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BY CERTIFIED MAIL – RETURN RECEIPT REQUESTED

February 14, 2012

Mr. Jesse Juen
New Mexico State Director
Bureau of Land Management
301 Dinosaur Trail
P.O. Box 27115
Santa Fe, New Mexico 87502-0115

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STATE OFFICE
SANTA FE, NEW MEXICO

Re: PROTEST OF APRIL 2012 COMPETITIVE OIL AND GAS LEASE SALE

Dear Mr. Juen:

Pursuant to 43 C.F.R. ¶ 3120.1-3, Michael and Patricia Gold protest the April 2012 Competitive Oil and Gas Lease Sale, and specifically the Bureau of Land Management's (BLM) proposal to lease Lots 2-4 in Parcel 21, located in the northern half of Section 2, Township 25 North, Range 2 West. Lots 2-4 of the parcel are private surface owned by the Golds, and part of their larger property consisting of 160 acres of private surface and mineral rights and 640 acres of private surface in and adjacent to Section 2, including portions of Section 11, Township 25 North, Range 2 West, and Section 35, Township 26 North, Range 2 West.

For the reasons stated below, the Golds request that the BLM withdraw Lots 2-4 in Parcel 21 from the lease sale. Removal of these lots would have no adverse effect on oil and gas development in the San Juan Basin. The BLM anticipates that, at most, only two (2) wells would be drilled on Parcel 21, out of a total projected twenty-seven (27) wells in the entire lease sale.

Alternatively, the Golds request that the BLM require off-site directional drilling of Lots 2-4. Such access could be achieved from Lot 1 without disturbing the private surface, while satisfying the objectives of the lease sale.

CC: Adjudication
Public Room NMSO
Farmington Field Office

I. STATEMENT OF INTEREST

The Golds have owned this property for more than thirty (30) years. Prior to their ownership, a religious organization used the property for decades as an orphanage and school for Native American Indian children. In 1984, the Golds founded Cedar Mountain Camp, a nonprofit children's summer camp, as a way of giving children the opportunity to experience nature in its raw form, and to learn to care for the land and planet in a wholesome, fun, and nurturing environment. In furtherance of these objectives, the Golds constructed solar-powered cabins, gardens, and trails, hired archaeologists, gave workshops through the New Mexico Museum of Natural History, and taught swimming, archery, hiking, basket making, pottery, and drama.

After Cedar Mountain Camp closed in 1994, people began to contact the Golds about the possibility of renting the property. In response, the Golds established Gavilan Guest Ranch (www.gavilanranch.net). Each year since 1995, from May to September, the Golds rent the property to groups seeking a beautiful and pristine setting for events ranging from meditation retreats and seminars to workshops and weddings. The Ranch averages four events per season. With sleeping accommodations for sixty persons, the ranch is often full, with the average stay exceeding seven days. To support the ranch's new mission, the Golds have made more than \$850,000 in improvements, including renovating the former orphanage into the main dining hall, and constructing the main house, a 1,000 square foot solar-heated pool and shower house, two 5,000 gallon water storage tanks, a 3,000 square foot geodesic dome, a gym, log cabins, yurts, storage facilities, 3 drinking water wells, septic and gray water systems, roads, and ponds. Gold Exhibit 1. The property is again having a tremendous impact on people seeking a natural experience, many of whom return year after year for events or simply to visit the land. Beyond these benefits, of course, Gavilan Guest Ranch is a small business that contributes to the economic well-being of northern Rio Arriba County. Each season, the Ranch spends about \$40,000 for operations and pays \$1,700 in county taxes.

The Ranch's appeal is due, in large part, to the setting and quality of the property. The land encompasses a range of ecosystems and features, including forests, meadows, rock outcroppings, ponds, wetlands, arroyos, canyons, and cultural sites. These areas, which are located throughout the property, including the private surface in Parcel 21, are used by visitors for hiking and contemplation. Birds and wildlife can be found in abundance, including deer, elk, mountain lions, coyotes, bears, eagles, hawks, ducks, geese, prairie dogs, rabbits, porcupines, and snakes, and a sighting is an unforgettable experience for many visitors.

These experiences, and indeed, the continued viability of the Ranch as a small business, are threatened by the BLM's proposed lease and the inevitable oil and gas development that will follow. For more than forty years, the Golds have dedicated their property as an environmental sanctuary for children and adults. Roads and wells would destroy the peaceful experience and solitude, uproot trees, tear up meadows, mar the pristine views, disturb cultural resources, including possible native burial sites, disrupt watersheds, and contaminate the arroyos which feed the ponds and drinking water well. The Golds remember well their experience in 1979, when a pipeline in Parcel 21 was breached and

crude oil spilled down an arroyo for two days. The subsequent remediation – presumably approved by BLM - consisted of burning the oil. The fire spread to the surrounding forest, destroying more than two hundred trees, and the arroyo continued to ooze oil for nearly a decade afterwards. Whether the BLM ever evaluated the impact of this mishap on natural resources, including ground water, has not been disclosed. The Golds certainly never received any compensation for the damage to their private surface.

II. STATEMENT OF REASONS

Given the potential impacts of oil and gas development, it is imperative that BLM take a "hard look" at environmental issues as required by the National Environmental Policy Act (NEPA) before commencing the lease sale. By law, this "hard look" must occur before the lease sale, which constitutes the "irreversible and irretrievable commitment of resources" to oil and gas development. As BLM confirmed in its September 19, 2011 letter to the Golds, "The successful bidder for the parcel has *the right* to explore and develop Federal minerals" (emphasis added).

The BLM has failed to comply with this obligation in the Draft Environmental Assessment (DEA). The DEA is boilerplate text, apparently cut and paste from previous documents. As a result, the potential impacts of the lease sale, and the impacts to Parcel 21 in particular, are not meaningfully considered. The DEA also fails to address the broader issues of new developments in hydraulic fracturing and split estates, which must be considered in a supplement to the Environmental Impact Statement (EIS) for the Farmington Resource Management Plan (RMP). Finally, BLM compounds the DEA's failures through its lack of commitment to the public comment process.

A. THE BLM'S PUBLIC PROCESS DID NOT COMPLY WITH NEPA OR DOI GUIDANCE.

The BLM's environmental review process for the April 2012 lease sale has been marred by procedural irregularities which have the effect of depriving the Golds and the general public of a meaningful opportunity to comment on the DEA. The basic tenet of both the Council of Environmental Quality (CEQ) regulations and the Department of Interior's (DOI) NEPA guidance is that "federal agencies shall to the fullest extent possible...encourage and facilitate public involvement in the decisions that affect the quality of the human environment." 43 C.F.R. §1500.2(d); 40 C.F.R. §1500.1(b) and 516 DM 11.4 ("public scrutiny [is] essential to implementing NEPA"); 516 DM 11.4(D) ("The public must be involved early and continuously, as appropriate, throughout the NEPA process"). With respect to split estates, DOI's Onshore Oil and Gas Order No. 1 expressly calls for surface owners to have "more input into the process" of leasing and development. As the Tenth Circuit observed recently, "A public comment period is beneficial only to the extent the public has meaningful information on which to comment." *Richardson v. Bureau of Land Management*, 565 F.3d 683, 708 (10th Cir. 2009).

The BLM failed to involve the general public in the leasing process. The Golds first learned of the BLM's intent to lease Parcel 21 in a letter dated September 19, 2011. That letter made no reference to BLM's NEPA obligation, did not request scoping comments, and did not disclose BLM's intent to prepare a DEA or seek public comments.

On December 1, 2011, the BLM posted the DEA on its web site. Although the BLM knew the names and addresses of surface owners, including the Golds, it gave no notice of the DEA's availability for public comment. Indeed, because the Golds had sent a letter on October 17, 2011 objecting to the lease sale, the BLM had *actual notice* of the Golds' interest, a fact expressly acknowledged in the DEA. Nonetheless, the BLM failed to advise the Golds that the public comment period had started and would expire on December 30.

