



Bill Lovejoy/Sentinel

Joe Correa, systems manager for the Marina Water District, says the system uses reverse osmosis filters to remove salt and other sediments in sea water.

# Desalination plant urged

## Consultant says Santa Cruz could solve its water woes with sea water

*Desalination*  
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SANTA CRUZ — A desalination plant that would turn sea water into drinking water is the best way for the city of Santa Cruz to meet its current and future water needs, according to a consultant's report.

But, if the project moves forward, the city might not have to bear the cost on its own. City water officials envision working with agencies such as the Scotts Val-

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— **Bill Kocher, Santa Cruz Water Department director**

ley and Soquel Creek water districts to build a regional plant that would help each area with water shortages.

The report by Carollo Engineers of Oakland concludes a desalination plant

is the most viable option. Other alternatives studied include a reservoir at Olympia Quarry near Felton and groundwater near the San Lorenzo River. The report is scheduled to be presented to

the City Council Dec. 14.

"It's the only alternative that could by itself take care of our shortfall," said Bill Kocher, director of the Santa Cruz Water Department, which supplies about 90,000 customers in Santa Cruz, parts of Capitola, and unincorporated areas including Live Oak and Pasatiempo.

"The conclusion of the report says forget groundwater, brackish supply,

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recharge and everything else," Kocher said.

The report also recommends the city recycle more wastewater for irrigation and other non-drinking uses.

A desalination plant might solve the supply problems customers would face in a drought, but Kocher said the city must remain committed to conservation and rationing. He expects all three solutions will get consideration by the council, but maintains a new supply, like a desalination plant, must be the largest piece of the puzzle.

There are several debatable issues that the report gives rise to. Among them are the level of participation by the other water agencies, whether a plant's size should be minimized so

temwide over the next 50 years will increase demand by almost 1 billion gallons annually. The system typically provides 4.4 billion gallons per year.

The bigger fear, according to city officials, is drought. In the event of a dry year — or two, like in 1976-77 — the Santa Cruz system would be an estimated 1.4 billion gallons short of meeting customer needs. That means homes and businesses would need to cut water use by 48 percent the second year of a drought, water officials say.

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### The city relies on surface water for its supply, including storage in Loch Lomond reservoir in the Santa Cruz Mountains.

Neighboring water agencies also worry about water shortages.

The desalination of sea water or brackish groundwater is used in many communities in the state, including Pacifica, Santa Barbara, Cambria and Marina.

The Marina district's desalination plant produces about 300,000 gallons of drinking water a day and is only a supplementary source. The plant is

near Marina State Beach.

The Carollo report suggests that during a two-year drought, the Santa Cruz Water Department would need to produce 9 to 14 million gallons of water a day because it lacks the ability to store large volumes of water for more than one year.

Kocher estimates a desalination plant would be able to produce at least 8 million gallons a day.

Other issues involved in a desalination plant include:

- Installing intake and discharge pipes in the bay, part of the Monterey Bay National Marine Sanctuary.
- Disposing of brine, the end result of desalination, into the ocean, where it could impact marine life.
- The need for extensive permits and approvals from local, state and federal agencies.

Other supply options, like tapping groundwater, were not recommended by Carollo because there is no guarantee enough water would be available. A reservoir at Olympia Quarry, as has been proposed, does not seem to have the council's support because of potential environmental impacts.

City water officials have moved steadily pace over the past year to develop a plan to boost the city's water supply. The Carollo report could narrow the scope of the investigation but there also has been talk that stricting growth could solve water shortage concerns.

The council has not stated support for a development moratorium, it's in their sights as an option that must at least be discussed.

"How will the growth issue play out? I don't know," Kocher said. "I know that's an important issue in the city. If we do a regional plant, we have to see how important that is and what affect that has on such a job operation."