

Jesse Juen
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New Mexico State Office
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8/11/14

Dear Director Juen,

My name is William Clark and my address is PO Box 267 Cebolla, NM 87518. My interest in protesting is my position as a resident here in the Rio Chama Watershed. Living in Cebolla, I have participated with the Cebolla Oil & Gas Proposed Lease Sale Taos Field Office since the summer of 2012. The October 22, 2014 Oil & Gas Lease Sale Farmington Field Office is of great importance to me since this is the quarterly sale that took the place of the Cebolla sale once the Cebolla Oil & Gas Lease Sale Parcels were deferred and moved to the Farmington Field Office. They were moved from the Taos Field Office to the Farmington Field Office to be further studied under the Reasonable Foreseeable Development Scenario (RFD) developed in 2002 to work with the applicable land use plan in the 2003 Farmington Resource Management Plan (RMP). At the present time Geologist Joe Hewitt at the Farmington Field Office has taken over the Cebolla Parcel study due to the fact that there is no reasonable foreseeable development of oil & gas in the Cebolla parcels due to the fact that there is not any active production of Oil & Gas in the Rio Chama Watershed. I am submitting the following comments regarding the Bureau of Land Management ("BLM") Farmington Field Office ("FFO") Environmental Assessment ("EA") and unsigned Finding of No Significant Impact ("FONSI") for the October 2014 Oil & Gas Lease Sale Farmington Field Office which includes a proposed action to sell 13 parcels of Federal mineral estate under standard terms, conditions, and lease stipulation. These parcels are in the Santa Fe National Forest and are numbered: NM-2014-001, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015. I am requesting that these remaining parcels, east of the Continental Divide, be deferred for the same reasons that the other 22 parcels were deferred, as they are in the same geologic and geographic location. Page 14 of the October 22, 2014 Oil & Gas Lease Sale Farmington Field Office's EA states the reason why the additional 11 of 35 parcels were deferred.

"The other parcels as described under the Proposed Action, Alternative B, would be deferred until after the FFO Mancos Shale/Gallup Formation RMPA/EIS alternatives have been developed."

From page 2 of the EA, "The BLM will decide whether or not to lease the nominated parcel(s) and, if so, under what terms and conditions." The terms & conditions the BLM should follow are the terms & conditions that were used in determining the

deferral of the other 22 parcels that were in the original EA. The explanation for the continued sale of these remaining 13 parcels in the Santa Fe National Forest is that these parcels have a signed FONSI and there is a Finding of No Significant Impact in place. Dave Goodman with The BLM NM State Office has further determined that the existing EA with the Santa Fe National Forest provides for the continued sale of these 13 parcels.

The BLM's Taos Field Office recently deferred 16 parcels and 13,300 acres of public lands in the similar Mancos Shale formation in the Cebolla area. The BLM's Farmington Field Office just recently deferred 11 parcels in the same similar geologic and geographic setting as the Cebolla parcels. In both cases the BLM has seen the need to defer parcels in order to take a "hard look" at the parcels deferred. The only difference that exists for the continued sale of the parcels in the Santa Fe National Forest is the signed FONSI that is in place with the National Forest. Again, I am requesting that the BLM use the same terms & conditions for these remaining 13 parcels as they did for the other 22 parcels. The public demands the same terms & conditions be addressed with equal administration in the decision making process.

The whole point of NEPA is to study the impact of an action of the environment before the action is taken. 90 to 100% of available public lands in the Farmington Field Office have already been leased. It is clear the FFO's intent is to move oil & gas development into the last available lands in the Farmington Field Office with an unfinished RMP Amended and an unfinished Mancos Shale/Gallup Formation EIS. Before additional public lands are sold to oil and gas industry and committed to development, the BLM must understand the additional impacts of developing the Mancos Shale/Gallup formation which clearly the BLM says it is doing with the Cebolla Parcels and at least 11 of the parcels just recently deferred. The RFD scenario cannot be determining 2 different Reasonable Foreseeable Developments in the same study in the same similar geology. The BLM Farmington Field Office is leading the public to believe that there can in fact be 2 different outcomes when there are 2 different federal agencies involved with 2 different FONSI's. The Santa Fe National Forest FONSI that is signed and in place and the Farmington Field Office FONSI that is unsigned with findings that have deferred 22 parcels in the October 22, 2014 Oil & Gas Lease Sale. This fact alone requires the Farmington Field Office to take a "hard look" at the remaining 13 parcels in the Santa Fe National Forest and to defer the action until the FFO Mancos Shale/Gallup Formation RMPA/EIS alternatives have been developed. To avoid this responsibility the BLM is neglectful to both the environmental justice and social justice of the general public and those most directly downstream in the Rio Chama Watershed.