The Golds only learned about the DEA during a chance visit to the BLM web site on December 7, 2011. They immediately requested an extension until January 27, 2011. On December 16, 2011, the manager of BLM's Farmington District Office granted the extension. The BLM also responded belatedly - two months after receipt - to the Golds' October 17 letter. The BLM's letter, which was dated December 15, but was not posted until December 20 and not received by the Golds until December 28, was signed by an Assistant State Director, who stated that the public comment period would end on December 31. This date was contrary to both the district manager's letter and the BLM's web site, and also fell on a non-working day.

Beyond these procedural irregularities, the BLM misdirected the public by failing to provide basic and accurate information about the proposed lease and potential environmental effects. The DEA identified the parcels to be leased by township, range, section, and lot, but did not contain a map. Although the BLM's web site did provide a map, the parcels were represented by red boxes superimposed on a low definition map that did not identify the township, range, section, and lot. Similarly, the DEA acknowledged that other oil and gas wells had been proposed or drilled on Parcel 21 or adjacent land, but failed to identify their ownership, age, production type (oil, gas, or both), production method (conventional or hydraulic fracturing), historical production, and other relevant characteristics.

In response to the Golds' request for additional information, the BLM on December 20, 2011, provided a map identifying two active gas wells in Section 2, but the transmittal letter stated that those wells had been plugged and abandoned. The BLM also provided a hyperlink to a database maintained by the New Mexico Oil Conservation Division (OCD), but database was unusable without detailed information available to the general public. The Golds later found another OCD database with information about wells in the vicinity of Parcel 21, but it was not possible to match that information with the wells identified on the BLM's map.

A close review of the DEA disclosed information gaps regarding environmental impacts. For instance, the DEA relied on lease stipulations and mitigation measures to conclude that environmental impacts would be insignificant, but provided no information to evaluate the veracity of this conclusion, such as studies demonstrating the effectiveness of these measures or the BLM's inspection and enforcement history. Moreover, the Golds' Freedom of Information Act (FOIA) request for this information ("records regarding Best Management Practices (BMPs) used at any of the producing wells depicted on the attached map provided by BLM's Farmington district office, including their effectiveness", and "records evaluating the effectiveness of each mitigation measure and BMP

referenced in EA Log Number DOI-BLM-NM-F010-2012-024-EA for the April 2012 Competitive Oil and Gas Lease Sale"), submitted December 18, 2001, still has not been answered.¹

The BLM's mishandling of the public process violates NEPA and DO guidance. The BLM electronically posted the parcels for lease at the end of October 2011, but gave no notice to the private surface owners. It then electronically posted the DEA, but again gave no notice to the private surface owners. Public requests for information to evaluate the DEA have been effectively ignored. NEPA is designed to produce "better decisions, not to generate paperwork...." 40 C.F.R. §1500.1(c). Public comments are critical to producing better decisions, but the private surface owners – the persons most interested in this particular decision – have been marginalized by BLM's poor management of the NEPA process.

B. THE BLM FAILED TO CONSIDER THE SITE-SPECIFIC ENVIRONMENTAL IMPACTS OF THE PROPOSED LEASE SALE.

The BLM must consider the site-specific environmental impacts at the leasing stage because they constitute an irreversible and irretrievable commitment of resources. The agency cannot wait until the successful lease holder submits an Application for Permit to Drill (APD). DEA at 3 (proposing to postpone the analysis of environmental impacts until the lease holder submits an APD identifying the precise location of roads and well sites); DEA at 23 ("The act of leasing the parcel would, by itself, have no impact on any resources in the FFO. All impacts would be linked to as yet undetermined future levels of lease development.") Such delay ignores court decisions in this district and circuit holding that the BLM must consider those impacts when development is reasonably foreseeable.

NEPA requires the BLM to disclose and evaluate environmental impacts as soon as those impacts are "reasonably foreseeable", 40 C.F.R. §1502.22, and before there has been an "irreversible and irretrievable commitment of resources." 42 U.S.C. §4332(2)(C)(v). The Tenth Circuit in *Richardson* held that the BLM must evaluate the site-specific impacts of oil and gas development at the leasing stage, particularly when such development is reasonably foreseeable. 565 F.3d at 718. Whether such development is reasonably foreseeable is "contextual", tied to facts on the ground, "not to the formalities of agency procedures". *Id.* If the BLM has such information, it cannot defer the consideration of environmental impacts until after the leasing stage unless it "reserves both the authority to preclude all activities pending submission of site-specific proposals and the authority to prevent proposed activities if the environmental consequences are unacceptable." *Id.*

¹ The BLM did not acknowledge receipt of the electronically submitted FOIA request for five working days, and then notified the Golds that it would not "advise [them] of the status of our response" until January 26, 2012 – just one day before their public comments were due. The following week the BLM sent a letter saying that the requested information would be provided soon, and followed with a telephone call confirming that commitment, but as of today, the BLM has sent *none* of the requested information.

In *Richardson*, the BLM had leased a parcel adjacent to a successful exploratory well, but contended that it could postpone the analysis of environmental effects until drilling applications were filed. *Id.* at 717 (the BLM argued that it "may routinely wait until the APD stage to conduct site-specific analysis"). The Tenth Circuit rejected this argument, holding that a lease without a No Surface Occupancy (NSO) stipulation constituted an irretrievable commitment of resources. *Id.* at 718. The DOI's regulations stated that a lease holder cannot be prohibited from using the surface once the lease was final. 43 C.F.R. §3101.1-2. Because this regulation prohibited the BLM from "prevent[ing] the impacts resulting from surface use after a lease was issued", the court concluded that the agency must "analyze any foreseeable impacts of such use before committing the resources." The court then examined whether the environmental impacts were reasonably foreseeable at the leasing stage. Exploration had already occurred adjacent to the parcel, a natural gas supply was known to exist there, and drillers had announced plans to build more wells. In these circumstances, the court found that the BLM must evaluate the site-specific impacts on the parcel before issuing the lease. *See also Pennaco Energy v. U.S. Department of Interior*, 377 F.3d 1147, 1160 (10th Cir. 2004)("In the fluid minerals program, this commitment [to evaluate direct, indirect, and cumulative impacts under NEPA] occurs at the point of lease issuance").²

The BLM's decision to lease these parcels is an irretrievable commitment of resources. The agency has acknowledged this point on numerous occasions. The BLM's September 19, 2011 letter to the Golds states that "The successful bidder for the parcel will have *the right* to explore and develop Federal minerals, which could result in surface disturbing actions (such as road construction and drilling activities) on your surface lands" (emphasis added). In the context of another lease, the field manager of the Farmington district office declared that a lease holder had the right to develop the parcel. *See Farmington Daily Times, Williams Wins Exemption from Wildlife Closure* (quoting Gary Torres, BLM field manager, "It's not so much if they're going to develop it...They have valid, existing rights"), www.daily-times.com.

These statements reflect the DOI regulations that govern the fluid mineral program. The Tenth Circuit in both *Richardson* and *Pennaco* observed that 43 C.F.R. §3101.1-2 commits a leased parcel to oil and gas development:

² The Tenth Circuit recognized that different facts could lead to an opposite conclusion in *Park County Resource Council, Inc. v. U.S. Department of Agriculture*, 817 F.2d 609 (10th Cir. 1987). In that case, no exploratory drilling had occurred on a 10,000 acre parcel, and there was no evidence that development was likely to occur. Because "development plans were not concrete enough to require [a broader] inquiry", the agency could not identify the scale of development or probable environmental impacts, so there was no value or utility in conducting an analysis at the leasing stage. 565 F.3d at 717; *see also Northern Alaska Environmental Center v. Kempthorne*, 457 F.3d 969, 976 (9th Cir. 2006)(although "[t]here is no question here that approval of the leasing program represents an irretrievable commitment of resources", it was too early in a multi-stage project to require an analysis of specific parcels). As discussed below, the facts are clearly different, involving a 320 acre parcel and clear evidence of likely development.

