

**ADDENDUM TO COMMISSION PACKET**  
**FOR**  
**ENERGY, OCEAN RESOURCES and**  
**FEDERAL CONSISTENCY**

For Thursday, November 15, 2007

**Item No. Th 7a**

**E-06-013**

Poseidon Resource LLC

- Ex Parte Disclosures
- Correspondence
  - Elected Officials
  - Organizations
  - Individuals

# EX PARTE DISCLOSURES

**FORM FOR DISCLOSURE OF  
EX-PARTE COMMUNICATIONS**

Name or description of the project: Poseidon Resouce Desal  
Time/Date of communication: 11/8/2007, 1pm  
Location of communication: 22350 Carbon Mesa Rd., Malibu  
Person(s) initiating communication: Conner Evert, Joe Geever  
Person(s) receiving communication: Sara Wan  
Type of communication: meeting

They support the staff

Poseidon claims that staff has been stalling but they haven't given staff the information the need to analyze this

Entrainment impacts- Poseidon didn't offer evidence of alternatives- relying on NPDES permit which is not complete- no flow entrainment plan- relies on after the fact mitigation which is not legal- under Porter- Cologne must minimize intake.

All of their migitations are "may"- the projects they propose do not resolve the entrainment issues- not in-kind and they put a cap on funds to be used

Dredging issue related to intake- State Lands- offshore intake preferable as long as sucking in water will be sucking in sediment

Subsurface intake resolves both entrainment and sedimentation but Poseidon refuses to use anything but the existing intake.

30253(4)- requires minimize energy consumption- recently announced they would test new type of pumps- no tests yet and not commitment ot use them but still expect credits from they- however every with them still more enerby intensive

Other water suppliers can meet their demands that are not so energy intensive

If use desal need to use a less intensive measurement

No investigation of why Poseidon such intense use of energy

If were to use sub-surface intake there is no pre-treatment and therefore no energy use.

Poseidon submitted report on why subsurface intakes not environmentally sensitive and Included drawings of pill box structures on beach which mis-represents what is functioning in Dana Point which are buried.



Date: 11/11/07

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Sara Wan

**Tom Luster**

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**From:** Mark Delaplaine  
**Sent:** Thursday, November 08, 2007 4:20 PM  
**To:** Tom Luster  
**Subject:** FW: Th 7a.....Poseidon Resources

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

**From:** Vanessa Miller  
**Sent:** Thursday, November 08, 2007 4:16 PM  
**To:** Mark Delaplaine; Alison Dettmer; Jeff Staben  
**Subject:** FW: Th 7a.....Poseidon Resources

Ex parte communication.

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

**From:** Dan B. Secord, M.D. [mailto:drdan@cox.net]  
**Sent:** Thursday, November 08, 2007 4:02 PM  
**To:** Vanessa Miller  
**Subject:** Th 7a.....Poseidon Resources

November 8, 2007

Met in Santa Barbara with Conner Everts of the Desal Response Group, and Joe Geever of Surfrider.

Are opposed to the project

They explained their basis: No plan for mitigation to the lagoon despite a \$2 M price tag and they question what Poseidon will do and is the \$2M enough

They provided a five page document by a professional engineer: Powers Engineering dated October 12 which will be shared with Coastal Staff, which compared energy impacts of water supply and transport options for San Diego County. A copy of this report will be e-mailed to the Commission.

Dan

Pat Krueer

THURSDAY, ITEM 7A

FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS

RECEIVED

NOV 13 2007

CALIFORNIA COASTAL COMMISSION

Name or description of project, LPC, etc: Poseidon Resources Corporation, Carlsbad Desalination Facility

Date and time of receipt of communication: November 7, 2007; Noon

Location of communication: La Jolla

Type of communication (letter, facsimile, etc.): face-to-face meeting

Person(s) initiating communication: Peter MacLaggan and Walt Winrow, Poseidon Resources  
Susan McCabe, McCabe & Company  
Rick Zbur, Latham & Watkins

Detailed substantive description of content of communication:

(Attach a copy of the complete text of any written material received.)

Peter MacLaggan, Walt Winrow, Susan McCabe and Rick Zbur gave me a briefing on Poseidon's Carlsbad Desalination Project. The Poseidon team walked me through a detailed briefing package that they informed me has been provided to Commission staff and is in the Commission record for this matter. Among others, the Poseidon team covered the following points in the briefing package:

- Overview of the project;
- Need for the project;
- Poseidon's view that the project site and intake system are the least environmentally damaging project alternatives, compared to alternatives studied that the team explained;
- Implications of the Riverkeeper II case, including the point that it applies to power plants and that even if the power plant's cooling system is discontinued, Poseidon has analyzed the project on a stand-alone basis and believes it is consistent with all LCP and Coastal Act policies;
- Poseidon's commitment to render the project carbon neutral through implementation of a Climate Action Plan that was developed with a quantification methodology consistent with that recommended by the California Climate Action Registry;
- Poseidon's commitment to undertake 37 acres of wetlands restoration;
- Poseidon's obligation to maintain the Agua Hedionda Lagoon in the event that the power plant's maintenance obligations cease;
- Public access benefits of the project, including more than 15 acres of lands dedicated for coastal access purposes.

11/12/07  
Date

  
Signature of Commissioner

FORM FOR DISCLOSURE OF  
EX PARTE COMMUNICATIONS

Name or description of project , LPC, etc: Poseidon Resources Corporation,  
Carlsbad Desalination Facility

Date and time of receipt of communication: November 7, 2007; 11:15 a.m.

Location of communication: Santa Barbara, with Supervisor Firestone

Type of communication (letter, facsimile, etc.): face-to-face meeting

Person(s) initiating communication: Peter MacLaggan and Walt Winrow,  
Poseidon Resources  
Susan McCabe, McCabe & Company  
Rick Zbur, Latham & Watkins

**Detailed substantive description of content of communication:**  
(Attach a copy of the complete text of any written material received.)

Peter MacLaggan, Walt Winrow, Susan McCabe and Rick Zbur gave me a briefing on Poseidon's Carlsbad Desalination Project. The Poseidon team walked me through a detailed briefing package that they informed me has been provided to Commission staff and is in the Commission record for this matter. Among others, the Poseidon team covered the following points in the briefing package:

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- Public access benefits of the project, including more than 15 acres of lands dedicated for coastal access purposes.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Commissioner

**Tom Luster**

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**From:** Vanessa Miller  
**Sent:** Tuesday, November 06, 2007 10:21 AM  
**To:** Tom Luster; Mark Delaplaine; Alison Dettmer  
**Cc:** Jeff Staben  
**Subject:** FW: Commissioner Larry Clark--EX PARTE COMMUNICATIONS (Poseidon Resources Corporation, Carlsbad Desalination Facility )  
**Importance:** High

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

**From:** Larry Clark [mailto:forelc@cox.net]  
**Sent:** Sunday, November 04, 2007 11:59 AM  
**To:** Vanessa Miller  
**Subject:** Commissioner Larry Clark--EX PARTE COMMUNICATIONS (Poseidon Resources Corporation, Carlsbad Desalination Facility )  
**Importance:** High

**Commissioner Larry Clark  
EX PARTE COMMUNICATIONS**

Name or description of project, LPC, etc:      **Poseidon Resources Corporation, Carlsbad  
Desalination Facility**

Date and time of receipt of communication:      **October 24, 2007; 12:45 p.m.**

Location of communication:      **Manhattan Beach**

Type of communication (letter, facsimile, etc.):      **in person meeting**

Person(s) initiating communication:

**Walt Winrow and Peter MacLaggan, Poseidon Resources  
Susan McCabe, McCabe & Co. Rick Zbur, Latham & Watkins**

I met with Walt, Peter, Susan and Rick to discuss Poseidon Resource Corporation's Carlsbad Desalination Facility, which is expected to come before the Commission at our hearing in November. The Poseidon team gave me an overview of the project, and then a relatively detailed summary of their views regarding the need for the project and the project's impacts and public benefits. The proposed project is a 50 million gallon per day seawater desalination facility to be located within the Encina Power Station, which is adjacent to Agua Hedionda Lagoon in Carlsbad.

Regarding the need for the project, the Poseidon team explained that the project is consistent with state, regional and local water plans. The San Diego County Water Authority has

identified a need for 56,000 acre-feet of desalinated water from the Carlsbad project by 2011. The Poseidon team noted that the San Diego region has made good progress utilizing water conservation to help reduce demand and water recycling as a source of supply, and that the region is planning to continue to increase conservation and recycling efforts, but that these efforts alone will be insufficient to meet demand for water. The team stated that more than 85% of the water consumed in San Diego County is imported, and that sources of imported water supply are deteriorating due to drought conditions and significant cutbacks are threatened due to the recent court case to protect the Delta smelt. The Poseidon team noted that the project will provide a reliable supply to replace the deteriorating imported supply.

Regarding potential growth inducement, the team noted that 100% of the proposed project's supply of water has already been purchased by regional water agencies who need the water to meet already-projected demand. The City of Carlsbad is the only entity who has purchased water that will use the water in the coastal zone. Carlsbad has adopted a growth management plan that strictly limits growth. The Poseidon team does not believe the project will induce growth.

Regarding marine impacts, the team explained that the project was issued a NPDES permit by the Regional Water Quality Control Board, and that the Board determined that the permit would be fully protective of the marine environment and related beneficial uses. The Poseidon team noted that they have also analyzed the project on stand-alone basis, operating without the Encina Power Station, and argue that under this scenario marine impacts will still be minimal. Poseidon proposes a Coastal Habitat Restoration and Enhancement plan that will restore and enhance 37 acres of coastal wetlands to mitigate any project-related marine impacts.

In addition to the coastal habitat restoration, Poseidon explained that project benefits include the dedication of 15 acres of Agua Hedionda Lagoon- and ocean-front property for public access purposes, and implementation of a Climate Action Plan that would render the project carbon neutral. Also, Poseidon explained that it will assume responsibility to maintain the lagoon in the event that the power plant ceases operation (the power plant currently maintains the lagoon through regular dredging), and that lagoon maintenance will have positive environmental and public recreation benefits. Finally, Poseidon noted that the project has broad support from a range of elected officials and organizations.

Larry Clark  
Calif Coastal Commissioner

FORM FOR DISCLOSURE  
OF EX PARTE  
COMMUNICATIONS

Date and time of communication: 11/2/07

Location of communication: La Jolla, Ca.  
(If communication was sent by mail or facsimile, indicate the means of transmission.)

Identity of person(s) initiating communication: Jim Elliott

Identity of person(s) receiving communication: DAT Kruer

Name or description of project: Carlsbad Desal Project

Description of content of communication:  
(If communication included written material, attach a copy of the complete text of the written material.)

Called and asked if I would like a tour of the project. I indicated I have been at the site and appreciated the offer to see it.

11/2/07  
Date

[Signature]  
Signature of Commissioner

If communication occurred seven or more days in advance of the Commission hearing on the item that was the subject of the communication, complete this form and transmit it to the Executive Director within seven days of the communication. If it is reasonable to believe that the completed form will not arrive by U.S. mail at the Commission's main office prior to the commencement of the meeting, other means of delivery should be used, such as facsimile, overnight mail, or personal delivery by the Commissioner to the Executive Director at the meeting prior to the time that the hearing on the matter commences.

If communication occurred within seven days of the hearing, complete this form, provide the information orally on the record of the proceeding and provide the Executive Director with a copy of any written material that was part of the communication.

**FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS**

Name or description of project: **Poseidon Resources Corporation,  
Carlsbad Desalination Facility**  
Date and time: **11/1/07 (2:30 pm)**  
Location of communication: **San Mateo Coast**  
Type of communication: **Personal Meeting**  
Person initiating communication: **Conner Everts, co-chair Desal Response Group,  
Adam Scow, Food & Water Watch**  
Person receiving communication: **Steve Blank**

Mr. Everts and Mr. Scow presented the following reasons why Poseidon's application should be denied:

-The facility would use the intakes with once through cooling that violates Section 316(B) of the Clean Water Act. We discussed whether this section just applied to federal facilities and would be applicable to this one.

-The facility would require greater amounts of electricity than other water sources, undermining California's efforts to limit carbon emissions as detailed by Assembly Bill 32.

-The private ownership of the facility creates a financial incentive to run the facility 24/7 which requires the maximum amount of electricity with greatest impact on the environment. We discussed whether "water wheeling" the plants output to Nevada still qualifies this plant as a "coastal dependent facility" under the coastal act.

11/06/07  
Date

  
Signature

**FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS**

Name of project : **Poseidon Resources Corporation,  
Carlsbad Desalination Facility**  
Date and time: **October 31 2007; 11 a.m.**  
Location: **Pescadero, CA**  
Type of communication: **face-to-face meeting**  
Person(s) initiating communication: **Peter MacLaggan, Poseidon Resources  
Susan McCabe, McCabe & Company  
Rick Zbur, Latham & Watkins**

**Detailed substantive description of content of communication:**

Peter MacLaggan, Susan McCabe and Rick Zbur briefed me on Poseidon's Carlsbad Desal. They walked me through a briefing package that they informed me has been provided to Commission staff and is in the Commission record. Among others, the Poseidon team covered the following points in the briefing package:

- Overview and need for the project;
- Poseidon's view that the project site and intake system are the least environmentally damaging project alternatives, compared to alternatives studied that the team explained;
- Implications of the Riverkeeper II case, including the point that it applies to power plants and that even if the power plant's cooling system is discontinued, Poseidon has analyzed the project on a stand-alone basis and believes it is consistent with all LCP and Coastal Act policies;
- Poseidon's commitment to render the project carbon neutral through implementation of a Climate Action Plan that was developed with a quantification methodology consistent with that recommended by the California Climate Action Registry;
- Poseidon's commitment to undertake 37 acres of wetlands restoration;
- Poseidon's obligation to maintain the Agua Hedionda Lagoon in the event that the power plant's maintenance obligations cease;
- Public access benefits of the project, including more than 15 acres of lands dedicated for coastal access purposes.
- Use of the water by Poseidon's customers
- Whether the plant fell under "Coastal Dependent Resources" section of the Coastal Act

The Poseidon team provided the following written materials that had previously been provided to Coastal Commission Staff.

1. Carlsbad Desalination Project briefing package, November 2007.
2. Carlsbad Desalination Project Coastal Habitat Restoration and Enhancement Plan, Oct 9, 2007
3. Issues Related to the Use of the Agua Hedionda Inlet Jetty Extension EIR to Recommend an Alternative Seawater Intake for the Carlsbad Desalination Project, October 8, 2007
4. Carlsbad Desalination Project Additional Analysis of Submerged Seabed Intake Gallery, Oct 8, 2007
5. Carlsbad Desalination Project Energy Use and Greenhouse Gas Production
6. Latham and Watkins October 30, 2007 letter to State Lands Commission re: CEQA Issues Raised for Poseidon Project By Coastal Commission Staff

11/6/07  
Date

  
Signature of Commissioner

**FORM FOR DISCLOSURE OF  
EX PARTE COMMUNICATIONS**

Name or description of project , LPC, etc: Poseidon Resources Corporation, Carlsbad Desalination Facility

Date and time of receipt of communication: September 29, 2007; 11 a.m.

Location of communication: telephone call

Type of communication (letter, facsimile, etc.): telephone call

Person(s) initiating communication: Rick Zbur, Latham & Watkins

Detailed substantive description of content of communication:  
(Attach a copy of the complete text of any written material received.)

Rick Zbur called me to discuss Poseidon Resources Corporation's Carlsbad Desalination Project. Mr. Zbur informed me about the anticipated schedule for the Project; the Project will come before the State Lands Commission at the end of October and before the Coastal Commission in November of this year. Mr. Zbur said that he would contact me to schedule a more in-depth briefing prior to Coastal Commission hearing in November.

I told Mr. Zbur that I would be interested in understanding more about (1) the implications of the Riverkeeper case on the Project; (2) what the Project impacts would be if the Encina power plant or its once-through-cooling system is retired; (3) Poseidon's plans to mitigate any marine impacts of the Project; and (4) the need for the Project and any potential growth-inducing impacts of the Project. Mr. Zbur responded that Poseidon would be happy to provide an in-depth briefing on those issues, but that Poseidon believes the power plant has minimal impacts and that Poseidon's planned mitigation program will fully mitigate the Project's anticipated marine impacts. Mr. Zbur informed me that Poseidon would discuss these issues in greater detail in our meeting closer to the hearing in November.



Friday, October 12, 2007

# CORRESPONDENCE:

- ELECTED OFFICIALS
- ORGANIZATIONS
- INDIVIDUALS

# ELECTED OFFICIALS



# City of Carlsbad

Office of the City Council

*This letter has been sent to all members of the Coastal Commission and all staff members.*

November 6, 2007

California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105

*RE: Carlsbad Desalination Project*

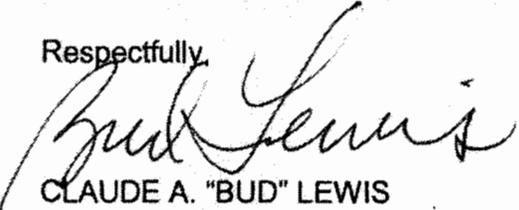
Dear Chairman Kruer and Commissioners:

I have enclosed for your review a copy of the most recent edition of one of North San Diego County's most respected, award-winning publications, *Carlsbad Magazine*.

The November / December 2007 edition of *Carlsbad Magazine* includes a front cover feature on the Carlsbad Desalination Project and its relationship with our beloved Agua Hedionda Lagoon.

I hope you find the story educational and I look forward to addressing you at the Carlsbad Desalination Project hearing on Thursday, November 15, 2007.

Respectfully,

  
CLAUDE A. "BUD" LEWIS  
Mayor, City of Carlsbad

cc.

