BUREAU OF LAND MANAGEMENT

Waste Prevention, Production Subject to Royalties, and Resource Conservation; Delay and Suspension of Certain Requirements	)	**Docket ID No. BLM-2017-0002-0001**
		Via regulations.gov
		November 6, 2017

We submit these comments on behalf of Clean Air Task Force, Center for Biological Diversity, Citizens for a Healthy Community, Earthjustice, Earthworks, Environmental Defense Fund, Environmental Law and Policy Center, Montana Environmental Information Center, Natural Resources Defense Council, San Juan Citizens Alliance, Sierra Club, Western Environmental Law Center, Western Organization of Resource Councils, Wilderness Workshop, and Wyoming Outdoor Council (together, "Joint Environmental Commenters"). On behalf of our millions of members across the nation, who are deeply concerned about the waste of natural gas and its associated harmful air pollution, we strongly oppose the Bureau of Land Management's ("BLM") proposal to suspend duly-promulgated, commonsense waste prevention measures on public and tribal lands. We respectfully urge BLM to withdraw this misguided action.

I. Introduction

In November of 2016, in response to the urgent and widely-documented problem of wasted natural gas on public and tribal lands, BLM adopted the final rule entitled Waste Prevention, Production Subject to Royalties, and Resource Conservation ("Waste Prevention Rule" or "Rule"), 81 Fed. Reg. 83,008 (Nov. 18, 2016). The Rule was the product of an extensive public process, which included stakeholder engagement hearings and over 330,000 public comments. In response to this input, BLM updated its decades-old waste prevention guidance by requiring operators to use low-cost, widely-available technologies to help capture wasted natural gas—best practices that had long been reflected in certain state standards and used by leading companies.

BLM projected that these much-needed updates would deliver significant benefits, reducing wasteful venting of natural gas by 35%, reducing flaring by 49%, and preventing harmful air pollution. On account of these substantial benefits, recent bipartisan surveys found that over 80% of Westerners support the Waste Prevention Rule, which includes support from state and local elected officials, faith communities, the sporting community, investors, health and environmental groups and others. Colorado College State of the Rockies Project, *2017 Western*

States Survey 18 (2017), https://www.coloradocollege.edu/other/stateoftherockies/conservationinthewest/2017/2017WesternStatesInterviewSchedule.pdf.[1]

BLM has now proposed to suspend or delay the requirements in the Waste Prevention Rule. 82 Fed. Reg. 46,458 (Oct. 5, 2017) ("Suspension Proposal"). The Suspension Proposal is, in every way, the opposite of the statutorily-grounded, carefully considered, transparent, and inclusive process that led to the adoption of the Waste Prevention Rule. And, as BLM itself recognizes, the Suspension Proposal will result in significant waste of natural gas and additional emissions of harmful air pollution. Our comments describe in greater detail the Suspension Proposal's pervasive legal and technical flaws, including the following key deficiencies:

- BLM lacks either implicit or explicit legal authority to suspend standards for the purpose of reconsidering them (Section III, pp. 5-7).

- While BLM can reconsider its past policy decisions, any regulatory revision must be grounded in the statute and set forth good reasons supporting the change. In contravention of its statutory authority under the Mineral Leasing Act, the Suspension Proposal would increase waste and BLM has not (and could not) provide good reasons supporting this unlawful action (Section III, pp. 7-12).

- BLM's process upends administrative law rules and undermines the very purpose of notice-and-comment rulemaking by seeking to suspend standards now while purporting to consider and explain the reasons for halting the Rule later. (Section III, pp. 13-15).

- The Suspension Proposal represents the third time Secretary Zinke has attempted to suspend or invalidate the Waste Prevention Rule, underscoring that the proposal lacks the fair mindedness and objectivity required to account for the full spectrum of costs and benefits demanded of federal rulemakings that should advance the public interest. (Section III, pp. 15-18).

- BLM has arbitrarily and unlawfully assessed the cost and benefits of its proposal, using flawed metrics including an "interim" social cost of methane (Section VI, pp. 22-25), and otherwise adopting an analytical framework that arbitrarily undervalues the benefits of the Waste Prevention Rule (Section V, pp. 25-32).

- BLM has violated the National Environmental Policy Act by predetermining the outcome of its assessment, failing to consider a reasonable range of alternatives,

[1] This document, and all subsequently cited documents, have been submitted as exhibits to BLM, via hand-delivery to BLM's Washington Office, 20 M Street SE., Room 2134 LM, Washington, DC 20003. Due to their voluminous size, it was not possible to submit the exhibits via Regulations.gov. However, Joint Environmental Commenters fully intend for BLM to consider and include all of these documents in the Administrative Record for this rulemaking. A full list of exhibits is included as Appendix 1 to these comments.

failing to complete an Environmental Impact Statement, and failing to take a "hard look" at the impacts of its proposal (Section VI, pp. 32-51).

The sections below set forth each of these flaws in greater detail.

II. The Waste Prevention Rule Addresses the Severe Problem of Waste of Publicly-Owned Resources and Attendant Pollution, and the Suspension Proposal Will Have Substantial Costs for the American Public.

Under the Mineral Leasing Act ("MLA"), BLM has a duty to ensure that oil and gas companies developing publicly-owned natural resources "use all reasonable precautions to prevent waste of oil or gas." 30 U.S.C. § 225. Pursuant to this provision and other statutory mandates, BLM has long regulated venting and flaring of natural gas produced on public lands and determined when operators must pay royalties to the federal government for wasted gas. *See* 81 Fed. Reg. at 83,017 (discussing BLM regulation under Notice to Lessees and Operators of Onshore Federal and Indian Oil and Gas Leases ("NTL-4A"), 44 Fed. Reg. 76,600 (Dec. 27, 1979)).

In 2008 and 2010, the Government Accountability Office ("GAO") acknowledged the pervasive problem of preventable natural gas waste and associated air pollution on public and tribal lands and an outdated royalty system in need of "comprehensive reassessment." 81 Fed. Reg. 83,008, 83,010 (Nov. 18, 2016) (citing GAO, Oil and Gas Royalties: The Federal System for Collecting Oil and Gas Revenues Needs Comprehensive Reassessment, GAO–08–691, September 2008; GAO, Federal Oil and Gas Leases: Opportunities Exist to Capture Vented and Flared Natural Gas, Which Would Increase Royalty Payments and Reduce Greenhouse Gases, GAO–11–34, (Oct. 2010) ("GAO 2010")). BLM had not updated its regulations addressing natural gas waste and royalty payments in more than three decades. 81 Fed. Reg., at 83,017. Meanwhile, technology has advanced: new drilling and gas capture technologies fundamentally have changed the amount of gas that can be cost-effectively captured and put to use. *Id*.

BLM estimates that federal oil and gas lessees vented or flared more than 462 billion cubic feet of natural gas on public and tribal lands between 2009 and 2015. *Id.* at 83,015. This wasted gas is vented or flared from wells and associated equipment—sometimes by design, but also often due to improper functioning. And that figure does not even account for the significant amount of gas that leaks from wells and storage site equipment. *Id.* Much of this wasted gas could be captured or avoided using proven technologies and sold to consumers. *Id*. at 83,009–11. Doing so would save millions of dollars in lost royalty revenues for federal, state, and tribal governments that could be used for schools, health care, and infrastructure. *Id.* at 83,014.

Venting, flaring, and leaking natural gas into the air also harms human health and the environment. Natural gas is composed of methane, a powerful greenhouse gas, as well as other smog-forming volatile organic compounds ("VOCs") and carcinogenic hazardous air pollutants, which cause serious negative public health effects. *Id.* at 83,009, 83,014–15. In addition to preventing waste, BLM also has an obligation to account for these harms under the Federal Land Policy and Management Act ("FLPMA"), which directs BLM to manage public lands "in a manner that will protect … environmental, [and] air and atmospheric … values," 43 U.S.C.

§ 1701(a)(8), and to "take any action necessary to prevent unnecessary or undue degradation" of public lands, 43 U.S.C. § 1732(b).

In 2014, BLM commenced a rulemaking process to study and address wasteful venting, flaring, and leaking of natural gas on public and tribal lands. 81 Fed. Reg. at 83,010. After soliciting extensive stakeholder feedback from states, tribes, companies, trade organizations, non-governmental organizations, and citizens, BLM issued a proposed rule in early 2016. *Id*. BLM held public meetings and tribal consultations on the proposed rule in Farmington, New Mexico; Oklahoma City, Oklahoma; Denver, Colorado; and Dickinson, North Dakota, and considered more than 330,000 public comments before finalizing the Waste Prevention Rule on November 18, 2016. *Id.* The Rule became effective on January 17, 2017. *Id.* at 83,008.

Among the Rule's requirements, operators must capture and sell natural gas that would otherwise be vented or flared, based on a phased-in capture target that tightens from 85% in January 2018 to 98% by 2026. *Id.* at 83,082 (discussing 43 C.F.R. § 3179.6(b)). Operators also must comply with specific performance standards to reduce waste from some types of equipment, like storage tanks and pneumatic controllers, periodically inspect their facilities for leaks, and promptly repair any leaks identified. *Id.* at 83,010–11.

BLM estimated that the Rule would reduce wasteful venting of natural gas by 35% and wasteful flaring by 49%, and increase royalties by up to $14 million per year. *Id.* at 83,014. BLM found that the Rule would significantly benefit local communities, public health and the environment by increasing royalty revenues, reducing the visual and noise impacts associated with flaring, protecting communities from smog and carcinogenic air toxic emissions, and reducing greenhouse gas pollution. *Id.* BLM concluded that the Waste Prevention Rule's benefits outweighed its costs "by a significant margin," with "net benefits ranging from $46 million to $199 million per year." *Id.* at 83,104. These gains are large compared to the modest average annual compliance costs, which average out to just $55,800 per year for even the smallest companies, or only around 0.15% of per company profits. *Id.*

The Suspension Proposal, by contrast, fails to fulfill BLM's obligations, pursuant to the MLA and FLPMA, to responsibly oversee oil and gas drilling on public lands and to serve the public interest by preventing the waste of natural gas and its associated harmful pollution. Instead of preventing waste, BLM's Suspension Proposal will enable it, reducing royalties received by the federal, state, local, and tribal governments. BLM itself acknowledges that the Suspension Proposal will allow a significant waste of natural gas—around 9.0 billion cubic feet (bcf) during the year that the Rule is delayed; and a corresponding reduction in royalties of $2.61 million during that time. BLM, Regulatory Impact Analysis for the Proposed Rule to Suspend or Delay Certain Requirements of the 2016 Waste Prevention Rule ("2017 RIA") at 40, 42 (Sep. 27, 2017).

This wasted natural gas will have harmful impacts on public health and the environment, with BLM projecting additional emissions of 175,000 tons of methane and 250,000 tons of VOCs during the year of the Suspension Proposal. *Id.* at 31. Methane is a powerful short-term climate forcer with over 80 times the global warming potential of carbon dioxide on a mass basis over the first 20-years after it is emitted, or over 36 times the global warming potential of carbon

dioxide on a mass basis over 100 years. The methane emissions associated with BLM's Suspension Proposal are the climate equivalent of adding 850,000 passenger vehicles at the 100-year global warming potential. VOCs react with nitrogen oxides to form ground-level ozone, or smog, which causes respiratory and cardiovascular illnesses, exacerbates asthma, and can result in premature death. Other hazardous air pollutants emitted by oil and gas sources include benzene, a known human carcinogen.

