contrary to the assertion that the federal rules

P.O. Box 800  
2244 Walnut Grove Ave.  
Rosemead, CA 91770  
626-302-9456

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preclude the use of once-through cooling systems for new facilities, there is flexibility in the federal regulations. The federal rules do not have a prohibition on the use of once-through cooling systems at existing facilities. Before the Commission considers any action in this already heavily regulated field, it should at least educate itself on the record established at the US EPA on the matter.

The Commission's proposal also fails to consider the adverse environmental and energy related impacts that will occur if once-through cooling systems are eliminated. There are air emissions related to cooling towers, particularly salt-water cooling towers, and there is also a decrease in the generation capacity associated with use of cooling towers or dry cooling systems. EPA has estimated up to a 10% energy loss when dry cooling systems are used. To make up for this a generating station will have to burn more fuel to compensate for the energy loss, which, in turn results in greater air emissions. Vast amounts of land would be needed to site cooling towers. At many of the coastal generating stations, such land is simply not available. These additional environmental energy, and feasibility issues must be considered thoroughly before the Commission acts on such an important policy.

We are particularly concerned that the proposed resolution ignores the extensive and costly studies and actions undertaken by SCE to mitigate the San Onofre Units 2&3 cooling system impacts. The State Water Resources Control Board, the San Diego Regional Water Quality Control Board, and the California Coastal Commission have studied SONGS very thoroughly. The Coastal Commission identified impacts of the plant's cooling system on the marine environment and conditioned its operation on the implementation of very extensive mitigation. SCE is under construction of a 150 acre coastal wetland as compensation for larval fish losses and has constructed an extensive artificial kelp reef as required by the Coastal Commission to compensate for impacts to kelp bed near the plant. The kelp reef will eventually encompass 150 acres. Regrettably, the proposed resolution ignores more than 30 years of California regulatory oversight of the plant and the actions taken to mitigate its impacts on the marine environment. To put SONGS' impact through fish entrainment in perspective, proposed resolution references an estimate that 57 metric tons of fish are killed annually at the San Onofre Nuclear Generating Facility. By comparison, one bait boat operating in the waters off San Onofre impacts 1.4 metric tons per day or 511 metric tons annually, almost ten times the effect of San Onofre.

As the Commission recognizes, the State Water Resources Control Board already has staff working on these issues to develop conclusions based on a sound record. The Board has held a number of public workshops where these issues have been discussed. The State Lands Commission should not take an action on once through cooling until it considers fully the results of the work of the State Water Resources Control Board.

The proposal implies that the impacts from the loss of coastal generating facilities can be replaced through conservation, conversion or other sources. SCE leads the nation in procuring renewable energy resources. SCE currently obtains almost 17% of the energy we provide customers from California compliant renewables. Meeting the state's

Renewable Portfolio Standard of 20% 2010 will be very difficult to reach due to current transmission system constraints and opportunity to develop new resources. The PUC has authorized utilities under its jurisdiction to implement all cost effective conservation measures. Much has been accomplished in this area. However, it would not be possible through conservation to reduce demand commensurate with the potential lost generation from the implementation of the proposed resolution.

We call on the Commission to investigate the role of coastal power generation more thoroughly before considering the proposed resolution. We appreciate your consideration of SCE's thoughts on this important issue. If you have any questions on this issue, please call me at 626-302-9456.

Sincerely,



Michael Hertel, PhD

**West Region Operations**

7251 Amigo Street, Suite 120  
Las Vegas, NV 89119  
Tel: 702-407-4800  
Fax: 702-407-4852

February 8, 2006

Mr. Paul D. Thayer, Executive Officer  
California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

**RE: CSLC Resolution Regarding Once-Through Cooling in  
Power Plants**

Dear Mr. Thayer:

On February 6, 2006 Reliant Energy received a copy of the above-referenced resolution to be considered by the Commission on February 9, 2006. The resolution is of great concern to us since Reliant Energy owns and operates two electric generating stations in California that utilize once-through cooling.

We strongly feel that before adopting such a resolution, the Commission should more thoroughly assess the environmental impacts to public trust lands, the existing community use benefits, the energy needs of the State and the economic consequences if once-through cooling was prohibited. Before taking further action on the resolution, we urge the Commission to consider the following:

- 1) Use of seawater for cooling conserves precious fresh water supplies and results in more cost-effective and efficient power generation.
- 2) Many power plant sites do not have land space required to install alternative cooling technologies such as cooling towers or air-cooled condensers. Even if such technologies could be installed, their utilization will lower the efficiency of a facility originally designed for saltwater cooling. This in turn results in higher air emissions, including Greenhouse Gases, to generate the same amount of electric energy. Additional impacts include increased energy costs and aesthetic, noise and other environmental impacts.
- 3) Approximately 40% of California's current electric power resources have been designed and constructed to utilize once-through cooling. A ban on the use of the installed systems will adversely affect current and future investment and planning associated with these plants, which impacts the State's energy planning.

