



Santa Cruz County

Santa Cruz eyes desalination

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SANTA CRUZ — Santa Cruz can boost its supply of water by about one-third by desalinating brackish groundwater along the county's North Coast, a project that would cost about \$40 million and includes drilling eight wells.

Along with two wells in the Live Oak area, desalination could meet the city's needs into the next century, most of the time.

That's the consensus of Santa Cruz City Council and Water Commission members who, in a workshop this week, informally decided the North Coast proposal was the best of 12 studied.

"Everyone just kind of decided it was a great project and we ought to move forward on it," said Bill Kocher, city water director.

The North Coast project was one of several the city has been eyeing, including new reservoirs, higher dams, more wells and wastewater reclamation.

The city anticipates the number of customers will increase from about 80,000 to 105,000 by the year 2005. About 2 million gallons of water a day are needed to keep pace with the population and to meet the demands of the present customers, said Kocher.

The North Coast project would go part, but not all of that distance, said Kocher.

"It isn't going to guarantee a supply which eliminates a need for further conservation or water restrictions in

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drought times," said Kocher. Cutbacks would still be necessary, on the average one year out of 10, he said.

"The days in which you could supply water in all years, including drought, are probably history," said Kocher. "... People are saying you can't continue to dam up rivers."

The desalination project would involve drilling eight wells to depths of about 1,500 feet to tap what water officials think is a very deep, underground water aquifer.

Kocher anticipates the wells would be four to eight miles out of Santa Cruz, four of them near Majors Creek and four around Four Mile Beach.

The water, too salty to drink but not as salty as ocean water, would either be piped down the coast for treatment, or would be treated then piped into the city, depending on the amount of salt in the water.

Reverse osmosis would be used to desalinate the water.

"To remove salt, you have to put it under high pressure and force it through a membrane," said Kocher. The treatment plant needed would be

about the size of a house.

The project would produce about 5.8 million gallons a day, the equivalent of one-third again the amount the city uses on a summer day, Kocher said.

But the brackish water won't be used year-round. If the city drew too much water, it could cause salt water intrusion into the aquifer, said Kocher.

Although there was general agreement at the workshop to select the desalination project, it has not yet been formally adopted by the Water Commission or City Council. Kocher said he will return with a request to select it as the preferred alternative and to request funds to conduct an environmental impact report.

He tentatively expects completion of the project within four years.

The city will also pursue drilling two new wells in the Live Oak area, possibly Thurber Lane, which would provide an estimated half-million gallons of water a day, Kocher said.

The informal selection of the desalination project meant deep-sixing others on the list studied by Walnut Creek-based consultants Camp Dresser

McKee.

Among them:

- A reservoir at Waterman's Gap, north of Boulder Creek. Besides being a "political nightmare," Kocher said a reservoir would have required relocating two miles of Highway 9, and would have cost \$70 million.

- A reservoir off Kings Creek Road, also north of Boulder Creek. This alternative involved relocating several miles of private road. It was also hydrologically infeasible because, once drained, it would have taken 18 years to fill the reservoir, said Kocher.

- A North Coast reservoir. This project was rejected because the site had unstable slopes, driving the cost to \$130 million.

- Enlarging Loch Lomond reservoir. The project would have meant renegotiating downstream fish releases resulting in less water to the city than a enlarged dam could provide, said Kocher.

- A new well at Harvey West. The yield, about 140,000 gallons a day, was too little for the cost of a new well.

- Reclaiming Scotts Valley wastewater. Although this project isn't dead, use of the water for Pasatiempo Golf Course and Odd Fellows Cemetery is modest compared to what it would cost to treat the wastewater, said Kocher.

- A reservoir on RMC Lonestar's Olympia Quarry off Zayante Road in Felton. The proposal was to line a sand pit, once mining was finished, for use as a reservoir. Kocher said this project may be feasible someday, but the quarry is still in use.