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# Cloud seeding plans spark debate

By [Dylan Darling \(Contact\)](#)  
Tuesday, December 23, 2008

A power company's plans to amplify snowstorms in the north state 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 the north state'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.

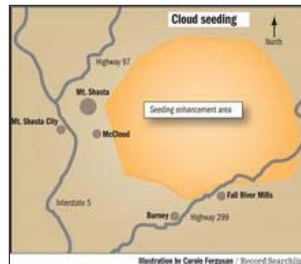
Most people first heard of the PG&E project in October through newspaper notifications, and Cook said she now has an e-mail list of 50 people who are actively involved.

"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.



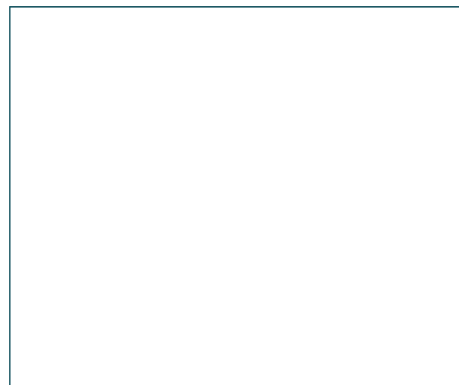
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"It's kind of like anyone can just build a tower and fire stuff into the air," Henery said.

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.

Reporter Dylan Darling can be reached at 225-8266 or [ddarling@redding.com](mailto:ddarling@redding.com).

**Seeds of snow**

Pacific Gas and Electric Co. plans to start cloud seeding, inducing more snow, in parts of Siskiyou and Shasta counties by winter's end.

Seeding season: November to May.

Number of generators: Seven to start with, possibly eight more to come in a second phase.

Elevation: Generators are atop ridges 4,800 to 6,500 feet above sea level.

Coverage: About 1,500 square miles east of McCloud and north of Fall River Mills.

Results: 5 percent to 10 percent more water annually

Cost: \$40,000 for equipment and installation of each generator.

Source: Pacific Gas and Electric Co.

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**Comments**

- Posted by [crosemeyer3](#) on December 23, 2008 at 12:05 a.m. [Reply to this post](#)  
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I've always wondered about this. Aren't they, in effect, "stealing" precipitation from other locations?
- Posted by [Northstate04](#) on December 23, 2008 at 12:48 a.m. [Reply to this post](#)  
[\(Suggest removal\)](#)

in response to [crosemeyer3](#)

The legal term is 'Redistribution of Precipitation'. It's already been approved under the new administration. :>)
- Posted by [crosemeyer3](#) on December 23, 2008 at 12:56 a.m. [Reply to this post](#)

in response to [Northstate04](#)

*(This comment was removed by the site staff.)*
- Posted by [seriousam7](#) on December 23, 2008 at 3:55 a.m.

in response to <a href="#">crosemeyer3</a>	<a href="#">Reply to this post</a> (Suggest removal)
Ok, I know this is wayyy off subject, but how is that being a troll? Does Obama not support redistribution of wealth?(which is what the previous poster was referring to, in case you couldn't figure that out)	
<b>Posted by hallertau on December 23, 2008 at 6:14 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
whats DIAF?	
<b>Posted by DaveN on December 23, 2008 at 7 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
in response to <a href="#">seriousam7</a>	
You mean like how the current administration supports redistributing wealth from the middle class to the upper class. I must say, he was very effective and hence the trouble we are in now.	
<b>Posted by Another_Acronym on December 23, 2008 at 7:07 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
OK people...get to bed earlier and maybe you won't be so grouchy!!!!	
<b>Posted by Another_Acronym on December 23, 2008 at 7:09 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
DIAF	
<a href="http://www.urbandictionary.com/define.php?term=D.I.A.F.">http://www.urbandictionary.com/define.php?term=D.I.A.F.</a>	
<b>Posted by Wendy59 on December 23, 2008 at 7:22 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
Instead of being a sheep and just following along and believing what they say, let's do our own investigation of silver iodide and it's long term effects on humans. It can't be good.	
<b>Posted by bikeegirl on December 23, 2008 at 7:37 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
this has been done in the meadows at the top of Mt. Rose Hwy (South of Reno) for nearly 30 years. I guess if they quit doing it they figure there will not be enough water for us humans.	
<b>Posted by buster6 on December 23, 2008 at 7:37 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
It's Not good to mess with Mother Nature. She has a temper.	
<b>Posted by silvaron4 on December 23, 2008 at 7:52 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
Precipitation Enhancement, is it kinda like Extenze, just makes it bigger? And who would not want that?	
<b>Posted by Bravoman on December 23, 2008 at 7:55 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
in response to <a href="#">crosemeyer3</a>	
Thats not very LIBERAL of you! Just go's to show that the "liberal-left" are not the gentle souls they make themselves out to be.	
Hey Crosemeyer3, ESAD!	
<b>Posted by patagain46 on December 23, 2008 at 7:58 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
In response to all above, the reference to D.I.A.F. it is more evidence this society is really bad....	
D.I.A.F. .... DIE IN A FIRE... It is used in conversation, like a wish or such..... Yea he's bad, he should D.I.A.F.	
<b>Posted by justmy2cents on December 23, 2008 at 8:08 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
I am glad someone is doing this. I remember in the 80's it was done and it really worked. Our area is going to turn into a desert if nothing is done.	
<b>Posted by randy on December 23, 2008 at 8:15 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
I was born in Susanville and the cancer rates among my family and friends there is just staggering. The cloud seeding tower west of town has been one suspect. PGE should have no right to put chemicals into our air and water. How can they have a right to say what is safe for us without our consent?	
<b>Posted by citizenactivist on December 23, 2008 at 8:18 a.m.</b>	<a href="#">Reply to this post</a> (Suggest removal)
I would not trust this corporation watching one of my pets...you have got to be kidding me.	
No permits, no studies, no oversight? They just start pumping more crap into the sky with their gas fired turbine emissions?	
You've got to be kidding me. Will from the looks of Shasta Lake, this is not working too well. I have got to be way missing something here.	
You and I are not allowed to hammer a nail in this county without a permit. This corporation with a rather checkered past of looking out for it's own interest, only, is allowed to screw with our weather without oversight? BS.	
<b>Posted by citizenactivist on December 23, 2008 at 8:19 a.m.</b>	<a href="#">Reply to this post</a>
in response to <a href="#">Northstate04</a>	