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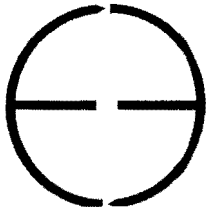
- 4) The environmental impacts of once-through cooling have been overstated, however the issue is being addressed in a comprehensive way. In 2004 the EPA promulgated regulations that call for substantial reductions in losses to aquatic organisms associated with once-through cooling. Reductions in losses of up to 95% are targeted even though decades of operation and ongoing monitoring show the impacts to be much less than often characterized. These regulations require a comprehensive evaluation of current environmental conditions and available control technologies, but they also recognize there are costs and benefits associated with alternative actions. The State Water Resources Board, working with the regional boards, is the lead State agency responsible for implementing these regulations.
  
- 5) Cooperative community uses have developed over decades around facilities utilizing once-through cooling. Enhancements to storm drainage, improved inland waterways and desalination opportunities are just some examples of community benefits arising from the presence of a saltwater cooling system.

Reliant Energy shares the concern for the environment and our communities expressed by the State Lands Commission, as well as many other agencies and members of the public. We believe that care for the environment must be placed in balance with many other considerations relevant to the citizens of the State. We urge the Commission to postpone action on the once-through cooling resolution until the matter has been fully assessed.

Sincerely,



Robert W. Lawhn  
Environmental Director



# California Council for Environmental and Economic Balance

February 7, 2006

Paul D. Thayer  
Executive Officer  
State Lands Commission  
100 Howe Avenue, Suite 100-south  
Sacramento, CA 95825

**RE: Comments on staff proposed Resolution Regarding Once  
Through Cooling in California Power Plants**

Dear Mr. Thayer,

The California Council for Environmental and Economic Balance (CCEEB) is a non-partisan, non-profit organization of business, labor and community leaders that seeks to achieve the State's environmental goals in a manner consistent with a sound economy.

CCEEB's membership includes companies that represent over 75% of the owners of the power generating facilities that utilize once through cooling ("OTC") systems. Such companies will be impacted by the Proposed Resolution Regarding Once Through Cooling in California Power Plants scheduled for consideration at the February 9<sup>th</sup> Commission meeting. These CCEEB members wish to express their viewpoints associated with the use of OTC systems in California. CCEEB urges your reconsideration of the proposed resolution and requests the Commission to defer action until such time that it is fully informed of the potential consequences of implementation of this resolution as drafted.

Power plants utilizing OTC systems play an extremely important role in powering California and its economy by generating efficient and reliable electricity. In fact, 21 power plants producing approximately 24,000 megawatts utilize this efficient cooling technology in California, which represents approximately 40% of the total electrical generating resources in California. Many of these coastal power plants are also located in the heart of the electrical load centers of California, thereby providing critical local and regional electrical grid reliability services.

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## **California is Currently Addressing Once Through Cooling Through Implementation of US EPA's Phase II 316(b) Regulation**

US EPA spent nearly a decade developing the Phase II 316(b) regulation that now applies to power plants utilizing OTC systems. The rule targets very substantial reductions in impingement and entrainment levels at power plants, while also retaining the needed flexibility to meet the reductions in a feasible and cost effective manner. Statements that OTCs are a significant source of adverse impacts to California's coastal marine biology and ecology are inconsistent with the data that has been collected during almost three decades of operations of these facilities. The section of this letter entitled "Impacts of Once Through Cooling Systems are Not Biologically Significant" describes the evidence from recent and historical impingement and entrainment studies, from which the weight of the findings show that OTCs are not causing significant impacts to fish populations. It is therefore premature to decide that implementation of 316(b) is not the right balance of environmental protection and cost effective power production, as its full implementation is not yet realized. California should only consider a different approach if the Phase II 316(b) is proven to be insufficient for California's needs or goals.

Compliance with the Phase II 316(b) regulation is in full swing in California, with many of the mandatory steps already being completed by the regulated facilities. Those steps include recent and comprehensive impingement and entrainment studies at each of the facilities and an evaluation of the Phase II 316(b) compliance options, including the feasibility of technological solutions to meeting the impingement and entrainment standards. CCEEB is concerned that a new or different state policy as proposed by this Proposed Resolution at this stage will only serve to provide uncertainty and delay implementation of the federal regulation and most likely delay the desired end result, which is to see significant reductions in impingement and entrainment.

The State Water Board is providing valuable oversight and authority in the state's implementation of the federal 316(b) regulation. CCEEB believes the most appropriate state action is for the Board to provide specific guidance on key provisions of the regulation. In that way, the State Water Board can ensure implementation of the regulation is carried out in a consistent and efficient manner throughout the state. However, such guidance should be developed to stay within the bounds of the federal 316(b) regulation and to

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not limit compliance flexibility for the facilities. This proposed Resolution undercuts the State Board's responsibility to implement 316(b) regulations in a balanced and thoughtful manner by stating the Lands Commission's intent to not extend existing leases or issue new leases after 2020.

