

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO
Judge R. Brooke Jackson

Civil Action No. 13-cv-01723-RBJ

HIGH COUNTRY CONSERVATION ADVOCATES,
WILDEARTH GUARDIANS, and SIERRA CLUB,

Plaintiffs,

v.

UNITED STATES FOREST SERVICE,
UNITED STATES DEPARTMENT OF AGRICULTURE,
UNITED STATES BUREAU OF LAND MANAGEMENT,
UNITED STATES DEPARTMENT OF THE INTERIOR,
DANIEL JIRÓN, in his official capacity as Regional Forester for the U.S. Forest Service's
Rocky Mountain Region,
SCOTT ARMENTROUT, in his official capacity as Supervisor of the Grand Mesa,
Uncompahgre, and Gunnison National Forests, and
RUTH WELCH, in her official capacity as the Bureau of Land Management's Colorado State
Office Acting Director,

Defendants, and

ARK LAND COMPANY, INC., and
MOUNTAIN COAL COMPANY, L.L.C.,

Intervenor-Defendants.

ORDER

The North Fork Valley in western Colorado is blessed with valuable resources. The area hosts several coal mines as well as beautiful scenery, abundant wildlife, and outstanding recreational opportunities. And as is sometimes the case in rich places like this, people disagree about how to manage the development of those resources. In the case before the Court, the plaintiff environmental organizations seek judicial review of three agency decisions that together

authorized on-the-ground mining exploration activities in a part of the North Fork Valley called the Sunset Roadless Area. These exploration activities are scheduled to begin on July 1, 2014. Plaintiffs allege that these three agency decisions failed to comply with the National Environmental Policy Act (“NEPA”) and the Administrative Procedure Act (“APA”) and must be set aside. The Court has subject matter jurisdiction pursuant to 28 U.S.C. § 1331 and 5 U.S.C. §§ 701-706.

I. BACKGROUND

A. The National Environmental Policy Act (“NEPA”)

The National Environmental Policy Act is one of our country’s foundational environmental statutes. The law, however, does not prescribe any substantive environmental standards per se. Rather 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). Before taking major action, NEPA requires federal agencies to prepare an Environmental Impact Statement (“EIS”). 42 U.S.C. § 4332(2)(C). An EIS must take a “hard look” at the potential environmental impacts of the agency’s proposed action. *Robertson*, 490 U.S. at 350; *New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 713 (10th Cir. 2009).

“The EIS must also ‘rigorously explore and objectively evaluate all reasonable alternatives’ to a proposed action in comparative form, so as to provide a ‘clear basis for choice among the options.’” *WildEarth Guardians v. U.S. Forest Serv.*, 828 F. Supp. 2d 1223, 1236 (D. Colo. 2011) (quoting 40 C.F.R. § 1502.14). “Reasonable alternatives are those which are ‘bounded by some notion of feasibility,’ and, thus, need not include alternatives which are remote, speculative, impractical, or ineffective. *Id.* at 1236-37 (quoting *Utahns for Better*

Transp. v. U.S. Dep't of Transp., 305 F.3d 1152, 1172 (10th Cir. 2002) and citing *Custer Cnty. Action Ass'n v. Garvey*, 256 F.3d 1024, 1039-40 (10th Cir. 2001)). “The EIS also must briefly discuss the reasons for eliminating any alternative from detailed study.” *Id.* (citing 40 C.F.R. § 1502.14(a)). To determine whether alleged deficiencies in an EIS merit reversal, the Court applies “a rule of reason standard (essentially an abuse of discretion standard).” *Utahns for Better Transp.*, 305 F.3d at 1163.

NEPA does not require an explicit cost-benefit analysis to be included in an EIS. 40 C.F.R. § 1502.23 (“[T]he weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations”); *see also Oregon Natural Res. Council v. Marsh*, 832 F.2d 1489, 1499 (9th Cir. 1987), *rev'd on other grounds*, 490 U.S. 360; *North Carolina Alliance for Transp. Reform, Inc. v. U.S. Dep't of Transp.*, 151 F. Supp. 2d 661, 692 (M.D.N.C. 2001). However, where such an analysis is included it cannot be misleading. *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 446-48 (4th Cir. 1996) (“it is essential that the EIS not be based on misleading economic assumptions”); *Johnston v. Davis*, 698 F.2d 1088, 1094-95 (10th Cir. 1983) (disapproving of misleading statements resulting in “an unreasonable comparison of alternatives” in an EIS).

As an alternative or precursor to an EIS, an agency may prepare an environmental assessment (“EA”) to “[b]riefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.” 40 C.F.R. § 1508.9(a)(1). The EA, while typically a more concise analysis than an EIS, must still evaluate the “need for the proposal, . . . alternatives as required by [NEPA] section 102(2)(E), [and] the environmental impacts of the proposed action and alternatives.” 40 C.F.R. § 1508.9(b). If the

agency concludes that the action will not cause significant impacts, it may issue a Finding of No Significant Impact (“FONSI”) and need not prepare an EIS. 40 C.F.R. § 1508.13.

B. Coal Leasing on Federal Land

The BLM manages coal leases underlying Forest Service Land pursuant to the Mineral Leasing Act, 30 U.S.C. § 181 *et seq.* Because the Forest Service retains management authority over the surface lands overlying these leases, the BLM must first obtain the consent of the Forest Service before approving leases. 30 U.S.C. §§ 201(a)(3)(iii), 207(a); 43 C.F.R. § 3425.3(b).

Prior to granting consent, the Forest Service is authorized to impose conditions to protect forest resources. *Id.* To be sure, conservation is not the Forest Service’s sole mission. *The Lands Council v. McNair*, 537 F.3d 981, 990 (9th Cir. 2008) (“Congress has consistently acknowledged that the Forest Service must balance competing demands in managing National Forest System lands. Indeed, since Congress’ early regulation of the national forests, it has never been the case that the national forests were ... to be set aside for non-use.”) (citing *United States v. New Mexico*, 438 U.S. 696, 716 n. 23 (1978)) (internal quotation marks omitted).

The Forest Service and BLM lease modifications are subject to the same dual-agency permitting process. 43 C.F.R. § 3432.3(d). A different set of regulations govern the process of exploring for coal—whether inside or outside of an existing lease. An exploration plan can be approved without a separate license if the area to be explored lies within an existing lease. 43 C.F.R. § 3480. If, however, the area to be explored lies outside an existing lease, exploration requires a separate exploration license. 43 C.F.R. § 3410.

C. The Sunset Roadless Area

The Sunset Roadless Area contains 5,800 acres of relatively undeveloped forest and scrub land in a part of western Colorado called the North Fork Valley. Mount Gunnison and the

West Elk Wilderness lie to the east. The parties cannot agree about whether the area should be called pristine or disturbed. It appears undisputed that there have been human activities in the area making it less pristine than the nearby West Elk Wilderness Area. *See, e.g.*, FSLeasing-0046963, 0046967.¹ But at the same time the area is undoubtedly wild, relatively empty, and home to diverse flora and fauna. *See* FSLeasing-0046800, -0046987, and -0047275.

Recreational opportunities are available in the area as well, although the parties dispute how many opportunities are available and the quality of those opportunities. At a minimum, there are two trails in the area—the Sunset Trail and Trail 8152—though they do not receive heavy use. FSLeasing-0046955, 0046836 (characterizing the Sunset Trail as “a non-system nonmotorized trail that is mostly overgrown with minimal use by the public”). The area is more popular for dispersed recreational activities. *See* BLM_EP-13602; BLM_EP-13885-86 (noting that the area “is heavily used during hunting season” and nearby areas are “widely used” for dispersed recreation).

Next door to the Sunset Roadless Area sits the West Elk coal mine. This underground mine has been operating since 1981 mostly beneath public lands managed by the Forest Service. *See WildEarth Guardians v. U.S. Forest Serv.*, 828 F. Supp. at 1227.

