IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO

SAN JUAN CITIZENS ALLIANCE, *et al.*,	)	
Plaintiffs,	)	Case No. 1:16-cv-00376-MCA-WPL
v.	)	
UNITED STATES BUREAU OF LAND MANAGEMENT, *et al.*,	)	
Defendants.	)	

PLAINTIFFS' REPLY

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I. BLM Admits that It Did Not Perform a Site-Specific, Hard Look Analysis Prior to Leasing

The Tenth Circuit has been explicit that the National Environmental Policy Act ("NEPA") "require[s] an analysis of the site-specific impacts of [a lease sale] prior to its issuance, and BLM [acts] arbitrarily and capriciously by failing to conduct one." *New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 718-19 (10th Cir. 2009). This requirement is the central issue in this case. In defiance of its statutory obligation, Bureau of Land Management ("BLM")[1] universally refused to analyze the site-specific impacts of the Santa Fe National Forest ("SFNF") lease sale, consistently stating that "[t]he act of leasing parcels 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." BLM010266.

BLM conceded this failure in its Response, claiming, "both agencies appropriately waited for the [application for permit to drill ("APD")] stage to analyze site-specific impacts." Resp. Br. at 23. This admission is fatal to the agency's defense and squarely at odds with the law in this Circuit.

BLM relies on excerpts from the Tenth Circuit's decision in *Park County Res. Council v. U.S. Dep't of Agric.,* 817 F.2d 609 (10th Cir. 1987), to support its position, but both misconstrues the Court's holding while altogether ignoring subsequent controlling caselaw. *Park County* does not stand for the proposition that site-specific NEPA analysis

[1] Federal Defendants Bureau of Land Management, Sally Jewell, the U.S. Forest Service, and Tom Vilsack are collectively referred to as "BLM."

is never required prior to leasing, as BLM erroneously contends. Rather, *Park County* involved a lease sale in an area where no exploratory drilling had previously occurred, *id.* at 613, where there was no evidence that full filed development was likely to occur, *id.* at 623, where BLM prepared an environmental assessment ("EA") exceeding 100 pages evaluating the issuance of those leases, *id.* at 21, and where, after leasing and prior to issuance of an APD, the agency had drafted an environmental impact statement ("EIS"), *id.* at 613. On these narrow facts, where development was not foreseeable enough at the leasing stage to evaluate the region-wide ramifications, the Court found that a cumulative pre-leasing EIS contemplating full field development was not required. *Id.* at 23. Such facts are inapposite to the present case.

Indeed, subsequent Tenth Circuit decisions—which, remarkably, BLM fails to even reference—have reached the opposite conclusion on facts far more analogous to the present case. In *Pennaco Energy v. U.S. Dep't of Interior,* the Court found that an EIS assessing the site-specific effects of coal bed methane ("CBM") development was required before leasing where the existing plan-level EIS for the area failed to address the possibility of CBM development, and a later EIS was prepared only after the leasing stage. 377 F.3d 1147, 1160 (10th Cir. 2004). The Court reasoned that because issuance of leases gave lessees a right to surface use, the failure to analyze CBM development impacts before the leasing stage foreclosed NEPA analysis from affecting the agency's decision. *Id.* As the Tenth Circuit later explained in *New Mexico*, in cases such as this, "the operative inquiry was simply whether all foreseeable impacts of leasing had been taken into account before leasing could proceed." 565 F.3d at 717. In *Pennaco* and *New*

Mexico, as here, the agency's failure to take a hard look at site-specific impacts before leasing was arbitrary and capricious. *Id.* at 718-19.

Unlike *Park County* where leases were exploratory to determine the area's potential for oil and gas development, here the leases are within an area where full-field oil and gas development is already occurring. Over 40,000 oil and gas wells have been historically drilled in the San Juan Basin, including 21,725 active oil and gas wells. FS016031. The Forest Service identified both the Pictured Cliffs formation and Mancos Shale formation as likely targets in the 2012 Forest Plan Supplement. BLM013108. And BLM's EA identifies the Mancos Shale as the producing zone targeted for development on the SFNF leases. BLM010276. Lessees in the San Juan Basin have exploited these formations for decades. BLM015009. With particular regard to the Mancos Shale, BLM is presently preparing a Resource Management Plan Amendment (hereafter "Mancos RMPA") to analyze "[s]ubsequent improvements and innovations in horizontal drilling technology and multi-stage hydraulic fracturing [which] have enhanced the economics of developing this stratigraphic horizon." 79 Fed. Reg. 10,548 (Feb. 25, 2014). At least 115 Mancos Shale wells have already been drilled, and at least 351 APDs have already been issued.[2] Accordingly, and as distinguished from the facts in *Park County*, the impacts from wells developed in the SFNF are reasonably foreseeable.