### **Impacts of Once Through Cooling Systems Are Not Biologically Significant**

Several staff members of the California Energy Commission and California Coastal Commission have joined with a number of environmental groups advocating the closure of coastal power plants claiming evidence of enormous damage to coastal fisheries and ecology.<sup>1</sup> However, both the facts and findings of recent assessments of California coastal OTC intakes provide strong evidence to the contrary, finding that OTC systems have not damaged coastal fisheries or other resources, and also have demonstrated an absence of risk to California's present and future populations of entrained organisms and to the beneficial uses of California's coastal water.

Every five years the Regional Water Quality Control Boards ("RWQCB") review the NPDES permits for use of the intake water in OTC systems. Initial, and often recurring, impingement and entrainment evaluations were required at facilities utilizing OTCs back in the early 1980's, which demonstrated these systems were not causing significant adverse impacts to marine ecosystems. In recent years, the interest and activities surrounding proposals for the installation of new generating technology for improved efficiency has provided a large amount of contemporary information on the effects of impingement and entrainment at the state's existing OTC intakes. A great deal more of this kind of information is also available as a result of information gathering requirements in EPA's new Phase II 316(b) compliance and performance standards (see Table 1 below).

At every one of the facilities with data from previous intake studies that demonstrated no adverse impacts, the recent studies also demonstrated an absence of present day damage and found the source water communities of entrained fish and invertebrate larvae were remarkably unchanged<sup>2,3</sup>. Independent scientists consulting to the RWQCB made specific findings of this nature in their final review of the Moss Landing 2000 & 2001 316(b) studies of the Elkhorn Slough, Moss Landing Harbor, and Monterey Bay

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<sup>1</sup> See for example public comments from Mr. Tom Luster (CA Coastal Commission) at the SWRCB workshop in Laguna Beach, September 26, 2005.

<sup>2</sup> Moss Landing Power Plant 316(b) Study

<sup>3</sup> South Bay Power Plant 316(b) Study

source water in comparing them to their own study findings from 1977, a period of nearly three decades.

The California Department of Fish & Game has stated in its Nearshore Fisheries Management Plan that an over-fished stock is one that has been reduced to 30% of its unfished biomass and that controls would need to be enacted whenever a stock is reduced to 60% of its unfished biomass. The designs of recent entrainment studies are based on similar principles of fishery management and provide estimates of the numbers entrained organisms as a percentage of the total larvae at risk of entrainment (source water populations). In 316(b) studies of OTC systems, the entrained fraction of the source water population of larvae usually averages between 2 and 10 percent of the estimated source populations and is much lower for most species. The 2 to 10 percent average entrained fraction represents very small impacts to adult fish due to the high natural mortality of larval fishes exceeding 99.9 percent.

The statements of significant impacts from OTC systems are often centered on the large numbers of larvae that are entrained as the only evidence needed to assume that there has to be ecological damage. However, as demonstrated by 316(b) studies, these losses of larvae are very small fractions of the source water populations of the larvae, which are present in enormous numbers in the ocean and bays (see Table 1 below). Further, the fractional losses caused by entrainment are insignificant to sustaining the adult populations of the fish relative to the levels used for fishery management, especially when more than 99.9 percent of the larvae will die naturally before becoming adults with absolutely no affect on the size of the adult fish populations. For many, this scientific fact of population dynamics, which is used to regulate and assure sustainable harvests of natural populations, is difficult to comprehend or is philosophically at odds with their ideas of preservation.



**Table 1 – Summary of Entrainment Impacts from Select OTC Studies**

| Facility Name    | Adult Equivalent Losses as a Percentage of Adult Source Water Populations | Average Proportional Entrainment Mortality as a Percentage of Source Water Larval Populations | Study Year |
|------------------|---|---|------------|
| El Segundo       | 0.10 – 0.76 %   | NA  | 1980       |
| Huntington Beach | NA  | 0.6 %   | 2004       |
| Diablo Canyon    | NA  | 8.6 %   | 1996-1999  |
| SONGS            | 0.01 – 6.9 %  | NA  | 1979-1986  |
| Moss Landing     | NA  | 13.1 %  | 1999       |
| Morro Bay        | NA  | 21.0 %  | 2000       |
| Scattergood      | 0.001 – 0.2 %   | NA  | 1981       |
| Harbor           | 0.8 – 1.8%  | NA  | 1981       |
| Haynes           | NA  | NA  | 1981       |
| South Bay        | NA  | 13.4 %  | 2001       |

The numbers of larvae produced by most fishes during their reproductive years as adults can be enormous, but only two of those larvae need to survive to adult to maintain a stable population level. For example, a single California halibut may release as many as 50 million eggs per year over a period of greater than 20 years, and a single rockfish may release up to one million larvae per year for several years to decades depending on the species. Other species such as gobies produce only a few thousand larvae per year per adult female over a much shorter lifespan, but even in these fishes, the total lifetime survival rate required to maintain the population is less than 0.1%. The incremental losses of larvae due to OTC systems do not have any measurable effect on fish populations because they are adapted to living and reproducing in highly variable environments where the natural rates of mortality are very high and vary from year-to-year. The arguments presented by some staff at the California Energy Commission and California Coastal Commission and members of the environmental protest groups ignore the role of compensation (density dependent predation and recruitment) in maintaining these populations.