D. The Parties

Plaintiffs in this case are a collection of non-profit, environmental groups. Since 1977, High Country Conservation Advocates has been operating in the Gunnison area, working to advance its members’ interest in preserving natural values and open space in Gunnison County. [Second Amended Compl., ECF No. 30 at 4.] Plaintiff WildEarth Guardians is a “non-profit

¹ I adopt the citation convention used by the parties in this case. There are four administrative records. I refer to the Forest Service Lease Modifications record as “FSLeasing-xxxx,” the BLM’s Lease Modifications record as “BLM_mods-xxxx,” to the Exploration Plan record as “BLM-EP-xxxx,” and to the Colorado Roadless Rule record as “CRR-xxxx.”

environmental organization dedicated to protecting and restoring the wildlife, wild places, and wild rivers throughout the American West.” *Id.* These groups participated in the public comment process associated with the Lease Modifications and Exploration Plan challenged in this case. *Id.* at 5. Members of these organizations recreate in the Sunset Roadless Area and nearby public lands; they visit for the opportunity to enjoy the solitude and quiet of the area as well as the opportunity to hike, camp, and observe wildlife. *Id.* Plaintiff Sierra Club, which joined as a plaintiff later in the litigation, is a national environmental non-profit group that shares similar conservation goals as the other plaintiffs in this case. In addition, the Sierra Club is dedicated to “transition[ing] the nation away from coal and toward clean energy solutions.” *Id.*

As explained above, the BLM and Forest Service cooperatively manage coal mining operations in the Sunset Roadless Area. Their decisions authorizing on-the-ground exploration activities—and the resulting harm to plaintiffs’ interests—are the basis for this case. Ark Land Company and Mountain Coal Company (sometimes referred to collectively as “Arch Coal”) are the companies that currently own leases in West Elk Mine and who petitioned for and received the Lease Modification at issue in this case. Arch Coal’s motion to intervene as a defendant was granted on July 8, 2013. [ECF No. 15.]

E. The Agency Decisions

Three interconnected decisions enabled on-the-ground mining exploration in the Sunset Roadless Area. First, in 2012 the Colorado Roadless Rule (“CRR”) superseded the National Roadless Rule (66 Fed. Reg. 3244 (Jan. 12, 2001)) and provided an exemption for temporary road construction or reconstruction associated with coal mining in the North Fork Valley. 36 C.F.R. § 294.43(c)(1)(ix). The CRR represented a trade-off of sorts between extractive industries in Colorado who sought to loosen the restrictions of the National Roadless Rule and

conservationists and environmental groups that wanted to preserve those protections. 77 Fed. Reg. 39,576, 39,576 (July 3, 2012) (noting that the rule strikes “a balance between conserving roadless area characteristics for future generations and allowing management activities within CRAs [Colorado Roadless Areas] that are important to the citizens and economy of the State of Colorado”). Ultimately the CRR extended roadless protections to a vast amount of acreage that was previously unprotected under the national rule in exchange for various concessions from environmentalists. One of these concessions included an exemption for road construction related to coal mining on about 20,000 acres of previously protected land including the Sunset Roadless Area.² The CRR explicitly states that one of its purposes is to facilitate coal mining and exploration in the North Fork Valley. *Id.* It does not directly authorize such activities, however, but explains that any individual project must undergo site-specific environmental analysis and approval.

Second, the Bureau of Land Management approved modifications to leases held by Ark Land Company and Mountain Coal Company, LLC adding new lands to preexisting leases for the West Elk mine. The modification area comprises 1,701 acres out of the 5,800 in the Sunset Roadless Area. FSLeasing-0046963. Arch Coal filed applications for the modifications in early 2009, and the BLM approved them in November 2011. The Forest Service, as the managing agency for overlying lands, consented to these Lease Modifications. The decision to grant the modification was accompanied by an Environmental Assessment (“EA”). Plaintiffs successfully appealed this decision through the Forest Service administrative process, and the agencies began preparing a full EIS on the Lease Modifications. On August 2, 2012, the Forest Service approved the modifications. Plaintiffs filed a second administrative appeal which was denied on

² A helpful, concise history of the CRR can be found in Judge Boasberg’s opinion in *Ark Initiative v. Tidwell*, 895 F. Supp. 2d 230, 233-35 (D.D.C. 2012).

November 7, 2012. FSLeasing-0065327-77. Then it was BLM's turn to approve the modifications, which it did on December 27, 2012. BLM-mods-009831.

Plaintiffs briefly pursued an administrative appeal with the BLM, but withdrew its appeal when the Interior Board of Land Appeals declined to issue a decision within 45 days. *See* 43 C.F.R. § 4.21(b)(4). The lease modifications went into effect on April 1, 2013. That set the stage for the third and final agency decision in this case.

That third decision occurred after Arch Coal submitted a proposed Exploration Plan to the BLM in April 2013. BLM_EP-000096-179. This plan contained details on Arch's planned exploration of the land newly acquired under the lease modification. As relevant to this litigation, Arch plans to build approximately 6 miles of roads and to clear vegetation for several drill pads. Arch will use the resulting exploratory wells to determine the extent of the underlying coal seam and make a decision about whether to extend mining operations into this area. No one knows for sure whether there is recoverable coal in the exploration area. The agencies prepared an EA and approved the plan on June 27, 2013. BLM_EP-016168-215, EP-016219-21, EP-000467. The following day, BLM petitioned the Land Board to put its approval of the plan into full force and effect. That petition was subsequently denied. Plaintiffs filed this suit on July 2, 2013. At the time they included motions for emergency relief. Those motions were withdrawn after Arch promised not to begin exploration activities until the summer of 2014. [ECF No. 27.]

II. PROCEDURAL BACKGROUND

As explained above, plaintiffs initiated this suit in July 2013. The Court granted Arch Coal leave to intervene in the case on July 8, 2013. ECF No. 15. After it became clear that Arch Coal would not begin exploration activities until the summer of 2014, the parties drafted a joint case management plan. Plaintiffs filed their opening brief on March 20, 2014. Shortly

thereafter, plaintiffs became concerned that the Court would not have enough time to rule on the merits of the case before construction began on July 1, 2014 because the merits were not scheduled to be fully briefed until May 2, 2014. Therefore the plaintiffs filed a motion for a preliminary injunction on April 9, 2014 to protect their interests. A third joint case management plan [ECF No. 68] explained the timing crunch and set a May 20 deadline for briefing related to the preliminary injunction. The case was transferred to me on May 15, 2014 at which point I requested that the parties schedule oral argument on the motion for a preliminary injunction. The underlying merits case became ripe for review before the hearing, however, and therefore the merits case became the focus of the hearing on June 19, 2014. The motion for a preliminary injunction is now moot, and I proceed to a decision on the merits of plaintiffs' administrative appeal.

III. ANALYSIS

By law, this Court may only set aside an agency's decision if after a review of the entire administrative record the Court finds that the decision was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A); *see also Davis v. Mineta*, 302 F.3d 1104, 1111 (10th Cir. 2002).

An agency's decision is arbitrary and capricious if the agency (1) entirely failed to consider an important aspect of the problem, (2) offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise, (3) failed to base its decision on consideration of the relevant factors, or (4) made a clear error of judgment. Deficiencies in an EIS that are mere "flyspecks" and do not defeat NEPA's goals of informed decisionmaking and informed public comment will not lead to reversal.

New Mexico ex rel. Richardson, 565 F.3d at 704 (internal quotation marks and citations omitted). Plaintiffs bear the burden of proof on the question of whether an agency's decision was arbitrary or capricious. *Citizen's Comm. to Save Our Canyons v. Krueger*, 513 F.3d 1169, 1176 (10th Cir.