While BLM's Suspension Proposal will have broad negative impacts on public welfare through wasted natural gas, diminished royalties, and harmful impacts for public health and the environment, it will have little impact on the oil and gas industry. Indeed, BLM concluded that the suspension would not "substantially alter the investment or employment decisions of firms." *Id.* at 44.

III. BLM's Suspension Proposal is Unlawful.

Although BLM claims the Suspension Proposal is "straightforward" and "narrow," that is not the case. 82 Fed. Reg. at 46,460. BLM's Suspension Proposal would substantively amend the Waste Prevention Rule by rescinding regulations that are already in place and delaying significant, future compliance deadlines for one year. It would allow for waste of public natural gas, decrease royalty payments to states, tribes, and local communities, and pollute the air. It also represents a dramatic change in position from BLM's prior conclusion that the suspended requirements represent "reasonable precautions to prevent waste of oil or gas," 30 U.S.C. § 225, as required by the MLA.

Furthermore, BLM concedes that the delay is a critical step in its plan to rescind or revise the Waste Prevention Rule. Yet, the extent of BLM's explanation for this substantive revision is that "it is currently reviewing the [Rule] and wants to avoid imposing temporary or permanent costs on operators for requirements that may be rescinded or significantly revised in the near future." 82 Fed. Reg. at 46,458. BLM has no explicit or inherent authority to suspend a rule solely for the purpose of reconsidering it. While BLM can, of course, revise its regulations, the agency must act in a manner consistent with the statute, and BLM has not provided a justification for the Suspension Proposal grounded in the MLA or required by the Administrative Procedure Act ("APA") to amend the Waste Prevention Rule in this manner.

A. BLM Has No Explicit or Inherent Authority to Suspend a Rule while It Reconsiders It.

BLM attempts to change the compliance dates for the Waste Prevention Rule long after its effective date, but fails to cite any explicit grant of statutory authority for doing so. Nor does the agency have the "inherent" authority to act in this manner. Agencies are creatures of Congress; "an agency literally has no power to act . . . unless and until Congress confers power upon it." *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U. S. 355, 374 (1986); *see Am. Library Ass'n v. FCC*, 406 F.3d 689, 689 (D.C. Cir. 2005) ("It is axiomatic that administrative agencies may issue regulations only pursuant to authority delegated to them by Congress."). BLM's Suspension Proposal makes clear that it seeks to suspend the Waste Prevention Rule pending the agency's reconsideration of the Rule. *E.g.*, 82 Fed. Reg. at 46,458, 46,461 (seeking to "prevent

operators from being unnecessarily burdened by regulatory requirements that are subject to change"). Yet, BLM points to no authority in the APA or any of its governing statutes to suspend a final rule while the agency is reconsidering it, and that is because there is none. Likewise, as the D.C. Circuit recently reaffirmed, an agency has no "inherent authority" to suspend a lawfully issued final rule while it reconsiders it. *Clean Air Council v. Pruitt*, 862 F.3d 1, 9 (D.C. Cir. 2017) (quoting *Natural Res. Def. Council v. Abraham*, 355 F.3d 179, 202 (2d Cir. 2004)).

BLM does not cite to the APA as providing authority for the suspension, nor could it: the APA provides only limited authority for agencies to suspend not-yet-effective regulations pending judicial review where "justice so requires." 5 U.S.C. § 705; *California v. BLM*, No. 17-cv-3804-EDL, 2017 WL 4416409 (Oct. 4, 2017) (holding that BLM did not satisfy the prerequisites for a stay of the Waste Prevention Rule under section 705 of the Administrative Procedure Act). Indeed, the fact that Congress provided one specifically-delineated pathway for suspending final rules in the APA supports the position that it did not grant agencies carte-blanche authority to suspend regulations whenever they so desire.

Nor do any of BLM's substantive statutes authorize the agency to suspend a duly promulgated final rule because the agency is reconsidering it (or, for that matter, for any reason). Where Congress has intended to authorize such suspensions, it has expressly provided that authority and in carefully delineated terms. *See* 42 U.S.C. § 7607(d)(7)(B) (granting EPA authority to stay a rule for 90 days during a statutorily defined reconsideration proceeding). Accordingly, BLM lacks explicit or inherent authority to suspend a duly promulgated regulation in order to reconsider it.

BLM attempts to rely on its general statutory authority to "promulgate such rules and regulations as may be necessary to carry out the statutes' various purposes" and to "promot[e] the development of Federal and Indian oil and gas resources for the financial benefit of the public and Indian mineral owners." 82 Fed. Reg. at 46,460 (citing *California Co. v. Udall*, 296 F.2d 384, 388 (D.C. Cir. 1961)). Based on this general statutory authority, BLM conflates the suspension of the Rule with a reconsideration of it, claiming that it has "inherent authority to reconsider the 2016 final rule," and that the Suspension Proposal is "part of" this reconsideration. 82 Fed. Reg. 46,460 (citing *Ivy Sports Med., LLC v. Burwell*, 767 F.3d 81, 86 (D.C. Cir. 2014)). However, BLM's action to delay the compliance deadlines is a *separate* action from BLM's reconsideration of the Rule. Because there is no specific authority authorizing the Suspension Proposal, BLM may only suspend or revise compliance dates by complying with the relevant legal procedures, including considering whether the change is authorized under its statutory authorities, offering good reasons for its changed position, and building an administrative record to support the change. Here, BLM attempts to bypass these required procedures, but lacks any statutory authority for doing so.

There are good reasons for limitations in administrative law on quickly suspending rules: they give certainty both to the regulated community and the public. The hasty exercise of authority to suspend promulgated rules during reconsideration disturbs the settled expectations of the regulated industry and public alike. *See Abraham*, 355 F.3d at 197 ("It is inconceivable that Congress intended to allow such unfettered agency discretion to amend standards . . . such a result would completely undermine any sense of certainty on the part of manufacturers as to the

required energy efficiency standards at a given time."); *cf. Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut. Auto. Ins. Co.,* 463 U.S. 29, 41 (1983) (A "settled course of behavior embodies the agency's informed judgment that, by pursuing that course, it will carry out those policies committed to it by Congress. There is, then, at least a presumption that those policies will be carried out best if the settled rule is adhered to.").

A deliberative, reasoned, and informed rulemaking helps to ensure that agencies do not change policies without a thorough review, that they have adequately explained why the new policy is consistent with the statute, and that there are good reasons for the change with support in the record. A hasty rulemaking to suspend a duly promulgated regulation, based principally upon a new Secretary's desire to rethink the regulation—*without* thorough study, input, and explanation—undermines the whole premise of ensuring that standards are amended only after a deliberative process. *See Consumer Energy Council of Am. v. FERC*, 673 F.2d 425, 446 (D.C. Cir. 1982), *aff'd sub nom. Process Gas Consumers Grp. v. Consumer Energy Council of Am.*, 463 U.S. 1216 (1983) ("The value of notice and comment prior to repeal of a final rule is that it ensures that an agency will not undo all that it accomplished through its rulemaking without giving all parties an opportunity to comment on the wisdom of repeal").

Regulatory certainty on the part of both the regulated industry and the public depends on agencies enforcing duly promulgated regulations until they are duly revised or revoked. Shortcuts to revising or repealing a rule on the simple premise that the rule is being "reconsidered" create uncertainty. If BLM may delay for one year key provisions of the Waste Prevention Rule merely so that it can "reconsider" them, then there is no reason that—should BLM ultimately rescind the Waste Prevention Rule's requirements—a future BLM could not simply delay that rescission itself so that it could "reconsider" it, quickly putting the Waste Prevention Rule's requirements back into effect. This cannot be what Congress had in mind when it required agencies to undergo a deliberative process to promulgate and revise rules.

So while it is true that BLM may reconsider the Waste Prevention Rule, and may seek to revise the Rule so long as it allows for meaningful public input, explains how the revision is lawful under its governing statutes, and gives good reasons for the revisions based in the record, that, as explained above, is *not* what BLM is doing here. It cannot circumvent those procedures by purporting to find "suspension" authority that it does not have.

B. BLM Has Failed to Justify the Change in Compliance Dates that it Now Proposes.

In effect, what BLM attempts to do here is to *substantively revise* the Waste Prevention Rule by suspending provisions that are already in effect and delaying future compliance deadlines for one year (and—as it has suggested—likely for far longer). *See Council of So. Mountains, Inc. v. Donovan*, 653 F.2d 573, 580 (D.C. Cir. 1981) ("[T]he December 5 order was a substantive rule since, by deferring the requirements that coal operators supply life-saving equipment to miners, it had 'palpable effects' upon the regulated industry and the public in general."); *id.* at 582 n.40 ("[T]he December 5 order . . . was an amendment to a mandatory safety standard."). But absent any explicit statutory shortcut that would allow BLM to stay the rule as discussed above, BLM has not gone through the proper procedure to make a substantive

revision to an already-effective rule prescribed in *FCC v. Fox Television Stations, Inc.* 556 U.S. 502, 514-16 (2009).

When an agency seeks to substantively revise a rule, such revisions must be permissible under the statute and be accompanied by "good reasons" that are supported by the agency's record. *Id.* (agency changing course must show "[1] that the new policy is permissible under the statute, [2] that there are good reasons for it, and [3] that the agency *believes* it to be better," and must offer a "reasoned explanation . . . for disregarding facts and circumstances that underlay or were engendered by the prior policy"); *State Farm*, 463 U.S. at 57 ("[A]n agency changing course must supply a reasoned analysis."); *Am. Petroleum Inst. v. EPA*, 862 F.3d 50, 66 (D.C. Cir. 2017) (changes to agency rules must be "justified by the rulemaking record" (citing *State Farm*, 463 U.S. at 42). As the basis for reversing course, an agency may not offer a justification "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." *State Farm*, 463 U.S. at 43. When an agency does make new factual findings to support a new policy, if those findings contradict the prior record, the agency faces a higher burden in demonstrating that the change is reasoned. *Fox Television*, 556 U.S. at 515. An agency may not "disregard contrary or inconvenient factual determinations that it made in the past, any more than it can ignore inconvenient facts when it writes on a blank slate." *Id*.

The scant reasoning provided by BLM to depart from the rigorously-supported Waste Prevention Rule—that it wishes to reconsider the Rule and does not want industry to have to incur compliance costs in the meantime (a reason that could be used to suspend *any* regulation)—fails to meet this reasoned decision-making threshold.

1. The Suspension Proposal is Not Permissible Under BLM's Statutory Mandates.

BLM adopted the Waste Prevention Rule specifically to fulfill its legal mandates under the Mineral Leasing Act ("MLA") and other statutory frameworks. The MLA directs the Interior Department to require "all reasonable precautions" to prevent waste. 30 U.S.C. § 225. Likewise, the MLA requires that each federal lease "shall contain provisions for the purpose of insuring the exercise of reasonable diligence, skill, and care in the operation of said property . . . and for the prevention of undue waste." *Id.* at § 187. BLM is empowered to "prescribe necessary rules and regulations" and "do any and all things necessary" to carry out these purposes. *Id.* at § 189.