	<a href="#">(Suggest removal)</a>
<p>Please expand on your comment. Who and where has this process been approved by the new administration?  <b>8:37 a.m.</b>                  in response to <a href="#">citizenactivist</a></p>	<p><b>Posted by randy on December 23, 2008 at 8:37 a.m.</b>  <a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>The Northstate comment was just an attempt to throw sand in peoples eyes. And for some it worked.  <b>Posted by citizenactivist on December 23, 2008 at 8:40 a.m.</b></p>	<p><a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>So...If I'm correct here, If I want to shoot horse -hit up into the clouds, it's ok, with the National Oceanic and Atmospheric folks, Enviromental Protection, State Water Control Shast and Shiskiyou counties...and I would not even need a permit. I'm on it.  <b>Posted by Another_Acronym on December 23, 2008 at 8:40 a.m.</b></p>	<p><a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>in response to <a href="#">crosemeyer3</a></p> <p>&lt;&lt;I've always wondered about this. Aren't they, in effect, "stealing" precipitation from other locations?                  &gt;&gt;                  I bet if you took a poll in the east...they wouldn't have objected to us "stealing" some of the precipitation from their ice storms!</p>	<p><b>Posted by Another_Acronym on December 23, 2008 at 8:43 a.m.</b>  <a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>in response to <a href="#">citizenactivist</a></p> <p>I think you just found another use for the pumpkin catapults for the rest of the year!!!                  Look out Susanville!!!</p>	<p><b>Posted by 3343 on December 23, 2008 at 9:01 a.m.</b>  <a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>I think that they have been seeding behind the scenes over the last few years, without many people knowing.                  Also, they have done this in Thailand, and people have blamed it for major raging rainstorms/flooding.                  Hopefully will fill up the lake.</p>	<p><b>Posted by silvaron4 on December 23, 2008 at 9:02 a.m.</b>  <a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>in response to <a href="#">citizenactivist</a></p> <p>Please do it over my garden.  <b>Posted by randy on December 23, 2008 at 9:17 a.m.</b></p>	<p><a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>A quick thanks to RS for running this article on a subject that should be brought to the attention of the public and scrutinized closely. Citizens have been testing local ponds, rainwater and even the snow on Mt Shasta for over a year now and have found excessive levels of aluminum/barium contamination in all tests. The testing has been conducted by Basic Labs from here in Redding. So far neither the RS or the county board of supervisors (who are also the Air Quality Control Board) have had any interest in these alarming tests.</p>	<p><b>Posted by Northstate04 on December 23, 2008 at 9:19 a.m.</b>  <a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>To some, it's humor, to others, I guess I hit a nerve. Oh, and a nice comment to make to a firefighter by the way.                  Back on topic, previous studies have shown that there is a slight increase in precipitation in areas within 100 miles downwind of the target area of the seeding, but saw no appreciable drop in precipitation in areas beyond that. Storms lose only a small percentage of their moisture, according to researchers. So the short answer is no.</p>	<p><b>Posted by Another_Acronym on December 23, 2008 at 9:45 a.m.</b>  <a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>in response to <a href="#">randy</a></p> <p>if citizens are doing the collecting how can anyone be sure of the data?                  What was used for their baseline?                  aluminum &amp; barium aren't used to seed clouds...what does this have to do with the article?</p>	<p><b>Posted by manuel on December 23, 2008 at 10:43 a.m.</b>  <a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>no one wins. half of you whine and other half whimper....  <b>Posted by randy on December 23, 2008 at 11:02 a.m.</b></p>	<p><a href="#">Reply to this post</a>  <a href="#">(Suggest removal)</a></p>
<p>in response to <a href="#">Another_Acronym</a></p> <p>Aluminum and Barium are the primary ingredients used in global climate alteration. Search climate modification and you will learn just how much is going on that we are all unaware of. Some of the test samples were taken by individuals and some were taken by the lab personnel. The samples collected by the lab came back showing higher levels of contamination than those taken by the individuals. The way this connects to the article is that the people doing</p>	