2008) (noting that the agency’s decision is presumed valid). I am fully aware that the agencies’ decisions—as long as they are neither arbitrary nor capricious—are entitled to deference and that this Court cannot substitute its own judgment for the agency’s judgment. *Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council*, 435 U.S. 519, 555 (1978). And I further recognize that “deference to the agency is especially strong where the challenged decisions involve technical or scientific matters within the agency’s area of expertise.” *Wyoming v. U.S. Dep’t of Agric.*, 661 F.3d 1209, 1246 (10th Cir. 2011) (quoting *Morris v. U.S. Nuclear Regulatory Comm’n*, 598 F.3d 677, 691 (10th Cir. 2010)). But the Court will not “defer to a void.” *Oregon Natural Desert Ass’n v. Bureau of Land Mgmt.*, 625 F.3d 1092, 1121 (9th Cir. 2010).

a. Plaintiffs Have Standing to Bring All Claims.

There is a relatively narrow standing issue that must be resolved at the outset of this case. The plaintiff environmental groups undoubtedly have standing to challenge most of the agency decisions in this case, and by and large their standing is uncontested. Arch Coal alone, however, argues that the plaintiffs lack standing to challenge the CRR because the alleged deficiency in the rule—inadequate analysis of impacts from various greenhouse gas (“GHG”) emissions—is unrelated to the concrete harm giving rise to plaintiffs’ standing—i.e. harm to recreational values in the Sunset Roadless Area. I find this argument unconvincing and find that plaintiffs have standing to bring each of the claims in this case.

The basic components of standing are well-settled.

First, the plaintiff must have suffered an injury in fact—an invasion of a legally protected interest which is (a) concrete and particularized, and (b) actual or imminent, not conjectural or hypothetical. Second, there must be a causal connection between the injury and the conduct complained of—the injury has to be fairly traceable to the challenged action of the defendant, and not the result of the independent action of some third party not before the court. Third, it must be likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision.

Lujan v. Defenders of Wildlife, 504 U.S. 555, 560–61 (1992) (internal citations, quotation marks and alterations omitted).

In this case it is apparent that the plaintiffs will suffer an injury in fact if bulldozing begins in the Sunset Roadless Area, that the injury is traceable to the three interrelated decisions by the agencies to open up the area to coal exploration, and that a favorable decision invalidating any one of the rules would prohibit Arch Coal from moving forward with its exploration plan, thereby redressing plaintiffs' injury. Arch, however, suggests that a proper standing analysis must also trace the concrete injury to the particular legal theory advanced by the plaintiff. In this case, therefore, Arch would like to see plaintiffs demonstrate why the allegedly inadequate analysis of climate change in the CRR will cause harm to plaintiffs' recreational interests. Because plaintiffs admittedly cannot draw such a line between the alleged deficiency and the particular harm they face, Arch argues they lack standing to bring such a challenge.

This attempt to raise the bar on standing by requiring additional proof beyond injury, causation, and redressability has been rebuffed by other courts including the U.S. Supreme Court. The Court of Appeals for the D.C. Circuit rejected an identical argument last year. In that case, the district court

found [that plaintiffs] lacked standing to raise the argument because they could not demonstrate a link between their members' recreational and aesthetic interests, "which are uniformly local, and the diffuse and unpredictable effects of [greenhouse gas] emissions." The district court therefore seemed to require that the specific type of pollution causing the Appellants' aesthetic injury—here, local pollution—be the same type that was inadequately considered in the FEIS. In this respect, we think it sliced the salami too thin.

WildEarth Guardians v. Jewell, 738 F.3d 298, 306-07 (D.C. Cir. 2013) (internal citations omitted) (citing *Duke Power Co. v. Carolina Envtl. Study Grp. Inc.*, 438 U.S. 59, 78-79 (1978) (holding that, except in taxpayer standing cases, a plaintiff who has otherwise demonstrated

standing need not demonstrate a nexus between the right asserted and the injury alleged)). The court went on to explain that vacatur of the allegedly deficient FEIS would redress the plaintiff's injury regardless of the "specific flaw" in the agency's decision. *Id.* at 307; *see also WildEarth Guardians*, 828 F. Supp. 2d at 1235 (D. Colo. 2011) (rejecting the idea that a plaintiff in a similar challenge to an agency coal leasing decision "must specifically allege a personalized injury resulting from climate change, rather than from the project itself"). Like these other courts, I find that requiring High Country Conservation Advocates to prove more than injury, causation, and redressability would be inappropriate and lacks precedential support. I find that plaintiffs have standing to challenge the CRR even if their argument that the rule failed to adequately analyze climate change impacts does not share a nexus with the concrete injury to their recreational interests.

b. Lease Modification FEIS.

Plaintiffs allege three NEPA violations in the Lease Modification FEIS: (1) the agencies failed to disclose the impact to adjacent public and private lands in sufficient detail, (2) the agencies failed to disclose the social, environmental, and economic impacts of GHG emissions resulting from the lease modifications, and (3) the agencies failed to analyze direct volatile organic compound ("VOC") emissions associated with methane venting on the modified lease. Overall, as the record demonstrates, the agencies did an excellent job of disclosing the effects of the Lease Modifications and analyzing those effects. Nonetheless, their explanation of the social, economic, and environmental effects of methane emissions from the development of the Lease Modification was arbitrary and appears to have either "entirely failed to consider an important aspect of the problem, . . . offered an explanation for its decision that runs counter to

the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *New Mexico ex. rel. Richardson*, 565 F.3d at 704.

i. The Lease Modification FEIS Adequately Disclosed Impacts to Adjacent Lands.

By approving the Lease Modifications, the agencies made it possible for Arch to recover nearby coal on adjacent public and private lands that otherwise would have been permanently bypassed. The fact that this additional coal might now be recoverable and might be developed, while not a direct impact of the Lease Modification, is nonetheless a foreseeable indirect impact of the approval. The FEIS discloses the indirect impacts in some detail, but Plaintiffs argue that the level of detail is insufficient to disclose fully the values that would be impacted by the development of adjacent lands.

No one disputes that foreseeable development resulting from an agency decision is an indirect impact that must be analyzed. 40 C.F.R. § 1508.25(c) (requiring the EIS to analyze direct, indirect, and cumulative impacts from a federal action). *See Davis*, 302 F.3d at 1122-23 (characterizing the growth-inducing effect of agency’s approval of a highway project as an indirect impact requiring analysis). There are natural limits to the amount of forecasting that can be done, of course, and agencies are required only to make “a reasonable, good faith, objective presentation of those impacts sufficient to foster public participation and informed decision making.” *Colo. Env’tl. Coal. v. Dombeck*, 185 F.3d 1162, 1177 (10th Cir. 1999) (citation omitted). I turn now to the agencies’ discussion of the impacts to adjacent lands.

In this case, the FEIS discloses that development of the modification will lead to the production of 5.6 million tons of coal from adjacent private lands and 3.3 million tons from adjacent federal lands. FSLeasing-0046776 at 0046851. Moreover the document quantifies the

economic benefits expected from the modifications and extended mine life as approximately \$1,075,102,400 based on an estimated price of \$40 per ton of coal. FSLeasing-0046776 at 0046987-88. As far as the possible impacts to surface resources, the agencies noted that the adjacent lands were to the north and west of the modification area and assumed that the effects on these lands would be proportional to the effects on land within the Lease Modification. FSLeasing-0046917. The FEIS then multiplied the assumed proportion of vegetation loss by what it knew to be the proportions of overlying vegetative cover in adjacent lands likely to be affected by the modification. FSLeasing-0046918 (“For private lands and adjacent parent lease areas, a total of 63 additional acres of vegetation loss is estimated. Of this, there would be approximately 41 acres of oak, 19 acres of aspen, 2 acres of spruce/fir, and 2 acres of shrub types”).³ The agencies explained that more detailed disclosures would be impossible before approval of a more specific mine plan. FSLeasing-0046776 at 0047327 (“At this leasing stage there are no mine plans approved for the private lands as they rely solely on a preliminary design as is the case on the lease modification areas, so it is impossible to determine exactly where, of [sic] if, surface disturbance would occur.”). Regarding subsidence, specifically, several unknowns—such as the thickness of the coal seam and the amount and characteristics of the overburden (the material above the seam)—added further uncertainty to the agencies’ forecasts. FSLeasing-0055550-54.

