

# Experiment to Extract Drinking Water from the Ocean Begins

Desalination Plant

## New Desal Plant Goes Online in Santa Cruz

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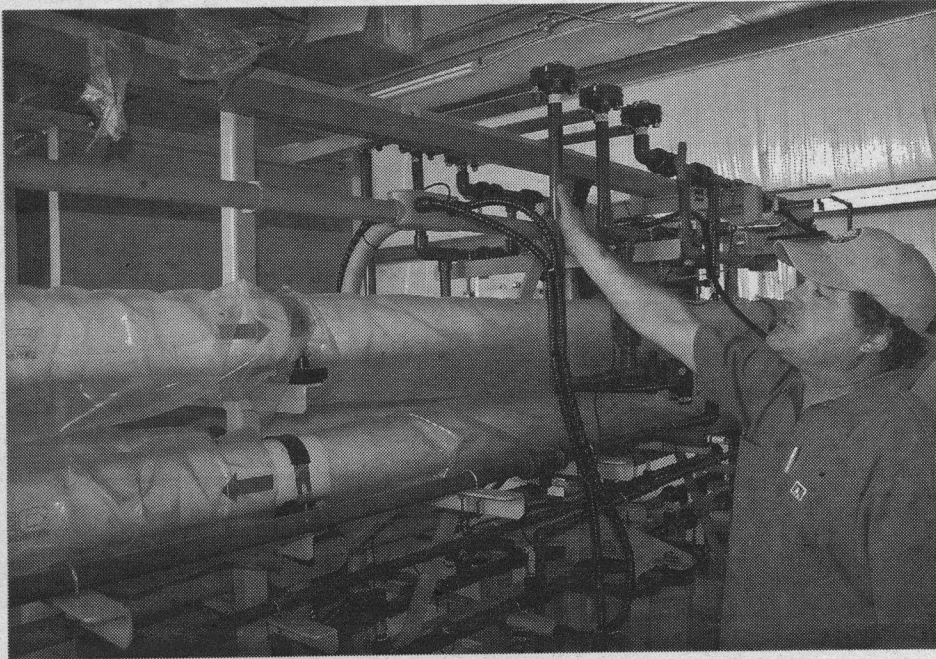
Over the next few weeks, technicians at a newly constructed plant at Long Marine Lab will begin pumping water out of the ocean and forcing it through a series of membranes to produce potable drinking water.

The pilot desalination plant is the first of its kind in Santa Cruz County and officials hope it will prove the viability of a much larger plant that could someday help relieve the strain on our local surface water and groundwater supplies.

But first, officials had to be sure the plant wouldn't harm the dolphins next door, and additional site improvements and watershed monitoring also boosted the cost of the project. The final tab for the project, which was estimated at \$4 million, increased by \$624,000.

Officials from Soquel Creek Water and Santa Cruz City Water say that contingency funds will cover the cost increases. The two agencies teamed up

to design and build a major desalination plant that will supplement Santa Cruz's surface water during drought years and be used to recharge threatened underground aquifers in the Soquel area during wet years, when Santa Cruz doesn't need extra supplies.



In the last of numerous steps, seawater is forced through long filters that remove salt.

The Walnut Creek firm Camp, Dresser and McKee built the facility and will operate it under a contract that originally amounted to \$3.3 million.

"We knew it was going to have to be flexible and there were going to be unanticipated costs," explained Soquel Creek district manager Laura Brown.

State grant funds from Proposition 50 provided nearly \$2 million for the project. Soquel Creek and Santa Cruz Water planned to split the remaining costs. Brown said that Soquel Creek's board set aside \$1.59 million this year to cover their share, so the cost overrun is still within their means.

### Project Slightly Behind Schedule

In fact, the year is halfway over and Soquel Creek still hasn't written any checks. "We had anticipated the project being much further along than it is," Brown explained.

The project received Coastal Com-

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mission approval in November of last year, and officials expected the plant to be online by May of 2007.

"We didn't have a coastal development permit and we didn't have a site plan," explained Santa Cruz Water director Bill Kocher. "We knew that part of the deal was ill defined."

The pilot desalination plant is on UCSC's Long Marine Lab property, adjacent to the large whale skeleton at Seymour Marine Discovery Center.

In the course of final site planning, UCSC asked for additional pavement improvements around the facility, electrical upgrades and a fire alarm. They also asked for some plumbing changes that increased the cost.

"We are right beside their dolphin tank so it was very important that the plumbing involved didn't interfere with the operation of their laboratory," Kocher explained.

The treated water won't be consumed, unless lab techs get curious about how it tastes. It will be recombined with the salt and marine minerals and returned to the ocean.

### Project Looks to Eventually Produce 2.5 Million Gallons per Day

The pilot plant can produce 7,200 gallons per day, and the goal is to build a larger plant that could churn out 2.5 million gallons per day.

On top of the additional site improvements, the Department of Public Health asked that a \$337,000 study of runoff be conducted to assess problems with the water the plant will take in.

"You are anticipating, if there was a major storm event ... what kind of contaminants might be coming into the system," Brown explained.

She said the watershed sanitary survey was already planned as part of another stage of the project, so the expense is no surprise.

"They wanted it tied to the pilot plant because they believe that [the quality of] the source water is one of the things that the piloting is all about," Kocher said.

Although the project is nearly a year behind, Kocher looks forward to seeing the first drops of drinkable ocean water.

"It should be producing desalted seawater by early January," he said. ■