the cloud seeding are not concerned about any ill effects and do not look for that. In fact they will do all they can to hide and confuse evidence showing that they are causing harm. What is their reason to go to this effort in the first place? It is definately not for public health.

Posted by [randy](#) on December 23, 2008 at 11:18 a.m.  
[Reply to this post](#)  
 in [\(Suggest removal\)](#)

response to [manuel](#)

Possibly you should educate yourself to what goes on around you. This should be a search for the truth. If someone came up to me in a parking lot and told me my lug nuts were falling off my front tire I would not be concerned about their political preference. From the bailout of the wealthiest Americans to the poisoning of our waters, those responsible avoid consequences simply because it is just too easy to keep the people in a political stupor.

Posted by [Wendy59](#) on December 23, 2008 at 11:22 a.m.  
[Reply to this post](#)  
 in response to [randy](#) [\(Suggest removal\)](#)

I agree. Also, there are some really good articles on the subject at <http://www.rense.com> , search for "cloud seeding" or "chemtrails"

Posted by [outoftown](#) on December 23, 2008 at 11:30 a.m.  
[Reply to this post](#)  
[\(Suggest removal\)](#)

When I read the title I though talking about Microsoft new windows Cloud LOL.

Posted by [just\\_not\\_right](#) on December 23, 2008 at 11:33 a.m.  
[Reply to this post](#)  
 in response to [Wendy59](#) [\(Suggest removal\)](#)

If you drink it won't it turn you blue?

Posted by [angel](#) on December 23, 2008 at 11:47 a.m.  
[Reply to this post](#)  
[\(Suggest removal\)](#)

This is really screwed up! This ticks me off!  
 How do we get hold of the lady who's starting the group to oppose this??? I am AGAINST this!  
 It figures Sierra Pacific is involved!  
 On which mountaintops are the 7 generators due to be located - does anybody know?  
 And yes it is a fact cloud seeding can also be done by airplane!

Posted by [Shastagir10709](#) on December 23, 2008 at 11:49 a.m.  
[Reply to this post](#)  
[\(Suggest removal\)](#)

is this really bad for humans/the environment?? If not, then BRING IT!!!! we need all the help we can get!!

Posted by [Wendy59](#) on December 23, 2008 at 12:03 p.m.  
[Reply to this post](#)  
 in response to [just\\_not\\_right](#) [\(Suggest removal\)](#)

Excuse me? I haven't said anything about drinking anything.

Posted by [just\\_not\\_right](#) on December 23, 2008 at 12:10 p.m.  
[Reply to this post](#)  
 in response to [Wendy59](#) [\(Suggest removal\)](#)

[today.msnbc.msn.com/id/22536241?GT1=10755](http://today.msnbc.msn.com/id/22536241?GT1=10755) - 46k

Posted by [citizenactivist](#) on December 23, 2008 at 12:20 p.m.  
[Reply to this post](#)  
 in response to [Another\\_Acronym](#) [\(Suggest removal\)](#)

LMAO good one! Merry Christmas all.

Posted by [citizenactivist](#) on December 23, 2008 at 12:28 p.m.  
[Reply to this post](#)  
 in response to [silvaron4](#) [\(Suggest removal\)](#)

Man you guys stop it...your killing me here...smile

Posted by [Another\\_Acronym](#) on December 23, 2008 at 1:07 p.m.  
[Reply to this post](#)  
 in response to [Wendy59](#) [\(Suggest removal\)](#)

wow Wendy...you believe this stuff????

