



Serving Lake County for over 100 years

NUMBER 34

25¢

AUGUST 21, 2003

Supes okay geo funds for Anderson Springs

The Anderson Springs community will receive \$150,000 in geothermal mitigation funds for a baseline study of the homes and geology of the area in an effort to address community concerns about earthquake activity.

The board approved the allocation during recent budget hearings at the request of Supervisor Ed Robey.

The Anderson Springs Community Alliance wrote to Robey in April seeking \$300,000 for a baseline assessment and monitoring program. Alliance member Jeff Gospe, whose mother-in-law owns a vacation home in Anderson Springs, said the study "needs to be done before Santa Rosa more than doubles" the wastewater injection volumes at the Geysers.

Lake County injects about 7.5 million gallons of treated wastewater a day into wells at the Geysers in an effort to stem declining steam quality and quantity. The geothermal pipeline also eases the burden of disposing of treated sewage for communities around the lake.

The city of Santa Rosa followed Lake County's lead with a much larger project to pipe treated wastewater through the Anderson Valley to the Geysers, and expects to re-inject about 11 million gallons a day.

The Anderson Springs Community Alliance believes that this reinjection is increasing the number and severity of earthquakes in the area to the extent that homeowners are suffering property damage. The alliance estimated in a letter to Robey that \$600,000 would be needed to fund the study, and asked the county to set aside geothermal mitigation funds to cover half that amount.

Gospe said in his letter to Robey that the alliance wants "to ensure that a minimum of \$300,000 be reserved toward the approximately \$600,000 we anticipate" for the study. He also said that the alliance is open to discussing "other options for using AB1905 revenues to safeguard our community, which might include establishing a fund to repair property damage, provide insurance, and offer other benefits to our community as compensation for negative impacts resulting from the county's activities."

Experts agree that earthquakes in the area have increased since geothermal development began, although most are small. Some 1,900 quakes of magnitude 2.0 or greater have occurred within a five-mile radius of Anderson Springs since 1970.

Unfortunately the experts don't agree on what causes the earthquakes or how much damage they can do. Most agree that earthquakes smaller than 2.0 won't cause structural damage, but Anderson Springs residents point to three quakes in three weeks in May that measured 3.7, 4.0 and 3.4.

The Anderson Springs Community Alliance believe that injecting the cool treated wastewater into the hot steam-producing rocks near the earth's magma causes the quakes.

Others, including Robey, argue the opposing theory that quakes are caused when steam is removed from the earth, causing the rocks to settle. Under this theory, re-injection may actually help by equalizing the pressure underground.

Robey points to data presented at a recent meeting to support his argument. The alliance presented information on the increasing strength and number of earthquakes, but an industry expert noticed that the events occurred during a period when re-injection was shifted away from Anderson Springs to the Sonoma County side for testing to prepare for completion of the new pipeline.

Robey responded to Gospe's funding proposal with a request for details on how the money would be spent. Robey also pointed to the monitoring programs already in place, and the addition of 23 new and more sensitive earthquake sensors around Anderson Springs.

Ongoing monitoring includes several air quality monitoring programs, water monitoring on 8-10 locations on four major creeks flowing through Anderson Springs, and the existing US Geological Survey seismic recording system used for 25 years to monitor and record all events of magnitude 1.1 and greater.

The data is monitored regularly by the Seismic Monitoring Advisory Committee (SMAC), which includes representatives from the industry, regulatory agencies, and the public.

The new array of seismic monitors was funded by a \$600,000 grant from the California Energy Commission and \$157,000 contributed by geothermal operators, Robey said. The data will go to a neutral party, Lawrence Berkeley Laboratory, and the public will be able to access the data on the internet.

Gospe replied in a letter that more specific information and a project budget "would be premature to what we were requesting," which included an allocation of \$6,830 and a commitment to "define, launch, and fund a comprehensive baseline assessment and monitoring program sometime later this year."

Gospe took issue with Robey's list of monitoring activities, saying the seismometer information "offers little insight into impacts of these earthquakes on people, structures, springs, property, etc." and was "installed more for the benefit of scientists ... than as mitigations and benefits for nearby communities."

He also said the water monitoring program "excludes numerous tributaries, happens too infre-

See Mitigation on Page 4

Mitigation

From Page 1

quently and doesn't monitor many important factors."

Without more specific cost information to take to the board as an allocation request, Robey sought advice from Mark Dellinger, formerly a county resource coordinator who went to work for Calpine and then returned to the county as director of special districts.

Dellinger thought the study requested by the alliance could be done for about \$300,000. Robey said, so his request for geothermal mitigation funds was half that amount.

The study will pay structural engineers to gather baseline data on homes in the community, including structural criteria and alleged damage, as well as hiring geologists to describe and photograph the area to establish current geological conditions.

