

# City of Santa Cruz's Desalination Plan Gets a Nearly \$2 Million Boost

Desalination  
by Michael Thomas

Getting a glass of drinking water out of the salty, silty ocean is no easy task, but the City of Santa Cruz is getting closer to giving it a shot. The State Department of Water Resources has recommended the City for nearly \$2 million in grant funds to support a trial run at desalination.

If the City makes good progress, that could help win the participation of the Soquel Creek Water District. The Soquel District's wells are over-pumping ground water supplies, and District officials are trying to decide whether to team up with Santa Cruz to build a desal plant or connect with the Pajaro Valley Water Management Agency to import water from inland sources.

"As soon as we see that one of them has a project that we can evaluate, we will make a deci-

sion," said veteran Soquel Creek Board member Daniel Kriege.

The \$2 million grant would cover about half the cost of a small pilot facility that would cleanse about 72,000 gallons of seawater a day. Desalination works by forcing water at high pressures through a series of reverse osmosis membranes that separate the brine and particulates from seawater.

Though it has proven successful elsewhere, as in the City of Marina, Santa Cruz has to make sure it will work with the local conditions.

"All ocean waters are not created equally," explained Santa Cruz Water Department Manager Bill Kocher. "There are different currents, temperatures and bodies of water feeding into them."

The pilot project would offer a chance to try different membrane structures and monitor power consumption, long considered a limiting factor in desalination

projects.

"This pilot plant will provide the scientific information to determine whether this is feasible [here]," he added.

The experimental plant, a bit larger than a house, would likely be located at Long Marine Lab, on Santa Cruz's west side. The cleansed water would be tested, then combined with the concentrated brine that was removed and returned to the ocean. Kocher said there's also the possibility that it could be used in the Marine Lab's facilities before being released.

If this small system works out, the City may build a much larger desalination plant, capable of pumping out 2.5 million gallons a day. That would come online in 2015, and could be expanded to 6 million gallons per day by 2030.

## Expanding the City will Create New Demands for Water

The City's current water sys-

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tem produces 14 to 15 million gallons a day during the peak summer season, a capacity which hasn't increased in over 40 years.

"If you have a 1976-1977-styled drought we are going to be 48 percent short of meeting average demand," Kocher said.

The Water Department is currently working on a unified Environmental Impact Report for the desal pilot project as well as the City's ongoing conservation efforts, such as providing low flow fixtures to residents. The EIR should reach the City Council in the next month, at which time City officials will decide whether to proceed.

Kocher hopes that the Soquel District might join the project in time to help fund the pilot plant. Kriege wasn't sure the District would get involved that fast.

"I think we would look at that very seriously. We know that desal would be a pretty firm water supply," he said. □