

# THE R4RD NEWSLETTER

## Residents for Responsible Desalination

P.O. Box 5422, Huntington Beach, CA 92615-5422

[www.r4rd.org](http://www.r4rd.org)

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Issue VIII

May 2009

### R4RD's Mission

#### Educate

*the public about seawater desalination;*

#### Protect

*local control of vital water resources;*

#### Advocate

*the use of technology and practices that avoid environmental and human health impacts; and,*

#### Promote

*environmentally preferable alternatives to desalination, such as water conservation, reclamation, retention, and recycling.*

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### MESSAGE FROM R4RD'S PRESIDENT

Big news from **Residents for Responsible Desalination**: R4RD recently initiated the **Orange County Desal Coalition (OCDC)**. This important coalition was formed between R4RD, *Surfriider Foundation, Sierra Club, Environment Now, Food & Water Watch, O.C. Coastkeeper, Desal Response Group, League of Conservation Voters*, and individual community leaders. OCDC will be an advocate for the R4RD mission and message up and down the State of California and to the State legislature. OCDC has an Action Organizer in place and is working on plans that will carry the message of R4RD and its partners to the movers and shakers in the water world.

The objective is to educate people on the important choices they will be called upon to make very soon. The overall effort will take the entire "village", which means each and every one of you must do your part in your daily lives to make a change in the way you use water.

In the past few months, public relations firms for big water profiteers have been beating the hysteria drums at a steady pace regarding water shortages. Look for that to increase to a frenzied level as summer nears. Don't fall for it. Yes, we do need to be careful with our water use. But are we facing an "epic" drought? *No!* In fact, according to a recent article in the Los Angeles Times, the State's chief hydrologist, Maury Roos, said, "I think we will have more runoff (from the snow pack) than last year." The Sierra snow pack and a series of February storms have filled reservoirs to 80% of normal. That was met by silence from private water interests, who, for months, have filled pages of reports and "educational" research papers with grim news of water shortage. "Drought" has become a mantra from special interests that will try to profit on the public's fear. This "fear" has been fed for a hundred years and has been used to build every thing from complex transport systems to dams and reservoirs that did more damage than good. Now this "fear" is being leaped upon by various desalination "experts." There's *gold* in "them thar hills", but it isn't for you.

We will be hearing a hue and cry from the Central Valley's big agribusinesses as the Federal government cuts back on water allocations to massive farms. Something needed to be done. Agribusiness is the single biggest waster of water in California. Left to their own devices they will do nothing to help conserve water and, in fact, lend themselves to the problem by planting permanent crops that do not have a dormant phase to collect and reserve water. They have brought this on themselves.

In the midst of this changing time, when the world seems to be spinning out of your control, when all predictions are dire including one of the most fearsome, "your water supply is drying up," resolve to make a difference at *your* house or business. *You* control your decision making here, and every day you make a choice. Take Back the Tap! Get serious about water use and get *real* serious with those who would take this resource away from your control and put it into private hands. It's a recipe for disaster — for me and you.

If we don't change the direction of where we're headed, we will end up there.

Please take this opportunity to join R4RD or renew your membership right now.

Together, we cannot fail.

Sincerely,

*Merle Moshiri*

# CALL TO ACTION!

The Poseidon Resources seawater desalination project in Huntington Beach and other coastal desal projects must receive approvals and permits from the California Coastal Commission (CCC). R4RD believes strongly that the Poseidon/HB project is the poster-child for irresponsibility and misuse of desalination technology and should **not** be permitted by the CCC.

R4RD encourages everyone with similar beliefs to express them, either by writing to the CCC or appearing at appropriate hearings, or both.

The CCC staff set up a special e-mail address:

**[PoseidonHBDesal@coastal.ca.gov](mailto:PoseidonHBDesal@coastal.ca.gov)**

to take your written comments.

*Note: The CCC will not accept e-mail attachments at this internet address.*

Alternatively, mail or fax your written comments to the following postal address or fax number:

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

R4RD and its partners in the Orange County Desal Coalition also encourage all concerned parties to attend and/or speak at all CCC hearings with Poseidon or other ocean desalination projects on its agenda.