Vice Chairwoman Bonnie Neely  
Commissioner Ben Hueso  
Commissioner Steve Blank

Commissioner Steve Kinsey  
Commissioner Brooks Firestone  
Commissioner Suja Lowenthal



Commissioner Steve Kram  
Commissioner Khatchik Achadjian  
Commissioner Sara Wan  
Commissioner Mary Shallenberger  
Commissioner Mike Reilly  
Commissioner Larry Clark  
Commissioner William Burke  
Commissioner Dave Potter  
Commissioner Judy Biviano Lloyd  
Commissioner April Vargas  
Commissioner Dan Secord  
Commissioner Adi Liberman  
Commissioner Sharon Wright

Commissioner Lorena Gonzalez  
Mr. Peter Douglas  
Mr. Tom Luster  
Lt. Governor John Garamendi  
Controller John Chiang  
Commissioner Michael Genest  
Commissioner Cindy Aronberg  
Commissioner Anne Sheehan  
Mr. Paul Thayer  
Ms. Barbara Dugal  
Ms. Judy Brown

# Tapping the Pacific

Carlsbad's dependency on imported water will soon be eliminated as Poseidon Resources is set to quench Carlsbad's thirst.

Photo provided by Poseidon Resources

www.CarlsbadMagazine.com

46 | NOVEMBER/DECEMBER 2007 CARLSBAD MAGAZINE

It is certainly common knowledge that our lovely hometown of Carlsbad boasts an abundance of natural beauty and resources. From the sparkling blue Pacific to the open canyons filled with indigenous plants and animal life, everywhere we look we are blessed with more than our share. Carlsbad is also known for its water—from the ocean to the lagoons to the mineral waters that earned our city its name. Yet in the midst of this abundance we often forget that the clean drinking water that flows from our taps is not our own.

In fact, the San Diego County Water Authority (SDCWA) states that we still currently import 85 percent of our water from the Colorado River and Sacramento-San Joaquin Bay Delta through the Metropolitan Water District. And with the cyclical nature of drought conditions and the environmental impact of climate

change, coupled with looming legal constraints placed on the Colorado River, it has become clear that we are in great need of a reliable, drought-proof water supply.

Enter Poseidon Resources Corporation. Currently this innovative corporation is working with the City of Carlsbad to build a 50-million-gallon-a-day seawater desalination plant on the coast of Carlsbad. Because San Diego companies have a history of pioneering desalination technologies, including breakthroughs that have made this process economically feasible, our city has partnered with Poseidon to pursue the goal to be totally independent from imported water sources within the next few years.

To understand the history of this evolution, we must first look at the history of the Agua Hedionda Lagoon. Today this lagoon is one of Carlsbad's environmental and recreational treasures, but it wasn't always the pristine body of water we now enjoy. Over 50

years ago the lagoon was given its name because of the stench it produced. In Spanish, Agua Hedionda means "stinking water"—an accurate description at the time because it was then a stagnant and lifeless lagoon of smelly salt water.

That was before the Encina Power Station was commissioned. Since 1952, the power station has regularly dredged an opening between the ocean and the lagoon to sustain a source of seawater used to cool the power plant's generators. As a result, this 388-acre lagoon became a man-made, shallow coastal bay teeming with marine life. It's the hardest working lagoon in Carlsbad.

Agua Hedionda is now an environmental asset with incredible public benefits. It is home to the Carlsbad Aquafarm, producing one million pounds of mussels and oysters sold to seafood vendors and restaurants each year. This helps reduce the toll that overfishing takes on the ocean by providing high-quality farmed seafood. The Hubbs-Sea World Fish Hatchery also calls the lagoon home, and to date this hatchery has released over 1.5 million endangered white sea bass into the open ocean. Hubbs-Sea World will also be able to expand its marine restoration activities as a result of addi-

The desalination process begins with a filtration pre-treatment phase, which pulls out all the dirt and sediment. Next, the reverse osmosis membranes remove any bacteria and all the salt. Finally, minerals are added to ensure the highest quality of pure drinking water.

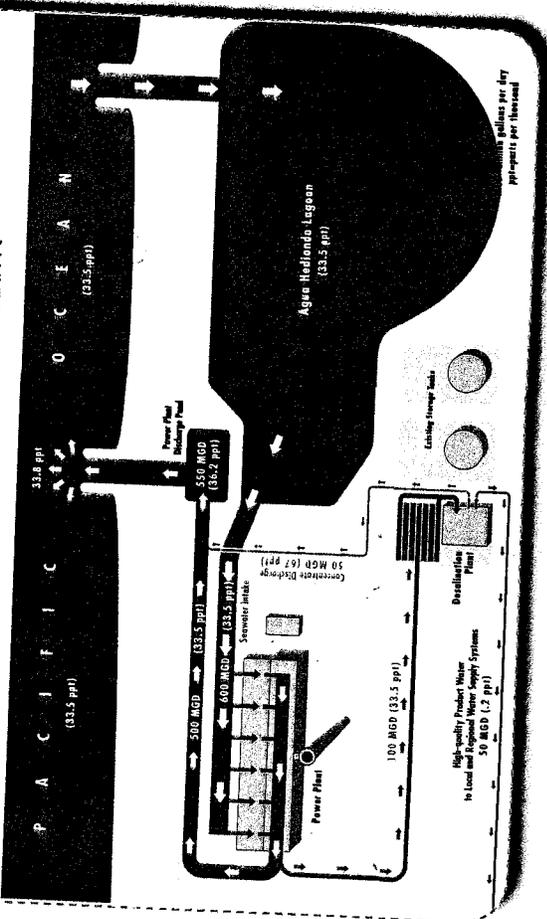


# Tapping the Pacific

www.ClickOnCarlsbad.com | 49

## POSEIDON RESOURCES

### DESALINATION PROJECT FLOW SCHEMATIC





Poseidon Resources Senior

Vice President Peter MacLagan, "The Carlsbad Desalination Project is a win-win for the community. We have spent most of the last 10 years talking about the importance of developing a reliable, drought-proof water supply for San Diego County that is affordable and locally controlled by public water agencies. However, it's important that we do not overlook the desalination plant's coastal and environmental benefits."

awarded to local businesses, resulting in increased regional spending and employment. With construction scheduled to begin next year, Poseidon projects that the plant will go online in 2010.

The process begins with a filtration pretreatment phase, which pulls out all the dirt and sediment. Next, the water travels through a series of reverse osmosis membranes. This removes any viruses

Once the city has made the move to desalinated water, Carlsbad will get its entire supply of potable water from this plant.



The new seawater desalination plant will be located on a 3-acre site next to the Encina Power Station on the Agua Hedionda Lagoon. It will connect to the lagoon through the power plant's seawater circulation system. This will allow Carlsbad to minimize the environmental impact and maximize the cost efficiency by sharing the power plant's existing ocean water intake and outfall. The existing infrastructure turns over 600 million gallons of water a day to cool its generators. Poseidon would utilize 100 million gallons of that water, and with a 50 percent recovery rate, produce 50 million gallons of high-quality drinking water per day. This quantity will serve 300,000 San Diego residents annually. The remaining 50 million gallons of high content salt water (double the salt) would blend with the 500,000 other gallons and be sent back out to sea through the discharge channel.

The filtration of the seawater utilizes the latest reverse osmosis technology, primarily provided by San Diego County sources. Local manufacturers and vendors have close to half of the international market share for desalination products and services. The Carlsbad Desalination Plant will use providers from Oceanside, Vista, San Diego, San Marcos and Poway. In fact, it is estimated that nearly 70 percent of the \$250 million project costs would be



Poseidon projects that the new plant will go online in 2010.

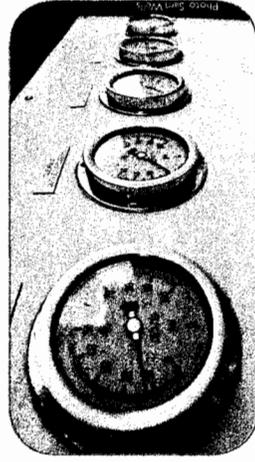
or bacteria, as well as all the salt. The final step is the addition of minerals (such as calcium), and the result is the highest quality of pure drinking water. In fact, the water is so pure that biotech and pharmaceutical companies will not have to pretreat it before using it for their own production. Once the city has made the move to desalinated water, Carlsbad will get its entire supply of potable water from this plant. This amount will represent half of the plant's total capacity, with

the health of Agua Hedionda. We have all heard that water is life. Carlsbad's desalination plant ensures that city residents will enjoy clean, pure, drought-proof water for generations to come. Because the plant requires a healthy environment and a clean watershed to produce high-quality drinking water, we can rest assured that the future of the Agua Hedionda Lagoon is secured as well. And that means future generations will be able to enjoy the benefits of this living lagoon and its surrounding beaches. •



The desalination plant will be located right on the Agua Hedionda Lagoon, behind where the power plant now sits.

the other half going to neighboring water agencies. As part of Poseidon's project development agreement with the City of Carlsbad, four parcels of land (a total of 15 acres) currently owned by the power plant's operator will be dedicated to the public for coastal access, recreation and marine research. Poseidon has also offered to assume responsibility for the stewardship of the Agua Hedionda Lagoon when the existing Encina Power Plant is decommissioned, including the restoration of 37 acres of lagoon habitat. The future of the lagoon depends on the desalination plant continuing the dredging process to ensure the intake and outflow of water. This spirit of stewardship is the key factor to maintaining





WWW.AGUAHEDIONDA.ORG

Dear Carlsbad Neighbor:

The Agua Hedionda Lagoon is one of Carlsbad's most valuable environmental and recreational treasures.

Before the Encina Power Station was commissioned in 1952, the lagoon was a salt marsh that lacked the diversity of marine habitats and was not fit for recreational uses. For over 50 years, the operators of the Encina Power Station have regularly dredged an opening between the ocean and the lagoon to sustain a source of seawater to cool the power plant's generators.

As a result, the lagoon has been transformed into an environmental jewel with enormous public benefits. The 400-acre lagoon now supports a thriving marine ecosystem and a variety of water-related activities, including marine research, aquaculture, fishing, water sports and recreation. It is home to the Hubbs-SeaWorld fish hatchery, the Carlsbad Aquafarm, YMCA Camp and the Lagoon Foundation's Discovery Center.

The seawater cooled power plant is expected to be decommissioned in the coming years, leaving the lagoon without a caretaker for its long-term maintenance.

However, the City of Carlsbad has entered into a public-private partnership with Poseidon Resources Corporation to build a seawater desalination plant located next to the Encina Power Station and adjacent to the Agua Hedionda Lagoon.

The operators of the desalination plant will assume responsibility as the Agua Hedionda Lagoon's steward, providing long term maintenance and dredging, once the power plant is decommissioned. They have also made a financial commitment to restore 37 acres of wetland habitat and will be dedicating over 15 acres of lagoon and oceanfront land for public access and recreation, and for the expansion of the Hubbs-SeaWorld fish hatchery.

Providing enhanced public access to the coast and new recreational opportunities is just one of the public benefits of the Carlsbad Desalination Plant. The project will also provide the City of Carlsbad with a high quality, locally-controlled, drought-proof supply of drinking water.

Please join the Agua Hedionda Lagoon Foundation in support of the Carlsbad Desalination Plant and help guarantee that the public can continue to enjoy the benefits of this beautiful lagoon and its surrounding beaches for many years to come.

Sincerely,

Steve Le Page  
Vice President

For more information on the Carlsbad Desalination Plant visit [www.carlsbad-desal.com](http://www.carlsbad-desal.com)

**CALIFORNIA STATE  
LANDS COMMISSION**

JOHN GARAMENDI, *Lieutenant Governor*  
JOHN CHIANG, *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

November 6, 2007

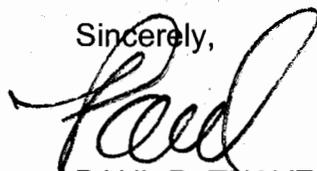
Mr. Peter Douglas  
Executive Director  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

Dear Peter;

On October 29th, Coastal Commission staff sent a letter to State Lands Commissioners requesting that the State Lands Commission require a subsequent Environmental Impact Report (EIR) be prepared for the desalination facility proposed by Poseidon Resources in Carlsbad. At its meeting on October 30th, the State Lands Commission considered this request and the information in the letter and chose not to have the SEIR prepared.

Please let me know if you would like to discuss this matter or if I can be of further assistance.

Sincerely,



PAUL D. THAYER  
Executive Officer

cc: Patrick Kruer, Chair, California Coastal Commission  
John Garamendi, Lt. Governor, Chair, State Lands Commission  
John Chiang, Controller, Member, State Lands Commission  
Michael C. Genest, Member, State Lands Commission  
Susan M. Hansch, Chief Deputy Director, California Coastal Commission  
Alison Dettmer, Deputy Director, California Coastal Commission



# CITY OF OCEANSIDE

MAYOR  
JIM WOOD

October 18, 2007

RECEIVED

OCT 25 2007

CALIFORNIA  
COASTAL COMMISSION

California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105

Dear Commissioners:

The City of Oceanside submits this letter in support of the Carlsbad Desalination Plant (Coastal Development Permit Application No. E-06-013). We have reviewed the staff report for the project and wish to offer the following comments.

Oceanside is the northernmost city in San Diego County, located immediately south of Camp Pendleton. Oceanside's proximity to the Marine Corps Base has strongly influenced our City's population over the past decades, increasing the demand for housing, municipal services and natural resources.

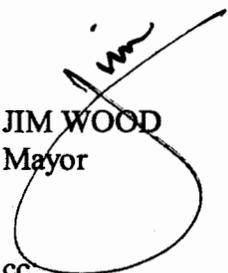
Oceanside has its own Water Utilities Department which purchases and delivers drinking water from the San Diego County Water Authority and operates wastewater collection and treatment facilities. Our system includes over 400 miles of pipelines, two wastewater treatment plants, 34 sewer lift stations and an industrial waste inspection program. The department participates in and promotes the Water Authority's conservation and recycling programs.

Unfortunately, water recycling and conservation programs alone are not sufficient to meet current water demand. Consequently, Oceanside is joining with many of our neighboring public water agencies in a partnership with the developer of the Carlsbad seawater desalination plant, Poseidon Resources, to create a new, local supply of drinking water. Oceanside is negotiating a Water Purchase Agreement with Poseidon Resources, which would guarantee the city's ratepayers 5,000 acre feet annually from the Carlsbad Desalination Plant.

Over 85% of our supplies are imported from the California Bay-Delta area and the Colorado River, and environmental constraints on the delta and drought conditions along the Colorado are taking a major toll on our entire state's water supply system. Metropolitan Water District, the main supplier to the Water Authority, has already announced that San Diego County will soon face up to 30% cutbacks in our imported supplies, which will have immediate impacts on our agricultural industry. The City of Oceanside is taking this proactive approach to ensure it has a drought proof supply of water that will help the City guard against future reductions in our imported water supply.

We believe that the Carlsbad Desalination Project is a positive step in the right direction for our region's future water supply. The City of Oceanside respectfully requests that you vote in favor of this badly-needed project.

Sincerely,



JIM WOOD  
Mayor

cc.

Chairman Pat Kruer  
Vice Chairwoman Bonnie Neely  
Commissioner Ben Hueso  
Commissioner Steve Blank  
Commissioner Steve Kram  
Commissioner Khatchik Achadjian  
Commissioner Sara Wan  
Commissioner Mary Shallenberger  
Commissioner Mike Reilly  
Commissioner Larry Clark  
Commissioner William Burke  
Commissioner Dave Potter  
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Commissioner Sharon Wright  
Commissioner Steve Kinsey  
Commissioner Brooks Firestone  
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Assemblymember George Plescia  
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Assemblymember Lori Saldana  
Assemblymember Joel Anderson  
Assemblymember Shirley Horton  
Assemblymember Mary Salas  
Lt. Governor John Garamendi  
Controller John Chiang  
Commissioner Michael Genest  
Commissioner Cindy Aronberg  
Commissioner Anne Sheehan  
Mr. Paul Thayer  
Ms. Barbara Dugal  
Ms. Judy Brown  
Ms. Susan Young  
Ms. Jessica Jones

# ORGANIZATIONS



**San Diego County Water Authority**

**Water Resources Department**

4677 Overland Avenue > San Diego, California, 92123

TELEPHONE (858) 522-6740 FAX (858) 268-7881

**FACSIMILE TRANSMISSION COVER SHEET**

CALIFORNIA  
COASTAL COMMISSION

NOV 09 2007

RECEIVED

DATE: 11/9/07

TO: California Coastal Commission

ORGANIZATION: \_\_\_\_\_

FAX: 415-904-5400

FROM: SDCWA  
Maureen Stapleton

PHONE: (858) 522-6740

4 PAGES SENT, INCLUDING THIS COVER SHEET

ADDITIONAL MESSAGE:

\_\_\_\_\_  
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# San Diego County Water Authority

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

November 9, 2007

California Coastal Commission

Chairman Patrick Kruer  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105

**MEMBER AGENCIES**

Carlsbad  
Municipal Water District

City of Del Mar

City of Escondido

City of National City

City of Oceanside

City of Poway

City of San Diego

Fallbrook  
Public Utility District

Holtz Water District

Oliverain  
Municipal Water District

Olay Water District

Padre Dam  
Municipal Water District

Camp Pendleton  
Marina Corps Basin

Rainbow  
Municipal Water District

Romana  
Municipal Water District

Rincon del Diablo  
Municipal Water District

San Dieguito Water District

Santa Fe Irrigation District

South Bay Irrigation District

Vallecitos Water District

Valley Center  
Municipal Water District

Vista Irrigation District

Yuma  
Municipal Water District

**OTHER REPRESENTATIVE**

County of San Diego

*Note: This letter has been sent to the members of the Coastal Commission and staff*

**Re: Carlsbad Desalination Project and San Diego County's Water Supply**

**Dear Chairman Kruer:**

The San Diego County Water Authority (Authority) is in receipt of the Coastal Commission staff report (Application No. E-06-013) on the Carlsbad Desalination Project.

From a regional water supply perspective, we are greatly disappointed in the Commission staff recommendation to deny the Coastal Development Permit application for the Carlsbad Desalination Project.

