

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

WILDEARTH GUARDIANS, and)
PHYSICIANS FOR SOCIAL RESPONSIBILITY,)

Plaintiffs,)

v.)

Case No. 1:16-cv-01724-RC
The Honorable Rudolph Contreras

DAVID BERNHARDT,)
WILLIAM PERRY PENDLEY, and)
U.S. BUREAU OF LAND MANAGEMENT)

Defendants,)

WESTERN ENERGY ALLIANCE,)
PETROLEUM ASSOCIATION OF WYOMING,)
AMERICAN PETROLEUM INSTITUTE,)
STATE OF WYOMING, and)
STATE OF UTAH,)

Defendant-Intervenors.)

**CONSOLIDATED REPLY IN SUPPORT OF PLAINTIFFS' MOTION FOR SUMMARY
JUDGMENT AFTER REMAND AND RESPONSE TO DEFENDANTS' CROSS-
MOTIONS FOR SUMMARY JUDGMENT**

TABLE OF CONTENTS

TABLE OF CONTENTS..... ii

TABLE OF AUTHORITIES iii

ABBREVIATIONS AND ACRONYMS vi

INTRODUCTION 1

ARGUMENT 1

I. BLM failed to take a hard look at the climate impacts from GHG emissions..... 1

 A. BLM arbitrarily failed to quantify total lifetime GHG emissions. 2

 B. BLM arbitrarily underestimated direct and indirect emission rates..... 8

 C. BLM’s failure to assess reasonably foreseeable future emissions from regional and national BLM actions was arbitrary..... 10

 D. BLM’s attempts to defend its inconsistent and irrational carbon budget analysis are unavailing..... 15

II. BLM failed to make a convincing case for its finding of no significant impact. 19

 A. BLM fails to resolve the contradiction between the Supplemental EA’s statement that significance of climate impacts is unknown, and the FONSI’s statement that such impacts are insignificant. 19

 B. BLM fails to resolve the contradiction between the Supplemental EA’s refrain of uncertainty and the FONSI’s finding of no uncertainty..... 20

 C. BLM cannot justify its failure to assess the significance of cumulative GHG emissions. 22

III. This Court should vacate BLM’s flawed supplemental EA and FONSI, vacate the challenged leases, and remand to BLM to prepare an EIS. 24

CONCLUSION..... 25

TABLE OF AUTHORITIES

Cases

Baltimore Gas & Elec. Co. v. NRDC,
462 U.S. 87 (1983)..... 4

Bauer v. DeVos,
325 F. Supp. 3d 74 (D.D.C. 2018)..... 19

Burlington Truck Lines v. United States,
371 U.S. 156 (1962)..... 15

Ctr. for Biological Diversity v. BLM,
937 F. Supp. 2d 1140 (N.D. Cal. 2013)..... 12

Ctr. for Biological Diversity v. NHTSA,
538 F.3d 1172 (9th Cir. 2008) 14

Diné Citizens Against Ruining Our Env’t v. Bernhardt,
923 F.3d 831 (10th Cir. 2019) 14

Diné Citizens Against Ruining Our Env’t v. Klein,
676 F. Supp. 2d 1198 (D. Colo. 2009)..... 7

Diné Citizens Against Ruining Our Env’t v. OSM,
82 F. Supp. 3d 1201 (D. Colo. 2015)..... 5

Envtl. Def. v. U.S. Army Corps of Eng’rs,
515 F. Supp. 2d 69 (D.D.C. 2007)..... 8

Gen. Chem. Corp. v. United States,
817 F.2d 844 (D.C. Cir. 1987)..... 3

Great Basin Res. Watch v. BLM,
844 F.3d 1095 (9th Cir. 2016) 15

Humane Soc’y v. Dep’t of Commerce,
432 F. Supp. 2d 4 (D.D.C. 2006)..... 19, 22

Lands Council v. Powell,
395 F.3d 1019 (9th Cir. 2005) 12

Monsanto Co. v. Geertson Seed Farms,
561 U.S. 139 (2010)..... 25

Motor Vehicle Mfrs. v. State Farm,
463 U.S. 29 (1983)..... passim

Native Ecosystems Council v. USFS,
418 F.3d 953 (9th Cir. 2005) 2, 7, 9

Native Fish Soc’y v. NMFS,
992 F. Supp. 2d 1095 (D. Or. 2014) 22

NRDC v. Callaway,
524 F.2d 79 (2d Cir. 1975) 20, 23

Or. Nat Desert Ass’n v. Rose,
921 F.3d 1185 (9th Cir. 2019) 15, 17

Or. Nat. Res. Council Fund v. Brong,
492 F.3d 1120 (9th Cir. 2007) 9, 10

Pub. Employees for Env’tl. Responsibility v. U.S. Fish & Wildlife Serv.,
177 F. Supp. 3d 146 (D.D.C. 2016) 12

Robertson v. Methow Valley Citizens Council,
490 U.S. 332 (1989)..... 1

Rosenblatt v. Fenty,
734 F. Supp. 2d 21 (D.D.C. 2010) 16, 19

S. Fork Band Council v. U.S. Dep’t of Interior,
588 F.3d 718 (9th Cir. 2009) 5

San Juan Citizens All. v. BLM,
326 F. Supp. 3d 1227 (D.N.M. 2018) 14

Sierra Club v. Mainella,
459 F. Supp. 2d 76 (D.D.C. 2006) 20

Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs,
No. CV 16-1534 (JEB), 2020 WL 1441923 (D.D.C. Mar. 25, 2020) 17, 22, 25

Sw. Elec. Power Co. v. EPA,
920 F.3d 999 (5th Cir. 2019) 13, 20

W. Watersheds Project v. Zinke,
No. 1:18-CV-00187-REB, 2020 WL 959242 (D. Idaho Feb. 27, 2020) 24

WildEarth Guardians v. BLM,
8 F. Supp. 3d 17 (D.D.C. 2014) 24

WildEarth Guardians v. BLM,
870 F.3d 1222 (10th Cir. 2017) 13

WildEarth Guardians v. BLM,
 No. CV-18-73-GF-BMM (D. Mont. May 1, 2020) 10, 24

WildEarth Guardians v. Jewell,
 738 F.3d 298 (D.C. Cir. 2013)..... 4, 24

Regulations and Administrative Materials

40 C.F.R. § 1500.1 2, 3, 8

40 C.F.R. § 1502.24 2, 3, 8, 13

40 C.F.R. § 1508.27 13, 23, 24

40 C.F.R. § 1508.7 1, 4, 11

40 C.F.R. §1508.8 1

Council on Environmental Quality, Final Guidance for Federal Departments and
 Agencies on Consideration of Greenhouse Gas Emissions and the Effects of
 Climate Change in National Environmental Policy Act Reviews, 81 Fed. Reg.
 51866 (Aug. 5, 2016)..... 13

Other Authorities

S. Rep. No. 91-296 (1969) 23

ABBREVIATIONS AND ACRONYMS

APD	Application for permit to drill
API	American Petroleum Institute
BLM	Bureau of Land Management
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DIY	Do-it-yourself
EA	Environmental assessment
EIA	Energy Information Administration
EIS	Environmental impact statement
FONSI	Finding of no significant impact
GHG	Greenhouse gas
GtC	Gigatons carbon
GtCO ₂	Gigatons carbon dioxide
mt	metric tons
MMT	Million metric tons
NEPA	National Environmental Policy Act
ppm	Parts per million
RFD	Reasonably foreseeable development
ROD	Record of decision
USGCRP	U.S. Global Change Research Program
USGS	U.S. Geological Survey
WEA	Western Energy Alliance

INTRODUCTION

Climate change is not just another environmental problem. It cannot be addressed through business-as-usual policies, or with a single magic bullet legislative or regulatory response. Nevertheless, given BLM's central role in facilitating fossil fuel development on federal public lands, the agency has an important role to play in transitioning America's energy system away from fossil fuels.