# COASTAL COMMISSION CALENDAR

[WWW.COASTAL.CA.GOV](http://WWW.COASTAL.CA.GOV)

## MAY '09

May 6-8, 2009  
Santa Rosa/Marin  
(North Central Coast Area)  
Location TBD

## JUNE '09

June 10-12, 2009  
**Marina del Rey Hotel**  
13534 Bali Way  
Marina del Rey, CA 90292

## JULY '09

July 8-10, 2009  
**San Luis Obispo**  
County Government Center  
Board of Supervisors Chambers  
1055 Monterey Street  
San Luis Obispo, CA 93406

## AUGUST '09

August 12-14, 2009  
San Francisco, CA  
(North Central Coast Area)

## SEPTEMBER '09

September 9-11, 2009  
Eureka, CA  
(North Coast Area)

## OCTOBER '09

October 7-9, 2009  
(San Diego Area)

## NOVEMBER '09

L.A./Orange County  
(South Coast Area)

## DECEMBER '09

San Francisco, CA

Although the Coastal Commission tries to hear agenda items in a location nearest the project site, there are no guarantees of that.

However, with that in mind, October's CCC agenda will likely have a Poseidon/HB project item.

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• For the proposed Poseidon desal plant to produce 50 Mg/day of fresh  
• water from seawater, it must dispose of 5 tons-per-minute of salt and  
• by-products. Poseidon will dump that amount of by-product along with  
• process chemicals and detergents 1200 feet offshore from one of  
• Huntington Beach's more popular beaches. That's 5 tons-per-minute,  
• of every hour, of every day, 365 days per year—for 30 years.  
.....

## The R4RD Newsletter

Published quarterly by:  
**RESIDENTS FOR RESPONSIBLE DESALINATION**

**Editor:** Dave Hamilton  
e-mail: [dehamilton@earthlink.net](mailto:dehamilton@earthlink.net)

**Note:** R4RD welcomes your articles and letters pertaining to water desalination, conservation, reclamation, or sustainable living. Please include your name, telephone, and e-mail address, if you have one. Important—Please include all applicable attributions, footnotes, and permissions if your submittal is not entirely original.

Submit Articles by the 15<sup>th</sup> day of the months of January, April, July, or October to be considered for the next quarterly publication. **THANK YOU!!**

**Residents 4 Responsible Desalination**  
**Spring Town Hall Meeting**

**Wednesday, May 13, 2009**

**7:00 - 8:45 PM**

**Former Mayor Debbie Cook**

**will discuss:**

**"Greening the Economy -  
Initiatives to Build a Self-Sustaining Economy"**

**~~~~ & ~~~~**

**MEET AND GREET**

**HB's New City Administrator,**

**Fred Wilson,**

**who will discuss "The City's Fiscal & Physical Health"  
plus a Public Works Dept. presentation on  
"HB's New Water Conservation Programs"**

**~~~~ at ~~~~**

**Eader Elementary School**

**9291 Banning St.**

**Huntington Beach 92646**

This town hall meeting is an opportunity to:

- ✓ Get updates on the HB Poseidon Desal Project
- ✓ Be "desal" informed & know the consequences
- ✓ Connect with neighbors and friends
- ✓ Admission Free - Public Invited
- ✓ Coffee (bring your cup) & Great Cookies

Please call 714-374-0380 for more information



## Why Should Orange County Pay for Poseidon's Flawed Business Model?

### *Poseidon's Business Model is All Wet!*

Poseidon Resources Corporation has failed its first major test of selling its desalinated water to local water agencies—and there are good reasons for *that*.

While North Orange County gets most of its water from deep aquifers, we also import 25% of our water from the Sacramento Delta. This imported water is the most expensive part of our local water-supply portfolio costing close to \$800 a year for *two* average O.C. families. Poseidon says the same amount of its desalinated water will cost from \$1200 to \$1400 — but it's likely to cost much more. Public agencies proposing ocean desalination in other parts of the state are estimating up to \$3500 for that amount of water. That's without adding a private enterprise's profit. *Who should we trust?*

Poseidon Resources is betting that the cost of current water supplies will go up so dramatically that, at some point in the future, its water will be competitively priced. This business model is fundamentally flawed because it ignores a fundamental fact: ***The major factor in the cost of water is the electricity used to treat and deliver the water.***

Neither imported water nor desalinated seawater is immune from this cost driver.