Preventing companies that profit from the development of publicly-owned oil and gas from wasting that oil and gas is a central part of the MLA's statutory goals. *See* 81 Fed. Reg. 6,616, 6,629 (Feb. 8, 2016). BLM has acknowledged it has a "responsibilit[y] under the MLA . . . to ensure that lessees 'use *all reasonable precautions* to prevent waste of oil or gas developed in the land.'" 2016 Rule EA at 7 (quoting 30 U.S.C. § 225) (emphasis added). The MLA's use of "all" to modify the term "reasonable precautions" shows that Congress intended BLM to aggressively control waste. Thus, the agency may not forego reasonable and effective measures limiting venting, flaring and leaks for the sake of administrative convenience or to enhance the bottom lines of operators. *See Halliburton, Inc. v. Admin. Review Bd.*, 771 F.3d 254, 266 (5th Cir. 2014) (ruling that statutory term "all relief necessary" authorized broad remedies against

defendant because "we think Congress meant what it said. All means all.") (internal quotation omitted); *Cty. of Oakland v. Fed. Housing Fin. Agency*, 716 F.3d 935, 940 (6th Cir. 2013) ("a straightforward reading of the statute leads to the unremarkable conclusion that when Congress said 'all taxation,' it meant *all* taxation.") (emphasis original)).[2]

BLM issued the Waste Prevention Rule in 2016 to carry out these statutory obligations. *See generally* 81 Fed. Reg. 83,008 (Nov. 18, 2016). The Rule updated the agency's waste prevention requirements, replacing the outdated notice to lessees (NTL-4A) that had been issued in 1980. *Id.* BLM determined that NTL-4A needed to be replaced for three primary reasons: (1) it did "not reflect modern technologies, practices, and understanding of the harms caused by venting, flaring, and leaks of gas," 81 Fed. Reg. at 83,015; (2) it was not "particularly effective in minimizing waste of public minerals," as demonstrated by the GAO reports and other studies, *id.* at 83,017; and (3) it was "subject to inconsistent application," *id.* at 83,038; *see also* GAO (2010), *supra* pp. 3. To remedy these problems, and based on an extensive record and explanation, BLM adopted the provisions of the Waste Prevention Rule as "reasonable precautions" necessary to prevent waste. *See* 81 Fed. Reg. at 83,009 (stating that the Rule sets forth "economical, cost-effective, and reasonable measures that operators can take to minimize gas waste").[3]

The Suspension Proposal allows the waste targeted in the Waste Prevention Rule to continue unabated for another year. As BLM concedes, the Suspension Proposal "would temporarily suspend or delay almost all of the requirements in the 2016 final rule that . . . generate benefits of gas savings or reductions in methane emissions." 82 Fed. Reg. at 46,464. As BLM has already determined in the extensive findings made during the rulemaking process for the Waste Prevention Rule, this constitutes unreasonable waste under the MLA.

Notably, the Suspension Proposal would suspend compliance dates without offering a substitute mechanism to prevent waste, despite the fact that BLM continues to propose and

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[2] BLM also is mandated to consider and mitigate the environmental impacts of operations utilizing public lands under the MLA and FLPMA. BLM's failure to do so in the Delay Proposal violates these statutory obligations. For example, the MLA instructs BLM "to prescribe necessary and proper rules and regulations" to "insur[e] the exercise of reasonable diligence, skill, and care in the operation of [leased] property," and to "protect[] . . .. the interests of the United States and . . . safeguard[] . . . the public welfare." 30 U.S.C. §§ 187, 189. Likewise, FLPMA requires BLM "by regulation or otherwise" to "take any action necessary to prevent unnecessary or undue degradation" of public lands. 43 U.S.C. § 1732(b). Under FLPMA's multiple use mandate, *see id.* § 1702(c), "BLM must strike a balance that avoids 'permanent impairment of the productivity of the land and the quality of the environment.'" *Utah v. U.S. Dep't of Interior*, 535 F.3d 1184, 1187 (10th Cir. 2008) (quoting 43 U.S.C. § 1702(c)). "It is past doubt that the principle of multiple use does not require BLM to prioritize development over other uses." *N.M. ex rel. Richardson v. BLM*, 565 F.3d 683, 710 (10th Cir. 2009).

[3] Because the complete Administrative Record supporting the Waste Prevention Rule is therefore relevant to BLM's current decisionmaking process, the Joint Environmental Commenters have attached it as an Addendum to these comments. The Addendum was submitted via hand-delivery to BLM's Washington Office, 20 M Street SE., Room 2134 LM, Washington, CO 20003, on a USB Drive, and also sent via overnight delivery.

approve new oil and gas leases and drilling permits and that existing equipment continues to emit large quantities of methane. Because the Waste Prevention Rule superseded NTL-4A, *see* 82 Fed. Reg. at 46,459, and the Suspension Proposal suspends and delays BLM's new waste prevention measures, the effect of BLM's proposal is to create a new regulatory regime devoid of any requirements that operators take *any* reasonable precaution to minimize waste—let alone take *all* reasonable precautions. Such action would violate the MLA.[4]

At a minimum, BLM has an obligation to explain its view that authorizing additional waste is permissible under its statutory authorities, and allow for public comment on that view. *Fox Television,* 556 U.S. at 514-16. But the Suspension Proposal is devoid of such analysis. Despite the fact that BLM adopted the Waste Prevention Rule for the express purpose of preventing unreasonable waste, reducing associated pollution, and ensuring safety,[5] BLM proposes to suspend and delay those obligations without any evaluation of how a suspension fulfills its statutory obligation with respect to waste, air pollution, or safety.

2. BLM fails to demonstrate that there are good reasons for the Suspension Proposal or adequately explain its change in position.

BLM's Suspension Proposal represents a significant change in the agency's position with respect to waste. But BLM fails to provide even the most minimal explanation for this change in position or support in the record, rendering its decision arbitrary and capricious. *Fox Television*, 556 U.S. at 514-16; *State Farm*, 463 U.S. at 57.

BLM has failed to provide any support for the need for the Suspension Proposal. According to BLM, its current review process was triggered by a finding that the Waste Prevention Rule "appears to be inconsistent with the policy in section 1 of the Executive Order 13783, [entitled "Promoting Energy Independence and Economic Growth"]." 82 Fed. Reg. at 46,459. Specifically, BLM claims that it "found that some provisions of the rule appear to add regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation." 82 Fed. Reg. at 46,459. As a result, BLM is currently reconsidering the 2016 Regulatory Impact Analysis (RIA) that it used to support adoption of the Waste Prevention Rule. But even without the results of that reconsideration, BLM claims that the 2016 RIA "indicates that the rule poses a *substantial burden* on industry." 82 Fed. Reg. at 46,459 (emphasis added). This conclusion represents a dramatic change in position, without *any* explanation or support in the record.

BLM previously determined that the Waste Prevention Rule set forth "economical, cost-effective, and reasonable measures that operators can take to minimize gas waste." 81 Fed. Reg.

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[4] BLM argues that waste will not be unregulated as a result of the proposed stay because of existing EPA and state requirements. *See* RIA at 17-18; *see also* EA at 12-13. But BLM has already determined that these existing regulations are insufficient to ensure that operators are taking all reasonable measures to control waste. *See* 81 Fed. Reg. at 6,634; 81 Fed. Reg. at 83,010, 83,018. BLM has provided no evidence to dispute its prior finding.

[5] *See* 81 Fed. Reg. at 83,049 ("the requirement to flare rather than vent associated gas is justified as a safety measure under the MLA"); 30 U.S.C. § 187 ("such rules for the safety and welfare of the miners…as may be prescribed by said Secretary shall be observed").

at 83,009. Even for the smallest companies, the compliance costs represent only about 0.15% of annual, average profits. *Id.* at 83,013–14. As BLM acknowledges in the Suspension Proposal, the 2016 RIA "concluded that the requirements were not expected to impact the employment within the oil and gas extraction, drilling oil and gas wells, and support activities industries, in any material way." 82 Fed. Reg. at 46,465. In addition to these modest compliance costs, the 2016 RIA recognizes that there are provisions exempting operators from compliance if such costs would force the operator to stop developing the resource. *Id.* Most of the substantive provisions BLM proposes to stay include such exemptions. *See* 43 C.F.R. §§ 3179.8(a) (creating exemption for § 3179.7); 3179.201(b)(4); 3179.202(f); 3179.203(c)(3); 3179.303(c). Additionally, in opposing industry's request for a preliminary injunction against the Waste Prevention Rule, BLM argued that the Rule entails only "modest compliance costs," which are justified based on the many benefits of the Rule. Fed. Opp'n at 66, *Wyoming v. U.S. Dep't of the Interior*, No. 2:16-cv-285 (D. Wyo. Dec. 15, 2016), ECF No. 70.

Relying on the same evidence, BLM now summarily concludes that the costs to industry pose a "substantial burden." BLM's failure to offer any explanation or factual support for its dramatic change in position regarding the Rule's costs casts doubt on the claims and renders the decision arbitrary and capricious. In fact, BLM relies on the findings in the 2016 RIA to conclude that the impacts of the Suspension Proposal on employment and small businesses are relatively small. *See* 82 Fed. Reg. at 46,465-66. But these conclusions entirely undercut BLM's stated need for the proposed rule.

BLM also claims that it "attempted to tailor the proposed rule so as to target the requirements of the 2016 final rule for which immediate regulatory relief appears to be particularly justified." 82 Fed. Reg. at 46,460. As explained further below, *infra* Section IV, no such regulatory relief is necessary or justified. And BLM offers no explanation for why the Suspension Proposal would suspend provisions that BLM itself acknowledges pay for themselves in a short period of time. *E.g.*, *id.* at 46,462 (acknowledging that BLM estimate the pneumatic controller requirement would impose costs of about $2 million per year and generate cost savings from product recovery of $3 to $4 million per year); *id.* at 46,463 (acknowledging that BLM estimates that the liquids unloading provisions would impose costs of about $6 million per year and would generate cost savings of $5 to $9 million per year); *infra* at 19 (explaining that 2016 RIA found that value of gas saved outweighed the cost of the capture targets in the first two years that the targets apply). Staying these provisions does not even support BLM's claimed rationale for the Suspension Proposal.

And even if avoiding compliance costs (without any explanation for its change in position or examination of whether those compliance costs are reasonable in light of its statutory mandate and the record facts) could form the rationale for the delay, which we do not concede here, it is still arbitrary and capricious. That is because BLM has not explained why changing the status quo while BLM reviews the Rule to alleviate operators of these compliance costs should weigh so much more heavily than maintaining the benefits to the public in the form of reduced waste and pollution from retaining the status quo during BLM's review.

