UNITED STATES DEPARTMENT OF THE INTERIOR
OFFICE OF HEARINGS AND APPEALS
BOARD OF LAND APPEALS

WILDEARTH GUARDIANS and SAN JUAN CITIZENS ALLIANCE Appellants	)	IBLA-2012-0076 Notice of Appeal of the Decision Record and Finding of No Significant Impact for the Williams Middle Mesa Plan of Development San Juan County, New Mexico, EA No. DOI-BLM-NM-F010-2011-254-EA

STATEMENT OF REASONS

On January 3, 2012, WildEarth Guardians and San Juan Citizens Alliance (hereafter "Appellants") filed a Notice of Appeal of the Decision Record ("DR") and Finding of no Significant Impact ("FONSI") issued by Bureau of Land Management ("BLM") Farmington District Office Manager, Dave Evans, authorizing Williams Production Company, LLC's ("Williams'") Rosa Unit Middle Mesa Plan of Development (hereafter referred to as the "Middle Mesa POD"). The Middle Mesa POD calls for the drilling of 53 shale gas wells and the lifting of seasonal drilling restrictions meant to protect wildlife in the Farmington Field Office of northwestern New Mexico. Pursuant to 43 C.F.R. § 4.412, Appellants now file the following statement of reasons in support of their Notice of Appeal.

I. INTRODUCTION

The Middle Mesa POD is the first drilling project approved by the Farmington District Office of the BLM that authorizes commercial development of natural gas within the Mancos shale. It is unprecedented in scope and unique from the drilling that has normally occurred in the area.

Notably, the project will require year-round drilling for five years. To accomplish this, the BLM's decision waives seasonal drilling closures that were previously emplaced by the 2003 Farmington Resource Management Plan ("2003 RMP") to protect wildlife. See DR at 1 (Administrative Record ("AR") at 00018). The drilling also involves horizontal drilling (see id.), a practice that has not yet been utilized to commercially extract oil and gas in the Farmington Field Office. The Environmental

Assessment ("EA") prepared for the drilling explains the practice involves drilling to an average depth of 6,700 feet, then drilling horizontally an average of 5,200 feet through the Mancos shale formation. See EA at 55-56 (AR at 00102-00103). To produce natural gas, the drilling will also require extensive hydraulic fracturing, or fracking. According to the BLM, "For each Basin Mancos well, stimulation (fracturing) would occur along an average 5,200-foot horizontal well bore at stages spaced approximately 500 feet apart." EA at 56 (AR at 00103). The BLM estimates a total of "12 stimulation stages" for each horizontal well bore. See id. With 53 Mancos shale wells proposed under the Middle Mesa POD, this amounts to approximately 636 well stimulations. According to the BLM, each stimulation will require 10,000 barrels, or 420,000 gallons, of fluid.[1] See id. With 636 stimulations projected, this amounts to 267,120,000 gallons of fluid projected to be required for each well.

Despite the unprecedented nature of the project, the BLM asserts in its DR, FONSI, and EA that the impacts of Mancos shale gas drilling have been adequately considered by and are consistent with the 2003 Farmington RMP and associated Final Environmental Impact Statement ("FEIS"). See e.g. DR at 6 (AR at 00023). This assertion is not supported as the 2003 Farmington RMP and FEIS, including the RMP Reasonably Foreseeable Development Scenario ("RFDS") did not contemplate commercially viable development of the Mancos shale, did not consider the utilization of horizontal drilling techniques, and did not specifically consider the impacts of hydraulic fracturing. Specifically, the RMP and EIS did not consider the unique environmental impacts of shale gas drilling, especially the unique air quality impacts, wildlife impacts, and other impacts.

Although the BLM is certainly authorized to approve projects such as the Middle Mesa POD, it cannot do so without first taking a hard look at the potentially significant environmental impacts under the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321, et seq., and ensuring that the action conforms to the applicable RMP in accordance with the Federal Land Policy and Management Act ("FLPMA"), 43 U.S.C. § 1701, et seq. Unfortunately, in authorizing the Middle Mesa POD, the BLM

[1] One barrel of fluid equals 42 gallons.

fell short in both regards. Appellants therefore respectfully request that the Interior Board of Land Appeals ("IBLA") set aside the decision.

II. APPELLANTS ARE PARTIES WHO ARE ADVERSELY AFFECTED

To sustain this appeal, Appellants must demonstrate that (1) they are a party to the case; and (2) that they are adversely affected by the decision being appealed. 43 C.F.R. § 4.410(a). Here, Appellants more than meet these standards.

A. Appellants are Parties

To be a party to the case, a person or group must have actively participated in the decision-making process regarding the subject matter of the appeal. *See* 43 C.F.R. § 4.410(b). Here, WildEarth Guardians and the San Juan Citizens Alliance submitted comments to the BLM regarding the Middle Mesa POD and EA during the public comment period provided by the Agency. Appellants jointly submitted comments on September 29, 2011 and on October 6, 2011, and provided comments regarding the subject matter of this appeal. See AR 00663-00835, 00854-00891. Appellants are thus parties.

B. Appellants are Adversely Affected

To demonstrate that they will "be adversely affected by the decision being appealed," parties must demonstrate a legally cognizable "interest" and that the decision appealed has caused or is substantially likely to cause injury to that interest. Glenn Grenke, 122 IBLA 123, 128 (1992); 43 C.F.R. § 4.410(d).