Notably, BLM's Response concedes this point, affirming that "[t]he agencies do not dispute that an irreversible commitment of resources occurs at the lease stage, and

[2] These Mancos Shale drilling permit authorizations are the subject of pending litigation in this District in *Diné Citizens Against Ruining Our Env't, v. Jewell,* Case No. 1:15-cv-00209-JB-LF (D.N.M.).

that a hard look under NEPA is therefore necessary before leasing." Resp. Br. at 26. BLM has acknowledged that oil and gas development "is reasonably foreseeable … [to] occur on leased parcels." BLM0101227; *see also* BLM012062 (BLM Handbook). Yet, in direct conflict with this admission, BLM asserts "both agencies appropriately waited for the ADP stage to analyze site-specific impacts." Resp. Br. at 23. Where "BLM could not prevent the impacts resulting from surface use after a lease issued, it was required to analyze any foreseeable impacts of such use before committing the resources." *New Mexico*, 565 F.3d at 718-19. Accordingly, "NEPA require[s] an analysis of the site-specific impacts of [a lease sale] prior to its issuance, and BLM [acts] arbitrarily and capriciously by failing to conduct one." *Id.*

Here, analysis of site-specific impacts from leasing the SFNF parcels never occurred, in violation of the law.

II. BLM Failed to Take a Hard Look at the Direct, Indirect, and Cumulative Impacts from Leasing

A. Greenhouse Gas Emissions and Climate Change

BLM failed to take a hard look at the direct, indirect, and cumulative greenhouse gas ("GHG") emissions of its leasing decision as well as resulting impacts to the SFNF from climate change. BLM's Response attempts to excuse the agency from its hard look obligation behind claims of scientific uncertainty and a lack of scientific tools to predict climate change, Resp. Br. at 13, all while ignoring a simple truth: climate change is no longer theoretical. BLM023286 (recognizing "[h]uman influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the

atmosphere, positive radiative forcing, observed warming, and understanding of the climate system.").

The Council on Environmental Quality ("CEQ") issued guidance to agencies for considering GHG emissions and climate change in NEPA reviews.[3] BLM's Response cites CEQ Guidance as "persuasive authority" for interpreting NEPA and its implementing regulations. Resp. Br. at 14 (citing *Wyoming v. U.S. Dep't of Agric.,* 661 F.3d 1209, 1260 n.36 (10th Cir. 2011). CEQ guidance recognizes two fundamental obligations for agencies when addressing climate change: "(1) The potential effects of a proposed action on climate change as indicated by assessing GHG emissions; and, (2) The effects of climate change on a proposed action and its environmental impacts." CEQ Guidance at 4. In other words, agencies are to disclose emissions and then consider the effects.

Here, BLM disclosed direct GHG emissions from the SFNF leases at 11,611 metric tons, but failed to take the critical next step and actually consider the effects of those emissions. BLM010272.[4] In its Response, BLM defends this approach by citing to CEQ, which suggests that agencies "use projected GHG emissions as a proxy for

[3] Council on Environmental Quality, Memorandum for Heads of Federal Departments and Agencies, *Final Guidance for Federal Department and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*, 81 Fed. Reg. 51,866-01 (Aug. 5, 2016), available at: https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf (hereinafter "CEQ Guidance"). Notably, the guidance is intended to "facilitate compliance with existing NEPA requirements"; i.e., CEQ's NEPA regulations at 40 C.F.R. §§ 1500-1508. *Id.* at 1.

[4] The 2012 Forest Plan Supplement for the SFNF estimates 3,350 metric tons based on "well drilling, well completion, and gas production" of 20 wells. FS016034.

assessing potential climate change effects." Resp. Br. at 14. But BLM ignores the very next sentence, providing: "This approach, together with providing a qualitative summary discussion of the impacts of GHG emissions … allows an agency to present the environmental and public health impacts of a proposed action in clear terms and with sufficient information to make a reasoned choice between no action and other alternatives and appropriate mitigation measures, and to ensure the professional and scientific integrity of the NEPA review." CEQ Guidance at 10. Instead of providing the type of qualitative discussion of environmental and public health impacts required by NEPA, BLM concludes: "Leasing the subject tracts under either action alternative would have no direct impacts to climate change as a result of GHG emissions. Any potential effects to air quality from sale of a lease parcel would occur at such time that the lease was developed." BLM010270. As detailed above, the Tenth Circuit has rejected agencies' attempts to defer site-specific analysis to the permitting stage. *See New Mexico*, 565 F.3d at 718-19.

Critically, BLM also completely ignores the indirect emissions from the proposed sale. This failure was detailed in Citizen Groups' opening brief, Pl. Br. at 19-22, yet BLM offered no argument or explanation in response.