A lessee shall have the right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove and dispose of all the leased resource in a leasehold subject to: Stipulations attached to the lease; restrictions deriving from specific, nondiscretionary statutes; and such reasonable measures as may be required by the authorizing officer to minimize adverse impacts to other resource values, land uses or users not addressed in the lease stipulations at the time operations are proposed.

Reasonable measures include modifying requirements for siting, design, timing, and reclamation, but cannot "require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year." In fact, the DOI regulations mandate that the mere receipt of a bid creates an irretrievable commitment because the bid is considered to be "legally binding commitment to execute the lease bid form and accept a lease" and "shall not be withdrawn". 43 C.F.R. §3120.5-3(a).³

Development of the parcels in this lease sale is highly likely. The DEA acknowledges the likelihood of development. DEA at 23. Further, the BLM map sent to the Golds on December 20, 2011 show numerous producing wells in the immediate vicinity of Parcel 21, and the industry knows or has good reason to believe that additional wells would be commercially viable. These parcels were nominated by an oil and gas company – almost certainly the same company that already owns and operates seventeen producing gas wells in the immediate vicinity of Parcel 21. Gold Exhibit 2. Since 1986, this company has drilled every active well in the vicinity of Parcel 21, including two new wells in 2009 and 2010. Finally, the BLM knows the precise location of possible development. The parcels range in size from 160 to 1,560 acres. Parcel 21 is only 321.52 acres, a bit more than half of one section, and within that half section, the BLM already knows the probable location of the well pad. The DEA states that "the existing access road, pipeline, and power line would be utilized" to service two horizontal wells drilled from a single pad. DEA at 41. The EA also quantifies the surface impact from these

³ The irretrievable commitment may occur even earlier in the fluid mineral program. According to Appendix C of the BLM Land Use Planning Handbook, "A plan-level decision to open the lands to leasing represents BLM's determination, based on the information available at the time, that it is appropriate to allow development of the parcel consistent with the terms of the lease, laws, regulations, and orders, and subject to reasonable conditions of approval." Perhaps for this reason, the BLM has acknowledged the need to reform the leasing process, at least for federal lands. See http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2010/IM_2010-117.html (May 17, 2010). The so-called Master Leasing Program (MLP) recognize that the likelihood of development changes the scope of analysis required at the leasing stage, calling for an earlier and more detailed parcel review when "the oil and gas industry has expressed a specific interest in leasing, and there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area." Although the BLM did not apply the MLP to this lease sale, the basic principles are consistent with the rationale in *Richardson*.

facilities, including 1.5 acres for the access road, pipeline, and power line, and 3.5 acres for well pad. Given the observable topography of Parcel 21, it would be a relatively easy matter for the BLM to identify the probable location of development and the subsequent site-specific impacts.

Because oil and gas development on Parcel 21 and other parcels is highly likely, the impacts are reasonably foreseeable and the BLM cannot defer analysis until the APD stage. The situation here is even more compelling than in *Richardson*, where the district court required the BLM to conduct a site-specific analysis for a lease parcel that was "adjacent to [another] lease that contain[ed] a producing well, and the 1600-acre lease parcel [was] small enough to allow site-specific analysis of environmental prospects." *Richardson v. Bureau of Land Management*, 459 F. Supp. 2d 1102, 1118 (D.N.M. 2006), *rev'd on other grounds*, 565 F.3d 683 (10th Cir. 2009) ("An irreversible commitment of resources will occur when the [] lease is executed, and under BLM's own Handbook that is the stage at which *site-specific environmental analysis* should take place.") (emphasis added).

Despite the obvious applicability of *Richardson*, the BLM made no attempt to address the issue of irretrievable commitment. Instead it relied on the "formalities of agency procedure", suggesting that the site-specific analysis will be done at the APD stage. Even if such analysis were done, it would be too late. Under the DOI regulations, once the lease is sold, it cannot be revoked for environmental reasons, nor can the BLM impose a NSO stipulation, or even require certain changes in siting, design, timing, and reclamation requirements. *Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983) (the agency may defer consideration of environmental impacts until after the leasing stage, if it lacks the necessary information and "provided that it reserves both the authority to preclude all activities pending submission of site-specific proposals and the authority to prevent proposed activities if the environmental consequences are unacceptable"). Here, the BLM has sufficient information and cannot postpone analysis without a rational basis. *Richardson*, 565 F.3d at 708 ("NEPA is not designed to postpone analysis of an environmental consequence to the last possible moment. Rather, it is designed to require such analysis as soon as it can reasonably be done.")

C. THE BLM FAILED TO ANALYZE ENVIRONMENTAL IMPACTS RELATED TO SPLIT ESTATE LEASING.

The BLM must supplement the EIS for the Farmington RMP to address the unique social and environmental concerns arising from split estate leasing before proceeding with this lease sale. The DEA contained no meaningful discussion and cannot be tiered to the EIS which also failed to consider these concerns. Because significant new information has come to light since the EIS was prepared, it must be supplemented before being used to justify this lease sale.

Federal agencies must prepare a supplemental EIS whenever there are new circumstances or information relevant to environmental concerns. 43 C.F.R. §1502.9(c)(1)(ii) (a supplemental EIS is required when "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts".) In *Pennaco*, the Tenth Circuit reviewed the IBLA's reversal of the BLM's decision to sell three oil and gas leases because the agency failed to consider the environmental impacts of coal-bed methane (CBM) development. 377 F.3d at 1156.

Rather than considering these impacts in the NEPA document for the lease sale, the BLM had relied on two other EISs. The IBLA found that neither EIS was adequate for this purpose because the first EIS did not address CBM extraction, a practice not "contemplated" at the time of preparation, and the second EIS was prepared after the lease sale, did not consider the alternative of imposing NSO restrictions based on environmental concerns, and did not apply to two of the leases. In sum, the BLM's leasing documents, "dependent as they were on the [two EISs], fail to even identify, much less independently address, any of the relevant areas of environmental concern or reasonable alternatives to the proposed action." 377 F.3d at 1154 (quoting the IBLA's decision). Accordingly, the IBLA ordered the BLM to conduct "additional site-specific environmental reviews before deciding to offer the parcels for oil and gas leasing." *Id.* The Tenth Circuit affirmed the IBLA's decision, observing that "at the time of the original EIS, no one anticipated or planned for the rapid development of this resource." *Id.* at 1158.

Pennaco is directly applicable to this lease sale. Environmental concerns in the context of split estates were not addressed in the DEA. While the BLM could have tiered the draft EA to the EIS for the Farmington RMP, 40 C.F.R. §1508.28, that document does not contain any relevant discussion. *South Fork Band Council v. U.S. Department of Interior*, 588 F.3d 718, 726 (9th Cir. 2009)(the BLM cannot tier to an EIS that does not contain a relevant discussion of the issues). The RMP, which was issued in 2003, provides guidance for the management of more three (3) million acres of federal mineral rights under the jurisdiction of the BLM's Farmington Field Office. EIS at 1-3. Almost 540,000 acres - twenty (20) percent - of these mineral rights lie under private surface, but the RMP focused exclusively on the potential impacts to federal surface. The RMP contained a low resolution map purporting to identify private and federal surface, but never discussed the different impacts on these land types. *See, e.g.*, RMP at 3-55 & 56. Given that the Reasonable Foreseeable Development (RFD) predicts 9,970 new wells and 12,461 new bore holes over the next twenty (20) years, fifty-four (54) percent of which will involve surface disturbance, the potential impacts to private surface could be substantial.