At issue before the Court is BLM's decision to affirm the agency's prior issuance of oil and gas leases covering approximately 463,000 acres of federal lands in Wyoming. BLM did so without taking a hard look at the climate impacts of new oil and gas development on such a massive scale, and without preparing an Environmental Impact Statement (EIS), as needed to fully inform the public and agency decision-makers regarding the significant environmental impacts of its leasing decisions. BLM argues that because of the global scale of climate change, the agency cannot alone solve this crisis, so the impacts of its actions must be insignificant. Wyo-Ph-2:77. But such cynicism is only a recipe for climate disaster. While BLM is not *solely* responsible for this global problem, studies show that the cumulative impacts of BLM's leasing program are significant. NEPA, in turn, requires BLM to take responsibility for its own actions by acknowledging the agency's critical role in facilitating fossil fuel production and associated greenhouse gas (GHG) emissions in Wyoming, throughout the West, and across the nation.

ARGUMENT

I. BLM failed to take a hard look at the climate impacts from GHG emissions.

NEPA requires agencies to take a "hard look" at the direct, indirect, and cumulative impacts of their actions. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989); 40 C.F.R. §§ 1508.7, 1508.8(b). BLM, however, continues to treat compliance with NEPA as a paperwork exercise, rather than as essential to fulfilling the purposes underlying the

country’s “basic national charter for the protection of the environment.” 40 C.F.R. § 1500.1(a). After this Court reversed BLM’s prior assessment and specifically directed the agency to give “serious consideration” to climate impacts and not to treat NEPA compliance as a “bureaucratic formality,” Memo. Op. at 59-60, ECF No. 99, BLM slapped together its Supplemental EA in just weeks, after allowing only six business days for public comment. *See* Notice of Compliance at 2, ECF No. 102. Given BLM’s rushed approach, it is no surprise that the agency’s analysis is riddled with errors that call into question the reliability of BLM’s analysis and show that the agency took anything but a “hard look” at the climate impacts of the challenged lease sales.¹

A. BLM arbitrarily failed to quantify total lifetime GHG emissions.

As BLM admitted, the environmental consequences of climate change are largely driven by total, cumulative GHG emissions, rather than annual emission rates. Wyo-Ph-2:77. The Intergovernmental Panel on Climate Change has explained that “[t]he magnitude of human-induced climate change depends less on the year-to-year emissions than it does on the net amount of carbon, or cumulative carbon, emitted into the atmosphere.” Wyo-Ph-2:6623; *see also* Wyo-Ph-2:6617. Thus, total, cumulative emissions—not annual emissions rates—is the critical factor that will determine whether humanity is able to limit global warming to internationally

¹ BLM and Intervenors acknowledge many of these errors, but claim that they amount only to individual “flyspecks.” BLM Resp. at 14 n.8, 15 n.10, 19 n.12, ECF No. 149 (failure to update Table 7.1.2 resulting in inaccurate emissions estimates; inconsistent per-acre emissions estimates in Table 10; and error in calculating regional average emissions); WEA Resp. at 11, ECF No. 150-1 (mischaracterization of per-state average as per-region average); API Resp. at 25 n.1, ECF No. 152-1 (mischaracterization of total indirect emissions as percentage of oil and gas emissions, as opposed to total fossil fuel emissions). To the contrary, the aggregate of conflicting, erroneous, and confusing information BLM relied on failed to accurately inform the public regarding the severity of environmental impacts from the challenged lease sales, and undermines the agency’s fundamental conclusion that new oil and gas development would not result in significant GHG emissions or climate impacts. *See Native Ecosystems Council v. USFS*, 418 F.3d 953, 965 (9th Cir. 2005) (misleading and erroneous analysis violates NEPA); 40 C.F.R. §§ 1500.1(b), §1502.24.

accepted thresholds of 1.5° or 2° C. Wyo-Ph-2:7845. Accordingly, an accurate assessment of the climate impacts of a particular agency action, such as BLM’s leasing decisions challenged here, requires consideration of the action’s cumulative total, or lifetime, emissions. 40 C.F.R. §§ 1500.1(b), 1502.24 (requiring “[a]ccurate scientific analysis”).

In its Supplemental EA, BLM acknowledged the importance of lifetime emissions by estimating lifetime indirect emissions from the challenged leases. Wyo-Ph-2:0059. But the agency failed to estimate lifetime direct emissions, lifetime gross emissions (direct + indirect), and lifetime cumulative emissions.² BLM argues that the Court did not specifically require assessment of lifetime emissions and “left it to the agency’s discretion how to express its projections in the aggregate.” BLM Resp. at 10, ECF No. 149. But BLM ignores the crux of Guardians’ argument—that the nature of climate change renders information regarding annual GHG emission rates significantly less useful than projections of total lifetime emissions. NEPA analyses must be based on “[a]ccurate scientific analysis,” 40 C.F.R. § 1500.1(b), and agencies must ensure “scientific integrity” in their assessment, *id.* § 1502.24. Given BLM’s recognition that total, cumulative emissions—not annual GHG emission rates—are the primary driver of climate change, it was inconsistent and therefore arbitrary for BLM to fail to provide estimates for total lifetime direct, gross, and cumulative emissions. *See Gen. Chem. Corp. v. United States*, 817 F.2d 844, 857 (D.C. Cir. 1987) (holding conclusions based on “internally inconsistent” analysis are arbitrary and capricious).

² BLM’s claim that WildEarth Guardians and Physicians for Social Responsibility (collectively, Guardians) failed to raise the issue of BLM’s failure to quantify total lifetime cumulative emissions is false. In Section III.A “BLM’s Cumulative Impacts Analysis Improperly Downplays the Significance of the Proposed Action,” Guardians’ Supplemental EA comment letter specifically objected that “BLM fails to account for actual emissions over the total lifespan of the proposed action.” Wyo-Ph-2:12950, 12951.

Intervenor Wyoming notes that BLM calculated lifetime *indirect* emissions over a 40-year average well lifetime, and emphasizes that indirect emissions significantly exceed direct emissions. Wyo. Resp. at 20-21, ECF No. 147-1. But Wyoming ignores BLM's failure to calculate lifetime *cumulative* emissions, which—as explained above—remains the most critical factor in driving climate impacts. Hence, BLM's focus on annual emission rates obscured the true cumulative impacts of the challenged leasing decisions when added to other BLM activities collectively contributing to the climate crisis. *See* 40 C.F.R. § 1508.7.

Wyoming further suggests that BLM has provided enough information for the public to take a do-it-yourself (DIY) approach and make its own calculations of lifetime emissions. Wyo. Resp. at 20-21. But this places an impermissible burden on the public—and decision-makers—to parse out and analyze the information provided by BLM. In the initial phase of this litigation, BLM similarly argued that the public could synthesize information erroneously omitted by the agency. But this Court properly rejected the agency's attempt to “place[] the burden of analyzing the data on the public,” explaining that providing such data “did not relieve BLM of its burden to consolidate the data as part of its ‘informed decisionmaking.’” Memo. Op. at 32-33, ECF No. 99 (quoting *WildEarth Guardians v. Jewell*, 738 F.3d 298, 303 (D.C. Cir. 2013)). So too here.

Further, even if such a DIY approach was enough to satisfy NEPA's goal of informing the public—which it is not—this burden-shifting approach does not serve NEPA's twin aim of informing the agency's decision-making process. *See Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983). Without total lifetime cumulative emissions data, BLM decision-makers lacked the information needed to assess the full scope of the leases' cumulative impacts, when added to other BLM leasing activity in the region and nation. *See* Memo. Op. at 46, ECF No. 99.