Instead, the agency apparently rests on the lone statement in the record that "consumption [is not] an indirect effect of oil and gas production because production is not a proximate cause of GHG emissions resulting from consumption." BLM010269. This assertion is wrong. NEPA regulations defining the scope of environmental analysis explicitly include the consideration of indirect impacts. 40 C.F.R. § 1508.25(c). This

obligation is further underscored by CEQ, providing "where the proposed action involves fossil fuel extraction … the [indirect impacts] associated with the end-use of the fossil fuel being extracted would be the reasonably foreseeable combustion." CEQ Guidance at 16 n.42. Courts have also established that foreseeable downstream emissions are precisely the type of indirect effect the agency must disclose and analyze. *See, e.g., Border Power Plant Working Grp. v. U.S. Dep't of Energy*, 260 F. Supp. 2d 997, 1028-29 (S.D. Cal. 2003) (finding agency failure to disclose project's indirect carbon dioxide emissions violates NEPA); *WildEarth Guardians v. U.S. OSMRE*, 104 F. Supp. 3d 1208, 1229–30 (D. Colo. 2015), vacated as moot, (recognizing that "combustion is therefore an indirect effect of the approval of the mining plan modifications"); *Diné Citizens Against Ruining Our Env't v. U.S. OSMRE*, 82 F. Supp. 3d 1201, 1213 (D. Colo. 2015), vacated as moot, (holding that "coal combustion-related impacts of … proposed expansion are an 'indirect effect' requiring NEPA analysis."); *High Country Conserv. Advocates v. U.S. Forest Service,* 52 F. Supp. 3d 1174, 1189–90 (D. Colo. 2014) (recognizing that the agencies "do not dispute that they are required to analyze the indirect effects of GHG emissions").

In fact, BLM's Farmington Field Office—which is also responsible for the EA challenged here—in considering the indirect emissions of the January 2017 lease sale, recognized that "[i]ndirect GHG emissions are typically associated with combustion of either the oil or gas, either as direct fuel or produced fuel (e.g. gasoline from oil). EPA has developed indirect emissions calculators that can provide gross estimates based on

established assumptions."[5] The agency then proceeded to quantify those indirect emissions for the January 2017 lease sale.[6] BLM's failure to do so here is arbitrary and capricious. *See New Mexico*, 565 F.3d at 718-19.

Finally, BLM also failed to consider the cumulative impacts of the lease sale. *See Native Vill. of Point Hope v. Jewell*, 740 F.3d 489, 504 (9th Cir. 2014) (recognizing that "[i]t is only at the lease sale stage that the agency can adequately consider cumulative effects of the lease sale on the environment, including … the effects of the sale on climate change."). BLM acknowledged, "increasing concentrations of GHGs are likely to accelerate the rate of climate change." BLM010236. Yet the agency refused to analyze cumulative impacts, reasoning "climate change is a global process" and that the "incremental contribution of global GHG's from the proposed action cannot be translated into effects on climate change globally or in the area of this site-specific action." BLM010282.

BLM's Response doubles down on this failed proposition, reiterating that the proposed action "would contribute 0.00018 percent of total U.S. greenhouse gas emissions." Resp. Br. at 12; *see also* BLM010272. CEQ explicitly rejects such

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[5] *See* BLM, Environmental Assessment DOI-BLM-F010-2016-0001-EA, Jan. 25, 2017 Competitive Oil and Gas Lease Sale, at 57, available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/68428/89393/106899/January_2017_Lease_Sale_DOI-BLM-NM-F010-2016-0001EA.pdf.

[6] Citizen Groups' request the Court take judicial notice of the January 2017 leasing EA. Federal Rule of Evidence 201 states that a fact is subject to judicial notice if it is "not subject to reasonable dispute in that it is either (1) generally known within the territorial jurisdiction of the trial court, or (2) capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned." FED.R.EVID. 201(b).

comparisons. "[A] statement that emissions from a proposed Federal action represent only a small fraction of global emissions is essentially a statement about the nature of climate change, and is not an appropriate basis for deciding whether or to what extent to consider climate change impacts under NEPA." CEQ Guidance at 11. NEPA mandates that BLM disclose and consider the reasonably foreseeable effects of a proposed action, using data and analysis to reveal effects. *See* 40 C.F.R. §§ 1502.15, 1502.2(b). "[T]he fact that climate change is largely a global phenomenon that includes actions that are outside of [the agency's] control ... does not release the agency from the duty of assessing the effects of its actions on global warming within the context of other actions that also affect global warming." *Center for Biological Diversity v. Nat'l Highway Traffic Safety Admin*., 538 F.3d 1172, 1217 (9th Cir. 2008) (quotations and citations omitted).

The San Juan Basin has a long history of fossil fuel exploitation, including at least 21,725 active oil and gas wells. FS016031. The impact of this development on the area's air, water, land, and human communities cannot be overstated. Meaningless statements that "[p]reserving as much land as possible and applying appropriate mitigation measures will alleviate the cumulative impacts" is insufficient—both in meeting the agency's hard look obligation and its duty to the public. BLM010281. *See Natural Res. Def. Council v. Hodel*, 865 F.2d 288, 298 (D.C. Cir. 1988) (holding that "conclusory remarks … do not equip a decisionmaker to make an informed decision."); *Northern Plains Resource Council v. Surface Transp. Bd.,* 668 F.3d 1067, 1085 (9th Cir. 2011) (recognizing that "mitigation measures, while necessary, are not alone sufficient to meet the [Agency's] NEPA obligations to determine the projected extent of the environmental harm to

enumerated resources *before* a project is approved."). Having already leased over 90 percent of BLM managed lands to oil and gas, BLM also fails to identify which lands it intends to preserve.