Attached as Exhibit 1 is the declaration of Michael Eisenfeld. It shows he is a member and employee of the San Juan Citizens Alliance and a member of WildEarth Guardians. His declaration shows he personally uses and enjoys lands that will be impacted by the Middle Mesa POD for recreational, aesthetic, and conservation purposes, and that he intends to return to these areas for enjoyment in the very near future and beyond. Mr. Eisenfeld's declaration establishes that the BLM's decision to authorize the Middle Mesa POD will adversely affect his legally cognizable recreational, aesthetic, and conservation interests in the area through increased development, erosion, vegetation

disturbance, air pollution and other environmental impacts. Mr. Eisenfeld's declaration establishes that WildEarth Guardians and the San Juan Citizens Alliance will be adversely affected by Mr. Evans' DR and FONSI.

III. STATEMENT OF REASONS

For the following reasons, Appellants request the IBLA reverse the BLM's DR and FONSI authorizing the Middle Mesa POD.

A. The Middle Mesa POD Violates NEPA

The IBLA has had occasion to set forth BLM's duties under NEPA in several proceedings. See e.g. Center for Native Ecosystems, 170 IBLA 331, 344-345 (2006). Noting that "NEPA is designed to 'insure a fully informed and well-considered decision'" (id. at 344), the IBLA has summed up that NEPA requires a consideration of the potential environmental impacts of a proposed action, including a consideration of the unavoidable adverse impacts of a proposed action, alternatives to it, the relationship between short-term uses of the environment and its long-term productivity, and irreversible commitments of resources from implementing a proposed action. Id.

Where the BLM prepares an EA and concludes based on a DR and FONSI that an EIS is not required, the IBLA has held that that decisions will comply with NEPA "if the record demonstrates that the agency has considered all relevant matters of environmental concern, taken a 'hard look' at potential environmental impacts, and made a convincing case that any potentially significant impact will be reduced to insignificance by imposing appropriate mitigation measures." National Wildlife Federation, 170 IBLA 240, 244 (2006). Appellants are cognizant that of the IBLA's holding that "[a]n appellant seeking to overcome a FONSI bears the burden of demonstrating, with objective proof, that BLM has failed to adequately consider an environmental question of significance to the proposed action, or otherwise failed to abide by section 102(2)(C) of NEPA." Id.

Here, the BLM failed to adequately analyze and potential impacts of significance to the Middle Mesa POD in three key aspects: air quality impacts, consideration of alternatives, and in analyzing and assessing the overall unique impacts of horizontal shale gas drilling.

1. The EA Fails to Analyze and Assess Air Quality Impacts

The Middle Mesa EA does not actually analyze and assess the reasonably foreseeable air quality impacts of the Middle Mesa POD. See EA at 51 (AR at 00098). The BLM justifies this failure to analyze and assess air quality impacts with two lines of reasoning: 1) That air quality impacts are included in the FEIS for the Farmington RMP and 2) Further analysis of air quality impacts will be conducted during implementing of the POD. See id.

With regards to the latter line of reasoning, the BLM cannot forego an analysis of reasonably foreseeable impacts under NEPA. As the IBLA has held, "It is undisputed that BLM is required by section 102(2)(C) of NEPA to consider the reasonably foreseeable consequences of its actions." Montana Trout Unlimited, 178 IBLA 159, 166 (2009). NEPA is clear, and the IBLA has confirmed, that an EA must at least contain "a reasonably thorough discussion of significant aspects of the probable environmental consequences[.]" Western Watersheds Project, 175 IBLA 237, 246 (2008). While the BLM may be allowed to defer detailed consideration of environmental impacts if a proposed action is not yet specifically defined and there is a commitment from the decisionmaker to undertake further environmental analysis in response to more concrete proposals. See e.g., Biodiversity Conservation Alliance et al., 171 IBLA 218, 232 (2008) (noting uncertainly in reservoir characteristics prevented BLM from analyzing where wells would be located and upholding Agency decision to defer further environmental analysis related to site-specific impacts). However, this holding does not provide the BLM with carte blanche authority to defer an analysis of reasonably foreseeable environmental impacts under NEPA, particularly where, as here, the proposed action is nearly as concrete as it can get.

Indeed, this is not a situation where the proposed action is not clearly defined, or where the BLM lacks the ability to reasonably analyze and assess potentially significant environmental impacts. Here, Williams has disclosed to the BLM exactly where it intends to locate its drilling pads (see AR at 01304),

exactly where it intends to drill its wells (see AR at 01305-01312), exactly how the well pads will likely be laid out, including the equipment utilized (see EA at Appendix B (AR at 00150-00152)); exactly where it intends to locate its stimulation pads (see AR at 01313), the timing for drilling activities (see EA at 1 (AR at 00048)), the type of construction activities expected (see EA at 11 (AR at 00058)), the type of drilling system, including the drilling rigs, expected to be used (see EA at 12 (AR at 00059)), how stimulation activities are expected to take place (see EA at 12-13 (AR at 00059-00060)), the fact that the wells are expected to produce and be connected to existing gathering pipelines (see EA at 14 (AR at 00061)), and the locations of likely gathering pipelines that will be needed to facilitate ongoing production (see EA at Appendix A (AR at 00144-00148)). As a proposed action, the Middle Mesa POD is as clearly defined and certain as it gets. The only thing left for BLM to do is issue Williams its applications for permits to drill ("APDs"), which, for all intents and purposes, is a foregone conclusion.

