

# Company aims to sell groundwater from Mojave Desert

**Ian James, Palm Springs Desert Sun, 10-23-15**

Scott Slater looked out over rows of grapevines and lemon trees surrounded by the open desert. In the ground beneath this mountain-fringed valley in the Mojave Desert, he said there's plentiful water to help supply Southern California for decades to come.

As president and CEO of Cadiz Inc., Slater is focused on trying to push ahead a project that would pump as much as 50,000 acre-feet of water – or 16.3 billion gallons – from the desert aquifer each year for the next 50 years. That plan has long faced strong opposition, as well as a series of regulatory hurdles.

Cadiz encountered a new setback this month when the federal Bureau of Land Management determined the company's proposal for a water pipeline wasn't within the legal scope of a railroad right-of-way and would require a separate review.

Slater said the company is undeterred and will respond with several steps to move forward with its project. It aims to start selling water to a list of public water districts across Southern California in 2017.

"There's water for 400,000 people a year, and without causing any environmental impact," Slater said, standing on a platform overlooking the company's farm near the unincorporated San Bernardino County community of Cadiz.

His Los Angeles-based company owns 34,000 acres along Route 66 in the Cadiz and Fenner valleys, about 75 miles northeast of Palm Springs. The company has been pumping groundwater to irrigate nearly 2,000 acres of farmland while pursuing its plans to start selling water.

Cadiz's claim that its pumping wouldn't harm the desert environment is hotly disputed by conservation groups such as the Center for Biological Diversity and the National Parks Conservation Association, as well as by Sen. Dianne Feinstein and other opponents.

It's a debate that revolves around whether to allow a private company to tap water near the Mojave National Preserve and other public lands. And it's also a scientific debate. Both sides have enlisted researchers to study the potential effects and the natural rate of groundwater recharge, and they've come to very different conclusions.

"The project poses really significant impacts to public lands," said David Lamfrom, director of the California desert program of the National Parks Conservation Association.

"The protection of this watershed and these waters is one of the single-most important conservation issues in the Mojave Desert," Lamfrom said. "We should be thinking about how to protect this water and not extract it and ship it out to urban markets. The Mojave needs its water."

Slater touts the company's studies, saying Cadiz plans to use groundwater that would otherwise gradually flow downhill and evaporate from two dry lakes – where other companies dig trenches in the cracked soil to mine the salts left behind by the evaporating water.

"This water is flowing downhill toward those dry lakes. If we're going to curtail that and stop that water from going to evaporation, we need to pump in excess of the recharge rate for a period of years," Slater said. "What is occurring under a natural condition is a waste of this water, a loss of this water to the region through the evaporation of the dry lakes."

Pumping out a portion of the water, he said, would avoid waste.

For that reason, the company refers to it as a water conservation project – a label that critics dismiss as misleading. They argue it's actually groundwater "mining." Slater insists it's "groundwater management at its best."

Cadiz has proposed a second phase in the future that would involve "banking" imported water. The water would flow in from the Colorado River or the State Water Project, and would seep underground to be stored for later use. It's the latest iteration of a project that has been in the works for many years.

The company was founded in 1983 and in the following years gradually expanded its landholdings in the desert around Cadiz. Its farming operation has become the one business at the former train stop, where freight trains continue to rumble past and the silence is occasionally broken by distant explosions during training exercises at the Marine Corps base in Twentynine Palms.

In 1997, Cadiz and the Metropolitan Water District of Southern California together proposed storing water from the Colorado River in the groundwater basin. Metropolitan eventually decided not to go forward with it, and the company later changed the project and relaunched it in 2009.

Cadiz has since partnered with the Santa Margarita Water District in Orange County, which has a signed contract to buy a portion of the water. The same water district was also the lead agency in the environmental review process under the California Environmental Quality Act. Opponents have tried to challenge that process through lawsuits.

Plaintiffs have included the company Tetra Technologies, which mines sodium and calcium salts at the dry lakes, as well as the Center for Biological Diversity and the National Parks Conservation Association. Six cases are pending before the 4th District Court of Appeal.

