

# Ocean may go into faucets

Desalination 3 3mn  
Santa Cruz taking 11 4 99  
another look at  
desalination plant

BY JOHN WOOLFOLK  
Mercury News Staff Writer

✓ Santa Cruz water officials say ocean desalination — an idea they discarded long ago as too costly — may be the city's best hope for avoiding severe drought rationing and providing for future needs.

A preliminary study of 10 possible water supply projects determined six of them were fatally flawed. Of the remaining four, only seawater desalination was found to meet the city's supply needs without major technical and political constraints, the study said.

Water department Director Bill Kocher plans to ask the city council next month for a green light to study the idea further.

"We didn't really look at a seawater desalination plant before because of the cost," Kocher said. "Now we're saying, 'Guess what? There aren't a lot of other options.'"

Santa Cruz has spent two decades casting about for new water sources to prevent draconian cutbacks during dry years and meet expected growth needs. But in this environmentally conscious town, it hasn't been an easy search. Many fear big water projects will ruin wildlife habitat and open the floodgates to development.

The Santa Cruz Water Department  
See **SEAWATER**, Page 6B

al THURSDAY, NOVEMBER 4, 1999

## Santa Cruz may tap seawater

### ■ SEAWATER

from Page 1B

ment serves 90,000 customers, including the University of California-Santa Cruz, in the city and neighboring communities.

The city hasn't built a major water project since 1960, when its main source, the Loch Lomond reservoir in the Santa Cruz Mountains, was created by the Newell Creek dam. Santa Cruz's last significant water project was a creek diversion in 1974.

Plans to create a second reservoir with another dam in the Santa Cruz Mountains were torpedoed in 1987 by city leaders worried about habitat destruction and growth potential. After an exhaustive study of nine alternatives, city leaders in 1994 decided on a \$40 million project to desalinate brackish water from coastal wells near Davenport.

But they dropped that plan two years ago, sending at least \$300,000 worth of planning down the drain, after the project's rural neighbors complained it could drain their wells. The city decided to spend money earmarked for feasibility tests on that project toward a new study on alternatives.

A preliminary screening of 10 alternatives was completed last month by Carollo Engineers. Five of them were additional groundwater projects. The consultants rejected them due to water rights issues or because they would produce too little water to be worthwhile, especially during droughts.

Another alternative, sharing with neighboring Soquel Creek Water District, which supplies the Capitola area, also was rejected. The consultants found that water rights issues would be insurmountable and that there is less surplus water available from the Soquel Creek district's aquifer than initially thought.

Alternatives left on the table include wastewater reclamation, converting a sand quarry near Felton to a reservoir and improving the city's wa-

ter supply and treatment infrastructure to increase efficiency and storage capacity. The consultants recommended that those options be studied further but found drawbacks to all three.

The infrastructure improvements and reclamation were found unlikely to provide enough water to meet the city's needs in a severe drought, the consultants said. Wastewater reclamation also would be costly, requiring a separate distribution system, and because of health issues, it could be used only for major landscaping customers such as schools and golf courses.

### Quarry obstacles

The sand quarry reservoir would first need a permit from the county, which the consultants deemed a questionable proposition. In addition, a dam would be needed to make a big-enough reservoir out of the quarry to satisfy the city's needs, something the consultants also found unlikely.

A seawater desalination plant was found capable of meeting the city's water needs without insurmountable drawbacks.

"We believe that desalination represents the most viable of the city's alternatives," the study said.

Several cities along the California coast built seawater desalination plants this decade in the wake of the prolonged drought of the late 1980s and early 1990s. Southern California Edison was the first to serve purified ocean water to residential customers when it built a desalination plant in the town of Avalon on Catalina Island in 1991.

The \$3.2 million plant has been used periodically since, serving 3,500 residents and an additional 5,000 summer tourists, said Dean Monroe, superintendent of the utility's Catalina plant.

The city of Morro Bay built a similar, \$3.8 million desalination plant later that year, but it has been mothballed since the end of the last

drought in 1992, city projects coordinator Bill Boucher said.

Santa Barbara built the state's largest plant in early 1992, a \$35 million project, but it, too, has been mothballed since the end of the drought, water supply manager Steve Mack said. The city later bought into the state's water supply project, which now is its first fallback in the event of drought, he said.

Cambria votes in January on building a desalination plant.

Northern California's first desalination plant was built by the Marina Coast Water District in Monterey County in 1997 and completed its first year of full-time operation this summer, district conservation manager Rich Youngblood said. The \$3 million project provides about 13 percent of the supply for the district's 18,000 customers, he said. The rest comes from wells.

The biggest drawback to desalination is the cost of running a plant. Because the ocean is so salty, two gallons of seawater make less than a gallon of fresh water, Mack said. Water from the Marina plant costs three times as much as pumping it out of wells, Youngblood said.

### Uncertain costs

It's unclear how much a seawater desalination plant would cost Santa Cruz, Kocher said. Earlier this decade, when city leaders last toyed with the idea, they estimated it would cost \$60 million to build.

The city's water commission, which considered the alternatives this week, agreed the city council should have a look at the consultant's findings before any projects are eliminated.

"We just don't have enough information, as far as I'm concerned, to know whether any or all of these alternatives are feasible," Commissioner Andy Schiffrin said. "It made sense for the council to know what we're looking at and agree these are the right ones."