The nature of climate change is such that science may never be able to identify with pinpoint certainty that a specific environmental impact or event was the direct result of a specific set of GHG emissions—just as historians will never agree on the cause of World War I. Nor is that the point. BLM's Response that "[s]cientists cannot model the impact that emissions pertaining to these thirteen leases will have on global climate change, and they cannot model the climate change impact those emissions will have in the SFNF in particular" does not absolve the agency of its legal duty. Tort-level proximate causation is not the standard. Rather, "[l]ooking to the standards set out by regulation and by statute, assessment of all 'reasonably foreseeable' impacts must occur at the earliest practicable point, and must take place before an 'irretrievable commitment of resources' is made." *New Mexico,* 565 F.3d at 717. An environmental effect is "reasonably foreseeable" if it is "sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision." *Sierra Club v. Marsh,* 976 F.2d 763, 767 (1st Cir.1992). As detailed above, BLM has a "duty of assessing the effects of its action on global warming," and has failed to do so here. *Center for Biological Diversity*, 538 F.3d at 1217.

BLM's recurrent failure to take a hard look at the direct, indirect, and cumulative impacts of GHG emissions on climate change holds far more significance than simply failing to show their math. Climate change is happening now. The impacts are

observable, including in the SFNF. Dismissive statements that "while BLM actions may contribute to climate change, the specific effects of those actions on global or regional climate are not quantifiable," are both unsupported by the record and untrue. BLM012623. As the CEQ points out, "tools are widely available, and are in broad use in the Federal and private sectors, by state and local governments, and globally." CEQ Guidance at 12.[7] "These tools can provide estimates of GHG emissions, including emissions from fossil fuel combustion and estimates of GHG emissions and carbon sequestration for many of the sources and sinks potentially affected by proposed resource management actions." *Id.* The agency's indifference is not a defense. *See Save Our Ecosystems v. Clark*, 747 F.2d 1240, 1246 n.9 (9th Cir. 1984) (finding that "[r]easonable forecasting and speculation is … implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labelling any and all discussion of future environmental effects as 'crystal ball inquiry.'").

NEPA is a procedural statute designed to ensure public participation and transparent decisionmaking by federal agencies. *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 350 (1989). "By focusing both agency and public attention on the environmental effects of proposed actions, NEPA facilitates informed decisionmaking by agencies and allows the political process to check those decisions." *New Mexico,* 565 F.3d at 703; *see also Baltimore Gas & Elec. v. Natural Res. Def. Council*, 462 U.S. 87, 97 (1983) (recognizing NEPA's twin aims of taking a hard look at environmental

[7] *See also*, CEQ, Greenhouse Gas Accounting Tools, available at: https://ceq.doe.gov/guidance/ghg-accounting-tools.html.

consequences and informing the public). These procedural requirements are not mere formalities. *See Citizens' Comm. to Save Our Canyons v. Krueger,* 513 F.3d 1169, 1177–78 (10th Cir. 2008) (recognizing the public's role in agency decisionmaking). The public cannot understand and meaningfully engage in agency decisionmaking if the agency does not disclose and consider relevant information, which it has failed to do here.

B. Air Quality

BLM has also failed to take a hard look at air quality. As with other resources, BLM's Response focuses on generalized statements from planning documents while completely ignoring the agency's failure to consider site-specific air quality impacts from the SFNF lease sale. *See* Resp. Br. at 15-19.

Specifically with regard to ozone pollution, BLM acknowledges that monitored values have "come very close to the National Ambient Air Quality Standard (NAAQS) for ozone and may exceed the 2008 standard at some time in the future." FS016013; Resp. Br. at 16. The agency continued, "[i]t is also possible that future revisions to the ozone standard will lower it even further, in which case the area may fall into nonattainment." *Id.* Notably, this assessment was based on the "unlikely" development of 20 wells over a 20-year period, FS016027, rather than a proposed action predicting the development of 118 wells on the leases. BLM010270.

BLM's EA and Response both fail to mention that this possibility has already come to pass. EPA published a final rule to revise the NAAQS for ozone to 70 parts per billion (ppb) from the former 75 ppb. 80 Fed. Reg. 65,292 (Oct. 26, 2015). EPA concluded that "the current primary O_3 standard is not requisite to protect public health"

and that "revision of the level to 0.070 ppm is warranted to provide the appropriate degree of increased public health protection for at-risk populations against an array of adverse health effects." *Id.* at 65,294. It has long been recognized that exposure to ozone can cause or exacerbate respiratory health problems—including shortness of breath, asthma, chest pain and coughing—can decrease lung function, and can even lead to long-term lung damage. 62 Fed. Reg. 38,856 (July 18, 1997). Short- and long-term exposure to elevated levels of ozone can also harm people's hearts and cardiovascular systems, as well as result in increased risk of death from respiratory problems. *See* 79 Fed. Reg. 75,234 (Dec. 17, 2014); *see also* BLM017017 (recognizing that ground-level ozone can result in adverse health effects); BLM016998 (finding oil and gas emissions, particularly in the Intermountain west, can have a disproportionate effect on air quality); BLM025763 (documenting "a significant increase in the risk of death from respiratory causes in association with an increase in ozone concentrations."). EPA has also noted that ozone concentrations will increase by 1-5 ppb by 2030 as a result of climate change if GHG emissions are not mitigated. 80 Fed. Reg. at 65,300.