Beyond costs, BLM's only rationale for the Suspension Proposal is the uncertainty regarding whether the Waste Prevention Rule will be changed through its review process. 82

Fed. Reg. at 46,458. As an initial matter, BLM appears to exclude the possibility that after its review it might decide to retain the Waste Prevention Rule. If it did, the Suspension Proposal would simply enhance regulatory uncertainty, all while wasting additional publicly-owned minerals and causing significant pollution. Indeed, keeping the Rule in place would assist BLM's review because BLM could then gather data on how effective the Waste Prevention Rule is at fulfilling the statutory waste prevention mandate and that data could inform BLM's thinking on how the Rule might be revised, if at all, to better serve that mandate through actual experience. BLM's failure to even consider this possibility renders the Suspension Proposal arbitrary and capricious.

In the end, BLM cannot give "good reasons" based in the record for the Suspension Proposal because it has not considered its statutory mandate to prevent waste, the prior rulemaking record demonstrating how the Waste Prevention Rule prevents waste, or the extent of benefits foregone by the Suspension Proposal. The agency must offer a justification for staying the compliance deadlines "*before* engaging in a search for further evidence." *State Farm*, 463 U.S. at 151 (emphasis added); *Pub. Citizen v. Steed*, 733 F.2d 93, 98 (D.C. Cir. 1984) (striking down agency's decision to suspend its program while it "further studied" an alleged problem). The agency's plan to stay now and look at the record and give reasons later renders it unable to give any "good reasons" for staying the compliance deadlines. *See Public Citizen*, 733 F.2d at 102 ("Without showing that the old policy is unreasonable," for an agency to say that "no policy is better than the old policy solely because a new policy might be put into place in the indefinite future is as silly as it sounds.").

If permitted, BLM's abbreviated rulemaking approach would allow agencies to regularly circumvent administrative law requirements to upend the status quo and put their preferred policy result in place *before* engaging with the statute, the facts, or the public on that result. Because the reasoning is based entirely on the agency's mere desire to rethink the regulation and avoid imposing compliance costs or using its own resources to enforce the regulation, it could be used to suspend *any* regulation so long as the agency claimed a desire to rethink it. There is also no reason to think it could not be used to preliminarily put a regulation *into effect* on an interim basis and pending further administrative review. It is difficult to distinguish this suspension rule from an abbreviated notice and comment rulemaking putting a regulation into effect on an interim basis while the agency goes through the process of engaging with the public on the substance of the regulation and explaining how the regulation is consistent with the statute and the facts, based solely upon the fact that it has good reasons to think the regulation would likely ensure the prevention of waste and benefit the public once the agency has been through that process. *Cf.* 82 Fed. Reg. at 46,460 (proposing suspension "to ensure that the development of Federal and Indian oil and gas resources will not be unnecessarily hindered by regulatory burdens").

C. BLM's Proposal Defeats the Purposes of Notice and Comment Rulemaking

BLM's attempt to quickly delay the Waste Prevention Rule's compliance deadlines through an abbreviated "notice-and-comment" rulemaking undermines the purposes of meaningful notice and the opportunity for public participation that administrative law guarantees.

The purposes of the Administrative Procedure Act's ("APA") notice-and-comment provisions are "(1) to ensure that agency regulations are tested via exposure to diverse public comment, (2) to ensure fairness to affected parties, and (3) to give affected parties an opportunity to develop evidence in the record to support their objections to the rule and thereby enhance the quality of judicial review." *Int'l Union, United Mine Workers of Am. v. Mine Safety & Health Admin.,* 407 F.3d 1250, 1259 (D.C. Cir. 2005). The APA requires that an agency's notice, and the corresponding information supporting the proposed action, "must disclose in detail the thinking that has animated the form of a proposed rule and the data upon which that rule is based." *Home Box Office*, 567 F.2d at 35 (citations omitted). Thus, an agency's notice-and-comment process must be accompanied by a detailed statement and all relevant data underlying the proposal in order to allow all affected parties the opportunity to provide specific evidence in the rulemaking record to support their views on the rule, and the agency must be open to accepting public input throughout the process. BLM has failed on all accounts here.

The fundamental flaw with BLM's hasty "notice-and-comment" rulemaking is that BLM attempts to suspend the provisions of the Waste Prevention Rule now, and only later consider its statutory mandate and the record facts, seek public comment on whether to retain, revise, or repeal the Waste Prevention Rule, and explain how its ultimate decision is consistent with the statute and record facts. This "leap before you look" approach renders meaningful comment impossible, precludes the public from developing evidence to counter BLM's proposal, and all but guarantees that BLM will not retain an open-mind towards public feedback.

1. BLM's hasty notice and comment precludes the ability to provide meaningful comments.

BLM has not given any details regarding which provisions of its statutory authority the agency relies upon in promulgating the Suspension Proposal, nor the record facts that support the Suspension Proposal, so the public cannot comment on those threshold issues. *See id.* at 35–36 ("The notice required by the APA … must disclose in detail the thinking that has animated the form of a proposed rule and the data upon which that rule is based.… [A]n agency proposing informal rulemaking has an obligation to make its views known to the public in a concrete and focused form so as to make criticism or formulation of alternatives possible."). And BLM has characterized this suspension as just a step towards an ultimate repeal or rescission of the Waste Prevention Rule, yet it does not provide any information or record facts to support such a revision or repeal.

Without this basic information, commenters who object to a suspension and/or repeal of the Waste Prevention Rule are unable to provide meaningful comments. They cannot substantively comment on the Secretary's rationale—that he wishes to rethink the Rule. And public commenters should not be required to convince an agency not to *review* a rule in order to avoid a suspension of that rule. Agencies constantly review their rules; that does not mean that anytime an agency undergoes a review, it may suspend the regulation that it is reviewing. BLM also claims to want to avoid imposing temporary or permanent costs on industry and avoid expending scarce agency resources on implementation while it reviews the Waste Prevention Rule. But these costs and uncertainty are completely derivative of its own decision to reconsider. Moreover, like the Secretary's desire to review the Waste Prevention Rule, these reasons could

be given for *any* suspension, creating a massive loophole in the limited authority Congress granted agencies to suspend final rules.

Indeed, even if it were fair to require commenters to convince the agency that it should not review a rule to avoid its suspension, the Secretary does not even give substantive content to his wish to undergo that review process in order "to ensure that the development of Federal and Indian oil and gas resources will not be unnecessarily hindered by regulatory burdens," 82 Fed. Reg. at 46,460, nor explain how the suspension or repeal will promote that wish, in a manner that commenters can address. He has refused to release to the public the report required by Secretarial Order 3349, Section 5(c)(ii)—the principal document upon which this concern is purportedly based, *see* Letter from Nada Culver, The Wilderness Soc'y, to BLM (Apr. 25, 2017); Letter from Sara Kendall, W. Org of Res. Councils, to BLM (May 1, 2017); Letter from Laura King, W. Envtl. Law Ctr., to Ryan Witt, BLM (Apr. 25, 2017)—and has not included *any* documents or data supporting this claim in the Suspension Proposal docket. Indeed, if anything, the RIA accompanying the Suspension Proposal suggests that the one-year suspension of the Rule will have a *negative* effect on the development of Federal and tribal gas resources, and no effect on the development of oil resources. 2017 RIA at 40.

Without knowing how BLM proposes to interpret the Mineral Leasing Act's waste prevention mandate and associated Federal Land Policy and Management mandates, and what record facts it believes support a suspension or repeal, the public cannot meaningfully engage with or try to persuade BLM not to delay the Waste Prevention Rule. *See Consumer Energy Council of Am.*, 673 F.2d at 445-46 ("The value of notice and comment prior to repeal of a final rule is that it ensures that an agency will not undo all that it accomplished through its rulemaking without giving all parties an opportunity to comment on the wisdom of repeal"). Because BLM's reasoning for the delay is almost entirely based upon its desire to review the Waste Prevention Rule—a non-substantive reason that could be applied to any regulation—there is no substance or BLM reasoning to comment upon and commenters cannot "develop evidence in the record to support their objections to the rule." *Int'l Union, United Mine Workers of Am.*, 407 F.3d at 1259.

The timing and length of the comment period also demonstrates that BLM is not seeking meaningful public input. BLM has already committed to issuing a final suspension by December 8, without even knowing what information commenters will provide and how those comments might influence the agency to either retain or alter its Suspension Proposal. The short 30-day comment period, as compared to the 74-days the agency allowed to comment on the rule in the first place, is insufficient to give commenters the necessary amount of time to analyze and offer evidence regarding BLM's new Regulatory Impact Assessment and Environmental Assessment—assessments that provide the agency's understanding of the Suspension Proposal's impacts without providing the underlying rationale that the public has a right to review and critique.

Furthermore, in the Final RIA for the Waste Prevention Rule, BLM included a social cost of methane, whose methodology had undergone significant notice-and-comment, as part of its calculation of the Rule's benefits. *See infra* Section V; *see also* 78 Fed. Reg. 70,586 (Nov. 26, 2013) (setting 60-day comment period); 79 Fed. Reg. 4359 (Jan. 27, 2014) (extending comment period for 30 days). Yet BLM now claims that a 30-day comment period is appropriate because

its proposal is "narrow" and only involves a "simple and temporary suspension and delay," ignoring the Bureau's adoption of a new "interim" social cost of methane that fundamentally changes the RIA. 82 Fed. Reg. at 46,460; 2017 RIA at 2. This change does not just impact the Suspension Proposal, but may impact countless proposals from other agencies. Thirty days is not sufficient time for the public to review and comment on this significant change.

2. The fact that the Secretary has already determined the outcome of the rulemaking defeats the principal that meaningful comment requires agencies to keep an open mind.

BLM's efforts to suspend the Waste Prevention Rule fundamentally undermine the basic premise that agency decisionmakers "maintain[] a flexible and open-minded attitude towards its own rules." *See United States v. Reynolds*, 710 F.3d 498, 517 (3d Cir. 2013). It is well established that an agency decisionmaker should be disqualified from participating in a regulatory decision where he or she has displayed an "unalterably closed mind on matters critical to the disposition of the proceeding." *C & W Fish Co. v. Fox*, 931 F.2d 1556, 1565 (D.C. Cir. 1991). An agency official must often "engage in debate and discussion about the policy matters before him." *Id*. at 1569. However, when "clear and convincing" evidence reveals that a decisionmaker has a closed mind on matters critical to the disposition of the proceeding, id., courts have intervened to set aside such decisions. *See e.g., Nehemiah Corp. of America v. Jackson*, 546 F. Supp. 2d 830, 847-48 (E.D. Cal. 2008) (disqualifying the HUD Secretary from a decision after he made statements in the press indicating his preferred outcome).