Intervenors also fail to effectively distinguish *South Fork Band Council v. U.S. Dep't of Interior*, 588 F.3d 718 (9th Cir. 2009), and *Diné Citizens Against Ruining Our Environment v. OSM (Diné CARE v. OSM)*, 82 F. Supp. 3d 1201 (D. Colo. 2015), *vacated as moot*, 643 F. App'x 799 (10th Cir. 2016). While Intervenors note that those cases both involved agency actions to extend the lives of existing mines, as opposed to wholly new projects, Intervenors fail to recognize the courts' clear distinction in those cases between annual impacts and total lifetime impacts. For example, *South Fork Band Council* specifically found BLM's failure to consider air quality impacts from ore transport and processing "over a ten-year period"—the lifetime of the project expansion—deficient under NEPA's hard look requirement. 588 F.3d at 726.

Diné CARE v. OSM further explained that the relevant scope of analysis depends on the nature of impacts at issue. 82 F. Supp. 3d at 1215. Hence, in that case, the distinction between the combustion *rate* and the *total* combustion over the project lifetime was "particularly relevant with regards to the deleterious impacts of combustion-related mercury deposition" because "the primary impacts of mercury are not associated with its ambient concentration in the air but with its deposition from the atmosphere." *Id.* Since the critical environmental impacts were not driven by the *rate* of mercury emissions, but by the cumulative *total* "amount of mercury deposition," the agency was required to analyze the cumulative total impacts over the project lifetime. *Id.*

Similarly, the climate crisis is driven by the total, cumulative amount of GHGs emitted to the atmosphere, not by the annual rate of such emissions. Wyo-Ph-2:77; Wyo-Ph-2:6617, 6623; Wyo-Ph-2:7845. Accordingly, a hard and honest look at the climate impacts from the challenged oil and gas lease sales requires an assessment of the "net amount of carbon, or cumulative carbon" generated from development of the leases, not simply disclosure of annual emissions rates. Wyo-Ph-2:77; *see S. Fork Band*, 588 F.3d at 725-26; *Diné CARE*, 82 F. Supp. 3d at 1215.

Finally, even where BLM calculated total *indirect* emissions, the agency still failed to assess the significance of those emissions. Instead, BLM’s Supplemental EA simply noted—incorrectly—that the lifetime indirect emissions “represent[] 0.65% of EPA’s 2017 annual U.S. oil and gas emission total.” Wyo-Ph-2:59. BLM repeats this statement in its Response, and claims that Guardians conceded that BLM made this calculation. BLM Resp. at 12, ECF No. 149. To the contrary, the record shows that BLM erroneously calculated this percentage by comparing total indirect lease emissions to total emissions from *all* fossil fuels, not just oil and gas. Opening Br. at 22-23 & n.17, ECF No. 143.³ With the EPA data relied on by BLM showing emissions from coal combustion constituting a substantial 26% of national GHG emissions,⁴ BLM’s error significantly *underrepresented* indirect GHG emissions from the leases.⁵ This is not a “minor computational error,” as API contends, API Resp. at 25 n.11, ECF No. 152-1,⁶ but undercuts a critical element of BLM’s analysis of the indirect GHG impacts of the challenged leases.⁷ That BLM’s error confused its own counsel—who repeated this incorrect assertion,

³ The 4.912 billion mt CO₂e BLM used does not represent total annual oil and gas emissions (as BLM contends), but total emissions from all fossil fuel sources. *Compare* Wyo-Ph-2:59 with Wyo-Ph-2:9280 (2017 EPA GHG Inventory showing 4.912 billion mt CO₂e emissions from all fossil fuel sources) (31,899,836 mt / 4,912,000,000 mt = 0.65%).

⁴ Wyo-Ph-2:9280 (1,267.5 MMT coal emissions / 4,912 MMT total emissions = 26%).

⁵ API provides no record support for its contention that “substituting the oil and gas emissions identified by Plaintiffs results in the challenged Wyoming leases accounting for 0.87%—rather than 0.65%—of EPA’s 2019 annual U.S. oil and gas emissions total.” API Resp. at 25 n.11, ECF No. 152-1. But even assuming API’s figures are correct, BLM’s error still resulted in a significant underestimate of this critical figure.

⁶ Wyoming also acknowledges this error. Wyo. Resp. at 28, ECF No. 147-1.

⁷ As noted in Guardians’ Opening Brief, the Supplemental EA is replete with demonstrable errors that distort the magnitude of impacts from BLM’s leases. For example, Table 5 incorrectly stated that the average number of well completions on BLM lands in Wyoming per year, over the ten-year period ending in 2018, was 74.46, an order of magnitude lower than the correct value of 744.6 wells per year. Wyo-Ph- 2:46. BLM now argues that 74.46 wells per year was actually the per field office calculation. BLM Resp. at 12 n.6, ECF No. 149. But this post-hoc explanation does not comport with BLM’s Supplemental EA or its explanation in its Response to Comments,

BLM Resp. at 12, ECF No. 149—further belies API’s argument that this error was “harmless.” API Br. at 25 n.11, ECF No. 152-1.⁸ The entirety of BLM’s comparative analysis for this critical factor—the total lifetime indirect emissions from development of the challenged leases—was based on an inaccurate description of the data presented. Thus, BLM’s treatment of lifetime indirect emissions failed to provide useful information to the public and decision-makers, as evidenced by the confusion of the agency’s own lawyers.⁹ *Native Ecosystems Council*, 418 F.3d at 965 (finding agency miscalculation of central issue by using incorrect figure was arbitrary).

With climate change driven by total, cumulative GHG emissions, not annual emission rates, BLM’s failure to assess total, cumulative GHG emissions from the Wyoming leases, when added to other BLM activities, failed to meet NEPA’s hard look requirement and was arbitrary. Moreover, BLM’s attempt to assess total indirect emissions was inaccurate and incomplete.

which never described a per-field office average. Wyo-Ph-2:10. Instead, BLM stated: “Average per year equals total (744.6) divided by the number of years (10). As such, $744.6/10 = 74.46$. The number is correct.” Wyo-Ph-2:10. BLM’s Response repeats this explanation, stating that “the total well completions during the period of 2008-2018 was divided by 10 years of data to arrive at 74.46,” BLM Resp. at 12 n.6, ECF No. 149. Since there were, in fact, 7,446 total well completions, BLM’s explanation contradicts the record and is arbitrary.

⁸ API also argues that Guardians may have waived this “alleged error” by failing to raise it in Guardians’ comments on the Supplemental EA. API Resp. at 25 n.11, ECF No. 152-1. But while Guardians’ comments did not specifically identify this particular error, they did raise the fundamental issues that this error represents—BLM’s rushed and error-riddled response to the Court’s remand; failure to provide adequate time for public review and comment; and failure to analyze the severity, or significance, of the emissions at issue. *See* Wyo-Ph-2:12958, 12964. Thus, Guardians has not waived this issue. *See Diné Citizens Against Ruining Our Env’t v. Klein*, 676 F. Supp. 2d 1198, 1211 (D. Colo. 2009) (no waiver of claims where agency failed to “to provide a meaningful opportunity for the public to participate in [the administrative] process”).

⁹ The cursory and confusing nature of BLM’s single-sentence discussion of total indirect GHG emissions is further evidenced by Intervenor WEA twice incorrectly identifying EPA’s total fossil fuel emissions figure for 2017 (4.9 billion mt) as the lifetime indirect combustion emissions for the challenged leases. *Compare* WEA Resp. at 10, 20, ECF No. 150-1, *with* Wyo-Ph-2:59, *and* Wyo-Ph-2:9280.

