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IN THE UNITED STATES DISTRICT COURT
DISTRICT OF UTAH, CENTRAL DIVISION

WILDEARTH GUARDIANS and GRAND CANYON TRUST,

Plaintiffs,

v.

DEB HAALAND, in her official capacity as Secretary of Interior, *et al.*,

Defendants,

and,

STATE OF UTAH and CANYON FUEL COMPANY, LLC,

Defendant-Intervenors.

Case No. 2:16-cv-00168-DN

PLAINTIFFS' OPENING BRIEF

REDACTED VERSION

Oral Argument Requested

District Judge David Nuffer

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STATEMENT OF THE ISSUES

1. Before federal agencies take any major action, the National Environmental Policy Act requires them to prepare an environmental analysis to aid them in deciding how to act. Until they act, agencies must keep their analysis up to date so that they can make an informed decision about changing course. In 2015, the U.S. Bureau of Land Management, with the consent of the U.S. Forest Service, leased publicly owned coal reserves to allow a coal mine in a national forest in Utah to expand. Beforehand, each agency decided that an environmental analysis they had prepared in 2002 about the proposed mine expansion did not need to be updated to account for new information about the effects of climate change and air pollution to which the mine expansion would contribute. That information included a major report by government experts about harms likely to result from climate change, which were not discussed in the 2002 analysis. It also included new research about harms posed by four major air pollutants—also not discussed in the 2002 analysis—which led the government to strengthen many of the nation's most fundamental air-quality standards. Did the agencies err by declining to update their environmental analysis before issuing the lease?

2. The Bureau of Land Management is obliged by its regulations to reject applications to lease coal reserves whenever it determines that issuing the lease would be contrary to the public interest. The administrative record for the coal lease at issue lacks any statement articulating a public-interest determination. Was it unlawful to issue the lease without making that determination? In the alternative, if the record can somehow be read to include a public-interest determination, did that determination err by significantly understating the mine expansion's environmental toll?

STATEMENT OF THE CASE

I. Legal Background

A. The Mineral Leasing Act of 1920

For about a century, publicly owned coal reserves on federal public lands have been bought and mined by privately owned companies under a leasing program run by the Interior Department.[1] In the mid-1970s, Congress revamped the program in the Federal Coal Leasing Amendments Act of 1976[2] in response to problems that had arisen, like the sale of leases for less than their market worth and a failure to account properly for coal mining's environmental harms.[3] That Act instructed the Interior Department to lease out the public's coal reserves only after considering the "impacts on the environment," only upon receiving fair market value, and only as it "finds appropriate and in the public interest."[4]

To carry out these directives, the Bureau of Land Management (an arm of the Interior Department) adopted new coal-leasing regulations in 1979.[5] The regulations set out a methodical system for establishing "coal production regions" and then auctioning leases in those regions after a careful planning process.[6] Outside of these regions and in emergencies, these rules

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[1] *See* Mineral Leasing Act of 1920, Pub. L. 66-146 at §§ 2 and 3.

[2] *See* Federal Coal Leasing Amendments Act of 1976, Pub. L. 94-377.

[3] *See generally Utah Int'l v. Andrus*, 488 F. Supp. 962, 971–72 (D. Utah 1979) (describing congressional report identifying a "lack of fair return to the public" and "the lack of environmental protection" as problems with the coal program).

[4] 30 U.S.C. §§ 201(a)(2)(C), 201(a)(1).

[5] Coal Management, 44 Fed. Reg. 42,584 (July 19, 1979).

[6] *See* 43 C.F.R. §§ 3400.5 (designation of coal-production regions); § 3420.1–4 (land-use planning); § 3420.2 (regional leasing levels); § 3420.3–3 (tract delineation); § 3422 (sale procedures).

allowed the coal industry to nominate areas for competitive leasing in a way that truncated BLM's plan-based leasing process.[7] This is commonly called "lease by application," or LBA. BLM by rule must reject any LBA when the agency determines that the lease "would be contrary to the public interest" because of "environmental or other sufficient reasons."[8]

B. The National Environmental Policy Act

The National Environmental Policy Act "is our basic national charter for protection of the environment."[9] It requires federal agencies, before deciding whether to take any "major Federal action[]," to analyze and publicly disclose in an environmental impact statement—commonly called an EIS—the ways in which the proposed action and alternatives to it will "significantly affect[] the quality of the human environment."[10] NEPA's goal is to ensure that the government, "in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts," while "also guarantee[ing] that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision."[11]

In service of that objective, regulations issued by an executive-branch entity that NEPA created, called the Council on Environmental Quality, instruct federal agencies to evaluate all

[7] 43 C.F.R. Subpart 3425.

[8] *Id.* § 3425.1–8(a).

[9] 40 C.F.R. § 1500.1(a) (2015). This statement of NEPA's purpose was revised in 2020 in an overhaul of the major NEPA-implementation regulations. Because the new rules do not apply to the decision in question here, *see* 40 C.F.R. § 1506.13 (2020), all citations in this brief to the NEPA regulations are to the version in effect in 2015.

[10] 42 U.S.C. § 4332(2)(C).

[11] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

reasonably foreseeable effects that a proposed action and alternatives to that action, including no action, would cause.[12] These are called "direct" and "indirect" effects.[13] CEQ's regulations also instruct agencies to evaluate the "cumulative impact" that will result when those direct and indirect effects are added to the effects of "other past, present, and reasonably foreseeable future actions…."[14]

The government is obligated to keep an EIS up to date so long as it can alter its course of action.[15] To that end, a supplemental EIS must be prepared whenever there is new information or there are new circumstances that show that the proposed action will have significant environmental effects that the government has not "already considered."[16] Unless CEQ otherwise allows, a supplemental EIS must be prepared in the same manner as the original EIS and must be circulated for public comment.[17]

II. The Initial Proposal to Expand the Skyline Coal Mine

In 1998, the owner of a coal mine in the Manti-La Sal National Forest in central Utah sought to use BLM's lease-by-application process to expand its mine, called the Skyline Mine.[18] To do that, the mine's owner, defendant-intervenor Canyon Fuel Company, LLC, drew up a

[12] 40 C.F.R. §§ 1502.16 (2015), 1508.8 (2015).

[13] *Id.* at § 1508.8 (2015).

[14] *Id.* at § 1508.7 (2015).

[15] *See Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 374 (1989); 40 C.F.R. § 1502.9(c)(ii) (2015).

[16] *Marsh*, 490 U.S. at 374.

[17] 40 C.F.R. § 1502.9(c)(4) (2015).

[18] *See* Administrative Record ("AR") at FS14–34. All subsequent citations to the record are to the Bates stamps beginning with the prefix "FS" or "BLM" followed by the page number.

proposed 2,700-acre lease tract in the national forest neighboring the mine.[19] It called the area the "Flat Canyon Tract."[20] The company estimated that this new lease would allow it to mine about 29 million more tons of coal (a figure later revised upward to 42 million tons),[21] extending the mine's life for up to a dozen years.[22] For a rough sense of scale, this is in the ballpark of what it takes to power one of Utah's coal-fired power plants for that same timeframe.[23]

Recognizing that this leasing proposal would significantly affect the environment, BLM set about preparing an EIS in cooperation with the Forest Service, whose consent must be obtained before leasing coal in national forests.[24] One of the agencies' first steps was to seek comments to help frame the forthcoming analysis.[25] The public urged the agencies to consider how burning the leased coal would fuel climate change.[26]

When the agencies published their draft EIS about a year later, however, they maintained that this subject was "beyond the scope of the analysis."[27] The draft similarly asserted that air

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[19] FS18.

[20] FS14.

[21] BLM2716.

[22] FS22.

[23] *See, e.g.*, "Rural lawmakers feel betrayed that a Utah power plant gets some of its coal from Colorado," SALT LAKE TRIBUNE (Sep. 18, 2020) (explaining that Intermountain Power Plant is now burning about 3 million tons per year).

[24] 30 U.S.C. § 201(a)(3)(A)(iii).

[25] BLM473.

[26] *See* FS1822 (We are "concerned about the impact fossil fuels such as coal are having on the climate."); *see also* FS1830 ("The [draft] EIS should disclose that researchers have found coal combustion to be a significant source of [carbon dioxide] a greenhouse gas which contributes to global warming.").

[27] BLM480–81.

pollution caused by the mine expansion, like dust and harmful gases from burning fossil fuels, was an issue that should not be "carried through the analysis."[28]

The draft EIS, instead, discussed roughly a dozen other ways in which the mine expansion could harm the surrounding forest, lead the forest floor and a nearby water reservoir to collapse, sully water in nearby streams, uproot wildlife and their habitat, disrupt recreation, and spoil the view, among other subjects.[29] Alongside these issues, the agencies appraised the "socioeconomic benefits" of the proposed mine expansion, a discussion that presented the benefits of mining via dollar estimates, but not its costs.[30]

After revising the draft EIS in response to additional comments, the agencies published a final EIS in early 2002.[31] In it, the agencies stuck to the view that the lease-induced effects of climate change were beyond the scope of analysis, asserting again that uncertainty stood in the way of useful analysis.[32] The agencies also did not revisit their similar decision about analyzing air quality, maintaining that the new lease would not change the rate of air pollution from the mine, nor lead to a violation of air-quality standards.[33] Each agency then issued a "record of decision" choosing to go forward with the lease, with stipulations meant to reduce harm to the

[28] BLM479, 482.