For nearly his entire tenure, Secretary Zinke has been working single-mindedly to suspend or otherwise undo the Waste Prevention Rule. Secretary Zinke's public statements make clear that he has predetermined the outcome of this rulemaking, compromising the integrity of the decsionmaking process and effectively removing public stakeholders from meaningful participation. For example, when asked about the Waste Prevention Rule, Secretary Zinke characterized it as "duplicative and unnecessary." Charlie Passut, *Trump Picks Montana's Rep. Zinke to Lead Interior Department*, Naturalgasintel.com, (Dec. 16, 2016) *available at* http://www.naturalgasintel.com/articles/108737-trump-picks-montanas-rep-zinke-to-lead-interior-department. Later, he answered "yes" when directly asked by a Senate committee whether he supported congressional efforts to repeal the rule through a Congressional Review Act resolution. Alleen Brown, *Interior Pick Ryan Zinke Vows to Review Obama's Safeguards Against Fossil Fuel Extraction*, The Intercept, (Jan. 18, 2017) *available at* https://theintercept.com/2017/01/18/interior-pick-ryan-zinke-vows-to-review-obamas-safeguards-against-fossil-fuel-extraction/. These statements demonstrate an unalterably closed mind and should disqualify Secretary Zinke from participating in this proceeding. *See Nehemiah Corp.*, 546 F. Supp. 2d at 847-48 (finding that HUD Secretary had an unalterably closed mind when, according to a Bloomberg story, he indicated that he would ban the program at issue "over objections from nonprofit groups," and had stated, "I'm very much against it. . . . I think it's wrong. I don't want to continue to be a partner in a program where so many people can't afford to keep up their payments.").

These unequivocal public statements undermine the objectivity of the decisionmaking process and discourage public engagement. As the court observed in *Nehemiah Corp.*,

"[a]llowing the public to submit comments to an agency that has already made its decision is no different from prohibiting comments altogether. Indeed, if the public perceives that the agency will disregard its comments, there may be a chilling effect that causes the public to refrain from submitting comments as an initial matter." *Id*. at 847. In much the same way, BLM is deliberately disadvantaging those public interests advocating against repealing the Waste Prevention Rule. *See Sharon Steel Corp. v. EPA*, 597 F.2d 377, 381 (3d Cir. 1979) ("Provision of prior notice and comment allows effective participation in the rulemaking process while the decisionmaker is still receptive to information and argument. After the final rule is issued, the petitioner must come hat-in-hand and run the risk that the decisionmaker is likely to resist change.").

That Secretary Zinke cannot be an objective decisionmaker is further underscored by his actions, which reflect a single-minded focus on eliminating the Waste Prevention Rule.

As described above, the Secretary publicly supported congressional efforts to invalidate the Waste Prevention Rule through the Congressional Review Act ("CRA"). When a majority of Senators voted against proceeding to disapprove of the Rule, the Secretary then attempted to suspend the Waste Prevention Rule on his own. On June 15, 2017, BLM published a notice—with no opportunity for public comment and no analysis of the impacts the suspension would have on the public—that it was postponing compliance dates for certain sections of the Waste Prevention Rule pursuant to section 705 of the APA, 5 U.S.C. § 705. Waste Prevention, Production Subject to Royalties, and Resource Conservation; Postponement of Certain Compliance Dates, 82 Fed. Reg. 27,430, 27,431 (June 15, 2017). Soon after the June 15, 2017 notice was published, BLM represented to the District of Wyoming that it had "developed a three step plan to propose to revise or rescind the Rule and prevent any harm from compliance with the Rule in the interim." Fed. Resp'ts' Mot. to Extend Briefing Deadlines at 3, *Wyoming v. U.S. Dep't of the Interior*, No. 2:16-cv-285-SWS (D. Wyo. June 20, 2017), ECF No. 129

The states of New Mexico and California, along with a coalition of citizen groups, challenged the postponement notice in the U.S. District Court for the Northern District of California, ultimately moving for summary judgment on claims that the postponement notice violated the APA. The court granted the summary judgment motions and vacated the postponement notice, holding, among other things, that the Secretary had unlawfully failed to seek public input on this suspension.

With the section 705 postponement notice vacated, BLM initiated the present notice and comment rulemaking proposing to suspend or delay certain of the Waste Prevention Rule's requirements. 82 Fed. Reg. at 46,458. As in the postponement notice, BLM rationalized the Suspension Proposal by explaining it wanted to "avoid imposing temporary or permanent compliance costs on operators for requirements that might be rescinded or significantly revised in the near future," *id* at 46,460, a rationale that assumes BLM has already determined to suspend the Rule and eventually to do away with its requirements altogether.

Shortly after issuing the Suspension Proposal, BLM filed a motion to extend the merits briefing deadlines in ongoing litigation concerning the Waste Prevention Rule in federal district court in Wyoming. In this motion, BLM stated:

> The extension will provide sufficient time to [BLM] to complete a rule ("Suspension Rule") suspending or delaying the majority of the provisions of the [Waste Prevention Rule], including the portions of the Waste Prevention Rule that would otherwise become effective on January 17, 2018. As BLM aims to complete the Suspension Rule by December 8, 2017 and is currently working on a second rulemaking ("Revision Rule") to revise or rescind the Waste Prevention Rule . . . proceeding with the merits briefing at this time would be a waste of judicial resources and would undermine the administrative process.

Fed. Resp'ts' Mot. for an Extension of the Merits Briefing Deadlines at 2, *Wyoming v. U.S. Dep't of the Interior*, No. 2:16-cv-285-SWS (D. Wyo. Oct. 20, 2017), ECF No. 155. BLM went on to say that "[o]nce the Suspension Rule is completed, it will provide the immediate relief sought by Petitioners—relief from the portions of the Waste Prevention Rule that would otherwise come into effect on January 17, 2018, as well as other provisions of the Waste Prevention Rule already in effect." *Id.* at 4.[6] Statements like these further underscore that BLM has already determined the outcome of the suspension rule, as well as the fate of the Waste Prevention Rule in the longer-term. The agency is publicly representing not that it is considering suspending the Rule, but that it *will* suspend the Rule.

Instead of engaging in a true notice and comment proceeding, the Secretary is simply trying another approach to secure the same outcome that he has already twice failed to achieve. Indeed, everything about the suspension proposal—from its rationale to its timing—suggests that the Secretary will suspend the standards such that companies need not comply, regardless of any comments received during the truncated comment period. The Secretary's actions, administrative rationales, and statements in litigation make clear that he has an unalterably closed mind and no openness to consider outcomes other than his chosen outcome to suspend the Waste Prevention Rule.

IV. BLM's Rationales for Suspending or Delaying Specific Provisions are Arbitrary and Capricious

BLM attempts to justify its suspension and delay of most substantive provisions of the Waste Prevention Rule by stating that BLM "wants to avoid imposing temporary or permanent compliance costs on operators for requirements that might be rescinded or significantly revised in the near future." 82 Fed. Reg. at 46,460. BLM also "wishes to avoid expending scarce agency resources on implementation activities . . . for such potentially transitory requirements." *Id.* As discussed above, these general assertions do not provide a rational basis for the suspension or delay of the Waste Prevention Rule provisions. As discussed below, BLM also has provided no substantive rationale or explanation for why each specific provision should be suspended or delayed. Nor has BLM endeavored to explain the basis or factual support for the issues it now vaguely raises, given that the agency already extensively considered and made contradictory

[6] It is unclear why BLM believes that finalizing the Delay Proposal by December 8, 2017 would relieve industry of compliance obligations before the January 17, 2018 compliance deadline. Under the Congressional Review Act, 5 U.S.C. § 804(2)(A), the Delay Proposal constitutes a "major rule," and therefore cannot have an effective date less than 60 days from the date it is published in the Federal Register. *Id.* at § 801(a)(3).

factual findings on each issue in the context of the final Waste Prevention Rule. *See* Appendix 2 (documenting how the agency considered and addressed each of these issues in the Waste Prevention Rule).

A. Waste-Minimization Plans

BLM proposes to suspend the Waste Prevention Rule provision that requires operators submitting an application for a permit to drill to also submit a waste-minimization plan. *Id.* The only costs to operators from this requirement, however, are the administrative costs of preparing plans for new wells during the period of time before BLM finalizes any changes to the underlying provision. Despite the potential for this very low-cost requirement to yield a substantial reduction in waste, BLM arbitrarily fails to evaluate the quantified or unquantified benefits of keeping the requirement in place for the duration of the reconsideration rulemaking and whether those benefits would justify the very minimal expenditures required.

In addition, BLM makes no attempt to quantify, and does not even mention, the reduction in wasted gas and accompanying cost savings to operators associated with the requirement for waste-minimization plans. This is despite evidence in the rulemaking record that these plans are highly effective in reducing flaring and decreasing waste. 81 Fed. Reg. 6,616, 6,642 (Feb. 8, 2016) ("North Dakota regulators have identified the requirement for gas capture plans as a highly effective element of their requirements to reduce flaring."); *see also* Appendix 2.

Additionally, BLM has now had over eight months of experience implementing this provision, yet the proposal provides no information on how the requirement has worked to date. BLM should consider, make public, and provide an opportunity for public comment on the Suspension Proposal in light of the following information that is now available to BLM concerning the operation of the waste-minimization plan requirement: the number of plans that have been submitted, whether in fact those plans are "lengthy" as described in the proposal, and whether operators have used the option BLM referenced in the final rule that would allow them to submit any gas capture plans they had already prepared pursuant to state requirements (e.g., in North Dakota), supplemented as necessary with any additional information required by the Waste Prevention Rule. In addition, BLM should provide information from the actual experience of field staff regarding the degree to which, like North Dakota regulators, they have found this requirement "highly effective" in reducing waste. Failure to consider this information, which is already in BLM's possession, is quintessentially arbitrary and capricious.

B. Gas Capture Requirement

BLM proposes to delay the compliance dates for the requirement for operators to capture a certain percentage of the gas they produce. 82 Fed. Reg. at 46,461. To justify the Suspension Proposal, BLM explains that it is considering whether the requirement is unnecessarily complex and whether it will be an improvement on the requirements of NTL-4A. *Id.* But BLM does not explain why it deems this suspension to be necessary, nor does it account for the contradictory findings in the final Waste Prevention Rule, in which BLM already addressed both of these issues when establishing the gas capture requirement. *See* Appendix 2.

Additionally, the 2016 RIA found that the direct quantified benefits to operators that would result from capturing gas that would otherwise have been wasted outweighed the costs of the capture targets in the first two years that those targets apply (2018 and 2019). *Compare* BLM, Regulatory Impact Analysis for: Revisions to 43 C.F.R. § 3100 (Onshore Oil and Gas Leasing) and 43 CFR 3600 (Onshore Oil and Gas Operations) Additions of 43 C.F.R. § 3178 (Royalty-Free Use of Lease Production) and 43 C.F.R. § 3179 (Waste Prevention and Resource Conservation) at Table 81 (2016) ("2016 RIA") Table 8-1 *with id.* at Table 8-2(a). Thus, under the original analysis, there were no net costs to operators from these provisions in 2018 or 2019. There is no information in the 2017 RIA supporting BLM's Suspension Proposal that explains how or why this analysis might have changed. The 2017 RIA does state, however, that the estimated reduction in compliance costs in Year 1 (i.e., in 2018) of the delay of the compliance date for the gas capture requirement is *zero*. 2017 RIA at 28. BLM's own analysis finds that there is no compliance cost to operators from leaving this provision in place, making the proposal to delay the provision arbitrarily and utterly irrational.