The EIS falls well short of the "hard look" required for these impacts. Like the Farmington RMP, the EIS focused narrowly on public lands: "The land use planning addressed in this document pertains to public (federal) lands and federal minerals within the FFO boundaries." EIS at 1-2. While the BLM acknowledged that the public raised concerns regarding "potential impacts to private land", the EIS contained only a single bullet on the topic: "Noise, visual intrusions, dust, and traffic associated with oil and gas development and operations can be incompatible with residential and commercial uses." EIS at 4-33. The EIS then failed to discuss these impacts in any detail, instead offering the *non sequitur* that local plans and zoning codes can influence the type of conditions incorporated into drilling permits, and that the BLM will coordinate with surface owners on these conditions. EIS at 4-36. Moreover, the EIS made no effort to describe these conditions, the agency's practice and experience in imposing them, or their effectiveness in protecting private landowners.⁴

⁴ The BLM's curious logic regarding private surface is reflected by the DEA's statement that "On such mineral development, the BLM provides surface and subsurface constraints that ensure the environment is protected. These constraints do not restrict the activities of private landowners." The

The EIS must be supplemented to address the "significant new circumstances or information relevant to environmental concerns" arising from split estate issues. Since the EIS was finalized in March 2003, there have been major new concerns about the impacts of oil and gas development on private surface. Some of these impacts are similar for public land, such as wildlife, vegetation, and soils, but others are unique to private surface and are particularly significant for residences and businesses. For instance, oil and gas development on private surface can disrupt businesses, devalue property, and contaminate drinking water wells. Beyond the immediate impacts of road construction and drilling and the longer term impacts of production, including reserve pits, the BLM allows drilling wastes to be buried in private surface, leaving a toxic legacy for the private owner to clean up. Further, because the BLM asserted that federal protections for visual quality are not applicable on private surface, it did not evaluate the impact of oil and gas development on property valuation. The BLM cannot ignore environmental effects simply because it might not have the authority to regulate them.

The BLM's failure or unwillingness to address private surface issues has created pressure for regulatory reform. In the Energy Reform Act of 2005, the Congress ordered the DOI to prepare a report on split estate issues, which in turn, prompted the adoption of new policies and procedures, including significant amendments to Onshore Order No. 1, including consultation and bonding. Several states, including New Mexico, have adopted laws requiring oil and gas companies to negotiate surface use agreements in order to access private surface and to compensate for damages. See Surface Owners Protection Act, NMSA §7-12-1 *et seq.*

The BLM addressed none of these issues in the EIS or DEA. The EIS by its own admission consisted of high level generalities which fail to differentiate between public and private surface. While the EIS devoted much space to describing the financial benefits of oil and gas development, it said nothing about the impacts of this development on other businesses and property values. That the BLM might impose "suitable conditions" to protect businesses and residences lacks credibility given the absence of any analysis of specific impacts on private surface or discussion of mitigation measures used to reduce or avoid those impacts.

D. THE BLM FAILED TO ANALYZE ENVIRONMENTAL IMPACTS RELATED TO HYDRAULIC FRACTURING.

The BLM must supplement the EIS for the Farmington RMP to evaluate the new circumstances and significant new information concerning hydraulic fracturing. Since the EIS was prepared in 2003, the technology has advanced and there is greater awareness and concern regarding its environmental impacts.

Hydraulic fracturing involves the high pressure injection of chemicals, water, and sand to fracture underground formations in order to increase the flow of methane and other natural gases.

public raised concerns about the impacts of oil and gas development on private surface, not the limitations imposed by mitigation measures on private landowners.

The technique has been widely used in the San Juan Basin, including in the immediate vicinity of Parcel 21. In fact, the producing well across the highway from the Ranch entrance and at least one of the plugged and abandoned wells in Section 2 were hydraulically fractured.⁵

Although hydraulic fracturing has been used extensively in the San Juan Basin, recent advances in technology have led to environmental impacts that "no one anticipated or planned for." *Pennaco*, 377 F.3d at 1158. Through improvements in fluids and the use of horizontal drilling, multiple high pressure pumps, and command centers, drillers can direct and control the fracturing process. Drillers now refracture existing wells, often more than once, to increase production and enhance recovery. The BLM considers this new technology to be critical to the future of the San Juan Basin. According to the RFD, "Advances in technology and research have played an important role in improving gas recovery from unconventional plays of the San Juan Basin. For example, hydraulic fracture techniques have evolved over the years with better fluids, proppants, and design. In fact, production decline analysis indicates newer completions have lower skin than the older wells, attributable to better stimulation techniques. *Advances in hydraulic fracturing of low permeability formations will have, perhaps, the greatest potential impact on the future development of the San Juan Basin.*" RFD at 8.1 (emphasis added).

The growing use of this new technology to access new resources and enhance the economic viability of existing wells has fueled concerns about environmental impacts. Hydraulic fracturing requires the use of huge quantities of water - according to the scientific literature, as much as three (3) million gallons per well. *See e.g., Pennaco*, 377 F.3d at 1158 (water production associated with CBM extraction was "significantly greater than water production associated with" conventional techniques). It also uses large quantities of fracturing fluid - according to the EPA, between 15,000 and 60,000 gallons per well. This fluid contains highly toxic chemicals. The EPA has compiled a list of more than 600 such chemicals that have been or could be used in the fracturing process. With such large quantities of toxic substances being injected into the ground, it is inevitable that ground water contamination could occur through one of several possible pathways. Surface mismanagement results in spills during the use, flow-back and disposal of fracturing fluids, which also can migrate into ground water during the injection process through inadequate or poorly constructed casings, through fractures during the development process, and from residual material left in the underground formation.

The well casing route merits further discussion. Recent reports indicate a probable failure rate of well casings of between one and two percent, although a March 2009 study in Alberta suggests a significantly higher rate. Watson, T.L. and Bachu, S., *Evaluation of the Potential for CO₂ and Gas Leakage Along Wellbores*, Society of Petroleum Engineers, Drilling and Completion, March 2009 (a survey of more than 315,000 oil, gas, and injection wells indicated a potential leak rate of between two and fourteen percent of well casings), <http://www.spe.org/ejournals/jsp/journalapp>. Neither the EIS nor DEA indicate whether the state's casing requirements are adequate to protect against the migration of fracturing fluids under high pressure, whether casings constructed decades ago are

⁵ It is likely that the other producing gas wells operated by McElvain Energy in the vicinity of Parcel 21 have been hydraulically fractured. *See* Gold Exhibit 2.

adequate, or whether there is evidence demonstrating the adequacy of governmental oversight and enforcement of casing requirements.

The EPA recently linked hydraulic fracturing to contaminated ground water in Pavilion, Wyoming. The town's residents had complained of smells, tastes, and adverse changes in water quality in their domestic water wells. The EPA found that the wells were contaminated with chemicals "likely associated with gas production practices, including hydraulic fracturing". Since March 2009, the EPA had taken four sets of samples from domestic and municipal water wells, and shallow and deep monitoring wells, and detected synthetic chemicals used by the operating company to hydraulically fracture oil and gas wells. These chemicals included benzene above safe levels under the Safe Drinking Water Act. Probable causes include blowouts and inadequate casings.

Government agencies have begun to respond to the risks posed by hydraulic fracturing. On July 28, 2011, the EPA released a rule to regulate air quality impacts, and in October 2011, announced its intent to write effluent guidelines and standards for discharges from CBM extraction. At the request of Congress, the EPA on November 3, 2011 released a plan to conduct a scientific study of the effects of hydraulic fracturing on ground water.⁶ Meanwhile, a Department of Energy advisory council has called on the EPA to act more aggressively, repeating its earlier recommendations to require public disclosure of fracturing chemicals and ban the use of diesel fuel. The BLM also is considering whether to adopt a rule to require the public disclosure of fracturing chemicals, although it is not clear whether the rule would apply to both public and private land. In the meantime, during the past three years, more than twenty states, including New Mexico, have moved to regulate hydraulic fracturing. More than a dozen states have adopted or are in the process of adopting rules to require the public disclosure of fracturing chemicals, while others are imposing mandatory best management practices. In fact, the concern has become so great that a few states and one regional commission have adopted moratoria on hydraulic fracturing.