As you know, the Water Authority's adopted 2005 Urban Water Management Plan is based on a water supply strategy that includes the development of a diverse portfolio of water supplies that allow our region and our \$150 billion regional economy to reliably meet projected water supply needs out to 2020 and beyond. The Water Authority's plan for the region relies on a mix of imported and local water resources that includes the aggressive and concurrent development of local water resources including doubling the region's conservation, tripling of the region's use of groundwater, quadrupling the region's water reuse and introducing ocean desalination as a new local water supply, all by 2020.

Right now, as we implement this water supply strategy, our region's water supplies are in transition. We are moving from a water supply mix almost entirely dependent on imported water to one much less susceptible to climate-induced drought and regulatory and judicial limitations on imported supplies. As we transition, our region will be most vulnerable to water shortages between now and 2015, particularly in light of recent court-imposed pumping restrictions on Delta exports that will significantly reduce State Water Project supplies to Southern California. As such, we are counting on 56,000 acre-feet

annually of ocean desalination from the Carlsbad project by 2011 to help protect our ratepayers and our regional economy from the potentially devastating impacts of water supply shortages.

A reliable drought proof supply of water from the Pacific Ocean has been a part of San Diego County's water planning for decades. The Water Authority itself has been studying the potential of seawater desalination at the Encina Power Plant site and other locations in San Diego County since 1991. The Encina Power Plant location is one of relatively few sites in the county that is conducive to ocean desalination. It is an industrial land use on the coast in close proximity to existing water and energy infrastructure. As part of our more recent consideration of a project at that location, we extensively studied the possibility of using a variety of sub surface intake technologies as recommended by Commission staff. These alternative intakes included beach wells, "Ranney" or collector wells, infiltration galleries, horizontal wells and seabed filtration systems. In each instance, we determined that significant limitations on available area for facilities, geologic conditions, feasibility of the technology and substantial environmental impacts during construction eliminated the use of these alternative intakes from further consideration in ocean desalination project at the Encina Power Plant.

Additionally, I disagree with the contention in the staff report that the use of a portion of the Encina Power Plant site for municipal water supply production is in conflict with long term energy needs in San Diego County. As evidenced by regional energy planning, and the site owner's plans to respond to those needs by building a smaller plant in another location on the property, the site is large enough to support both these vital resource needs for our region.

I also would like to respond to three specific references in the Commission staff report regarding San Diego County's water conservation efforts and policies.

First, the staff report cites San Diego County Board of Supervisor's Policy No. A-106. This policy, adopted in 2002, was enacted in order to support the Water Authority's efforts to diversify the region's imported water supply through the implementation of the agricultural water transfer agreement with Imperial Irrigation District. At that time in 2002, ocean desalination was not considered an immediate near-term water supply option in the sense that the supply could not be realized in the same time frame as the IID transfer that began delivery in late 2003. However, more than five years later, with the continued improvements in desalination technology, coupled with exhaustive Water Authority study of water supply alternatives for the region, ocean desalination is now a vital and integral part of our region's near-term and long-term water supply mix.

Chairman Patrick Kruer  
California Coastal Commission  
Page 3

Second, the Commission staff report asserts, based on comparisons with Long Beach and Monterey County, that the region's aggressive conservation goal of 108,000 acre-feet of annual savings by 2030 could be increased to somewhere between 125,000 and 160,000 acre-feet annually. This comment suggests that one area's conservation targets can be easily projected onto another's without consideration of numerous, complex factors (e.g., climate, level of development, market saturation of devices, etc.). Each area has crafted local resource development targets attuned to their respective unique conditions. I believe it's important to underscore that both San Diego County's and Long Beach's water supply plans integrate ocean desalination, water recycling, and conservation.

Third, the Commission staff report notes that Water Authority member agencies are "...implementing some, but not all, of the (California Urban Water Conservation) Council's fourteen adopted BMPs, suggesting that there is an as-of-yet untapped source of conservation water available."

Again, we disagree with this conclusion. The Water Authority and its member agencies are recognized as statewide leaders in water conservation. We currently manage conservation programs that go above and beyond the BMP's and have been active in developing innovative programs and forging unique partnerships with a variety of stakeholders. For example, to achieve the landscape conservation savings identified in our Urban Water Management Plan, new and innovative approaches are required to change public attitudes and behaviors. The existing BMP's do not fully address this challenge. Our programs focus on approaches to achieving all cost-effective conservation, while maintaining an acceptable quality of life for our customers.

Our region is relying on the Carlsbad project to provide a new drought-proof, highly reliable local water supply for our region. The Commission staff report emphasizes conservation and water recycling. We agree. Still, the region cannot recycle or conserve water it does not have. Last month's wildfires and the ongoing Delta Smelt crisis have shown us the importance of having water available locally, both during normal times, but especially during emergencies.

Thank you for your consideration of San Diego County's water supply needs and for your active support for the San Diego County Water Authority.

Sincerely,

  
Maureen A. Stapleton  
General Manager

# Santa Fe Irrigation District



November 4, 2007

Chairman Pat Kruer  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, Ca 94105

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NOV 07 2007

CALIFORNIA  
COASTAL COMMISSION

RE: Carlsbad Desalination Plant - Coastal Development Permit Application #E-06-013

Dear Chairman Kruer:

I have reviewed the staff report on the Carlsbad Desalination Project and I am sending you this letter in support for the project.

I represent the Santa Fe Irrigation District (SFID), which provides water service to the City of Solana Beach and the communities of Rancho Santa Fe and Fairbanks Ranch. Our mission is to provide our customers with a reliable, high-quality water supply at a reasonable cost. We pride ourselves on taking an innovative approach to managing operations and meeting our customer's needs.

Our total service area covers 10,200 acres and includes 20,900 customers, primarily residential. Currently, about 30% of our potable supply comes from Lake Hodges and 70% is imported water purchased from the San Diego County Water Authority.

With the prolonged state-wide drought, our imported water supplies have become vulnerable and could be subject to drastic cutbacks. To address potential water supply shortages our board has been proactive in pursuing conservation and reclamation. But it's not enough to ensure a reliable and affordable water supply to meet our ratepayers' needs, which is why they have enthusiastically pursued desalination as an appropriate local water source.

In September, SFID approved a Water Purchase Agreement with Poseidon Resources Corporation. Under the agreement, Poseidon will provide the District with 2,000 acre-feet per year of water from its Carlsbad desalination plant. This represents about 14% of our total annual need of 13,500 acre-feet per year.

We believe that this agreement provides our region with the most reliable, affordable and environmentally benign water source to augment our imported supplies. On behalf of my Board of Directors and our thousands of customers, we urge the Commission to approve this project's general lease application at your November meeting.

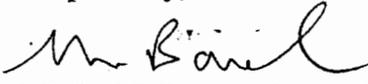
5

*Santa Fe Irrigation District ~ PO Box 409 ~ 5920 Linea del Cielo ~ Rancho Santa Fe, CA 92067-0409*

*Phone 858.756.2424 Fax 858.756.0450*

*www.sfidwater.org*

Respectfully,



Michael J. Bardin, General Manager  
Santa Fe Irrigation District

CC.

Vice Chairwoman Bonnie Neely  
Commissioner Ben Hueso  
Commissioner Steve Blank  
Commissioner Steve Kram  
Commissioner Khatchik Achadjian  
Commissioner Sara Wan  
Commissioner Mary Shallenberger  
Commissioner Mike Reilly  
Commissioner Larry Clark  
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Assemblymember George Plescia  
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Commissioner Cindy Aronberg  
Commissioner Anne Sheehan  
Mr. Paul Thayer  
Ms. Barbara Dugal  
Ms. Judy Brown  
Ms. Susan Young  
Ms. Jessica Jones



# VALLEY CENTER MUNICIPAL WATER DISTRICT

A Public Agency Organized July 12, 1954

November 3, 2007

Board of Directors  
Gary A. Broomell  
President  
Robert A. Polito  
Vice President  
Merle J. Aleshire  
Director  
Charles W. Stone, Jr.  
Director  
Randy D. Haskell  
Director

California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105

**RECEIVED**

NOV 07 2007

CALIFORNIA  
COASTAL COMMISSION

RE: Carlsbad Desalination Plant [Coastal Development Permit App. No. E-06-013].

**This letter has been sent to the Coastal Commission members and all staff members.**

Dear Commissioners:

Our staff has recently reviewed the staff report for the Carlsbad Desalination project and we wanted to submit my comments and offer my endorsement of the project.

I'm the Board President of the Valley Center Municipal Water District. Our District was formed in 1954, to secure a more reliable source of water to serve our communities. We are the largest agricultural water district in the county, serving 25,000 residents and 24,000 acres of agricultural land within the unincorporated communities of Valley Center, Jesmond Dene, Hidden Meadows, Circle R and the Lawrence Welk Village.

Like much of San Diego County, our District is heavily reliant on imported water from Metropolitan Water District (MWD). In the years ahead, rising wholesale costs and higher demands on the water system due to increased residential, commercial and agricultural growth will eventually outpace the availability, causing shortages and mandated reductions. Because of the high percentage of agricultural users, our District is going to be hit harder than most by MWD's announced cuts to imported agricultural water supplies.

While our conservation and wastewater recycling programs can bolster a small percentage of our supply, we know that it is imperative to find more cost-efficient, drought-proof ways to expand our supply of drinking water.

After extensively studying desalination, the District entered a contract to purchase 7,500 acre-feet per year of water from the Carlsbad desalination plant in 2005. The District took this action, in part, because the San Diego County Water Authority adopted a Drought Management Plan that gives incentives to member agencies to pursue conservation, reclamation and desalination in an effort to develop new, local drought-proof supplies. Our proactive steps now will help to protect our customers from future drought-related water rationing.

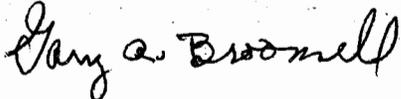
7

October 22, 2007

This project has already gone through multiple layers of approvals over the past eight years and has long since proven it's an environmentally-responsible project. In fact, the plant will be crucial to the long-term health of the lagoon when the Encina Power Station is decommissioned and no longer provides maintenance and dredging.

Valley Center Municipal Water District understands that seawater desalination is a key part of the solution to the region's long-term water reliability needs. The entire San Diego region is depending on this new water supply to lessen the demand on imported water. I find no reason to delay action any longer and I strongly urge the Commission to approve this project.

Thank you,



Gary A. Broomell, President  
Valley Center Municipal Water District

cc.

Chairman Pat Kruer  
Vice Chairwoman Bonnie Neely  
Commissioner Ben Hueso  
Commissioner Steve Blank  
Commissioner Steve Kram  
Commissioner Khatchik Achadjian  
Commissioner Sara Wan  
Commissioner Mary Shallenberger  
Commissioner Mike Reilly  
Commissioner Larry Clark  
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Commissioner Brooks Firestone  
Commissioner Suja Lowenthal  
Commissioner Lorena Gonzalez  
Mr. Peter Douglas  
Mr. Tom Luster  
Governor Arnold Schwarzenegger  
Speaker Fabian Nunez  
Senate President Pro Tem Don Perata

Secretary Mike Chrisman  
Director Lester Snow  
Senator Dennis Hollingsworth  
Senator Mark Wyland  
Senator Christine Kehoe  
Senator Denise Ducheny  
Assemblymember George Plescia  
Assemblymember Kevin Jeffries  
Assemblymember Martin Garrick  
Assemblymember Lori Saldana  
Assemblymember Joel Anderson  
Assemblymember Shirley Horton  
Assemblymember Mary Salas  
Lt. Governor John Garamendi  
Controller John Chiang  
Commissioner Michael Genest  
Commissioner Cindy Aronberg  
Commissioner Anne Sheehan  
Mr. Paul Thayer  
Ms. Barbara Dugal  
Ms. Judy Brown  
Ms. Susan Young  
Ms. Jessica Jones



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NOV 07 2007

VALLECITOS WATER DISTRICT

A PUBLIC AGENCY

CALIFORNIA  
COASTAL COMMISSION

201 Vallecitos de Oro • San Marcos, California • 92069-1453 Telephone (760)744-0460

November 1, 2007

California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, Ca 94105

RE: Carlsbad Desalination Plant, Coastal Development Permit Application No. E-06-013

Dear Commission Members:

The Vallecitos Water District (Vallecitos) is pleased to register our strong support for the proposed Carlsbad Desalination Plant. We have thoroughly reviewed the staff report and believed that all of the issues pertinent to the Commission's jurisdiction have been addressed.

Vallecitos has been operating since 1955, and has provided water, wastewater, and reclamation services to San Marcos, the community of Lake San Marcos, parts of Carlsbad, Escondido, and Vista, and unincorporated county areas. We currently serve a population of 80,650 and distribute approximately\*17,000 acre-feet of potable water each year.

Like most of San Diego, Vallecitos relies heavily on imported water supplies that have grown increasingly threatened by drought conditions and environmental regulations. The District has always advocated a comprehensive conservation program which includes customer education and services like home water-use surveys, incentive voucher programs, workshops, a video/book lending library, landscape audits and an agricultural water management program.

However, with the recent federal ruling regarding the State Water Project, the situation in our region has become even more desperate. Regional water managers are forecasting as much as one-third to one-half of the water pumped from the Sacramento San Joaquin Bay Delta to Southern California could be cut off in the next year. Searching for an environmentally sound, cost-effective and drought-proof solution to our water shortages, our Board has turned to seawater desalination as the most viable, timely option.

They unanimously approved a Water Purchase Agreement with Poseidon Resources to purchase 7,500 AFY which will replace approximately 44% of the water we now import. Water from the Carlsbad Desalination Plant will provide the District's ratepayers with a drought-proof supply that helps mitigate the impact of cuts to our imported water supply. We have joined seven other public agencies that have all contracted to buy water from

4

Poseidon. Together, we have fully subscribed the total 50-million-gallon-per-day the plant can produce.

In reviewing the staff report, we have determined that this project presents the best most environmentally expedient opportunity for siting a desalination facility in San Diego. The research that has been done verifies that the environmental impacts will be minor at this site, with or without the Encina Power Plant. Poseidon Resources has made every effort to mitigate even minor impacts and has committed to restoring 37 acres of wetland habitat, dedicating 15 acres for public access, recreation and marine research, and providing maintenance to the lagoon itself after the power plant is taken off line. These are major concessions that confirm the ecological commitment of the applicant.

Poseidon Resources has proposed a project that is urgently needed as evident by the broad support from public water agencies like ours. Please approve their permit application and bring our region one step closer to solving our water crisis.

Sincerely,



William W. Rucker, General Manager  
Vallecitos Water District

cc.

Chairman Pat Kruer  
Vice Chairwoman Bonnie Neely  
Commissioner Ben Hueso  
Commissioner Steve Blank  
Commissioner Steve Kram  
Commissioner Khatchik Achadjian  
Commissioner Sara Wan  
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Commissioner Cindy Aronberg  
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Ms. Jessica Jones



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November 1, 2007

NOV 07 2007

Chairman Pat Kruer  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, Ca 94105

CALIFORNIA  
COASTAL COMMISSION

Reference: Carlsbad Desalination Plant, Coastal Development Permit  
Application # E-06-013

**A copy of this letter has been sent to each member of the Coastal Commission and staff.**

Dear Chairman Kruer:

The Rincon del Diablo Municipal Water District (Rincon) has reviewed the staff report and is pleased to offer this letter of support for the Carlsbad Desalination Project.

Last year, Rincon signed a contract to become a partner with Poseidon Resources in their desalination project. We agreed to purchase 4,000 AFY of water which will be distributed to our 28,000 customers throughout portions of the Escondido, San Marcos, San Diego, and unincorporated areas of the County. This water will help our district to diversify our water supply in anticipation of future droughts, ecological constraints, or potential catastrophes that could damage the state's water delivery pipelines.

Rincon does not take our endorsement of this project lightly. We have reviewed the Project's Final EIR and regulatory agency staff reports to ensure that this project complies with all applicable federal, state and local environmental standards. We believe that this project not only meets the requirements, it exceeds them in every aspect throughout the construction and operation phases.

Desalination is not the only avenue our agency is pursuing, but it is critical to our regional diversification strategy. Our agency has also joined the San Diego County Water Authority in encouraging voluntary conservation. Rincon offers a wide variety of conservation opportunities for businesses, public properties, agricultural operations, homeowners, HOAs, and other residents that live within our service area. We also work in concert with the City of Escondido's water treatment plant, the Hale Avenue Resource and Recovery Facility. Rincon ties into the facility's storage reservoir and 25 miles of pipelines to serve our recycled water customers.

Even with these tools, San Diego's water supply crisis is very real. The seawater desalination facility is an important part of the solution and we cannot achieve water independence without a meaningful local supply. We respectfully request your approval of this project.

Sincerely,

  
Dr. Hanno E.G. Ix  
President

---

A Public Agency Serving the  
Greater Escondido Valley  
Since 1954

---

**Dr. Hanno Ix**  
*President*  
Division IV

**Diana Towne**  
*Vice President*  
Division V

**John Hinrichs**  
*Treasurer*  
Division III

**Dr. Gregory Quist**  
*Director*  
Division I

**David Drake**  
*Director*  
Division II

---

**Mitchell Dion**  
General Manager

**Redwine & Sherrill**  
General Counsel

**District Office**  
1920 North Iris Lane  
Escondido, CA 92026

Phone: 760-745-5522  
FAX: 760-745-4235

www.rinconwater.org

cc:

Vice Chairwoman Bonnie Neely  
Commissioner Ben Hueso  
Commissioner Steve Blank  
Commissioner Steve Kram  
Commissioner Khatchik Achadjian  
Commissioner Sara Wan  
Commissioner Mary Shallenberger  
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Commissioner Cindy Aronberg  
Commissioner Anne Sheehan  
Mr. Paul Thayer  
Ms. Barbara Dugal  
Ms. Judy Brown  
Ms. Susan Young  
Ms. Jessica Jones



## SWEETWATER AUTHORITY

505 GARRETT AVENUE  
POST OFFICE BOX 2328  
CHULA VISTA, CALIFORNIA 91912-2328  
(619) 420-1413  
FAX (619) 425-7469  
<http://www.sweetwater.org>

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JAMES C. ALKIRE, VICE CHAIR  
JAMES "JIM" DOUD  
RON MORRISON  
W.D. "BUD" POCKLINGTON  
TERRY THOMAS  
MARGARET COOK WELSH

October 26, 2007

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NOV 07 2007

CALIFORNIA  
COASTAL COMMISSION

DENNIS A. BOSTAD  
GENERAL MANAGER  
MARK N. ROGERS  
OPERATIONS MANAGER

Pat Kruer, Chairman  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105

RE: Carlsbad Desalination Plant (Coastal Development Permit Application # E-06-013)  
*A copy of this letter has been sent to each member of the Coastal Commission and staff.*

Dear Chairman Kruer:

I am writing you on behalf of Sweetwater Authority, the water agency for much of southern San Diego County. Sweetwater provides safe, reliable water service to approximately 180,000 people in National City, Bonita and the western and central portions of Chula Vista, California. Sweetwater was recently named the most reliable water agency in San Diego County.