C. Measuring and Reporting Volumes of Gas Vented and Flared from Wells

BLM proposes to delay the compliance date for the requirement for operators to estimate or measure all flared or vented gas. 82 Fed. Reg. at 46,461. BLM claims this delay is needed to allow it to consider whether the additional accuracy associated with the requirement justifies the burden it would place on operators. *Id.*

The purpose of the measuring and reporting requirements, as stated in the final rule, was to provide more accurate information of the volumes of venting and flaring from large volume flares. *See* 81 Fed. Reg. at 83,049, 83,053. While it is not possible to translate the benefits of data and information into dollar values, it is widely recognized that a first step to addressing a concern, such as BLM's statutory responsibility to limit the waste of gas, is to understand the magnitude and characteristics of the problem. The rulemaking record contains extensive discussion (including critiques from the Government Accountability Office) of BLM's inadequate data on the quantities of gas lost through venting and flaring. *See, e.g.*, BLM, Responses to Public Comments on Final Rule - Waste Prevention, Production Subject to Royalties, and Resource Conservation, BLM-2016-0001-9130, at 56-61 (Nov. 2016) "(BLM RTC") (summarizing and responding to comments regarding lost gas volumes); GAO 2010 at 10 ("Available estimates of vented and flared natural gas on federal leases vary considerably, and we found that estimates based on data from MRM's OGOR data system likely underestimate these volumes . . . ."). It seems that accurate information on the quantities of gas lost through flaring would be particularly valuable to BLM at this time, since it is reconsidering the final rule's provisions to limit such flaring. In addition, accurate measurement is critical for accurate assessment of royalties.

Despite these significant benefits, BLM makes no attempt in the proposal to discuss or assess the adequacy of the data already available to it, or to weigh the value of better data to its ongoing rulemaking and other activities against the costs of measurement and reporting. There is simply no reasoned basis in the proposal for suspension of this requirement.

D. Determinations Regarding Royalty-Free Flaring

BLM's Suspension Proposal would extend a provision of the Waste Prevention Rule that allows prior approvals of royalty-free flaring from a well to continue in effect for an additional year, beyond the transition year that BLM already provided. This approach makes no sense on its face. Further, BLM does not provide any explanation of why requiring flaring that occurs from January 18, 2018 on to be potentially subject to royalties under the current regulations would be "premature and disruptive" and would "introduce needless regulatory uncertainty" as the proposal claims.

In the Waste Prevention Rule, BLM adopted section 3179.4, which clarifies when the loss of oil or gas is considered unavoidable or avoidable, and thus when the lost gas is subject to royalties or is royalty-free. The rulemaking record contains extensive discussion of the lack of clarity, burdensome requirements for case-by-case analyses, and backlogs in royalty-free flaring approvals that had resulted under the previous approach to determining the royalty status of flared gas. Appendix 2. The new royalty-free flaring provisions came into effect on January 17, 2017, and presumably BLM has been implementing them. The Waste Prevention Rule provided an exception, however, for flaring that occurred from January 17, 2017 through January 17, 2018, at a well that had already received an approval for royalty-free flaring prior to the effective date of the Rule. The purpose of this provision, as explained in the Rule, was to provide a reasonable transition period for operators from the old requirements to the new ones.

The Suspension Proposal provides no explanation, let alone evidence, of why BLM now believes that a year-long transition period is inadequate and should be extended for an additional year. The Suspension Proposal also provides no information on the effect of such an extension, and specifically, how much royalty revenue would be lost. Nor does the Proposal consider the equitable concerns about applying royalties or not applying royalties to similarly situated flared gas that is distinguishable only by the date on which the flaring began. The Proposal also fails to explain why or how failing to change a rule that has been in effect for almost a year would introduce "regulatory uncertainty." Unlike the previous case-by-case approach, the new provisions regarding when wasted gas is considered unavoidable make it clear whether or not flaring is subject to royalties in a given situation, and industry has had almost a year of operating under these new provisions already for all other flaring. BLM provides no reason for delaying application of the new substantially improved provisions.

E. Well Drilling

BLM proposes to suspend section 3179.101, which specifies how operators may avoid venting of gas from well drilling operations. 82 Fed. Reg. 46,461–62. The 2017 RIA does not estimate any capital costs to operators associated with this provision, the 2016 RIA did not identify capital costs or administrative burden to operators from the provision, and the provision has been in effect since January 17, 2017. In the Suspension Proposal, BLM does not explain how the provision imposes any burden on operators, stating only that it "may" "impose a regulatory constraint on operators in exceptional circumstances where the operator must make a case-specific judgment about how to safely and effectively dispose of the gas." *Id.*; *but see* Appendix 2 (noting that Waste Prevention Rule well drilling disposal provisions included

exceptions for safety and technical infeasibility tailored to address such concerns). What such a regulatory constraint might be is not specified, nor its scope or effect. And BLM states that outside of those exceptional circumstances, operators typically dispose of gas consistent with the Rule. *Id.* In short, BLM arbitrarily fails to provide any reason why the provision should be suspended. Nor does the agency acknowledge the reasons for the provision laid out in the final rule, which include the safety benefits of avoiding venting through the use of alternative practices. 81 Fed. Reg. at 83,055.

F. Well Completion and Related Operations

Section 3179.102 specifies how operators may avoid venting gas that reaches the surface during well completions and related operations. As with section 3179.101, the 2017 RIA does not estimate any capital costs to operators associated with this provision, the 2016 RIA did not identify administrative burden to operators from the provision, and the provision has been in effect since January 17, 2017. BLM proposes suspending this provision and attempts to justify suspension on the basis that it "may . . . generate confusion about regulatory compliance during well-drilling and related operations." 82 Fed. Reg. at 46,462. But BLM provides no information suggesting this is actually the case. BLM also suggests that the provision may be unnecessary because "most" operations that would be subject to the provision are covered by EPA requirements instead and because operators "typically" act in accordance with its requirements. *Id.* BLM fails to recognize, however, that the purpose of the requirements is to ensure that operators always, not just typically, follow these best practices to minimize waste. And by stating that operators typically comply with section 3179.102's requirements, BLM defeats its own claim that the requirements are confusing, further undermining its Suspension Proposal.

G. Equipment Requirements for Pneumatic Controllers

BLM proposes to delay the compliance deadline for section 3179.201, which requires pneumatic controller equipment upgrades in certain situations. 82 Fed. Reg. at 46,462. BLM believes this delay is appropriate because it is reconsidering section 3179.201 in light of analogous EPA regulations and "the fact that operators are likely to adopt more efficient equipment in cases where it makes economic sense for them to do so." *Id.* But BLM's Proposal also repeats the 2016 RIA's finding that the cost savings to operators from compliance with the pneumatic controller requirements would substantially exceed the costs of compliance. *Id.* Nonetheless, BLM proposes to delay the compliance deadline for this provision on the basis that "the BLM does not believe that operators should be required to make equipment upgrades to comply with §3179.201 until the BLM has had an opportunity to review its requirements and revise them through notice-and-comment rulemaking." BLM does not present any rationale whatsoever for this "belief."

H. Downhole Well Maintenance and Liquids Unloading

BLM's proposal repeats the 2016 RIA's finding that the costs of compliance with this provision would be partially or more than fully offset by the cost savings from the captured gas, which suggests that the cost burden on operators would be small or nonexistent. BLM proposes to suspend the Waste Prevention Rule's requirements for venting and flaring during downhole

well maintenance and liquids unloading. 82 Fed. Reg. at 46,463. BLM provides no rationale for suspension, other than BLM's belief that operators "should" not be "burdened with the operational and reporting requirements" of this provision until BLM has had an opportunity to review and revise them. This is so vague as to be essentially no rationale at all, and it is wholly inadequate to justify suspending requirements that have already been in effect for nearly a year. *See* Appendix 2 (explaining how BLM considered and responded to these concerns in establishing the Waste Prevention Rule provisions).

I. Requirements for Pneumatic Diaphragm Pumps, Storage Vessels, and Leak Detection and Repair Requirements

BLM proposes delaying the compliance deadlines for the Waste Prevention Rule's requirements for pneumatic diaphragm pumps, storage vessels, and leak detection and repair. 82 Fed. Reg. at 46,462-64. BLM's stated rationale for delaying these provisions is again its belief that operators "should" not be required to make upgrades to equipment, or incur operational costs for leak detection, until BLM has completed a rulemaking to reevaluate the requirements. As discussed in detail above, this is not how notice-and-comment rulemaking under the APA works. Agencies are not allowed to suspend or delay regulatory requirements currently in effect simply on the basis that the agency thinks that it would like to change those requirements in the future and does not want the regulations to apply in the interim. But that is exactly what BLM is trying to do in the Suspension Proposal.

V. BLM's Analysis of the Impacts of its Suspension Proposal is Arbitrary and Incomplete

In support of the Suspension Proposal, BLM has issued 2017 RIA, which suffers from numerous critical analytical flaws. Any attempt to justify or support the Suspension Proposal based on the deeply flawed 2017 RIA would be arbitrary and capricious. The most significant errors in the 2017 RIA relate to BLM's flawed, and artificially low calculation of the dollar value of harm from climate change impacts driven by a given quantity of methane emissions. In addition, several flaws in the 2017 RIA's methodology for estimating the costs and benefits of the Suspension Proposal further discredit the analysis and results.

A. BLM's 2017 RIA Uses Fundamentally Flawed Estimates of the Harm from Methane-Driven Climate Change.

BLM includes in its proposal a new calculation of the costs and benefits of the provisions of the Waste Prevention Rule that BLM proposes to suspend or delay. The new calculation dramatically alters BLM's previous benefits calculation, which was completed less than a year ago, and it slashes the Waste Prevention Rule's projected benefits by 87% or 78%, depending upon the discount rate applied.[7]

[7] *See* 2017 RIA at Table 4.2d; 2016 RIA 8-2a.

Table 1

Estimated Social Benefits of the 2016 Final Waste Prevention Rule ($ in million)											
		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026

BLM produces these results primarily by assuming away almost all of the damages from climate change. Specifically, BLM makes two critical "interim" changes to the federal government's prior standardized estimates of the cost of climate change – the "social cost of carbon" ("SCC") or "social cost of methane" ("SCM") estimates, which are expressed as dollars per ton of CO_2 or methane emitted to the atmosphere in a given year.[8] BLM's revised estimates represent a fundamental change in how a federal agency evaluates and monetizes the harm caused by release of a given quantity of greenhouse gases. This change has subsequently been reflected in other proposals to weaken safeguards issued by the Environmental Protection Agency.

These changes to the methodology for calculating the SCC and SCM erroneously make it appear that even the most cost-effective measures for reducing the impacts of climate change or preparing for it are not worth the cost. The changes also are contrary to widely accepted economic theory, the bulk of the peer-reviewed literature on climate science and cost-benefit assessment, recent recommendations on the SCC from the National Academies, and the approach taken in numerous other countries. A comment period of at least 90 days would be needed to provide an adequate opportunity for the public to provide feedback on these consequential, highly technical and exceedingly controversial changes apparently adopted (in sharp contrast to the prior SCC and SCM) hastily with little analysis and no peer-review.

