



LIEUTENANT GOVERNOR JOHN GARAMENDI

July 15, 2009 - *Corrected Version*

James M. Donnell
Chairman and CEO
Poseidon Resources Corporation
1055 Washington Blvd.
Stamford, Connecticut 06901

Dear Mr. Donnell:

I am writing to express my concerns about the potential impacts from desalination facilities in California and to ask Poseidon to take the lead in advancing this technology to prevent the current adverse environmental impacts.

Currently, medium to large desalination facilities operate by drawing in large volumes of ocean water, creating freshwater using reverse osmosis, and discharging the remnant brine into the ocean. This process kills sea life at the beginning through entrainment and impingement and at the end with the high salt content discharge.

Desalination technology is contrary to state and national efforts to eliminate the impacts of once through cooling (OTC) at ocean front power plants. Cumulatively, California power plants are authorized to use up to 19 billion gallons of ocean water daily for cooling. The adverse impact to marine life which is caught up in the intakes is well documented. The U.S. Environmental Protection Agency and the California State Water Resources Control Board are working on new regulations to reduce and eventually eliminate OTC and its impacts. The State Lands Commission voiced its own concern in adopting a resolution regarding OTC on April 17, 2006.

Desalination facilities have the same impacts as the power plants that use OTC. For example, Poseidon's Carlsbad desalination facility will take in 304 million gallons daily, approximately one-third of the volume historically taken by the power plant located at the same site. It is ironic, and a result to be avoided, that the Carlsbad facility will be drawing in this much water at the same time as the nearby power plant has been repowered with a technology that eliminates OTC. With plans being formulated for approximately 20 new desalination plants in California and the potential for more, it makes no sense for them to use a technology that will replicate the OTC impacts we've been working to eliminate.

Further, desalination requires much more electricity than traditional sources of water. By some estimates, creation of fresh water from the proposed Carlsbad desalination facility requires at least a third more electricity than is needed to transport the equivalent amount of water from current sources, such as the Colorado River. In an era when California is trying to reduce greenhouse gas emissions and electricity is still primarily produced by burning carbon dioxide generating fossil fuels, using more power to generate a water supply is the wrong approach.

There are alternatives to open ocean intakes. Sub-ocean floor intakes and beach infiltration galleries are examples of intakes that do not cause impingement and entrainment impacts. But switching intakes will not reduce the power used for desalination. What would ameliorate both of these issues would be to move to using reverse osmosis on wastewater. There are no adverse environmental impacts to plant and animal life from using this as a water source. Further, reverse osmosis uses much less electricity when wastewater, rather than seawater, is processed because of the reduced salts in wastewater. I am aware that there are various technological and legal constraints to using wastewater to increase California's water supply. However, the Groundwater Replenishment System in Orange County, which treats wastewater with reverse osmosis, puts it into the groundwater and then pumps it for municipal water use, demonstrates that it can be done.

I supported the Carlsbad desalination project because of my concern over California's water problems. But I believe that methods to increase water supply should not undercut California's attempts to deal with other significant and critical environmental problems. Out of concern over the potential cumulative impacts from widespread use of current desalination technology, I will oppose new desalination plants that use ocean water until all options for treating wastewater are explored and found to be unsatisfactory.

Sincerely,



JOHN GARZA MENDI
Lieutenant Governor

cc: Tom Sheehy, Chief Deputy Director, Department of Finance
Cindy Aronberg, Deputy State Controller, State Controller's Office
Assembly Member Mike Duval