[29] *See* BLM410–11 (organizing the "effects of implementation" into fourteen categories, like "visual quality," "topography" including "direct surface disturbance," "surface water," "wildlife," and "recreation"); BLM557–623 (evaluating these effects).

[30] BLM620–23.

[31] *See* BLM74–405.

[32] BLM288–89.

[33] BLM123.

surrounding public lands.[34]

The leasing process then froze, for the mine's owner decided that "geologic conditions … necessitated a delay in the interest by [the company]."[35] In response, the agencies shelved their leasing plan, perhaps recognizing that no one else would bid on the lease if it were auctioned. The Forest Service had not by then given BLM its consent to the lease.[36]

III. Resuscitation of the Ten-Year-Old Mine-Expansion Proposal

The leasing decisions and NEPA documents collected dust for nearly a decade. Then, in 2011, BLM and the Forest Service began to discuss reviving the leasing proposal after the mine's owner expressed renewed interest in it.[37] The "first question" that arose, as BLM staff put it, was about "the adequacy of the NEPA that was completed about 10 years ago."[38] On that question, the "preliminary consensus was that the 2002 EIS would not be adequate for leasing without a supplement being prepared."[39] To that end, the Regional Forester for the Forest Service—the agency's top-ranking official in Utah—wrote BLM to explain that the 2002 EIS was "stale" and needed to be supplemented over the next two to three years.[40]

Yet by the following week, something prompted an about face. The Regional Forester sent another letter to BLM explaining that the Forest Service "wish[ed] to evaluate whether or

[34] *See* BLM2525–36; BLM1–73.

[35] BLM2637.

[36] BLM2540 ("[A] letter of consent was never transmitted to the BLM….").

[37] BLM2901; *see also* FS9817.

[38] BLM2901.

[39] BLM2643.

[40] BLM2646.

not … a supplemental environmental analysis" was warranted.[41] And so in the next few months, the Forest Service prepared a document called a "supplemental information report," or SIR, to determine whether to supplement the 2002 EIS.[42] The Forest Service did not notify the public that it was preparing the SIR or solicit comments on it. The SIR found, among other matters, that there were not significant new circumstances or information that warranted supplementing the statements in the 2002 EIS about air quality and climate change.[43] Having so concluded, the Forest Service sent BLM a letter in early 2013 consenting to the lease.[44]

Two more years passed. And then, in February 2015, BLM followed the Forest Service's lead, concluding in a document it called a "determination of NEPA adequacy," or DNA, that the agencies' 2002 EIS was sufficient.[45] BLM did not give the public notice of its DNA or invite comments on it.

In the preceding few months, BLM had also confidentially begun preparing an analysis of the fair market value of the Flat Canyon lease.[46] It did so because the law forbids the sale of public coal reserves at less than their fair-market value.[47] When this FMV analysis was finished, BLM publicly announced its plan to offer the lease for sale.[48] This was the first notification

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[41] BLM2648.

[42] FS5815–31.

[43] FS5819–21.

[44] BLM2540–41.

[45] BLM850–73.

[46] BLM3071–3140 (Nov. 21, 2014). The date is provided here to distinguish this document from two others in the administrative record that also have pages stamped in this same Bates range.

[47] 30 U.S.C. § 201(a)(1) ("No bid shall be accepted which is less than the fair market value, as determined by the Secretary, of the coal subject to the lease."). *See also* 43 C.F.R. § 3422.3–2(b).

[48] Notice of Federal Competitive Coal Lease Sale, Utah, 80 Fed. Reg. 28,002 (May 15, 2015).

given to the public since 2002 about the Flat Canyon leasing process.

WildEarth Guardians immediately sent both agencies a letter objecting to BLM's leasing plan and arguing that the agencies were obliged to supplement the outdated 2002 EIS.[49] This letter itemized new information about how the lease would contribute to climate change and air pollution that the 2002 EIS had not considered.[50]

Without answering, BLM held the lease auction a month later, as originally scheduled.[51] The Skyline Mine's owner was the only bidder.[52] At a meeting the next day, BLM's "coal sale panel" reviewed the bid, determined that it exceeded BLM's fair-market-value estimate, and voted to recommend its acceptance.[53] BLM's State Director agreed and accepted the bid the day after that.[54] A month later, with the lease a *fait accompli*, the Forest Service and BLM sent letters responding to WildEarth Guardians,[55] and on the same day, BLM executed the lease.[56] Nowhere did BLM's administrative record lay out a determination about whether issuing the lease would be "contrary to the public interest."[57]

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[49] BLM2545–48.

[50] BLM2545–46 (citing federal court decisions affirming the government's obligation to analyze the effects of coal combustion and enclosing a recent decision to that effect); *id.* (describing changes to national air-quality standards).

[51] BLM2549.

[52] *Id.*

[53] BLM2752–54.

[54] BLM2759 ("I accepted the bid on June 19, 2015.").

[55] BLM2549–51; FS9798–99.

[56] BLM2803.

[57] 43 C.F.R. § 3425.1–8(a).

SUMMARY OF THE ARGUMENT

1. The Forest Service's consent to the lease and BLM's issuance of the lease were not in accordance with law, owing to the agencies' arbitrary decisions not to supplement the 2002 EIS. At the time of those actions, there was significant new information about the effects of climate change that the lease would fuel and that the agencies had not already considered. A 2009 report prepared by government experts, which the Forest Service referenced in its decision not to supplement the EIS, is illustrative. That report synthesized and explained in detail the latest research about ongoing and looming environmental harms of climate change, driven in great measure by burning fossil fuels like coal.

Rather than supplement the 2002 EIS to analyze these significant harms, which had not been previously analyzed, the agencies in the SIR and DNA reaffirmed and elaborated on the reasons they had given in the 2002 EIS for concluding that the subject of climate change was "beyond the scope of analysis." They claimed that scientific uncertainty foreclosed any meaningful analysis, that no protocol existed for attributing the effects of climate change to the Flat Canyon lease, and that at least as much coal would be burned if the lease were denied as if it were issued. These reasons for not supplementing the EIS were irrational, ran contrary to the record before the agencies, and overlooked entirely a protocol that could assign climate-change costs to the lease. The agencies' decisions not to supplement the statements in the EIS about climate change were consequently arbitrary and capricious.

The agencies made the same error on the subject of air quality. After the 2002 EIS was published but before the lease was issued, new research into the health and environmental effects of four major air pollutants led the Environmental Protection Agency to strengthen national air-

quality standards governing those pollutants. Each pollutant is released when mining and burning coal. And yet, the agencies declined to supplement the EIS to analyze these significant health and environmental effects, instead standing behind and extending the reasons given in the EIS for concluding that the issue of air quality need not be "carried through the analysis." They asserted that issuing the lease would not change the rate of air pollution from the mine and that the lease was not expected to lead to a violation of air-quality and -permitting standards. But this reasoning too was arbitrary, for it did not consider that the lease would prolong the air pollution from the Skyline Mine, overlooked entirely the air pollution that would result from coal transportation and combustion, and disregarded how the lease would degrade air quality even if it did not lead to a violation of air-quality laws.

Because the agencies were confronted with significant new information about climate change and air quality and yet gave arbitrary reasons for not supplementing the 2002 EIS, their decisions not to supplement the EIS should be set aside, the lease should be vacated, and the matter remanded to the agencies with instructions to supplement the EIS if they propose again to issue the lease.

2. BLM also did not comply with its rules requiring it to reject the Flat Canyon lease if the lease was not in the public interest. There is no determination in the record about this public-interest requirement. And absent a determination to judge, reversal is warranted under the Administrative Procedure Act. If BLM nonetheless claims to have made a determination, it is not possible that any such determination could have met the analytical benchmarks set by the APA. A public-interest determination must weigh "environmental reasons" for denying a lease, together with whatever other factors BLM believes favor or disfavor the public interest. And

here, BLM's reckoning of the environmental price tag of the lease was deficient, for it did not account properly for the harms posed by climate change and air quality.

Whether BLM issued the lease without any public-interest determination or with an arbitrary one, the agency's action was contrary to law, and the lease should be set aside.

ARGUMENT

I. Standard of Review

Judicial review of the government's compliance with NEPA is governed by the Administrative Procedure Act.[58] The APA calls on courts to set aside agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law."[59] The arbitrary-and-capricious standard, though deferential, requires courts to undertake a "thorough, probing, in-depth review" to ascertain whether the agency "articulated a rational connection between the facts found and the decision made."[60] An agency's decision is arbitrary and capricious if, among other circumstances, the agency "has relied on factors which Congress has not intended it to consider, 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."[61]

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[58] 5 U.S.C. § 702; *WildEarth Guardians v. U.S. Bureau of Land Mgmt.*, 870 F.3d 1222, 1227 (10th Cir. 2017).