The federal government's estimate of the social cost of carbon, and its subsequent estimate of the social cost of methane, were developed through a multi-year inter-agency effort that has included extensive opportunities for public comment and peer review. This effort began in 2009 with the establishment of the Interagency Working Group on Social Cost of Carbon ("IWG"). Twelve federal agencies participated in the IWG, including the Council of Economic Advisors, the National Economic Council, the Office of Management and Budget ("OMB"), the Department of the Treasury, the Department of the Interior, the U.S. EPA, and the Office of

2016 RIA	3% discount	$189	$190	$207	$208	$209	$227	$227	$246	$246	$247
2017 RIA	3% discount	$26	$27	$27	$28	$29	$30	$31	$32	$33	$34
	7% discount	$8	$8	$9	$9	$9	$10	$10	$11	$11	$11

[8] *See* Interagency Working Group on Social Cost of Greenhouse Gases, U.S. Government, *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866,* (Aug. 2016), https://www.epa.gov/sites/production/files/2016-12/documents/sc_co2_tsd_august_2016.pdf ("2016 SCC TSD"); Interagency Working Group on Social Cost of Greenhouse Gases, U.S. Government, *Addendum to Technical Support Document on Social Cost of Carbon for Regulatory Impact Analysis under Executive Order 12866: Application of the Methodology to Estimate the Social Cost of Methane and the Social Cost of Nitrous Oxide* (Aug. 2016), https://www.epa.gov/sites/production/files/2016-12/documents/addendum_to_sc-ghg_tsd_august_2016.pdf.

Science and Technology Policy.[9] The IWG issued its first set of estimates in 2010.[10] These estimates underwent public comment through their use in multiple rulemakings, and the IWG formally updated the estimates in 2013, 2015 and 2016 (the last update included values specifically calculated for methane).[11] In 2015, the IWG asked the National Academies of Sciences, Engineering, and Medicine to review and make recommendations on the methodology for estimating the SCC. In 2016, in accordance with a first set of recommendations from the National Academies, the IWG retained the prior estimates while making some changes in the discussion of uncertainty around the estimates.[12] The National Academies issued its final report in 2017, which made recommendations for more comprehensive and longer-term updates to the methodology.[13]

Notably, in its two extensive and detailed reports on updating the methodologies, the NAS did *not* recommend the changes BLM now seeks to make on an "interim" basis: a shift from global to domestic estimates and the use of a higher discount rate (let alone a 7% rate). In fact, the NAS final report critiques previous efforts to calculate a social cost of carbon based solely on U.S. damages, and concludes that an accurate assessment of domestic-only impacts is not possible using the existing integrated assessment model methodologies because they are not designed to produce global estimates and do not model all relevant interactions among regions.[14] The NAS further emphasized that effects that occur internationally may also have significant spill-over effects on the United States, which must be taken into account in any attempt to estimate domestic only impacts.[15] In short, the IWG's 2016 estimates represent the U.S. government's best estimate to date of the costs of climate change.

Nonetheless, in the Proposed Rule, BLM develops and uses a new estimate of the social costs of methane. BLM used the IWG's methodology and relied on the same three integrated assessment models (IAMs), with two discrete changes that dramatically reduce the final values.

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[9] Interagency Working Group on Social Cost of Carbon, United States Government, *Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866* (Feb. 2010), https://www.epa.gov/sites/production/files/2016-12/documents/scc_tsd_2010.pdf.

[10] *Id.*

[11] Interagency Working Group on Social Cost of Carbon, *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866* (May 2013, Revised July 2015), https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-tsd-final-july-2015.pdf; 2016 SCC TSD, *supra* n. 8.

[12] Committee on Assessing Approaches to Updating the Social Cost of Carbon, Board on Environmental Change and Society, National Academies of Sciences, Engineering, Medicine, *Assessment of Approaches to Updating the Social Cost of Carbon: Phase 1 Report on a Near-Term Update* (2016).

[13] Committee on Assessing Approaches to Updating the Social Cost of Carbon, Board on Environmental Change and Society, National Academies of Sciences, Engineering, Medicine, *Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide* (2017).

[14] *Id.* at 54.

[15] *Id.*

BLM adjusted the cost estimates to attempt to exclude all harms from climate change that occur outside of the United States, and BLM applied a much higher "discount rate," which is used to estimate the present value of costs and benefits that occur in the future. BLM's approach is fundamentally flawed and the results are invalid.

With these changes, BLM reduced the estimated social cost of methane in 2030 from $1,729 per metric ton (using a 3% discount rate) under the final rule to $81 or $230 per metric ton (using a 7% or 3% discount rate, respectively).[16] Thus, the proposed rule erroneously eliminates 95% or 87% of the estimated cost of the harm from climate change associated with one ton of methane. It is worth noting that the IWG produced four sets of alternative estimates to account for alternative discount rates and the possibility of low-probability-high-cost damages, but BLM's new estimates fall well below even the lowest value previously presented.[17] The effect is to reduce the estimate of the baseline benefits of the rule in 2017 from the $209 million that BLM estimated in 2016 to either $27 million or $45 million, a reduction of 78% or 87%.[18]

BLM utterly fails to provide any substantive explanation for these highly consequential and controversial methodological choices. Instead, BLM hides behind the bare assertion that Circular A-4 requires the use of a domestic social cost of methane and 7 percent discount rates. *See* 2017 RIA, at 25. As discussed in separate comments submitted by the Institute for Policy Integrity ("IPI comments"), this assertion is false: the IWG's 2016 estimates were designed to be entirely consistent with Circular A-4. Indeed, BLM's interim social cost of methane is inconsistent with Circular A-4 in many key respects. Moreover, Circular A-4 does not relieve BLM of the obligation to provide a well-reasoned, non-arbitrary explanation for its interim estimate of the social cost of methane. As discussed in IPI comments and in Appendix 3, BLM has not and cannot do so because its approach is fundamentally flawed.

B. BLM's 2017 RIA Includes Other Unwarranted Assumptions and Lacks Transparency

In addition to the 2017 RIA's problematic reliance on the interim domestic social cost of methane, discussed above, the 2017 RIA suffers from incorrect fundamental assumptions about the regulatory landscape if the Proposal were to be finalized that render the 2017 RIA structurally flawed; selective revisions to the Final Regulatory Impact Analysis for the Waste Prevention Rule ("2016 RIA"), designed to artificially lower the benefits estimates of the final Waste Prevention Rule, while ignoring additional information that suggests the costs of implementing the final Waste Prevention Rule are likely to be lower, and benefits are likely to be higher; and a lack of transparency concerning the methodology, data inputs, and assumptions in

[16] *See* 2016 RIA at 36*;* 2017 RIA at 26. Note that these numbers are not completely comparable, as the more recent estimate is expressed as 2016 dollars, while the earlier is expressed as 2012 dollars. The Waste Prevention Rule also presented alternative estimates for the social cost of methane using different discount rates and damage estimates – 5% average; 3% average; 2.5% average and 3% 95th percentile. The resulting values for 2030 range from $822/metric ton to $4,540/metric ton. 2016 RIA at 36.

[17] *See id.*

[18] *See* 2016 RIA at 109*;* 2017 RIA at 31.

the 2017 RIA, resulting in significant, unexplained and unsupportable changes from the analysis in the 2016 RIA.

1. The 2017 RIA makes several incorrect fundamental assumptions about the regulatory landscape that would result if the Suspension Proposal is finalized.

The 2017 RIA uses a scenario for estimating the effects of the Suspension Proposal that is drawn from the baseline, no-change scenario in the 2016 RIA. The 2017 RIA then assumes that none of the costs or benefits of the Waste Prevention Rule previously estimated in the 2016 RIA will occur during what the RIA refers to as Year 1 (the year between January 17, 2018 and January 2017, 2019), and that the Rule will then go into full effect on January 17, 2019, so the costs and benefits estimated in the 2016 RIA will merely be shifted later by a year. 2017 RIA at 24. This analytical framework is fundamentally flawed and does not accurately reflect the true impacts of BLM's Suspension Proposal.

First, the 2016 RIA assumed that NTL-4A is in effect and the 2017 RIA assumes that BLM's suspension will result in a return to NTL-4A. This assumption is no longer valid because NTL-4A was withdrawn and superseded in its entirety by the Waste Prevention Rule, 81 Fed. Reg. at 38,043, and the Proposal did not suggest that NTL-4A would be reinstituted during the Suspension Proposal.[19] Instead, BLM claims that the suspension or delay of requirements in the Waste Prevention Rule "would not *necessarily* leave these operations unregulated, as operators will still need to comply with other Federal regulations and requirements, State regulations, and tribal regulations, *where applicable*," 2017 RIA at 2 (emphasis added), and then mentions EPA regulation of new and modified oil and gas sources (proposed to be suspended, 82 Fed. Reg. at 27,645), as well as varying state requirements in six states. 2017 RIA at 17-20.

However, BLM does not address the lack of uniform federal standards controlling waste of publically-owned resources on federally-managed land. As a result of this gap in regulation, with neither NTL-4A nor key provisions of the Waste Prevention Rule in place during the Suspension Proposal, fewer protections against waste will be in effect during the Suspension Proposal than assumed in the baseline scenario for the 2016 RIA. BLM's failure to account for the changed regulatory landscape in the 2017 RIA fails to capture the true impacts of the suspension and is arbitrary and capricious. It results in an underestimation in the 2017 RIA of the additional waste of natural gas, and associated lost royalties and social harms, which will occur under the Suspension Proposal. BLM must correctly quantify the impacts of this gap in regulation on emissions and royalties.

[19] Because BLM has not proposed to reinstate NTL-4A or solicited comment on reinstating NTL-4A in this proceeding, such a reinstatement would raise its own substantive and notice concerns. *See Fox Television*, 556 U.S. at 514-16 (agency changing course must offer "a reasoned explanation … for disregarding facts and circumstances that underlay or were engendered by the prior policy"); *Home Box Office*, 567 F.2d at 36 (agency must "make its views known . . . in a concrete and focused form so as to make criticism or formulation of alternatives possible").

Second, BLM's assumption in the 2017 RIA that benefits and costs of the Waste Prevention Rule will merely be shifted one year into the future is clearly invalid, in light of BLM's ongoing reconsideration and announced plan to "rescind or revise the entire Waste Prevention Rule." BLM Mot. Extend Briefing Deadlines, D. Wyo. No. 2:16-cv-285-SWS, at 3 (Oct. 20, 2017), ECF No. 155. As discussed above, BLM is effectively beginning rescission of the Rule in this rulemaking procedure, but is attempting to mask the harmful effects of that rescission on the public by claiming in the 2017 RIA that all of the benefits of the Rule will still accrue, just a year later. BLM must fully account for ongoing reconsideration and announced rescission or revision of the Rule in the RIA for the proposal by presenting the costs and benefits of a scenario in which the Rule never is effective again.

Finally, BLM erred by comparing the 2016 RIA's analysis of the effects of the Waste Prevention Rule over a ten-year period between 2016-2026 with a eleven-year period between 2016-2027 in the 2017 RIA. *See, e.g.* 2016 RIA at 109; 2017 RIA at 34. The 2017 RIA thus arbitrarily assumes that the Waste Prevention Rule would have no effects in 2027, when the analysis done in the 2016 RIA did *not* determine that the Rule would have no effects in 2027, but merely ended its ten evaluation period in 2026. 2016 RIA at 38. The effect of BLM's mischaracterization of 2027 impacts is to understate the effects of the Suspension Proposal.