Record data indicates that certain emissions sources from the oil and gas industry in the San Juan Basin "may be significantly underestimated." FS016025. This is particularly true of "smaller sources (compressor engines, drill rigs, heaters, dehydrators, tank vents, flares, etc.)" and that "continuing oil and gas field development make the cumulative effect of emissions from these smaller sources a significant issue, and were generally incompletely quantified." *Id*; *see also* Resp. Br. at 15-16 (recognizing this void of analysis, but offering no defense).

Despite recognizing the absence of such data, BLM nevertheless failed to quantify the foreseeable emissions of criteria pollutants, and failed to provide site-specific analysis of how lease development will contribute to cumulative air quality impacts before leasing the subject parcels. Instead, BLM concludes that "leasing the subject tracts would have no direct impacts to air quality. Any potential effect to air quality from sale of the lease parcel would occur at such a time that the lease is developed." BLM010268. As detailed above, agencies are forbidden from playing this form of shell-game assessment, and must provide site-specific analysis prior to leasing. *See New Mexico*, 565 F.3d at 718-19.

Moreover, even if there was no question regarding the cumulative air quality impact of the SFNG leases on NAAQS standards, that alone would not absolve BLM of its hard look duty. "The mere fact that the area has not exceeded ozone limits in the past is of no significance when the purpose of the EIS is to attempt to predict what environmental effects are likely to occur in the future[.]" *Colorado Envtl. Coal. v. Salazar*, 875 F. Supp. 2d 1233, 1257 (D. Colo. 2012). BLM's leasing decision is arbitrary where the agency "failed to take the requisite 'hard look' at the air quality effects from its decision, when accumulated with air quality effects from anticipated oil and gas development outside the Planning Area." *Id.* at 1256. That is precisely what BLM has done here in failing to quantify air pollution impacts from the SFNF lease and describe how the cumulative level of air quality degradation will impact people and the environment. *See Hanly v. Kleindienst*, 471 F.2d 823, 831 (2d Cir. 1972) (stating that "[o]ne more [well] polluting air and water … may represent the straw that breaks the back of the environmental camel.").

C. Water Resources

BLM has similarly failed to take a hard look at impacts to water resources, including impacts to groundwater quantity, groundwater quality, and surface water quality. In defense of these failures BLM's Response consistently cites, not to any of the NEPA documents in the record, but to protest response letters sent by BLM to Citizen Groups. *See, e.g.,* Resp. Br. at 20-23. Those letters offer little more than rationalizations for missing analyses, and contain nothing substantive that would otherwise fill the void of consideration in its EA. *See High Country*, 52 F. Supp. 3d at 1186 (recognizing that the court cannot "defer to a void."). To the contrary, BLM's reliance on these post-decision letters serves only to underscore the absence of a hard look.

1. Groundwater Quantity

BLM failed to quantify how much water will be used in development of the SFNF leases, and offers no analysis of the impacts that those withdrawals will have on the environment or human communities. The agency's Response offers no defense, instead citing entirely to *post hoc*, non-NEPA protest response letters sent to Citizen Groups. *See* Resp. Br. at 19-20 (citing BLM011323, BLM011341); *see also Utahns for Better Transp. v. U.S. Dep't of Transp.*, 305 F.3d 1152, 1165 (10th Cir. 2002) (refusing to consider post-hoc rationalization); *S. Fork Band Council of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 588 F.3d 718, 726 (9th Cir. 2009) (holding that "[a] non-NEPA document … cannot satisfy a federal agency's obligations under NEPA."). These letters fail to point to any NEPA analysis in the record, and instead attempt to rationalize this vacuum by claiming analysis will occur at the permitting stage. BLM011323. As made clear by the

Tenth Circuit, deferring site-specific analysis until after leases have been issued is impermissible. *New Mexico*, 565 F.3d at 718-19.

BLM's Response alleges that "the amount of water operators may use is 'too speculative to reasonably quantify' at the leasing stage." Resp. Br. at 20 (citing BLM011323). This is wrong. As detailed above, the impacts of developing oil and gas leases in the San Juan Basin are entirely foreseeable. There are at least 21,725 wells currently active in the Basin. FS016031. The 2012 Forest Plan Supplement projected development in the SFNF to occur in either the Pictured Cliffs of Mancos Shale formations. FS016027. BLM's EA stated that the type of well drilled is based on the target formation, and identified the Mancos Shale as that formation. BLM010276; BLM01291. Finally, BLM projected the scope of development and type of well to be drilled on a parcel-by-parcel basis. BLM010266. In other words, all the information needed to take a hard look at water quantity impacts is readily available—the agency simply refused to do so, in violation of NEPA.