On the Pacific coast, evidence showing that high numbers of entrained larvae do not result in large impacts includes the following:

- Even though gobies are entrained in greater numbers than any other fish larvae, studies at the South Bay Power Plant showed very little change in annual estimates of goby larvae entrainment between studies in 1979–1980 and studies in 2001 and 2003. The absence of any long-term changes in larval productivity is supported by abundance data on adult gobies that showed increases in the population through time from 1994-1999.
- Although recent studies at the Encina Power Station show that goby larvae are entrained in higher numbers than other fishes, studies on adult gobies in Agua Hedionda Lagoon (where the Encina intake is located) showed much higher adult densities of gobies than similar studies from Batiquitos Lagoon where no power plant is located.
- Long-term monitoring in central California at the Diablo Canyon Power Plant, with an OTC volume of 2.5 billion gallons per day, showed no significant declines in nearshore fish populations over the 20 years of plant operation.

**Implementation of Phase II 316(b) Requirements Will Significantly Reduce Impingement and Entrainment at OTCs**

Compliance with US EPA’s Phase 316(b) performance standards requires reduction in impingement and entrainment at OTC systems even though these systems are not causing significant impacts to fish populations. The target reductions of 80 to 95 percent of impingement mortality and 60 to 90 percent of entrainment at all California’s coastal facilities will, with very little uncertainty, assure the future protection of the beneficial uses of the source waters. If we have no evidence of damage to these uses over nearly three decades of operation, and recent assessments have determined that entrainment losses are below the levels allowed for sustainable harvest (as described above), then the significant reductions in these losses required by US EPA’s new rule will ensure that OTC systems will have no significant effects on populations of fish, shellfish and other wildlife.

**Existing State Policy Encourages the Use of Seawater for Power Plant Cooling For Many Compelling Reasons**

Established policy of the State of California {California Water Code Section 13550 *et seq.*, and State Water Resource Control Board Resolution 75-58} encourages the siting of power plants on the ocean in order to take

advantage of the state's abundant seawater as a supply for power plant cooling in order to conserve the state's finite and limited supplies of freshwater for other purposes. Alternative cooling systems to OTC require the use of substantial quantities of freshwater and/or having impacts to other environmental media, thereby providing many reasons why this remains a good policy for California, including:

- Once-through cooling systems are the most energy efficient form of cooling for power plants as compared to alternatives, including wet or dry cooling towers. Wet and dry cooling systems have been demonstrated to have moderate to large reductions in power plant thermal efficiency (energy penalty) when compared to OTC. EPA estimates efficiency losses would be approximately 2.4 to 5.3 percent from wet cooling and 8.6 to 10 percent from dry cooling as compared to OTC systems (July 9, 2005 Federal Register, page 41605; and EPA Technical Development Document, Chapter 5). This loss of power plant thermal efficiency translates into reduced power production when using the same fuel rates;
- The wet/dry cooling energy penalty noted above requires more fuel use to achieve the same number of megawatts of power as OTC systems. This increased fuel use causes increases in emissions of air contaminants that are avoided with use of the more efficient OTC systems. It also increases the cost to produce the power;
- Use of wet cooling towers has been demonstrated to cause emissions of particulates that are not created with use of OTC systems;
- OTC systems avoid the use of large volumes of potable or reclaimed water typically used for wet cooling towers. Use of seawater in OTCs maintains larger available resources of potable and reclaimed water for other important uses and reduces the need to tap into additional potable water sources;
- Not using large volumes of potable water at power plants avoids the many environmental impacts associated with use of such water sources, including the storage of water, water transportation, groundwater pumping, impacts to lake, river, and stream fish and habitats, etc;

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- OTC systems are low profile cooling systems and avoid the visual impacts associated with the comparably large-sized wet or dry cooling towers, both from the physical structures themselves and from vapor plumes from wet towers. Because power plants that use OTC systems are often in constrained coastal areas, use of wet or dry cooling towers may be prohibited due to local visual resource issues or unavailability of the necessary real estate;
- OTC systems avoid the significant noise impacts normally associated with wet or dry cooling towers;
- OTC systems make possible the synergies of a co-located desalination plant to utilize a single seawater intake structure to efficiently use seawater for power plant cooling and desalination for production of critically needed additional potable water supplies for California;

These benefits associated with the use of OTC systems are often over-looked when discussing OTC systems. Further, the state's list of approved water quality basin plans for bays and estuaries explicitly recognize the compatible, beneficial use of the water for industrial cooling water. For these reasons, the existing state policies of encouraging the use of seawater for industrial cooling purposes remains a good and environmentally sound policy for California.