Furthermore, there is no evidence in the record that the BLM was prevented from reasonably analyzing and assessing the reasonably foreseeable air quality impacts of the Middle Mesa POD in the EA. Even the New Mexico Environment Department called on the BLM to estimate air quality impacts, commenting, "Air quality is expected to be affected by the proposed action. The environmental assessment does not quantify the emissions from the proposed action. **Quantification should be included in this environmental assessment** and future actions under this plan of development." AR at 00845 (emphasis added). Additionally, Appellants not only submitted a 2009 report by ENVIRON entitled, "Development of Baseline 2006 Emissions from Oil and Gas Activity in the South San Juan Basin," detailing emissions (particularly of volatile organic compounds ("VOCs")) from oil and gas operations in the San Juan Basin of New Mexico that could have informed an analysis of air quality impacts, but also suggested a number of detailed mitigation measures (which had been adopted by BLM in other oil and gas drilling projects) for the BLM to consider in order to minimize or eliminate the potentially significant impacts of air emissions from specific equipment and practices likely to be utilized

by Williams in the implementation of the Middle Mesa POD. See AR at 0080 and 00665-00666.[2, 3] The referenced inventory not only presented information on actual emissions, but presented methodologies that could have been used by the BLM to analyze and assess emissions from equipment and activities that will almost certainly be associated with the Middle Mesa POD, including well completions and recompletions, compressor engines, drilling operations, fugitive emissions, and more. See Exhibit 2, ENVIRON Inventory at 11-38.

This inventory data also contradicts the BLM's former claim that the 2003 Farmington RMP and associated FEIS can be relied on to demonstrate that the air quality impacts of the Middle Mesa POD have been adequately analyzed and assessed.

As Appellants pointed out to BLM in their comments, the 2009 ENVIRON emissions inventory now shows that the 2003 Farmington FEIS underestimated emissions of VOCs from oil and gas operations by nearly 30-fold.[4] As Appellants explained:

> With regards to emissions, current inventories indicate that volatile organic compound ("VOC") emissions associated with oil and gas development are far exceeding RMP projections. Indeed, in 2003, the BLM estimated that within 20 years, VOC emissions would amount to 2,008.5 tons/year. Yet the most recent inventory of emissions from oil and gas activities in San Juan and Rio Arriba Counties indicates VOC emissions amount to nearly 60,000 tons/year—30 times higher than what was considered in 2003.

AR at 0080. Appellants also presented the following table to illustrate this discrepancy between the amount of VOC emissions projected in 2003 and the most recent estimates:[5]

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[2] The referenced inventory of emissions for the South San Juan Basin of New Mexico prepared in 2009 by ENVIRON was attached as Exhibit 1 to Appellants' September 29, 2011 comments on the Middle Mesa POD Draft EA. Unfortunately, although this report was submitted, it does not appear that the BLM included this report in the record provided Appellants. Therefore, we attach this emissions inventory report as Exhibit 2 to this Statement of Reasons.

[3] The ENVIRON inventory report was "part of an effort sponsored by the Independent Petroleum Association of the Mountain States (IPAMS) jointly with the Western Regional Air Partnership (WRAP) for the development of a Phase III regional oil and gas emission inventory for the inter-Mountain West." Exhibit 2 at ES-1.

[4] VOC emissions are significant because, as the BLM explains in the EA, they react with sunlight to form ground-level ozone. See EA at 25. The BLM explains, "VOCs refer to organic chemical compounds that have significant vapor pressures and can affect the environment and human health." Id. The BLM notes that VOCs can be "naturally occurring." Id. However, emissions of VOCs from industrial sources, particularly in conjunction with other emissions such as nitrogen oxides, or NOx, can lead to excessive ozone concentrations in the air. See id.

Source of Emission Inventory	VOC Emission Estimate (tons/year)
RMP 20-Year Projection (FEIS at J-11)	2,008.5
WRAP Phase III 2006 Inventory for San Juan/Rio Arriba Counties	59,933

In response to Appellants' comments, the BLM presented a curious and confusing response.[6] Although the Agency did not deny the validity of the 2009 emissions inventory, nor the discrepancy between the RMP and the recent emissions inventory, the BLM rather asserted that the 2,008.5 ton per year estimate in the 2003 RMP was based "only on compression and separators." AR at 00154. Using the results of the 2009 inventory, which the BLM disclosed found that compression-related VOC emissions were "4,180 tons" per year in 2006, the Agency then multiplied the 4,180 ton per year figure by ".4815" because, "The ratio of RMP FEIS wells to active wells in 2006 is 0.4815." See id. Based on this, the BLM asserted that, despite the fact that the 2009 inventory found that actual VOC emissions from compression were 4,180 tons per year, the figure was actually "2,012" tons per year. See id.

This response makes no sense. The BLM appears to have argued that the RMP FEIS estimated that fewer wells would be drilled, and therefore, total VOC emissions should be lower. Yet, as the BLM discloses, the 2009 emissions inventory shows that this is simply not the case. Not only have more wells been drilled in the Farmington Field Office than were projected by the RMP (20,649 in 2009 inventory versus 9,942 in RMP), but the 2009 emissions inventory shows that total VOC emissions, at least associated with compression, were already more than twice as high as the RMP's 20-year projection by

[5] Unfortunately, it appears that the BLM did not include the Farmington RMP FEIS, including Appendix J, in the record provided to Appellants as part of this proceeding. Thus, we attach relevant excerpts of Chapter 4 and Appendix J of FEIS in their entireties to this Statement of Reasons as Exhibits 3 and 4, respectively.

[6] According to the record provided by Appellants, this response was prepared by Dave Mankiewicz, the Assistant Field Manager for Minerals at the Farmington Field Office. See AR at 00660-00661. It does not appear that an air quality specialist, within our outside of the BLM, was consulted or provided comments in response to Appellants' air quality-related comments.

2006. Given that the BLM disclosed in the RMP FEIS that, "it is believed that the number of wells and their associated compression demands influence emissions from this [oil and gas] activity more than production amounts" (see Exhibit 3, FEIS at 4-108), it is a logical and reasonable outcome that higher oil and gas activity would lead to higher compression-related VOC emissions.