This year, Sweetwater joined the City of Carlsbad, and water agencies throughout the county, in signing water purchase agreements with Poseidon Resources, the developer of the Carlsbad Desalination Project. We are moving aggressively to augment our long-standing commitment to water conservation, water recycling and brackish water demineralization with a new, locally controlled drought-proof supply of potable water from the Pacific Ocean.

Sweetwater has contracted to buy 2,400 acre-feet annually, which will fulfill 10 percent of our total water needs. Sweetwater already receives 26 percent of its water supply from drought-resistant sources (wells, and brackish water desalination), and this purchase will increase our drought-tolerant supplies to 36 percent by 2010.

We have used an extensive outreach and education program to encourage our customers to reduce water usage. We have partnered with the San Diego County Water Authority to provide educational materials, vouchers for high-efficiency appliances, and landscape irrigation incentive programs. We are proud of the many conservation measures we have instituted, but we believe that seawater desalination is an important part of the solution to the region's long-term water reliability needs.

Pat Kruer, Chairman  
California Coastal Commission  
October 26, 2007  
Page 2

We have reviewed your staff report and want to clearly express that our Board stands strongly in support of advancing this critically-needed new supply of high quality water. We ask you to make the right decision and approve the coastal development permit for the Carlsbad Desalination Project.

Sincerely,



R. Mitchel Beauchamp  
Board Chairman

cc:

Vice Chairwoman Bonnie Neely	Secretary Mike Chrisman
Commissioner Ben Hueso	Director Lester Snow
Commissioner Steve Blank	Senator Dennis Hollingsworth
Commissioner Steve Kram	Senator Mark Wyland
Commissioner Khatchik Achadjian	Senator Christine Kehoe
Commissioner Sara Wan	Senator Denise Ducheny
Commissioner Mary Shallenberger	Assemblymember George Plescia
Commissioner Mike Reilly	Assemblymember Kevin Jeffries
Commissioner Larry Clark	Assemblymember Martin Garrick
Commissioner William Burke	Assemblymember Lori Saldana
Commissioner Dave Potter	Assemblymember Joel Anderson
Commissioner Judy Biviano Lloyd	Assemblymember Shirley Horton
Commissioner April Vargas	Assemblymember Mary Salas
Commissioner Dan Secord	Lt. Governor John Garamendi
Commissioner Adi Liberman	Controller John Chiang
Commissioner Sharon Wright	Commissioner Michael Genest
Commissioner Steve Kinsey	Commissioner Cindy Aronberg
Commissioner Brooks Firestone	Commissioner Anne Sheehan
Commissioner Suja Lowenthal	Mr. Paul Thayer
Commissioner Lorena Gonzalez	Ms. Barbara Dugal
Mr. Peter Douglas	Ms. Judy Brown
Mr. Tom Luster	Ms. Susan Young
Governor Arnold Schwarzenegger	Ms. Jessica Jones
Speaker Fabian Nunez	
Senate President Pro Tem Don Perata	



OCEANSIDE  
CHAMBER OF  
COMMERCE

RECEIVED

OCT 31 2007

CALIFORNIA  
COASTAL COMMISSION

October 26, 2007

California Coastal Commission  
Attention: Chairman Pat Kruer  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105

Re: Carlsbad Desalination Plant, Coastal Development Permit Application No. E-06-013

Dear Chairman Kruer,

We are writing you on behalf of the Carlsbad Desalination Project. The Commission will be voting on the project's Coastal Development Permit at the November 15<sup>th</sup> hearing in San Diego.

San Diego's water supply crisis and overwhelming need for this project has brought our eight individual Chambers of Commerce together to advocate on behalf of the Carlsbad Desalination Plant. This project will bring enormous benefits to each of the cities/regions we represent, as well as the entire county.

As advocates for a prosperous business climate, we have long identified water reliability as one of our top priorities to ensure a healthy economy, positive job creation and quality of life.

After several years of record drought, another dry winter has been predicted by meteorologists, which will reduce our local groundwater supplies. Additionally, droughts throughout the Colorado River basin and California, a declining Sierra snow pack, and a court judgment to intermittently shut down the State Water Project pumps, have severely strained the availability of imported water.

Taken together, our region is facing a water crisis of epic proportions in the next few years. This will affect the economy drastically, with many industries suffering from the lack of available resources, especially key industry clusters like agriculture, biotech and manufacturing. We cannot allow this to happen when there is a solution at hand; seawater desalination.

Desalination has become a viable, affordable and environmentally sound technology that is utilized extensively throughout the world. The City of Carlsbad's public-private partnership with Poseidon Resources makes an effort to address our region's critical need by building and

operating a desalination plant, at no risk to the ratepayers. This project will supply enough water for 300,000 families annually throughout our County, while reducing the burden on San Diego's imported water supply. This project will have minimal impact on the surrounding ocean environment and will, in fact, take on the mantle of caretaker to the nearby Agua Hedionda Lagoon.

Sincerely,



David L. Nydegger  
President & Chief Executive Officer  
Oceanside Chamber of Commerce

Cc:

Vice Chairwoman Bonnie Neely  
Commissioner Ben Hueso  
Commissioner Steve Blank  
Commissioner Khatchik Achadjian  
Commissioner Sara Wan  
Commissioner Mary Shallenberger  
Commissioner Mike Reilly  
Commissioner Larry Clark  
Commissioner William Burke  
Commissioner Dave Potter  
Commissioner Judy Biviano Lloyd  
Commissioner April Vargas  
Commissioner Dan Secord  
Commissioner Adi Liberman  
Commissioner Sharon Wright  
Commissioner Steve Kinsey  
Commissioner Brooks Firestone  
Commissioner Suja Lowenthal  
Commissioner Lorena Gonzalez  
Mr. Peter Douglas  
Mr. Tom Luster  
Governor Arnold Schwarzenegger  
Speaker Fabian Nunez  
Senate President Pro Tem Don Perata

Secretary Mike Chrisman  
Director Lester Snow  
Senator Dennis Hollingsworth  
Senator Mark Wyland  
Senator Christine Kehoe  
Senator Denise Ducheny  
Assemblymember George Plescia  
Assemblymember Kevin Jeffries  
Assemblymember Martin Garrick  
Assemblymember Lori Saldana  
Assemblymember Joel Anderson  
Assemblymember Shirley Horton  
Assemblymember Mary Salas  
Lt. Governor John Faramendi  
Controller John Chiang  
Commissioner Michael Genest  
Commissioner Cindy Aronberg  
Commissioner Anne Sheehan  
Mr. Paul Thayer  
Ms. Barbara Dugal  
Ms. Judy Brown  
Ms. Susan Young  
Ms. Jessica Jones



# San Diego County Water Authority

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

October 25, 2007

State Lands Commission  
Chairman John Garamendi  
100 Howe Avenue, Suite 100 S.  
Sacramento, CA 95825

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

**MEMBER AGENCIES**

- Carlsbad  
Municipal Water District
- City of Del Mar
- City of Escondido
- City of National City
- City of Oceanside
- City of Poway
- City of San Diego
- Fallbrook  
Public Utility District
- Helix Water District
- Olivenhain  
Municipal Water District
- Otay Water District
- Padre Dam  
Municipal Water District
- Camp Pendleton  
Marine Corps Base
- Rainbow  
Municipal Water District
- Ramona  
Municipal Water District
- Rincon del Diablo  
Municipal Water District
- San Dieguito Water District
- Santa Fe Irrigation District
- South Bay Irrigation District
- Vallecitos Water District
- Valley Center  
Municipal Water District
- Vista Irrigation District
- Yuma  
Municipal Water District

California Coastal Commission  
Chairman Patrick Kruer and  
Commissioners  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105

San Diego Regional Water Quality  
Control Board  
Ms. Susan Ritschel and Board Members  
9174 Sky Park Court, Suite 100  
San Diego, CA 92123

Dear Commissioners and Board Members:

The San Diego County Water Authority (Water Authority) received a copy of a September 20, 2007, letter sent to you by Joe Geever of the Surfrider Foundation entitled, "Economically and Environmentally Sound Alternatives to the Carlsbad Desalination Project." The Water Authority would like to respond to the issues raised and the conclusions reached in the letter regarding the San Diego region's current and future water supply.

The Water Authority's adopted 2005 Urban Water Management Plan is based on a water supply strategy that includes the development of a portfolio of water supplies that allow our region to meet its projected water supply needs out to 2020 and beyond. The Water Authority's plan for the region relies on a mix of imported water supplies and the aggressive and concurrent development of local water resources that include doubling the region's conservation, tripling the region's use of groundwater, quadrupling the region's water reuse, and introducing ocean desalination as a new local supply, all by 2020.

Contrary to the letter's main conclusion regarding water supply, that "alternative water management plans render ocean desalination unnecessary," ocean desalination is also a vital and integral part of the region's future water supply mix. The plan includes a goal of 56,000 acre-feet per year of local, desalinated seawater from the Carlsbad Desalination Project by 2011. It is important to point out that before adopting the 2005 Urban Water Management Plan, the Water Authority thoroughly studied, over the course of several years, increasing conservation and reclamation efforts beyond projected levels in lieu of ocean desalination. Our Regional Water Facilities Master Plan and accompanying Programmatic EIR determined that such a strategy would jeopardize regional water reliability by relying on unproven and non-

*A public agency providing a safe and reliable water supply to the San Diego region*

cost-effective conservation measures and recycled water use levels that were unrealistic given the current regulatory environment, the market shift that would need to occur, and the level of local investment required.

Since the early 1990's, the Water Authority and its member agencies have invested hundreds of millions of dollars in conservation efforts and recycling projects. The Water Authority will continue to aggressively pursue conservation and water recycling programs. Today, 9 percent of the region's water supply portfolio is the result of conservation and recycling efforts, and this number will jump to 17 percent by 2020.

Through rebate programs the Water Authority has installed 518,000 ultra-low-flush toilets, 600,000 water-saving showerheads, and 60,000 high-efficiency clothes washers. An additional 15,000 acre-feet of water has been saved through commercial-industrial-institutional hardware replacements. This past May, the Water Authority Board adopted a 5-year blueprint for water conservation that aggressively pursues savings in landscape. We are placing a special emphasis on outdoor water conservation that we expect will increase our total water savings to 94,000 acre feet of water annually by 2020.

As a result of these efforts, per capita demand for water today is 178 gallons per day compared to 190 gallons per day in 1990. By 2020, this figure is expected to be reduced to 158 gallons per day.

Still, the region cannot recycle or conserve water it does not have, which is why we are pursuing a water diversification strategy that not only puts an emphasis on conservation and water recycling, but on developing new local supplies like ocean desalination.

Should you have any questions about this letter, please contact Maureen Stapleton, Water Authority General Manager, at 858-522-6781, or Bob Yamada, Water Authority Water Resources Manager, at 858-522-6744. Thank you for your attention to San Diego's water supplies and the efforts the Water Authority is making to ensure our region has a safe, reliable, and affordable supply.

Sincerely,



Fern M. Steiner, Chair  
Board of Directors

Cc: The Honorable Lori Saldona  
The Honorable Chris Kehoe  
The Honorable Denise Ducheny  
The Honorable Dennis Hollingsworth  
The Honorable Mark Wyland  
The Honorable Joel Anderson  
The Honorable Martin Garrick  
The Honorable Shirley Horton  
The Honorable Kevin Jeffries  
The Honorable Gorge Plescia  
The Honorable Mary Salas  
Mr. Peter Douglas  
Mr. Paul Thayer  
Ms. Dorothy Rice  
Mr. John Robertus  
Mr. Brian Prusnek  
Mr. Edmund G. Brown, Jr.

**M**endonoma  
**M**arine  
**L**ife  
**C**onservancy



**P.O. Box 217  
Manchester, CA 95459  
(707) 882-2186**

**RECEIVED**  
OCT 25 2007  
CALIFORNIA  
COASTAL COMMISSION

October 24, 2007

California Coastal Commission  
45 Fremont Street  
Suite 2000  
San Francisco, CA 94105-2219

Re: Carlsbad Desalination Project

Jim Bassler

Dear Commissioners and Staff,

Carson Bell

Richard Charter

Rob Cozens

Norman de Vall

Susan Garbini

Jeffrey Gunning

Allan Jacobs

Larry Knowles

Michael Koepf

Steve Lackey

Roger Little

Ian MacGregor

Atta Stevenson

Julie Verran

Rixanne Wehren

As a signatory of Surfrider Foundation's September letter, *RE: Economically and Environmentally Sound Alternatives to the Carlsbad Desalination Project*, Mendonoma Marine Life Conservancy's [MMLC's] position on the project as planned is a matter of record. However, neither that letter nor any of the major recent studies on desalination addresses whether or how offshore, wave-powered desalination changes identified issues. MMLC's position on seawater desalination in general is that offshore, wave-powered desalination can be demonstrated to pose significantly fewer environmental hazards than land-based operations, especially those co-locating with seawater-cooled power stations.

Lacking desalination studies that acknowledge and evaluate operations powered by wave energy conversion [WEC] technology, MMLC's approach is to point out how some of the policies and goals set forth in previous studies apply differently to WEC-powered desalination. To this end we have listed below elements of the World Wildlife Fund's position on desalination from Page 8 of *Making Water--Desalination: option or distraction for a thirsty world?* and Pacific Institute's conclusions and recommendations from *DESALINATION, WITH A GRAIN OF SALT A California Perspective* (pages 4-8). Positions, conclusions, and recommendations included in the references given but not listed below are those that are both supported by MMLC and found to apply equally to onshore and offshore desalination technology.

***WWF Position on Desalination***

In memorium:

John E. Armer  
1923-2005

***Minimising environmental impacts of large scale desalination plants***

*Desalination plants should be sited, planned and operated to minimise environmental impacts. The design of intake systems should proceed from the premise that seawater is also habitat. Outflows for concentrated brines need to avoid sensitive marine areas and incorporate adequate dilution, mixing and dispersal elements. Where possible, effluent flows should be reduced to "zero spill" solid wastes for safe storage or possible use. Adequate impact monitoring against assessed baselines should be mandatory.*

**Promoting A Healthy & Bountiful Offshore Environment**

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Land-based desalination plants are often sited based on real estate prices and proximity to power stations, not to minimize environmental impacts. WEC-powered desalination operations can be sited to minimize environmental threats--though plants providing electricity as well as water would also desire to locate near existing substations or generating stations.

***Climate-neutral desalination***

*Desalination plants need to be designed to be climate neutral, obtaining 100 percent of their considerable energy needs from additional renewable energy, green energy purchases or through Gold Standard carbon offsets and taking maximum advantage of evolving energy efficiency and energy recovery technologies.*

Land-based plants generally take electricity from the public grid. WEC-powered desalination plants take no energy from the grid, and can be designed to deliver electricity to the grid. If the Commission chooses to authorize land-based desalination projects, we urge you follow WWF's position on climate-neutral desalination by requiring such plants to obtain 100 percent of their energy needs from additional renewable energy, green energy purchases or through Gold Standard carbon offsets.

***Pacific Institute's Conclusions and Recommendations***

***The cost of desalination has fallen in recent years, but it remains an expensive water-supply option. Desalination facilities are being proposed in locations where considerable cost-effective conservation and efficiency improvements are still possible.***

Since this was written before the first WEC-powered desalination plant came on line, relative costs are unreported, and the literature is mixed. In one report, the World Bank states, "[desalination] costs are similar to incremental conventional bulk water supplies which often involve inter-basin transfers." Australia's Oceanlinx claims "we can produce [potable water] at very low cost," and it is likely--though not necessarily desirable--that offshore WEC operations will receive exclusive use of a portion of the sea floor and water column at a cost much lower than what they would pay for land ashore.

We agree with both the Pacific Institute and WWF that water conservation and improved transportation and storage efficiency should be pursued to the fullest, regardless of what other strategies are employed. Furthermore, we feel that any cost comparisons should reflect due consideration for environmental costs such as the 2002 loss of 68,000 salmon when too much water was diverted from the Klamath River.

***The assumption that desalination costs will continue to fall may be false. Further cost reductions may be limited, and future costs may actually increase.***

Once again, WEC-powered desalination was not addressed by Pacific Institute.

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**C** *More energy is required to produce water from desalination than from any other water-supply or demand-management option in California. The future cost of desalinated water will be more sensitive to changes in energy prices than will other sources of water.*

The relative efficiency of WEC-powered desalination is still unreported. Pumping large quantities of water over the Sierra Madre Mountains must be somewhat energy-price sensitive also.

*More research is needed to fill gaps in our understanding, but the technological state of desalination is sufficiently mature and commercial to require the private sector to bear most additional research costs.*

While in general agreement, we note that WEC power generation technology is still in an early developmental stage, and may warrant public expenditures on research.

*Public research funds should be restricted to analyzing the public aspects of desalination projects, including environmental impacts, mitigation, and protection.*

Public research funds may be appropriate to bring WEC electricity to market.

*Desalination plants offer both system-reliability and water-quality advantages, but other options may provide these advantages at lower cost.*

WEC-powered desalination was not studied, and the World Bank indicates inter-basin water transfers can be just as expensive.