If energy costs go up, the price of desalted water will go up proportionately to the imported water.

Locally, we have all the water we need now and for many years to come. Our local groundwater supplies and award-winning Groundwater Replenishment System (GWRS) are more than adequate. These supplies are far less energy intensive, plus we can economically expand our local GWRS system beyond what Poseidon can produce.

#### **Poseidon's desalinated water will never be competitive in Orange County.**

Further, Poseidon Resources' business model relies on large subsidies from the regional water wholesaler. *These subsidies, in turn, must be re-paid by us, the ratepayers, through our water bills.* Imported water is going up in cost, partially because we, the ratepayers, will be paying to subsidize Poseidon. Poseidon gets a rebate that isn't enough to make its water competitive with our current supply—and then says it is getting more competitive

because we paid for the subsidy. It's a "win-win" for Poseidon and a "lose-lose" for ratepayers. This flawed business plan looks like another "bailout" candidate just waiting to happen.

*Why would we choose an alternative that will drive up the cost of water when local sources can be expanded?*

#### **Poseidon's project will increase taxes and utility rates.**

Poseidon's proposed desalination plant in Carlsbad will require \$14 million in annual subsidies from taxpayers and/or ratepayers. The Huntington Beach plant could require as much as \$24 million in subsidies each year to be profitable. Poseidon's Huntington Beach project will also require a \$90 million pipeline to be paid for by taxpayers and/or ratepayers.

*In tough economic times, why must Orange County support a project that increases taxes and consumer costs?*

#### **Poseidon's project threatens marine life and our coast.**

Our beaches are polluted, coastal habitat has been destroyed, marine fish populations are in dramatic decline and climate

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## ***Poseidon's Business Model is All Wet!***

***(continued from Page 4)***

change is threatening California's ocean and coast.

Poseidon's desalination proposal is designed to use an antiquated, open-ocean intake pipe to suck in 300 million gallons of ocean water per day. This seawater intake system kills all the marine life in the water. Alternative intake methods have been proven to eliminate this unnecessary wholesale destruction of marine life. A couple of such alternatives are under construction in Dana Point and Long Beach.

Poseidon's desalination proposal is the most energy intensive water supply option available to us. Its operation will undermine our concerted efforts to reduce global warming and will exacerbate sea-level rise that threatens our groundwater supply. In short, it will cause greater problems to our current water supply than it will resolve.

Our water supply needs can be met with alternatives that restore and protect our coast and ocean. Conserving water by simple changes in our gardening practices will reduce demand by nearly 20% and eliminate 70% of the polluted runoff from our neighborhoods. Expanding our award-winning Groundwater

Replenishment System will conserve energy, eliminate harmful ocean discharges, and produce far more water than Poseidon's plant—at a fraction of the cost.

Finally, expanding the network of treatment wetlands on the Santa Ana River will restore precious habitat, remove pollutants that foul our beaches, and safely re-charge our groundwater supplies.

*Why should Huntington Beach choose a more expensive option that harms our coast and ocean when there are cheaper alternatives that restore and protect these precious natural resources?*

**We Can Create New Long-Term Green Jobs Instead of a Few Short-Term Ones.**

Poseidon has promised many jobs. However, once it's built, it will only provide jobs for a handful of employees. The short-term construction jobs building the desalination plant would be dwarfed by the number of jobs created by expanding the existing Groundwater Replenishment System facility and retrofitting the AES power plant with state of the art technology. These alternative "green" construction jobs are not necessary if Poseidon's plant is

built and co-located with the antiquated once-through cooling system at the power plant. Furthermore, we could create hundreds more manufacturing, service, and retail jobs by replacing our irrigation systems with state of the art technology. Additional jobs could be created by replacing our gardens with "water wise" landscaping and rebuilding our outdated flood control systems to renew wildlife habitat and re-charge our groundwater.