The BLM seems to be arguing that the 2009 emission inventory results should be "scaled down" simply to conform to the RMP FEIS projections. The Agency seems to be doing this in an attempt to dodge the fact that total VOC emissions just from compression are already twice as high as the RMP's 20-year projection. This is wholly inappropriate under NEPA.

All this aside, however, what the Agency does not address is the fact that the RMP FEIS did not address emissions from a host of other sources that the 2009 ENVIRON inventory report indicates are sources of VOCs, including "pneumatic devices," "venting—blowdown" activities, "venting—initial completion" activities, "unpermitted fugitive" emissions, "condensate tanks," "dehydrators" and "other categories." See Exhibit 2, ENVIRON Inventory at 46. In fact, the 2009 emission inventory shows that, excluding VOC emissions from compression, total VOC emissions just in San Juan and Rio Arriba Counties in 2006 amounted to 55,758 tons per year. Id.[7] Given that at the time the RMP FEIS was prepared, the BLM found that, "the overwhelming majority of emissions from this [oil and gas] activity would occur from well head and central compression demands" (see Exhibit 3, FEIS at 4-59), this just underscores the fact that the Agency's assumptions and analysis in the RMP FEIS no longer hold water. The BLM cannot blindly refer back to an inadequate FEIS and assert that impacts will not be significant.[8]

Appellants do not argue that the BLM was wrong in 2003, but rather that significant new information now shows that the Agency's analysis and assessment in the RMP FEIS, at least with regards to VOC emissions is no longer valid. Not only does this undermine the BLM's reliance on the RMP

[7] The 2009 Emissions Inventory provides no estimate of VOC emissions from separators. Thus, the 55,758 tons per year figure only excludes VOC emissions from compression.

[8] It is notable that in a November 11, 2011 review of the EA, Larry H. Freeman of The Shipley Group commented to the BLM that, [Y]you cannot rely on EIS information without careful citations and additional analysis. Just mentioning something as discussed in an EIS is not grounds for arguing that the discussed EIS impact is, therefore, not significant." AR at 00412.

FEIS to demonstrate that the Middle Mesa POD will not significantly impact air quality, at least with regards to VOC emissions, but it indicates that the RMP FEIS may need to be supplemented in accordance with 40 C.F.R. § 1502.9. In either event, the BLM's reliance on the RMP FEIS and failure to analyze and assess air quality impacts, at least with regards to VOC emissions, demonstrates that the DR and FONSI are fatally flawed and must be reversed.

2. The EA Fails to Analyze and Assess Other Air Quality Impacts

That the air quality analysis in the EA is fatally flawed is not limited to VOC emissions. In comments, Appellants called on the BLM to analyze and assess the impacts of the Middle Mesa POD to a number of federal air quality standards promulgated under the Clean Air Act by the U.S. Environmental Protection Agency ("EPA") that became effective after the 2003 RMP and FEIS were prepared. In comments, Appellants pointed out that the EPA has adopted a number of new and stronger air quality standards, including new eight-hour national ambient air quality standards ("NAAQS") for ground-level ozone promulgated in 2008 (see AR at 00880-00884), new 24-hour NAAQS for particulate matter less than 2.5 microns in diameter ("$PM_{2.5}$") promulgated in 2006, (see AR at 00884), new one-hour NAAQS for nitrogen dioxide promulgated in 2010 (see AR at 00884-00885), and brand new increment standards for $PM_{2.5}$ promulgated in 2010 (see AR at 00885).[9] Despite this, the EA entirely fails to analyze and assess air quality impacts in the context of these applicable standards. Given that the BLM is required under FLPMA to "provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans" (see 43 U.S.C. § 1712(c)(8)), the failure to analyze and asses impacts to these federal air quality standards is not a harmless error.

[9] Increments are like NAAQS. The BLM explains they represent "Maximum allowable increases over legally established baseline concentrations of pollutants covered by the Prevention of Significant Deterioration (PSD) provisions designated as Class I, II, and III areas." 2003 RMP FEIS at Glossary-5. The BLM discloses that the Middle Mesa POD area is a "Class II" area. See EA at 25 (AR at 00072). The baseline concentrations of increments are established based on certain trigger dates. In the case of the $PM_{2.5}$ increment standards, the trigger date was October 20, 2011. See 75 Fed. Reg. 64887. Thus, $PM_{2.5}$ increments for Class II areas have applied in the Middle Mesa POD area since October 20, 2011.

The BLM's response to Appellants' comments was not that these air quality impacts were insignificant in terms of identified issues of concern, outside the scope of the proposed action, or otherwise irrelevant to Agency's duties under NEPA. Rather, BLM stated, "The action is consistent with the scale of development analyzed in the RMP FEIS. Air quality emissions will be addressed at the APD level when the site-specific facts of the proposed drilling are better known. The Farmington planning area is currently in attainment with all National and State Ambient Air Quality Standards." AR at 00155. This response fails to demonstrate that the BLM adequately analyzed and assess the reasonably foreseeable direct, indirect, and cumulative impacts to the aforementioned air quality standards.

With regards to the Agency's claim that the impacts would be consistent with the "scale of development" analyzed in the RMP FEIS, this is baseless in terms of providing any insight as to the impacts of the Middle Mesa POD to the 2008 ozone NAAQS, 2006 $PM_{2.5}$ NAAQS, 2010 NO_2 NAAQS, and 2010 $PM_{2.5}$ increment standards. This is due to the fact that, regardless of the "scale of development" that was analyzed in the RMP FEIS, the fact of the matter is that the FEIS did not even mention these air quality standards, let alone analyzes and assess management impacts to these standards. In fact, the RMP FEIS could not have possibly analyzed and assessed impacts to these air quality standards because they did not exist at the time. This claim fails to demonstrate that the BLM adequately analyzed and assessed air quality impacts.