[59] 5 U.S.C. § 706(2).

[60] *Olenhouse v. Commodity Credit Corp.*, 42 F.3d 1560, 1574 (10th Cir. 1994) (internal quotation omitted).

[61] *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

II. Plaintiffs have standing.

Associations like the Grand Canyon Trust and WildEarth Guardians have constitutional standing when their "members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization[s'] purpose[s], and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit."[62] An association's members have standing when they suffer an "injury in fact," the injury is "fairly traceable" to the defendant's challenged actions, and it is likely that the injury will be redressed by a favorable decision.[63] Plaintiffs in environmental cases suffer an "injury in fact when they aver that they use the affected area and are persons for whom the aesthetic and recreational values of the area will be lessened by the challenged activity."[64] For legal claims asserting procedural violations, like those under NEPA, an increased risk of harm caused by an agency's uninformed decision is an injury-in-fact.[65]

The challenged actions here—consent to and issuance of the Flat Canyon lease—increase the risk that Plaintiffs' members will suffer harm to their aesthetic and recreational interests when they use areas affected by the lease-enabled expansion of the Skyline Mine. Plaintiffs'

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[62] *Friends of the Earth v. Laidlaw Envtl. Servs. (TOC)*, 528 U.S. 167, 181 (2000). The interests the Plaintiffs seek to protect are germane to their purposes. Erley Decl. ¶ 2; Nichols Decl. ¶ 3. Individualized proof is not required. *See Diné Citizens Against Ruining Our Env't*, 923 F.3d 831, 840 n.3 (10th Cir. 2019).

[63] 528 U.S. at 180–81.

[64] *Id.* at 183 (internal quotation omitted).

[65] *See Comm. to Save the Rio Hondo v. Lucero*, 102 F.3d 445, 452 (10th Cir. 1996) ("Under [NEPA], an injury results not from the agency's decision, but from the agency's *uninformed* decisionmaking.") (emphasis in original).

members use and enjoy public lands near the Flat Canyon lease and the Skyline Mine.[66] Those members' aesthetic and recreational interests in hiking, camping, and wildlife viewing will be harmed by prolonged and expanded mining at the Skyline Mine owing to the Flat Canyon lease, and by its attendant traffic and air, light, and noise pollution.[67] Those harms are a direct result of the government's failure to comply with NEPA and BLM's regulations, for that led the government to unlawfully approve the Flat Canyon lease.[68] A favorable ruling is likely to redress those harms by requiring additional analysis that would better inform Plaintiffs' members (and the public, writ large) and could lead the government to alter its leasing decision or deny the lease altogether.[69]

III. The agencies' decisions not to supplement the 2002 EIS were arbitrary.

A. Legal Standard

The Supreme Court has interpreted NEPA to require an EIS to be supplemented whenever "there remains 'major Federal action' to occur," and there is "new information [that] is sufficient to show that the remaining action will 'affec[t] the quality of the human environment' in a significant manner or to a significant extent not already considered."[70] This reading of the statute echoes CEQ's NEPA regulations, which require supplementation when "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on

[66] *See* Erley Decl. ¶¶ 3–13 (attached as Exhibit 1); Nichols Decl. ¶¶ 9–11 (attached as Exhibit 2).

[67] *See* Erley Decl. ¶¶ 9–14; Nichols Decl. ¶¶ 13–16.

[68] *See Sierra Club v. U.S. Dep't of Energy*, 287 F.3d 1256, 1265–66 (10th Cir. 2002).

[69] *Id.*

[70] *Marsh*, 490 U.S. at 374 (quoting 42 U.S.C. § 4332(2)(C)).

the proposed action or its impacts."[71]

To satisfy this requirement, agencies must take a "hard look" at relevant new information or circumstances that arise and make a "reasoned decision" about whether to supplement their prior analysis.[72] In other words, agencies cannot decline to supplement an EIS without explaining why they believe the "remaining action" will not affect the environment "in a significant manner or to a significant extent not already considered," and that explanation must satisfy the APA's "arbitrary and capricious" standard.[73] The fundamental question at issue is about "the value of the new information to the still pending decisionmaking process."[74]

B. Major federal action remained to occur until the lease was issued.

It is evident from the Forest Service's preparation of the SIR and from BLM's preparation of the DNA that both agencies agreed that major federal action remained to occur when the leasing proposal was revived around 2011. Indeed, the actions that prompted the government to prepare the 2002 EIS were BLM's proposed leasing of the Flat Canyon tract and the Forest Service's proposed consent to the lease.[75] At least until the agencies took those actions, in 2015 and 2013, respectively, their supplementation obligations persisted.[76]

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[71] 40 C.F.R. § 1502.9(c)(1)(ii) (2015).

[72] *Marsh*, 490 U.S. at 374, 378, 385; *see also S. Utah Wilderness Alliance v. Norton*, 301 F.3d 1217, 1238 (10th Cir. 2002) (explaining that agencies must supply a "reasoned explanation" for their supplementation decision) *rev'd on other grounds by* 542 U.S. 55.

[73] *Marsh*, 490 U.S. at 373–76.

[74] *Id.* at 374.

[75] BLM81.

[76] *See Greater Yellowstone Coal. v. Tidwell*, 572 F.3d 1115, 1123 (10th Cir. 2009) (holding that "approval and issuance" of a special-use permit "was the major federal action contemplated by NEPA," and that "action was completed when the permit was approved and issued," terminating the government's NEPA-supplementation duties).

C. The agencies gave arbitrary reasons for declining to supplement the 2002 EIS on the subject of climate change.

When the agencies consented to and issued the lease, there was new information about the significant effects of climate change to which the Flat Canyon lease would contribute that BLM and the Forest Service had not already considered in the 2002 EIS. Yet the agencies did not take a "hard look" at this information, and they did not provide a reasoned explanation for declining to supplement the EIS.

Because the question of supplementation depends on what the agencies had not "already considered," the analysis begins with the 2002 EIS. The only reference to climate change in the 2002 EIS was a paragraph—twice repeated—in which the agencies deemed the subject to be "beyond the scope of the analysis."[77] This paragraph acknowledged that burning coal would release greenhouse gases, and for four gases, listed estimates of how much each ton of coal would emit when burned.[78] It then observed that a different government agency had concluded that humans were releasing greenhouse gases and that those gases "tend to warm the earth."[79] But it gave two reasons for saying nothing more about climate change. First, the EIS characterized climate change as a subject beset with "scientific uncertainty."[80] Second, it asserted that local power plants "will continue to burn coal at the current or increased rate regardless [of] where the coal comes from."[81]

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[77] BLM121–22, BLM288–89.

[78] BLM121–22 (listing "emission factors" for carbon dioxide and other greenhouse gases).

[79] BLM122.

[80] *Id.* (asserting that there were "conflicting conclusions" in the research and issues that were not "well understood" or "not known").

[81] *Id.*

When the Forest Service reappraised these statements a decade later to determine whether to supplement the EIS, the agency acknowledged that "new information has come out about climate change" and then observed that government research had found that "global warming is unequivocal" and, in the last 50 years, "primarily human-caused."[82] Yet the agency then doubled down on the statements about climate change in the 2002 EIS as a rationale for not supplementing that document. Under a "climate change" heading in the SIR, the agency pasted in the paragraph on climate change from the EIS, and another one mostly about air quality, and reaffirmed its view that these paragraphs were sufficient under NEPA. Using different words, the Forest Service made roughly the same assertion about scientific uncertainty the agencies had made in the 2002 EIS: "impact assessment of specific impacts related to anthropogenic activities on global climate change cannot be accurately estimated," it said.[83] Or put another way, it was "not possible," to forecast how a "single emitter" of greenhouse gases would contribute to climate change and affect "natural systems."[84] From this premise that no analysis was possible, the SIR ended with a non sequitur: "Therefore, the effects of this decision on climate change were addressed in the original FEIS analysis…."[85]

BLM agreed.[86] Its three-sentence rationale was set out in a table appended to its DNA:

> There are currently no regulatory standards for controlling [greenhouse] emissions or accepted analytical methods for evaluating project specific impacts related to [greenhouse] emissions. As a consequence, the impacts of site-specific proposals cannot be determined. Based on the size of the project, [greenhouse

[82] FS5820.

[83] *Id.*

[84] FS5821.

[85] *Id.*

[86] BLM856.

gas] emissions are expected to be minimal.[87]

These reasons for declining to supplement the EIS were arbitrary and capricious, as explained below.

1. Uncertainty did not prevent an analysis of climate change.

The record reveals that scientific uncertainty did not foreclose an evaluation of how the lease would contribute to climate change and the likely ways in which climate change would affect the environment.

There is no question that issuing the Flat Canyon lease would lead to greenhouse gas emissions: from mining,[88] from transporting coal to power plants,[89] and from burning that coal for power.[90] There is also no question that these greenhouse gas emissions would contribute to climate change.[91] What the Forest Service and BLM impermissibly declined to do, then, was to connect the dots between the emissions attributable to the lease and their significant, "*actual* environmental effects."[92] And by 2015, the agencies could have done that, at a bare minimum, by quantifying these emissions and contextualizing them with a qualitative discussion of the effects of climate change.

