

# Calif. to help Ma Nature with cloud seeding

By Matt Weiser, Sacramento Bee

As California concludes a second drought year and water managers hope eagerly to avoid a third, utilities across the state are poised for that first mass of pillowy gray clouds to drift ashore from the Pacific Ocean.

When it arrives, if conditions are right, they'll be ready with cloud-seeding tools to squeeze out every extra snowflake, with the goal of boosting the snowpack that ultimately feeds the state's water-storage reservoirs.



Cloud seeding in the Sierra Nevada. Photo/DRI

Once viewed by some as a fringe science, cloud seeding has entered the mainstream as a tool to pad the state's crucial mountain snowpack. New technology to manage the practice, and research that points to reliable results, have cemented cloud seeding as a dependable and affordable water-supply practice.

"The message is starting to sink in that this is a cost-effective tool," said Jeff Tilley, director of weather modification at the Desert Research Institute in Reno, which practices cloud seeding in the Lake Tahoe Basin and Eastern

Sierra Nevada. “The technology is better; we understand how to do cloud seeding much better. And because we know how to do it more effectively, it’s definitely taken more seriously.”

Cloud seeding is often misunderstood as a kind of magic that conjures rain from thin air. In reality, it is simple chemistry combined with careful weather monitoring.

As practiced in California and elsewhere in the West, cloud seeding involves spraying fine particles of silver iodide into a cloud system to increase snowfall that is already underway or about to begin. Silver iodide causes water droplets within the clouds to form ice crystals. As the crystals grow larger, they become snowflakes, which fall out to create more snow than the storm would have generated on its own.

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