B. BLM arbitrarily underestimated direct and indirect emission rates.

Even if emission *rates*, as opposed to lifetime emissions *totals*, were a suitable proxy for assessing the severity of GHG emissions (it is not), BLM still failed to accurately calculate direct and indirect GHG emission rates. As noted above, NEPA analyses must be based on “accurate scientific analysis.” 40 C.F.R. § 1500.1(b); *see also id.* § 1502.24; *Envtl. Def. v. U.S. Army Corps of Eng’rs*, 515 F. Supp. 2d 69, 83 (D.D.C. 2007) (agency’s reliance on methodology resulting in underestimate of floodplain habitat impacts rendered habitat mitigation calculations unreliable and arbitrary). Here, BLM relied on an inaccurate and unreliable methodology to estimate direct and indirect emission rates. Instead of averaging the total emission rates projected from the RFDs over lands actually leased or projected to be leased, BLM averaged the total emission rates over the much larger area *open to leasing*,¹⁰ thereby substantially underestimating the per-acre impact of such emissions. Wyo-Ph-2:56 to 58. BLM then used this diluted per-acre emissions rate to project direct and indirect emission rates for the challenged leases. Wyo-Ph-2:57.

Critically, there are approximately 8.1 million acres of BLM lands in Wyoming currently leased for oil and gas activity. Wyo-Ph-2:44; Wyo-Ph-2:8870. Yet BLM averaged the total annual emissions rate from the RFDs over the much larger total area of about 30.5 million acres *open to leasing*, Wyo-Ph-2:56, 57, despite there being no realistic prospect that all such lands will be leased over the 20-year RFD period.¹¹ BLM’s use of this improperly large denominator

¹⁰ BLM acknowledges the inconsistent per-acre emissions estimates in Table 10. BLM Resp. at 15 n.10, ECF No. 149; Wyo. Resp. at 29, ECF No. 147-1. The agency also admits that it failed to update Table 7.1.2, and provided inconsistent emissions figures to the public and decision-makers. BLM Resp. at 14 n.8, ECF No. 149.

¹¹ From 2008 to 2018, an average of 431,433 acres were leased annually. Wyo-Ph-2:44. BLM’s assumption that all lands open to leasing will be leased implicitly assumes more than a doubling of leasing rates, to upwards of a million acres per year. This unstated assumption directly—and arbitrarily—contradicts BLM’s stated assumption of constant leasing rates. Wyo-Ph-2:70.

resulted in a substantial *underestimate* of the per-acre emissions rates used to calculate emission rates for the challenged leases. In an analogous situation, the Ninth Circuit rejected BLM's attempt to dilute the impacts of a salvage logging project by averaging the project's impacts over affected and unaffected areas. *Or. Nat. Res. Council Fund v. Brong*, 492 F.3d 1120, 1129-30 (9th Cir. 2007). While the salvaged acres would have been fully stripped of salvageable trees, BLM averaged the remaining tree snags across a wider area, resulting in a "grossly misleading" per acre estimate of remaining snags. *Id.*; see *Native Ecosystems Council*, 418 F.3d at 965 (use of incorrect denominator led to misleading, arbitrary analysis). Here, like *Brong*, BLM's averaging of total projected emissions across a much wider area than is likely to be leased or developed resulted in a misleading dilution of the per-acre emissions from BLM's leasing activities.

BLM's Response posits that dividing the RFD-based emissions projections over only currently leased lands could "artificially inflate the per-acre estimates" because some—although certainly not all—of unleased lands currently open to leasing are likely to be leased and developed over the 20-year RFD projection period. *Id.* To avoid this result, however, BLM arbitrarily assumed that *every single acre* available for leasing would, in fact, be leased. Instead, BLM could have readily projected future leased acreage based on its assumption of constant leasing activity to calculate the appropriate denominator by which to divide the total emissions rate from RFD development. Wyo-Ph-2:44, 70.¹² But by dividing the total projected emission rates from the RFDs across all 30 million acres of lands open to leasing—despite acknowledging that only a portion of these lands are likely to be leased and developed, BLM Resp. at 15, ECF No. 149—the agency artificially diluted the per-acre emission impacts of the challenged leases.

¹² BLM also could have relied on available per-well emissions estimates to calculate total direct and indirect emissions from the leases, as Guardians also suggested. Wyo-Ph-2:12945 to 12949.

While BLM argues that the agency cannot project future leasing rates, this information gap does not support the agency's decision to simply *assume* the *largest* possible denominator, i.e., that all 30 million acres open to leasing will be leased over the 20-year RFD period, leading to the *lowest* possible emission rate. *Cf. Brong*, 492 F.3d at 1130. In particular, given the agency's assumption elsewhere in the Supplemental EA that average leasing rates would remain constant, Wyo-Ph-2:70,¹³ BLM was arbitrary to base its emissions projections on the unsupported assumption that all 30 million acres of BLM Wyoming lands *open* to leasing would, in fact, be leased over the next twenty years.

API argues that BLM's approach was correct because the RFD projections used to estimate emission rates "assumed full-field development of *all lands eligible for lease* within the planning area or field office under consideration." API Resp. at 26, ECF No. 152-1 (emphasis in original). To the contrary, BLM recognized that only "a *portion* of the RFD and the lands open to leasing" "might be leased and developed in the future" under full RFD development, directly contradicting API's argument. BLM Resp. at 15, ECF No. 149. Thus, API's argument fails.

C. BLM's failure to assess reasonably foreseeable future emissions from regional and national BLM actions was arbitrary.

This Court directed BLM on remand to discuss "other BLM actions in the region—such as other lease sales," as part of its cumulative impacts analysis, and to consider the "cumulative impact of GHG emissions generated by past, present, or reasonably foreseeable BLM lease sales in the region and nation." Memo. Op. at 46, ECF No. 99; *accord WildEarth Guardians v. BLM*, No. CV-18-73-GF-BMM, slip op. at 29 (D. Mont. May 1, 2020) ("[I]f BLM ever hopes to

¹³ BLM's assumption that leased lands in Wyoming will increase from the currently leased 8 million acres to 30 million acres over a 20-year period is further undercut by Intervenor WEA's argument that trends in leasing rates show stable or declining acreage of leased lands and producing lands. WEA Resp. at 22, ECF No. 150-1.

determine the true impacts of its projects on climate change, it can do so only by looking at projects in combination with each other, not simply in the context of state and nation-wide emissions.”); 40 C.F.R. § 1508.7. Yet BLM again failed to provide this analysis, thereby violating NEPA.

Instead of following the Court’s directive, BLM only considered lease sales in Wyoming through June 2019 as part of its cumulative impacts assessment.¹⁴ *See* BLM Resp. at 21 n.13, ECF No. 149; Wyo-Ph-2:65 (considering “all lease sales currently undergoing internal review to be reasonably foreseeable”). BLM did not identify, much less discuss, a single foreseeable lease sale outside the State of Wyoming; thereby failing to comply with this Court’s instruction to consider the impacts of other recent and foreseeable lease sales in “the region or nation.”¹⁵

BLM’s claim that it “assessed projected emissions from other reasonably foreseeable BLM lease sales across the region,” BLM Resp. at 20, ECF No. 149, is not supported by the record. Instead, the Supplemental EA simply noted that “[b]ased on average lease sale numbers, annual average contributions to total emissions are expected to remain constant.” Wyo-Ph-2:70. But BLM failed to explain why the number of leases serves as a reasonable proxy for potential emissions, as compared to other more directly pertinent information such as leased acreage, number of new or producing wells, or volume of oil and gas produced. In fact, the Supplemental EA shows declining numbers of total leases over the past decade, but a slight increase in producing leases, Wyo-Ph-2:71 fig.8, contradicting BLM’s assumption that the *number of leases*

¹⁴ BLM’s failure to consider any other potential leasing past June 2019 as “reasonably foreseeable” also contradicted the agency’s assumption that all 30 million acres open to leasing will be leased during the RFD period, as discussed above. *See supra* Argument Part I.B.