**Detailed EPA Review Concluded that Wet and Dry Cooling Retrofits are not Economically Practicable for Existing OTC Systems**

During the September 26, 2005, State Water Board OTC Workshop, several public comments urged the Board to require retrofit of OTC systems to wet or dry cooling technology. While these technologies are certainly good methods of cooling for newly constructed power plants, they have serious and significant technical hurdles associated with being retrofitting onto existing power stations. Some of those issues can be summarized as:

- Since each of the 21 California power plants using OTC systems are located on, or in close proximity, to the coast (either ocean, bay, or canal), the very large required space for installing wet or dry towers is often not available at these locations;

- As pointed out earlier, retrofitting to wet or dry cooling towers can cause new and different environmental impacts. For example, wet cooling towers directly emit particulate matter emissions to the air, which can impact ambient air quality. Secondly, wet or dry cooling reduces the thermal efficiency (energy penalty) of a power plant, thereby requiring it to combust more fuel and emit more air emissions in order to generate the same amount of power as an OTC. The same holds true for dry cooling, which even has an even greater reduction in thermal efficiency associated with its use than wet towers;
- Wet and dry cooling towers tend to not meet coastal development requirements by causing potentially significant adverse impacts to visual resources and increase the noise footprint compared to facilities that utilize OTC systems;
- Wet cooling towers require the use of significant volumes of freshwater, which puts additional strain on the already severely limited freshwater sources for California. Even using reclaimed water for wet towers has an impact on freshwater sources since that reclaimed water cannot be used to offset some other more appropriate freshwater user;
- Wet and dry cooling retrofits at existing OTC facilities are very expensive. For example, the San Onofre Nuclear Generating Station (“SONGS”) evaluated retrofit costs to these two cooling methods and found retrofit costs of dry cooling to be approximately \$500 million and wet cooling to be \$370-450 million, depending on the type of wet cooling utilized. These represent just the capital and construction costs associated with these technologies. EPA estimated the average cost of retrofitting to wet cooling to range from \$130 to 200 million for higher flow facilities, but noted the estimates did not fully incorporate costs associated with acquiring land needed for these large cooling structures (July 9, 2004 Federal Register, page 41605). As noted before, there are additional and substantial costs associated with de-rating the generating units, reduction in thermal efficiency, higher operations and maintenance costs, etc. that are not included in these estimates.

Assuming implementation of this proposed Resolution and that wet or dry cooling retrofits were required at all 21 California facilities currently operating with OTC systems (approximately 24,000 megawatts), and using the above

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noted retrofit cost estimates and average estimated thermal efficiency losses, the following impacts to the state's power generation capacity would result:

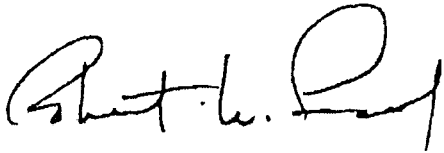
- Total capital costs for wet or dry cooling retrofits would be \$1.1 to 4.2 billion;
- Retrofit to wet cooling would create thermal efficiency penalties roughly equivalent to 925 megawatts of lost power generating capacity (approximately two large scale combined cycle power plants);
- Retrofit to dry cooling would create thermal efficiency penalties roughly equivalent the 2200 megawatts of lost power generating capacity (approximately one of California's nuclear power plants or four to five large scale combined cycle power plants).

US EPA recognized these significant and serious costs and issues and concluded that it would not require Phase II 316(b) facilities to have to consider retrofitting to wet or dry cooling as part of the Phase II 316(b) regulation (July 9, 2004 Federal Register, pages 41605 and 41608). CCEEB believes California should apply the robust set of EPA's information and findings to come to the same conclusion and not require a wet or dry cooling alternative for these OTC facilities.

In sum, this letter attempts to address some of the many complex environmental and economic issues that must be considered in any public policy statement on the topic of once through cooling. It does not attempt to describe the impact to California's energy supply or to the stability of the grid should some or all of the existing or planned, but not yet built, plants are closed because of an inability to operate after 2020. Nor does it attempt to estimate how this policy will affect investment decisions that will most certainly need to be made between now and then.

The Council thanks the State Lands Commission for its thoughtful consideration of CCEEB's viewpoints and recommendations. If you have any questions do not hesitate to call me at (916) 444-7337 for further discussion.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert W. Lucas". The signature is written in a cursive style with a large, prominent initial "R".