*Water managers must still apply the standard principles of least-cost planning.*

As noted above, environmental costs must be fully accounted for, including costs of damage to, in WWF's words, "the natural assets of catchments, rivers, floodplains, lakes, wetlands, aquifers and vapour flows which ultimately provide, store, supply, and purify water and provide the best and most comprehensive protection against extreme or catastrophic events."

*In order to ensure public health, all water from desalination plants must be monitored and regulated.*

This is true of all public water sources.

*Under all circumstances, water managers must minimize brine disposal in close proximity to sensitive habitats, such as wetlands.*

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Land-based desalination plants are more likely to discharge brine near sensitive shoreline habitats than offshore, WEC-powered plants.

***Disposal of brine in underground aquifers should be prohibited unless comprehensive and competent groundwater surveys are done and there is no reasonable risk of brine plumes appearing in freshwater wells.***

Land-based desalination plants are more likely to discharge brine near underground aquifers than offshore, WEC-powered plants.

***Impingement and entrainment of marine organisms are among the most significant environmental threats associated with seawater desalination.***

Land-based desalination plants co-located with power stations will continue to use existing seawater intakes. WEC-powered plants would employ the latest intake technology.

***Intake pipes should be located outside of areas with high biological productivity and designed to minimize impingement and entrainment.***

Land-based desalination plants co-located with power stations will continue to use existing seawater intakes. WEC-powered plants would be better sited and employ the latest intake technology.

***Subsurface and beach intake wells may mitigate some of the environmental impacts of open ocean intakes. The advantages and disadvantages of subsurface and beach intake wells are site-specific.***

Land-based desalination plants co-located with power stations will continue to use existing seawater intakes. WEC-powered plants would employ the latest intake technology.

***For all desalination projects, proponents should evaluate the advantages and disadvantages of these options, including a review of impacts on freshwater aquifers and the local environment.***

Land-based desalination plants are more likely to discharge brine near underground aquifers, estuaries, and wetlands than offshore, WEC-powered plants.

***Desalination may reduce the need to take additional water from the environment and, in some cases, offers the opportunity to return water to the environment.***

We note that the California Legislature is currently debating plans for large-scale water transport and storage facilities that will divert more water from the north to the south.

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To the extent that desalination can fill this need, such facilities and water transport will not be necessary.

*Extensive development of desalination can lead to greater dependence on fossil fuels, an increase in greenhouse gas emissions, and a worsening of climate change.*

This is untrue of WEC-powered desalination, which produces no greenhouse gasses.

*Regulatory agencies should consider requiring desalination plants to offset their greenhouse gas emissions.*

WEC-powered desalination produces no greenhouse gasses.

*Co-location of desalination facilities at existing power plants offers both economic and environmental advantages and disadvantages.*

WEC-powered desalination facilities can be located immediately offshore of existing power plants if it is advantageous to do so (eg: generation of power for the grid).

*Proponents should not use desalination to keep once-through cooling systems in operation longer than would otherwise be permitted under current or proposed regulations.*

WEC-powered desalination can replace the power station by delivering energy to the grid as well as delivering potable water.

*Regulators should not issue exemptions to permit once-through cooling systems to remain in operation solely to service desalination plants.*

WEC-powered desalination does not use once-through cooling.

*Project proponents must assess the effects of desalination independently of the power plant due to uncertainty associated with once through cooling system systems.*

WEC-powered desalination is not subject to this consideration.

*Additional research is needed to determine whether there are synergistic effects caused by combining desalination's high salinity discharge with the high temperatures and dead biomass in power plant discharge.*

WEC-powered desalination is not subject to this consideration.

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If you do not find sufficient reason to deny the Carlsbad Desalination Project in Surfriders' letter, we believe the above comments provide prima-facie evidence that offshore, WEC-powered desalination technology is a viable alternative with significantly fewer environmental impacts and therefore represents sufficient cause to deny the project on CEQA issues.

In the event that you allow the project to proceed, we urge you to follow WWF's position on climate-neutral desalination by requiring the plant to obtain 100 percent of its energy needs from additional renewable energy, green energy purchases or through Gold Standard carbon offsets.

Sincerely,

  
Rob Cozens  
Staff Conservator

# INDIVIDUALS

**Tom Luster**

---

**From:** stefanielynn11@yahoo.com  
**Sent:** Tuesday, November 13, 2007 9:21 AM  
**To:** PoseidonDesal Comments  
**Subject:** Please Deny Desalination Plans in Carlsbad

**NOTE: CCC staff  
received 1,100 e-mails of  
this kind.**

Coastal Commission Chair Patrick Kruer

Dear Coastal Commission Chair Kruer,

I am writing as a Californian concerned about the protection and restoration of our coast and ocean. The upcoming State Lands Commission and Coastal Commission hearings are critical junctures for California's ocean policy. During those hearings, you, as representatives appointed to protect our environment, will make crucial decisions regarding a public lands lease and coastal development permit which would allow Poseidon Resources, LLC to construct and operate a destructive ocean desalination facility in Carlsbad, California.

I am opposed to this project for several reasons.

- It is not necessary at this time. The San Diego County Water Authority can meet the needs of local water agencies with greater investments in conservation programs, wastewater recycling and groundwater desalination. It is important to note that water conservation and wastewater recycling programs include the environmental benefits of improving our coast and ocean by dramatically reducing the intractable problems of urban runoff and partially treated sewage discharges to the ocean.

- Poseidon's Carlsbad Desalination Plant proposes to use an "open ocean intake" for the plant's "feed water." Open ocean intakes are well known to destroy marine life through "impingement" and "entrainment" - that is, sucking in marine life that is killed in either a coastal generator's cooling system or a desalination facility's "pre-treatment." I am supportive of Encina Power Station's plans to abandon its use of open ocean intakes and avoid this adverse impact on healthy marine ecosystems. Therefore, I oppose Poseidon Resources' plan to utilize this abandoned cooling system and continue the unnecessary destruction of our precious marine life. Under the public trust doctrine, California holds tidelands, including marine resources, in trust for the people of the State. We should not allow a private company to exploit and destroy the precious natural resources that make up our common natural heritage.

- Furthermore, there are superior intake technologies that withdraw ocean water from below the seafloor to avoid adverse impacts on marine life. This technology should be mandatory for ocean desalination.

- Ocean desalination is an extremely energy intensive technology and will contradict California's policy to reduce greenhouse gas emissions. Other supply alternatives are less energy demanding, including wastewater reclamation and groundwater desalination. These alternatives not only reduce energy demands and associated greenhouse gas emissions, but also use the same technology as ocean desalination and produce equally safe and reliable local supplies. Expanded water conservation programs would eliminate energy demands and current greenhouse gas emissions from the water management plan.

For all the reasons stated above, I urge you to deny the lease of public lands and the Coastal Development Permit for Poseidon's Carlsbad Desalination Plant.

**NOTE: CCC staff  
received 450 e-mails of  
this kind.**

**Tom Luster**

---

**From:** Britta Neustadt [beipost@hotmail.com]  
**Sent:** Tuesday, November 13, 2007 8:25 AM  
**To:** PoseidonDesal Comments  
**Subject:** Carlsbad Desalination Project

Dear Chair Patrick Kruer and Lt. Gov John Garamendi:

I am writing as a Californian concerned about the protection and restoration of our coast and ocean. The upcoming State Lands Commission and Coastal Commission hearings are critical junctures for California's ocean policy. During those hearings, you, as representatives appointed to protect our environment, will make crucial decisions regarding a public lands lease and coastal development permit which would allow Poseidon Resources, LLC to construct and operate a destructive ocean desalination facility in Carlsbad, California.

I am opposed to this project for several reasons.

- It is not necessary at this time. The San Diego County Water Authority can meet the needs of local water agencies with greater investments in conservation programs, wastewater recycling and groundwater desalination.
- Poseidon's Carlsbad Desalination Plant proposes to use an "open ocean intake" for the plant's "feed water." Open ocean intakes are well known to destroy marine life through "impingement" and "entrainment" -- that is, sucking in marine life that is killed in either a coastal generator's cooling system or a desalination facility's "pre-treatment." I am supportive of Encina Power Station's plans to abandon its use of open ocean intakes and avoid this adverse impact on healthy marine ecosystems. Therefore, I oppose Poseidon Resources' plan to utilize this abandoned cooling system and continue the unnecessary destruction of our precious marine life. Under the public trust doctrine, California holds tidelands, including marine resources, in trust for the people of the State. We should not allow a private company to exploit and destroy the precious natural resources that make up our common natural heritage.
- Furthermore, there are superior intake technologies that withdraw ocean water from below the seafloor to avoid adverse impacts on marine life. This technology should be mandatory for ocean desalination.
- Ocean desalination is an extremely energy intensive technology and will contradict California's policy to reduce greenhouse gas emissions. Other supply alternatives are less energy demanding, including wastewater reclamation and groundwater desalination.
- For all the reasons stated above, I urge you to deny the lease of public lands and the Coastal Development Permit for Poseidon's Carlsbad Desalination Plant.

Britta Neustadt  
105 Waterglen Cir  
Sacramento, CA 95826

**Tom Luster**

---

**From:** on behalf of PoseidonDesal Comments  
**Subject:** FW: Please Deny Desalination Plans in Carlsbad

To: PoseidonDesal Comments  
Subject: Please Deny Desalination Plans in Carlsbad

Coastal Commission Chair Patrick Kruer

Dear Coastal Commission Chair Kruer,

I am writing as a Californian concerned about the protection and restoration of our coast and ocean. The upcoming State Lands Commission and Coastal Commission hearings are critical junctures for California's ocean policy. During those hearings, you, as representatives appointed to protect our environment, will make crucial decisions regarding a public lands lease and coastal development permit which would allow Poseidon Resources, LLC to construct and operate a destructive ocean desalination facility in Carlsbad, California.

I am opposed to this project for several reasons.

- It is not necessary at this time. The San Diego County Water Authority can meet the needs of local water agencies with greater investments in conservation programs, wastewater recycling and groundwater desalination. It is important to note that water conservation and wastewater recycling programs include the environmental benefits of improving our coast and ocean by dramatically reducing the intractable problems of urban runoff and partially treated sewage discharges to the ocean.

- Poseidon's Carlsbad Desalination Plant proposes to use an "open ocean intake" for the plant's "feed water." Open ocean intakes are well known to destroy marine life through "impingement" and "entrainment" - that is, sucking in marine life that is killed in either a coastal generator's cooling system or a desalination facility's "pre-treatment." I am supportive of Encina Power Station's plans to abandon its use of open ocean intakes and avoid this adverse impact on healthy marine ecosystems. Therefore, I oppose Poseidon Resources' plan to utilize this abandoned cooling system and continue the unnecessary destruction of our precious marine life. Under the public trust doctrine, California holds tidelands, including marine resources, in trust for the people of the State. We should not allow a private company to exploit and destroy the precious natural resources that make up our common natural heritage.

- Furthermore, there are superior intake technologies that withdraw ocean water from below the seafloor to avoid adverse impacts on marine life. This technology should be mandatory for ocean desalination.

- Ocean desalination is an extremely energy intensive technology and will contradict California's policy to reduce greenhouse gas emissions. Other supply alternatives are less energy demanding, including wastewater reclamation and groundwater desalination. These alternatives not only reduce energy demands and associated greenhouse gas emissions, but also use the same technology as ocean desalination and produce equally safe and reliable local supplies. Expanded water conservation programs would eliminate energy demands and current greenhouse gas emissions from the water management plan.

For all the reasons stated above, I urge you to deny the lease of public lands and the Coastal Development Permit for Poseidon's Carlsbad Desalination Plant.

**Tom Luster**

---

**From:** mdwatt@earthlink.net  
**Sent:** Thursday, October 11, 2007 8:33 PM  
**To:** PoseidonDesal Comments  
**Subject:** Please Dry Up the Desalination Plans in Carlsbad

Coastal Commission Chair Patrick Kruer

Dear Coastal Commission Chair Kruer,

I'm a lifelong Californian, and one of my favorite summer vacation spots is Carlsbad. It has a nearly pristine coastal area teeming with wildlife like pelicans and porpoises, as well as being blessed with relatively clean water and some of the best surfing in California.

That's why I'm very upset to hear that an environmentally devastating desalination plant may soon be built there. **POOR PLANNING FOR GROWTH IS NO REASON TO ALLOW THE RUIN OF ONE OF THE FINEST COASTAL AREAS IN CALIFORNIA!**

The upcoming State Lands Commission and Coastal Commission hearings are critical junctures for California's ocean policy. During those hearings, you, as representatives appointed to protect our environment, will make crucial decisions regarding a public lands lease and coastal development permit which would allow Poseidon Resources, LLC to construct and operate a destructive ocean desalination facility in Carlsbad, California.

I am opposed to this project for several reasons.

- It is not necessary at this time. The San Diego County Water Authority can meet the needs of local water agencies with greater investments in conservation programs, wastewater recycling and groundwater desalination. It is important to note that water conservation and wastewater recycling programs include the environmental benefits of improving our coast and ocean by dramatically reducing the intractable problems of urban runoff and partially treated sewage discharges to the ocean.
- Poseidon's Carlsbad Desalination Plant proposes to use an "open ocean intake" for the plant's "feed water." Open ocean intakes are well known to destroy marine life through "impingement" and "entrainment" - that is, sucking in marine life that is killed in either a coastal generator's cooling system or a desalination facility's "pre-treatment." I am supportive of Encina Power Station's plans to abandon its use of open ocean intakes and avoid this adverse impact on healthy marine ecosystems. Therefore, I oppose Poseidon Resources' plan to utilize this abandoned cooling system and continue the unnecessary destruction of our precious marine life. Under the public trust doctrine, California holds tidelands, including marine resources, in trust for the people of the State. We should not allow a private company to exploit and destroy the precious natural resources that make up our common natural heritage.
- Furthermore, there are superior intake technologies that withdraw ocean water from below the seafloor to avoid adverse impacts on marine life. This technology should be mandatory for ocean desalination.
- Ocean desalination is an extremely energy intensive technology and will contradict California's policy to reduce greenhouse gas emissions. Other supply alternatives are less energy demanding, including wastewater

reclamation and groundwater desalination. These alternatives not only reduce energy demands and associated greenhouse gas emissions, but also use the same technology as ocean desalination and produce equally safe and reliable local supplies. Expanded water conservation programs would eliminate energy demands and current greenhouse gas emissions from the water management plan.

For all the reasons stated above, I urge you to deny the lease of public lands and the Coastal Development Permit for Poseidon's Carlsbad Desalination Plant.

Sincerely,  
Mark Watt  
420 N Oakland Ave., Apt. 18  
Pasadena, CA 91101

**Tom Luster**

---

**From:** Jessica Jones [jjones@poseidon1.com]  
**Sent:** Tuesday, November 13, 2007 11:39 AM  
**To:** Tom Luster  
**Subject:** FW: Approval of Desalination Plant

This came through our website? But to you?

Jessica

Jessica H. Jones  
Assistant Project Manager  
Poseidon Resources Corporation  
501 W. Broadway #1260  
San Diego, CA 92101  
619-595-7802  
fax 619-595-7892

---

**From:** Edward Scarpelli [mailto:elscarpelli@sbcglobal.net]  
**Sent:** Tuesday, November 13, 2007 10:52 AM  
**To:** update@carlsbaddesal.com  
**Subject:** Approval of Desalination Plant

Dear Coastal Commissioners,

As 28 year citizens of Carlsbad my wife and I urge you to approve the Carlsbad/Poseidon Desalination Plant proposal before you on November 18. With the forecasted 30% reduction of water to our region it is essential that the plan presented be approved. It should be approved by the Coastal Commission in order that we may maintain a vibrant and healthy environment for the citizens and commercial enterprises of our region. By your approval of this measure you will have served this entire region by insuring we have guaranteed dependable supply of potable water so essential to our semi arid region. Additionally, Poseidon's guarantee to continue the dredging operation of Carlsbad's treasured Aqua Hedionda lagoon will insure the perseveration of the lagoon and coastal beaches that depend on its dredged sand for restoration annually which you have sworn to protect for the enjoyment of all the citizens of our State.

Edward J. Scarpelli, Citizen  
929 Orchid Way  
Carlsbad, CA 92011

Cell 760-685-0947  
Email elscarpelli@sbcglobal.net

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November 12, 2007

Tom Luster  
California Coastal Commission  
45 Fremont St., Suite 2000  
San Francisco, CA 94105

Dear Mr. Luster

Re: California Coastal Commission Hearing on the Proposed Ocean Desalination Facility in Carlsbad, California.

I submit the following comments for consideration by California Coastal Commission in relation to Poseidon Resources' proposed ocean water desalination facility in Carlsbad, California.

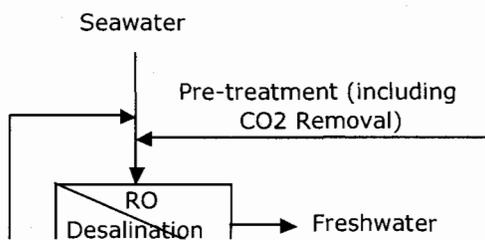
Whereas, I am in principle a supporter of the large-scale desalination of seawater as an effective source of potable water to public and industry. I am also aware and appreciative of the concerns with site environmental impacts associated with such facilities. My comments below are, therefore, not intended to start the debate or any particular interest group but as objective views of a water scientist and technologist to inform the Commission of potential technological solutions to the reduction or elimination of desalination reject brine – a primary source of many concerns with the proposed Carlsbad Desalination Facility.

Your Commissioners may be aware that other than thermo-mechanical volume reduction methods have been developed in recent years for sustainable brine management. One approach, involves treating reject brine in a plant setting for recovery of commercial grade salt; as an example, the web link below is an article on GE Water's project in South Africa where the end-user markets for water and salt products are identified and secured.

