



-----The Ventana Chapter-----

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Conveyed by electronic mail to <BLM_CA_OGEIS@blm.gov> as instructed in the BLM scoping notice. And posted by regular US mail to the header address below and also to Rm. W-1623 Sacramento, CA 95825.

U.S. Department of the Interior,
State Director Jim Kenna
Bureau of Land Management, Central California District
2800 Cottage Way, Rm. W
Sacramento, CA 95825

Second mailing address:

BLM, California State Office
Attn: HFO O&G Leasing EIS
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Subject: Scoping comments for the first phase of a National Environmental Policy Act (NEPA), Environmental Impact Statement (EIS) to address the impacts of new Hollister District Office oil and gas leasing. This includes the development of new standards for unconventional oil and gas production on federal public lands and mineral estate, and including a potential new Resource Management Plan (RMP) for the Hollister office and possibly the wider state of California.

Greetings Director Kenna,

The EIS for which the Hollister BLM office is now conducting scoping will specify which areas of federal public lands are opened or closed to oil and gas leasing and it will also prepare a list of stipulations to be applied to future leases to protect natural resources.

If the Resource Management Plan prepared for the Hollister District is applied to other BLM management areas, then this needs to be made clear and specific well in advance of the release of any EIS documents or related research reports.

On May 31, 2013, the U.S. District Court for the Northern District of California ruled in *Center for Biological Diversity v. Bureau of Land Management* that BLM violated the National Environmental Policy Act (NEPA) by issuing oil and gas leases without first analyzing the full impact of dangerous extraction techniques such as hydraulic fracturing. The impacts of drilling techniques including hydraulic fracturing, acidization and horizontal drilling in other US states and British Columbia have resulted in intense and harmful environmental impacts to natural resources, to private property and to public health and safety. Water

pollution and water volumes diverted from other uses, air pollution, harm to soil, wildlife, and the climate have all resulted from the expansion of unconventional oil and gas extraction methods. Allowing this activity to expand to BLM managed public lands and mineral estate in California will bring the same harm to this state and result in severe impacts upon the human health and safety of Californians.

The Ventana Chapter of the Sierra Club represents the Sierra Club membership in Monterey and Santa Cruz Counties. We also represent the Sierra Club as a national organization. This issue of public lands oil and gas leasing is a major issue for the Ventana Chapter, and we are involved in this matter with other parts of our organization.

New recovery techniques for "tight oil" from the Monterey Shale will involve numerous dangerous chemicals and much more widely dispersed drilling patterns. This means that the placement of drilling and production platforms will disrupt and harm wildlife in a far more profound way than that ever seen before in California. In other states, well platforms have been dispersed across landscapes in grid patterns covering many square miles in one organized array of fracking wells. Patterns of service roads, chemicals and produced water fluid spills, the disposal of produced and fracking fluid water, the dewatering of streams and springs, the noise, air and water pollution, could render large areas of what are now wild lands or grazing lands as useless and uninhabitable for wildlife or grazing livestock. There are many endangered species within the BLM Central Coast planning area and across federal lands in all of southern CA. The habitat for these listed plants and animals must be mapped and evaluated accurately in the EIS before any leases are anticipated. Public lands are held to a higher standard of protection than is privately owned land.

The EIS must accurately assess the impacts predictable if a large oil "play" begins and financial and political pressure mounts upon your agency to lease ever-larger areas of land. The decisions of whether to sell hydraulic fracturing leases *at all*, and if so, where and how to permit any unconventional oil and gas extraction (fracking) on public BLM lands and mineral estate in California is a major determination that requires your agency to conduct a thorough and honest assessment of a full range of environmental impacts.

The Sierra Club is particularly interested in how areas might be selected as suitable for oil and gas leasing, why and based upon what principles such determinations will be made, and if the information used to make these decision is consistent with the fundamental issues defined by NEPA.

The purposes of the National Environmental Policy Act are as follows:

- (1) Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- (2) Assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;
- (3) Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended

consequences;

- (4) Preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;
- (5) Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
- (6) Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The objectives of a NEPA scoping process are to:

- (1) Identify potentially interested parties;
- (2) Identify public and agency concerns
- (3) Define the range of issues that will be examined in the plan
- (4) Ensure that relevant issues are identified early and drive the analysis; and
- (5) Establish a public record. The full public record must be made readily available on a website and that web address must be easily available to the public.

All reasonable alternatives to oil and gas leasing must be evaluated objectively. These alternatives must receive the full attention of BLM in detail.

The comparison between differing alternatives must, at minimum assess:

- (1) Direct effects and their significance;
- (2) Indirect effects and their significance;
- (3) Possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned;
- (4) The environmental effects of alternatives including the proposed action;
- (5) Energy requirements and conservation potential of various alternatives and mitigation measures;
- (6) Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures;
- (7) Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures;
- (8) Means to mitigate adverse environmental impacts.