³ The FEIS also disclosed a variety of other surface effects on adjacent lands. *See generally* FSLeasing-0046851, -0046887–88, -0046898–99, -0046901–51, -0046957–58, -0046981–83; -0046848 (coal production on adjacent private lands), -0046849, -0046887–89, -0046893–94, -0046919–21 (subsidence on private lands), -0046871 (methane drainage wells on private lands), -0046897–900 (soil impacts on private lands), -0046906, -0046909, -0046912 (surface water impacts from subsidence on private land), -0046907–08, -0046910–11, -0046913 (ground water impacts from subsidence on private land), -0046915 (cumulative impacts to water, including activities on private lands), -0046918 (methodology for estimating vegetation impacts on private lands).

Plaintiffs admit that the FEIS disclosed the fact that mining would take place on adjacent lands, but they argue that the agencies erred by omitting any discussion of the “location and extent” of the mining. [ECF No. 62 at 24.] They wish for something more specific than the general “north” and “west” provided by the FEIS. FSLeasing-0046776 at 0046848. They argue that in order to evaluate properly what environmental values might be affected the agency must disclose details about the likely location of the adjacent mining. Furthermore they challenge the assumption that effects on adjacent private lands would be proportional to the effects on public lands because the private land owners might not be bound by the sorts of environmental constraints facing the agencies.

Plaintiffs claim that the agencies had maps in their possession that could have provided this more detailed information. They cite, for example, a map depicting the modification area that disclosed details like vegetation cover. FSLeasing-0046776 at 0046916. Plaintiffs claim that similar maps for the adjacent lands were in the Forest Service’s possession. FSLeasing-0055539 (Arch Coal’s map of projected mine layout); FSLeasing-0055650 (Forest Service map depicting possible subsidence from the modification).

The Court has reviewed these maps, and they appear to be quite general and speculative. See E-mail from Kathy Welt to Ryan Taylor, FSLeasing-0055540-41 (“The blue projections are the [longwall] panel layouts that are our best estimates based on available drill hole data. The finer, gray line is the maximum panel layout within the lease mod areas should future exploration data from within the lease mod areas show that the panels can/should be extended there.”). Indeed, the Court cannot see how either of these maps could have disclosed any more information than the general effects already disclosed by the agencies.

Moreover, it was reasonable, and not arbitrary, for the agencies to project that the indirect effects on adjacent lands would be similar to the effects within the current lease area. Plaintiffs offer no evidence suggesting that the surface of the adjacent area differs in such a way that subsidence will have substantially different effects on those areas. Their best argument is that perhaps mining operations will be performed in a less sensitive manner without agency oversight. Such speculation is more of a flyspeck than an accusation of arbitrariness or capriciousness. Moreover even if the Forest Service had included its map of projected subsidence, there is no indication that the map would have allowed plaintiffs to better understand the values that would be affected by the expansion. Again, all it depicts is what the agencies already disclosed: that mining on adjacent lands would occur somewhere to the north and west of the existing lease area and that it would be too speculative to try to determine the precise location of surface effects. *See, e.g.*, FSLeasing-0047327–29 (response to comments seeking more detailed analysis of surface effects).

ii. The Lease Modification FEIS Inadequately Disclosed the Effects of GHG Emissions.

While the agencies provided an adequate disclosure of effects on adjacent lands, their treatment of the costs associated with GHG emissions from the mine was arbitrary and capricious. The agencies apparently do not dispute that they are required to analyze the indirect effects of GHG emissions in some fashion, but they contend that their general discussion of the effects of global climate change was sufficient under NEPA. The FEIS, however, justifies this approach with a statement that is incorrect and ignores evidence in the record. And the post-hoc rationales provided by counsel in this case, even if they could save the FEIS, suffer from problems of their own.

One of the foreseeable effects of the Lease Modification approval is the likely release of methane gas from the expanded mining operations. As explained above, an EIS must disclose and evaluate all of the effects of a proposed action—direct, indirect, and cumulative. NEPA further defines impacts or effects to include “ecological[,] . . . economic, [and] social” impacts of a proposed action. 40 C.F.R. § 1508.8(b). The agencies do not argue that they could ignore these effects. In fact, they acknowledged that there might be impacts from GHGs in the form of methane emitted from mine operations and from carbon dioxide resulting from combustion of the coal produced. FSLeasing-0046776 at 0046808 (“Effects on climate change may occur from mining coal which stem from the release of methane . . . and release of CO₂ caused by the burning of coal that is mined”). Beyond quantifying the amount of emissions relative to state and national emissions (FSLeasing-0046874) and giving general discussion to the impacts of global climate change (FSLeasing-0046880), they did not discuss the impacts caused by these emissions. Instead, they offered a categorical explanation that such an analysis is impossible.

Standardized protocols designed to measure factors that may contribute to climate change, and to quantify climatic impacts, are presently unavailable

Predicting the degree of impact any single emitter of [greenhouse gases] may have on global climate change, or on the changes to biotic and abiotic systems that accompany climate change, is not possible at this time. As such, . . . the accompanying changes to natural systems cannot be quantified or predicted at this time.

FSLeasing-0046880.

But a tool is and was available: the social cost of carbon protocol. Interagency Working Group on Social Cost of Carbon, Technical Support Document (Feb. 2010); *see* FSLeasing-0041245 at 0041403, 0041404. The protocol—which is designed to quantify a project’s contribution to costs associated with global climate change—was created with the input of several departments, public comments, and technical models. FSLeasing-0041245 at 0041403,

0041404-06. The protocol is provisional and was expressly designed to assist agencies in cost-benefit analyses associated with rulemakings, but the EPA has expressed support for its use in other contexts. *See* Sarah E. Light, *NEPA's Footprint: Information Disclosure as a Quasi-Carbon Tax on Agencies*, 87 Tul. L. Rev. 511, 545-46 & n.160 (Feb. 2013) (noting the EPA recommendation to the State Department to “explore . . . means to characterize the impact of the GHG emissions, including an estimate of the ‘social cost of carbon’ associated with potential increases of GHG emissions” in connection with the State Department’s review of the Keystone XL pipeline).

In case there was any doubt about the protocol’s potential for inclusion in the Lease Modification EIS, the agencies included it in the draft EIS. FSLeasing-0009871 at 0010035-0010040). The draft weighed several specific economic benefits—coal recovered, payroll, associated purchases of supplies and services, and royalties—against two costs: the cost of disturbing forest and the cost of methane emissions from the mine (measured in terms of dollars per ton of carbon dioxide as estimated by the social cost of carbon protocol). FSLeasing-0010040 (coming out to \$6.9 million in impacts from GHG emissions at a price of \$21 per ton of carbon dioxide). The BLM included a similar analysis in its preliminary EA on the Lease Modifications. BLM_mods-7213 at 7261.

As noted above, these attempts at quantification of the Lease Modification’s contribution to the costs of global climate change were abandoned in the FEIS. The analysis was removed, in part it seems, in response to an email from one of the BLM’s economists that pointed out that the social cost of carbon protocol is “controversial.”