Given these concerns, even the BLM has recognized that the reasonably foreseeable impacts of new technology being used in hydraulic fracturing must be addressed. On August 26, 2011, the BLM and Forest Service announced that it would seek public comment on a supplement to the draft EIS for public lands in southwestern Colorado. Specifically, the agencies declared that the development potential of a shale gas play area in the western portion of the planning area required a supplemental

⁶ The study will correct the record left by the agency's now discredited 2004 report that purported to find "little or no impact to ground water". The 2004 report, which was used to justify an exemption for hydraulic fracturing from the Safe Drinking Water Act, was not designed to be a scientifically rigorous risk assessment. Among its many flaws, the report relied on literature reviews and industry consultation, identified only a fraction of the potential contaminants, and addressed only one potential pathway (fluid injection) and one potential environmental effect (drinking water contamination). In a sense, the report reflects a lack of scientific inquiry even more than just the bent science of a captured agency. *See generally*, Wiseman, H., *Untested Waters: The Rise of Hydraulic Fracturing in Oil and Gas Production and the Need to Revisit Regulation*, 20 Fordham Env'tl. L. Rev. 115 (2009), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1595092.

analysis to consider "the technological advances in directional drilling and hydraulic fracturing that [have] made shale gas extraction more viable, economically feasible and successful in other parts of the country." See <http://www.federalregister.gov/articles/2011/08/26/2011-21716/notice-of-availability-of-the-supplement-to-the-draft-environmental-impact-statement-for-the-draft#p-21>. In particular, the agencies acknowledged the potential for different water quality impacts: "Primary groundwater concerns for gas development...encompass two broad categories. The first concern is reduced groundwater quantity due to consumptive use during well drilling, well completion, and well operation. The second concern is the potential for reduced water quality due to hydraulic fracturing, subsurface reinjection, and surface spills of produced water or flow back fluids." Draft Supplemental EIS at 3-51, ocs.fortlewis.edu/forestplan/supplement/SDEIS_Cover_August%202. In fact, the draft supplemental EIS contained new and specific standards and guidelines to mitigate these impacts. Draft Supplemental EIS at 3-53 to 3-54.

By contrast, the EIS for the Farmington RMP never mentioned hydraulic fracturing, let alone the environmental impacts resulting from the deployment of new technology. The discussion of surface water impacts was limited to erosion and accidental spills of machinery fluids, lubricants, and drilling fluids. EIS at 4-13 to 4-15. The discussion of ground water impacts identified the infiltration of polluted water from unlined pits and the disposal of produced water in off-site injection wells. In the discussion of consequences from the preferred alternative, the EIS only mentioned sedimentation, salt, spills, and unlined pits. EIS at 4-107. It contained no discussion of standards, guidelines, or mitigation measures for protecting surface and ground water from the potential impacts of filling open pits with thousands of gallons of toxic chemicals and then injecting them into the ground. EIS at 4-131.

These significant new circumstances and information must be evaluated before the BLM leases parcels on which hydraulic fracturing may be conducted. Neither the EIS nor the DEA described or evaluated the potential environmental concerns or the available mitigation measures.⁷ After *Pennaco*, the BLM cannot proceed with the lease sale without analyzing the reasonably foreseeable impacts of hydraulic fracturing.

E. THE DEA CONTAINS INCOMPLETE AND MISLEADING INFORMATION.

The DEA lacked critical information for the public to evaluate the proposed lease sale. As noted earlier, the DEA contained no map for the proposed sale, while the web site provided a link to a map with insufficient detail to identify the location of parcels, property boundaries, roads, and other features referenced in the DEA. In response to the Golds' request, the BLM provided a map depicting the location of Parcel 21 and wells in the immediate vicinity, but the wells did not match the description in the transmittal letter and could not be matched with the state database. Without this information, the public and the Golds cannot evaluate the BLM's analysis of potential impacts on their business and property.

⁷ The EIS suggested that the risk of ground water contamination from unlined pits and produced water disposal would be small because of casing requirements and limited exposure time, but failed to support this claim with any data or analysis.

The DEA also misled the public and the Golds by presenting inaccurate information about the potential location of wells on Parcel 21. The DEA referred to an existing road, which was not described, while the BLM map showed only a short spur to a plugged and abandoned well. To the extent that a new well on Parcel 21 would be located in or adjacent to the ephemeral drainages which drain into the Ranch's ponds, the impacts could be significant, because the ponds are one of the central features of the retreat center, and support a wide variety of wildlife and migratory birds, while the Ranch's drinking water wells are located only 500 feet away. The DEA also asserted that Parcel 21 most likely would host a single pad with two horizontal wells, but failed to explain the basis for this conclusion. BLM's failure to provide high quality, accurate information denies the public's right to meaningful comment and falls short of the "hard look" required by NEPA.

F. THE BLM FAILED TO ANALYZE A FULL RANGE OF ALTERNATIVES.

The DEA failed to evaluate a full range of alternatives. The only alternatives considered were lease or no lease. DEA at 6-8. The DEA purported to identify one alternative considered but eliminated from further analysis, but this was never a real alternative, but rather a decision to defer three parcels for which tribal consultation had not been completed when the agency decided to release the DEA. DEA at 8-9.

It is axiomatic that alternatives are the heart of the NEPA process. *Richardson*, 565 F.3d at 708; 43 C.F.R. §1502.14. Federal agencies must "[r]igorously explore and objectively evaluate all reasonable alternatives." *Id.* Evaluating a broad range of alternatives ensures that the agency makes "the most intelligent, optimally beneficial decision." *Calvert Cliffs' Coordinating Committee v. Atomic Energy Commission*, 449 F.2d 1109, 1114 (D.C.Cir. 1971).

For this leasing sale, the BLM failed to consider reasonable alternatives, such as NSO restrictions and not leasing particular parcels based on social and environmental impacts. Of the two alternatives actually considered, one called for leasing all parcels, and the other was the no-action alternative required by the CEQ regulations. The BLM failed to consider any intermediate alternatives, and certainly none related to environmental concerns. In essence, the BLM proposed to lease or not lease, and then indicated that not leasing was never an option because, from the BLM's perspective, it has an obligation to lease the mineral resource. However, such obligation exists under the Mineral Leasing Act, 30 U.S.C. §181; BLM policy refutes this presumption BLM Director to Field Offices, Instruction Memorandum No. 2010-117 (May 17, 2010) ("[u]nder applicable laws and policies, there is no presumed preference for oil and gas development over other uses"); and court decisions confirm the point (*Richardson*, 565 F.3d at 710 ("the principle of multiple use does not require BLM to prioritize development over other uses")).

G. THE BLM FAILED TO ANALYZE RELEVANT ENVIRONMENTAL IMPACTS.

The DOI's Departmental Manual requires that "The information used in any NEPA analysis must be of high quality." 516 DM 11, §11.4. Further, the document must reflect "[a]ccurate scientific

analysis, agency expert comments, and public scrutiny". The BLM violated these standards by issuing a DEA that merely cataloged possible impacts.

The BLM did not explain why it failed to employ a better practice, such as the MLP or Unitization processes. MLPs allow the agency to analyze site-specific impacts at the leasing stage for situations like this proposed sale, in which "the oil and gas industry has expressed a specific interest in leasing" and "there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area". See note 4. Unitization requires leases in the general area to coordinate on operations and development to minimize environmental impacts. Both approaches would be effective for this lease sale, where one company owns and operates most, if not all, of the producing wells in the immediate vicinity of Parcel 21 and, upon information and belief, is the entity that nominated the parcels.

1. COMMERCIAL IMPACTS

The Golds clearly raised concerns about the impact of oil and gas development on their retreat center business. The retreat center depends on the pristine and natural beauty of their property, including that portion in lots 2-4 of Parcel 21, which contains numerous areas used for hiking, meditation, and exploration by ranch guests. The Ranch facilities are located directly south of Parcel 21, which forms the viewshed and drains through ephemeral watercourses into the ponds.

The DEA made only passing reference to these concerns and no attempt to evaluate and address them meaningfully. The first reference, located in the Introduction of the DEA, mentioned the Golds' objection to drilling on Parcel 21, but dismissed their concerns, stating that the BLM has an "obligation[]...to lease the tract for mineral extraction" and that the "camp was found to be located approximately 4-5 miles north of the parcel boundary." DEA at 6. Both statements are plainly erroneous. As noted earlier, the BLM has no obligation to lease a nominated parcel. With respect to the distance between the Ranch facilities and parcel boundary, the statement made no sense. A section is only one square mile. Because the Ranch facilities and parcel are located in the northern half of Section 11, they could be no more than one and a half miles apart, and perhaps as close as one-half mile.