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[87] BLM869.

[88] BLM2551 ("Leasing and subsequent mining could affect direct mine operation emissions of [greenhouse gases].").

[89] BLM268 (explaining that most coal from the mine is sent to market by rail).

[90] BLM121–122 ("It is recognized that combustion of coal [at power] plants will result in release of greenhouse gasses…."); *see also* BLM2551 (agreeing that "[i]ndirect [greenhouse gas] emissions from the burning of coal for electrical generation would also be a likely impact" of the lease).

[91] BLM122; *see also* FS5820; FS5844.

[92] *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1216 (9th Cir. 2008) (emphasis in original).

Quantifying greenhouse gas emissions was a straightforward exercise that the agencies could have performed in a supplemental EIS. They already had in hand per-ton estimates of the volume of four greenhouse gases that would be emitted when burning the Flat Canyon coal.[93] Multiplication was all that was necessary to forecast the total volume of lease-induced emissions over the life of the mine expansion. Indeed, BLM performed this very calculation in a non-NEPA, non-public, document the day it signed the lease.[94] And other NEPA lawsuits demonstrate that the agencies were equally capable of making similar calculations for emissions directly from the mine and from transporting coal to the market.[95]

The record likewise demonstrates that the government, contrary to its assertions in the DNA and SIR, could have used information available by 2015 to describe how these greenhouse gas emissions would affect "natural systems" and thus predict, in general terms, "project specific impacts."[96] The post-2002 climate-change information that the agencies considered and that is thus in the administrative record consists of just one document, but it is a consequential one: A quadrennial, "state of knowledge" report about climate change authored by government

[93] BLM122.

[94] BLM2551 (estimating that the leased coal would emit 101,012,520 tons of greenhouse gases).

[95] *See, e.g.*, *Mont. Envtl. Info. Ctr. v. U.S. Office of Surface Mining*, 274 F. Supp. 3d 1074, 1092, 1094 (D. Mont. 2017) (explaining that the government had calculated "the greenhouse gas emissions likely to occur from coal transportation" and quoting the government's acknowledgment that "total emissions resulting from mining, processing, transporting and burning are quantifiable"); *WildEarth Guardians v. Bernhardt*, 2021 WL 363955, *5 (D. Mont. Feb. 3, 2021) ("[The government] used available historic shipping information to calculate greenhouse gas emissions attributable to the mining plan modification.").

[96] FS5821, BLM869.

experts.[97] This report, commonly called the Second National Climate Assessment, was prepared for Congress and the President in 2009 by an "expert team of scientists" working under the auspices of the U.S. Global Change Research Program.[98]

In its opening sentences, the assessment identified "fossil fuels (coal, oil, and gas)" as the "main[]" source of human-induced greenhouse gas emissions, which were the "primary[]" driver of global warming in the past 50 years.[99] The next 100-plus pages then forecasted what climate change had in store for the Earth, the United States, a series of societal and environmental sectors, and different regions of the country, including the American Southwest.[100] Owing to greenhouse gas emissions—mostly from burning fossil fuels for power—average temperatures and sea levels were rising, oceans were becoming more acidic, precipitation patterns were changing, and extreme weather events were becoming more common.[101] As of 2009, warming in the region around the Skyline Mine was "among the most rapid in the nation," significantly outpacing the global average in some places.[102] The heat was diminishing spring snowpack and flows in the Colorado River.[103] It was intensifying the region's most severe drought of record in

[97] *See* FS5834; FS5820 (citing a link to this report); 15 U.S.C. § 2936 (mandating a report at least every four years analyzing "the effects of global change on the natural environment" and projecting "major trends for the subsequent 25 to 100 years.").

[98] FS5838; FS5842.

[99] FS5844.

[100] *See* FS5847–5987.

[101] *See* FS5848–61.

[102] FS5964.

[103] *Id.*

the last century.[104] It was driving record wildfires.[105] More flooding was expected.[106] Agriculture would likely falter.[107] Invasive species were likely to displace many native ones.[108] "Future landscape impacts" in the American Southwest, wrote the experts, "are likely to be substantial, threatening biodiversity, protected areas, and ranching and agricultural lands."[109]

These significant effects on the environment—direct, indirect, and cumulative alike—had not been "already considered" in the 2002 EIS beyond the observation that greenhouse gases "tend to warm the Earth."[110] And the agencies' decisions not to supplement the EIS to account for new information about these effects ran afoul of their obligation to make "a reasonable, good faith, objective presentation" about the relationship between the Flat Canyon lease and climate change.[111] Absent that presentation, the agencies unlawfully left unfulfilled "NEPA's goals of informed decisionmaking and informed public comment."[112] A bevy of cases illustrates the point.

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[104] FS5965.

[105] FS5966.

[106] FS5967.

[107] FS5969.

[108] FS5967.

[109] FS5966. Highlighting other post-2002 information about climate change that the agencies did not consider (aside from legal developments and documents) presents a Catch-22, for what the agencies did not consider is not in the administrative record because they did not consider it. But some sense of the volume of that information can be gleaned from the Climate Assessment's bibliography, which has more than 400 references dated after 2002. *See* FS6000–6022.

[110] BLM122; *Marsh*, 490 U.S. at 374.

[111] *Colo. Envtl. Coal. v. Dombeck*, 185 F.3d 1162, 1172 (10th Cir. 1999) (internal quotation omitted).

[112] *New Mexico v. Bureau of Land Mgmt.*, 565 F.3d 683, 704 (10th Cir. 2009).

By the mid- to late-2000s, courts had begun to overturn NEPA documents that did not evaluate greenhouse gas emissions and climate change when analyzing activities that would promote fossil-fuel combustion.[113] As the Ninth Circuit explained in 2008, "[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct."[114] The very concept of "cumulative impacts," the court reasoned, was to ensure that the government considered the incremental addition that its approval would make to a disparately fueled environmental harm, like climate change.[115] And simply quantifying the volume of carbon dioxide that a project would release did not constitute a "hard look" at climate change without a related discussion of "the *actual* environmental effects resulting from those emissions…."[116]

From then on (if not before), BLM and the Forest Service's analysis of fossil-fuel-extraction proposals routinely included, at a bare minimum, a quantification of greenhouse gas emissions attributable to a proposal, alongside a comparison of that figure to other emissions sources and a description of the related effects that climate change would have on the

[113] *See, e.g.*, *Border Power Plant Working Grp. v. Dep't of Energy*, 260 F. Supp. 2d 997, 1028–29 (S.D. Cal. 2003) (holding that NEPA required analysis of carbon dioxide emissions resulting from new power lines to service new power plants); *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 548–50 (8th Cir. 2003) (same for carbon dioxide emissions resulting from a proposed rail line for shipping coal); *Ctr. for Biological Diversity*, 538 F.3d at 1215–17 (holding that cumulative-impacts analysis for new fuel-efficiency standards was inadequate when it did not "discuss the *actual* environmental effects resulting from [greenhouse gas] emissions or place those emissions in context of other [fuel-efficiency] rulemakings").

[114] 538 F.3d at 1217.

[115] *Id.*

[116] *Id.* at 1216.

environment.[117] Some courts have since deemed this quantify-plus-contextualize, or "proxy,"