Placing quantitative values on greenhouse gas emissions is still controversial. Social cost estimates for a ton of carbon dioxide emitted range from \$5 to over \$800 (Interagency Working Group 2010; F. Ackerman & E. Stanton, *Climate Risks and Carbon Prices: Revising the Social Costs of Carbon*, 2010).

Considering the 1.23 million tons of carbon dioxide equivalent emissions [from methane] the West Elk mine emits annually, the cost could range from a moderate \$6 million per year to an overwhelming \$984 million per year.

Email of D. Epstein, Economist, BLM State Office to N. Mortenson, Forest Service (July 19, 2012 6:08 PM), *see* FSLeasing-0116520 at 0116526. The final, however, retained the quantification of the *benefits* associated with the Lease Modifications and even added some additional benefits. FSLeasing-0046776 at 0046985-88.

Therefore the FEIS, on its face, offers a factually inaccurate justification for why it omitted the social cost of carbon protocol. A tool existed, and indeed it was in the draft EIS. This justification “runs counter to the evidence before the agency [and] is so implausible that it could not be ascribed to a difference in view or the product of agency expertise. . . .” *New Mexico ex rel. Richardson*, 565 F.3d at 704.

Furthermore, this error is more than a mere “flyspeck.” The agencies expressly relied on the anticipated economic benefits of the Lease Modifications in justifying their approval. *See* FSLeasing-0069890 at 0069898) (explaining that the no-action alternative was not chosen because “it does not achieve social and economic objectives in the area. Estimates suggest nearly a billion dollars in lost revenues, royalties, payroll and local payment for goods and services would be foregone by implementing this Alternative”).

Even though NEPA does not require a cost-benefit analysis, it was nonetheless arbitrary and capricious to quantify the *benefits* of the lease modifications and then explain that a similar analysis of the *costs* was impossible when such an analysis was in fact possible and was included in an earlier draft EIS. *Compare* FSLeasing-0046776 at 0046985-88 (final) *with* FSLeasing-0009871 at 0010035-10040 (draft); *see also* 40 C.F.R. § 1502.23; *Hughes River Watershed Conservancy*, 81 F.3d at 446-48 (“it is essential that the EIS not be based on misleading

economic assumptions”); *Sierra Club v. Sigler*, 695 F.2d 957, 979 (5th Cir. 1983) (agency choosing to “trumpet” an action’s benefits has a duty to disclose its costs). In effect the agency prepared half of a cost-benefit analysis, incorrectly claimed that it was impossible to quantify the costs, and then relied on the anticipated benefits to approve the project.

The agencies, of course, might have been able to offer non-arbitrary reasons why the protocol should not have been included in the FEIS. They did not.⁴ Any post-hoc rationalizations provided by the agencies in this litigation are irrelevant to the question of whether the agencies complied with NEPA at the time they made their respective decisions. *New Mexico ex rel. Richardson*, 565 F.3d at 704 (“In considering whether the agency took a ‘hard look,’ we consider only the agency’s reasoning at the time of decisionmaking, excluding post-hoc rationalization concocted by counsel in briefs or argument.”).

I believe the agencies’ post-hoc arguments raised in this litigation further illustrate the arbitrariness of their actions. First, as I mentioned above, the agencies argue that the protocol is provisional and designed for rulemakings, not NEPA documents. The Interagency Working Group’s own materials confirm these facts. See FSLeasing-0041405 (“[A]ny effort to quantify and monetize the harms associated with climate change will raise serious questions of science, economics, and ethics and should be viewed as provisional.”); FSLeasing-0041407 (noting that the protocol is “specifically designed for the rulemaking process”). Whether the provisional

⁴ The BLM’s Record of Decision approving the Lease Modification, which came after the Forest Service’s consent to the Modifications and played no role in the earlier decision, does offer a slightly more descriptive explanation for why the protocol was not used. BLM_mods-9817 at 9848 (explaining that “the benefit-cost analysis was removed from the FEIS because it was determined not to provide accurate analysis to inform USFS and BLM decisions”). This post-hoc justification by the BLM does not change the fact that the Forest Service ignored evidence before it. The BLM’s explanation also does not explain why the quantified analysis of benefits was retained while the accompanying quantification of costs was omitted. Finally, the BLM’s ROD also fails to explain why, if the protocol was deemed inaccurate, the agency could possibly have been justified in omitting it entirely, thereby effectively setting the cost of those emissions at \$0.

nature or the declaration that the protocol was designed for rulemaking might have served as a non-arbitrary reason for removing the protocol from the draft is a hypothetical question that the record does not present. I will note, however, that even had such reasons been included, they do not explain why these agencies believed the protocol was inaccurate or not useful in this instance. Likewise, even if the agencies had argued the protocol was controversial because it is imprecise, the only evidence in the record that appears to support that rationalization is the economist's email noting that there is no scientific consensus about the exact dollar amount to assign to carbon emissions. *See supra* Email of D. Epstein, Economist, BLM State Office to N. Mortenson, Forest Service (July 19, 2012 6:08 PM). As he noted, there is a wide range of estimates about the social cost of GHG emissions. But neither the BLM's economist nor anyone else in the record appears to suggest the cost is as low as \$0 per unit. Yet by deciding not to quantify the costs at all, the agencies effectively zeroed out the cost in its quantitative analysis. *See Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008) (holding that NEPA requires agencies to analyze the effects of its actions on global climate change); *id.* at 1200 (finding it arbitrary and capricious to assign a cost of \$0/ton to emissions when none of the identified estimates was that low); *Border Power Plant Working Grp. v. U.S. Dep't of Energy*, 260 F. Supp. 2d 997, 1028-29 (S.D. Cal. 2003) (same).

Second, the agencies cite cases where courts upheld decisions to omit quantitative analyses of the effect of a project's GHG emissions in favor of a more generalized qualitative analysis of those effects. But in two of those cases, the protocol was never suggested as a possible tool, and the courts appear to have based their holdings, at least in part, on the fact that no such tool existed at the time. *See WildEarth Guardians v. Jewell*, 738 F.3d 298, 309 (D.C. Cir. 2013) ("Because current science does not allow for the specificity demanded by the

Appellants, the BLM was not required to identify specific effects on the climate in order to prepare an adequate EIS.”); *WildEarth Guardians v. U.S. Forest Serv.*, 828 F. Supp. 2d 1223, 1240 (D. Colo. 2011) (“WildEarth has not identified any method in the record (or elsewhere) that would enable the Forest Service to describe with particularity how the project would contribute to overall climate change.”). The other cases involved alleged deficiencies that are not at issue in this case. *See Barnes v. U.S. Dep’t of Transp.*, 655 F.3d 1124, 1139, 1140 (9th Cir. 2011) (upholding an EIS that did not analyze climate effects “specific to the locale” because such an analysis is impossible); *Audubon Naturalist Soc’y v. U.S. Dep’t of Transp.*, 524 F. Supp. 2d 642, 708 (D. Md. 2007) (upholding an EIS that did not adopt mitigation measures for climate change effects). I am not persuaded by these cases, or by anything in the record, that it is reasonable completely to ignore a tool in which an interagency group of experts invested time and expertise. Common sense tells me that quantifying the effect of greenhouse gases in dollar terms is difficult at best. The critical importance of the subject, however, tells me that a “hard look” has to include a “hard look” at whether this tool, however imprecise it might be, would contribute to a more informed assessment of the impacts than if it were simply ignored.

In short, the agencies might have justifiable reasons for not using (or assigning minimal weight to) the social cost of carbon protocol to quantify the cost of GHG emissions from the Lease Modifications. Unfortunately, they did not provide those reasons in the FEIS, and their post-hoc attempts to justify their actions, even if the Court were permitted to consider them, are unpersuasive. Therefore I find that the FEIS’s proffered explanation for omitting the protocol was arbitrary and capricious in violation of NEPA.

iii. The Lease Modification FEIS Adequately Considered the Effect of Possible VOC Emissions.

