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Monterey County Board of Supervisors  
168 W. Alisal Street  
Salinas, CA 93901

Dear Chairman Calcagno and Board of Supervisor members:

September 19, 2014

**Re: Oppose fracking in Monterey County**

Thank you for the opportunity to comment on the Agenda item regarding hydraulic fracturing or “fracking” scheduled for your September 23 meeting.

Ventana Chapter of the Sierra Club represents over 7,000 members and supporters in Monterey and Santa Cruz County. We join our State and National organizations in opposing the use of fracking and other enhanced drilling techniques for oil extraction.

There are currently no laws in Monterey County nor statewide that adequately protect citizens from the effects of fracking. There is considerable confusion about the legislation. Senate Bill 4 (SB 4) that passed last year in California. SB 4 did not establish meaningful new rules for new drilling technologies. It was primarily a stalling maneuver and only passed after 10 revisions. We opposed the bill in its final form.

Sierra Club and over 200 environmental organizations, health professionals, labor, farmers and other groups have signed on to letters in favor of banning fracking to protect public health and the environment while more research into the impacts are completed.

The California Department of Conservation sent out public notice on June 13 that revisions to the text of the proposed regulations and documents added to the rule making record as a result of SB 4 are available for review and comment. This phase of the public comment period runs until July 28. It is expected to take between two to three more years for all the hearings, review, EIR and other steps before regulations could be put in place. Because DOGGR never regulated fracking, water quality impacts and human health impacts now go unmeasured in California, but fracking in other states shows that fracking is a human health hazard for both oil and gas field workers and people living near oil and gas fields.

**Sierra Club respectfully requests that Monterey County impose an immediate moratorium on fracking and other enhanced drilling techniques, to remain in place at least until these State regulations are in place.**

*To explore, enjoy, preserve and protect the nation's forests, waters, wildlife and wilderness*

Monterey County residents are very concerned with the short and long term effects on the environment of fracking and other enhanced drilling techniques such as acidization, especially the impacts to air quality, water supplies and seismic activity. Also the impacts to adjacent residential neighborhoods, schools, playgrounds and home property values could be extreme.

Across the country fracking has been associated with severe public health and environmental effects and risks, including the use and contamination of large amounts of water pumped into the wells, contamination of domestic and agricultural water supplies, emission of hazardous air pollutants and methane, surface spills of toxic fracking chemicals and fluids before, during and after fracking operations, the inhalation of silica dust, environmental degradation, loss of habitat for native plants and wildlife and the potential to induce seismic activity, a unique concern in California, one of the nation's most seismically active states.

The following are our specific concerns about fracking in Monterey County.

**Seismology:**

It is posted on the Monterey County website that the County is located on active geologic fault lines. The website lists the most active fault line as the San Andreas Fault line that runs through the community of Parkfield. Nicknamed the "Earthquake Capital of the world", Scientists monitor the Parkfield area gathering data about earthquakes. Photos of markers located in Parkfield show how much the ground has moved over the years, a rate of 2.33 inches per year.

The San Andreas is about 630 miles long, varies from a few feet to over a mile wide and goes down about 9-12 miles below the surface. Throughout time, most of the earthquakes that have occurred in Monterey County originated from movement along the San Andreas Fault system, which runs through the southeastern portion of the county, and includes the Rinconada and Reliz fault zones where fracking is proposed. This fault system is recognized as the most active in California, and quake monitoring reports over 500 quakes in the past year in the magnitude of between 1.5 and 4.1.

The oil industry denies that hydraulic fracturing induces hazardous earthquake activity. The facts demonstrate that the opposite is true, and that this poses particular concerns in seismically prone California. Fracking wells are between 5,000 to 20,000 feet deep which is well within active seismic fault zones. Currently, the State has no information available to the public that discusses or tracks the influence that injection wells may have on faults and seismic activity in California.