[117] *See WildEarth Guardians v. Jewell*, 738 F.3d 298, 308–09 (D.C. Cir. 2013) (reviewing NEPA analysis for a coal-leasing decision in which BLM discussed "at length the prevailing scientific consensus on global climate change and coal mining's contribution to it," including an evaluation of the "relationship of the proposed leasing action to coal supply and possible impacts from historic global warming, including sea level changes, differential temperature change, and changes to vegetation and habitat," *Powder River Basin Res. Council*, 180 IBLA 119, 123 (2010) (discussing the same EIS)); *WildEarth Guardians v. Bureau of Land Mgmt.*, 8 F. Supp. 3d 17, 34–36 (D.D.C. 2014) (reviewing NEPA analysis that quantified greenhouse gas emissions caused by a coal lease and "discussed studies that recognized global warming and potential impacts of climate change in the Western United States"); *High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1189–90 (D. Colo. 2014) (reviewing NEPA analysis that quantified greenhouse gas emissions caused by a coal lease and set out a "general discussion of the effects of global climate change"); *Mont. Envtl. Info. Ctr.*, 274 F. Supp. 3d at 1094–95, 1099 (reviewing a NEPA analysis prepared in 2015 for a coal-mine expansion that had quantified greenhouse gas emissions and discussed "climate change at length in its Cumulative Impact analysis"); *WildEarth Guardians v. U.S. Forest Serv.*, 120 F. Supp. 3d 1237, 1269–73 (D. Wyo. 2015) (reviewing coal-leasing EIS in which lease-induced greenhouse gas emissions were quantified and "[c]limate change impacts [were] discussed extensively") *rev'd by* 870 F.3d 1222; *WildEarth Guardians v. Jewell*, 2017 WL 3442922, *12 (D.N.M. Feb. 16, 2017) (reviewing NEPA analysis that calculated total carbon dioxide emissions and "extensively discuss[]ed" climate change); *San Juan Citizens Alliance v. U.S. Bureau of Land Mgmt.*, 326 F. Supp. 3d 1227, 1240–44 (D.N.M. 2018) (reviewing NEPA analysis that had quantified some, but not all, greenhouse gas emissions and described "potential impacts of climate change which could occur in the southwest"); *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 70–71, 77 (D.D.C. 2019) ("These quantitative analyses, combined with a robust qualitative discussion of local, regional, and national climate change, would satisfy NEPA's hard look requirement."); *Citizens for a Healthy Cmty. v. U.S. Bureau of Land Mgmt.*, 377 F. Supp. 3d 1223, 1237, 1239–40 (D. Colo. 2019) (reversing NEPA analysis for oil-and-gas leasing that qualitatively discussed climate change using reports like the National Climate Assessment but did not quantify combustion-related greenhouse gas emissions); *WildEarth Guardians v. U.S. Bureau of Land Mgmt.*, 457 F. Supp. 3d 880, 891–95 (D. Mont. 2020) (holding that quantifying new greenhouse gas emissions from oil and gas leases was inadequate without taking "the next step and show[ing] how these lease sales cumulatively affect the environment"); *Rocky Mountain Wild v. Bernhardt*, --- F. Supp. 3d ----, 2020 WL 7264914, *4–7 (D. Utah Dec. 10, 2020) (affirming analysis that quantified greenhouse gas emissions attributable to oil and gas leasing and described adverse effects of climate change); *WildEarth Guardians v. Bernhardt*, --- F. Supp. 3d ---, 2020 WL 6799068, *9–10 (D.N.M. Nov. 19, 2020) (reviewing NEPA analysis that quantified greenhouse gases and incorporated reports discussing effects of climate change); *WildEarth Guardians*, 2021 WL 363955 at *8–10 (remanding NEPA analysis for additional evaluation of the climate-change costs of a coal-mine plan); *Utah Physicians for a Healthy Env't*, 2021 WL 1140247, *3–6 (D. Utah Mar. 24, 2021) (remanding EIS that quantified greenhouse gas emissions attributable to

approach to be adequate under NEPA;[118] others have held that NEPA demands more.[119] But the noteworthy feature of these cases here is that they all belie the assertion made in the SIR and DNA—in the same general time period—that uncertainty prevented a discussion of the effects of climate change beyond the barebones statement that greenhouse gases "tend to warm the Earth."[120]

This point is made especially clear by an EIS that BLM began drafting sometime before 2011 and completed in 2018 to allow for the expansion of another Utah coal mine, called the Alton mine.[121] That EIS addressed greenhouse gas emissions, first, by "quantif[ying] the amount of [greenhouse gases] that will be released from the direct and indirect effects of the proposal and … contextualiz[ing] the emissions globally," and second, by "qualitatively describ[ing] the effects of [greenhouse gases] on the environment."[122] This description disclosed precisely the sort of significant environmental effects—like "more frequent heat waves, droughts, and fires;

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expanding a Utah coal mine and described climate change qualitatively but did not "paint a clear picture" of the mine expansion's economic benefits and environmental costs).

[118] *See, e.g.*, *WildEarth Guardians*, 8 F. Supp. 3d at 34–36; *WildEarth Guardians*, 738 F.3d at 308–11; *WildEarth Guardians*, 2017 WL 3442922 at *11–12; *Rocky Mountain Wild*, --- F. Supp. 3d ----, 2020 WL 7264914 at *4–7; *WildEarth Guardians*, 2020 WL 6799068, *9–10.

[119] *See, e.g.*, *Utah Physicians*, 2021 WL 1140247 at *3–9; *High Country*, 52 F. Supp. 3d at 1189–93; *Mont. Envtl. Info. Ctr.*, 274 F. Supp. 3d at 1094–99; *cf. Citizens for a Healthy Cmty.*, 377 F. Supp. 3d at 1236–37 (requiring quantification of indirect emissions from fossil-fuel leasing); *San Juan Citizens Alliance*, 326 F. Supp. 3d at 1240–44, 47–50 (same and declaring cumulative-impacts analysis deficient); *WildEarth Guardians*, 368 F. Supp. 3d at 67–71 (reversing NEPA analyses that did not quantify emissions or sufficiently describe the effects of climate change).

[120] *See* FS5820–21 (asserting that the 2002 EIS "addressed the impact on climate change of burning fossil fuels such as coal from the Flat Canyon lease….").

[121] *See Utah Physicians*, 2021 WL 1140247 at *2 (explaining that draft EIS was published in 2011 and the final EIS in 2018).

[122] *Id.* at *3.

rising sea levels and coastal flooding, melting glaciers, ice caps, and polar ice sheets; more severe hurricane activity and increases in frequency and intensity of severe precipitation; spread of infectious diseases to new regions; loss of wildlife habitats; and heart and respiratory ailments"—that the agencies claimed in the 2013 SIR and 2015 DNA could not be analyzed and that had been described by 2009 in the Second National Climate Assessment.[123]

The Alton case leaves no question that scientific uncertainty did not justify the agencies' decision not to supplement the 2002 EIS to include, at a bare-minimum, a quantify-plus-contextualize analysis of climate change, and to seek public comment on that analysis. That decision lacked any reasoned foundation, let alone one supported by the administrative record, and was consequently arbitrary and capricious under the APA.[124]

2. The agencies' assertion that no protocol existed to predict how a "single emitter" may affect climate change was incorrect.

The claims in the SIR and DNA about scientific uncertainty were paired with a related assertion that "[s]tandardized protocols" or "accepted analytical methods" did not exist to predict the effects that a "single emitter" of greenhouse gases would have on climate change.[125] That assertion was inaccurate, for a protocol called the social cost of carbon had been developed after the 2002 EIS that enabled the government to quantify in monetary terms the climate-change costs attributable to the Flat Canyon lease.

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[123] *Id.* at *4.

[124] *See Olenhouse*, 42 F.3d at 1575 ("In addition to requiring a reasoned basis for agency action, the 'arbitrary or capricious' standard requires an agency's action to be supported by the facts in the record.").

[125] FS5820, BLM869.

The social-cost-of-carbon protocol was crafted by a federal interagency working group to standardize government efforts to assign dollar costs to carbon-dioxide emissions when undertaking regulatory-impact analyses.[126] In 2010, years before the Forest Service and BLM drafted the SIR and DNA, the working group released its first technical support document recommending a standard set of methods and figures to use for that task.[127] That technical document estimated a range of time-adjusted values of the cost society will pay for each ton of carbon dioxide emitted, running from about $5 per ton to $65 per ton in 2007 dollars.[128] To provide a sense of these figures' significance, the back-of-the-napkin calculation for the coal mined from the Flat Canyon lease would range from roughly $505 million to $6.5 billion.[129]

Rather than acknowledge and consider using this protocol, the Forest Service and BLM made a blanket, and facially incorrect, assertion in the SIR and DNA that no standard protocol or

[126] *See generally* Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. 25,324, 25,380, 25,522–23 (May 7, 2010) (describing the history of the protocol and explaining that it was developed to answer "how best to quantify the benefits from reducing carbon dioxide emissions" to "ensure consistency … across agencies," specifically in the rulemaking process); *see also High Country*, 52 F. Supp. 3d at 1190 (describing protocol).

[127] *High Country*, 52 F. Supp. 3d at 1190 (observing that technical support document was issued in February 2010); *see also* 75 Fed. Reg. at 25,522 (explaining that working group established in 2009).

[128] 75 Fed. Reg. at 25,522.

[129] This range was calculated by multiplying BLM's estimate of the total volume of lease-induced greenhouse gas emissions (101,012,520 tons), *see* BLM2551, by $5, to derive the low end, and $65 to derive the high end.

method existed.[130] For the reasons set out in a squarely-on-point case issued a year before the Flat Canyon lease, *High Country Conservation Advocates*, this was arbitrary and capricious.[131]

High Country dealt with an EIS that presented dollar estimates of a coal-mine expansion's economic benefits, which the Forest Service and BLM then pointed to in approving the expansion.[132] Though the agencies had used the social-cost-of-carbon protocol in a draft of their EIS to also estimate climate-change costs, they replaced that analysis in the final EIS with a claim that analyzing those costs was impossible.[133] This disparity in the treatment of costs and benefits, the court found—in a conclusion several courts have now echoed—was unlawful.[134]

That flaw is also present here. The 2002 EIS reckoned that denying the lease would forgo recovery of coal valued at $612 million and a return of $49 million in royalties "to the Federal Treasury," half of which would go to the State of Utah and local counties.[135] BLM's record of decision adjusted these figures upward and added $82 million more for "[m]an years of employment."[136] In choosing to issue the lease, the Forest Service asserted that it had struck the

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[130] FS5820, BLM869.

[131] 52 F. Supp. 3d at 1189–93; *see also* BLM2546 (alerting the agencies to this decision before they issued the Flat Canyon lease).