With regards to the BLM's assertion that air quality impacts will be addressed at the APD level when "site-specific facts of the proposed drilling are better known," as explained already, this claim is misplaced. Information throughout the EA and the administrative record provided to Appellants indicates the Middle Mesa POD is incredibly well defined and that impacts, such as to air quality are reasonably foreseeable. See supra. Pp. 5-6. Above all, the BLM has not demonstrated that it lacks sufficient information with which to analyze and assess air quality impacts. See id.

The Agency's argument is especially suspect because there are signs in the record that it intends to issue APDs to Williams under a "Determination of NEPA Adequacy" or a DNA. See e.g. AR at 00463 (comment from Megan Stoufer stating, "...I thought we were hoping to do DNAs off of this POD for each

APD."). The IBLA has explained, "[A] DNA is an acceptable method for BLM to assess the adequacy of existing environmental analysis for a proposed action, but it is not a NEPA document and may not be used to supplement existing environmental analysis or address site-specific environmental effects not previously considered." Colorado Environmental Coalition, 173 IBLA 362, 372 (2008). Thus, any attempt to rely on a DNA to support the issuance of an APD would completely subvert NEPA and the BLM's duty to analyze and assess potentially significant impacts.

The BLM's final assertion, that the area is in attainment of all NAAQS, is also misplaced. Although a designation of attainment is not determinative of whether air quality standards are being exceeded or even violated (particularly with regards to the $PM_{2.5}$ increments, which apply only in attainment areas), it is unclear how this represents an adequate analysis of foreseeable impacts.[10] Certainly, the BLM's disclosure that the area is in attainment is relevant to the Agency's duty to disclose the "affected environment" in accordance with 40 C.F.R. § 1502.15, but it sheds no light whatsoever as to how air quality will be affected as a result of the direct, indirect, and cumulative impacts of the Middle Mesa POD.

The Agency's arguments that it adequately addressed the impacts of the Middle Mesa POD to the 2008 ozone NAAQS, 2006 $PM_{2.5}$ NAAQS, 2010 NO_2 NAAQS, and 2010 $PM_{2.5}$ increment standards are further belied by the EA. For example, the BLM asserts that, "impacts under the proposed action would be similar to the no action." EA at 51 (AR at 00098). Yet, the Agency's assessment of air quality impacts under the no action relies on the RMP (see id.), which, as already explained, did not (and could not possibly have) analyzed and assessed impacts to the aforementioned air quality standards. The Agency also asserts that. "with the implementation of design features air emissions are expected to be less than the no action." Id. This assertion is specious as there are no "design features" that the BLM has

[10] As an example of an area that is currently violating the NAAQS, yet is not designated nonattainment, is Sublette County in western Wyoming. See Wyoming Department of Environmental Quality, "Proposed Ozone Nonattainment Area – Sublette County and Portions of Lincoln and Sweetwater Counties," website available at http://deq.state.wy.us/aqd/Ozone%20Nonattainment%20Information.asp (last accessed March 5, 2012).

proposed to require as part of the Middle Mesa POD that would actually minimize emissions. Regardless, however, even if emissions are "expected to be less than the no action," this does not inherently support a FONSI without supporting information and analysis to show that the lower emissions would still be below significant levels.[11]

Perhaps most disconcerting is the Agency's analysis and assess of cumulative impacts to air quality, which basically amounts to this one sentence: "Cumulative impacts to air quality would be direct, short and long-term, additive, and synergistic." EA at 81 (AR at 00128). This provides no insight at all into whether the cumulative impacts of the Middle Mesa POD, which include the combination of all past, present, and reasonably foreseeable future actions, will or will not be significant.[12]

Overall, the BLM simply does not address impacts to the specific air quality standards identified by Appellants. There is no mention of the $PM_{2.5}$ increment standards, although clearly they apply.[13] Although the EA recognizes that the one-hour NO_2 NAAQS apply (see EA at 24 (AR at 00071)), there is no analysis or assessment of how the Middle Mesa POD will affect NO_2 concentrations in the context of this short-term standard. With regards to the 2008 ozone and 2006 $PM_{2.5}$ NAAQS, the BLM seems to rest its analysis and assessment solely on its "affected environment" disclosure, which found that the area is in attainment of both NAAQS. See EA at 26 and 27 (AR at 00073 and 00074). Again, the BLM has failed to adequately analyze and assess air quality impacts and the IBLA must set aside the DR and FONSI.

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[11] To this end, it is unclear what the BLM even considers to be "significant" in terms of air quality impacts. Although the Agency speaks to the fact that the area is in attainment of the NAAQS, does this mean that significant impacts only occur if the NAAQS are violated? And if so, why is this is an appropriate significance threshold?

[12] The BLM does provide definitions of "direct," "short-term," "long-term," "additive," and "synergistic" in the EA. See EA at 77 (AR at 00124). However, it provides little clarity on the BLM's analysis and assessment of cumulative air quality impacts. Based on the definitions, the cumulative air quality impacts will be caused by the action, will last up to five years, will also last the life of the project and beyond, will add together with the effects of other actions, and will combined with the effects of other actions to be greater than the sum of their individual effects. Besides stating the obvious, it remains unclear what the cumulative air quality impacts actually are how these cumulative effects are, or are not, significant.

[13] And clearly they matter. The BLM in fact prepared a comprehensive analysis and assessment of other increment standards as part of the RMP FEIS. See e.g. Exhibit 3, RMP FEIS at 4-63.