Robert W. Lucas

cc: Members of the State Lands Commission



**Pacific Gas and  
Electric Company**

Nancy E. McFadden  
Vice President – Governmental  
Relations

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February 8, 2006

The Honorable Steve Westly  
State Controller, State of California  
300 Capitol Mall, Suite 1850  
Sacramento, CA 95814

**RE: State Lands Commission: Proposed resolution regarding once through cooling in  
California power plants – February 9, 2006**

Dear Controller Westly:

Pacific Gas and Electric Company (PG&E) is concerned with the language in the proposed resolution regarding once through cooling (OTC) in California power plants. The draft resolution would effectively ban new leases or extensions of existing leases on state lands after 2020 for existing and new OTC generation facilities. This is more than simply a statement of policy. We believe that this resolution will significantly impair electric generation availability in California by discouraging investment in and refurbishment of existing generation that is and will continue to be of critical importance to the state. While PG&E shares your commitment to improving California's environment, the language of the resolution fails to consider important new processes currently underway to evaluate and mitigate the impacts of OTC.

We ask that you consider the following points. We further request that you either postpone the vote on the resolution or consider alternative directives which would more appropriately limit the restrictions on OTC to newly constructed generation facilities in California and allow the implementation process for the new Clean Water Act regulations to continue to closely monitor and evaluate the existing OTC generation facilities.

California has 21 power plants that use OTC which generate approximately 24,000 MW of power or 40 percent of California's electric load. In northern California, many of these power plants have been designated "reliability must run" by the California Independent System Operator (ISO) and are critical to ensuring local reliability. This includes two facilities in San Francisco (Hunters Point and Potrero Power Plants), several units in Contra County, and the Humboldt Bay Power Plant on the north coast. Because they are critical to ensuring system reliability, the ISO has ruled that these units cannot be closed unless replacement generation at or near the same location or new transmission lines into the applicable region are first brought on-line.

PG&E operates three power plants that utilize OTC: Diablo Canyon Power Plant (2200 MW), Humboldt Bay Power Plant (105 MW) and Hunters Point Power Plant (160 MW).

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The Honorable Steve Westly  
February 8, 2006  
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PG&E purchases power to serve its customers and provide for reliability reserves from most of the other non-PG&E northern California power plants that use OTC. These facilities are needed to ensure adequate regional supply and to enable PG&E to meet its resource adequacy requirements. Revoking the leases of these plants and thereby prohibiting their operation will have a significant detrimental effect on the generation availability for PG&E customers in the future. More importantly, the resolution will discourage investment in and repowering of these existing facilities. This will discourage early beneficial improvements to existing generation that could reduce environmental impacts. Additionally, there are a number of environmental impacts that must be evaluated, including possible air quality impacts resulting from replacing OTC plants with higher emitting, less efficient units.

We understand your interest in the protection of our oceans and waterways. As a regulated investor owned utility, we work to achieve a balance between responsible environmental stewardship and the energy system reliability. We support your efforts to strike a fair balance between environmental protection and electric energy availability and reliability.

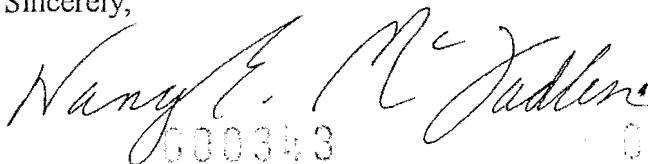
All the facilities in California that use OTC are extensively regulated by the Clean Water Act and are required to obtain and renew permits every five years. New federal regulations will reduce impingement by 80% to 95% and entrainment by 60% to 90% and require a detailed assessment of the environmental impacts of once through cooling as well as the applicability of retrofit technologies or other operating or restoration measures. This framework ensures significant reduction in and mitigation of the impacts of once-through cooling on a going forward basis for existing facilities.

PG&E is moving forward with closure and replacement of its Hunters Point and Humboldt Power Plants (both use OTC methods) and has transmission upgrades underway in San Francisco and a competitive solicitation ongoing in Humboldt for bids to replace the aging facility with new, cleaner and more efficient technology. However, closure and replacement of all the generation facilities in the state that use once-through cooling is not feasible or cost-efficient.

We urge you to consider alternative language for this resolution to exclude closure of existing facilities and allow a process which involves a case-by-case approach, which evaluates various factors such as energy reliability, economic impacts and all environmental issues. We also request that you postpone this matter to allow for a more thorough discussion.

Thank you for your consideration of this important issue.

Sincerely,



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cc: The Honorable Cruz Bustamante, Lieutenant Governor  
The Honorable Mike Genest, Director, Department of Finance  
Cindy Aronberg, Deputy Controller  
Anne Sheehan, Department of Finance  
Lorena Gonzalez-Bradford, Lieutenant Governor's Office  
Paul Thayer, State Lands Commission



# San Diego County Water Authority

4677 Overland Avenue • San Diego, California 92123-1233  
(858) 522-6600 FAX (858) 522-6568 www.sdcwa.org

February 8, 2006

Paul D. Thayer  
Executive Officer  
State Lands Commission  
100 Howe Avenue, Suite 100-south  
Sacramento, CA 95825

**MEMBER AGENCIES**

- Carlsbad Municipal Water District
- City of Dul Mar
- City of Escondido
- City of National City
- City of Oceanside
- City of Poway
- City of San Diego

**RE: Comments on staff proposed Resolution Regarding Once Through Cooling in California Power Plants**

Dear Mr. Thayer,

The San Diego County Water Authority would like to provide comments to the staff proposed resolution regarding once-through-cooling (OTC) in California power plants.