*Why should Orange County choose one short-term construction project when the alternative is a new "green economy" that provides many more long-term jobs in manufacturing, construction and service trades?*

**We are not opposed to ocean desalination, if it's done right—and responsibly. In fact, many of us have supported the desalination pilot projects in Dana Point and Long Beach for just that reason. But Poseidon hasn't offered a responsible plan for our community and we ask you to help us oppose this destructive proposal.**

**Join us in this fight.**

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### **NOTICE TO R4RD MEMBERSHIP**

R4RD membership dues (i.e. donations) for R4RD's upcoming fiscal year, July 1, 2009 through June 30, 2010, are requested. The battle for responsible use of seawater desalting technology in Huntington Beach is about to enter a new and critical phase. This phase will need your participation. It will require both manpower and monetary resources to counter the deep pockets of the multi-national corporate irresponsible desalination proponents. You can help by volunteering to attend very important hearings with the State Lands Commission and the Coastal Commission. Also, R4RD requires funds to retain legal services to further its formal appeals before these State Commissions. Your help with these matters will be very much appreciated and of great value to R4RD's cause. Your donations to R4RD are now tax-deductible. Remember to save your canceled checks as the receipt for your donations.

# DESALINATION: AN OCEAN OF PROBLEMS

BY FOOD & WATER WATCH © 2009 F&WW. ALL RIGHTS RESERVED.

(VIEW THE FULL REPORT AT [www.foodandwaterwatch.org](http://www.foodandwaterwatch.org))

## Executive Summary

As local, state and federal governments in the United States increasingly fear drought and water shortages, private corporations are marketing ocean desalination as the solution. They promise that reverse osmosis technology can turn the ocean into a reliable source of drinking water by removing the salt from seawater. While they offer their product for two to four times the cost of other water sources, they fail to advertise the toxic chemicals, marine life damage, carbon emissions and other social and environmental ills that come along with it.

Food & Water Watch investigated the current state of desalination technology and concluded that the large financial, social and environmental costs of ocean desalination technology far outweigh the small potential benefits — especially when compared to other alternatives. When evaluating desalination as a water supply option, policymakers should choose cheaper, safer options such as implementing conservation measures. These programs will not return a profit for private corporations, but they will preserve and protect our nation's freshwater and ocean resources for future generations.

This report, *Desalination: An Ocean of Problems*, shows why ocean desalination is a risky water supply option and how policymakers can better provide the public with safe, affordable water.

## Findings

### Alternatives abound.

When communities and policy-makers focus on ocean desalination, they are ignoring other, better options.

Smart water agencies are making great strides in adopting efficient water management practices such as conservation and reuse. Water efficiency programs are consistently less expensive and more effective than taking salt out of water, and without the associated risks. California, for example, could save a full third of its current water use, at a cost 85 percent lower than using new sources of water.

Further, our nation's water systems lose 6 billion gallons of water per day due to problems such as leaking pipes. Utilities cannot account for this water because many do not have the resources to implement comprehensive leak monitoring programs. Meanwhile, all of the desalination plants in the United States today operating at their full capacity could only produce a quarter of this unaccounted for water.

### Ocean desalination is expensive.

Most communities in the United States cannot afford desalinated seawater. Although the price tag varies by region, and the true price is often hidden by corporate underestimates and government subsidies, it is consistently more expensive than traditional options and much more

costly than conservation and redistribution programs — two to almost four times as costly. Moreover, the price of ocean desalination is unlikely to decrease in the near future. Implementing an expensive water supply would hike up prices, which would disproportionately burden the very citizens who can least afford higher bills.

### Ocean desalination will provide little benefit and has a poor track record.

The majority of existing desalination plants in the United States desalt brackish river or ground water, not ocean water, and usually for very small scale industrial purposes.

Even if all of the nation's small desalination plants operated at full capacity, they would create only enough water to supply 0.4 percent of the nation's current water use. Food & Water Watch calculated that if all the proposed plants in California functioned at their full capacity, the additional water would only be enough for everyone in California to take one extra three-minute shower a day. If all financial, environmental and social impacts were factored in, this three-minute shower likely would be the most expensive shower most citizens ever took.