3. The EA Fails to Analyze a No Action Alternative

The BLM is required to "[u]se the NEPA process to identify and assess the reasonable alternatives to the proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." 40 C.F.R. § 1500.2(e); see also, 181 IBLA 235, 346 (2012). The consideration of alternatives to major federal actions is part and parcel to the duty to take a "hard look" at potentially significant impacts, particularly with regards to considering alternatives to "avoid or minimize adverse effects" that may be necessary or appropriate to justify an EA and FONSI. In considering reasonable alternatives in a NEPA document, the BLM must "[i]nclude the alternative of no action." 40 C.F.R. § 1502.14(d).[14] In considering a "no action" alternative in the context of an EA, the BLM has stated that, "at a minimum, your EA must include documentation of the current and future state of the environment in the absence of the proposed action." BLM NEPA Handbook, H-1790-1, Section 8.3.4.2 (AR at 06415).

Here, the BLM did not consider, or include, a "no action" alternative in the Middle Mesa EA. Although ostensibly, the EA included "Alternative A—No Action," this alternative was not actually an alternative that prescribed no action, or otherwise included documentation of the current and future state of the environment in the absence of the proposed action. As the BLM readily admits:

> [T]he no action alternative is not a 'no development' alternative. Rather, taking 'no action' (that is, not undertaking to consider development of the POD as proposed) would reject the applicant's proposal but would nonetheless result in consideration of individual APDs submitted by Williams on a case-by-case basis.

EA at 10 (AR at 00057). In other words, under Alternative A, ostensibly the "no action" alternative, the BLM would actually approve drilling activities to access the Mancos shale in the Middle Mesa project area. True, the BLM claims that such drilling would be approved on a "case-by-case" basis; however, the EA actually analyzes the impacts of this "no action" alternative as if the Agency would, indeed, authorize the impacts of such drilling.

[14] Although 40 C.F.R. § 1502.14 refers to EISs, the BLM has noted that the Council on Environmental Quality "has interpreted the regulations generally to require some consideration of a No Action Alternative in an EA." BLM NEPA Handbook, H-1790-1, Section 8.3.4.2 (AR at 06415).

In fact, under the "no action" alternative, the BLM discloses that 45 new wells will be drilled, leading to 162 acres of short-term disturbance, 72 acres of long-term disturbance, and five years of drilling activities. See EA at 50 (AR at 00097). Yet, as the BLM readily indicates, no APDs have been submitted by Williams or approved by the BLM that seek to access the Mancos shale in the Middle Mesa project area. Although the Agency claims that such APDs will be considered on a "case-by-case" basis, the EA presents the "no action" alternative as if approval is a foregone conclusion. In other words, according to the EA, approval of the "no action" alternative, will actually lead to the approval of APDs and attendant impacts. Put another way the "no action" is a de facto action alternative.

BLM attempts to justify its consideration of this faux "no action" alternative by asserting that Williams has pre-existing lease rights in the Middle Mesa area. See EA at 10 (AR at 00057); see also AR at 00162). Be this as it may, this does not mean that drilling, particularly to access Mancos shale, is a foregone conclusion, or that a "no action" outcome for the present Middle Mesa POD will automatically lead to the impacts BLM claims. Furthermore, the proper forum for considering such impacts would be through a NEPA process associated with the consideration of future APDs under which the impacts of drilling are considered as an "action" alternative or alternatives, not by attempting to cast such impacts as the inevitable result of taking " no action" through the present Middle Mesa POD EA.

The New Mexico State Office of the BLM flagged this concern for the same reasons. In comments to the Farmington Field Office, Megan A. Stouffer, the New Mexico BLM State Planning and Environmental Coordinator, stated, "...the no action can not be to approve all those wells as such. That has to be an action alternative. The no action must be a denial of the action." AR at 00463. Ms. Stouffer elaborated:

> The No Action cannot be to lease using non-horizontal development. No Action is denial of the project. The non-horizontal development can be another alternative but is not the no-action. It is pre-decisional to assume that development would take place this way if we deny the action. It would be case-by-case or another POD. Make this a second alternative.

AR at 00505. We can find no response from the Farmington Field Office to Ms. Stouffer's comments in the record.

The BLM's NEPA handbook states, the purpose of considering a "no action" alternative is to provide "documentation of the current and future state of the environment in the absence of the proposed action." Here, the EA fails to provide such documentation, instead providing documentation of the current and future state of the environment in the presence of what amounts to different proposed actions. This is a clear violation of NEPA.

4. The BLM Inappropriately Relies on the Reasonably Foreseeable Development Scenario for the Farmington RMP to Analyze and Assess the Unique Impacts of Shale Gas Development

The 2003 Farmington RMP never contemplated commercially viable shale gas development, particularly development of shale gas in the Farmington Field Office utilizing horizontal drilling techniques. The Reasonably Foreseeable Development Scenario ("RFDS") for the RMP in fact stated:

> Horizontal drilling is possible but not currently applied in the San Juan Basin due to poor cost to benefit ratio. If horizontal drilling should prove economically and technically feasible in the future, the next advancement in horizontal well technology could be drilling multi-laterals or hydraulic fracturing horizontal wells. Multilaterals could be one, two or branched laterals in a single formation or single laterals in different formations. Hydraulic fracturing could be a single fracture axial with the horizontal well or multiple fractures perpendicular to the horizontal well. These techniques are currently complex and costly, and therefore typically inappropriate for most onshore U.S. reservoirs. Comprehensive engineering and geologic research will be required in the near future in order for these techniques to become viable within the 20 year time frame anticipated by this RFD.

AR at 04839. In other words, at the time the RFDS and the RMP were prepared, horizontal drilling was not viable. Despite this, the Agency asserts throughout the EA that the RFDS contemplated the impacts of developing the Mancos shale using horizontal drilling techniques. This reliance on the RFDS forms the basis of BLM's FONSI (see AR at 00017) and DR (see AR at 00023-00024). This reliance, unfortunately, renders the Agency's EA, DR, and FONSI fatally flawed.