The second reference was located, like an afterthought, in the very last paragraph of the document. DEA at 45. It paraphrased the Golds' statement, and then baldly asserted that "The issues raised by the Gold's [sic] have been reviewed and are incorporated into the EA." There was no citation to where or how these concerns were considered. Ignoring relevant public comment reduces NEPA to a paper exercise.

2. NATURAL RESOURCE IMPACTS

Parcel 21 contains several areas of high value habitat and cultural resources, but the DEA contained no site-specific discussion. Such consideration is critical at the leasing stage, because once

the BLM sells the lease, it cannot prevent development and is limited in how much it can require the drilling applicant to relocate its facilities or take other actions under Onshore Order No. 1.

a. HYDROLOGY AND WATER QUALITY

Parcel 21 occupies the high land in Section 2, with ephemeral drainages dropping steeply through rocky canyons to the meadows and ponds around the Ranch facilities. The Ranch's drinking water wells also are located down gradient. As a result, surface disturbance on Parcel 21 has the potential to cause tremendous harm to the Ranch's hydrology and water quality. In addition to surface disturbance, reserve pits must be constructed up gradient of the Ranch to store millions of gallons of drilling fluids, fracturing fluids and produced water.

The BLM relied on a state regulation, NMAC 19.15.17 – *Pits, Closed-Loop Systems, Below-Grade Tanks, and Sumps*, to protect against adverse impacts from these reserve pits. The so-called "pit rule" requires liners and monitoring systems and establishes setback requirements for ground and surface water, including ephemeral drainages. These requirements are a significant improvement over the industry's prior practice, yet still are not enough to protect water resources. Throughout the San Juan Basin, surface spills are common and liners rip and tear, reflecting the engineering certainty that even under the best circumstances – professional construction, routine monitoring, comprehensive training, and vigorous enforcement, none of which were discussed in the DEA – human systems will fail at a predictable rate. The OCD has identified more than four hundred cases of ground water contamination from reserve pits, some with toxic metals such as arsenic, benzene, cadmium, and mercury in excess of state standards.

Moreover, pending industry proposals would roll back the setback requirements, eliminate the protection for most ephemeral drainages, and modify the requirements for on-site disposal of pit liners and residue, none of which were mentioned in the DEA. The latter issue of on-site waste disposal deserves particular note. Under the current regulations, at closure the pit liners are folded "burrito-style", covered with an engineered material to prevent infiltration, and buried on-site. There is no requirement to remove all of the pit contents. Any resulting contamination becomes the problem of the private surface owner.⁸ The pending industry proposals seek to *weaken* the existing rule, by deleting the requirement to cover the folded liner and allowing more liquid to be buried on-site.

Despite widespread concern about water quality impacts, there was virtually no discussion in the DEA. The background section was basic and contained no specific discussion about the individual parcels. DEA at 14-15. The subsequent discussion of environmental impacts was a laundry list, which nonetheless still managed to omit the obvious impact of on-site waste disposal. DEA at 32-33. The reference to spills and leaks contained no analysis of probability. DEA at 39. Given that the BLM manages nearly 24,000 wells in Rio Arriba County alone, it should have better information than these

⁸ It is questionable whether this practice is consistent with the right of the dominant estate to access the federal mineral resource or comports with the BLM's obligation to minimize environmental impacts to the private surface.

generic statements. DEA at 39. The section culminated in a statement that potential impacts to ground water would be mitigated by the use of lined pits, closed systems, steel tanks and casing and cementing requirements, but as explained earlier, the BLM's reliance on state regulations was not permissible. Notably, there was no mention of mitigating impacts from surface spills, and no discussion about inspections and enforcement of requirements to protect water quality.

b. SOIL

The BLM failed to take a hard look at soil impacts. The background discussion in the DEA was brief and non-specific. DEA at 16-17. Parcel 21 consists of three types of soil, characterized by significant slopes and high erosive potential. The percentage distribution of soil types and characteristics were not given. The discussion of environmental impacts also was inadequate. DEA at 34. There was no discussion of soil type relative to the location of probable development, which for Parcel 21 should be evident given the reference to the existing road. Despite the steep slopes and high susceptibility to erosion, there was no quantitative assessment of potential impacts. Indeed, the DEA asserted that wind would be a "minor contributor" to erosion, directly contradicting the background discussion. Finally, the mitigation measures did not address erosion impacts as they occur, but only years later when the site would be reclaimed.

c. VISUAL QUALITY

The DEA completely failed to consider the visual impact of oil and gas development, including the effect on the small business owned by the Golds. Parcel 21 contains the high ground between one-half and 1.5 miles north of the Ranch facilities. This high ground not only dominates the view from the Ranch, but the views from its heights are the best on the property, with line of sight to Durango in the north and nearly to Albuquerque in the south. Obviously, wells and roads would mar these pristine views.

The BLM responded to these potential impacts by putting on blinders. According to the DEA, because the parcels are private surface, the BLM had no obligation to consider the visual impact of oil and gas development. DEA at 22, 38. It may be true that the visual quality standards apply only to federal surface, but that does not excuse the BLM's failure to consider the impact of its leasing decision on the visual quality of private surface. Visual quality is an impact on the human environment and thus clearly falls within the scope of NEPA.

d. CULTURAL RESOURCES

The National Historic Preservation Act (NHPA), 16 U.S.C. §470f, requires the BLM to make a good faith effort to identify historic properties, assess the effects of its proposal, consult with the State Historic Preservation Officer (SHPO), and mitigate adverse effects on those properties before proceeding with an action. In essence, the NHPA is a "stop, look, and listen provision". *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 805 (9th Cir. 1999)(internal quotations omitted).

The BLM must comply with the NHPA "before any action is taken to make the specific project a reality". *Richardson*, 459 F. Supp. 2d. at 1125. In *Richardson*, the BLM sold a lease for land containing more than 13,000 historic properties, arguing that it should be allowed to postpone NHPA consultation

because only a small portion of the Planning Area will ever be subject to oil-and-gas development. It is therefore appropriate to postpone completion of the Section 106 consultation until the APD stage, when BLM will know exactly where the ground disturbance will occur and can then notify interested tribes to find out whether any culturally significant sites are located in the area of disturbance.

The district court disagreed because the lease constituted an irretrievable commitment of resources that could not be adequately addressed later under existing authority. The court acknowledged that BLM could require small changes to protect specific sites, but that "once a parcel of land has been leased for oil and gas, BLM does in fact lose a great deal, if not all, of its ability to entirely preclude drilling or other development on the parcel." Accordingly, the court held that "consultation...must be completed before any leases are issued in the Planning Area, and cannot wait until the APD stage."

The BLM failed to comply with the NHPA for this lease sale. Like *Richardson*, the parcels are rich in historic properties. DEA at 11 (acknowledging that the nominated parcels are "located within the archaeologically rich San Juan Basin"). On Parcel 21 alone, there are dozens of ancient dwellings and other historic sites, with an abundance of unique and valuable artifacts, as well as possible burial sites. Gold Exhibit 1. It would be nearly impossible to construct new roads, well pads, and reserve pits without destroying some of these sites. Yet the DEA identified no specific impacts. In fact, the DEA appeared to be no more than a pastiche of language from the EIS for the Farmington RMP. Instead of analysis, the DEA offered vague statements like "potential threats to cultural resources from leasing are variable dependent upon the nature of the cultural resource and the nature of the proposed development." DEA at 30. Regarding Native American religious concerns, the BLM used the passive voice, suggesting that it did no research at all: "The proposed actions are not known to physically threaten any [Traditional Cultural Properties], prevent access to sacred sites, prevent the possession of sacred objects, or otherwise hinder the performance of traditional ceremonies and rituals." DEA at 31. The BLM then committed to comply with the NHPA at some later point when it is deemed "necessary". *Richardson* makes clear that NHPA compliance is necessary now and cannot be postponed until the APD stage.

