

# POSEIDON RESOURCES CORPORATION DESALINATION UPDATE

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## Carlsbad Desalination Project EIR

**Certified**

This past June, City of Carlsbad moved the San Diego region one step closer to achieving water reliability by voting unanimously to certify the Environmental Impact Report (EIR) and approve the local land use permits for the Carlsbad desalination plant.

The desalination project's environmental review process commenced in May 2004 and has benefited from significant public input and involvement, and the final environmental document certified by the City of Carlsbad incorporated very thorough responses to hundreds of comments raised by the public.

"The residents of Carlsbad and the entire region have been well served by the environmental review conducted by the City of Carlsbad," said Peter MacLaggan, Senior Vice President for Poseidon Resources. "Developing an environmentally responsible solution to the region's water needs is a key component to achieving water reliability."

By approving the development plan and certifying the EIR, the

City Council concluded the project

could be constructed and operated in an environmentally responsible manner and did not identify any significant, unavoidable impacts related to the construction and operation of the plant.

For the past 8 years, Poseidon has been working with the City in a public-private partnership to construct a 50-million-gallon-per-day (MGD) plant at the site of the Encina Power Station, which would allow Carlsbad to produce a drought-proof supply of high quality water to address the needs of local residents, businesses and farmers.

Once operational, the Carlsbad desalination plant will provide enough drinking water to serve 300,000 residents annually at a guaranteed price, at no financial risk to taxpayers. The plant is scheduled to be completed and producing potable water by 2009. Special thanks to the numerous community and business leaders, environmental organizations, elected officials, and labor representatives that expressed support for the project. ■

## Desalination – Hedge Against Drought Cutbacks

Since the drought of 1991, and the 30% water shortages that occurred that year, water agencies have moved aggressively to put in place drought management plans designed to diversify and improve the quantity of water supplies. As required by state law, each agency maintains plans for up to a 50% shortage of water supply, and the San Diego County Water Authority (CWA) has developed a sophisticated allocation plan to deal with future shortages.

Earlier this year, CWA adopted a Drought Management Plan that provided policy direction and an allocation formula in the case of drought. The plan provides specific incentives for water agencies to develop local supplies. Water agencies that have access to desalinated water and other local supplies are given additional relief from drought related cutbacks in imported water.

In the case of Carlsbad, the City's water district will receive 100% of its daily water requirements from the local desalination plant, meaning it will be 100% drought proof. Valley Center and Rincon Del Diablo





# Carlsbad Seawater Desalination Plant Sets Low Energy Use Record

In early 2006 the Carlsbad Pilot plant entered a new phase of testing with the installation of a state-of-the-art seawater desalination system equipped with the latest energy saving technology. The new reverse osmosis system combines two key features that substantially reduce energy use. The first key ingredient is the latest seawater desalination membrane produced by FilmTech (Dow Chemicals). This membrane

produces more water per square foot of membrane filtration surface using 5 % less power than the “standard” last generation membranes available on the market.



FilmTech RO Unit in Carlsbad



## New State-of-the-Art Pilot Desalination System Equipped with Low-Energy Membranes

Another key feature of the new seawater desalination unit is the new high-efficiency energy recovery device called pressure exchanger (see photo above).

## Carlsbad Welcomes International Visitors to the Desal Pilot Plant

In July Poseidon welcomed a team of civil engineering graduate students from the German Federal Armed Forces University in Munich. These students were in California, Arizona and Utah for three weeks visiting water infrastructure and hydraulic engineering projects. Some of the projects they visited other than the desal pilot in Carlsbad were the Yuma Water Treatment Plant, Hoover Dam and the Sacramento/San Joaquin Bay Delta System. ■



German engineering students visit the Carlsbad desalination pilot plant.

## Desalination – Hedge Against Drought Cutbacks

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Water Districts, have also purchased desalinated water from Poseidon, as a hedge against future drought cutbacks.

Through the water purchase agreements, Valley Center and Rincon Del Diablo would be immune from imported water cutbacks until the shortage exceeded 50% and 20% respectively. The desalinated water purchase agreements mean that a repeat of the 1989-92 droughts would require only a 11% water supply cutback for the district's customers rather than the catastrophic 30% cutbacks Rincon's customers experienced in 1990-91 and no cutbacks for Valley Center.

The availability of desalinated water will have a dramatic effect on insulating Valley Center and Rincon from shortages of imported supplies. Reducing water shortages means future cutbacks in imported water can be more easily managed through voluntary conservation. ■

## Lawsuit Dropped – Challenge to the Carlsbad Desalination Plant's Environment Impact Report Withdrawn

POSEIDON RESOURCES CORPORATION today announced that opponents of sea water desalination have abandoned their latest attempt to delay development of the Carlsbad desalination plant.

On July 19th, Coast Law Group LLP filed a lawsuit, on behalf of their clients Southern California Coastal Alliance and Desal Response Group, challenging the City of Carlsbad's June 14th certification of the project's Environmental Impact Report (EIR). In the lawsuit, Poseidon Resources Corporation and Cabrillo Power LLC were named Real Parties in Interest. The EIR was independently prepared by consulting firm Dudek & Associates, Inc. for the City. The lawsuit was filed after the 30-day statute of limitations expired, in violation of the California Public Resources Code.

"The decision to withdraw the legal challenge to the City of Carlsbad's Environmental Impact Report was the prudent course of action," said Peter MacLaggan Senior Vice President for Poseidon Resources. "The public review period of the environmental process extended over a 396-day period, almost an entire year longer than required under California environmental law. Given the project's exhaustive environmental review, I am confident that the courts would have found the lawsuit to be a less than responsible attempt to delay an environmentally sound project," he said.

"The City of Carlsbad's EIR is the most thorough and far-reaching I've ever seen," continued MacLaggan. "In fact, the City studied the environmental effects of the desalination plant under the unforeseen scenario that the Encina Power Station was to cease operation. This level of due diligence goes above and beyond the requirements under California environmental law," he said. ■

## RWQCB Considers Discharge Permit

The state's **Regional Water Quality Control Board (RWQCB)** is scheduled to consider the Carlsbad desalination plant's ocean water discharge permit — a key permit needed to operate the desalination plant — at its next regularly scheduled hearing August 16th.

The RWQCB held an informational hearing the day after the June 13th Carlsbad City Council's certification of the EIR and agreed to postpone issuing the permit until the public had the opportunity to review additional regulatory permitting requirements Poseidon had voluntarily offered to ensure the project will operate in an

environmentally safe manner.

Poseidon Resources is committed to building and operating an environmentally responsible project. Offering additional monitoring and regulatory requirements is part of our commitment to ensure adequate protection of the marine environment. ■



## CWA Backing Local Partnership

**T**he San Diego County Water Authority (CWA) has thrown its support for desalination behind Carlsbad, Valley Center and Rincon Del Diablo Municipal Water Districts and their private-sector partner, Poseidon Resources. On July 27th, the CWA Board voted to discontinue efforts to develop its own desalination plant in Carlsbad. CWA's decision ends any uncertainty regarding the ownership and operation of the Carlsbad desalination facility.

In taking its action, the CWA board approved three separate

motions including declining to certify the environmental impact report for the project it was advancing at the same location, terminating negotiations, and encouraging Poseidon and Carlsbad to continue its efforts to build the 50 MGD plant. The last

action means full support of Poseidon and the City of Carlsbad's efforts to develop a 50 million gallon per day seawater desalination project to reduce the amount of imported water San Diego County currently depends upon. ■

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