

# State mulls desal rules

Santa Cruz water director believes local proposal safe from major changes

*Desalination*

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**SACRAMENTO** — Water resource managers and desalination industry representatives Wednesday urged a state panel drafting changes to an ocean management plan to consider a policy that allows for evaluating seawater projects on a case-by-case basis.

As the number of proposed desalination plants has increased in recent years, the state Water Resources Control Board is updating its Water Quality Control Plan to include recommendations that could influence projects near construction, like a 50 million-gallon-per-day facility in Carlsbad, as well as those still in the planning stages. Santa Cruz and neighboring Sequel Creek Water District are awaiting an environmental analysis due in late fall on a plant that could generate 2.5 million gallons per day.



**KOCHER**

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"It's pretty clear to me that, even under the most stringent standards they are proposing, we can meet them because our plant is so small," said Santa Cruz's water director, Bill Kocher, who attended the meeting but did not address the board. "We are not dealing with a lot in quantities of product and brine disposal."

Water agencies throughout the Central Coast and Southern California are turning to desalination to decrease groundwater overdrafting, reduce reliance on state water sources and improve fish habitat in rivers and streams. But projects face persistent concerns from regulators about environmental effects, high energy use and costs.

## DESAL

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### NEW RULES

The new state guidelines will address how agencies should handle impacts on marine life and habitat during the seawater intake processes, as well as the disposal of salt removed through a high-pressure reverse osmosis process.

Mike Foster, a professor emeritus of Moss Landing Marine Laboratories who chaired a panel that studied intake impacts for the state water board, said subsurface wells threaten marine life far less than open ocean intakes, even those featuring new screening technology like what Santa Cruz has proposed. He said there isn't enough study of how effective the screens would be on the West Coast, and his panel supports mitigation fees to offset killing fish and other marine life.

"We assume 100 percent mortality," he said of intake systems that could trap fish or push them into the water treatment system. "The question is how do you mitigate for that?"

Scientists also studied how kelp, abalone and other marine life respond to heightened levels of salinity, with some organisms faring better than others. Santa Cruz and other proposed desalination planners have proposed diluting brine to within 5 percent of levels seen within 100 meters of the discharge area.

"We would be less than that," Kocher said of the Santa Cruz plant.

But scientists remain concerned about long-term impacts of salt buildup on the sea floor. The state could release its guidelines before such studies are done.

"We have people who want to build these plants and we want to make sure we address the environmental responsibility," said board chairman Charles R. Hoppin. "I don't think we will have the luxury of knowing every possible cause and effect that will come into play."

The water agency's staff anticipates new recommendations in early 2014.

If the Santa Cruz City Council has approved the

plant by 2014, it will go to a vote of the people in June or November that year and face a host of regulators for permitting.

### ENVIRONMENTAL CONCERNS

Environmental groups repeated pleas for desalination to be a last resort once conservation, wastewater recycling and other potential solutions have been optimized and greenhouse gas emissions and habitat protection considered. For Santa Cruz, Kocher insists what alternatives aren't already in place are infeasible or incapable of producing enough water to stave off drought or restore freshwater habitat and groundwater basins.

Surfirider representative Joe Geever urged a close examination of desal costs compared to recycling wastewater, a process that municipal water managers say has been hampered by state safety regulations. Santa Cruz and other desalination planners would dilute brine with wastewater discharge headed for the ocean.

"It's an investment allocation," Geever said. "Do we spend the money available for capital projects and public acceptance of rate increases for desalination, or are we spending ourselves out of the possible study of recycling wastewater?"

But desal proponents rejected what they called a "one-size-fits-all policy," including a preference for subsurface intakes over open-ocean receptors. They asked the board to consider diverse conditions along the coast, and let regional officials determine how to meet the agency's standards without mandates on intake and discharge systems.

"We believe intake technologies should be based on sound science and specific conditions," said Paul Shoenberger, general manager of the Mesa Consolidated Water District, a member of the CalDesal advocacy group. "Not all intake technology will be technically feasible or cost-effective for any given site."

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