¹⁵ API acknowledged BLM did not consider “other reasonably foreseeable BLM lease sales in the region and the nation,” beyond planned Wyoming sales. API Resp. at 28-29, ECF No. 152-1.

is a reliable proxy for projecting future *emissions levels*. See also Opening Br. at 28-29, ECF No. 143 (explaining that BLM’s data show increasing oil and gas-related GHG emissions).

BLM further failed to consider trends in regional leasing activity or explain why it was reasonable to assume constant leasing activity into the future, particularly in light of Energy Information Administration (EIA) projections for future growth in U.S. oil and gas production. Wyo-Ph-2:8790, 8811, 8822. To support its assumption of constant leasing activity, BLM relied on an irrelevant and outdated 2009 EIA report analyzing the impacts of *failed cap-and-trade legislation*, Wyo-Ph-2:65, 70, 83 (citing “EIA 2009”), instead of current EIA projections showing continued growth in oil and gas production, due in part to the shale boom.¹⁶ BLM’s reliance on such outdated information led it to arbitrarily underestimate the projected growth in oil and gas production. *Ctr. for Biological Diversity v. BLM*, 937 F. Supp. 2d 1140, 1155-57 (N.D. Cal. 2013) (BLM arbitrary to base oil and gas projections on pre-shale boom data even though agency “acknowledged that fracking activity in the United States has increased dramatically in recent years”); *Pub. Employees for Env’tl. Responsibility v. U.S. Fish & Wildlife Serv.*, 177 F. Supp. 3d 146, 153 (D.D.C. 2016) (agency failed to take a hard look at environmental impacts where it relied on outdated data to support its conclusions regarding population impacts).¹⁷ While BLM is not required to utilize the best available science, it still

¹⁶ Wyo-Ph-2:8790 (2019 EIA projection of “large increases in crude oil [and] natural gas ... production” through 2050); 8811 (projecting that “U.S. crude oil production continues to growth through 2030 and then plateaus at more than 14.0 million barrels per day (b/d) until 2040” up from approximately 10 million b/d in 2018); 8822 (projecting that “[n]atural gas production from shale gas and tight oil plays as a share of total U.S. natural gas production continues to grow in both share and absolute volume because of the sheer size of the associated resources, which extend over nearly 500,000 square miles, and because of improvements in technology...”).

¹⁷ See also *Lands Council v. Powell*, 395 F.3d 1019, 1031 (9th Cir. 2005) (“lack of up-to-date evidence” on fish habitat conditions “prevented the Forest Service from making an accurate cumulative impact assessment”).

must show that its assumptions are not arbitrary. *See WildEarth Guardians v. BLM*, 870 F.3d 1222, 1235 (10th Cir. 2017) (an assumption lacking record support was “enough for [the Tenth Circuit] to conclude that the analysis which rests on this assumption is arbitrary and capricious”); 40 C.F.R. § 1502.24. Here, the agency has failed to support its assumptions regarding constant regional emissions, particularly in light of contradictory record evidence projecting “large increases” in crude oil and natural gas production through 2050. Wyo-Ph-2:8790.

Moreover, even if an unsupported assumption of constant leasing passes muster as a projection of the agency’s future regional emission rates, BLM never actually *analyzed* the climate impacts of emissions from the challenged leases *when added to* other regional oil and gas activity, as required by NEPA. 40 C.F.R. § 1508.27(b)(7). BLM compared projected direct and indirect emission rates from the lease sales to (past) regional emission rates, but never assessed the cumulative climate *impacts* of the GHG emissions from the leases when added to regional or national emissions.¹⁸ BLM also never placed the regional GHG emission totals in context of national or global emissions; nor did the agency use the social cost of carbon or carbon budgeting to assess the significance of such regional GHG emissions. As the Fifth Circuit recognized, even a “very small portion” of a “gargantuan source of [harmful] pollution” may nevertheless “constitute[] a gargantuan source of [harmful] pollution on its own terms.” *Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1032-33 (5th Cir. 2019).¹⁹ Hence, without assessing the

¹⁸ BLM admits erroneously dividing the Northern Great Plains region by five states, instead of three, BLM Resp. at 19 n.12, ECF No. 149, but still fails to acknowledge that its consistent reference to “regional totals” was misleading given that the agency was actually referencing “average individual state totals by region.” WEA, however, acknowledges that “BLM mistakenly characterized its per state average as a per-region average.” WEA Resp. at 11, ECF No. 150-1.

¹⁹ Similarly, the Council for Environmental Quality has recognized that “a statement that emissions from a proposed Federal action represent only a small fraction of global emissions is essentially a statement about the nature of the climate change challenge, and is not an appropriate basis for deciding whether or to what extent to consider climate change impacts under NEPA.”

impacts of regional GHG emissions, as opposed to providing regional emission rates in the abstract, BLM had no basis for concluding that adding GHG emissions from the new leases to other past, present, and reasonably foreseeable future emissions would not have significant cumulative impacts. *Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1216 (9th Cir. 2008) (merely quantifying GHG emissions insufficient where agency failed to “discuss the *actual* environmental effects from those emissions”).²⁰

Finally, BLM failed to explain why it could not rely upon its own projections, or “reasonably foreseeable development scenarios,” to estimate future regional emissions. In arguing that *Diné Citizens Against Ruining Our Environment v. Bernhardt*, 923 F.3d 831 (10th Cir. 2019), does not mandate that BLM “consider all future oil and gas development projected in the RFDs of surrounding field offices and states,” API ignores the critical holding of that case—that the development projections in RFDs are “reasonably foreseeable.” API Resp. at 29, ECF No. 152-1; *cf. Diné CARE*, 923 F.3d at 853-54. Hence, while the court in *Diné CARE* was specifically focused on development projections within the Farmington Field Office where the drilling projects at issue were located, the case still stands for the basic proposition oil and gas development projected by an RFD is reasonably foreseeable and must be taken into account in

81 Fed. Reg. 51,866, 51,866 (Aug. 5, 2016) (referencing final guidance document available at: https://ceq.doe.gov/docs/ceq-regulations-and-guidance/nepa_final_ghg_guidance.pdf) (withdrawn by 82 Fed. Reg. 16576 (Apr. 5, 2017)); *see San Juan Citizens All. v. BLM*, 326 F. Supp. 3d 1227, 1243 (D.N.M. 2018) (finding withdrawn CEQ climate guidance “persuasive and worthy of citation”).

²⁰ BLM’s conclusion that the challenged leases would not have significant cumulative climate impacts is also undermined by BLM’s statement that projected development based on the Wyoming RFDs would “potentially increase the total projected annual indirect emission level in the combined Rocky Mountain and Northern Great Plains regions by 15%.” Wyo-Ph-2:74. BLM was arbitrary to simply assume such a large percentage increase in regional emissions would not have significant climate impacts.

BLM's analyses of cumulative impacts.²¹ 923 F.3d at 853-54. Given the Court's directive here, that BLM must consider "other BLM actions in the region" to the extent they are reasonably foreseeable, Memo. Op. at 46, ECF No. 99, BLM has no excuse for its failure to consider the RFD projections for oil and gas development in surrounding states.