Plaintiffs also claim the FEIS devoted insufficient attention to the possibility of volatile organic compound (“VOC”) emissions from the methane wells⁵ that would almost certainly be drilled as a part of the Lease Modification. Methane itself is not a precursor to VOCs, but hexane, propane, and a variety of other chemicals that often accompany coal-bed methane do have the potential to create VOCs. 40 C.F.R. § 51.100 (s)(1). The agencies acknowledged that VOC pollution is a “key” issue, but they made no effort to quantify potential VOC pollution in the FEIS. BLM_mods-9817 at 9826; *see also* BLM_mods7213 at 7222 (preliminary EA); FSLeasing-0046776 at 0046872-73.

The parties devote several pages of briefing to this issue. In a nutshell, the defendants argue that VOC emissions are highly variable; that existing data (which are sparse and relatively old) suggest that regardless of the variability those emissions are low; and that the only evidence suggesting emissions may be significant and worthy of additional study is the plaintiffs’ faulty mathematical extrapolation using the old data. In response, the plaintiffs claim that their math is reasonable, existing facilities are unlikely to detect whether local VOC emissions are high, and in any event, the agencies have an obligation to go out and collect more data to determine whether VOC emissions are significant.

Just because the agencies called VOC pollution a “key” issue does not mean VOC pollution is likely to be significant. The agencies also offered several seemingly non-arbitrary reasons why the existing data are too variable and the emissions are too low to be useful in

⁵ These methane wells are designed to vent methane from the underground mine for safety reasons. They are unrelated to the exploratory wells Arch plans to drill in order to determine the extent of the underlying coal seam.

modeling the effect of the Lease Modifications. FSLeasing-0046873, -0047305–07 (VOC concentrations too variable and too low for accurate modeling). The agencies also note that nearby air monitoring stations have not revealed any local exceedances of VOC limits. FSLeasing-0046857–58. Given that the rate of mining is expected to remain the same, the agencies concluded that VOC emissions were unlikely to change. *Id.* Moreover, the disagreement between the agencies and plaintiffs about the accuracy of plaintiffs’ mathematical forecasting based on the old data from West Elk Mine strikes this Court as precisely the type of technical disagreement where deference to the agency is most important. *Cf. Wyoming*, 661 F.3d at 1246.

After deferring to the agencies’ conclusions that current data do not support the modeling that plaintiffs request, the only remaining issue is whether the agencies were under an obligation to obtain additional information on VOC emissions. *See* 40 C.F.R. § 1502.22(a) (stating that an agency “shall” obtain additional information if it “is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant”). The agencies explain that obtaining more data on VOC emissions would not be essential to a choice among alternatives given that there is no evidence (with the exception of plaintiffs’ disputed extrapolations) that emissions could be significant if the Lease Modifications were approved. Plaintiffs suggest that if the data were not essential, the agency would nonetheless be required to make a set of explicit findings to that effect. But strict, technical compliance with Section 1502.22 has never been required as long as other information in the agency documents reveals that the missing information is not essential. *See Colo. Envtl. Coal.*, 185 F.3d at 1172–73 (courts are “unwilling to give a hyper-technical reading of [40 C.F.R. §1502.22] to require the [agency] to include a separate, formal disclosure statement in the environmental impact statement to the effect that . . .

data is incomplete or unavailable”) (citation omitted); *WildEarth Guardians*, 828 F. Supp. 2d at 1240 (agency satisfied Section 1502.22 where it stated that additional information on climate impacts was unavailable but that available information indicates impacts would not be significant). Here, the rest of the record, including the absence of any local exceedances and the relatively low levels of VOC emissions from the old data, indicates that VOC pollution will not be significant, and I find that the agency did not act arbitrarily by deciding not to obtain additional evidence of VOC emissions.

c. Colorado Roadless Rule FEIS.

Plaintiffs allege three NEPA violations in the Colorado Roadless Rule: (1) the agencies failed to disclose GHG pollution from the operation of mines that would occur pursuant to the rule, (2) the agencies failed to disclose GHG pollution from combustion of coal from the North Fork Valley exemption, and (3) the agencies failed to address, acknowledge, or respond to an expert report criticizing the agencies’ assumptions about GHG pollution from the exemption.

Before delving into the details of the CRR, I note that the rule appears to be the product of exactly the kind of collaborative, compromise-oriented policymaking that we want in America. Broadly speaking, the CRR balances important conservation interests with the also important economic need to develop natural resources in Colorado. Not everyone got what they wanted out of the rule, but perhaps that is a sign that the political process worked as intended. All of this, however, is more or less beside the point in this litigation. The narrow question this Court must answer is whether the CRR and the North Fork exemption comply with NEPA’s disclosure and analysis requirements. The specific issue is whether the agencies took a “hard look” at the rule’s contribution to climate change, not whether the rule is a good idea or a bad idea. For the reasons that follow, I find that the agency failed to take a hard look at these effects,

notwithstanding the fact that the CRR appears to be a generally thorough, well-reasoned compromise.

i. The CRR FEIS Failed to Disclose the GHG Emissions from Mine Operation.

The CRR states that increased methane emissions are a foreseeable result of the rule. CRR-0154023 at 0154161. The agencies nonetheless declined to quantify these emissions or analyze their impacts. The agencies justified this choice by arguing that mining activity under the rule is speculative, and emission rates depend on mine-specific factors that will not be understood until exploration occurs. CRR-0153244 (preparation of emissions inventories not feasible). Instead, the agencies used a ranking of one to four stars to compare the potential GHG emissions between the alternatives proposed by the CRR. CRR-0154023 at 0154169-71.

As plaintiffs point out, however, the proffered explanation that future activities are too speculative to analyze is belied by the agencies' decision to include detailed projections and analysis of tax revenue, employment statistics, and other environmental interests. CRR-0154023 at 0154350. It is arbitrary to offer detailed projections of a project's upside while omitting a feasible projection of the project's costs. *See Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n*, 481 F.2d 1079, 1097 (D.C. Cir. 1973); *Sigler*, 695 F.2d at 979 ("There can be no 'hard look' at costs and benefits unless all costs are disclosed."). In a nutshell, the agencies cannot claim that they are unable to predict the impacts of methane emissions because activities occurring under the rule are too speculative and then turn around and calculate down to the job and the nearest \$100,000 the economic impacts of the rule.⁶

⁶ The agencies also object to plaintiffs' desired analysis by suggesting that the FEIS focused primarily on local and regional costs and benefits and that including an inventory of GHG emissions would inappropriately refocus the cost analysis on global costs. The careful quantification of economic benefits did, however, include regional and national benefits. CRR-0154352-59 (quantifying contributions to state

The agencies also claim that the task of projecting emissions from mine operations under the CRR would be too complex. However, the agencies' own projected coal removal and associated economic analysis in the FEIS was based on existing data from only three mines—West Elk, Bowie #2, and Elk Creek. CRR-0154023 at 0154102. According to the FEIS, these three mines are the only ones that will be expanded under the rule. CRR-154023 at 0154348. The agencies already possess data on methane emissions from these three mines. CRR-0154023 at 0154166. This explanation, therefore, appears to be nothing more than an ipse dixit.

