

Santa Cruz Water Director Bill Kocher tours the pilot desalination plant at Long Marine Lab on Thursday.

Bill Lovejoy/
Sentinel

Switch turned on at desal plant

Desalination 3-21-08
Santa Cruz pilot facility to run for at least a year at Long Marine Lab

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SANTA CRUZ — The first step down the long road to securing the area's future water supply was taken Thursday as a temporary test desalination plant on the Westside was switched on.

The \$4 million pilot plant, to run for at least a year at the Seymour Center's Long Marine Lab, is expected to set the stage for a permanent desalination facility in Santa Cruz around 2015.

"The major goal of this project for Santa Cruz is to deal with our problem of not having enough water in drought conditions," Councilman Mike Rotkin said during the plant's grand opening. "This is our best hope."

The desalination project is a team effort by the city Water Department and Soquel Creek Water District, the two water agencies that provide the

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BRUCE DANIELS,
SOQUEL CREEK
WATER
DISTRICT

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bulk of drinking water to homes and businesses from Davenport to Aptos.

Soquel Creek is plagued with overused wells threatened by saltwater intrusion, while Santa Cruz, which relies on surface water, is caught in a bind during the dry periods that have occurred every six or seven years.

Customers are already diligent about limiting their water use on a daily basis, making it difficult for the agencies to save more water through further conservation, officials said.

Both agencies believe turning ocean water into drinking water through energy-intensive reverse osmosis will solve their shortage problems.

"We use more out of the ground than the amount of rainfall each year," Bruce Daniels of the Soquel Creek Water District said. "The imperative is clear. If we don't do this, we'll have a disaster."

However, a series of extensive tests are required by the state Health Department before a permanent desalination plant can be considered.

Every desalination plant in the state is required to perform tests because of the unique

characteristics of the ocean in each area.

A \$2 million grant from the state Department of Water Resources helped pay for the pilot plant. The other half was shared between the two water agencies.

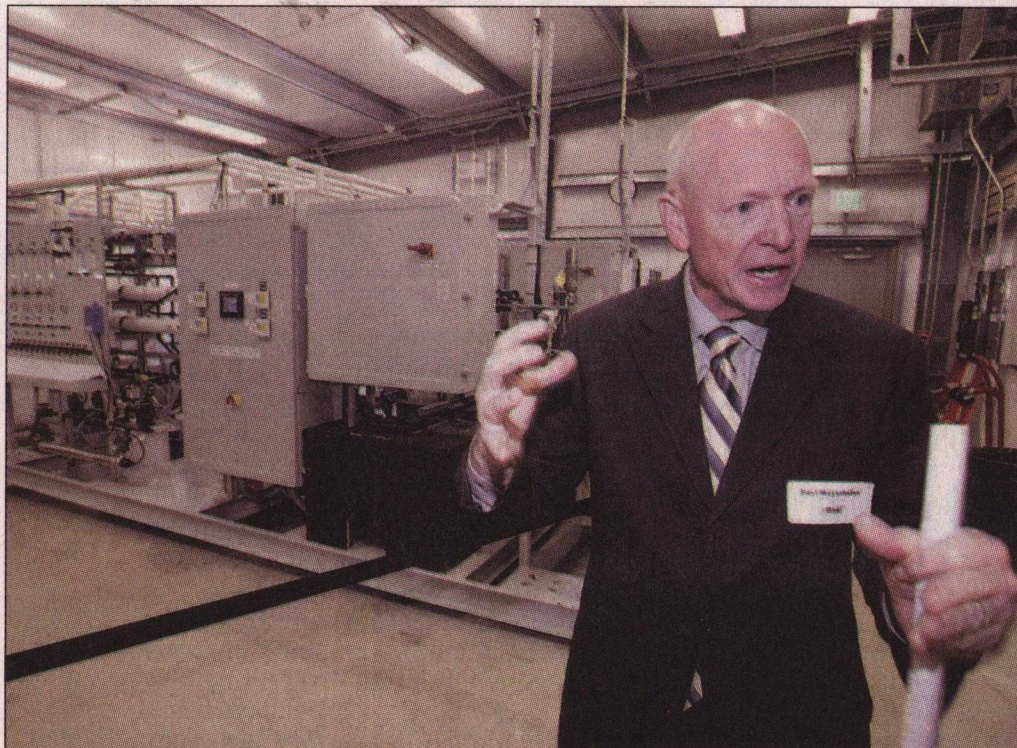
Paul Meyerhofer of the Walnut Creek engineering firm Camp, Dresser and McKee Thursday led a tour of the pilot plant, which will pump about 72,000 gallons of fresh water each day. The water, not for consumption, will be pumped back into the ocean.

Meyerhofer explained the various filters and membranes used to desalinate the water, describing how seashells and other floating debris will be taken out.

"We're trying to determine if desalination is a feasible technology for Santa Cruz," he said. "We want to do this with the lowest energy usage, lowest cost and least environmental impact."

The proposed permanent desalination facility, with a price tag of at least \$40 million, would have the capacity to produce 2.5 million gallons a day. The Soquel district would use about 1 million a day.

While use of the desalination plant would be restricted to only drought times in Santa Cruz, the city also faces an



Bill Lovejoy/Sentinel

Engineer Paul Meyerhofer explains the reverse osmosis process taking place in the apparatus in the background Thursday during a tour of the desalination plant at Long Marine Lab.

abrupt end to its ability to supply water to new customers by 2015 in normal rainfall years.

With normal rainfall and incremental growth in the next seven years, Santa Cruz faces an annual shortage of 31 million gallons unless a new source

is tapped, Water Director Bill Kocher said.

Expanding the desalination plant to accommodate future growth and demand would be a possibility, though not something anyone is talking about today.

"I don't want to link this desalination plant with growth," Kocher said. "But there's going to be a day we could say to people, 'No new connections'."

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