

# POSEIDON RESOURCES CORPORATION DESALINATION UPDATE

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## Poseidon Working on Monterey Bay Desal Plant



PROPOSED LOCATION of the desalination facility at the former National Refractories site

In July, Poseidon and the Pajaro-Sunny Mesa Community Services District (District) announced an agreement to form a public-private partnership to permit, build and operate a seawater desalination plant that will serve customers in Monterey County, California and adjacent areas. The proposed Monterey Bay regional Desalination Project will

produce twenty (20) to twenty-five (25) million gallon per day of high-quality drinking water.

The Pajaro-Sunny Mesa District has signed a 99-year lease to construct a desalination project at the former National Refractories plant in Moss Landing. The desalination plant will service the cities of the Monterey Peninsula, the unincorporated area of the

County of Monterey, the areas of the Pajaro/Sunny Mesa Community District, and areas in the Pajaro Valley Water Management Agency.

“Poseidon Resources has extensive water infrastructure expertise, specifically in the area of desalination,” said Pajaro-Sunny Mesa General Manger Joe Rosa. “Poseidon’s partnership with the Pajaro-Sunny Mesa Community Services District is a natural fit. Poseidon’s technical and financial resources will help the District solve the Monterey region’s chronic water shortage issues,” concluded Rosa.

Under the agreement, Poseidon would assume all risks associated with the financing, development and construction of the plant. The District will own and manage the plant and all drinking water will be appropriated for public use by the District. The partnership includes a contractual agreement that the price of water shall range from \$1,100 to \$1,200 per acre-foot (2005 dollars). ■





## Desalination Project Praised by California Secretary of Resources



***“This administration very early on put a stake in the ground regarding desalination,” California Secretary for Resources Michael Chrisman reminded an invitation-only audience at the site of the pilot desalination plant on July 14.***

The head of the state Resources Agency addressed a group that included Carlsbad Mayor Claude A. “Bud” Lewis, Councilmembers Ann Kulchin and Matt Hall and ... on the grounds of the Encina Power Station. Guests were treated to ice-cold samples of the high quality desalinated water produced by Poseidon demonstration facility, a welcome treat on a hot and humid day, and were able to tour the pilot plant after the presentation.

After an introduction by Poseidon Resources Corporation President Walter J. Winrow that emphasized Chrisman's diverse experience in both the private and public sectors — ranging from Southern California Edison to the California Department of Food and

Agriculture to the Assembly Republican Caucus — the Secretary went right to the heart of the matter.

Chrisman was referring to Governor Arnold Schwarzenegger's stated position that, considering statewide water needs, it is clear that Southern California must take advantage of seawater desalination technology in the near future.

*(continues)*

## Desal Incentive *Approved*

**THIS PAST JULY**, the board of directors of Metropolitan Water District (MWD) approved a long-awaited financial incentive that will reduce the cost of drinking water used by the City of Carlsbad and other purchasers of water from the Carlsbad desalination plant.

The financial incentive is an important component of the Water Purchase Agreement reached by Poseidon and the City of Carlsbad in September 2004. The agreement calls for Poseidon to provide the city with its entire daily water requirement at a cost never to exceed what the city would otherwise pay the County Water Authority for imported water. The realization of the MWD incentive makes this agreement possible.

Poseidon's Carlsbad plant was one of five specific projects that will receive a \$250 per acre-foot subsidy. The plant is designed to produce 56,000 acre-feet per year and will be eligible to receive up to \$340 million (\$250/af for 56,000 af, for 25 years).

The cost of imported water is rising rapidly, making desalination an attractive long-term alternative. The cost to desalinate and distribute ocean water from Poseidon's plant is estimated at \$900 to \$1,000 per acre-foot. The MWD incentive will reduce the cost to \$650 to \$750, and will be available to the purchasers of water for twenty-five years.

In 2002, MWD approved the Seawater Desalination Program because it believes desalinated seawater will help reduce Southern California's demand on the Colorado River and other important water sources. ■

# Pipeline Corrosion Study Underway at the Desal Pilot Plant

Now that the technology is cost-effective, it is an imperative.