BLM claims that the RFD, despite explicitly stating that viable shale gas development using horizontal drilling would not occur within 20 years, contemplated 300 Mancos shale gas wells. However, as the record in this appeal indicates, the RFDS contemplated "behind pipe" access to Mancos shale reserves through vertically drilled wells into the Dakota formation. See AR at 00196. The BLM states in the record, "[T]he RFD[S] assumes that Mancos completions in the gas play would primarily be behind

pipe reserve additions to Dakota wells[.]" Id. In other words, the RFDS considered access to the Mancos shale only as an afterthought to drilling vertical Dakota wells, and certainly did not contemplate horizontally drilled wells into the Mancos shale.

As the BLM clearly discloses in its record, it has only been recently that the prospect of horizontal drilling to access Mancos shale has become a possibility. Even Williams discloses, "When the [RMP] FEIS was prepared, horizontal drilling had been attempted as an experimental technique in the San Juan Basin, but faced technical problems and not yet been proven economically viable[.]" AR at 01293. The Agency notes, it is only the recent advancement in horizontal drilling technology that "has made Mancos stand-alone wells economically viable," explaining:

> [A]t the time of the RFD[S] report, horizontal drilling and multi-stage hydraulic fracturing was in its infancy, since then, the technology has evolved to be more efficient and less costly as in the past. Horizontal drilling and multi-stage fracturing is a common practice throughout the U.S. even though the RFD[S] only hinted at its future success and usage.

AR at 00196. Here, "hinting" at environmental impacts does not suffice to demonstrate that such impacts were fully analyzed and assessed as required under NEPA, or that the RFDS sufficiently considered the impacts of this practice or demonstrated that there would be no significant impacts. Here, the RFDS simply does not suffice to demonstrate that the BLM adequately considered the cumulative impacts of shale gas development, and in particular horizontal drilling to develop Mancos shale gas, in the Farmington Field Office. Thus, the BLM's reliance on the RFDS to justify the analysis and assessment in the EA, as well as its DR and FONSI, is therefore, misplaced.

The IBLA has explained, "[I]f an agency exceeds the RFD scenario, a NEPA issue is presented and the question is whether the agency has authorized a Proposed Action without fully considering its effects in violation of NEPA section 102(2)(C). The remedy for that violation is to direct the agency to prepare or supplement an EIS considering those impacts." Biodiversity Conservation Alliance et al., 174 IBLA 1, 19 (2008). The BLM's misplaced reliance on the RFDS explicitly indicates that the Agency did not fully consider the effects of horizontal drilling to access Mancos shale, further underscoring the lack of support for the Agency's FONSI. For example, with regards to air quality impacts, the BLM asserts

that, "Because the level of activity and oil and gas development for the alternatives are consistent with those levels predicted in the RFDS, the potential air quality impacts of the alternatives are included in the FEIS and were considered in the ROD[.]" EA at 51 (AR at 00098). With regards to the impacts of the Middle Mesa POD to wildlife, the BLM asserts, "The scale and pace of this development is consistent with planning area RFDS. Therefore, the impacts of this scenario are included in the ROD for the RMP[.]" EA at 63 (AR at 00110). However, given the EA's extensive reliance on the RMP FEIS, which stated that, "The evaluation of these [oil and gas] impacts is based on the number of wells and associated infrastructure projected over the next twenty years in the RFDS" (Exhibit 3, FEIS at 4-1) and that "The estimates of long-term disturbance resulting from oil and gas development used for impact analysis are based on assumptions from the FFO and the RFDS developed by NM Tech" (Exhibit 3, FEIS at 4-2), it appears that any reliance on the RMP FEIS to support the FONSI, as well as to support any claim that the potentially significant impacts have been adequately analyzed and assessed renders the EA, the DR, and the FONSI fatally flawed.

This especially true with regards to the EA's analysis of cumulative impacts, which states "The cumulative impacts of the proposed alternative have been considered in the ROD for the PRMP/FEIS." EA at 80 (AR at 00127). Clearly, if the impacts of horizontally drilled wells to access Mancos shale were not considered as part of the RFDS, then the BLM is grossly mistaken that the ROD for the PRMP/FEIS adequately considered the impacts of this activity. This renders the entire cumulative effects analysis fatally flawed.

The BLM makes much of its belief that the Middle Mesa POD is consistent with the RFDS based the acres of surface disturbance. See EA at 5 (stating "While it is important to measure and track the total well count against the RFDS, a more critical measurement is the total surface disturbance associated with the proposed action.") (AR at 00052). However, this ignores information in the record that shows that air emissions, particularly greenhouse gas emissions, from horizontally drilled shale gas wells are higher than vertical wells. A report entitled, "Shale-Deposited Natural Gas: A Review of Potential," which was

referenced by BLM Assistant Field Manager, Dave Mankiewicz, in a file entitled, "Reservoir Information," discloses that:

> The carbon footprint of a horizontal well far exceeds that of a typical vertical well since the drilling process, the completion process, and the production stimulation process (hydraulic fracturing) require more carbon-based fuels, more drilling mud, and more water. Further, running the required equipment and pumps produces more emissions.