San Bernardino County supervisors approved a plan in 2012 that specified an average annual pumping limit and included monitoring requirements. With that approval in hand, the company turned to its plans for a 43-mile pipeline from its property to the Colorado River Aqueduct.

But this month, that proposal hit a significant snag. BLM State Director James Kenna wrote in an Oct. 2 letter that the plan, which would involve building the pipeline along a railroad line, isn't within the rights originally granted to the Arizona and California Railroad under an 1875 law.

"BLM has determined that the Project does not derive from or further a railroad purpose," Kenna wrote. He said for the proposal to proceed, it "will require BLM authorization for a right-of-way."

When news of that decision broke, the publicly traded company's stock price plunged on the Nasdaq exchange.

Cadiz has responded by calling for the agency to rescind or modify its determination.

"We're going to try to get the BLM to change their mind," Slater said. "And we have congressional supporters who are trying to pursue that for us now."

Supporters of the project in Congress include Reps. Paul Cook, R-Apple Valley; Jim Costa, D-Fresno; Dana Rohrabacher, R-Huntington Beach; and Loretta Sanchez, a Santa Ana Democrat running for U.S. Senate.

After the BLM decision, the company said it will consider multiple possible routes for the pipeline. One option would be to stick with the 43-mile route along the train tracks and apply for a right-of-way. Another

would be a shorter right-of-way, previously approved by the BLM in 2002, across undisturbed federal land. Lastly, the company said it would also consider whether to file a request to carry water through a 96-mile northern pipeline that previously was used for natural gas.

Costa said the project “is part of a broader strategy which will provide an additional, stable water supply to our entire state.”

“Millions of dollars have gone toward research to assess the environmental impacts as well as solutions to mitigate the issues that have been raised,” Costa said in a statement. He said he was disappointed by the BLM decision because it will “result in a lengthy delay and require additional permit acquisition to utilize railroad right-of-way to locate and construct the pipeline.”

On the other side of the debate is Feinstein, who has opposed Cadiz while pushing for the creation of new national monuments in the desert.

“I remain concerned the Cadiz project could damage the Mojave Desert beyond repair and believe the BLM decision to deny the right-of-way is the right one,” Feinstein said in an emailed statement.

For years, Feinstein has been attaching riders to the Department of Interior appropriations bills blocking the government from spending funds on work related to the Cadiz project. The rider for fiscal year 2015 says the government may not use funds “in relation to any proposal to store water underground for the purpose of export.” The 2016 bill refers to “any proposal to export groundwater for municipal use.”

“I’ll continue to work through the Appropriations Committee to block any additional attempts to draw down this aquifer,” Feinstein said. “We need to use water more responsibly, not less, and the Cadiz project is a bad idea.”

The company says it would pump water at a well field located 15 miles from the Mojave National Preserve.

Slater said the company’s studies have found that the pumping wouldn’t cause any harm to the preserve or to natural springs in the area.

Scientists hired by Cadiz have studied the dry lakes and taken measurements of the evaporation rates. They’ve also studied the watershed and calculated that about 32,000 acre-feet of water recharges the aquifer system each year, part of it coming from rain and snow high in the Providence Mountains.

Other scientists disagree and say that estimate is far too high.

Studies carried out for the Center for Biological Diversity and the National Parks Conservation Association came up with much lower ballpark figures. Groundwater hydrologist John Bredehoeft wrote in a 2012 report that an estimate in the range of 16,000 acre-feet per year, or perhaps less, “seems much more likely.” Hydrogeologist Andrew Zdon estimated recharge of 14,000 acre-feet a year, less than half the company’s figure.

The National Park Service also weighed in, submitting comments before the Santa Margarita Water District certified the environmental impact report and approved the project in 2012. The federal agency raised concerns that the company was substantially overestimating the amount of natural precipitation recharging the groundwater in the two valleys.

Jay Cravath, cultural director of the Chemehuevi Indian Tribe, has warned that the pumping would suck away water that gushes from springs on the tribe's ancestral lands. He said he thinks the company is using "fuzzy math" to justify its goals.