D. BLM's attempts to defend its inconsistent and irrational carbon budget analysis are unavailing.

At the most basic level, agency decision-making must be rational; that is, agencies must demonstrate a "rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. v. State Farm*, 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)). Moreover, agency action "must be upheld, if at all, on the basis articulated by the agency itself ... [and] courts may not accept appellate counsel's *post hoc* rationalizations for agency action." *Id.* at 50. Here, the Supplemental EA's carbon budget analysis fails the former requirement, and BLM's *post hoc* arguments to this Court fail the latter.

As noted in Guardians' Opening Brief, BLM's carbon budget analysis was irrational because, among other deficiencies, it failed to disclose the baseline amount of the remaining carbon budget necessary to meet scientifically and internationally accepted limitations of global warming. "Without establishing the baseline conditions before a project begins, there is simply no way to determine what effect the project will have on the environment and, consequently, no way to comply with NEPA." *Or. Nat Desert Ass'n v. Rose*, 921 F.3d 1185, 1190 (9th Cir. 2019) (quoting *Great Basin Res. Watch v. BLM*, 844 F.3d 1095, 1101 (9th Cir. 2016)). BLM's failure to acknowledge and disclose this baseline information is fatal, as the record shows that the

²¹ BLM quantified potential direct and indirect emissions under the Wyoming RFDs, illustrating that data is readily available to make such calculations. Wyo-Ph-2:67 tbl.10, 72 tbl.15. But even within Wyoming, BLM provided no analysis of the projected RFD emission estimates, rendering the raw data uninformative to decision-makers and the public.

carbon budget for avoiding the consequential impacts associated with warming of 1.5° C either *has been exhausted*, Wyo-Ph-2:6879 to 6880, or, at current emission rates, *will be exhausted* during the 40-year life-span of the challenged leases. Wyo-Ph-2:15253 (budget will exhausted in 10 years). This situation is analogous to BLM asking the public to cash a significant check without disclosing that BLM's checking account may already be overdrawn. BLM's response fails to address this point, thus conceding the issue. *See* BLM Resp. at 24-27, ECF No. 149; *Rosenblatt v. Fenty*, 734 F. Supp. 2d 21, 22 (D.D.C. 2010) (“[A]n argument in a dispositive motion that the opponent fails to address in an opposition may be deemed conceded”).

The passing counter-arguments BLM does advance regarding carbon budgeting are *post hoc* and, in any event, flawed. First, BLM states, without elaboration, that it found carbon budgets “not useful” and subject to “limitations” and “serious shortcomings.” BLM Resp. at 26, ECF No. 149. This argument fails because nowhere in the Supplemental EA did BLM state that a carbon budget analysis would “not [be] useful” or that carbon budgets suffer “limitations” or “serious shortcomings.” On the contrary, the Supplemental EA recognized that the global community has identified carbon budgets required to avoid the worst impacts of climate change, Wyo-Ph-2:38; acknowledged (albeit without details or accurate citation) the “tight timeline of the carbon budget,” Wyo-Ph-2:77; and, in reaching its ultimate conclusion regarding global climate change impacts, addressed the “potential to affect the rate of climate change relative to the latest iteration of the carbon budget.” Wyo-Ph-2:78. Indeed, far from finding “serious shortcomings” with respect to carbon budgeting, the Supplemental EA recognized the acceptance of carbon budgeting within the scientific and global community and explained that carbon

budgets “can be calculated” for “any desired global mean warming goal.” Wyo-Ph-2:38, 79.²² Thus, BLM’s *post hoc* efforts to disavow its own carbon budget analysis must be rejected. *Motor Vehicle Mfrs.*, 463 U.S. at 50.

Next, BLM argues that the flaws in its carbon budget analysis—failing to disclose the remaining carbon budget and failing to identify a consistent carbon budget—are not relevant because BLM had no duty to prepare a carbon budget analysis in the first place. BLM Resp. at 27. But this argument also misses the mark. As the Ninth Circuit explained in *Rose*, 921 F.3d at 1190, NEPA requires agencies to disclose baseline environmental conditions from which the impacts of a proposed action can be measured. With respect to GHG emissions, that baseline is the remaining carbon budget. Wyo-Ph-2:6879 to 6880; Wyo-Ph-2:15253. Even assuming *arguendo* that BLM did not have a specific mandate to disclose baseline conditions through carbon budgeting, where, as here, BLM *in fact conducted a carbon budget analysis*, its analysis was required to be rational and not arbitrary. *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, No. CV 16-1534 (JEB), 2020 WL 1441923, at *12 (D.D.C. Mar. 25, 2020) (explaining that flaws in an agency’s NEPA analysis “cannot be resolved by the fact that the agency may not have been required to use [a] particular method in the first place”—otherwise “vast swaths of [agency] analysis” would [be] “immunize[d]” from judicial review). BLM’s flawed carbon budget analysis in the Supplemental EA failed to meet this requirement.

Wyoming’s attempts to defend BLM’s carbon budget analysis merely reveal its flaws. Wyoming contends that “lease emissions are insignificant relative to the *immensity* of the

²² In its Response to Comments, BLM disavowed its own (flawed) carbon budget analysis. Critically, though, the agency did not base its disavowal on any identified flaws in carbon budgeting. Rather, the only explanation offered in the Response to Comments was that this Court had not specifically mandated a carbon budget analysis. Wyo-Ph-2:12 to 13.

[carbon] budget,” and notes that “the global carbon budget is estimated at *one trillion tons* of carbon.” Wyo. Resp. at 26, ECF No. 147-1 (emphasis added). But this argument, like BLM’s analysis in the Supplemental EA, fails because it does not disclose *current baseline conditions*—i.e., the remaining carbon budget. While the emissions from the leases may be small compared to the pre-industrial revolution carbon budget of “one trillion tons of carbon,”²³ Wyo-Ph-2:38, that relatively large figure is *not* the relevant baseline. Instead, the record shows that the remaining carbon budget for limiting warming to 1.5° C *has either been exhausted*, Wyo-Ph-2:6879 to 6880, or, at current emission rates, *will be exhausted* within ten years. Wyo-Ph-2:15253. If the carbon budget is now *zero* or will reach *zero* during the life of the leases (at which point “CO₂ emissions” will have to “approach zero,” Wyo-Ph-2:78), the direct, indirect, and cumulative emissions cannot rationally be described as insignificant. Thus, Wyoming’s argument simply reveals one of the fundamental flaws in BLM’s carbon budget analysis.²⁴

In short, BLM’s carbon budget analysis was irrational and arbitrary because it was inconsistent and it failed to disclose that, under current baseline conditions, the all-time carbon budget is either exhausted or will be exhausted during the life of the challenged leases. BLM’s and Intervenors’ arguments fail to rehabilitate this fundamentally flawed analysis.

²³ One trillion tons of carbon is equivalent to 3.65 trillion tons carbon dioxide. Wyo-Ph-2:3315.

²⁴ API makes a similar argument but suggests inaccurately that BLM’s carbon budget analysis compared the leases’ direct, indirect, and cumulative emissions to “the Global Carbon Project’s ‘projected 2018 total of 4.0 Gt for both oil and gas.’” API Resp. at 30-31, ECF No. 152-1. This argument fails first because BLM made no such comparison in its carbon budget analysis. *Cf.* Wyo-Ph-2:77 to 78. It also fails because the Supplemental EA’s reference to “4.0 Gt for both oil and gas” does not relate to any past or present carbon budget, Wyo-Ph-2:75, and cannot therefore constitute a “rational connection” to BLM’s conclusion that the leases’ direct, indirect, and cumulative emissions would have only “minor” impacts on “carbon budget projections.” Wyo-Ph-2:78; *Motor Vehicle Mfrs.*, 463 U.S. at 43.

