

The Rime of the Mojave Mariner

by Lisbet Thoresen

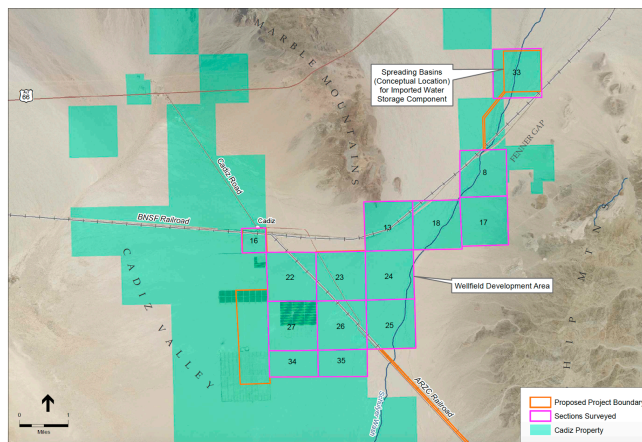
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TWO PROJECTS TAPPING AQUIFERS in the Mojave Desert have been greenlighted to proceed. The **Cadiz Water Project** will export ground water to customers in Orange County, which will enable them to keep their lawns green. The **Eagle Mountain hydropower project** will provide a back-up source of power to desert-based renewable energy utilities when solar or wind energy generation is sub-optimal. Environmental impact studies were waived or deemed flawed for the projects, and they are going forward without opportunity for public comment.

The Cadiz project is on private land located adjacent to the Marble Mountains. It is surrounded by the newly created **Mojave Trails National Monument (MTNM)**. Cadiz Inc. proposes to export nearly 16.3 billion gallons a year for 50 years from the Mojave Desert aquifer to Orange County's Santa Margarita Water District (SMWD). This project is being spun as a conservation effort by the company, which claims that extracted ground water will be replenished by rainfall. **Shaun Gonzales** points out in his blog post on the [Cadiz water scheme](#) that privately contracted hydrology reports estimate 10.6 billion gallons of rainwater per year will recharge the aquifer, which is an outlandish calculation – even the ground water in Orange County, where the water table is higher, doesn't come close to the volume projected for the Mojave.[1]

The Cadiz company proposes drilling up to 34 wells in the middle of **MTNM**. The threats to fragile habitat and the prospect of groundwater collapse are dire, which **Gonzales** and other conservationists critical of the project have pointed out repeatedly for many years.

As recently as 2009, plans for commercial



The Cadiz water project is surrounded by the Mojave Trails National Monument.

exploitation of the area were derailed, precisely because of environmental concerns. **President Trump** rescinded the requirement for federal review, and he appears to be foregoing the requirement for public review and comment, as well. The Cadiz project will now go forward as part of the administration's objectives to promote infrastructure projects.

In an editorial for *The Desert Sun* (April 3, 2017), **Mariana Maguire**, Southern California associate director for conservation for the **Conservation Lands Foundation**, and **Frazier Haney**, conservation director at the **Mojave Desert Land Trust**, wrote:

"The depletion of the aquifer threatens both the fragile ecosystems across the East Mojave Desert and the protected landscapes that provide sustainable economic benefits to several gateway communities, including Barstow, Needles and Twentynine Palms." [2]

Quoting the [Pacific Institute](#), an independent group of water experts, **Shaun Gonzales** wrote:

"[...]over-pumping by Cadiz could lead to irreversible damage to the groundwater basin. If water is pumped much faster than nature can replace it, the ground settles and compacts, reducing its capacity to store water." [3]

1.) <http://www.mojavedesertblog.com/2017/04/the-absurdity-of-cadiz-water-export.html>
or short URL: <https://goo.gl/DLFTWY>

2.) <http://www.desertsun.com/story/opinion/contributors/valley-voice/2017/04/23/valley-voice-making-case-stricter-review-mojave-groundwater-harvesting-project/305798001/>
or short URL: <https://goo.gl/0dnW7f>

3.) See note 1; http://pacinst.org/app/uploads/2013/02/public_comments_0314123.pdf.

“Water, water, everywhere,
And all the boards did shrink;
Water, water, everywhere,
Nor any drop to drink.”

The **Eagle Mountain hydropower project** is a pumped storage facility that will extract an estimated 32.6 billion gallons of water over the next 50 years from the Chuckwalla aquifer. The water will fill a defunct mining pit as a contingency power supply for utility scale wind and solar farms in the desert when their output is off-peak/sub-optimal. The planned pump station will be located in a keyhole-shaped area surrounded on three sides by the **Joshua Tree National Park (JTNP)**.

The first protective designation applied to **Joshua Tree** was as a **National Monument** in 1936. The area currently under contention was taken out of the monument in a controversial land swap authorized by Congress in 1950. The deal made available thousands of acres to accommodate commercial mining, primarily for steel production, including the Kaiser Eagle Mountain Iron Mine. It went bankrupt in 1987, and in the decades since, the Eagle Mountain area has been the object of bitter battles over restoring its conservation status versus developing it for new and different economic opportunities. Part of the area, but not all of the land taken in 1950 was restored to the monument, and under the California Desert Protection Act of 1994 **Joshua Tree** was designated a **National Park**.

Rockhounds, be careful what you wish for

The latest campaign for economic exploitation at Eagle Mountain was defeated in 2009, but the land did not revert to the **JTNP**, as many conservation proponents would have liked. Instead, the area remained in private hands. Some Rockhounds thought that was a victory for them, or at least, it was preferable to a protective designation that permanently and forever debarred hobby collecting. Recent trends in land use policy are proving that recreational uses and conservation values have low priority, and lost rockhound habitat is not likely to be restored where it competes with economic opportunity.

And now it appears that Eagle Mountain not only will debar hobby collecting, but also may debar life itself in the desert. Cadiz and Eagle Mountain are not small sacrifices for a greater good. Cadiz has not had environmental review and previous federal review of



Joshua Tree National Park boundary, 1994 to present.
Map: National Park Service.

Eagle Mountain was found to be scientifically flawed and occurred without scientists being able to set foot on the property. Such laxity and disregard for environmental harms will pervade wide areas far beyond their above-ground footprints. Their contaminating effects will spread like a virulent, irreversible contagion.

Among all the ill-conceived plans to commoditize public lands for industrial scale energy projects and other uses, draining California's drought-savaged desert of its precious lifeblood, its ground water, is the most pernicious yet. The value proposition that presumes large-scale renewable energy utilities built anywhere are "green" and sustainable is oxymoronic. Many are demonstrably brown and unsustainable. The **Trump** administration, with support from California Governor **Jerry Brown**, late Riverside County Supervisor **John Benoit**, and others, have supported the hydropower project. As with Cadiz, the public has been deprived of the opportunity to review and comment on Eagle Mountain.

Surely, the poet Coleridge could not have envisioned a more peculiar irony when "water everywhere" might describe an aquifer, a freshwater underground ocean, and "nary a drop to drink" was not the plight of being adrift on the salty sea without a canteen, but the rapacious siphoning of a whole natural reservoir system beneath ones' feet.

We will be encouraging our gem-mineral society affiliates and regional federations across the United States to prepare letters opposing the Cadiz water project, Eagle Mountain, and others like them. In the meanwhile, do your part, and send a letter of your own. Download a sample letter at: www.sdmg.org/calnatmonuments/Zinke_letter_Oppose_Cadiz_Water_Project_individual.rtf