2. Groundwater Quality

BLM admits that "[c]ontamination of groundwater could occur," and that "potential impacts to groundwater from the well bores would be long term for the life of the well." BLM010276. The agency nevertheless refused to take a hard look at those potential impacts, dismissively concluding, without any greater specificity, that "[a]dherence to APD COAs and other design measures would minimize potential effects to groundwater quality." BLM010276. "A 'perfunctory description,' or 'mere listing of mitigation measures, without supporting analytical data,' is insufficient to support a

finding of no significant impact." *National Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 735 (9th Cir. 2001).

In Response, BLM offers that "the producing zone for oil and gas is well below any groundwater sources," and that "the total average depth of well bores for oil and gas is 6,700 feet, with fracturing expected to occur at depths greater than 5,700 feet." Resp. Br. at 20 (citing BLM010276). Yet, BLM's Response refused to explain a critical contradiction to this assumption, that the Mancos Shale formation experiences uplift as it moves east, and in the SFNF "Mancos wells are usually shallow (less than 4,000 feet deep)"—as identified by Citizen Groups, Pl. Br. at 32 (citing FS016027). *See* 40 C.F.R. § 1508.27(b)(5) (recognizing NEPA significance where "possible effects on the human environment are highly uncertain or involve unique or unknown risks").

Moreover, the record demonstrates that significant risk to groundwater resources exists from hydraulic fracturing. *See, e.g.,* BLM028142 (documenting "systematic evidence for methane contamination of drinking water associated with shale-gas extraction"); BLM024697 (finding "higher methane concentrations … consistent with a natural gas source in water for homeowners living <1km from shale wells"); BLM028123 (documenting natural pathways that "could allow the transport of contaminants from fractured shale to aquifers").

Particularly in the San Juan Basin, where 40,000 wells have been drilled, these wellbores create pathways for fracking contamination. "Downhole communication, or a frack hit, occurs during hydraulic fracturing… [where] fractures connect with existing wells nearby, and the injected fracking fluid can cross more than half a mile and enter the

adjacent well bore." BLM026453. In the San Juan Basin, "more than 103 individual wells were affected by downhole communication incidents." *Id.* This can cause a spill at the surface, and also includes the possibility that "the high pressures of fracking rupture the casing and allow drilling fluid to leak into groundwater." *Id.*; *see also* BLM026457 (documenting Encana well blowout causing fracking fluid spill).

BLM's refusal to consider the implications of its own data showing the potential "long term" impacts to groundwater resources, because future unspecified "COAs and other design measures" might address the problem, is grossly insufficient. BLM010276. Such unsupported conclusions fail to demonstrate an "adequate buffer against the negative impacts" to groundwater quality and contamination, and fail to determine "whether the mitigation measures will render such impacts so minor as to not warrant an EIS." *National Parks*, 241 F.3d at 735.

3. Surface Water Quality

BLM's EA recognized "the potential for accidental spills or releases of these materials, which could impact local water quality," and that "water quality impacts … would be long term for the life of the wells." BLM010277. Yet the agency offered nothing more—no discussion of the severity of these impacts, no discussion of how frequently these accidental spills occur, no discussion of mitigation measures to reduce impacts, and no explanation supporting a conclusion that these impacts are insignificant.

BLM's Response attempts to cure this defect by tiering to earlier Forest Service documents, alleging the agency's "hard look" as being "exemplified by the USFS's consideration of which stipulation to apply to buffer areas." Resp. Br. at 22. But the

Response goes on to explain that the Forest Service "eliminated that alternative from detailed study." *Id.* In other words, the Response claims that a stipulation that itself was never studied or analyzed, and never applied, provided the requisite hard look. Such a hollow justification defies all reasoning.

BLM's Response also relies on the same *post hoc*, non-NEPA protest response letters, here claiming that spills are "rare and unforeseeable events" and therefore inappropriate to analyze. Resp. Br. at 22-23 (citing BLM011323). As detailed above, reliance on after-the-fact rationalizations have no effect on determining the sufficiency of BLM's decisionmaking process. But, in this case, the record also contradicts the agency's excuse. In the San Juan Basin there have been over 103 separate incidents of surface contamination due to downhole communication between wells, as well as other incidents of contamination due to well blowouts. BLM026453; BLM026457. While New Mexico does not maintain a publically available database regarding instances of spills,[8] there were 797 incidents causing a letter of violation to be sent to an operator in 2012 alone. BLM023363. And by comparison, the neighboring state of Colorado recorded 516 spills at oil and gas facilities in 2011. BLM023408. In short, the record shows that these events are not "rare and unforeseeable" as BLM suggests. The public deserves an accounting and analysis of potential surface water contamination that will result from the SFNF leases, which BLM failed to provide, in violation of NEPA. *See Baltimore Gas,* 462 U.S. at 97–98 (recognizing the role of the court is to ensure that the agency has taken a hard look at the environmental consequences of its actions and has adequately disclosed those

[8] This data is, however, readily available to BLM.

impacts to the public); *Middle Rio Grande Conservancy Dist. v. Norton,* 294 F.3d 1220, 1225 (10th Cir. 2002) (accord).