<http://www.genewscenter.com/Content/Detail.asp?ReleaseID=2395&NewsAreaID=2&MenuSearch=>

The concept of integrating water and wastewater treatment for value adding and reducing the footprint, because of the relatively small size of the desalination industry and the overall market growth. How this has been pursued overseas. An approach followed by Geo-Processors USA, Inc. (a cleantech company owned and operated by the author and Chief Technologist of) involves the integrated operation of SAL-PROC process with RO desalination for recovery of commercial grade byproducts from the RO brine and achieving either Zero Liquid Discharge or a regulated discharge target. This concept has been successfully piloted, publicly demonstrated and implemented overseas. Information on our platform SAL-PROC technology for selective or sequential recovery of salts and alkaline brines is available on our website [www.geo-processors.com](http://www.geo-processors.com)

As an example, the following schematic block flow diagram shows the main components of a core system for integrated water and byproducts recovery for sustainable management of reject brine from desalination processes.



From our experience, one advantage of byproducts recovery from seawater desalination brines relate to certain byproducts that can be recycled through the system for pre-treatment of feed to RO plant for increasing the water recovery rate. We have also recently developed an innovative process for the reduction of CO2 gas directly from the atmosphere or from stationary sources such as desalination. The following web link will take you to an article published in the World Finance Magazine about our technology;

[www.geo-processors.com/WF-CCPR Article w CoverPage-AugSept07.pdf](http://www.geo-processors.com/WF-CCPR Article w CoverPage-AugSept07.pdf)

In summary, as there are several coastal desalination project proposals and studies underway in California, the timing is right for change of paradigm in water industry from wastewater disposal to resource recovery and zero discharge. In view of the concerns with emission of Greenhouse gases from water treatment, the California Coastal Commission can assist in this process of reducing greenhouse gas emissions from stressed coastal environs.

Yours sincerely,



Dr. Aharon Arakel  
President & Chief Technologist  
Geo-Processors USA, Inc.  
P.O. Box 645  
La Canada, CA 91012  
Phone: (818) 731 6149  
Email: [a.arakel@geo-processors.com](mailto:a.arakel@geo-processors.com)

**Tom Luster**

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**From:** Donald Schulz [surfdad@hotmail.com]  
**Sent:** Monday, November 12, 2007 2:56 PM  
**To:** Tom Luster  
**Subject:** FW: Carlsbad Desalination Plant Source Water is Contaminated.

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Subject: Carlsbad Desalination Plant Source Water is Contaminated.  
Date: Mon, 12 Nov 2007 14:43:22 -0800

Poseidon Resources Inc. claims that the source water for their proposed desalination plant in Huntington Beach is of "high quality". However, both the desalination plant source water from the proposed Huntington State Beach/AES power plant and the Carlsbad/Agua Hedionda Lagoon sites remain on the State 303(d) list of impaired water bodies.

According to a report recently released by the Southern California Coastal Water Research Project (SCCWRP) contamination from fresh water streams and creeks, such as the Agua Hedionda and Buena Vista Creeks that drain directly into the Agua Hedionda Lagoon, contain pollutants that "...failed to achieve certain aquatic life and human health thresholds."

The report titled "Surface Water Ambient Monitoring Program (SWAMP) Report on the Carlsbad Hydrologic Unit" states, in part the following;

-----  
Surface Water Ambient Monitoring Program (SWAMP)  
Report on the Carlsbad Hydrologic Unit  
July 2007

"Several streams in the Carlsbad HU are listed as impaired on the 303(d) list of water quality limited segments, affecting a total of 76.6 stream miles. These streams include Agua Hedionda Creek, Buena Vista Creek, Buena Creek, Cottonwood Creek, Encinitas Creek, Escondido Creek, Reidy Canyon Creek, and San Marcos Creek. Known stressors include pesticides (DDE and DDT), manganese, nitrate and nitrite, phosphate, phosphorus, selenium, sulfates, total dissolved solids, and sediment toxicity."

"All sites in Carlsbad HU failed to achieve certain aquatic life and human health thresholds (Table 12). Cottonwood Creek had the highest number of exceedances of aquatic life thresholds (8), and Buena Creek had the highest number of exceedances of human health thresholds (5)."

"Agua Hedionda Creek stood out as having the most severely degraded physical habitat, as every component of physical habitat was impacted (i.e., =10)."  
"Despite these limitations, the data gathered under SWAMP and other programs strongly support the conclusion that the Carlsbad HU is in poor ecological health. Some of these limitations (such as the lack of applicable thresholds and the small sample size) may in fact have caused this assessment to underestimate the severity of degradation in the watershed. All indicators showed signs of human impacts. Multiple stressors, including degraded water quality, sediment, and physical habitat are the likely cause of the impact. Future research (see final report on the SWAMP monitoring program for further study recommendations) is necessary to determine which stressors are responsible for the impacts seen in the watershed."

Raphael D. Mazor  
Ken Schiff

Southern California Coastal Water Research Project  
3535 Harbor Blvd., Suite 110  
Costa Mesa, CA 92626  
[www.sccwrp.org](http://www.sccwrp.org)

Prepared for the California Regional Water Quality Control Board, San Diego Region (Region 9).

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To view the entire report; [www.swrcb.ca.gov/swamp/reports.html](http://www.swrcb.ca.gov/swamp/reports.html)  
download "region9 Carlsbad Hydrologic Unit.

Don Schulz

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Peek-a-boo FREE Tricks & Treats for You! Get 'em!

**Tom Luster**

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**From:** Tom Kuhn [tkuhn2@gmail.com]  
**Sent:** Saturday, November 10, 2007 4:08 PM  
**To:** Tom Luster  
**Subject:** Opposition to Poseidon

To T. Luster:

Both my wife and I are opposed to the Poseidon project in San Diego county and agree with the Coastal Commission staff to oppose the project.

Tom and Betty Kuhn

**Tom Luster**

---

**From:** Lcochrane51@aol.com  
**Sent:** Friday, November 09, 2007 7:53 AM  
**To:** Tom Luster  
**Subject:** Desalination

My family and I urge you to oppose the Poseidon project in Huntington Beach and follow the Coastal Commissions recommendations. On top of all that is wrong with this as far as the environment....the only project of this magnitude is in Tampa, Florida. That plant has been a huge mistake, cost the city millions beyond original estimates.....and is still nonfunctioning. We do not want that to happen here in Huntington Beach.

Please, please follow the Commissions recommendations.  
Thank you,  
Leslie Cochrane and family

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See what's new at [AOL.com](http://AOL.com) and [Make AOL Your Homepage](#).

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**Tom Luster**

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**From:** JonV3@aol.com  
**Sent:** Friday, November 09, 2007 12:36 AM  
**To:** Tom Luster  
**Subject:** Coastal Commission Meeting 11-15-07, Th7a, Application E-06-013, Oppose

November 8, 2007

California Coastal Commission  
Attention: Tom Luster  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

By Email: tluster@coastal.ca.gov

Re: Th7a, 11-07, Application E-06-013, Poseidon Resources (Channelside) LLC, City of Carlsbad

Please Oppose Project and Support Staff Recommendation to Deny

Dear Coastal Commissioners,

Please oppose the Carlsbad desalination project by Poseidon Resources and support the staff recommendation to deny the project. This project violates the Coastal Act protections of coastal resources.

This project uses the once-through cooling pipes of the Encina Power Plant in the Agua Hedionda Lagoon, a coastal estuary. The power plant itself is revising its plant to eliminate the use of once-through cooling pipes, which will be a great benefit to the estuary and ocean resources.

However, if Poseidon then uses the cooling pipes for its water supply for the desalination project, the estuary will continue to suffer losses to its marine resources. There is a better method of seawater intake for proposed desalination plants along the coast. That is, subsurface (subseafloor) intake pipes.

The use of subsurface intake pipes instead of power plant cooling pipes will not damage marine life through entrainment or impingement, a far better way than power plant cooling pipes to desalinate ocean water.

Now is the time to insist that desalination projects use the least damaging alternative to draw in seawater for desalination. It is the responsible thing to do.

Please deny this project and not set a precedent that will enshrine the use of open ocean water intake pipes for desalination projects.

As a member of Residents for Responsible Desalination (R4RD), I ask that you make sure that desalination is done in the responsible way without damaging our marine environment or violating the California Coastal Act.

Thank you.

Sincerely,

*Jan D. Vandersloot, MD*

Jan D. Vandersloot, MD  
Board Member, R4RD  
2221 E 16 Street  
Newport Beach, CA 92663  
(949) 548-6326

**Tom Luster**

---

**From:** Lou Ann Denison [LAnnD4animals@charter.net]

**Sent:** Friday, November 09, 2007 11:48 AM

**To:** PoseidonDesal Comments

**Subject:** Say NO to environmentally destructive Poseidon

Please do not grant a permit to build and operate a desalination facility in Carlsbad .

The staff report, released last Friday, is spot on in its description of the potential negative effects of the desalination facility proposed by Poseidon; the project would cause serious environmental impacts, sucking in marine organisms through an open water intake and increasing stress on marine communities at the site of the facility's brine discharge. In addition, there are significant concerns about the project's contribution to global warming; while Poseidon Resources has recently claimed that the facility's greenhouse emissions will be offset, no detailed plan has yet been made available.

*Please follow your own staff's recommendation and reject the Poseidon proposal.*

*Thank you.*

*Sincerely,*

Mr. and Mrs. James Denison  
6931 E 11 TH ST  
Long Beach, CA, 90815

**Tom Luster**

---

**From:** John H. Warren [jsw3@pacbell.net]  
**Sent:** Friday, November 09, 2007 12:21 PM  
**To:** PoseidonDesal Comments  
**Subject:** Please Deny the Poseidon Application

Desalination plants should only be approved as safety back-up sources for water systems that are otherwise able to support their urban and agricultural demands, and are only subject to infrequent water shortages which may potentially occur in extreme drought conditions. Desalination should never be depended on to meet regular water demands. If such systems are ever approved, they should be required to offset any carbon footprint, both for the construction as well as the operation of the system.

We are facing an extreme threat from global warming and must not increase our carbon consumption. Sequestration of CO2 has not been shown to be feasible either for the short or long run.

John and Sandy Warren  
Santa Cruz, CA

**Tom Luster**

---

**From:** Charles & Maryann Rozzelle [RozzMar@Rozzelle.com]

**Sent:** Friday, November 09, 2007 11:55 AM

**To:** Tom Luster

**Subject:** POSEIDON

California Coastal Commission  
Attn. Tom Luster

As long time beach residents of Southern California we are very concerned about the desalination plant proposed to be constructed by Poseidon. We strongly oppose this project and wholeheartedly support the Coastal Commission staff report which recommends disapproval of the project.

Sincerely,

Charles and Maryann Rozzelle

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11/9/2007

Th 7a - 11-2007

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

*Certified, American Board of Dermatology*

2221 East 16<sup>th</sup> Street  
Newport Beach, CA 92663  
Email: JonV3@aol.com

Home Phone: (949) 548-6326  
Office Phone: (714) 848-0770  
Office Fax: (714) 848-6643

November 9, 2007

California Coastal Commission  
Attention: Tom Luster  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

By Fax: (415) 904-5400

Re: Th7a, 11-07, Application E-06-013, Poseidon Resources (Channelside) LLC, City of Carlsbad

**Please Oppose Project and Support Staff Recommendation to Deny**

Dear Coastal Commissioners, .....

Please oppose the Carlsbad desalination project by Poseidon Resources and support the staff recommendation to deny the project. This project violates the Coastal Act protections of coastal resources.

This project uses the once-through cooling pipes of the Encina Power Plant in the Agua Hedionda Lagoon, a coastal estuary. The power plant itself is revising its plant to eliminate the use of once-through cooling pipes, which will be a great benefit to the estuary and ocean resources.

However, if Poseidon then uses the cooling pipes for its water supply for the desalination project, the estuary will continue to suffer losses to its marine resources. There is a better method of seawater intake for proposed desalination plants along the coast. That is, subsurface (subseafloor) intake pipes.

The use of subsurface intake pipes instead of power plant cooling pipes will not damage marine life through entrainment or impingement, a far better way than power plant cooling pipes to desalinate ocean water.

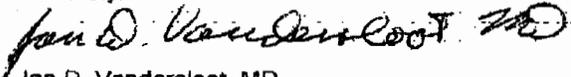
Now is the time to insist that desalination projects use the least damaging alternative to draw in seawater for desalination. It is the responsible thing to do.

Please deny this project and not set a precedent that will enshrine the use of open ocean water intake pipes for desalination projects.

As a member of Residents for Responsible Desalination (R4RD), I ask that you make sure that desalination is done in the responsible way without damaging our marine environment or violating the California Coastal Act.

Thank you.

Sincerely,



Jan D. Vandersloot, MD  
Board Member, R4RD  
2221 E 16 Street  
Newport Beach, CA 92663  
(949) 548-6326

RECEIVED  
NOV 09 2007  
CALIFORNIA  
COASTAL COMMISSION

Th-7a

California Coastal Commission  
Attention: Tom Luster  
45 Fremont Street, Suite 2000  
San Francisco, Calif. 94105-2219

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NOV 09 2007

CALIFORNIA  
COASTAL COMMISSION

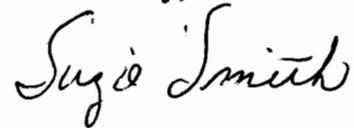
Dear Commissioners,

I would like to urge you to accept the Staff Recommendation to DENY the Poseidon application.

You need only to look at their failure in Tampa Bay to see that this multinational company should not be given permission to build on our coast. It is costing the city of Tampa millions of dollars and still not functioning.

Once again I urge you to DENY their application.

Yours truly,



Suzie Smith  
21352 Yarmouth Lane  
Huntington Beach, Calif. 92646  
[Suzie@1talltrees.com](mailto:Suzie@1talltrees.com)

November 8, 2007

Th - 7a

California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105 -- 2219  
FAX (415) 904-5400

**RECEIVED**  
NOV 08 2007  
CALIFORNIA  
COASTAL COMMISSION

ATTN: Tom Luster

Dear Mr. Luster:

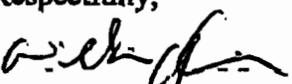
I am a resident of Huntington Beach where Poseidon Resources Corporation proposes to build a seawater desalination plant much like the one proposed for Carlsbad.

I have read the Commission staff report. Its recommendation to deny the coastal development permit application is consistent with everything I have learned over the years about the technology that Poseidon seeks to utilize for the Carlsbad facility. The open-water-intake technology that Poseidon proposes is very damaging to the wildlife populations and habitat.

It makes no sense to use that technology when there are superior technologies available, such as subsurface intake or positioning the intake to offshore ocean waters. What Poseidon has proposed will minimize the cost for building and production but will also maximize the destructive impact on wildlife populations and habitat for decades to come.

I urge the Commission to follow the staff's recommendation to deny coastal development permit application E-06-013.

Respectfully,

  
William Yarchin, Ph.D.  
9291 Hudson Drive  
Huntington Beach, CA 92646

**Tom Luster**

---

**From:** cindy newman [cnewman@socal.rr.com]

**Sent:** Thursday, November 08, 2007 9:15 AM

**To:** Tom Luster

**Subject:** Poseidon Project

Dear Mr. Luster:

My husband and I have been residents of Huntington Beach for 31 years. We are concerned about the Poseidon Project coming to Huntington Beach and understand a similar project is being considered for Carlsbad. We are in support of the Coastal Commission staff report and are opposed to the Poseidon Project. We have read up on the many concerns already put forth for this project as well as the many problems encountered in the Tampa Bay project. Hopefully, the commission will not give approval for either California project.

Cynthia and Charles Newman

**Tom Luster**

---

**From:** JoJST@aol.com  
**Sent:** Thursday, November 08, 2007 3:52 PM  
**To:** Tom Luster  
**Subject:** HB Poseidon Project

I have been attending the meetings and reading articles on the project here, in Florida and Carlsbad. You know the main reasons I do not want this so will not go into detail. I agree with the Coastal Commission 100% and support the report you did. Please continue to deny this project....it is not good for anyone and much too costly. Thank you.

J Thompson  
Huntington Beach, CA

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NOV 08 2007

Th - 7a

CALIFORNIA  
COASTAL COMMISSION

CALIFORNIA COASTAL COMMISSION  
ATTN: TOM LUSTER  
45 FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105-2219

Dear Sir:

We are 100% in opposition to the Poseidon desal plant project and 100% in support of the Coastal Commission recommendation for denial of the project.

Sincerely,



Joel Benson and Jeanine Benson

20091 Crater Circle  
Huntington Beach, CA 92646-4819  
(714) 378-9312

**Tom Luster**

---

**From:** David Guido [gdfthr2@msn.com]  
**Sent:** Wednesday, November 07, 2007 3:35 PM  
**To:** Tom Luster  
**Subject:** Poseidon

Dear Mr. Luster:

I am a member of the Huntington Beach Environmental Board, but I am writing this message as a private citizen.

I was first approached by the Poseidon Company about 6 years ago when they first started considering the AES facility in Huntington Beach as a location for their plant. At first, I was excited about it and eager to learn more about their process and their technology. As time passed however, it became clear to me that their process was flawed, their technology was unproven (or proven substandard) and the one thing they were best at was their public relations show.

I understand that the Coastal Commission staff is recommending denial of the project in Carlsbad. I would like to express my support for the staff recommendation.

I am very much in favor of finding a viable means of desalination for California. We must find alternative sources. It's just that Poseidon's solution is a recipe for disaster as they have already displayed in Tampa.

Please deny this project.

Thanks for your attention.

Dave Guido  
Huntington Beach

23

11/7/2007

**Tom Luster**

---

**From:** robinrepp1@aol.com  
**Sent:** Wednesday, November 07, 2007 7:31 PM  
**To:** Tom Luster  
**Subject:** Poseidon

Please do not allow Posiedon to be built in Huntington Beach. I do not want that project here.  
thank YOU  
Robin Repp  
502 22nd St  
Huntington Beach, Ca 92648

---

Email and AIM finally together. You've gotta check out free [AOL Mail!](#)

California Coastal Commission  
FAX# 415-904-5400  
ATTN: Tom Luster

**RECEIVED**  
NOV 07 2007  
CALIFORNIA  
COASTAL COMMISSION

RE: Carlsbad Desalination Project

I am writing to say that I concur with the Staff decision to deny the Carlsbad desalination project.