II. BLM failed to make a convincing case for its finding of no significant impact.

BLM similarly fails to identify a rational connection between the Supplemental EA's findings about significance, uncertainty, and cumulative effects, and the FONSI's diametrically opposite conclusions on these points. Ultimately, the intractable inconsistencies between BLM's Supplemental EA and FONSI reveal the inadequacy of both.

A. BLM fails to resolve the contradiction between the Supplemental EA's statement that significance of climate impacts is unknown, and the FONSI's statement that such impacts are insignificant.

As noted in Guardians' Opening Brief, BLM's Supplemental EA disclaimed any means of assessing the significance of the leases' direct, indirect, or cumulative greenhouse gas emissions, Wyo-Ph-2:76, 78, yet its FONSI stated categorically, but inconsistently, that "[n]one of the reasonably foreseeable environmental effects ... are determined to be significant." Wyo-Ph-2:99. The agency fails to address or explain this fundamental inconsistency. *See* BLM Resp. at 27-30, ECF No. 149. BLM therefore concedes the issue. *Rosenblatt*, 734 F. Supp. 2d at 22; *see also Bauer v. DeVos*, 325 F. Supp. 3d 74, 109 (D.D.C. 2018) (unexplained inconsistency arbitrary); *Humane Soc'y v. Dep't of Commerce*, 432 F. Supp. 2d 4, 21-23 (D.D.C. 2006) (contradictions between EA and FONSI render decision arbitrary).

Among Intervenors, Wyoming alone addresses this issue, albeit by manufacturing an argument that does not appear in the FONSI and is unsupported by the record. Wyoming contends that BLM conducted a "statistical[]" analysis of direct, indirect, and cumulative emissions and determined that such emissions would be "statistically insignificant." Wyo. Resp. at 35, ECF No.147-1 (citing Wyo-Ph-2:78, Wyo-Ph-2:103). However, neither the EA nor the FONSI describe any such statistical analysis of GHG emissions. *Cf.* Wyo-Ph-2:78; Wyo-Ph-2:103. As noted, such "post hoc rationalizations" may not support agency decision-making. *Motor Vehicle Mfrs.*, 463 U.S. at 50. Moreover, simply comparing lease emissions to total

national and global GHG emissions is not a valid means of assessing significance. *See, e.g., Sw. Elec. Power Co.*, 920 F.3d at 1032 (a “very small portion” of a “gargantuan source of [harmful pollution]” may nevertheless “constitute[] a gargantuan source of [harmful] pollution on its own terms”); *NRDC v. Callaway*, 524 F.2d 79, 87-90 (2d Cir. 1975) (explaining that NEPA was enacted to address the problem that “a good deal of our present air and water pollution has resulted from the accumulation of small amounts of pollution added to the air and water by a great number of individual, unrelated sources”).

In sum, BLM has failed to demonstrate a rational connection between the EA’s statements that “there are no established significance thresholds for GHG emissions” and “the significance” of the contribution of “GHG missions from the proposed action (alone and in combination with emissions from other activities)” “is unknown,” and the FONSI’s conclusory finding that “[n]one of the reasonably foreseeable environmental effects . . . are determined to be significant.” Wyo-Ph-2:78; Wyo-Ph-2:99; *see also Motor Vehicle Mfrs.*, 463 U.S. at 43. Absent such a rational connection, BLM’s “conclusory say-so” is not enough to sustain its finding of no significant impacts. *Sierra Club v. Mainella*, 459 F. Supp. 2d 76, 106 (D.D.C. 2006).

B. BLM fails to resolve the contradiction between the Supplemental EA’s refrain of uncertainty and the FONSI’s finding of no uncertainty.

BLM, along with WEA and Wyoming, attempt to reconcile the inconsistency between the treatment of uncertainty in the Supplemental EA and the FONSI by insisting that “BLM’s references to uncertainties in the [Supplemental EA] pertained not to the effect of GHG emissions but to the quantification of those emissions.” BLM Resp. at 28, ECF No. 149. But BLM is mistaken because the agency repeatedly states in the Supplemental EA that the *effects* of climate change are uncertain—but potentially catastrophic—and that the *effects* of the proposed action are unknown. The Supplemental EA thus acknowledged that the “*magnitude* and

consequences of [global] warming are *uncertain*.” Wyo-Ph-2:62 (emphasis added). Citing the Fourth National Climate Assessment, the Supplemental EA recognized that “the *magnitude* of future climate change is *uncertain* due to the ambiguity introduced by human choices, ... natural variability, and scientific *uncertainty*.” Wyo-Ph-2:77 (emphasis added). While BLM only hinted at the potential magnitude of impacts and uncertainty in the Supplemental EA by noting, for example, that continued GHG emissions may lead to the absence of “permanent land-based ice sheets,”²⁵ Wyo-Ph-2:77, other record evidence details uncertainties related to “positive feedback cycles,” such as melting permafrost that could cause massive additional emissions and runaway climate change; “compound extreme” events, such as droughts and heatwaves that could cause widespread famine in regions that “lack the ability to adapt”; and “climatic tipping points” leading to “abrupt” “state shifts,” such as die-off of the Amazon rainforest and coral reefs. Wyo-Ph-2:6894 to 6906. Such uncertainties have potentially widespread, devastating impacts.

Further, BLM’s Supplemental EA also expressed significant uncertainty about the effects of the proposed leases, stating, for example, that “the degree to which GHG emissions from the proposed action (alone, and in combination with emissions from other activities) may contribute to changes in the absolute concentration of CO₂ in the global atmosphere is *unknown*—as is the significance of that contribution.” Wyo-Ph-2:78 (emphasis added). The Supplemental EA further emphasized that “[t]here are currently no established significance thresholds for GHG emissions that BLM can reference in NEPA analyses,” but recognized that “all GHG emissions contribute incrementally to potential changes in global climate.” Wyo-Ph-2:78; *see also* Wyo-Ph-2:76 (stating there are no significance thresholds for monetizing impacts of GHG emissions). Further

²⁵ Melting of land-based ice sheets would cause sea levels to rise nearly 100 feet, which would be ruinous for coastal regions. Wyo-Ph-2:6902 to 6903 (explaining that melting of Greenland and Antarctic would raise sea levels 20 feet and 75.5 feet respectively).

confirming the importance of limiting *all* sources contributing to this worldwide problem, the EA recognized that to avoid catastrophic impacts and “stabiliz[e] the global temperature,” all “CO₂ emissions [must] approach zero.” Wyo-Ph-2:77 to 78.

BLM’s statement in its FONSI that the “predicted effects on the human environment from the GHG emissions resulting from the Proposed Action, in terms of climate change and the level of existing emissions, are not considered to be highly uncertain,” Wyo-Ph-2:101, contradicts BLM’s repeated statements in the Supplemental EA about the uncertain effects of climate change and the leases’ direct, indirect, and cumulative impacts. Such inconsistency is arbitrary and does not make a convincing case for non-significance. *See Humane Soc’y*, 432 F. Supp. 2d at 21; *Native Fish Soc’y v. NMFS*, 992 F. Supp. 2d 1095, 1109 (D. Or. 2014).

C. BLM cannot justify its failure to assess the significance of cumulative GHG emissions.

As noted in Guardians’ Opening Brief, BLM’s FONSI failed to evaluate the significance of the *cumulative* effects of the proposed leases, in light of past, present, and reasonably foreseeable emissions, as this Court previously ordered. Opening Br. at 39-41, ECF No. 143; Memo. Op. at 46, 52, ECF No. 99. In response, BLM insists that the Supplemental EA discussed cumulative impacts, but BLM’s assertion is a *non sequitur*. BLM Resp. at 29-30, ECF No. 149; *see Standing Rock Sioux*, 2020 WL 1441923, at *11 (rejecting *non sequitur* argument). The FONSI is inadequate, not because the Supplemental EA failed to discuss cumulative effects, but because BLM failed to assess the *significance* of the *cumulative* effects in the FONSI. Instead, the FONSI only assessed the significance of emissions from the leases in isolation (i.e., that they would only be a “small fraction” of the large cumulative effects problem). Wyo-Ph-2:103.