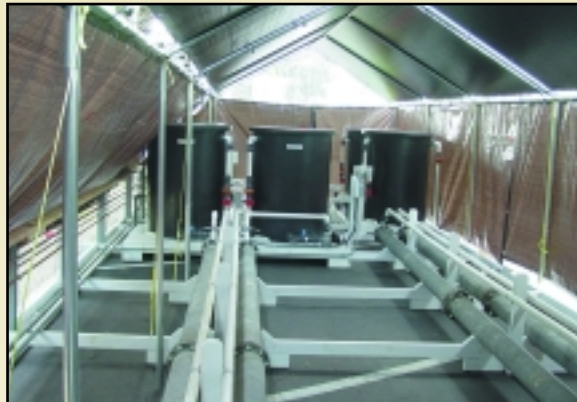
“Taking a statewide perspective and looking at growth projections, it is clear that the demands on our natural resources will be great,” Chrisman continued. One highly desirable solution — projects like this one, especially since the Carlsbad Desalination Project also has the added value of using private capital to address critically needed public infrastructure needs.

“There is great potential for desalination along the coast,” he added, while surfers rode the waves just across the street from the site.

“When you consider that we consume a considerable amount of electrical power to pump water, the benefits become even clearer. And, as we learn how to do this, we will have the full menu of options for meeting water needs available to us,” he said.

“We need to fast-track these projects,” Chrisman continued. “This administration supports you, and we are there to help and support in any way we can.”

He concluded by complimenting the vision shown by the City of Carlsbad in initiating the project, and again emphasized that partnering with the private sector to make it happen was the way to go. ■



**City Water Mains and Residential Plumbing**

At the International Desalination Association's (IDA) World Congress in Singapore, Voutchkov was awarded "Best Overall Paper" — beating out over 200 competing project reports from world-renowned experts. The award was bestowed on the project report that represented the best technical expertise in the utilization of desalination technology.

The IDA award provides additional acknowledgment of the significance of the research being conducted by Poseidon and the growing worldwide interest in the Carlsbad Desalination Project.

Poseidon Resources has initiated a pipeline corrosion study as part of their pilot plant testing program at the Encina Power Station. The corrosion study is being conducted to confirm that adding desalinated water to the city's existing water pipeline and plumbing systems will not result in excessive corrosion of public or private plumbing systems.

As part of the study, the desalinated water is being run through an on-site replica of the city's cement pipes and cast iron valves as well as copper and PCP pipes that are found in residences and businesses. The test includes a side-by-side comparison with the imported water that flows through the city's system today. The key water quality parameters related to distribution system corrosion are pH levels, alkalinity, hardness, total dissolved solids, various metals and temperature.

When Poseidon's full-scale 50 MGD desalination plant is operational, the potable water produced at the seawater desalination plant will be distributed through the existing water distribution system and blended with other existing water sources.

The corrosion study is anticipated to be completed later this fall. ■

The sincerest form of flattery often comes from your peers. Last week, Poseidon Resources' lead engineer, Nikolay Voutchkov, was recognized by the desalination industry for his work overseeing the desalination pilot plant studies that Poseidon has been conducting in Carlsbad for the past three years.



**Cast Iron Valves**



## City of Carlsbad Closer to Certifying Desalination Project EIR

The City of Carlsbad has completed the public review of the Draft Environmental Impact Report (EIR) for the Carlsbad desalination plant and is expected to issue a final EIR later this fall. The publication of the EIR marks an important milestone for the environmental review of the project.

Over the course of the last four years, sufficient information has been developed to conclude that the proposed project could be constructed and operated in an environmentally responsible

manner. For both the construction and on-going operation of the plant, the EIR does not identify any significant, unavoidable impacts related to thirteen different areas studied including noise, traffic, growth-inducement, air and water quality, land use, public utilities and natural resources. The EIR was independently prepared by consulting

firm Dudek & Associates, Inc. for the City of Carlsbad.

The City of Carlsbad, Dudek & Associates and Poseidon Resources are busy responding to the 59 letters that they received from State, Regional and local agencies and individuals commenting on the project. After they have responded to all comments the Carlsbad Planning Commission and the City Council will hold public hearings on the final EIR. ■

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**POSEIDON  
RESOURCES  
CORPORATION**  
501 West Broadway  
Suite 840  
San Diego, 92101