The San Diego County Water Authority (Water Authority) is the regional water wholesaler serving San Diego County. Currently, the Water Authority imports 75 to 90 percent of the county's water from sources in Northern California and the Colorado River. The Water Authority's mission is to provide a safe and reliable water supply to support the region's \$142 billion economy and the quality of life of 3 million residents. Because of this regional water supply mission, the Water Authority has taken a leading role in the development of new water supplies in San Diego County.

In recent years desalination has emerged as an integral part of a long-term water supply diversification strategy to reduce the region's dependence on imported supplies. Seawater desalination, along with one of the most aggressive water conservation efforts in California and continued implementation of water recycling and the recovery of brackish groundwater is part of a diversified water supply portfolio adopted in our 2005 Urban Water Management Plan. The Water Authority believes it is only through a diversified water supply portfolio that includes seawater desalination will we achieve a reliable water supply for the future of San Diego County.

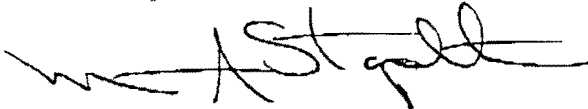
The Water Authority's desalination planning efforts are now focused on a proposed regional facility at the Encina Power Station in Carlsbad. The success of the proposed project at Encina depends heavily on the synergy of co-locating a large-scale reverse-osmosis seawater desalination facility such as the one contemplated by the Water Authority with a power plant utilizing OTC. Co-location offers numerous benefits,

including the ability to utilize the power plant's cooling water intake and outfall structures, already warmed water, ready access to electricity and outfall dilution/dispersion opportunities. Co-location also offers substantial advantages in terms of minimizing potential environmental effects and coastal intrusion and maximizing economic efficiencies from reduced capital investment and long term operational costs.

A majority of seawater desalination facilities being proposed in California are planned to be co-located with coastal power plants. Elimination of OTC from existing power plants will greatly reduce the viability of these key water supply projects. We believe that collectively, these proposed projects would play significant roles in shaping California's future water supplies. Therefore, the potential impacts of eliminating OTC on the development of water resources should also be examined before any positions or actions are taken. It is important that the ecological impacts of feedwater intakes for desalination be evaluated from a statewide water supply perspective. The use of ocean water is likely to be environmentally preferred in contrast to the biological impacts of increased demands on the State's rivers, lakes and groundwater systems which are nearly all constrained and biologically sensitive. When compared to these alternative fresh water withdrawals, extractions from the ocean may actually have less significant impacts than those from fragile fresh water bodies.

Thank you for considering these viewpoints and recommendations. Please call me at (858) 522-6781 if you have any questions or need additional clarification.

Sincerely,



Maureen A. Stapleton  
General Manager

MAS: KW/cl

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Mr. Paul D. Thayer  
State Lands Commission  
Feb. 8, 2006  
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In response to the 1995 Board Order, our company considered building a reservoir on the Carmel River. Assembly Bill 1182 determined that we needed an alternative project in case the reservoir was not approved. Pursuant to AB 1182, the California Public Utilities Commission conducted a study to identify an alternative known as "Plan B." In this study the Commission's experts looked at dozens of alternatives and determined that a desalination plant co-located with the Moss Landing Power Plant (MLPP), in combination with aquifer storage and recovery facilities, was the best option. In 2002, California American agreed to move forward with implementing this solution and it has spent more than \$9 million since pursuing this water supply project. We refer to the combined project as the Coastal Water Project; more information is available at [www.coastalwaterproject.com](http://www.coastalwaterproject.com). We submitted our Proponents Environmental Assessment to the California Public Water Commission in July of 2005 and the Commission is currently preparing an environmental impact report, which we expect to be complete in 2007. It is important to note that our project simply replaces an existing water supply that is currently being taken from the Carmel Valley Aquifer (which underlies the Carmel River). Therefore, this project provides a net environmental benefit, as the Coastal Water Project will reduce water withdrawals from the Carmel River Basin, thereby benefiting sensitive habitat and species dependent upon the Carmel River.

I understand the environmental concerns associated with once-through cooling, and I understand that implementation of the US EPA's Phase II 316 (b) Regulation should result in substantial improvements at power plants. Compliance with 316(b) includes a comprehensive site-specific study of impingement and entrainment. In short, a new State policy that conflicts with an EPA policy that we have not yet given a chance to succeed seems ill-timed at best. The EPA has already addressed this important issue and we should give the EPA's new regulations a chance to address the problem.