As of Oct. 31<sup>st</sup> of this year, the largest desal plant in the United States was set to begin full operation in Apollo Beach, Fl.. This project was originally proposed and planned by Poseidon Resources in 1999. To date, the Tampa Bay (Apollo Beach) plant has YET to operate at the planned capacity, and that capacity is ½ of what Poseidon has planned to install at the Carlsbad operation. Clearly, it is a process still in the experimental stages, the very expensive experimental stages. Poseidon has not assumed responsibility for the failures of it's membranes, nor the rusting of water pipes, and other difficulties encountered at Tampa Bay. The Tampa Bay water district bought the facility back from Poseidon, and at 139,000,000.00 in cost overruns to the citizens of Tampa Bay and its water district, the current plant has yet to produce, consecutively, the 25 mgd promised. The manager of the latest attempt at repairs for the company charged with putting the plant in working order, American Water Pridesa, says the future of desalination and his company depends on successfully completing this project, maybe by the first of next year. Senior Manager, Alison Adams, said "we'd better pray for rain".

We can't afford this type of experimentation in California, and a process that is somewhat like sticking a finger in a dyke, to help cure our water shortages. Desalination might be considered a part of a water portfolio at some point, but first we must look at urban conservation, recycling, reclamation, fixes to the Delta delivery system, and agri-business water management.

If, indeed, water is the liquid gold of the 21<sup>st</sup> century, we need to be prudent in our choices and our technology. We need to be aware that not all see California water woes as a calamity. Global water giants like Poseidon and its partners see it as opportunity, a very profitable opportunity, maybe likened to the Enron catastrophe.

The Lieutenant Governor has told Poseidon to go back to the drawing board. The Commission might want to delay a decision until we see what they come up with.

Respectfully,

Merle Moshiri, President  
Residents for Responsible Desalination

25

*David E. Hamilton  
5401-Kenilworth Drive .....  
Huntington Beach, CA 92649  
Phone: (714) 840-8901  
E-mail: dehamilton@earthlink.net*

**Th-7a**

November 7, 2007

**California Coastal Commission**  
Attn: Tom Luster  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219  
Fax: (415) 904-5400

**RECEIVED**  
NOV 07 2007  
CALIFORNIA  
COASTAL COMMISSION

**Re: Agenda item – Th-7a: Application E-06-013 (Poseidon Resources (Channelside), LLC,  
City of Carlsbad)**

Dear Commissioners,

I fully support the Commission staff recommendation to deny a Coastal Development Permit (CDP) to Poseidon Resources, LLC under Application File No. E-06-013 to build and operate a desalination plant on the Encina Power Plant site in Carlsbad, California.

Also, please pass along my compliments and appreciation to the Commission staff for the outstanding work that's reflected in its report regarding that permit application. Great job!

Regards,

David E. Hamilton .....  
California Homeowner &  
Boardmember of  
***Residents for Responsible Desalination***

**Tom Luster**

---

**From:** Vicki McDonald [califcoastre@earthlink.net]  
**Sent:** Wednesday, November 07, 2007 4:03 PM  
**To:** Tom Luster  
**Cc:** califcoastre@earthlink.net  
**Subject:** NO ON POSEIDON PROJECT FOR HUNTINGTON BEACH

NO ON POSEIDON PROJECT FOR HUNTINGTON BEACH

**Vicki McDonald**  
**California Coast Realty, Inc.**  
[CalifCoastRe@earthlink.net](mailto:CalifCoastRe@earthlink.net)

**(949) 574-1300 | Fax: (714) 968-9287 | Cell: (714) 264-9603**

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**Tom Luster**

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**From:** NANCY DONAVEN [ndonaven@verizon.net]  
**Sent:** Wednesday, November 07, 2007 10:25 AM  
**To:** Tom Luster  
**Subject:** Staff Report for Carlsbad Desalination Plalnt

Mr. Tom Luster  
California Coastal Commission

Regarding: Item 7a, Thursday, November 15, 2007

Dear Mr. Luster,

In general, I support the Commission Staff Report on the Carlsbad item and thank you for all of the hard work you have done on this issue.

One concern I have is the suggestion that it might be permissible for the plant to intake water from the ocean. I believe the subterranean intakes are far superior and should be used whenever possible.

Sincerely,  
Nancy Donaven  
4831 Los Patos Avenue  
Huntington Beach, CA 92649  
714/840 7496

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Poseidon Abysmal Record

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COASTAL COMMISSION

CALIFORNIA COASTAL COMMISSION

ATTN: TOM LUSTER

45 FREMONT STREET, SUITE 2000

SAN FRANCISCO, CA 94105 - 2219

FAX: (410) 904-5400 ~~A~~ # N6 11-7-7

More than a year ago Poseidon abrogated responsibility to complete a desalination project in Florida. The project is still not completed and has huge cost overruns. We request that the Coastal Commission does not permit Poseidon to contract any desalination projects in California.

*Curtis L. Stelley*

Curtis L. Stelley

9422 Rambler DR

Huntington Beach CA 92646

*Diane G. Stelley*

Diane G. Stelley

9422 Rambler DR

Huntington Beach CA 92646

Members of R4D4 (Residents for Responsible Desalination)

**Tom Luster**

---

**From:** Julian Vochelli [jpandjl@netscape.com]  
**Sent:** Tuesday, November 06, 2007 8:57 PM  
**To:** Tom Luster  
**Subject:** Th7a/COASTAL DEVELOPMENT PERMIT APPLICATION



**Th7a**

RE: Th-7a, Application E-06-013, Poseidon Resources LLC, City of Carlsbad.  
California Coastal Commission

Attn: Tom Luster

Dear Sir,

Please accept my enthusiastic statement of support for the Staff's sound conclusion recommending the Commission **deny** coastal development permit application E-06-13.

Also may I say, my "hat's off" to the Staff who in their report rendered many brilliant analyses, each supported by extensive research and detail.

Sincerely,

Mr. Julian Vochelli  
Pitcairn Lane  
Beach, CA 92646

19322  
Huntington

**Tom Luster**

---

**From:** Murphyeile@aol.com  
**Sent:** Tuesday, November 06, 2007 8:28 PM  
**To:** Tom Luster  
**Subject:** RE:Carlsbad/Poseidon desalination project

Nov. 6, 2007

Coastal Commissioners  
Att. Tom Luster

Dear Commissioners:

State Lands is coming up with their decision in DEC. as to whether to deny or approve Poseidon's desal plant in Carlsbad.

It seems that if the Coastal Commission denies this project it might make the State Lands issue moot which would be great.

Poseidon is using once through cooling which is not the best technology and therefor the project should be denied. Desalination of this volume 100 million gallons of ocean water 24/7,365 days a year by a for profit company which is privatizing water is the wrong way to go.

If this desalination plant is approved it will set a precedent and make the plant that Poseidon is planning for Huntington Beach a harder one to disapprove.

Please, make the right decision and deny this project

Respectfully  
Eileen Murphy  
201 21st Street  
HB CA 92648

---

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Th - 7a

CALIFORNIA COASTAL COMMISSION  
ATTN: TOM LUSTER  
45 FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105-2219

Dear Sir:

We are 100% in opposition to the Poseidon desal plant project and 100% in support of the Coastal Commission recommendation for denial of the project.

Sincerely,



Joel Benson and Jeanine Benson

20091 Crater Circle  
Huntington Beach, CA 92646-4819  
(714) 378-9312

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November 5, 2007

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TH-7A

NOV 06 2007

CALIFORNIA  
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CALIFORNIA COASTAL COMMISSION  
ATTN: TOM LUSTER  
45 FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105 - 2219

SENT VIA FAX TO: (415) 904-5400

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COASTAL COMMISSION

Dear Mr. Luster:

The purpose of our letter is to let you know that we support the Coastal Commission's staff recommendation to deny the Coastal Development Permit request by Poseidon for the construction of a Desalination Plant in Carlsbad, California.

Research does indicate that Desalination plants create significant adverse affects to the environment, particularly to marine life. The brine discharge into the ocean as a result of the Desalination process is extremely harmful.

We thank you in advance for denying Poseidon's request for a Coastal Development permit.

Sincerely,

*Bob and Jan Campbell*

Bob and Jan Campbell  
9422 Gateshead Drive  
Huntington Beach, Ca. 92646

Marinka Horack  
21742 Fairlane Circle  
Huntington Beach, CA 92646

Th - 7a

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CALIFORNIA  
COASTAL COMMISSION

November 5, 2007

California Coastal Commission  
Attention: Tom Luster  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

RE: Th-7a, Application E-06-013, Poseidon Resources (Channelside) LLC,  
City of Carlsbad - OPPOSE THIS PROJECT!

Dear Coastal Commissioners:

I strongly urge you to oppose Poseidon Resources' request for a proposed desalination plant in Carlsbad. To allow Poseidon Resources to build privately controlled desalination plants along the California coast would be bad policy for the people of California.

Here are some of the many reasons why Poseidon must be stopped:

- Privatization of water would take control of this life-essential substance out of the hands of the people;
- Poseidon's once-through cooling system kills all the marine life that passes through it;
- Poseidon's technology requires excessive use of energy;
- Poseidon plans to dump its waste into the ocean;
- Poseidon's expensive process would inflate the cost of water;
- Poseidon would industrialize our beautiful coast;
- Poseidon has a record of failure in its only desalination plant in Tampa Bay, Florida;
- Let's try water conservation, which could save up to half of our water.

Thank you for your time and consideration.

Sincerely Yours for a Better California,

*Marinka Horack*

Marinka Horack  
California Resident Since 1949

**Th- 7a**

CALIFORNIA COASTAL COMMISSION  
ATTN: TOM LUSTER  
45 FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105 - 2219

Nov. 4, 2007

Dear Commissioners:

I urge you to accept the Staff Recommendations to DENY the Poseidon application.

I am opposed to this Poseidon project as a destructive, wasteful, ignorant, and silly project to privatize California coastal public resources for the benefit of a multi-national corporation known for its lack of ethics and its short term hubris.

Their arguments for building Desalination facilities in Carlsbad and/or Huntington Beach ignore the energy costs of their selected membrane technology, the destructive nature of their "Once Thru Cooling System" on important but under appreciated food ecosystems.

Their short term hubris is best exemplified by their Tampa Bay adventures, as documented by several independent sources.

Their claims to be "preparing for drought emergencies" simply confound the need to address water and resource conservation in a systematic fashion without the myth of any quick technological "fix".

Again, please follow your trusted Coastal Commission Staff and DENY the Poseidon application.

Yours truly



R.J. Smith, Ph.D.  
Professor Emeritus, CSU  
Tall Tree Labs  
Huntington Beach, CA 93646  
[Bob@TallTrees.com](mailto:Bob@TallTrees.com)

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CALIFORNIA  
COASTAL COMMISSION

October 26, 2007

California Coastal Commission  
45 Fremont St., Suite 200  
San Francisco, CA 94105

Re: Carlsbad Desalination Plant

Dear Commission Members:

The North San Diego County Association of Realtors would like to go on record in full support of the proposed Carlsbad Desalination Plant. We have viewed the project proposal and strongly believe such a project to provide fresh water would be an important addition to the region's critical infrastructure needs.

As California continues to grow, the need for developing self-sufficient water supplies is extremely important. We see the development of desalination plants as one way to reduce the need for imported water.

We view seawater desalination as an opportunity to avoid a water crisis. Like the energy crisis of a few years ago, a water crisis will harm our economy, make it harder for businesses to succeed and bring financial hardship to thousands of people already impacted by the region's high cost of living.

It is crucial that we move forward now to approve and build the Carlsbad Desalination Plant before San Diego's water needs reach a crisis level. We respectfully ask you to approve the project without delay.

Sincerely

Mark Oatman  
President

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North San Diego County Association of REALTORS®



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San Diego, CA 92130  
(858) 350-1600

Carlsbad Service Center  
6183 Paseo Del Norte, Suite 150  
Carlsbad, CA 92011  
(760) 929-2100

Escondido Service Center  
1802 South Escondido Blvd., Suite E  
Escondido, CA 92025  
(760) 745-2299

Fallbrook Service Center  
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Fallbrook, CA 92028  
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October 26, 2007

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CALIFORNIA  
COASTAL COMMISSION

RE: Carlsbad Desalination Plant - Coastal Development Permit

**This letter has been sent to all Coastal Commission members and staff**

Dear Commission Members:

I am writing to ask you to please approve the Carlsbad Desalination Project. Right now reduced water supplies are a real threat to the future of farming in our community and we need new, reliable, local sources of water as soon as possible. By approving this project, you will have taken an important step towards saving farms in San Diego County.

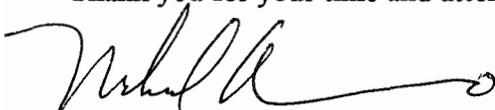
Water is a big expense and directly impacts the bottom line of our floral business. Now we have been put on alert that there will be water cutbacks starting next January because of the ongoing drought and the recent court decision on the Delta smelt. We will have a 30% reduction in our supplies and we expect rate increases as well. Unfortunately, we cannot count on a wet winter to get us through this. Experts have already forecast a La Niña winter – which could mean another record dry year.

In the last few years we have made major investments in irrigation technology for field flower production, so our only way to accommodate this water cut will be to reduce planted acreage. As an owner in our third generation family business, I fear that our growing operation will not remain financially sustainable if this happens. Consider the consequences to our county if dozens of farms are forced out of business. San Diego doesn't have the huge corporate farming that other areas have, but collectively our small farms contribute over one and one-half billion dollars to the economy of San Diego each year.

It is important that San Diego finds more dependable sources of water rather than rely on dwindling imported supplies. I believe that the Carlsbad Desalination Plant provides the best solution for our region. It will add to our local supply substantially and the water will be priced the same as imported water.

The future of my business and many others are in jeopardy. Please approve this project and make sure that San Diego's farms have the water resources we need.

Thank you for your time and attention.



Michael A. Mellano

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California Coastal Commission

October 26, 2007

Page 2

CC: Chairman Pat Krueger  
Vice Chairwoman Bonnie Neely  
Commissioner Ben Hueso  
Commissioner Steve Blank  
Commissioner Steve Kram  
Commissioner Khatchik Achadjian  
Commissioner Sara Wan  
Commissioner Mary Shallenberger  
Commissioner Mike Reilly  
Commissioner Larry Clark  
Commissioner William Burke  
Commissioner Dave Potter  
Commissioner Judy Biviano Lloyd  
Commissioner April Vargas  
Commissioner Dan Secord  
Commissioner Adi Liberman  
Commissioner Sharon Wright  
Commissioner Steve Kinsey  
Commissioner Brooks Firestone  
Commissioner Suja Lowenthal  
Commissioner Lorena Gonzalez  
Peter Douglas  
Tom Luster  
Governor Arnold Schwarzenegger  
Speaker Fabian Nunez

Senate President Pro Tem Don Perata  
Secretary Mike Chrisman  
Director Lester Snow  
Senator Dennis Hollingsworth  
Senator Mark Wyland  
Senator Christine Kehoe  
Senator Denise Ducheny  
Assemblyman George Plescia  
Assemblyman Kevin Jeffries  
Assemblyman Martin Garrick  
Assembly Member Lori Saldaña  
Assemblyman Joel Anderson  
Assemblywoman Shirley Horton  
Assembly Member Mary Salas  
Lt. Governor John Garamendi  
Controller John Chiang  
Commissioner Michael Genest  
Commissioner Cindy Aronberg  
Commissioner Anne Sheehan  
Paul Thayer  
Barbara Dugal  
Judy Brown  
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Jessica Jones

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P.O. Box 431  
Bonsall, CA 92003**

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October 26, 2007

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CALIFORNIA  
COASTAL COMMISSION

California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105

Re: Coastal Development Permit Application No. E-06-013 (Carlsbad Desalination Plant)

***This letter has been sent to all Coastal Commission members and staff***

Dear Commission Members:

As a third generation avocado grower, I am concerned about my family's business and the future of our industry in San Diego. I have recently learned that water to my grove will be reduced by 1/3 next year. As a result of my agreement with the Metropolitan Water District, I am unable to purchase more water even at full price. Nor am I able to use reclaimed water since my crop is edible and reclaimed water is not available in my area.

The Carlsbad Desalination Plant is a necessary complement to importing water. The sooner that this project is approved, the sooner it can be built and begin supplying our region with affordable and drought-proof water. The farmers of San Diego County cannot wait any longer. We may be able to weather one or two difficult seasons, but if the water situation isn't improved for the long-term we will all go out of business.

I realize that the water crisis requires everyone to make concessions, but the group that is hurt the most is the independent farming community. I want to see small family farmers like me stay in business. I think the best way to do that is to ensure we all have the necessary water supplies at a cost we can afford. The desalination plant will be a giant step in the right direction. Please approve it at next month's meeting.

Respectfully,



Susan M. Hukari

California Coastal Commission  
October 26, 2007  
Page 2

Cc: Chairman Pat Kruer  
Vice Chairwoman Bonnie Neely  
Commissioner Ben Hueso  
Commissioner Steve Blank  
Commissioner Steve Kram  
Commissioner Khatchik Achadjian  
Commissioner Sara Wan  
Commissioner Mary Shallenberger  
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Commissioner Cindy Aronberg  
Commissioner Anne Sheehan  
Paul Thayer  
Barbara Dugal  
Judy Brown  
Susan Young  
Jessica Jones

**Tom Luster**

---

**From:** mandjthew@yahoo.com  
**Sent:** Thursday, October 18, 2007 5:50 PM  
**To:** PoseidonDesal Comments  
**Subject:** Desalination Plan

Coastal Commission Chair Patrick Kruer

Dear Coastal Commission Chair Kruer,

We are opposed to Poseidon's desalinization plant in Carlsbad. The environmental costs are too great.