The BLM's effort in the leasing stage raises serious questions about its commitment to protecting cultural resources at the APD stage. When it proposed the lease sale, the BLM conducted a literature survey to determine whether to impose a lease stipulation for cultural resources. DEA at 11. The literature appears to have consisted of surveys done in advance of well and pipeline construction on adjacent parcels. DEA at 12. As a result, the literature survey covered only a tiny fraction of the parcels in the lease sale. For Parcel 21, the survey covered only five percent of the private surface and found only two sites, concluding "No Structures/Sites". The BLM did not conduct a site visit, and did

not contact any surface owners with specific knowledge about cultural resources on their properties.⁹ The situation is similar for Traditional Cultural Properties. The BLM's analysis was "limited to reviewing existing published and unpublished literature, and ongoing BLM tribal consultation efforts", but did not identify the literature in the bibliography and failed to describe the nature and timing of the consultation efforts. Draft EA at 13.

On the basis of this rudimentary effort, the BLM imposed a lease stipulation which requires the successful bidder to complete a cultural resource inventory. DEA at 49 (NM-11-LN – Special Cultural Resource). The DEA did not provide the lease stipulation for the convenience of the reading public. Nonetheless, it is clear that an inventory after the lease sale would be too late, because at that point, as the district court in *Richardson* observed, the BLM's options for protecting the resource – whether by precluding drilling or moving facilities - are quite limited.¹⁰

e. MITIGATION MEASURES

The DEA failed to adequately describe the mitigation measures to be used to reduce the environmental impacts of oil and gas development and fails to present any evidence of their effectiveness. This discussion is critical because the proposed lease sale constitutes an irretrievable commitment of resources. After the leases have been sold, the purchaser has the right to drill and the BLM has only a limited ability to control the purchaser's actions through conditions of approval and best management practices, particularly if those conditions and practices have not been evaluated in a NEPA document. The BLM has sufficient information to know where the development is likely to occur - particularly in Parcel 21 where the BLM expects the driller to use the existing road, pipeline, and power line - and therefore it can identify those measures most likely to reduce environmental impacts.

The BLM has a clear obligation to evaluate mitigation measures when the site-specific impacts of a proposal can be identified. NEPA requires federal agencies to discuss "steps that can be taken to mitigate [the proposal's] adverse environmental consequences." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989). While there is no requirement to adopt a complete or enforceable plan, a "mere listing", without supporting analytical data, is not enough. *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1151 (9th Cir. 1998). This is particularly true when the proposal is a "relatively

⁹ The DEA appeared to have been conducted from a desk. While the DEA referred to a "field inspection of the project area" on November 21, 2011, just a few days before the document was published on the web site, Draft EA at 20-21 and 23, it was not mentioned elsewhere in the document, and there is no indication what, if anything, was done.

¹⁰ Even after the inventory has been conducted, there are serious questions about the BLM's commitment to protecting cultural resources during the development stage. Onshore Order No. 1 allows a driller that encounters a historic site to continue work, so long as it takes care to avoid damage. The driller is not required to stop work or even to notify the BLM. Voluntary compliance has not proved to be an effective strategy in other contexts, and there is little reason to believe – and certainly the BLM did not produced any evidence – to demonstrate that it works for cultural resources.

contained, site-specific proposal", in which case the agency must provide "detailed quantitative assessments of possible mitigation measures" and "an estimate of how effective the mitigation measures would be if adopted, or give[] a reasoned explanation as to why such an estimate is not possible". *Id.* (citing *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1380-1381 (9th Cir. 1998)); *Okanogan Highlands Alliance v. Williams*, 236 F.3d 468, 476 (9th Cir. 2000) (upholding a mitigation plan that evaluated each measure and its effectiveness rating).

The Ninth Circuit's decision in *South Fork Band Council* is instructive to this proposed lease sale. The BLM had prepared an EIS that did not evaluate the effectiveness of measures for protecting ground water, arguing that such evaluation was not required "because it [was] impossible to predict the precise location and extent of groundwater reduction." 588 F.3d at 727. The court rejected the argument, observing that "[a] mitigation discussion without at least some evaluation of effectiveness is useless in" determining environmental impacts, particularly since the BLM knew enough about the affected springs and creek to discuss the mitigation of reasonably likely impacts.

The BLM knew even more about the parcels in this lease sale than it did about the resources in *South Fork Indian Council*. Rather than fifty springs and a creek, the proposed lease sale involves a small number of parcels ranging from 160 to 1,560 acres. Parcel 21 is only 320 acres, and has topographical features that severely restrict the potential locations for a road and well pad. Indeed, the BLM indicated that the driller would use the existing road, further narrowing the potential locations for a well pad. By looking at these locations, the BLM could have identified with near precision those acres that could be affected by oil and gas development, and from that identification, the environmental impacts and the mitigation measures available to reduce them.

Rather than making the effort to identify these mitigations, however, the DEA offered "broad generalizations and vague references." *Cuddy Mountain*, 137 F.3d at 1381. Such a "perfunctory description of mitigating measures is inconsistent with the 'hard look' [] required under NEPA." *Id.* at 1380. Aside from the lease stipulation for cultural resources, which merely calls for further investigation, not mitigation, the DEA provided a short list of possible measures, such as "site avoidance or excavation and data recovery", and suggested, somewhat hopefully and without analysis or discussion, that if these measures were implemented, "there does not appear to be any adverse impacts to cultural resources from leasing," and that even if there were any such impacts, the BLM would develop measures in the future. DEA at 31. There was no discussion of monitoring, no discussion of mitigation measures applied to BLM-approved wells in the immediate vicinity or even in the San Juan Basin, no discussion of driller compliance with these measures, and no discussion of effectiveness. In short, BLM postponed the entire discussion of mitigation measures until the APD stage (or later), even though it could have identified the probable location of oil and gas facilities in Parcel 21.

The discussion of mitigation measures for air quality also fell short of the required analysis. The BLM "encourages industry to incorporate and implement [BMPs]", but they are voluntary unless specified as a Condition of Approval (COA) after consideration in a NEPA document, and there was no discussion of their effectiveness. DEA at 26; Onshore Order, 72 Fed. Reg. 10318 (March 7, 2007),

Section III.F.3.¹¹ For impacts to surface water quality, the DEA did not describe any mitigation measures for accidental spills of drilling fluids, fracturing fluids, or produced water, a fact that is particularly important given the previous oil spill on Parcel 21. For impacts to ground water, the DEA referred to "the use" of pits, closed systems, steel tanks, but did not explain the nature of these facilities, how they would be used to mitigate impacts, or their effectiveness for this objective. To the extent that the BLM relied on state regulations governing these facilities, it overlooked the considerable negative history associated with ground water contamination from pits used in the San Juan Basin, and failed to consider the current industry proposals to roll back the enhanced protections adopted only five years ago. Among other changes, the industry proposes to eliminate the requirement for closed systems, reduce the pit setback requirements for water features, and remove the protection for ephemeral waters. The OCD has scheduled a public hearing on these proposals.¹² Additionally, the DEA relied on casing requirements, but failed to provide any citation, and failed to describe these requirements or evaluate their adequacy under current conditions or for the new technologies being deployed in the field.

Furthermore, the BLM's reference to state regulations flies in the face of the Tenth Circuit's holding in *Richardson* that it could not rely on OCD regulations to argue that adverse impacts on ground water would be mitigated. Like here, the BLM argued that state well casing requirements and pit regulations were designed to prevent ground water contamination. 65 F.3d at 690-691, 715. Rejecting this argument, the court held that "the existence of these regulations does not preclude the possibility of contamination, even if the protections are intended to prevent such outcome." *Id.* Such protections simply are not effective at all times, a fact demonstrated by evidence of ground water throughout the state. "Contravening the inference that existing protections are always 100% effective, the record contains evidence that, despite this regulatory scheme, groundwater contamination from gas wells has happened frequently throughout New Mexico in the past." *Id.* As a result, the BLM could not rely on OCD regulations "to demonstrate that it 'examined relevant data' supporting a finding that impacts on [groundwater] will be minimal." *Id.*

¹¹ BMPs are "state-of-the-art mitigation measures applied to oil and gas drilling and production to help ensure that energy development is conducted in an environmentally responsible manner." http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/best_management_practices.html ("The footprint of energy development should be as small and as light as possible"). The BLM declared that "[u]sing Best Management Practices is the BLM's current policy", 72 Fed. Reg. 10310 (March 7, 2007), but nonetheless refused to impose them as mandatory conditions in drilling permits. As a result, the BLM's reliance on BMPs in the DEA was no more than an illusory promise of mitigation.