D. Cumulative Impacts

Citizen Groups' opening brief provided detailed argument regarding BLM's failure to consider the cumulative impacts to a range of resource values from the SFNF lease sale. Pl. Br. at 33-35; *see also New Mexico,* 565 F.3d at 719 n.45 (recognizing that "BLM is obligated under well-established law to analyze the effects of development on … existing leases; roads and pipelines constructed to reach its wells; and any other impacts it can foresee at this stage."). BLM's Response included no defense of this failure.

BLM's EA recognized that "[p]otential cumulative effects may occur," yet, with no discussion or analysis, concluded that "[p]reserving as much land as possible and applying appropriate mitigation measures will alleviate the cumulative impacts." BLM010266; BLM010281. This is insufficient. *New Mexico*, 565 F.3d at 713 n.36 (finding that "effects must be considered cumulatively, and impacts that are insignificant standing alone continue to require analysis if they are significant when combined with other impacts.") (citing 40 C.F.R. § 1508.25(a)(2)).

"An EA's analysis of cumulative impacts must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment." *Te-Moak Tribe of W. Shoshone of Nevada v. U.S. Dep't of Interior*, 608 F.3d 592, 603 (9th Cir. 2010) (citations omitted); *see also, Grand Canyon Trust v. F.A.A.*,

290 F.3d 339, 342 (D.C. Cir. 2002) (holding an "agency's [environmental analysis] must give a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum."). Without analyzing the cumulative impacts of the SFNF lease sale, BLM's decision is arbitrary. *Montana Wilderness Ass'n v. Fry*, 310 F. Supp. 2d 1127, 1144 (D. Mont. 2004) (holding that "[a]n EA must discuss reasonably foreseeable future actions that may result in cumulative impacts. It must also be circulated to the public for some level of comment and participation.").

III. BLM Failed to Provide a Convincing Statement of Reasons Justifying its Decision

BLM is required to "put forth a 'convincing statement of reasons' that explains why the project will impact the environment no more than insignificantly." *Ocean Advoc. v. U.S. Army Corps of Engrs*., 402 F.3d 846, 864 (9th Cir. 2005). "The statement of reasons is crucial to determining whether the agency took a 'hard look' at the potential environmental impact of a project." *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998). BLM's failure to justify its SFNF leasing decision was detailed in Citizen Groups' opening brief. Pl. Br. at 35-40. BLM's Response offered no defense.

This failure is more than cosmetic, but goes to the heart of BLM's adherence to its NEPA obligations. *See Sierra Club v. Peterson,* 717 F.2d 1409, 1413 (D.C. Cir. 1983) (holding "[j]udicial review of an agency's finding of 'no significant impact' is not, however, merely perfunctory as the court must insure that the agency took a 'hard look' at the environmental consequences of its decision."). Here, BLM has demonstrated no

fidelity to a decisionmaking framework intended to "assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings," and to "attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences." 42 U.S.C. § 4331(b). This failure is arbitrary and capricious. *Davis v. Mineta,* 302 F.3d 1104, 1112 (10th Cir. 2002) (confirming the court's role to determine "whether the agency acted arbitrarily and capriciously in concluding that the proposed action will not have a significant effect on the human environment.").

Foremost amongst these considerations is whether a "proposed action may 'significantly affect' the environment." *Airport Neighbors Alliance v. U.S.,* 90 F.3d 426, 429 (10th Cir. 1996). If so, "the agency must prepare a detailed statement on the environmental impact of the proposed action in the form of an EIS." *Id.* "In determining whether an action will significantly affect the environment, agencies must consider both the context in which the action will take place and the intensity of its impact." *Greater Yellowstone Coal. v. Flowers*, 359 F.3d 1257, 1274 (10th Cir. 2004); 40 C.F.R. § 1508.27. The court's review, therefore, "has a substantive component in addition to the procedural determination of whether the agency considered the relevant factors." *Id.* Here, not only did BLM fail to consider the context and intensity of its leasing decision—universally deferring any and all site-specific analysis to the permitting stage, BLM010266—but the agency refused to offer any justification for this failure in its Response. This represents a "clear error of judgment," which "must be reversed." *Greater Yellowstone*, 359 F.3d at 1274.

IV. BLM's Leasing Decision Unlawfully Causes Prejudice and Limits the Choice of Alternatives for the Mancos RMPA and EIS.

NEPA establishes a duty "to stop actions that adversely impact the environment, that limit the choice of alternatives for the EIS, or that constitute an 'irreversible and irretrievable commitment of resources.' " *Conner v. Burford,* 848 F.2d 1441, 1446 (9th Cir. 1988). This duty is codified in 40 C.F.R. § 1506.1(c), recognizing that agencies *shall not* undertake action—such as issuing leases—when that action will cause prejudice or limit the choice of alternatives in the required EIS. BLM's issuance of the SFNF leases violated this duty.

