

Bighorn sheep to get drinking stations as drought becomes new normal

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This Bighorn was seen just below the summit of Mt. Wheeler in New Mexico.
Credit: Jwanamaker/Wikipedia

Thanks to conservation efforts, there's been some good news of late when it comes to Southern California's population of bighorn sheep.

After years of declines, herds in Joshua Tree National Park and in Anza-Borrego Desert State Park have stabilized and even started to grow a bit,

noted James Cornett, a Palm Springs-based ecologist and author who's taught a course on bighorn [sheep](#) at UC Riverside. And in his own backyard, in the Santa Rosa and San Jacinto Mountains National Monument, Cornett said the sheep with distinctive curved horns "are holding their own, up from less than one hundred to a few hundred today."

But in each of those areas, Cornett said there still are fewer than a 1,000 sheep left. That's partially a consequence of human behavior, such as introducing livestock that carry diseases and fragmenting sheep habitat with highways and other development. It's also a consequence of climate change, Cornett said, with the West's megadrought particularly hard on small, vulnerable populations like bighorn sheep.

That's where a new project comes in that aims to install up to 90 permanent drinking fountains, of sorts, for bighorn sheep and other wildlife in strategic locations throughout eastern San Bernardino, Riverside and Inyo counties.

The plan is being spearheaded by the Pasadena-based nonprofit Society for the Conservation of Bighorn Sheep, which works in partnership with the California Department of Fish and Wildlife. The nonprofit, which boasts a resident poet, got the green light Friday from the California State Lands Commission to lease state-owned land for the drinking stations.

Installing and maintaining systems to catch rainwater and give safe access to bighorn sheep in remote desert areas is no easy task. Materials will need to be helicoptered in to many sites, and volunteers will need to go through training to ensure they're not disrupting other wildlife or vegetation in the area.

The fact that wildlife groups and state authorities support such a

significant effort signals agreement that we're not just in a drought that will soon pass, but that long-term aridification requires more permanent solutions to safeguard wildlife.

"We would anticipate that the environment, for not just bighorn sheep but all animals in the desert southwest, is going to get more difficult," Cornett said.

"When we put in artificial watering holes, we're kind of playing god of course," he said with a chuckle. "But because the populations are so small, anything we can do to help that doesn't cause secondary problems is a good thing."

Due to the lengthy drought, Cornett said key springs and watering holes in the Southern California desert have dried up. But sheep need more water as temperatures rise. Less water also means less vegetation for them to feed on, which Cornett noted is already a challenge for most desert dwellers. And having fewer places to reliably find water also limits herds' movement, which in turn limits their access to foraging areas—and to mates. That leads to inbreeding, which can cause health problems for already dwindling wildlife populations, such as Southern California's mountain lions.

To give bighorn sheep more choices for reliable sources of water, the Society for the Conservation of Bighorn Sheep plans to install rain catchers. Each site will have one or two storage tanks, with capacity for up to 2,300 gallons of water, buried two feet underground, per the Lands Commission report. (The Pasadena nonprofit declined to comment for this story.)

Sand-colored rubber mats, installed on slopes and secured with boulders, will channel rainwater to the storage tanks. And a drinker box will be installed near the top of the tank, with a stainless-steel access ramp to

reduce the risk of sheep and other animals getting trapped.

Each station takes a couple days and up to \$40,000 to install, not including labor donated by volunteers, per the society's website.

A majority of the rain catchers, up to 58 in total, will be scattered in the Mojave Desert in eastern San Bernardino County. Most will go between the 15 and 40 freeways, around Amboy. Some will be above the 15 freeway, near and north of Baker. Others will be closer to Joshua Tree National Park and along the Colorado River.

In Riverside County, 11 artificial watering holes are planned for the Chuckwalla Valley area. The other 21 sites are scattered throughout Inyo County.

The Society for the Conservation of Bighorn Sheep secured a 10-year lease, at a cost of \$140 a year, for state lands to install these stations. Land Commission staff said the project is in the state's best interest given the "ongoing drought" and the "potential to aid in population growth, enhance survival, and facilitate genetic exchange."

In exchange for the right to install the drinking stations, the nonprofit agreed to a number of conditions, including training to check for signs of protected species, such as burrows for desert tortoises and nesting sites for golden eagles. Volunteers also can't remove any trees, barrel cacti or other protected vegetation during installation. And they must inspect the stations annually to ensure they're working.

That last point is key, Cornett said.

"If you do use artificial watering holes, it has to be a commitment to essentially manage the waterhole forever," he said. "The last thing you want is for sheep to expect to find one and get a drink, then you don't

have time to maintain that anymore and it's 10 or 20 miles to the next watering hole. If you're talking about a sheep going 10 or 20 miles in summer in the desert, they're not going to make it."

With such safeguards in place, Cornett said he's optimistic about the future of Southern California's [bighorn sheep](#) population.

"It's a long, slow, uphill bit of progress," he said, "but it is moving in the right direction."

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