Water, in both the Farmington Field Office's EA and the Santa Fe National Forest's EA, is not fully addressed. Neither EA addresses water in a format that can adequately support a signed FONSI. These remaining 13 parcels are all east of the Continental Divide. East of the Continental Divide means the surface water runs east into the Rio Chama Watershed. Neither EA addresses this fact and nothing is addressed as to the ground water east of the Continental Divide. The Rio Chama

Watershed is distinctly different than the San Juan Basin. The Rio Chama Watershed is referred to as the Rio Chama Platform and in factual reasoning. The recharge of water in the Rio Chama Watershed contributes to the Rio Grande Watershed and makes up over 60% of the water in the State of New Mexico. The new technologies surrounding hydraulic fracturing and especially non-conventional drilling (horizontal drilling) gives cause for addressing the water and hydrology east of the Continental Divide that is not addressed in either EA for either surface water or ground water. Clearly the Santa Fe National Forest's signed FONSI was signed without adequate study in the matter of water and hydrology in general and specifically for the Rio Chama Watershed. The Rio Chama Watershed is not the San Juan Basin

The EA for the BLM and the Santa Fe National Forest does not address "shallow shale fracking" and the target formations of the Mancos Shale and Dakota formations that sit on top of the Morrison formation and the aquifer that exists in the Morrison. As the geology moves eastward into the Rio Chama Watershed the Mancos shale appears at the surface without impermeable rock layers to protect the aquifer in the Morrison. The Morrison aquifer east of the Continental Divide is clean potable water. The real risk of contamination exists and neither EA addresses this risk at all.

The EA for the BLM and the Santa Fe National Forest does not address surface or groundwater flows of water East of the Continental Divide. With the use of over 2000 chemicals used in the technologies of hydraulic fracturing, there is no concern for where these chemicals will migrate within the aquifers such as found in the Morrison formation. From page 36 of the October 22, 2014 Oil & Gas Lease Sale under the heading Water Resources:

"Hydraulic Fracturing is a common practice in the San Juan Basin and applied to nearly all wells drilled. There are no verified instances of hydraulic fracturing adversely affecting groundwater in the San Juan Basin (USDI/BLM 2011a, page 54). The producing zone targeted by both action alternatives is well below any underground sources of drinking water. Typical depth of water wells in the San Juan Basin is 500 feet or less. The Mancos Shale formation is also overlain by a continuous confining layer. On average, total depth of each well bore would be 6,700 feet below the ground surface. Fracturing in Basin Mancos formation is not expected to occur above depth above 5,700 feet below the ground surface. Fracturing could possibly extend into the Mesaverde formation overlying Basin Mancos; however, the formation has not been identified as an underground source of drinking water based on its depth and relative high levels of TDS."


East of the Continental Divide the Mancos Shale starts to appear at surface ground level not 5,700 feet below ground surface level. Clearly water resources are established for the San Juan Basin and not the Rio Chama Watershed. Here at the Continental Divide and the established uplift the geology changes and so does the water flows which have not been addressed in either EA. The Morrison formation

and the aquifer within the formation are not addressed as a source of drinking water. And how can cement casings protect the aquifer in the Morrison when fracturing will occur above the Morrison in the Mancos Shale and Dakota Formations with out non- permeable layers of rock?

The October 22, 2014 Oil & Gas Lease Sale Farmington Field Office has neglected to consider seismic (earth quakes) activity in the EA. Known faults exist under and around the Abiquiu Reservoir with other known faults in the Rio Chama Watershed. The EA further neglects to satisfy the need for a "hard look" at how oil & gas development, especially the use of injection wells for produced water, is a risk to the seismic stability of the entire Rio Chama Watershed. There are injection wells east of the Continental Divide. The EA assumes these wells will be used to handle the produced water from any and all oil & gas development for this lease sale without concern for seismic activity from such actions. The BLM is neglectful in its concern for the health & welfare of residents living downstream from the Abiquiu Reservoir.

A Finding of No Significant Impact for the October 22, 2014 Oil & Gas Lease Sale is not adequately supported by the Environmental Assessment as it now stands for the BLM or the Santa Fe National Forest. The BLM Farmington Field Office and the New Mexico State Office has the authority, as the sales agent, to defer these remaining parcels. These 13 parcels in the Santa Fe National Forest pose the same risks and issues as their neighboring parcels that have been deferred. The risks are real to the Rio Chama Watershed east of the Continental Divide.

Sincerely,



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