"Prejudice" is defined as interim action that "tends to determine subsequent development." 40 C.F.R. § 1506.1(c)(3). Oil and gas leases confer "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." 43 C.F.R. § 3101.1-2. "Once sold, the lease purchaser has the exclusive right to use as much of the leased lands as is necessary to explore and drill oil and gas within the lease boundaries." BLM010219. Issuing an oil and gas lease is the point of irretrievable commitment whereby BLM's authority is thereafter limited to imposing conditions or mitigation measures, rather than preventing impacts altogether. *New Mexico*, 565 F.3d at 718. Although it is true that "some or all of the environmental consequences of oil and gas development may be mitigated through lease stipulations, it is equally true that the purpose of NEPA is to examine the foreseeable environmental consequences of a range of alternatives *prior* to taking an action that cannot be undone." *Montana Wilderness Ass'n*, 310 F.Sup.2d at

1145; *see also* 40 C.F.R. § 1501.2. Leasing is precisely the type of action that will determine subsequent development. And where, as here, that action will prejudice a pending EIS for the Mancos RMPA, NEPA forbids it. *See Arlington Coalition on Transportation v. Volpe,* 458 F.2d 1323, 1330 (4th Cir.1972) (holding that an injunction was required until the agency completed final action on the EIS).

Issuing the SFNF leases also unlawfully limits BLM's choice of alternatives for the Mancos RMPA. Contrary to BLM's Response, the SFNF is expressly included in this ongoing EIS process. Resp. Br. at 27. *See* 79 Fed. Reg. at 10,549 (recognizing "[l]ands and mineral estate managed by BLM for other Federal agencies, such as the U.S. Forest Service and the Bureau of Reclamation, are included in this RMP Amendment process and the analysis area."). BLM also attempts to excuse its improper commitment of SFNF leases by conflating two distinct stages of oil and gas decisionmaking: leasing and permitting. *See* Resp. Br. at 30.[9] Unlike permitting, the leasing stage is the point of irretrievable commitment, after which consideration of certain alternatives in the Mancos RMPA—including an alternative that would not lease any additional public lands in the planning area—would be foreclosed. Such action is accordingly prohibited by NEPA. 40 C.F.R. § 1506.1(c)(3).

[9] BLM cites to the Tenth Circuit's consideration of Mancos Shale drilling approvals through an interlocutory appeal in *Diné Citizens Against Ruining Our Env't, v. Jewell,* 839 F.3d 1276 (10th Cir. 2016). The Tenth Circuit did not consider the leasing stage at all, which is the only relevant consideration here. Of note, briefing on the merits of this case is also pending in this District, at Case No. 1:15-cv-00209-JB-LF.

V. Forest Service Failed to Take a Hard Look at Leasing and Failed to Consider Significant New Information

Citizen Groups' opening brief detailed the Forest Service's failure to take a hard look at the impacts of oil and gas leasing in a previously undeveloped area of the SFNF, as well as how the agency failed to consider significant new information and circumstances, both of which violate NEPA and Forest Service policies and procedures. Pl. Br. at 43-48. BLM's Response offered no defense of these violations.

Regulations require the Forest Service to verify that leasing was adequately addressed in a NEPA document and is consistent with management plans. 36 C.F.R. § 228.102(e)(1). "If NEPA has not been adequately addressed, *or* if there is significant new information or circumstances as defined by 40 C.F.R. § 1502.9 requiring further environmental analysis, additional environmental analysis shall be done *before* a leasing decision for specific lands will be made." *Id.* (emphasis added). As discussed, the Forest Service NEPA documents failed to take a hard look at the site-specific impacts of oil and gas leasing in the SFNF, exemplified by an absence of detailed consideration of climate change and water resources. Pl. Br. at 45-48. The Forest Service also failed to consider changing patterns of development and interest in the Mancos Shale or the pending RMPA, all of which undercut assumptions about the timing, pace, location, and methods of development in the San Juan Basin and in particular the SFNF. *See* 40 C.F.R. § 1502.22 (requiring inclusion of all "information relevant to reasonably foreseeably significant adverse impacts"); 43 C.F.R. § 3160.0-4 (requiring the agency "to promote the orderly and efficient exploration, development and production of oil and gas"). These

omissions violate NEPA and Forest Service regulations. *New Mexico*, 565 F.3d at 718-19; 36 C.F.R. § 228.102(e)(1).

CONCLUSION

For the foregoing reasons, and those raised in Petitioners' Opening Brief, Citizen Groups' respectfully request that this Court vacate and remand Federal Defendants' leasing decisions for violations of NEPA and its implementing regulations, and to enjoin any further leasing authorizations within the Santa Fe National Forest pending Federal Defendants' full compliance.

Respectfully submitted this 27th day of January 2017,

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CERTIFICATE OF COMPLIANCE WITH RULE 32(a)

This brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because this brief contains 6,992 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

Dated this, 27th day of January, 2017.

/s/ Kyle Tisdel
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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO
CERTIFICATE OF SERVICE (CM/ECF)

I hereby certify that on January 27, 2017, I electronically filed the foregoing PLAINTIFFS' REPLY with the Clerk of the Court via the CM/ECF system, which will send notification of such filing to other participants in this case.

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