This Court required BLM to assess the *cumulative significance* of its decisions on remand, stating: “Although BLM may determine that each lease sale individually has a de

minimis impact on climate change, the agency must also consider the cumulative impact of GHG emissions generated by past, present, or reasonably foreseeable BLM lease sales in the region and nation.” Memo. Op. at 46, ECF No. 99; *see also id.* at 52 (requiring BLM to consider cumulative impacts in assessing significance). Such an assessment of cumulative impacts is precisely what Congress intended in enacting NEPA:

As was recognized by Congress at the time of passage of NEPA, a good deal of our present air and water pollution has resulted from the accumulation of small amounts of pollutants added to the air and water by a great number of individual, unrelated sources.

“Important decisions concerning the use and the shape of man’s future environment continue to be made in small but steady increments which perpetuate rather than avoid the recognized mistakes of previous decades.”

NEPA was, in large measure, an attempt by Congress to instill in the environmental decisionmaking process a more comprehensive approach so that long term and cumulative effects of small and unrelated decisions could be recognized, evaluated and either avoided, mitigated, or accepted as the price to be paid for the major federal action under consideration.

Callaway, 524 F.2d at 88 (quoting S. Rep. No. 91-296, at 5 (1969)). Thus, NEPA’s regulations specifically require an agency’s significance determination to consider “[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts.” 40 C.F.R. § 1508.27(b)(7). As NEPA demands, BLM must assess the significance of cumulative effects by *adding*, not by *dividing*. Here, BLM’s Supplemental EIS unlawfully and arbitrarily obscured the true significance of cumulative climate impacts by dividing emissions from the leases by all global emissions. Wyo-Ph-2:103.

The additional arguments raised by Wyoming and WEA lack merit. WEA mistakenly argues that Guardians somehow seeks to invalidate the Mineral Leasing Act. WEA Resp. at 27. To the contrary, Guardians does not challenge BLM’s compliance with the Mineral Leasing Act, but only BLM’s compliance with NEPA. Citing the Fourth National Climate Assessment, WEA

erroneously contends that cumulative impacts are insignificant because, according to the “best available science,” the “emissions thresholds for limiting temperatures to 1.5-2° C” would only be reached in 2019 in an “unlikely high-risk” future scenario. WEA Resp. at 27-28 (citing Wyo-Ph-2:6500). In fact, the Fourth National Climate Assessment concluded that the carbon budget for limiting warming to 1.5°C would be spent by 2019 under “RCP [Representative Concentration Pathway] 4.5,” Wyo-Ph-2:6879 to 6880, which is a “lower [emissions] scenario.” Wyo-Ph-2:6500. Thus, contrary to WEA’s argument, the best available science highlights the dire state of cumulative GHG emissions and the present need to “require[] CO₂ emissions to approach zero.” Wyo-Ph-2:78. Finally, Wyoming’s reliance on the holdings in *WildEarth Guardians v. Jewell*, 738 F.3d 298, 309 (D.C. Cir. 2013), and *WildEarth Guardians v. BLM*, 8 F. Supp. 3d 17, 35 (D.D.C. 2014), is misplaced. Neither case involved the issue raised here, BLM’s assessment of the *significance* of GHG emissions under 40 C.F.R. § 1508.27(b)(7) and whether BLM was required to prepare an EIS. Instead, in both cases—unlike here—BLM had already deemed impacts significant and prepared EISs. As such, the cases are inapposite.

III. This Court should vacate BLM’s flawed supplemental EA and FONSI, vacate the challenged leases, and remand to BLM to prepare an EIS.

As explained in Guardians’ Opening Brief, the appropriate remedy is to vacate and set aside BLM’s Supplemental EA, FONSI, and the challenged leases. In analogous circumstances, the U.S. Federal District Court for the District of Idaho vacated oil and gas leases issued in violation of NEPA despite the large sums that federal agencies would have to return to lessees. *W. Watersheds Project v. Zinke*, No. 1:18-CV-00187-REB, 2020 WL 959242, at *28-29 (D. Idaho Feb. 27, 2020); *WildEarth Guardians*, No. CV-18-73-GF-BMM, slip op. at 34-35 (vacating leases issued pursuant to arbitrary EA). The court reasoned that vacatur was necessary so agencies would not be “incentivized to invest heavily in potentially-illegal projects upfront,

only to claim later that the economic consequences in setting aside those projects would be too massive to unwind.” *Id.* at *29. So too here. *See* Memo. Op. at 8-9, ECF No. 121 (encouraging BLM to refrain from new APD approvals, and warning that “any such investments in resources by BLM, or private oil interests for that matter, may prove foolhardy if BLM’s new decisions are subsequently vacated rather than remanded”). BLM has already once disregarded the Court’s directive to give “serious consideration to the Court’s concerns,” Memo. Op. at 59, ECF No. 99, improperly treating its analysis on remand as a mere “bureaucratic formality.” *Standing Rock Sioux*, 282 F. Supp. 3d at 109. To ensure BLM finally takes its NEPA obligations seriously, vacatur is necessary.²⁶

Moreover, because BLM has now twice erred in concluding that an EIS is not warranted, this Court should order BLM to prepare an EIS on remand. *See id.*, 2020 WL 1441923, at *16 (ordering agency to prepare an EIS for proposed pipeline when agency failed to conduct lawful NEPA analysis on remand).

CONCLUSION

This Court should grant Guardians’ motion for summary judgment and find unlawful, vacate, and set aside BLM’s Supplemental EA, FONSI, and the challenged leases. This Court should further order BLM to prepare an EIS.

Respectfully submitted this 1st day of May, 2020.

/s/ Daniel L. Timmons
Daniel L. Timmons
NM Bar No. 152754

/s/ Shiloh S. Hernandez
Shiloh S. Hernandez
MT Bar No. 9970

²⁶ API mistakenly contends that in order to obtain vacatur, Guardians must meet the four-part standard for obtaining an injunction. API Resp. at 33-40, ECF No. 152-1. An injunction, however, is unnecessary if vacatur is an adequate remedy. *Monsanto Co. v. Geertson Seed Farms*, 561 U.S. 139, 166 (2010) (“If a less drastic remedy (such as partial or complete vacatur of APHIS’s deregulation decision) was sufficient to redress respondents’ injury, no recourse the additional and extraordinary relief of an injunction was warranted.”).

WildEarth Guardians
301 N. Guadalupe Street, Suite 201
Santa Fe, NM 87501
(505) 570-7014
dtimmons@wildearthguardians.org
(admitted *Pro Hac Vice*)

Western Environmental Law Center
103 Reeder's Alley
Helena, MT 59601
(406) 204-4861
hernandez@westernlaw.org
(admitted *Pro Hac Vice*)

/s/ Samantha Ruscavage-Barz
Samantha Ruscavage-Barz
Bar No. CO0053
301 N. Guadalupe Street, Suite 201
Santa Fe, NM 87501
(505) 410-4180
sruscavagebarz@wildearthguardians.org

/s/ Kyle Tisdell
Kyle Tisdell
CO Bar No. 42098
Western Environmental Law Center
208 Paseo del Pueblo Sur, Suite 602
Taos, NM 87571
(575) 613-8050
tisdell@westernlaw.org
(admitted *Pro Hac Vice*)

Attorneys for Plaintiffs