A properly conducted EIS and Statewide Study are likely to demonstrate that the risks to public health, safety, and the environment cannot be eliminated or fully mitigated through regulation.

In regard to the issue of the **recommendation of alternatives** during scoping; the alternatives to the project analysis should included a review of the potential for wind and solar power development, including where, how, and with what limitations. Realistic mitigations might be possible with renewable energy. We would not recommend the

placement of wind turbines in the habitat of the endangered California Condor. But there may be areas under BLM jurisdiction where such projects would be a beneficial alternative to fracking oil development.

Renewable energy must soon be our primary energy source in the very near future if the planet is to avoid the catastrophic impacts of climate change and ocean acidification caused by the build up of excess carbon dioxide.

The Sierra Club is a national organization with Chapters in all 50 states and Canada. We share information from activists and scientists across North America. Nowhere in our experience, have fracking and unconventional drilling been found to be objectively safe. The extensive multi-State standing record of harm caused by fracking to lands, water (ground and surface), air quality, wildlife, public and private drinking water supplies, public health, adjacent private property rights, to public peace and enjoyment of life and property, make clear to us that prohibition of oil and gas leasing is the "alternative" that can stop the damage to human health, safety, and the environment posed by unconventional oil drilling or fracking on public lands.

Components of the EIS

The EIS must encompass *all* methods of unconventional oil and gas extraction and production. Although hydraulic fracturing or fracking has been the primary focus of public attention and litigation, well stimulation and underground injection techniques can vary widely. Examples include acidization, acid hydraulic fracturing, gravel packing and the extravagantly broad range of chemicals that drillers have used to stimulate oil and gas wells.

Each of these techniques and classes of chemicals raise a new set of concerns and potential impacts on human health, safety, and the environment. The EIS and Statewide Study must address all types of unconventional oil and gas recovery that may be utilized in California. Because the Monterey Shale and California fracking "oil play" has just begun, it is not clear which techniques of fracking, well stimulation, horizontal drilling and so forth, are likely to be used within the jurisdiction of BLM. For this reason your agency must assess and anticipate in the EIS, all possible forms of "fracking" and unconventional oil and gas drilling that may be used. Certainly the oil industry itself could be a productive source of such information.

BLM must analyze the complete lifecycle of drilling and oil and gas production activity.

(1) This includes the construction of service roads and drilling pads and the eventual de-commissioning and restoration of these pads and roads once oil is depleted. Well sealing and ground water monitoring are part of de-commissioning.

(2) The EIS must describe the possible density upon the landscape of potential arrays of drilling and production facilities, including the methods of product and equipment

transport, size and weight of trucks, the potential for on-site processing for produced oil and gas, the possibility of pipeline construction, the disposal of drilling fluids, back flow water, produced water, fracking fluids, and any other oil and gas production development activity.

We refer to this as "unconventional oil and gas production" for a simple reason. It is not clear what drilling techniques will be employed or how long the wells will produce. Evidence from other states must be used to predict the likely type and intensity of drilling activity.

(3) Unconventional oil and gas production results in large volumes of waste fluid and produced water, byproducts that have contaminated air, water, and soil and harmed humans and wildlife. Under current CA Dept. of Oil Gas and Geothermal Resources code in California, flowback fluid can be stored in open pits near the well pad. The EIS and Statewide Study must review the risks posed by these pits, which can contaminate the soil, pollute nearby surface water with breaches and spills, and pollute the air through evaporation. Liners tear, and spills and evaporation occur even when the lining remains intact. Wildlife can be killed when exposed to these pits' toxic contents.

(4) Wastewater is commonly injected into disposal wells, which have been linked to induced earthquakes in states that have seen an increase in disposal wells. Fracking itself has caused earthquakes as documented by the "Investigation of Observed Seismicity in the Horn River" (-source-British Columbia Oil and Gas Commission, August 2012). In an earthquake prone state such as California, the issue of seismicity is a major potential impact. The potential effects upon earthquake faults has yet to be studied.

Injection wells are typically used for long-term and essentially permanent storage of waste fluid and "produced water. Thus the long term integrity and effect of these injection wells must be evaluated as part of the EIS and Statewide Study. Injecting and storing polluted wastewater underground in these injection wells has been shown to cause a variety of risks. The potential for the permanent pollution of ground water basins is a major question that must be addressed in the EIS. The long-term integrity of cement well seals that are commonly claimed to protect ground water from being polluted by the migration of injection fluids is an open question. There is extensive evidence from many locations that well seals commonly fail over time and allow deep storage injection fluids to migrate up the well bore and casing and pollute and ruin ground water supplies.