Of course, mine-specific emissions factors were separately offered as a potential excuse for not projecting GHG emissions. However, “[r]easonable forecasting and speculation is . . . implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as ‘crystal ball inquiry.’” *Scientists’ Inst. for Pub. Info.*, 481 F.2d at 1092. Such projections were possible as demonstrated by an expert opinion that used data from existing North Fork mines to extrapolate expected emissions under the extended mine lives enabled by the CRR. Power Report, CRR-0137587 at 0137603. The agencies made similar forecasts based on existing data in earlier litigation surrounding the West Elk Mine, undercutting the argument that such forecasts are impossible. *WildEarth Guardians*, 828 F. Supp. 2d at 1231. Therefore, the decision to forgo calculating the reasonably foreseeable GHG emissions associated with the CRR was arbitrary in light of the agencies' apparent ability to perform such calculations and their decision to include a detailed economic analysis of the benefits associated with the rule.

and federal tax coffers); CRR-0154347-52 (quantifying induced economic benefits to Colorado and the United States). The plaintiffs are not asking the agencies to quantify the global costs associated with the increased GHG pollution resulting from development under the CRR; they merely request an inventory of the quantity of the gases that are likely to be released. This request does not skew the analysis.

ii. The CRR FEIS Failed to Disclose the GHG Emissions Resulting from Combustion of North Fork Valley Coal.

Plaintiffs also object to the CRR FEIS's omission of any estimate of GHG emissions associated with combustion of coal. They argue that the agencies' proffered explanations are unsupported by the record and therefore arbitrary. Those explanations were that 1) power plants have varying degrees of efficiency, and therefore any prediction about carbon emissions associated with combustion would be speculative, 2) currently unavailable technology like carbon capture and sequestration might be widely adopted by the time the coal is burned, and 3) the overall amount of coal consumed by the marketplace would remain unchanged because there are perfect substitutes for North Fork Coal. CRR-0154023 at 0154170-71.

I agree with plaintiffs that these explanations are unsupported by the record. First, it makes no sense for the agencies to claim that it is too speculative to predict coal combustion emissions data under the CRR. The agencies projected emissions from future mining and coal combustion in other situations, like the West Elk Lease Modification FEIS. *See* FSLeasing-0046876–78. The agencies attempt to distinguish projections associated with individual leases by arguing that

it is one thing to consider the potential combustion of coal projected to be produced from identified leases, as in the cases cited by Plaintiffs, but quite another to project the effects of the combustion of coal that may or may not be produced over a wide area from mines that may or may not be developed simply by virtue of a broad rule governing road construction—which is the analysis Plaintiffs demand here.

Fed. Def.'s Response Br., ECF No. 72 at 35. This attempt misses the mark. The agency cannot—in the same FEIS—provide detailed estimates of the amount of coal to be mined (CRR-0154023 at 0154112-13) and simultaneously claim that it would be too speculative to estimate

emissions from “coal that may or may not be produced” from “mines that may or may not be developed.” The two positions are nearly impossible to reconcile.

The only plausible difference between the ability to forecast emissions under the Lease Modifications and forecasting under the CRR is possible variations in powerplant efficiency. But this possibility did not stop the agencies from making estimates of emissions from coal produced by the West Elk mine in the Lease Modifications. And indeed, West Elk is one of only three mines identified for possible development under the CRR. CRR-0154023 at 0154102. There is no reason to believe that variations in powerplant efficiency posed no obstacle to making reasonable estimates of emissions associated with the Lease Modifications but that those same variations in efficiency posed an insurmountable hurdle to making estimates from coal combustion associated with the three identified mines in the North Fork exemption.

Second, the agencies’ contention that new technology might reduce carbon emissions from future coal combustion strikes this Court as anything but a “hard look.” The agency cannot rely on unsupported assumptions that future mitigation technologies will be adopted. *Cf. New York v. Nuclear Regulatory Comm’n*, 681 F.3d 471, 478-79 (D.C. Cir. 2012) (finding a NEPA violation where the agency decided to ignore future impacts based only on “reasonable assurance[s]” that the impacts would be avoided later); *see also Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1381 (9th Cir. 1998) (holding that an EIS discussion of mitigation violated NEPA in part because it was “not clear whether any mitigation measures would in fact be adopted”).

Third and finally, the agencies argue that the same amount of coal will be burned whether or not the CRR exempts the North Fork Valley. The agency concluded that there would be perfect substitution between coal provided by the North Fork Valley and coal mined elsewhere.

In other words, coal is a global commodity, and if the coal does not come out of the ground in the North Fork consumers will simply pay to have the same amount of coal pulled out of the ground somewhere else—overall GHG emissions from combustion will be identical under either scenario. The agencies reached this conclusion in part by relying on a U.S. Department of Energy report forecasting a small annual increase in the demand for coal. CRR-0080586. Based on that assumption, the agency concluded that perfect substitution would occur.

I cannot make sense of this argument, and I am persuaded by an opinion from the Court of Appeals for the Eighth Circuit that rejected a nearly identical agency justification for not analyzing the future effects of coal combustion. In *Mid States Coalition for Progress v. Surface Transportation Board*, the court held that an agency violated NEPA when it failed to disclose and analyze the future coal combustion impacts associated with the agency’s approval of a railroad line. 345 F.3d 520, 549 (8th Cir. 2003). In that case—like this one—the agency argued that emissions would occur regardless of whether the railroad line were approved because “the demand for coal will be unaffected by an increase in availability and a decrease in price.” *Id.* The court rejected this argument as “illogical at best” and noted that “increased availability of inexpensive coal will at the very least make coal a more attractive option to future entrants into the utilities market when compared with other potential fuel sources, such as nuclear power, solar power, or natural gas.” *Id.* The same dynamic is at play here. The production of coal in the North Fork exemption will increase the supply of cheap, low-sulfur coal. At some point this additional supply will impact the demand for coal relative to other fuel sources, and coal that otherwise would have been left in the ground will be burned. This reasonably foreseeable effect must be analyzed, even if the precise extent of the effect is less certain. *Id.* at 549-50.⁷

⁷ I am unpersuaded by the agencies’ attempts to distinguish *Mid States*. The fact that *Mid States* was decided in the context of identified rail lines does not distinguish it from this case where the agencies had

iii. The CRR FEIS Failed to Address Dr. Power's Expert Report.

Plaintiffs raise a third objection to the FEIS that is closely related to the issue of whether it was arbitrary to omit a discussion of the effects of coal combustion. The plaintiffs contend that the agencies failed to address, respond to, or acknowledge an expert report that they submitted on the topic of forecasting GHG emissions, thereby violating NEPA's instruction to respond to "any responsible opposing view which was not adequately discussed in the draft statement." 40 C.F.R. § 1502.9(b).

Dr. Thomas Michael Power's report, put simply, raises the same arguments discussed above about the ability to forecast emissions from coal combustion. His report indicates, contrary to the agencies' assumptions about perfect substitution, that consumers would be unable to perfectly substitute and that overall emissions would be higher if the CRR were approved. CRR-0137587 at 0137606-09.

The agencies argue that Dr. Power's report was categorized as Public Concern 2-195, CRR-0138670–73, and addressed in the CRR FEIS Response to Comments at CRR-0153244. It is true that the report and its criticisms are reprinted as Public Concern 2-195. The stickier issue is whether the agency adequately responded to the report. The response makes no mention of Dr. Power's report and, perhaps more importantly, it does not address the criticism that perfect

existing data from three identified mines and were able to provide a detailed forecast of the amount of coal that would come out of those mines pursuant to the CRR. I also see no significant difference between the definition of foreseeability in the Eighth and Tenth Circuit NEPA jurisprudence. *Compare Mid States*, 345 F.3d at 549 (reasonable foreseeability means that an event is "sufficiently likely to occur that a person of ordinary prudence would take it into account") *with Utahns for Better Transp.*, 305 F.3d at 1176 (reasonable foreseeability includes effects that "are sufficiently likely to occur"). The Tenth Circuit adds the caveat that "[e]ven as to impacts that are sufficiently likely to occur such that they are reasonably foreseeable and merit inclusion, the FEIS need only furnish such information as appears to be reasonably necessary under the circumstances for evaluation of the project." *Utahns for Better Transp.*, 305 F.3d at 1176. The caveat does not modify the definition of reasonable foreseeability, however. It merely adds a reasonable limitation on what foreseeable effects must be included in the FEIS by clarifying that only relevant and foreseeable effects must be included. Here, the agencies do not explain why the effect of coal combustion, if foreseeable, is nonetheless not relevant to an analysis of the project.