[132] 52 F. Supp. 3d at 1190–93.

[133] *Id.* at 1190–91.

[134] *Id.* at 1191–93; *see also Utah Physicians*, 2021 WL 1140247 at *5–6; *WildEarth Guardians*, 2021 WL 363955 at *8–10; *Mont. Envtl. Info. Ctr.*, 274 F. Supp. 3d at 1094–99; *cf. Ctr. for Biological Diversity*, 538 F.3d at 1202 (deeming arbitrary the government's decision not to monetize the benefit of reducing carbon dioxide emissions, in part, because it had "monetized other uncertain benefits").

[135] BLM275.

[136] BLM2530.

proper balance among "providing socioeconomic benefits" and other considerations.[137] Because of the "adverse socioeconomic effects," the Forest Service also rejected the alternative it deemed "environmentally preferable."[138] BLM concurred, though the agency couched its views in policy statements, like the idea that federal law was intended to "foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources."[139] And BLM relaxed one of the Forest Service's mining restrictions on the grounds that it would result in bypassing coal "that could provide economic benefits to the people of Utah."[140]

It was arbitrary and capricious for the agencies to rely on these economic benefits to approve the Flat Canyon lease while insisting incorrectly that—for lack of a "standard protocol"—the EIS could not be supplemented to account for the environmental costs of greenhouse gas emissions caused by the lease. Indeed, the Forest Service's claim here about the absence of "[s]tandardized protocols" is a cut-and-paste copy of the claim found legally deficient in *High Country*.[141] And in that case, as here, this "categorical explanation that such an analysis

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[137] BLM5.

[138] BLM24.

[139] BLM2531. *See also* BLM2532 ("BLM actively encourages and facilitates the development by private industry of public land mineral resources in a manner that satisfies national and local needs and provides for economically and environmentally sound exploration, extraction, and reclamation practices.").

[140] BLM2533.

[141] *Compare* 52 F. Supp. 3d at 1190 ("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.") *with* FS5821 (same).

[was] impossible,"[142] could not be "ascribed to a difference in view or the product of agency expertise."[143]

Judge Barlow's recent decision setting aside the EIS for the Alton coal mine is again on point. In that EIS, unlike the one at issue in *High Country*, BLM did not use the protocol in a draft of its EIS "only later to exclude it," and the agency gave reasons for declining to use the protocol.[144] Yet that was not enough to satisfy NEPA, for the EIS nonetheless did not "paint a clear picture for decisionmakers and the public" having included "multiple pages laying out the significant economic benefits in the 'Socioeconomics' subsection, but no discussion … at all about the socioeconomic costs from [greenhouse gases] and climate change."[145]

The agencies' error here is more basic and more grave, for the SIR and DNA denied that a protocol like the social cost of carbon even existed, and yet the 2002 EIS had "multiple pages laying out the significant economic benefits in the 'Socioeconomics' subsection."[146] Like the Alton EIS, reversal is warranted.[147]

3. The agencies' claim that as much or more coal would be burned if the lease were denied was unsupported and irrational.

The agencies relied on one additional argument for declining to supplement the 2002 EIS: that coal combustion would continue "at the current or increased rate regardless [of] where

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[142] *High Country*, 52 F. Supp. 3d at 1190.

[143] *Id.* at 1191 (internal quotation omitted).

[144] *Utah Physicians*, 2021 WL 1140247 at *4.

[145] *Id.* at *5–6.

[146] *Id.*; *see also* BLM274–78 (multiple pages in the "Socioeconomics" subsection of the EIS that do not mention climate change).

[147] *See Utah Physicians*, 2021 WL 1140247 at *6.

the coal comes from."[148] If the lease were denied, the agencies claimed, "[l]ocal coal fired power plants" would "import[]" coal "from other areas with potentially greater effects due to burning of lower quality coals."[149] What this statement appears to assert is that denying the lease would either have no effect on climate change or make it worse because, without the lease, coal-fueled emissions of greenhouse gases would either stay the same or rise. This claim was unsupported by the record, defied basic economic principles, and ran counter to another new, and fundamental part of the record: BLM's 2015 fair-market-value analysis for the lease.

The absence of support in the record for the agencies' coal-substitution claim is alone enough to warrant reversal. This claim first surfaced in the 2002 EIS without any supporting analysis.[150] The SIR repeated it, also without analysis. Nothing in the administrative record supplied the missing analysis. In short, the claim was pure *ipse dixit*. And it was counterintuitive to boot, underscoring the importance of supplying some explanation and analysis. As the Tenth Circuit recently observed in a directly on-point decision, the "perfect substitution" idea that the agencies embraced here ran "contrary to basic supply and demand principles."[151] It is a "long logical leap" to assume, as the agencies apparently did here, that withholding a large quantity of coal from Utah's coal market would not drive up the cost of coal.[152] And "what one might intuitively assume," the court explained, is that "[a] force that drives up the cost of coal could …

[148] FS5821 (quoting BLM122); BLM856–57 (relying on the SIR's conclusions about climate change).

[149] *Id.* at 5821.

[150] BLM122.

[151] *WildEarth Guardians*, 870 F.3d at 1236.

[152] *Id.* at 1229.

drive down coal consumption."[153] Taking these two principles together, the intuitive line of reasoning was that denying the Flat Canyon lease would in some measure decrease coal supplies, increase coal costs, and thus decrease coal consumption. The Forest Service and BLM gave no reason for their contrary assumption, and that alone is "enough … to conclude that the analysis which rests on this assumption is arbitrary and capricious."[154]

What is in the administrative record, moreover, runs counter to the agencies' assumption, reinforcing the case for reversal. BLM's fair-market-value analysis, completed in early 2015, shows that BLM did not think Utah's coal market was exempt from the basic principles of supply and demand described above. Although the FMV analysis did not examine how withholding Flat Canyon coal from the market would affect the price of coal and demand for it, [redacted] The unstated corollary is that declining supplies of coal ordinarily would be expected to lead to an increase in price and, over time, a decrease in demand for coal. Or, in the words of the Tenth Circuit, the natural assumption is that "when coal carries a higher price, for whatever reason that may be, the nation burns less coal in favor of other sources."[157] The FMV analysis confirmed that idea by

[153] *Id.* at 1235.

[154] *Id.* at 1235.

[155] [redacted]

[156] [redacted]

[157] *WildEarth Guardians*, 870 F.3d at 1235.

recognizing that lower natural gas prices had contributed to declining domestic coal production, implicitly acknowledging that coal's pricing vis-à-vis natural gas affected the degree to which utilities were switching to natural gas as a fuel source.[158]

Exactly how denying the Flat Canyon lease would affect the rate of coal consumption is a question not answered by the FMV analysis, let alone the agencies' NEPA analysis. [redacted] And again, it stands to reason, that a shortfall in supply would lead to a decline in consumption.[162] Yet the agencies' coal-substitution

[158] BLM3215 (attributing declining coal production, in part, to "lower natural gas prices"); BLM3262 (acknowledging "significantly lower domestic demand due to gas switching and plant closures….").

[159] *See* [redacted]

[160] [redacted]

[161] [redacted]

[162] *See WildEarth Guardians*, 870 F.3d at 1235. [redacted] *See, e.g.*, 80 Fed. Reg. 10,683 (Feb. 27, 2015) (announcing availability of supplemental EIS for the Greens Hollow lease on federal public lands); 85 Fed. Reg. 57,881 (Sep. 16, 2020) (announcing availability of environmental assessment for public-lands lease to expand Lila Canyon mine).

assumption claimed the opposite: that denying the Flat Canyon lease would lead coal consumption to continue "at the current or *increased* rate."[163]

This assumption, was "irrational (i.e., contrary to basic supply and demand principles)."[164] And it reflected a line of reasoning—that "the demand for coal will be unaffected by an increase in availability and a decrease in price"—that the Eighth Circuit has called "illogical at best," a sentiment echoed by several federal district courts.[165] The coal-substitution assumption did not supply a reasoned basis for declining to supplement the 2002 EIS.

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The Forest Service and BLM did not take a "hard look" at the new information about climate change that confronted them—like the research and analysis presented in the Second National Climate Assessment—and instead gave reasons for not supplementing the EIS that were irrational, that ran contrary to the record, and that entirely overlooked an important aspect of the problem—the social-cost-of-carbon protocol.[166] Their decisions not to supplement the EIS consequently ran afoul of NEPA and the APA.[167]

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[163] FS5821 (emphasis added).

[164] *WildEarth Guardians*, 870 F.3d at 1236.

[165] *Mid States Coal. for Progress*, 345 F.3d at 549; *Mont. Envtl. Info. Ctr.*, 274 F. Supp. 3d at 1098 (finding it "illogical" to conclude that greenhouse gas emissions from a coal-lease expansion would have no effect "because other coal would be burned in its stead"); *High Country*, 52 F. Supp. 3d at 1197 (responding to government's perfect-substitution claim by observing that "I cannot make sense of this argument."); *WildEarth Guardians*, 2021 WL 363955 at *8–10 (rejecting perfect-substitution argument).