During high-pressure fracking, extreme fluid pressures are applied to well bores (including horizontal bores. These pressures can split well bore casings, well pipes, and potentially crack the well seals that are intended to isolate different geological strata. The potential for the failure of well seals and zonal isolation from ground water must be addressed.

(5) California's complex geology includes many unknown deep faults, geologic slip planes and other geologic formation elements that could allow chemical fracking fluids, oil and gas to escape upward into the five hundred foot deep level that is generally considered to the lower depth of most ground water basins. Fracking may occur as much as one to two miles

below the earth surface, but rock faults can exist or be opened and thus allow deep salt and fracking chemical polluted water to merge with ground water over time. A geo analysis of the lands intended for possible leasing has to occur before any lease of public lands is considered. The EIS must include the geologic study sufficient to address this risk.

(6) The EIS must include a list of the chemicals that could be used in unconventional oil and gas production. These numerous toxic and corrosive chemicals may be spilled, leaked from pond or tank storage, or be pumped into the earth. No legitimate EIS can be prepared without including a thorough assessment of the risks posed by the use of these chemicals, both at the surface and deep in the earth. BLM has the legal authority to create regulations that permit the disclosure of this information, even for chemical information that would otherwise be considered a trade secret.

(7) The sheer volume of water that may be used for new unconventional oil and gas production needs to be assessed and estimated. The water supplies in the California counties spanning the jurisdiction of the Hollister office are virtually all over-subscribed and under stress. In many instances the hydraulic fracturing of oil and gas wells uses huge volumes of water. Water used in a Monterey Shale oil play will be in competition with agriculture, wildlife, municipal, and rural homestead uses. This competition for water supplies may prove to be intense. The EIS must assess the impacts of the additional demand for water resources that these new unconventional oil production sites will create. Few people in California want to replace agriculture with oil production. This is a major issue to be addressed in the EIS.

(8) Air pollution impacts from the evaporation of fracking chemicals, the leaked release or intentional flaring of natural gas, and the machinery and trucking that may run 24 hours a day servicing these well drilling, and production sites must be estimated and included in the EIS.

(9) The impact of the conversion of land use from its present condition to that of oil and gas production, is a major issue that needs to be thoroughly addressed in the EIS. Oil and gas production on public lands has the potential to fundamentally and permanently change the landscape of California. Thousands of acres of public land may be tractor leveled for the construction and operation of well pads, wastewater pits and other uses. Roads will be constructed to accommodate heavy trucks. Major negative impacts upon wildlife, wildlife habitats and scenic landscapes are inevitable. Streams and springs will dry up or be severely diminished and or polluted.

The manner in which BLM makes decisions about which areas of land to offer for oil and gas leasing and the criterion for how these lands are selected must be laid out in clear and unequivocal terms. The conservation of wildlife and their habitats must be a fundamental condition of any decision regarding what lands may be leased. The protection of wildlife is a major issue for every member of the Sierra Club. The EIS will be insufficient if it does not address these matters of wildlife habitats with full candor and clarity.

(10) Climate Change and global warming are worsened by every gallon of oil or cubic foot

of gas that is extracted from the earth. The USA is a nation without a coherent energy policy. The financial investment being put into the recovery of fracked gas and tight oil is a major problem for global climate disruption. If this money were invested instead, into renewable energy development, including wind and solar power, the benefits to the citizens of this country would be immense. Far more jobs would be created and our planet might have a chance to avoid the catastrophic impacts of climate change. Time is running out. The last thing the USA needs now is more oil and gas development. The nation of Spain now generates 21% of its entire national electricity supply from wind power alone. We need to learn from those nations that lead on energy policy.

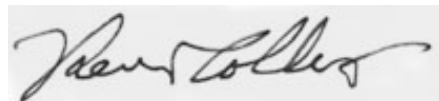
This BLM EIS must assess the climate impacts of all the oil and gas burned from fuels produced from leases offered by the BLM. Carbon dioxide and leaked and flared methane, as well as the evaporation of fracking chemicals are all part of the negative climatic impacts of oil and gas production. How many tons of carbon dioxide may be produced from the public lands managed by the Hollister BLM Office, and general RMP you state that you are preparing?

Conclusion:

NEPA is a fundamental environmental law. A federal court has ordered the BLM to prepare a new Environmental Impact Statement before any new oil and gas leases can be offered by the BLM. The public has the right to an EIS that is thorough, objective, honest and independent of oil industry pressure. The Sierra Club will be prepared to respond to the draft document when it is released.

Regards,

Kevin Collins

A handwritten signature in black ink, appearing to read 'Kevin Collins', is written over a light gray rectangular background.

Executive Committee, Ventana Chapter

(and signing on behalf of)

Rita Dalessio

Chair, Conservation Committee, Ventana Chapter