## **RENEWABLE ENERGY?**

JUN 07 2021
COUNTY OF LAKE
BOARD OF SUPERVISORS

RECEIVED

By: Joan Moss

I believe it is time to reconsider the term "renewable energy" when speaking of the Geysers Development in Lake and Sonoma Counties.

May 11 Lake County Supervisors voted 4-1 to give Calpine 250-acre feet of water from Clear Lake during the months of May and June "due to a construction project in Sonoma County that will stop all flows from that region" up to the geysers to keep the power plants running.

The extra water from Clear Lake will supplement the water lost from Sonoma County. Ordinarily pipelines from each side bring treated wastewater and/or lake water, to the injection wells to create steam that produces electricity.

I question this decision and want to point to Calpine's less than perfect record of their relationship with Lake County for the past years.

A fire that occurred before the Valley Fire caused the demise of number 8 power plant, and was caused by 'la squirrel' that fell from the wire.

Calpine declared bankruptcy, causing shareholders to lose all their money.

For the past two years at least, Calpine has failed to pay their fair share of fire fighting projected costs, according to board member Madelyn Martinelli of the South Lake County Fire Protection District.

At a meeting last Tuesday May 18, Cal Fire Department Battalion Chief Mike Wink divulged information that Sonoma County was discussing the idea with Middletown Fire Department of helping pay for the costs of Emergency Services at Calpine's geysers, since the geysers is closer to the Lake County border than the Sonoma County emergency services.

At the meeting May 18, it was brought up that two tanks of water have been brought up to Calpine's development area in case of fire.

The full Circle Project itself was in response to the lack of steam at the geysers, which at the time was considered a renewable energy project. Officials stated the hot rocks below the earth were the renewable energy, but without water the rocks could make no steam.

The water had dried up, making the possibility of the pipeline a necessity. The injection of treated wastewater at the geysers was blamed for causing earthquakes that began to occur near Andersen Springs following the Full Circle Project activation.

Supervisor Bruno Sabatier explained his opposing vote: "We're giving away our drinking water at a bad time. I can't say yes. I'm sorry you haven't maintained your pipeline. This is the worst of all times. 250-acre feet of potable drinking water."

## **CLEAR LAKE'S WATER LEVEL**

June 3, 2021 - Clear Lake's water level read 0.37 feet Rumsey, discharging at 4.53. These measurements can be found on the wall third floor of the Lake County Courthouse behind the desk of the receptionist.

Yuliva Osetrova, Lake County Water Water Resources Engineer, explained that Yolo County is not receiving any more water for its own use due to the low level of the lake measured May 1.

## Clear Lake Volcanic Field

Updated 26 May 2021 23:41 GMT

During the past 14 days, Clear Lake volcano was shaken by 2 quakes of magnitude 3.0 or above and 11 quakes between 2.0 and 3.0



Quake statistics I Archive I Volcano info I Past 24 hrs

all 1.0+2.0+3.0+

Showing quakes magnitude 1.1 or higher (108 quakes):

Date and time Mag Distance Location Depth

26 May 2021 (GMT) (19 earthquakes)

26 May 2021 21:16:49 GMT1.216 km 4km W of Cobb, CA
2 hours 37 minutes ago (9.9 mi) 1.8 km

26 May 2021 18:04:45GMT 1.1 14 km 4km NW of Cobb, CA 6 hours ago (8.7 mi) 1 km

26 May 2021 18:03:32 GMT 1.118 km 11 3km WSW of Cobb, CA 6 hours ago (0.9 km)

26 May 2021 18:02:16 GMT 1.213 km 6 hours ago (8.1 mi) 0.7 km 4km NW of Cobb, CA

May 2021 18:00:37GMT 1.1 14 km 4km WNW of Cobb, CA 6 hours ago (8.7 mi) 0.8 km

26 May 2021 17:59:14GMT 1.2 14 km 3km NW of Cobb, CA 6 hours ago (8.7 mi) 0.9 km (ETC.)

Date published: DECEMBER 19, 2018

Lake Volcanic Field, Coso Volcanic Field, Lassen Volcanic Center, Long Valley Caldera, Mammoth Mountain, Mono Lake Volcanic Field, Mono-Inyo Craters, Mount Shasta, Salton Buttes

Which U.S. volcanoes pose a threat?

USGS Volcanic Threat Assessment updates the 2005 rankings.

Attribution: Natural Hazards, Volcano Hazards

Program Office, Volcano Science Center, California

Volcano Observatoty, Cascades Volcano

Observatory, Hawaiian Volcano Observatory,

Yellowstone Volcano Observatory, Clear Lake

Volcanic Field, Crater Lake, Glacier Peak, Hua/älai,

Kl/auea, Lassen Volcanic Center, Long Valley

Caldera, Mauna Loa, Medicine Lake, Mono-Inyo

Craters, Mount Adams, Mount Baker, Mount Hood,

Mount Rainier, Mount Shasta, Mount St. Helens,

Newberry, Salton Buttes, Soda Lakes, Three Sisters, Yellowstone

https://www.usgs.gov/volcanoes/clear-lake-volcanic-field#:—:text=Although Clear Lake volcanic field, its potential to erupt again

## **USGS Summary**

The town of Clearlake lies within the volcanic field as does much of the 43,000-acre freshwater lake of its namesake. The Geysers steam field, which sits at the southwest margin of the volcanic region, is host to one of the world's most productive geothermal power plants, producing enough electricity for 850,000 homes. The heat driving the geothermal system emanates from a zone of partially molten rock deep below the greater Clear Lake volcanic system. The most prominent volcanic feature is 300,000-year-old Mount Konocti, rising about 975 m (3,200 ft) above the southwestern shore of the lake. The most recent eruptions occurred about 11,000 years ago around Mount Konocti. Although Clear Lake volcanic field has not erupted for several millennia, sporadic volcanic type earthquakes do occur, and the numerous hot springs and volcanic gas seeps at in the area point to its potential to erupt again. Monitoring in the Clear Lake region by the IJSGS and a collaborative effort with Calpine Corporation in the Geysers Steam Field, provides real-time tracking of earthquake activity. In addition, the USGS periodically analyzes volcanic gases and hot springs in the region.

Contact Joan Moss

707-262-2457 (Cell) 707-279-1650 (Home)