substitution is unlikely. The response merely noted that quantitative analysis of GHG emissions was too speculative at this programmatic stage and postponed more detailed analysis at the project level. CRR-0153244. The agencies do not argue that Dr. Power's report was not a "responsible opposing view." Moreover the substance of his report is not addressed by the portion of the record cited by the agencies. This failure to engage with Dr. Power's report violates 40 C.F.R. § 1502.9(b).

iv. Exploration Plan Environmental Assessment

Finally, plaintiffs allege two NEPA violations in the Exploration Plan Environmental Assessment ("EA"): (1) the agencies failed to take a hard look at the plan's effects on recreation interests, and (2) the agencies failed to consider two reasonable alternatives to the plan. Failure to adequately evaluate effects on recreational interests is grounds to overturn a NEPA document. *Nat'l Parks & Conservation Ass'n v. Fed. Aviation Admin.*, 998 F.2d 1523, 1533 (10th Cir. 1993).

The Lease Modification FEIS explicitly acknowledged that exploration and drilling could affect recreational activities but postponed such an analysis until those "activities are specifically proposed." BLM_EP-013386 at 013567-68; FSLeasing-0046776 at 0046957-58. Yet when the agencies had an opportunity to evaluate proposed on-the-ground activities, they determined that effects on recreation "will not be analyzed," BLM_EP-016168 at 016182-83, despite the fact that such values are present, *id.* at 016183. Confusingly, the EA explains that there are no recreational facilities in the exploration area. *Id.* Yet the same document reveals the presence of two trails—the Sunset Trail and Trail 8152—in the area. BLM_EP-016175. Proposed roads and drill pads will be located near these trails and in some instances will be placed on top of them. *Id.* (drill pad SST-1 is located on top of Trail 8152). Therefore the proffered reason for

foregoing an analysis of recreational values is simply wrong. There are recreational facilities in the area. It seems all but certain that they will be affected by the proposed exploration activities.⁸

The fact that the EA was “tiered” to the recreational analysis in the Leasing Modification FEIS changes nothing. First, the FEIS explicitly postpones site-specific analysis until later proposals (see discussion in the preceding paragraph). Plaintiffs refer to this as a shell-game. While I am sure the agencies did not mean to deceive anyone, their logic is hard to follow. If site-specific analysis was to be postponed, then it should have been performed at a later opportunity. It makes no sense for the agency to then turn around and “tier” their analysis to an early analysis that never took place.

The agencies claim that the EA performed a de facto analysis of all of the same factors that would be considered in an analysis of recreational interests: effects on wildlife, vegetation, and scenic resources. BLM_EP-016188–97, BLM_EP-016201–02. Intervenor defendants further argue that these factors are the only way to measure the experience of a person engaging in dispersed recreational activities like off-trail hiking or hunting. [ECF No. 74 at 17.] That may be true, but the EA and Leasing Modification FEIS do not make this argument. Therefore it is impossible for this Court to know whether the agencies did in fact do this analysis. And as post hoc justifications for agency decisions, these explanations cannot support the agencies’ action. *Colo. Env’tl. Coal. v. Salazar*, 875 F. Supp. 2d at 1249-50.

⁸ At oral argument, the defendants suggested that Trail 8152 is an unnamed user path that does not appear on some maps of the area and that plaintiffs are just now seizing upon its existence in a desperate move to try to find errors in the EA. The trail appears on the very same map that the agencies used in the EA, however. Rather than a late-breaking, insignificant flyspeck, this looks like a clearly marked trail (whether it gets much use, the Court cannot say) that the agencies themselves have been aware of since before they approved the Exploration Plan.

Furthermore it appears that the agencies dismissed at least one reasonable alternative proposed by plaintiffs without providing an explanation for the dismissal. “The existence of a viable but unexamined alternative renders an alternatives analysis, and the EA which relies upon it, inadequate.” *Diné Citizens Against Ruining Our Env’t*, 747 F. Supp. 2d at 1256; *Wilderness Soc’y v. Wisely*, 524 F. Supp. 2d 1285, 1310-12 (invalidating an EA for failing to explain why a no action alternative was dismissed). However, “NEPA does not require an agency to analyze the environmental consequences of alternatives it has in good faith rejected as too remote, speculative, or [] impractical or ineffective.” *Lee v. U.S. Air Force*, 354 F.3d 1229, 1238 (10th Cir. 2004) (internal citations and quotation marks omitted).

Plaintiffs suggested a modified plan that eliminated a section of road that appeared to be redundant. BLM_EP-000469 at 000477. The agencies claim to have considered the alternative but declined to offer a full analysis because the alternative was not viable. Federal Defendant [Response Br., ECF No. 72 at 43.] They further explain that the redundant road is critical to worker safety in the event of a disaster requiring multiple exit options. *Id.* This appears to be a perfectly valid reason. However this justification appears nowhere in the agencies’ documents until this litigation.⁹

Plaintiffs also claim their proposal to eliminate borehole SST-10 was ignored. The agencies, however, tangentially addressed this proposal in the EA when they explained why the proposal to limit the project to four holes was unacceptable. The EA notes that such a limitation “would not provide the necessary information on the coal.” BLM_EP-016180. This explanation, while it verges on non-responsive, nonetheless explains why this alternative was rejected as inconsistent with the purpose of the project. The Court finds that the agencies

⁹ It is not, as defendants claimed at oral argument, obvious from the face of the maps that the redundant road is necessary for safety purposes.

properly considered and explained their rejection of the proposed elimination of borehole SST-10.

v. Remedies

Both defendants ask the Court not to address the remedy for any NEPA violations at this time but instead to receive additional briefing on that subject. Plaintiffs reply that they do not object to deferring remedy briefing until after the Court's ruling on the merits. No one has informed the Court as to what the mystery is about the remedy or what menu of options the Court might have. Under the Administrative Procedure Act the Court is directed to hold unlawful and to set aside agency action found to be arbitrary, capricious or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A). Thus, "vacatur" of the non-compliant agency action appears to be mandatory.

I nevertheless acknowledge that the parties, who are intimately familiar with the case, might have suggestions that the Court has not considered. The Court directs counsel to confer and attempt in good faith to reach agreement as to remedies. If agreement is not reached, the parties may submit additional briefing concerning remedy no later than 30 days from today's date. This will consist of one brief for the plaintiffs collectively, one for the government defendants collectively, and one for the intervenors collectively. The three briefs may be no longer than 10 pages including everything from the caption to the certificate of service.

However, one aspect of the remedy is both clear and immediate and is imposed upon the issuance of this order. The intervenor defendants are immediately enjoined from proceeding with the Exploration Plan in any manner that involves any construction, bulldozing or other on-the-ground, above-ground or below-ground disturbing activity in the subject area.

IV. Conclusion

Plaintiff's petition for review of agency action is granted and sustained. As indicated immediately above, the intervenor defendants are immediately enjoined from proceeding with the Exploration Plan in any manner that involves any construction, bulldozing or other on-the-ground, above-ground or below-ground disturbing activity in the subject area. The government defendants' approval of the Exploration Plan is vacated. Plaintiffs' motion for the entry of a preliminary injunction [ECF No. 71] is moot. The Court will hold in abeyance any further remedial orders pending either notification that the parties have reached an agreement or the receipt and evaluation of supplemental briefs on remedy.

DATED this 27th day of June, 2014.

BY THE COURT:

A handwritten signature in black ink, appearing to read "R. Brooke Jackson", with a long, sweeping horizontal stroke extending to the right.

R. Brooke Jackson
United States District Judge