

Desal deemed a success



Eli Weintraub measures out dye to test filters at the soon-to-be-closed desalination plant.

BILL LOVEJOY/SENTINEL

Santa Cruz, Soquel Creek water districts finish test run, look toward full-scale plant

By GENEVIEVE BOOKWALTER

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SANTA CRUZ—On Wednesday, water will stop flowing through various tubes and membranes at the Long Marine Lab desalination plant. Then tanks will be taken apart, pipes dismantled and the building the plant stands in will be torn down.

Time is up for the yearlong pilot project commissioned by the Santa Cruz and Soquel Creek water districts to learn if desalination is an option for the water-starved agencies. And while final reports are still weeks away, Santa Cruz water chief Bill Kocher deemed the experiment a resounding success.

So much so, Kocher said, that the quality of desalinated water provided by the small treatment plant justifies moving toward a larger, permanent plant that, at its peak, could churn out 2.5 million gallons of fresh water per day.

"It worked like a charm," Kocher said. "Nothing came at us that was even a challenge."

Over the past year, the \$4 million pilot desalination plant has transformed ocean water to water fresh enough for an office cooler at a rate of 72,000 gallons per day. The plant used reverse osmosis, "slow sand" and other techniques in an attempt to find the right filter for the job. Reverse osmosis



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Marty Demare gets a look at the workings of the pilot desalination plant Friday during a tour. The plant's testing has run its course.

SEE DESAL ON A2

DESAL

Continued from A1

pushed the water through sets of membranes to separate salt from liquid. The "slow sand" technique filtered ocean water by letting it sink slowly through small silos of sand, which caught and held the salt.

The project is a partnership between the two water districts as both search for ways to replenish their water supplies. Santa Cruz needs the water during drought years, as a winter of little rain quickly can drain

the rivers and reservoirs the district depends on. Soquel Creek wants the water in other years to help recharge its overdrawn wells, which now are threatened with seawater intrusion.

The pilot desalination plant was required by the state before a permanent plant can be considered. The tests are required by any community considering desalination, as ocean characteristics differ up and down the coast. The plant was paid for with a \$2 million grant from the state Department of Water Resources, and \$1 million from each of the water dis-

tricts involved.

However, Kocher said, the upcoming studies and potential political fight could be tougher than making sure desalination actually works. He expects to spend the next three years examining the energy efficiency, environmental safety and other aspects of a full-scale plant. In addition, some in the community question if the plant could help fuel Santa Cruz growth, which Kocher insists will not be the case as Soquel Creek needs the water when Santa Cruz doesn't.

"People can't think that," Kocher said. If the belief that a desalination plant will spur

growth takes hold, he fears, public sentiment could "kill it. And it's too important to have that happen."

Santa Cruz Mayor Cynthia Mathews said she is optimistic that the project will move forward.

The pilot "was a terrific opportunity and it gave us the kind of direction that we need to choose a path and proceed," Mathews said.

Construction of a permanent plant could begin in 2012 and last three years. The cost has not been estimated, Kocher said, as upcoming studies will narrow down the details of what must be done.