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Cloud seeding plan in California sparks debate

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A power company's plans to amplify snowstorms in northern California have sparked a debate about cloud seeding.

Pacific Gas and Electric Co. has installed seven propane-burning cloud seed "generators" -- collections of equipment that propel silver iodide particles into the air -- atop ridges in Siskiyou and Shasta counties.

The generators are set to go into use by the end of winter and should enhance storms over the Pit and McCloud river watersheds, said Byron Marler, a supervising meteorologist for the San Francisco-based company.

"It's like having a whole new Burney Falls added to those rivers," he said.

The cloud seeding, which will be done 40 to 50 times a winter, should more than match the amount the water that flows over northern California's signature waterfall, said Paul Moreno, company spokesman.

He said it will produce 130,000 acre feet of water per year, enough to flood 130,000 acres a foot deep in water, or 1.2 times as much as flows each year over the falls near Burney.

But the company's plans also have caused a flood of concern, especially from people in Siskiyou County, where much of the snow would fall.

Already involved with the McCloud Watershed Council, Angelina Cook of Mount Shasta said she's starting to organize a group of people with questions about cloud seeding.

Most people first heard of the PG&E project in October through newspaper notifications, and Cook said she now has an e-mail list of 50 people who are actively involved.

"And that's just a fraction of the people who are concerned about it," Cook said.

Key concerns are cloud seeding's effect on overall climate, impacts to systems set to handle only the current amount of precipitation and introduction of silver iodide particles to the environment.

Among the concerned is Rene Henery of Mount Shasta, who is directing climate research at nearby Castle Lake for the University of Nevada at Reno.

He said he's worried that PG&E's cloud seeding could skew the data at the heart of his work and is concerned that there don't appear to be any regulations on seeding.

"It's kind of like anyone can just build a tower and fire stuff into the air," Henery said.

Officials at the National Oceanic and Atmospheric Administration, Environmental Protection Agency and the State Water Resources Control Board, as well as with both Siskiyou and Shasta counties, said they don't regulate cloud seeding if it is done on private property.

PG&E's generators are on private land, mostly owned by Anderson-based timber giant Sierra Pacific Industries, Marler said.

Although PG&E did not have to obtain permits or complete environmental documents about the cloud-seeding operation, Marler said it's working with Siskiyou County officials so they understand what will be happening in the skies.

Lifted aloft in the exhaust of burned propane, the silver iodide particles -- which he said are harmless to plants and animals -- trigger the development of ice crystals within clouds, Marler said. Those ice crystals fall as snow rather than blowing away as moisture in the wind, he said, increasing snow production by 5 percent to 10 percent.

"It doesn't create snowfall where there wasn't snowfall," Moreno said. "It just enhances snowfall."

Moreno said cloud seeding is used throughout the state, and PG&E has had an operation to boost the snowfall around Lake Almanor for more than 50 years.

Along with providing heavier water flows at the company's hydroelectric dams along the McCloud and Pit rivers, Marler said the cloud seeding also will provide more water for drought-stricken grazing land and forests.

"We are not the only ones who are going to benefit from this," Marler said.

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