[166] *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43.

[167] *Marsh*, 490 U.S. at 376; 5 U.S.C. § 706(2).

D. The agencies gave arbitrary reasons for not supplementing the statements in the 2002 EIS about air quality.

The Forest Service and BLM also did not take a "hard look" at new information about air quality and did not make a "reasoned decision" to forgo supplementing the 2002 EIS to analyze the air pollution the lease would cause.

The 2002 EIS treated the subject of air quality much like climate change. Three sentences asserted that air pollution caused by the mine was an issue that need not be "carried through the analysis":

> Emissions at the Skyline Mine facilities currently meet air quality standards and the Permit-to-Construct issued by the Utah Department of Air Quality. The proposed action would not lead to additional emissions but would extend the life of operations. It is not expected that operations would lead to any violations of the Clean Air Act.[168]

The SIR and DNA, again, reaffirmed the agencies' view that these statements remained valid and need not be supplemented.[169] The SIR acknowledged that there was new information about air quality around the Skyline Mine.[170] But in unison with BLM, the Forest Service declined to supplement the EIS, reasoning that the area was in compliance with new air-quality standards then in effect and that mining the lease would entail "no new surface activities" and would not change the rate at which the Skyline Mine generated dust and other pollutants.[171] "[N]ew concerns over air quality," the agencies concluded, "fall within the scope and range of effects considered in the original FEIS [and] additional analysis in a supplemental EIS is

[168] BLM123, BLM120.

[169] FS5819–20; BLM857, BLM868.

[170] FS5819.

[171] FS5819–20; BLM868.

unnecessary."[172]

This conclusion was arbitrary and capricious, for it did not to take a "hard look" at the environmental and health effects that motivated the new air-quality standards for the major, "criteria" pollutants mentioned in the SIR and DNA, and it did not provide a "reasoned evaluation" to support the decision not to supplement the 2002 EIS. The agencies' reasoning was flawed in three ways.

First, even if BLM and the Forest Service were correct that issuing the lease would not change the rate at which the mine pollutes the air,[173] the lease would nonetheless prolong that air pollution by roughly a decade. The SIR explicitly acknowledged this outcome, yet the agencies declined to supplement the EIS to describe the pollutants that would be released, where they would be released, in what quantities, and the effects they would have on human health and the environment.[174] And a great deal of new information about this air pollution was available by 2015 to complete a supplemental analysis.

Rulemaking documents published between 2006 and 2013 to strengthen the national air-quality standards for four major pollutants—sulfur dioxide, nitrogen dioxide, particulate matter,

[172] FS5820; BLM856–57 (after describing the Forest Service's conclusions about air quality, stating that BLM "also concludes that new information and circumstances have not substantially changed, and the analysis is adequate").

[173] FS5821 (asserting that the amount of dust from mining "will not change if this decision is implemented"); BLM868 ("Continued use of motorized vehicles could potentially continue [nitrogen oxides], [particulate matter], and [carbon monoxide] emissions.").

[174] FS5820 (quoting BLM123 ("The proposed action would not lead to additional emissions but would extend the life of operations.")).

and ozone, all of which result from coal mining and combustion[175]—described a wealth of new research about those pollutants' human-health and environmental effects.[176] For example, in setting the new ground-level ozone standards that the Forest Service mentioned in its SIR, the Environmental Protection Agency described in 2008 a vast body of new research that led it to lower its health-based standards to protect against "decreased lung function, respiratory symptoms, serious indicators of respiratory morbidity[,] nonaccidental mortality, … pulmonary inflammation, increased medication use, emergency department visits, and possibly cardiovascular-related morbidity effects."[177] Similar ozone-fueled impairments to the environment, and public lands in particular—like biomass loss and reduced ability to withstand freezing temperatures, pest infestations, and disease—led EPA to simultaneously strengthen a public-welfare based standard.[178] And new research motivated EPA to reach similar conclusions when tightening up the standards for sulfur dioxide, nitrogen dioxide, and particulate matter.[179]

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[175] *See* FS9845, 9849–51 (observing that coal and other fossil fuels emit nitrogen dioxide, particulate matter, and sulfur dioxide when burned, and that nitrogen dioxide reacts in the air to form ozone); BLM868 (acknowledging that mining leads to emissions of nitrogen oxides (i.e. "NOx") and particulate matter (i.e. "PM")).

[176] National Ambient Air Quality Standards for Particulate Matter, 71 Fed. Reg. 61,144 (Oct. 17, 2006); National Ambient Air Quality Standards for Ozone, 73 Fed. Reg. 16,436 (Mar. 27, 2008); Primary National Ambient Air Quality Standards for Nitrogen Dioxide, 75 Fed. Reg. 6,474 (Feb. 9, 2010); Primary National Ambient Air Quality Standard for Sulfur Dioxide, 75 Fed. Reg. 35,520 (June 22, 2010); National Ambient Air Quality Standards for Particulate Matter, 78 Fed. Reg. 3,086 (Jan. 15, 2013).

[177] 73 Fed. Reg. at 16,476.

[178] *Id.* at 16,496.

[179] 71 Fed. Reg. at 61,150–52, 61,171–72 (describing in 2006 the "unprecedented amount of new research" and "important new information" about the adverse effects of particulate matter, such as "premature mortality" and "aggravation of respiratory and cardiovascular disease," which led EPA to strengthen its standards); 75 Fed. Reg. at 6,478–83, 6,498–502 (similar for nitrogen

The subject of how the Flat Canyon lease would contribute to these health and environmental effects by prolonging the operation of the Skyline Mine was not "already considered" in the 2002 EIS. And the agencies' decision not to supplement the EIS to evaluate those effects was legally infirm. The Ninth Circuit's decision in *South Fork Band Council of Western Shoshone of Nevada* is directly on point.[180] In that case, BLM had asserted in a NEPA analysis for a gold-mine expansion that analyzing air pollution from transporting and processing ore was unnecessary because ore shipments would continue at their current rate, and the processing facility had an air-quality permit.[181] The Ninth Circuit disagreed, reasoning that the mine expansion would prolong this air pollution even if the pollution rate did not change.[182] The same outcome is warranted here.

Second, the SIR and DNA entirely overlooked the air pollution that would result from transporting and burning coal mined from the lease. This pollution is an "indirect effect" of leasing coal: it would be "caused by the action" and be "later in time or farther removed in

dioxide); 75 Fed. Reg. at 35,524–29, 35,541–48 (similar for sulfur dioxide); 78 Fed. Reg. at 3,097–98, 3,103–104, 3,157–64 (similar when lowering particulate matter standards again).

[180] *See S. Fork Band Council of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 588 F.3d 718, 725–26 (9th Cir. 2009).

[181] *Id.* at 722, 725.

[182] *Id.* at 725–26; *see also Diné Citizens Against Ruining Our Env't v. U.S. Office of Surface Mining, Reclamation, and Enf't*, 82 F. Supp. 3d 1201, 1214–15 (D. Colo. 2015) (rejecting similar argument in a coal-mine expansion case), *vacated as moot by* 643 Fed. Appx. 799 (10th Cir. 2016)*; cf. WildEarth Guardians v. Bernhardt*, --- F. Supp. 3d. ---, 2020 WL 6701317, *10 (D.D.C. Nov. 13, 2020) ("If a proposed action generates only slight changes in yearly emission rates, but will produce emissions for hundreds of years, disclosing the yearly rate by itself does not paint the whole picture.").

distance," but still be "reasonably foreseeable."[183] Indeed, the 2002 EIS acknowledged that "[i]t is reasonably foreseeable that the coal would be burned to produce electricity at power plants in Utah and western Nevada."[184] It also treated greenhouse gas emissions from coal combustion as an effect of leasing (while declining to scrutinize those emissions).[185] Yet the SIR and DNA did not acknowledge that other air pollutants too would be emitted by burning leased coal.[186] And, at a minimum, the new research supporting the post-EIS air-quality standards supplied information to describe the significant health and environmental effects of those pollutants. It was an error for the agencies to conclude that it was unnecessary to supplement the EIS to analyze those significant effects.

Third, even if the SIR and DNA were correct that air pollution attributable to the Flat Canyon lease would not lead to a violation of air-quality or -permit standards,[187] it does not follow that this pollution would have an insignificant effect on the environment and human health. The new research supporting the post-2002 air-quality standards reveals that the air

[183] 40 C.F.R. § 1508.8(b) (2015). *See WildEarth Guardians*, 2021 WL 363955 at *5–8 (holding that air pollution resulting from coal transportation and combustion were an indirect effect of government's decision about a coal-mine plan); *Mont. Envtl. Info. Ctr.*, 274 F. Supp. 3d at 1090–94 (same); *Diné Citizens*, 82 F. Supp. 3d at 1215 (concluding that air pollutants emitted from burning coal were an indirect effect of government's decision to allow for a coal-mine expansion) *vacated as moot by* 643 Fed. Appx. 799 (10th Cir. 2016).

[184] BLM122.