Implementation of a new layer of regulation in conflict with EPA policy will not only affect energy supplies, but will affect water supplies in many communities as well. Our company has already made a decision to move forward with an almost \$200 million project to address the needs of our local customers in Monterey and to allow us to comply with State Water Resources Control Board Order 95-10. Implementation of the State Lands Commission's proposed Resolution would be a roadblock for the Monterey community as it marches steadily towards a reliable supply of water for the first time in over two decades.

We would also like to note that this proposed Resolution appears to be in direct conflict with other State agency policies and programs, including but not limited to the following:

- State Lands Commission Policies. The Resolution appears to be in direct conflict with the SLC's Regulation 2802(b) and (f), as well as the SLC's adopted Public Trust Statement.  
([http://www.slc.ca.gov/Policy%20Statements/Policy\\_Statements\\_Home.htm](http://www.slc.ca.gov/Policy%20Statements/Policy_Statements_Home.htm))

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**FOR HAND DELIVERY**

February 8, 2006

Mr. Paul D. Thayer  
Executive Officer  
State Lands Commission  
100 Howe Avenue, Suite 100- South  
Sacramento, CA 95825

**RE: Staff Proposed Resolution Regarding Once Through Cooling in California Power Plants**

Dear Mr. Thayer:

I am writing to you to strongly oppose the Staff Proposed Resolution Regarding Once through Cooling in California Power Plants. I believe there are many reasons to oppose this Resolution, but I will focus on possible negative impacts to our residential and business water customers in Monterey County

California American Water is an investor-owned utility providing water service to more than 500,000 Californians, including 60,000 households in the Sacramento area and 40,000 households on the Monterey Peninsula. California American Water strongly opposes the proposed Resolution and urges that you defer action until you can consider all of the issues and implications, including potential adverse effects to our customers.

**Background**

As you may know, the Monterey Peninsula has had severe water supply problems since at least 1995, and the Proposed Resolution could negatively affect our company's ability to comply with State Water Resources Control Board Order 95-10 which requires us to provide a new water source.

In 1995, the SWRCB ruled that the Company has no valid legal right to approximately 69% of its existing water supply for the Monterey Peninsula. Until a replacement water supply is identified and brought on line, California American was ordered to reduce pumping from the Carmel Valley Aquifer by 20%. On average, our customers use 50% less water than ratepayers anywhere else in the State. With very few exceptions, our Monterey peninsula customers have not been permitted to remodel, add bathrooms, build homes on vacant "lots of record," or use what most in the State would consider a "normal" amount of water. Each household is assigned a water allocation based on lot size, number of full and part-time residents, and other factors. If residents exceed their allocation, their price per unit of water increases steeply. In short, water is scarcer and our customers are more responsive in Monterey than in any other area of the State.

Paul G. Townsley  
California American  
Water  
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Chula Vista, CA 91910  
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I [www.calamwater.com](http://www.calamwater.com)

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Mr. Paul D. Thayer  
State Lands Commission  
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- California Coastal Commission policy paper indicating that co-located desalination plants should be evaluated on a case-by-case basis (and not arbitrarily blocked by this Resolution). (<http://www.coastal.ca.gov/energy/14a-3-2004-desalination.pdf>)
- California Department of Water Resources State Water Plan (<http://www.waterplan.water.ca.gov/docs/cwpu2005/vol1/v1ch05.pdf>) The Resolution is in direct conflict with Recommendation 7, and with Volume II Chapter 6, Desalination.
- California Department of Water Resources State Water Desalination Task Force Final Report (<http://www.owue.water.ca.gov/recycle/desal/desal.cfm>) The Resolution is in direct conflict with Findings and Recommendations 25 – 30.
- Metropolitan Water District's Integrated Resources Plan (<http://mwdh2o.org/mwdh2o/pages/yourwater/irp/integrated01.html>)
- San Diego County Water Authority's Urban Water Management Plan (<http://www.sdcwa.org/manage/UWMP.phtml>) and Regional Water Facilities Master Plan (<http://www.sdcwa.org/infra/masaterplan.phtml>)
- Numerous county and local water district water supply planning programs and adopted Urban Water Management plans.

I thank the State Lands Commission for its consideration of California American Water's strong opposition to this proposed Resolution, and the potential impacts to energy and water supplies for all the communities throughout California. If you have any questions, please do not hesitate to contact me at (619) 206 8273.

Sincerely,



Paul G. Townsley, P.E.  
President

cc: Members of the State Lands Commission

DEFERRED

Minute Item  
57

02/09/06

CALIFORNIA STATE LANDS COMMISSION

**Regular Item 57:** The Commission decided that since the copper-based paints on vessel hulls resolution would somewhat controversial and that two of the commissioners were gone that the item should also be postponed until the April meeting.

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