<http://www.rense.com/general/masschem.htm>

It is clear that the contrails are being made on a massive scale; that the project and the agencies are secret; that the media is not interested in even considering the question (although I understand the internet has been reporting curious 'crisscrossing' contrail activity for years--I have observed this phenomenon for more than two years.

I bet he wears his tinfoil hat with the shiney side out!!!

Posted by [randy](#) on December 23, 2008 at 1:49 p.m.  
[Reply to this post](#)  
[\(Suggest removal\)](#)

Once someone mentions chemtrails the whole focus turns to "conspiracy theorists", tinfoil hats and other nonproductive bs. The facts to stay focused on are the concrete results of the tests showing contamination of our environment including your own yards. Weather modification is happening openly and the various programs are online for all to see. The only question is whether the public chooses to let individuals tinker with our world and the health of our families. Whether or not our government is carrying on secrete programs should be kept a seperate issue and should have nothing to do with people being aware of the toxic contamination being found from the slopes of Mt. Shasta to the rainwater falling on Redding.

Posted by [randy](#) on December 23, 2008 at 1:55 p.m.

[Reply to this post](#)  
(Suggest removal)

Did I mention that Shasta Lake (Redding's drinking water)has also been tested and found to contain levels of aluminum/barium contamination exceeding levels determined to be safe by Ca. standards?

in response to [Wendy59](#) [Reply to this post](#)  
(Suggest removal)

Good point.  
I have started to investigate and see that, according to Wikipedia, large amounts or prolonged exposure to silver iodide can cause some problems, but for the most part, the amount we are exposed to with cloud seeding is less than what is used in dental fillings.  
[http://en.wikipedia.org/wiki/Cloud\\_seeding](http://en.wikipedia.org/wiki/Cloud_seeding)  
I will keep investigating.

**Posted by reesespiece1963 on December 23, 2008 at 2:07 p.m.** [Reply to this post](#)  
(Suggest removal)

They did Cloud Seeding in Southern California many, many years ago, with great results. I don't know about the contamination, but it got great results for more water

**Posted by reesespiece1963 on December 23, 2008 at 2:10 p.m.** [Reply to this post](#)  
(Suggest removal)

<http://www.ranches.org/cloudSeedingHarmful.htm>  
this is a very intersting article !!

**Posted by kloozo on December 23, 2008 at 3:08 p.m.** [Reply to this post](#)  
(Suggest removal)

Can they make it so it would rain beer?

**Posted by railsurvey on December 23, 2008 at 4:50 p.m.** [Reply to this post](#)  
(Suggest removal)

Will PG&E plow my driveway now.

**Posted by 3343 on December 23, 2008 at 5:06 p.m.** [Reply to this post](#)  
(Suggest removal)

Maybe if this works & they can generate more hydro power - THEN they can lower the rates, or quit raising rates as much ???

**Posted by crosemeyer3 on December 23, 2008 at 6:05 p.m.** [Reply to this post](#)  
(Suggest removal)

in response to [Northstate04](#)

So now I am supposed to be psychic and know what everyone does for a living?  
Anyway, that was clearly a troll to try and turn this into yet ANOTHER political thread.  
But, thanks for the answer on the topic!

**Posted by red on December 23, 2008 at 6:18 p.m.** [Reply to this post](#)  
(Suggest removal)

This will just bring more bad weather to homeless people.

**Posted by IndependentGuy on December 23, 2008 at 6:20 p.m.** [Reply to this post](#)  
(Suggest removal)

What do you suppose the government is putting in the atmosphere on a daily basis when Jets crisscrossing the sky leave thier contrails? Those are not just vapor trails as the Gov. would lead you to believe. It is not natural...they are dumping something in the air!!

**Posted by notXtian on December 23, 2008 at 6:59 p.m.** [Reply to this post](#)  
(Suggest removal)

To you tinfoil-hat-wearers, here's a link on contrails:  
<http://contrailscience.com/contrails-dark-lines-chemtrails/>

**Posted by Northstate04 on December 23, 2008 at 7:07 p.m.** [Reply to this post](#)  
(Suggest removal)

in response to [crosemeyer3](#)

Not trolling, just injecting humor. Some get it, some don't. Sorry if I ruffled your feathers. Nuthin but love for ya man.  
Political discussions here are worthless. Won't change anybody's opinion anyhow.  
**Post your comment**  
(Requires free [registration](#).)

We're happy to offer a home for your discussions, but please be respectful and follow the house rules:

**Stay on topic** - Life's too short to waste.

**Be nice** - If you want your comment gems to survive, you won't defame, threaten or be abusive to other readers or the subjects of our stories. Victims have feelings too. Out of concern for them, we may not allow comments on certain stories.

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