

Desalination in Ventura County called solution for future

Tony Biasotti, Ventura County Star, 12-2-16

Ventura County could someday get a portion of its drinking water from the ocean, but it's a solution for the next drought, not this one.

That was the consensus of a panel of experts on seawater desalination who were at a forum convened Thursday evening by Ventura County Supervisor Steve Bennett. Bennett, who represents the Ventura and Ojai areas and part of Oxnard, said he put the event together because his constituents have been asking more and more about the possibility of treating ocean water. The forum drew more than 150 people to the Ventura County Government Center in Ventura, filling the Board of Supervisors' hearing room nearly to capacity.

"Water is the most important issue that I will be dealing with for the next four years, and it's the one I'm most focused on," said Bennett, who is beginning his final term in office before term limits end his career as a supervisor in 2020. "The county of Ventura does not have a major role in water decisions, but we do have the ability to facilitate community discussions."

The discussion has turned to desalination all over California as the drought deepens. Desalination — the treatment of ocean water so that it's suitable for drinking — is still rare, but it's becoming less so. There are about a dozen desalination plants along the coast, most of them fairly small, and about a dozen more in the planning stages, said panelist Tom Luster, an analyst and desalination expert with the California Coastal Commission.

No one is planning an ocean desalination plant in Ventura County at the moment, but the Calleguas Municipal Water District, which delivers water to about 75 percent of the county, has studied the idea.

About 75 percent of Calleguas' water comes from Northern California through the State Water Project pipeline. If an earthquake were to damage that pipeline, the district would run out of water in about a month, which is why the desalination idea is being entertained, said panelist Susan Mulligan, Calleguas' general manager.

"The question of an earthquake cutting us off isn't a question of if; it's a question of when," she said. "If 75 percent of the water is cut off, we don't even have health and safety water at that point."

The concept Calleguas studied calls for a relatively large treatment plant on the coast in Oxnard and a pipeline to carry the water 20 miles inland to Moorpark, Mulligan said. It would require a raft of state permits, and she said the entire planning and construction process probably would take about 14 years.

Upon hearing that, panelist Scott Maloni, vice president of project development for Poseidon Water, quipped, "Start now."

Poseidon is the operator of the biggest desalination in the Western Hemisphere, a recently opened plant in Carlsbad that supplies about 10 percent of San Diego County's water. It's developing a similar plant in Huntington Beach.

The attractive thing about ocean water is that it's "truly a drought-proof water supply," Maloni said. "It doesn't depend on snow in the Sierras or rain in Southern California. The Pacific Ocean is the largest reservoir in the world, and it's always full."

The biggest issue with desalination is the cost. There are also environmental concerns, related to ocean life that can get trapped in the intake pipes.

Treated ocean water is about twice as expensive as water from the State Water Project, and as much as three times as expensive as pumping, treating and delivering groundwater from local aquifers. Most of the extra cost is due to energy costs in treating and delivering the water.

The cost means no community gets all of its water from desalination, and it means desalination becomes a good option only when shortages drive up the cost of other water.

Water providers blend ocean water with water from other sources for an overall cost that's only slightly higher. For example, Maloni said San Diego County households have seen an increase of about \$4.75 on their water bills to pay for the new desalination plant.

"Desalination is not going to solve all your problems, but it certainly helps to have diversity in your supplies," said panelist Joshua Haggmark, water resources manager for the city of Santa Barbara. "You want diversity in your stock portfolio, you want diversity in your community, and water supply is the same thing."

The city of Santa Barbara built a desalination plant during the drought of the late 1980s and early 1990s, but it was mothballed only months after it opened, when the rain started falling again. Now, with Santa Barbara's reservoirs at critically low levels, the city is firing the plant up again. It's scheduled to start producing water in early 2017, Haggmark said.

"If not for this plant coming on line in the next two or three months, we'd be looking at severe rationing, at no outdoor watering at all," he said.