Further, that assumes the plants would function. Many larger plants currently built for municipal drinking water purposes do not operate at their stated capacity, if they operate at all. In fact, the

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# DESALINATION: AN OCEAN OF PROBLEMS

(Continued from Page 6)

first and only large-scale ocean desalination plant operating for municipal use in the United States was fraught with failures and now produces less water at a cost that is 43 percent higher than the originally promised price—\$110 million.

## **Ocean desalination invites corporate control and abuse of our water supply.**

The push for ocean desalination is led by private corporations that plan to sell desalted ocean water to the public at a premium. This private ownership allows the people who control our vital resources to put their bottom line before public interest. Private companies do not conduct the same rigorous, public review of social and environmental impacts as government agencies and are not sensitive to the social and environmental injustice that the public sector must address.

## **Ocean desalination endangers the environment and public health.**

While numbers do a good job of illustrating the pure financial cost of desalination, they do not accurately reflect the full expense. Food & Water Watch found that additional costs borne by the public include damage to the environment, danger to the public health and other external considerations.

## **Ocean desalination could contribute to global warming.**

Ironically, while desalination is supposed to improve water shortages, its emissions could actually hasten the global warming

that will alter precipitation patterns and further strain existing water supplies. The greenhouse gas pollution from industrial seawater desalination plants dwarfs emissions from other water supply options such as conservation and reuse. Seawater desalination in California, for example, could consume nine times as much energy as surface water treatment and 14 times as much energy as groundwater production.

## **Ocean desalination threatens fisheries and marine environments.**

Further, on its way into a plant, the ocean water brings with it billions of fish and other organisms that die in the machinery. This results in millions of dollars of lost fishing revenue and a great loss of marine life.

Then, only a portion of the ocean water that enters the plant actually reaches the consumer.

The remaining water ends up as a highly concentrated solution that contains both the salt from the ocean and an array of chemicals from the industrial process — which is released right back into the ocean, toxins and all.

## **Ocean desalination poses a risk to human health.**

The portion of the water that reaches the customer contains unregulated chemicals not present in normal drinking water, which endanger the public health. These contaminants include chemicals such as endocrine disruptors, pharmaceuticals, personal care products, and toxins from marine algae.

## **Ocean desalination promotes social and environmental injustice.**

The price hikes due to expensive desalinated water disproportionately affect the very citizens who are least able to afford the higher water bills — the same citizens who are most likely to live near the plants and experience the noise and pollution from the technology.

## **Recommendations**

- Citizens should encourage state, local, and federal decision-makers to abandon ocean desalination as a supply option and should instead implement comprehensive conservation measures. If ocean desalination is the best option, the plants should be publicly owned.
- Federal and state governments should not be subsidizing this technology. As a “growth sector,” private companies have more than enough means to support their own research and development.
- New federal and state laws are needed to protect consumers, public health and coastal environments from ocean desalination.

*(Important note: The above is only an “Executive Summary” of the report. Readers are encouraged to view and / or download the report in full at [www.foodandwaterwatch.org](http://www.foodandwaterwatch.org).)*

I want to contribute to or join Residents 4 Responsible Desalination  
to help keep our beaches, air, and ocean clean.

Enclosed is my membership/donation.

Renewal       New Member

Name: \_\_\_\_\_

\$100 Benefactor

Address: \_\_\_\_\_

\$50 Honor Roll

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

\$20 Family

E-mail: \_\_\_\_\_

\$10 Student/Senior

R4RD is a charitable organization listed as a 501(c)(3) by the IRS,  
with Tax ID #20-3449139

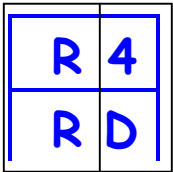
\$15 Individual

Make checks payable to: **Residents for Responsible Desalination**

**Mail to:** Residents for Responsible Desalination

PO Box 5422, Huntington Beach, CA 92615-5422

Website: [www.R4RD.org](http://www.R4RD.org)



## Residents for Responsible Desalination

*"Organized for charitable, scientific, and education purposes about desalination of seawater."*

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