¹² The OCD has postponed the hearing, originally scheduled for January 23, 2012, to allow the parties more time for preparation and possible negotiation.

III. REQUEST FOR RELIEF

The BLM in its December 16, 2011 letter to the undersigned counsel confirmed the agency's narrow focus in the DEA when it stated "Based on our review of the proposed lease, we do not feel that the potential environmental impacts from leasing warrant deferment of the proposed parcel from consideration in the April 18, 2012 Lease Sale." This position ignores the irreversible and irretrievable commitment of resources that occurs at the leasing stage, and resulted in a cut-and-paste DEA, rather than a meaningful and site-specific review of environmental impacts arising from oil and gas development.

For these reasons, the Golds protest the April 2012 lease sale and the lease of Lots 2-4 in Parcel 21 in particular, and request that the BLM remove Lots 2-4 or the entire Parcel 21 from the lease sale, or in the alternative, require off-site directional drilling of Lots 2-4.

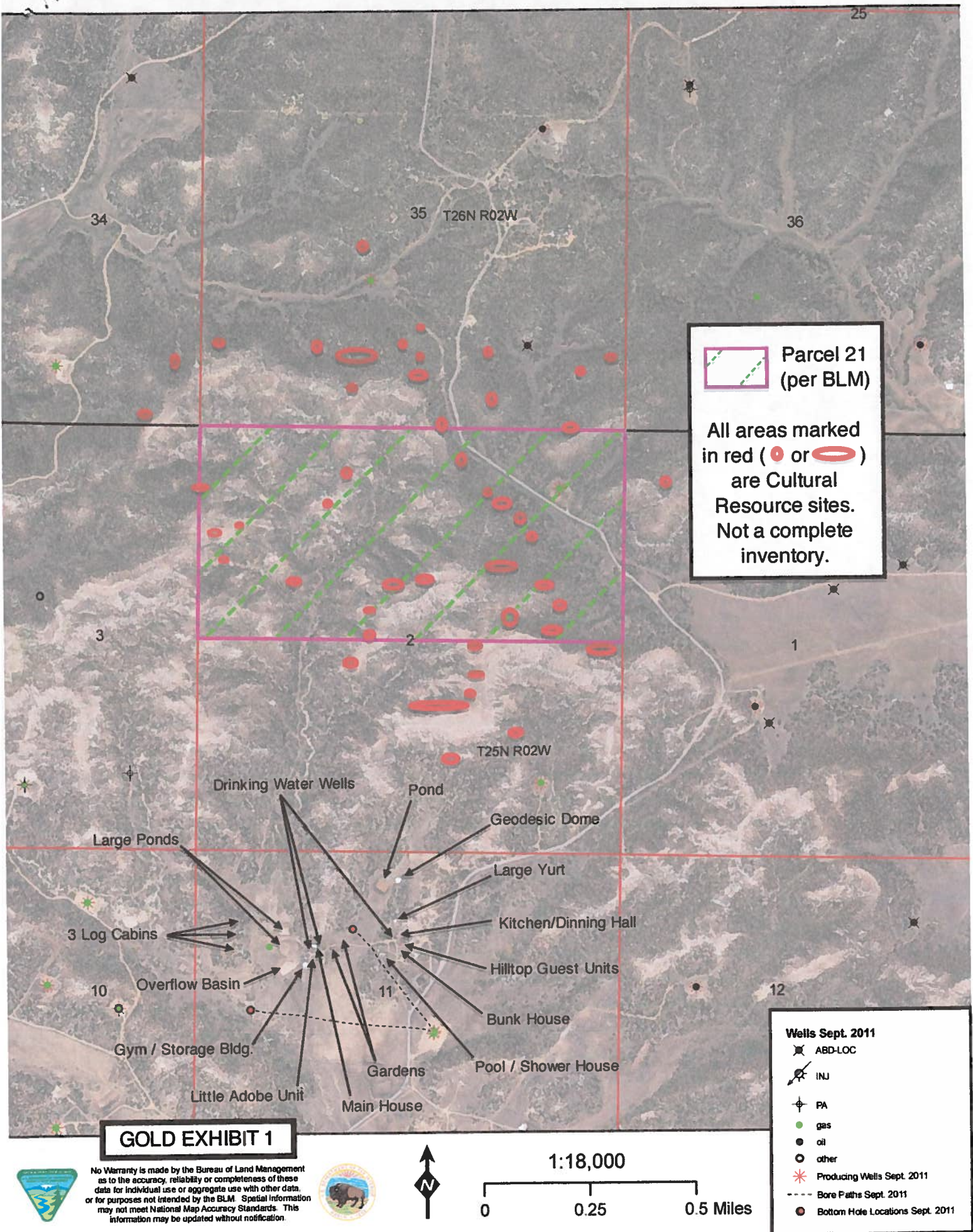
Sincerely,

A handwritten signature in blue ink that reads "Leslie Barnhart for". The signature is written in a cursive, flowing style.

Eric Ames

cc: Michael and Patricia Gold

Farmington Field Office April 2012 DRAFT Lease Sale Parcels - Parcel 21



**ACTIVE OR AUTHORIZED OIL AND GAS WELLS
LOCATED ON SECTIONS ADJACENT TO PARCEL 21**

SOURCE: http://octane.nmt.edu/gotech/Petroleum_Data/allwells.aspx
(last visited 1/16/2012)

OPERATOR	LOCATION			WELL NAME	TYPE	SPUD DATE	STATUS
	T	R	SEC				
McElvain Energy	25	2W	3	Elk Com 001A	Gas	5/21/2000	Active
McElvain Energy	25	2W	3	Davis Federal 03-015	Gas	7/30/1986	Active
McElvain Energy	25	2W	3	Elk Com 001C	Gas	3/18/2006	Active
McElvain Energy	25	2W	3	Elk Com 001	Gas	7/3/1998	Active
McElvain Energy	25	2W	3	Elk Com 001B	Gas	11/28/2004	Active
McElvain Energy	25	2W	10	Elk Com 10-001	Gas	11/12/1999	Active
McElvain Energy	25	2W	10	Elk Com 10-001A	Gas	8/17/2000	Active
McElvain Energy	25	2W	10	Badger Com 10-001	Gas	8/28/2000	Active
McElvain Energy	25	2W	10	Badger Com 10-001A	Gas	7/26/2001	Active
McElvain Energy	25	2W	10	Badger Com 10-001B	Gas	9/28/2004	Active
McElvain Energy	25	2W	10	Elk Com 10-001C	Gas	11/12/2004	Active
McElvain Energy	25	2W	10	Elk Com 10-001B	Gas	10/13/2004	Active
McElvain Energy	25	2W	11	Badger 11-001B	Gas	1/19/2010	New
McElvain Energy	25	2W	11	Badger 11-001A	Gas	12/26/2009	New
McElvain Energy	25	2W	11	Badger 11-001	Gas	9/23/2001	Active
McElvain Energy	26	2W	34	Elk Com 34-002	Gas	4/4/2006	Active
McElvain Energy	26	2W	34	Elk Com 34-001	Gas	2/18/1999	Active
NM&O Op Co	25	2W	3	Federal 015	Gas	9/22/1959	Active
NM&O Op Co	25	2W	10	Federal 008	Gas	11/18/1959	Active
NM&O Op Co	25	2W	11	Davis 001	Gas	5/19/1952	Active