AR at 00331 (restated at AR at 00334-00335). Appellants also pointed out the common sense consequence of increased air emissions associated with the need for more energy, and thereby more fuel, for horizontally drilled shale gas wells. See AR at 00864. The fact that horizontal wells pose unique air quality impacts with regards to their emissions (including greenhouse gas emissions), thereby increasing their overall "carbon" footprint, is significant, especially when coupled with information showing both that air emissions, at least with regards to VOCs, are higher than originally estimated in the 2003 RMP, and that a number of new air quality standards have been adopted since the adoption of the RMP. The BLM's reliance on the RFDS, at least as an indicator of surface disturbance, may have some merit. However, with regards other potentially significant environmental impacts, and in particular air quality impacts (including the impacts of increased greenhouse gas emissions), such reliance is unsupported.

Even if the BLM could claim that, somehow, the RFDS contemplated horizontal drilling to access Mancos shale, the fact is that the 2003 RMP FEIS does not appear to have explicitly contemplated the impacts of this development, especially as now proposed through the Middle Mesa POD. For starters, there is no mention of hydraulic fracturing as an industry practice anywhere in the FEIS, let alone an explicit analysis of the impacts of hydraulic fracturing. The BLM asserts in response to comments that, "The RMP FEIS evaluated stimulation/hydraulic fracturing and flaring" and that "use of these completion techniques have been utilized in the planning area for decades." See AR at 00160. However, because the FEIS does not explicitly mention hydraulic fracturing, this claim appears to be misplaced.

The most significant shortcomings in the RMP FEIS, however, are with regards to air quality impacts. As explained already, the FEIS emission estimates, at least with regards to VOCs, are substantially underestimated. The FEIS also fails to address impacts to a number of air quality standards

that have been promulgated since the adoption of the RMP. The FEIS also fails to mention greenhouse gas emissions associated with oil and gas development, yet, as noted, the carbon footprint of horizontally drilled shale gas wells "far exceeds" that of vertically drilled wells. In other words, the horizontally drilled wells that are proposed as part of the Middle Mesa POD will release more greenhouse gas emissions on a per well basis than other wells drilled in the Farmington Field Office. Neither the RMP nor the FEIS address this discrepancy in impacts. In fact, even the EA does not mention the fact that horizontally drilled shale gas wells have higher greenhouse gas emissions than vertically drilled wells.[15] Although the BLM's failure to adequately analyze and assess air quality impacts, including the impacts of greenhouse gas emissions, clearly stems from an outdated and outmoded RFDS, even if the RFDS could somehow continue to form a reasonable basis for projected drilling activity, it cannot serve to remedy the fact that the RMP FEIS simply falls short in addressing these potentially significant impacts and the IBLA must reverse the DR and FONSI.

B. The BLM Failed to Protect Air Quality Standards in Accordance with the Federal Land Policy and Management Act

The BLM has a duty to ensure compliance with state and federal air quality standards under FLPMA. See 43 U.S.C. § 1712(c)(8). FLPMA specifically states that the BLM shall, "provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standard or implementation plans." Id. Moreover, FLPMA and BLM's own regulations explicitly provide for protection of air resources. 43 U.S.C. § 1701(a)(8) (the public lands shall be "managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values"). BLM regulations mandate the "each land use authorization" shall "require compliance with air and water quality standards established pursuant to applicable Federal or State law." 43 C.F.R. § 2920.7(b)(3).

[15] Although the BLM asserts that New Mexico has adopted a greenhouse gas reduction rule (see EA at 29 (AR at 00076)), this rule was just repealed by the state. See, Associated Press, "NM Regulators Repeal Carbon Cap and Trade Rules," available online at http://www.kob.com/article/stories/S2484833.shtml (last accessed March 5, 2012).

Unfortunately, the BLM failed to ensure compliance with air quality standards in authorizing the Middle Mesa POD.

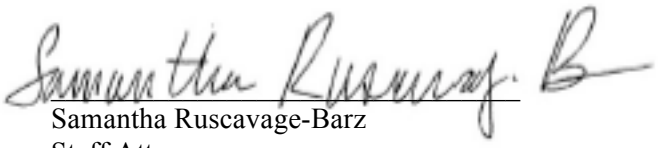
As explained already, the BLM first and foremost failed to adequately analyze and assess the impacts of VOC emissions associated with the proposed action. Given that VOCs react with sunlight to form ozone and are therefore considered ozone precursors, this undermines the Agency's claim that the 2008 NAAQS for ground-level ozone will be protected as a result of the POD. Furthermore, the BLM entirely failed to analyze and assess impacts to a number of air quality standards that were promulgated since the adoption of the 2003 RMP, including the 2008 ozone NAAQS, 2006 $PM_{2.5}$ NAAQS, 2010 NO_2 NAAQS, and 2010 $PM_{2.5}$ increment standards.

The 2008 ozone NAAQS, 2006 $PM_{2.5}$ NAAQS, 2010 NO_2 NAAQS, and 2010 $PM_{2.5}$ increment standards are all federal air quality standards. The BLM thus has an affirmative duty to demonstrate that the implementation of the Middle Mesa POD will sufficiently protect these standards in accordance with FLPMA. The Agency failed to do so and therefore, the DR and FONSI must be overturned.

IV. CONCLUSION

For the foregoing reasons, Appellants request that the IBLA reverse the BLM's decision to implement the Middle Mesa POD. The BLM clearly failed to adequately analyze and assess the potentially significant impacts of the POD, in turn rendering the DR and FONSI legally inadequate. Furthermore, by failing to adequately analyze and assess impacts, the BLM failed to demonstrate compliance with its substantive duties under NEPA. Horizontal drilling to access the Mancos shale has never before been authorized within the Farmington Field Office. It is incumbent upon the BLM to ensure that it moves forward with its eyes wide open. Appellants respectfully request the IBLA ensures this outcome.

Respectfully submitted this 5th day of March 2012



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CERTIFICATE OF SERVICE

I certify that on March 5, 2012, I served this Statement of Reasons by certified mail, return receipt requested, upon:

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