

Desalination no panacea for Calif. water woes

Jason Dearen and Alicia Chang, Associated Press, 9-22-12

MARINA, Calif.—In the Central California coastal town of Marina, a \$7 million desalination plant that can turn salty ocean waves into fresh drinking water sits idle behind rusty, locked doors, shuttered by water officials because rising energy costs made the plant too expensive.

Far to the north in well-heeled Marin County, plans were scrapped for a desalination facility despite two decades of planning and millions of dollars spent on a pilot plant.

Squeezing salt from the ocean to make clean drinking water is a worldwide phenomenon that has been embraced in thirsty California, with its cycles of drought and growing population. There are currently 17 desalination proposals in the state, concentrated along the Pacific where people are plentiful and fresh water is not.

But many projects have been stymied by skyrocketing construction costs, huge energy requirements for running plants, regulatory delays and legal challenges over environmental impacts on marine life. Only one small plant along Monterey Bay is pumping out any drinking water.

From Marin County to San Diego, some water districts are asking themselves: How much are we willing to pay for this new water?

"We found that our demand for water had dropped so much since the time we started exploring desalination, we didn't need the water," said Libby Pischel, a spokeswoman for the Marin Municipal Water District. "Right now, conservation costs less than desalination."

Desalination plants can take water from the ocean or drill down and grab the less salty, brackish water from seaside aquifers. Because of their potential impacts to marine life, the California Coastal Commission reviews each project case-by-case.

There was great fanfare in 2009 when the last regulatory hurdle was cleared to build the Western Hemisphere's largest desalination plant in Carlsbad, north of San Diego.

At the time, it was proposed that the \$320 million project would suck in 100 million gallons of seawater and be capable of producing 50 million gallons of drinking water a day. It was expected to come online by this year.

Since then, the plant owner, Poseidon Resources LLC, has been negotiating a water purchase agreement and is close to clinching a 30-year deal with the San Diego County Water Authority, a wholesaler to cities and agencies that provide water to 3.1 million people.

The compact is essential for Poseidon to obtain financing to build the \$900 million project, which includes the seaside plant and a 10-mile pipeline. The San Diego agency hopes the plant opens in 2016 and anticipates desalination will account for 7 percent of the region's supply in 2020. It estimates the cost is comparable to other new, local sources of drinking water, such as treated toilet water or briny groundwater.

Interest is still high, but "people are realizing that desalination isn't a magic fix to the state's water issues," said coastal commission water expert Tom Luster.

Because pumps must be used constantly to move massive amounts of water through filters, these facilities are extremely energy intensive.

Also, in many cases, desalinated water is pricier than importing water the old-fashioned way—through pipes and tunnels. And it is cheaper to focus on conservation when possible: new technologies like low-flow toilets and stricter zoning laws that require less water-intensive landscaping have helped curb demand in communities throughout the state.

Desalination has been around for years in Saudi Arabia, other Arab Gulf states and Israel, which last year approved the construction of a fifth desalination plant. The hope is that the five plants together will supply 75 percent of the country's drinking water by 2013.

The process also has helped ease thirst in places such as Australia, Spain and Singapore. Experts say it has been slower to catch on in the United States, mainly because companies face tougher rules on where they can build plants and must endure longer environmental reviews. Poseidon, for example, is facing opposition by environmental groups over its proposed plans to build another facility in Huntington Beach. The company has received several permits for the Orange County project, but still needs approval from the coastal commission.

About six miles south of the ghost desalination plant in Marina, the mechanical whir coming from a nondescript cinderblock building in a Sand City industrial park is the only evidence that the state's sole operating municipal desalination plant is at work.

The \$14 million facility has the ability to produce up to 600,000 gallons a day of drinkable water for the town of about 340 people. Sand City's plant now produces half that amount each day; a third is used by the city with the rest sent elsewhere in Monterey County.

City leaders hoped to develop the former military town into an artsy, Bohemian beachside destination. With no other possible water options, they turned to desalination. "We're just like Saudi Arabia. There's nowhere else to get water and we want to develop," said Richard Simonitch, the city's civil engineer.

It's not that easy in Monterey Peninsula, where regional water use from development has exceeded its yearly rainfall replenishment and desalination is one of the only options available.

Proposals have been fraught with mistakes, political infighting and scandal, and have cost Monterey area ratepayers tens of millions of dollars.

Earlier this year, state utilities regulators rejected Monterey County's desalination plan, citing problems with environmental review. The plan was also mired in alleged corruption by a county water official, who now faces criminal charges.

Still, desalination will be an important part of the Central Coast's future: the state ordered water suppliers to stop drawing from the Carmel River, its main source of the precious resource, starting in 2017. Even officials in Marina, with its shuttered plant, see a future in which demand will require their current desalination plant to resume operation and are planning another, larger plant to help make up for the expected water loss.

"Water politics in Monterey County is a blood sport," said Jim Heitzman, general manager of the Marina Coast Water District.