Sincerely,  
Mark and Janet Thew  
5572 St Francis Cir W  
Loomis, CA 95650

41

**Tom Luster**

---

**From:** aemr65@yahoo.com  
**Sent:** Monday, October 15, 2007 12:19 PM  
**To:** PoseidonDesal Comments  
**Subject:** Please Approve Desalination Plans in Carlsbad

Coastal Commission Chair Patrick Kruer

Dear Coastal Commission Chair Kruer,

I am writing as both a Carlsbad resident and Californian concerned about our water resources. The upcoming State Lands Commission and Coastal Commission hearings are critical junctures for California's water management. During those hearings, you, as representatives appointed to balance protecting our environment with the common sense issue of water management. You will make crucial decisions regarding a public lands lease and coastal development permit which would allow Poseidon Resources, LLC to construct and operate a much needed ocean desalination facility in Carlsbad, California.

Water issues in Southern California are notorious and providing another resource for water benefits us all.

I urge you to approve the lease of public lands and the Coastal Development Permit for Poseidon's Carlsbad Desalination Plant.

Sincerely,  
Athena Runner  
6582 Robinea Drive  
Carlsbad, CA 92011

42

# ONSITE WATER TREATMENT

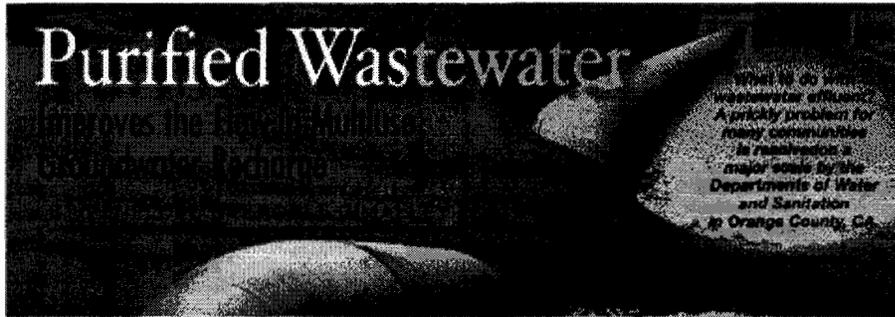
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You can look at it a number of ways: efficient effluent disposal, closing the water cycle, creating a new so potable water. The fact is that in Orange County, CA, the benefits include all three, the result of a coordin project undertaken by county's water and sanitation districts that will dispose of 100 million gallons a day wastewater effluent and, in the process, create 70 million gallons each day of locally generated drinking w

“Nothing is more certain than the water you already have,” says Rep. Ken Calvert (R-Corona). “When wa be reclaimed and reused, you absolutely know it’s going to be there for you.” Establishing a reliable, local controlled source of drinking water is no small achievement in southern California, which is facing cuts in imports from northern California and the Colorado River, concurrent with projections that a population ju million will spark a statewide water crisis over the next 20 years.

The Orange County Groundwater Replenishment System achieved critical mass when county water and sa managers realized each had sticky challenges ahead. The county sanitation district, which is the third-larg of the Mississippi River and serves 2.2 million customers, was looking at \$170 million (and stiff public opposition) to construct a second ocean outfall to dispose of effluent from sewage treatment. At the same water district (established in 1938 to manage the groundwater basin under central and northern Orange Co was looking for a way to safeguard its freshwater aquifers from encroaching seawater. Although the basin been protected by a 3-mile seawater intrusion barrier of 28 injection wells, the rate at which groundwater being drawn down was causing salt water to intrude around the barrier. Adding to the challenges were pre of a 20% jump in the county’s water use over the next 15 years.

The solution to this intertwined set of challenges turned out to be straightforward: remove the source of in on one front—the proposed outfall—by using wastewater effluent that would ordinarily be disposed of in ocean to feed the 3-mile-long underground pressure dam that protects the county’s groundwater supply. A benefits included the production of enough drinking water for 144,000 families every year (at four person family, that effectively covered a big chunk of the county’s projected population increase) and the establis a locally controlled supply of fresh water to reduce reliance on dwindling imported supplies.

According to Ron Wildermuth, who managed the water district’s campaign to sell the project to the public district has been using wastewater effluent in its seawater intrusion barrier since the 1970s. “What we nee says Wildermuth, “was to double the barrier from 15 million gallons to 30-40 million gallons a day. With challenges to imported supplies of fresh water, we knew water reuse was the way to go. But being in an u where there was insufficient land available for surface groundwater recharge, we also knew we needed m space-efficient technology to produce the amount of water required for the barrier. We determined given c constraints, that microfiltration, reverse osmosis, and UV—the same technologies used to purify baby foo bottled water—would work.”

According to Wildermuth, the county also considered desalination. Typically a more expensive option, i penciled out at \$800-\$2,000 per acre-foot compared to \$476 per acre-foot for groundwater recharge. The 3 million cost of the groundwater recharge project (over \$90 million came from state and federal grants) inc construction of a new water purification facility, eight new injection wells at the seawater barrier and a pip deliver treated water from the new treatment facility 14 miles inland to existing spreading ponds.

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## Attachment B: Energy Intensity Evaluation



The completion date is scheduled for 2007, but the project is already producing 5 mgd of purified water for the seawater barrier.

### Longstanding Technology

The concept of artificial groundwater recharge has been around since the 19th century and is currently in use in the Netherlands and Germany as well as the United States. One of the oldest ongoing groundwater recharge projects in this country is the Montebello Forebay Natural Groundwater Recharge Project, which began operation in 1960. Run by the Water Replenishment District of Southern California, it filters an average of 45 mgd of treated water into the Los Angeles Central Groundwater Basin. The water meets state and federal primary drinking water standards and makes up about 35% of the total recharge to the groundwater basin, which in combination with imported water serves 3.7 million residents. Also in southern California the Los Angeles County West Basin Municipal Water District's sewer water purification facility, which has been online since 1995, produces 10 mgd of purified sewer water for a one-half-mile-long seawater barrier of 100 injection wells. Plans call for the facility to expand to 12.5 mgd by 2006 using microfiltration and reverse osmosis.

Elsewhere, the Hueco Bolson Aquifer provides approximately 40% of the municipal water of El Paso, TX surrounding area, plus 100% of the municipal supply for Ciudad Juarez, Mexico, and Fort Bliss, TX. Because the aquifer receives limited recharge in the arid climate, the El Paso Water District opted to decrease the rate at which reserves were being depleted by using artificial recharge with highly treated wastewater effluent. The project came into full operation in 1985 at 10 mgd. On the other side of the world, in Singapore, the NEWater Project uses an advanced purification process of microfiltration, reverse osmosis and ultraviolet disinfection similar to Orange County's. Long-term plans call for adding NEWater to Singapore's reservoirs before piping it to residential and commercial and industrial customers.

According to Wildermuth what differentiates the Orange County project is its scale and multiplicity of purification. The aquifer the system will recharge supplies 75% of the water needs of 14 communities (the remainder comes from the Colorado River and northern California.). The basin is 2,000 feet deep and 365 square miles around the top and naturally holds between 10-40 million acre-feet of water, of which about 1 million acre-feet are used for agriculture. The basin is bordered by mountains on the east and north. This, combined with the localized seawater intrusion barrier, makes it feasible to manage the reclaimed water. Additionally there are only two points of basin recharge: direct surface recharge through existing inland spreading ponds, wherein the water moves from the surface via percolation through the soil to the aquifers, and direct subsurface recharge using the intrusion barrier of the seawater barrier. As the delta of the Santa Ana River, the area is topographically well-suited to artificial groundwater recharge, and the basin has in fact undergone regular artificial recharge through the water district's inland spreading ponds using water from the Santa Ana River, in combination with imported supplies, at an average annual rate of 250,000 acre-feet a year.

### Three Steps Toward Purification

Orange County's new Groundwater Replenishment System Advanced Purification Facility receives secondarily treated effluent from an adjacent wastewater treatment facility operated by its sister agency, the same quality as the sanitation district discharges into its existing ocean outfall. The three-step purification process begins with microfiltration of the same type that produces particle-free water for computer chip manufacturers. This first step in the purification process works like a screen to remove small suspended particles, protozoa, bacteria, and viruses. The water district's assistant director of engineering, Shivaji Deshmukh, describes microfiltration pretreatment for the critical step of reverse osmosis.



"The pretreatment allows reverse osmosis to concentrate on smaller, microscopic salts and organic constituents in the water," says Deshmukh. "In RO, water is forced under high pressure through thin membranes that eliminate salts, pesticides, and most organic compounds, creating near-distilled quality water. Eighty-five percent of the water comes out as very pure water, the remaining 15% as brine [about 5000 milligrams per liter of salt content] to about 39,000 mg/l for ocean water], which is discharged, along with other sanitation district effluent, into the existing ocean outfall.

From RO, the product water goes on to ultraviolet light and hydrogen peroxide treatment, considered the most effective way to eliminate any remaining organic compounds. "First hydrogen peroxide is dosed into the stream," says Deshmukh. "The UV helps break that down into hydroxyl radicals. Ultraviolet light disinfects the water and photolyses any organic constituents. Hydroxyl radicals are also able to oxidize constituents that may be present at low levels following RO. The TDS [total dissolved salt] in water coming out of the plant is 50 parts per million, which is enough to leach minerals of conventional concrete pipes. We add lime to take it to around 100 parts per million. This is very similar to what the bottled water companies do in order to get a better taste and stabilize the water."

## Attachment B: Energy Intensity Evaluation

UV also addresses the issue of trihalomethanes, a recurrent issue of public concern. “There are two issues, Deshmukh. “The trihalomethanes are entirely removed in reverse osmosis. However, the advantage of using instead of chlorine as a disinfectant is that you are not making any additional trihalomethanes after the water has been cleaned. And although the majority of endocrine disruptors would be removed by reverse osmosis, they may get through, ultraviolet light is able to address those. Also it’s very safe and it has no harmful byproduct.”

The final step is filtration of the processed water through soil. “Soil filtration is the intermediary step that makes this an indirect potable reuse project,” says Wildermuth. “The highly purified effluent is discharged into the aquifers, where it will blend with other water sources to become part of the drinking water supply.”

Mike Wehner, water quality and technology director for the Orange County Water District, explains it further. As far as the state Department of Health Services is concerned, this last step is more of a retention process. As it’s anticipated that given the extensive barriers we are using there wouldn’t be anything breaking through, the department sees time underground as a final, additional barrier to any existing microbes. In the area of our spreading ponds we are required to have six months retention time underground before the water can be extracted. At the injection barrier, where there isn’t the opportunity to filter the water through soil, we have to have it underground for a year before it can be extracted. Retention time also provides an opportunity to monitor and detect any problems before the water actually gets to the production wells.”

Bob Hultquist, chief of the Northern California Drinking Water Field Branch for the Department of Health Services, confirms that the department considers retention time underground a barrier to viruses. “In drinking water treatment we usually talk in terms of log [logarithmic] reduction of organisms. Any standard wastewater disinfection will usually kill a percentage of organisms, although not all of them. Depending on the amount of chlorine you add, you’ll get a certain percentage to 99 to 99.9%. In order to achieve our goal for viruses in groundwater recharge, each of these nine is a log. If you’re reducing it by 90%, that’s one log; 99.9% is a two-LOG reduction. The goal of our groundwater recycling criteria is a 12-log reduction, which means we’re talking about much better virus reduction than standard forms of wastewater or wastewater treatment. And because you can’t measure that kind of log reduction, that is, you can’t demonstrate that you’re getting it through any kind of engineered treatment, we’ve required it to be achieved through a number of different barriers. The last barrier, good for at least six logs of virus reduction is retention time underground.”

sidebar



Orange County’s Groundwater Replenishment System is operated under a permit from the Santa Ana Regional Water Quality Control Board, which is part of a statewide network of localized water quality boards administered by the California Water Resources Control Board. The permit is the vehicle through which the Department of Health Services incorporates its water quality and water monitoring criteria.

“As with any wastewater disposal or reuse project, there are a number of contaminants we’re concerned about,” Hultquist explains. “Primarily where there’s public exposure, pathogenic microorganisms are the biggest concern. Second would be nitrogen compounds because they’re present in such high quantities and there is a health concern from nitrates and nitrites. Third would be all the other regulated contaminants. By regulated I mean that they have standards for them and we know they are of concern in drinking water. Fourth is the potential for unregulated contaminants in the final effluent that might work their way into a drinking water supply in concentrations that could eventually threaten the drinking water. To address those classes of unregulated contaminants likely present in wastewater, we have established both treatment and monitoring requirements.”

Hultquist says source control is a major consideration. “We definitely look at what’s tributary to the sewer system for a facility as far as industries and special wastes that might occur in a service area. We want to see monitoring in the form of extensive evaluation of the raw wastewater and effluent from secondary treatment. We want facilities to make an extra effort to look for those chemicals that may survive the treatment processes that are toxic in drinking water supplies. One-four Dioxane is a chemical that was not adequately controlled under federal source control programs. It cropped up in the wastewater system of the Orange County Water District is a good example of what we expect of any water utility that’s going to recharge groundwater used as a drinking water supply. We want them to look at the industries that are discharging into their wastewater system for chemicals like 1-4 Dioxane and make sure it’s either eliminated or in harmless concentrations.

“We expect that more drinking water standards are going to be established over time as we get smarter about how to analyze for chemicals. Right now we address uncertainties through treatment requirements. In the case of a project like Orange County’s, for example, we require project water to go through reverse osmosis, but not a standard reverse osmosis. It has to be a very efficient reverse osmosis membrane at removing the kinds of contaminants we’re worried about. And then subsequently it has to pass through advanced oxidation using UV and hydrogen peroxide.”

Attachment B: Energy Intensity Evaluation

“There are two types of groundwater recharge systems presently in use in California, those like the Orange project in which wastewater undergoes three-step processing and final percolation through soil, and a secc which is used by the Los Angeles County Sanitation Districts, where wastewater is subject to secondary tr then subsequent filtration and disinfection and then put into spreading basins. This type of system is desig have very effective soil and aquifer treatment so that dilution accomplishes the same thing as reverse osm

“I think for a long time to come we’re going to have these two fundamentally different kinds of projects,” Hultquist, based in part on location. “On the coast it’s fairly easy to get rid of the brine produced by revers osmosis. Inland it’s almost impossible. Our fresh water criteria are written so they accommodate either on



The Santa Ana River flowing past the Orange County Groundwater Recharge System recharge ponds after a storm.

Standards for blending are also spelled out in the pr regional board permit, based again on the Departm Health Services’ recommendations.

“The blending requirement is to control unregulated chemicals in the wastewater,” says Hultquist. It’s p. set of methods you can use to achieve a total organi (TOC) limit in wastewater. Our TOC goal used to be mg/L. It’s now .5 mg/L. You can achieve this thro combination of treatment or through dilution or any combination. It gets tougher and rougher if you dec all treatment, because we expect more reliability. D on the other hand, is very effective. In the past we v least 50% dilution. It’s only in the last few years th developed confidence in achieving the entire reduct through treatment. However, there will always be c locations and certain kinds of projects where dilutic most economical way to meet the standard.”

“For a number of years at the Orange County Water District,” says Wehner, “we were held to the standar more than two-thirds of the water injected at the seawater intrusion barrier could be of recycled water orig permit for our new operation, the limit has been changed to three-quarters. And after we’ve demonstrated Department of Health Services and the regional board that between 60% and 75% water of recycled water has reached monitoring wells and that it hasn’t affected water quality, then according to the terms of our p will be able to use 100% recycled water. Which means that we will no longer have to blend water we appl ground. Currently water used for blending is imported water purchased from the Metropolitan Water Disti water from deeper aquifers that has color and generally isn’t used for drinking. In the area of the recharge water used for blending is captured stormwater from the Santa Ana River.

“When Water Factory 21 [the county’s our original groundwater recharge treatment facility] was first dev says Wehner, “the state-of-the art for organics removal was granular activated carbon. With our experienc experience of other treatment facilities, the Department of Health Services has become more comfortable to lower levels of organic carbon.

“Regarding total organic carbon,” says Gary Yamamoto, chief of the Drinking Water Technical Programs at the Department of Health Services, “we called for reverse osmosis because we wanted to address other contaminants that were inorganic in nature. Instead of adding another process, we wanted one that could d

**A Million for Monitoring**

“For a long time now in our draft criteria we’ve had requirements for extensive monitoring of recycled wa it’s applied to the groundwater,” says Hultquist. “We also have quite rigorous monitoring requirements, th number of contaminants that have to be monitored for and the frequency of monitoring both for the monit wells in the recharge area and for the drinking water wells to have an early warning of any problems.” (Th Hultquist refers to remain in draft stage, and the Department of Health Services has not identified a target adoption.)

“We anticipate over a million dollars a year for monitoring,” says Wehner. “That covers monitoring at the and water as it’s being produced at the advanced treatment facility, as well monitoring water as it’s being the ground and at the monitoring wells where water is extracted. That’s actually a requirement of our pern we’re not adversely affecting groundwater. The Department of Health Services wants us to use the same e data reporting system used for drinking water supply wells. We already have this ability, because we do cl testing for the local water agencies that extract water from the groundwater basin.

Attachment B: Energy Intensity Evaluation

“Historically we have injected into four aquifers. In the future the plant will be injecting into five aquifers will have to test all five; that is, we will have to have a monitoring system that will enable us to look for any zones where we put water. Another thing that has been recommended, and our staff agrees with, is the dedicated pumps be installed at the monitoring wells to reduce the risk of any cross-contamination from one zone to another.

“The fact is we’re monitoring for a wide range of contaminants that is much greater than is required for drinking water suppliers. But even in areas where we don’t currently have regulations, the Department of Health is asking cutting-edge projects such as ours to look for some of their emerging targets, the kind of contaminants which no regulatory agency at the state or federal level has developed criteria yet, such as the pharmaceutical hormones.”

“Orange County is a really remarkable agency,” says Yamamoto. “For a long time they’ve supported a very research program to develop the science and technology needed to make this kind of project work. There are a number of agencies that have very aggressively advanced the science of these kinds of projects. And some particular criteria have come directly from the recommendations of their science advisory panels.”

As to the future of using purified sewer water to supplement potable water supplies, Hultquist reports that a number of communities throughout California are evaluating the option. What’s yet to be sorted out is the resources required. “I don’t see how a smaller utility could afford this right now,” says Hultquist. “I think talking to a large, sophisticated agency.”

PENELOPE GRENOBLE O'MALLEY *specializes in environmental topics.*

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