“It is greedy and narcissistic of them to take what is there from its natural and rightful place,” Cravath said.

Ileene Anderson, a scientist with the Center for Biological Diversity, said it would be unsustainable to draw down the desert aquifer and it would also threaten springs and wildlife.

“The concern is that water is a public trust resource,” Anderson said. “It comes primarily off of public lands. And to have a private company extracting it and exporting it for profit – at the expense of not only the plants and animals that live there but also the humans – it just seems wrong.”

She praised the BLM’s decision and said it means Cadiz should have to go through a full environmental review under the National Environmental Policy Act.

Lamfrom said the National Parks Conservation Association wants to see hydrologists from the U.S. Geological Survey study the project and settle the question of how much water actually recharges the aquifer system.

“If Cadiz is wrong, everybody pays the price. And it’s not a risk that we’re willing to take,” Lamfrom said during a visit to the Mojave National Preserve, where the Providence Mountains tower over a sloping plain dotted with creosote bushes, smoke trees and barrel cacti.

“Cadiz stands to make \$1-\$2 billion, and they have their perspective,” he said. “They have used their influence to skirt and get privileges throughout this process.”

The nonprofit Center for Responsive Politics, on its website [OpenSecrets.org](http://OpenSecrets.org), lists a total of more than \$2.4 million spent on lobbying by Cadiz since 2001 and more than \$40,000 in political contributions since 2000. Much of that spending on lobbying - \$800,000 – came during 2014, along with \$8,100 in contributions to both Democrats and Republicans.

While battling lawsuits, Cadiz has also shown its clout by receiving backing from a list of influential organizations. Those that have filed friend-of-the-court briefs include the Association of California Water Agencies, the California Building Industry Association and the California Chamber of Commerce, among others.

A list of Southern California water districts have signed option agreements or letters of intent to buy water from Cadiz, among them Three Valleys Municipal Water District, Golden State Water Company and Otay Water District. The company would charge \$960 per acre-foot of water delivered to the Colorado River Aqueduct.

Slater said the Cadiz project is one way California can supplement its limited water supplies. He pointed to projections of worsening shortages along the Colorado River as climate change adds to the long-term stresses.

Slater, a water lawyer, said he has made it a priority to invest in scientific studies in order to respond to concerns and criticism. He said those studies have found that pumping on the valley floor wouldn’t affect springs that are located at least 11 miles away and at higher elevation.

“If we can’t do an environmentally benign project which takes water away from no one and basically eliminates waste,” he said, “it sends really bad signals to everybody else who’s looking or hoping to try to do things the right way.”

Leading a tour of the property, he and a consultant explained they are prepared to treat the water to meet

California's new drinking water limit for the contaminant chromium-6, which occurs in the groundwater in parts of the desert.

Operations manager Lesley Thornburg said the farm produces lemons, table grapes and raisins, and has been experimenting with crops including squash, green beans, colored carrots and asparagus.

She has been working at the Cadiz site since 1991, and commutes from Twentynine Palms. Other than the staff who work on the property, only a few people live in several houses along Route 66 in Cadiz.

As for the water, Thornburg said the wells are monitored monthly and their levels have remained steady. "We can pump 24 hours a day, 7 days a week and nothing," she said.

Asked what the company would do if it were blocked from piping out water, Slater said one option would be to expand its farming operation. He said the farm could grow to nearly 10,000 acres, or maybe more.

For now, though, he said Cadiz will attempt to convince the BLM to rescind its decision on the use of the railroad right-of-way for the pipeline. He said the company will also consider filing a right-of-way application and will talk with officials about "expedited processing."

"We have an opportunity for them to do the right thing for the people in California to rapidly approve the access route to the Colorado River Aqueduct," Slater said.

If that doesn't happen, he said, the company could take its case to federal court to clarify its rights.

Cadiz has told investors that if it can secure a reversal of the BLM's decision, it would be in a position to build the pipeline in 2016. But if it ends up instead suing or facing an additional environmental review, the company has said construction of the pipeline could be delayed.