Outside of California, a June 2012 report by the National Research Council of the National Academies of Science established a connection between high-pressure underground injection of fracking wastewater and seismic activity. Small temblors have been reported in Arkansas, Ohio, Oklahoma, and Texas, and they have been linked to oil and gas production wastewater disposal, including the underground disposal injection of fracking wastewater. The 2012 "Investigation of Observed Seismicity in the Horn River Basin" [British Columbia Oil and Gas Commission] established such a direct link between fracking and increased seismic activity.

## **Water:**

The average fracked well in California uses up to a million gallons of water and a well can be fracked multiple times. Monterey County is experiencing one of the most severe droughts in its history. According to the Monterey Herald on April 23: “ South County lake levels are well below normal, with Lake San Antonio at 5 percent of usual and Lake Nacimiento at about 23 percent, which means vastly reduced releases to the Salinas River for replenishing groundwater basins and no operation of the rubber dam for North County farm fields. County officials are looking at alternative sources of irrigation water to avoid groundwater pumping and exacerbation of seawater intrusion.”

### **From where is a new source of water coming for fracking?**

At this time, the California Department of Oil, Gas and Geothermal Resources (DOGGR) states that the operators’ data and other details of the fracturing operations will be submitted to the Regional Water Quality Control Boards and water supply agencies within the jurisdiction at least 10 days before commencing fracturing.

Anyone familiar with these water boards knows it takes months or even years to get review. The Central Coast Regional Water Quality Control Board has not yet prepared even draft fracking waste water permit language. In fact there is no mention of the issue yet in any publicly accessible documents from the Regional Board that we have been able to locate.

### **Agriculture and Fracking:**

The farm, food manufacturing and leisure/hospitality industries account for almost half of all jobs in Monterey County. The County just released on its website that agricultural crop production values for 2013 was \$4.38 billion, up 9% or a \$375 million increase from 2012. This means that Monterey County's agriculture sector is among the most productive in the world. The total economic impact of agricultural production in Monterey is estimated at over \$8.7 billion when allied businesses, employee paychecks, and value-added processing are tallied. (Source: Monterey County Farm Bureau website).

As more evidence is learned about the negative impacts of fracking on agriculture, areas with a strong agricultural past are now considering banning fracking to preserve their ability to farm. In June, community leaders in Denton, Texas after experiencing 10 years of wealth and prosperity from fracking, are now proposing an outright ban to protect the town’s “livability” and promote “farm-to-table” environmentally friendly business opportunities.

### **Human health issues:**

In addition to the specific issues of concern with fracking as they apply uniquely to Monterey County, it cannot be ignored that other states and communities are now showing severe distress over the effects of fracking. In California, Kern County reports show that fracking is a human health hazard for both oil and gas field workers and people living near oil and gas fields: In 2008, a Kern County farmer was awarded \$8.5 million in compensatory damages for

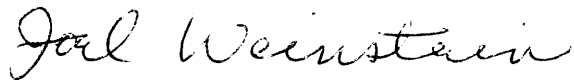
groundwater contamination from oil industry wastewater stored in open pits. Vintage Productions/Occidental Petroleum, also in Kern County, has fracked 36 wells from 2011 to April 2013. The company's arrays of pipes and tanks and trucks are punctuated with a tower that has been flaring gas since 2011, sometimes 24 hours a day. Studies of gas flaring show that gas field ozone has created a previously unrecognized air pollution problem in rural areas.

Clearly, the risks of fracking to public health, agriculture and the environment need time to be fully evaluated by the State of California and other agencies before permitting should be allowed in Monterey County. The most logical response at this time would be to press pause. A moratorium on fracking would give the County the opportunity to better understand potential risks, while ensuring that we don't poison our air and water and shatter our local economy in the interim.

That is why the Ventana Chapter of the Sierra Club strongly urges Monterey County to impose an immediate moratorium on fracking and other enhanced oil and gas drilling techniques, with the moratorium to remain in effect at least until the state of California has fully evaluated the potential impacts, and until such time as the state of California has fully implemented regulations that adequately protect the people and businesses of Monterey from all such potential impacts.

Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Joel Weinstein".

Joel Weinstein  
Chapter Chair