

Sand City desal plant suffers some pitfalls

PAUL GRATZ

Recently, Santa Cruz politicians and water department staff have cited Sand City's landmark desal plant as a successful undertaking they have visited.

Completed in April 2010, it is the first full-scale, municipal desal plant in California to receive permitting approval under the new regulations — marking the start of an aggressive desal marketing effort targeting the environmentally-sensitive Monterey Bay National Marine Sanctuary.

A tourist and shopper destination, the micro-sized city of 360 residents built the \$12 million plant in the face of state-imposed water restrictions designed to replenish the over-tapped Carmel River and Seaside aquifer. Sand City leaders argued that without desal, growth would have stalled, crippling the town's retail economy.

The plant does not use seawater unlike the proposed Santa Cruz regional desal project. It extracts brackish well water, discharging the concentrated waste brine into filtering wells. Typically, brackish water plants — as compared to seawater desal — are less costly, energy-intensive, and environmentally damaging.

Water industry leaders hope

the plant, leased and operated by investor-owned CalAm, will pave the way for a statewide desal boom and make the central coast more attractive for growth.

"Sand City is pretty monumental," said Timothy Dyer, technology officer for San Leandro-based Energy Recovery, Inc., maker of devices used in reverse-osmosis desal, including Sand City's and about 70 percent of such plants worldwide. "It's a good indication of what we can expect," Dyer continued. "We think desal will be more accepted once they get started in California."

Due to ongoing maintenance and repair problems, however, the plant shuts down about 65 days per year — or 18 percent of the time. And when the reverse-osmosis membranes become clogged, the plant is inoperable. Currently, the plant is producing at 74 percent of capacity.

Furthermore, Sand City and CalAm are embroiled in problematic litigation. In February 2007, Cal Am signed a 15-year lease to operate the plant and repay the city for the cost of building it. In June 2009, the California Public Utility Commission (CPUC) rejected CalAm's request to recover the cost of the lease and allowed Cal Am to amend the lease and file a new application. In April 2010, Cal Am filed a new application.

On August 4, 2011, the CPUC found the amended lease not cost-effective and the Sand City desal plant not a reasonable and prudent way to address the water supply needs of customers.

The Division of Ratepayer Advocates supported the CPUC decision that directs CalAm to pursue cost-effective and innovative solutions such as reducing outdoor irrigation and unaccounted-for-water. Also, it acknowledges that the Sand City facility confers a disproportionate cost/benefit burden on ratepayers, yet only minimally reduces withdrawals from Carmel River.

To informed observers, CalAm exemplifies how water management companies obtain and then sell back a public water resource for much more than what they paid for it. Called water transfers, this dubious commercial strategy is edging into the hugely lucrative water sales market, including the ill-fated Monterey Peninsula Regional Desal Project.

Two leading Santa Cruz desal proponents assisted in planning and promoting Monterey Bay area desal projects, including the Sand City plant. Linette Almond, City of Santa Cruz Water Department Assistant Director, worked on the 2006 regional feasibility study. Brent Haddad, Ph.D., director

of the UC Santa Cruz Center for Integrated Water Research, teaches courses, organizes workshops, and provides consultant services aimed towards advancing central coast desal development.

Paul Gratz is a longtime Santa Cruz resident, consumer advocate, health educator and planner. He is a member of DesalAlternatives.org