[185] BLM121–22 (recognizing that burning coal "will result in release of greenhouse gases").

[186] FS5819–20; BLM868.

[187] FS5819 ("none of the counties … surrounding the Flat Canyon project area … were identified by EPA as nonattainment for any of the criteria pollutants," referring to air-quality standards in effect at the end of 2012); BLM868 ("The area is designated as an attainment area for all [national ambient air quality standards].").

pollutants at issue can have harmful effects at levels below even the strengthened standards.[188] And indeed, those standards are not intended to eliminate all risks posed by the major air pollutants they govern, but instead reflect a policy judgment about how to regulate the risks.[189] The question before BLM and the Forest Service was thus how the mine-expansion would degrade air quality, not simply whether air quality would remain in compliance with the maximum level of lawful air pollution. Indeed, CEQ's NEPA regulations defining the concept of "significance" recognize that adverse health effects and violations of other environmental laws, like those governing air quality, are not equivalent.[190] Both are subject to analysis.[191] Declining to supplement the EIS based solely on the "in compliance" rationale was arbitrary.[192]

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When the agencies declined to supplement the EIS to analyze the air pollution the Flat Canyon lease would cause, they did not take a hard look at the new information available to them

[188] *See, e.g.*, 73 Fed. Reg. at 16,476 (acknowledging evidence, albeit limited evidence, of health effects in "healthy individuals" at a level below the standard selected (0.060 ppm vs 0.075 ppm); *id.* at 16,500 (recognizing that "the potential for under-protection [of vegetation] is clear" under the strengthened public-welfare standard); 71 Fed. Reg. at 61,169 (similar for particulate matter); 75 Fed. Reg. at 35,542 (similar for sulfur dioxide, down to a level of 50 ppb).

[189] *See* 75 Fed. Reg. at 35,546 ("[T]he Administrator [of the Environmental Protection Agency] notes that there is no bright line clearly mandating the choice of level within the reasonable range proposed. Rather, the choice of what is appropriate within this reasonable range is a public health policy judgment entrusted to the Administrator."); 71 Fed. Reg. at 61,171 (similar); 73 Fed. Reg. at 16,482–83 (similar); 75 Fed. Reg. at 6,500 (similar); 78 Fed. Reg. at 3,129 (similar).

[190] *Compare* 40 C.F.R. § 1508.27(b)(2) (2015) *with* § 1508.27(b)(10) (2015).

[191] *Id.*

[192] *See WildEarth Guardians v. U.S. Office of Surface Mining, Reclamation & Enf't*, 104 F. Supp. 3d 1208, 1227 (D. Colo. 2015) ("One can imagine a situation, for example, where the particulate and ozone emissions from each coal mine in a geographic area complied with Clean Air Act standards but, collectively, they significantly impacted the environment.") *vacated as moot by* 652 Fed. Appx. 717.

about the effects of that pollution on human health and the environment, and they did not articulate a rational connection between the facts in the record and their conclusion.[193] That violated NEPA and was arbitrary and capricious under the APA.[194]

IV. BLM did not comply with its rules for rejecting lease applications that are contrary to the public interest.

The regulations that BLM adopted to carry out the Federal Coal Leasing Amendments Act of 1976 provide that BLM "shall … reject[], in total or in part" any application for a coal lease, "if the authorized officer determines that … leasing of the lands covered by the application, for environmental or other sufficient reasons, would be contrary to the public interest."[195] BLM violated this requirement here by failing to include a public-interest determination in the record. BLM never mentioned or cited to its application-rejection rule, 43 C.F.R. § 3425.1–8(a). There is no articulation of the factors, environmental or otherwise, that are relevant to resolving what is and is not in the public interest. There is no weighing of factors to determine whether to reject the lease application. Indeed, when the Plaintiffs asked BLM to complete the record with "[d]ocuments detailing [BLM's] public-interest regulatory finding under 43 C.F.R. § 3425.1–8(a)," BLM responded that it had "no responsive documents."[196]

The absence of a determination in the record contravenes a foundational requirement of

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[193] *See WildEarth Guardians*, 738 F.3d at 311–12 (holding that the government's analysis satisfied NEPA when it described the sources of ozone, the health effects of ozone, the relevant air-quality standards, past concentrations of pollutants that lead to ozone, and made forecasts about future emissions); *WildEarth Guardians*, 8 F. Supp. 3d at 32–33 (same).

[194] 5 U.S.C. § 706(2).

[195] 43 C.F.R. § 3425.1–8(a).

[196] *See* Ltr. from N. Levine to J. Most, 3 (Aug. 5, 2016) (attached as Exhibit 3); E-mail from J. Most, to A. Paul, 1 (attached as Exhibit 4) (referring to item 16 in the letter attached as Ex. 3).

the APA: that agencies articulate some rationale for a court to judge.[197] And this omission is significant. The agency's obligations under its application-rejection rule are neither ministerial nor trivial but the result of Congress's effort in 1976 to restructure BLM's problem-ridden coal-leasing program to safeguard the public interest.[198] By rule, BLM had no choice but to reject the application to expand the Skyline Mine if the lease was not in the public interest. The agency's decision to issue the lease without that determination was thus not in accordance with law.[199]

Given this departure from the APA's requirements, BLM may argue that the record somehow includes a public-interest determination (contrary to the position BLM took when Plaintiffs asked for that determination). But whatever shape BLM's lawyers may give to that determination, it necessarily would be arbitrary. This is so because any public-interest determination must resolve whether "environmental reasons" warrant rejecting a lease when weighed against whatever it is about coal mining BLM believes to be in the public interest.[200] And here, BLM did not tally the full environmental price of the Flat Canyon lease.

In simplest terms, because the agency's NEPA analysis did not take a hard look at the harms posed by climate change and air quality, the agency could not have properly weighed those harms in a public-interest determination. That alone is enough to conclude that the agency could not have made a determination that satisfies the APA.[201] But further still, by the time BLM

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[197] *WildEarth Guardians*, 870 F.3d at 1237.

[198] 30 U.S.C. § 201(a)(1).

[199] 5 U.S.C. § 706(2).

[200] 43 C.F.R. § 3425.1–8(a).

[201] *See Ctr. for Biological Diversity v. U.S. Dep't of Interior*, 623 F.3d 633, 647 (9th Cir. 2010) (holding that "[w]ithout an accurate picture of the environmental consequences" of exchanging public for private lands, BLM could not meet its statutory obligation to "determine if the 'public

issued the lease, the social-cost-of-carbon protocol provided a way for BLM to estimate in monetary terms the climate-change costs of mining the Flat Canyon lease, just as BLM had estimated the economic benefits. When BLM issued the lease, government experts had updated the protocol to assign a social cost to each ton of carbon dioxide emitted ranging from $12–$109 per ton.[202] At those rates, a ballpark calculation of the climate-change costs of the Flat Canyon lease would range from $1.2 billion to $11 billion.[203] Those figures stand in stark contrast to the assertion in BLM's record of decision that the mine expansion would have only "minor impacts" that can be mitigated.[204] Given that disparity, there is no possibility that BLM could have made a public-interest determination that did not rely on a serious understatement of how much the Flat Canyon lease would harm the environment. BLM consequently could not have made a determination that was not arbitrary and capricious.[205]

CONCLUSION

The agencies' decisions to not supplement the 2002 EIS were arbitrary. For that reason, and because BLM did not comply with its rules for rejecting lease applications, the agencies'

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interest' will be well served by making the exchange…."); *cf. Wyo. Outdoor Council v. U.S. Army Corps of Eng'rs*, 351 F. Supp. 2d 1232, 1255–57 (10th Cir. 2015) (holding that analytical shortcomings in NEPA analysis also rendered unlawful a federal agency's determination that an interrelated, substantive precondition for a permit was satisfied).

[202] *See, e.g.*, Energy Conservation Program for Consumer Products, 78 Fed. Reg. 79,419, 79,419 (Dec. 30, 2013) (summarizing estimates in a November 2013 update to protocol, listing range in 2015 of $12 to $109).

[203] This calculation is identical to that described in footnote 129 above but uses the protocol's updated range of $12–$109.

[204] BLM2532.

[205] *See Ctr. for Biological Diversity*, 623 F.3d at 647 (deeming arbitrary a lopsided and inaccurate portrayal of the benefits and environmental disadvantages of government's proposed action); *Olenhouse*, 42 F.3d at 1575.

consent to and issuance of the lease were not in accordance with law.[206] The Court should accordingly declare the consent and leasing decisions to have violated NEPA, the MLA, and the APA; set aside the Flat Canyon lease; and remand the matter to the Forest Service and BLM with instructions to prepare a supplemental EIS if the agencies propose again to issue the lease.[207]

Respectfully submitted this 9th day of June, 2021.

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[206] 5 U.S.C. § 706(2).

[207] *Id.* ("The reviewing court shall … hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.").

CERTIFICATE OF COMPLIANCE

This document complies with the type-volume limitation of Fed. R. App. P. 37(a)(7)(B) because, excluding parts of the document exempted by Fed. R. App. P. 32(f), this document contains 12,821 words.