2. BLM ignored information indicating that the costs of the Waste Prevention Rule would be lower or that benefits of the Rule would be higher when updating the underlying assumptions for the 2017 RIA, and improperly considered only monetized impacts.

BLM's "notable changes" to the 2016 RIA analysis all had the effect of artificially lowering the estimates of benefits and royalties attributable to the final Waste Prevention Rule. Notably, however, BLM did not consider information indicating that the costs of the Waste Prevention Rule are actually *lower* than estimated in the 2016 RIA, or that the benefits of the Waste Prevention Rule are actually *higher* than estimated in the 2016 RIA, and BLM neglected to analyze non-monetized impacts at all. BLM's suggestions that the agency should not consider or monetize climate benefits at all further underscore that this results-oriented analysis is arbitrary and that the Secretary has predetermined the outcome of this rulemaking based on his preferred course of action. BLM's failure to consider "important aspect[s] of the problem" render its actions arbitrary and capricious. *State Farm*, 463 U.S. at 42-43.

For instance, evidence from producer Jonah Energy in Wyoming shows declining inspection costs as LDAR methods are improved—from less than $99 per inspection in the first year of Jonah's LDAR program to less than $29 per inspection in the program's fifth year—indicating that the compliance costs from the Waste Prevention Rule will likely decline over time, as well as cumulative gas savings that more than offset LDAR program costs. Jonah Energy, Presentation at Wyoming County Commissioners Association Spring Meeting (May 8, 2015); *see also* FLIR Systems, *Comments on BLM's Proposed Waste Prevention Rule*, Docket ID BLM-2016-0001-9035 (April 22, 2016), *available at* https://www.regulations.gov/document?D=BLM-2016-0001-9035. Major operators are now in compliance with the Waste Prevention Rule, and are even taking additional steps to reduce

natural gas leakage, further indicating that the standards are cost-effective.[20] In the 2016 RIA, BLM likewise noted that the LDAR cost and gas savings data that it used to calculate the cost and benefits estimates for the Waste Prevention Rule "likely understate the benefits of the BLM provisions, and may substantially understate them." 2016 RIA at 87.

BLM also neglected to analyze the loss of public health and safety benefits generated by implementing the Waste Prevention Rule due to the Proposal. *See id.* at 6-7; 81 Fed. Reg. at 83,014, 83,049. Public health benefits occur because the waste prevention requirements in the Rule also reduce air pollution from volatile organic chemicals, fine particulate matter and other hazardous air pollutants, resulting in significant benefits to public health. Dangerously, BLM also neglects to analyze the impacts of the Proposal for worker safety, one of the purposes of the Waste Prevention Rule. *See* 81 Fed. Reg. at 83,049 ("[T]he requirement to flare rather than vent associated gas is justified as a safety measure under the MLA.").

Instead, in the 2017 RIA, BLM improperly considered only the monetized costs and benefits of the rule, failing to analyze the lost public health and safety benefits. This analysis violates Executive Order 12,866, which states an "agency shall assess both the costs and the benefits of the intended regulation and, *recognizing that some costs and benefits are difficult to quantify*, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs," and is arbitrary and capricious. E.O. 12,866 Sec. 1(b)(6) (emphasis added); *see also* 2016 RIA at 9 (purpose of economic analysis under E.O. 12,866 is to determine that the "potential benefits to society justify the potential costs, *recognizing that not all benefits and costs can be described in monetary or even in quantitative terms* (emphasis added)). The 2017 RIA neglects to even mention, let alone discuss, the lost benefits for public health that will result from the Suspension Proposal, despite acknowledging the Suspension Proposal will cause "additional VOC emissions of 250,000 tons in Year 1." 2017 RIA at 31.

Although it monetized climate impacts in the 2017 RIA (using an artificially discounted interim SCM, as discussed above and in the SCM Comment), BLM also suggested that it believes it is improper to consider societal benefits from lower GHG emissions under the MLA. 2017 RIA at 25. BLM also indicated that it considered an "alternative approach" of omitting *any* monetized estimation of climate impacts when calculating net benefits of the Suspension Proposal. 2017 RIA at 57. As an initial matter, Circular A-4 requires agencies to "look beyond the direct benefits and direct costs of your rulemaking and consider any important ancillary benefits and countervailing risks." Circular A-4 § E.6.

[20] For example, XTO Energy, the production subsidiary of ExxonMobil, recently announced that "XTO is complying with recent EPA (New Source Performance Standards) and Bureau of Land Management (Waste Prevention) regulations intended to reduce methane and volatile organic compound emissions... XTO has established a methane emissions reduction program that both ensures compliance with applicable regulations and expends considerable effort beyond regulatory requirements." XTO Energy, *Methane Emissions Reduction Program* (last visited Nov. 6, 2017) http://www.xtoenergy.com/responsibility/current-issues/air/xto-energy-methane-emissions-reduction-program#/section/1-regulatory-requirements.

More fundamentally, BLM's statement that "BLM does not consider the monetized benefits of avoiding GHG emissions as a statutory basis under the MLA for rulemaking in this area" because the MLA "does not include climate-related benefits from changes in GHG emissions as factors that BLM should consider in exercising" waste prevention authority is fundamentally incorrect and inconsistent with BLM's statutory obligations. 2017 RIA at 25. One of the purposes of the MLA is "safeguarding of the public welfare," which encompasses environmental harms. 30 U.S.C. § 187 (requiring lease terms for these purposes); *Natural Res. Def. Council v. Berkland*, 458 F. Supp. 925, 936 (D.D.C. 1978) (Section 187's public welfare goal gives BLM "broad authority to set lease terms to prevent environmental harm."). And under FLPMA, BLM must manage public lands for multiple use and "in a manner that will protect the quality of the scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values." 43 U.S.C. § 1701(a)(8), 1702(c); *see also* 43 U.S.C. § 1732(b) (BLM "shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands").

In analogous circumstances, courts have rejected arguments that federal agencies are unable to consider the benefits of greenhouse gas reductions when evaluating regulatory actions, and in many cases are *required* to do so. *See Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1203 (9th Cir. 2008) (holding that NHTSA was required to monetize the benefit of carbon emissions reduction in its analysis of the proper fuel economy standards); *Zero Zone, Inc. v. U.S. Dep't of Energy*, 832 F.3d 654, 677 (7th Cir. 2016) (rejecting industry argument that that the Energy Policy and Conservation Act "does not allow DOE to consider environmental factors" and holding that in determining "whether an energy conservation measure is appropriate under a cost-benefit analysis, the expected reduction in environmental costs needs to be taken into account"); *see also Michigan v. EPA*, 135 S. Ct. 2699, 2709 (2014) (faulting EPA for not taking into account all relevant factors including both direct and indirect costs). BLM's statutory authorities likewise require the agency to analyze the impacts of its actions on the public welfare and the environment.

Similarly, BLM's "alternative approach" to a cost-benefit analysis that assigns *no monetized benefit* to reductions in climate-related harms, due to "uncertainty" in SCM models, is arbitrary. 2017 RIA at 57. As discussed more fully in the SCM Comment, it deeply improper to assign a value of no benefit when there is a range of possible benefits. And as the Ninth Circuit recognized in *Center for Biological Diversity*, the value of greenhouse gas emissions reductions is "certainly not zero." 538 F.3d at 1200.

3. BLM Improperly Disregards Impacts Associated with Lost Royalties.

While BLM acknowledges that "[i]n the short-term, the rule is expected to decrease natural gas production from Federal and Indian leases, and likewise is expected to reduce annual royalties to the Federal Government, tribal governments, States, and private landowners," it fails to address the impacts of reduced royalty revenues to state, local and tribal governments. In its analysis of royalty impacts, the 2017 RIA forecasts a reduction in royalties of $2.61 million in

Year 1.[21] BLM states that this is neither a cost nor a benefit of the rule, because "[r]oyalty payments are recurring income to Federal or tribal governments and costs to the operator or lessee. As such, they are transfer payments that do not affect the total resources available to society." 2017 RIA at 42.

However, BLM's treatment of royalties ignores a fundamental purpose of BLM's statutory mandates—BLM's obligation to manage oil and gas development on public lands for the benefit of the public. *See supra* Section III.B.1.; *California Co.,* 296 F.2d at 388 (MLA is "intended to promote wise development of these natural resources and to obtain for the public a reasonable financial return on assets that 'belong' to the public.").

BLM attempts to dodge any analysis of the impact of the Proposal on its ability to "obtain for the public a reasonable financial return on assets that belong to the public," 296 F.2d at 388, in the 2017 RIA, merely stating that "[w]hile transfers should not be included in the economic analysis estimates of the benefits and costs of a regulation*, they may be important for describing the distributional effects of a regulation.*" 2017 RIA at 42 (emphasis added). While BLM follows the OMB Circular A-4 instruction that "[y]ou should not include transfers in the estimates of the benefits and costs of a regulation," it entirely ignores the second part of the guidance—to "[i]nstead, address them in a separate discussion of the regulation's distributional effects." OMB Circular A-4. Office of Mgmt. & Budget, *Circular A-4, Regulatory Analysis* at 38 (Sept. 2003) ("Circular A-4"). No such description is forthcoming. This omission is particularly glaring, since BLM is obligated to consider royalty impacts not just as "distributional effects" under OMB guidance, but as one of its fundamental statutory obligations.

Changes in royalties due to the Proposal will also have significant impacts on state, tribal, and local governments. Natural gas royalties are an important source of revenues for state governments with significant natural gas production on Federal lands (see Table 2).[22] States have different policies for sharing federal mineral royalties with local governments. BLM must consider and discuss the effect of lost royalty revenues to state, tribal, and local governments from the one-year Suspension Proposal.

Table 2

Natural Gas Royalties for Key Western States, FY 2015 ($ millions)		
State	Royalty Payment	Percent of all federal royalties
Wyoming	$199.9	22.4%
New Mexico	$135.0	27.0%
Colorado	$51.6	41.3%
Utah	$40.8	34.8%

[21] As discussed *infra* in Section VI.B.4, BLM's calculation of royalty impacts in later years in the 2017 RIA is arbitrarily unexplained, and therefore unreliable.

[22] *See* Headwaters Economics, Economics Profile System, *A Profile of Federal Land Payments, State Region: Wyoming; New Mexico; Colorado; Utah* (Nov. 2, 2017), https://headwaterseconomics.org/tools/economic-profile-system/

4. The 2017 RIA lacks transparency, resulting in unexplained and unsupportable changes from the 2016 RIA.

Although BLM claims the 2017 RIA "generally uses the underlying assumptions used by BLM for the RIA prepared for the 2016 final rule," BLM acknowledges that it made "some notable changes" in the 2017 RIA. 2017 RIA at 24. BLM notes that it made changes to the estimation of the social cost of methane discussed above, as well as crude oil and natural gas price assumptions. *See* 2017 RIA at 25. BLM does not detail any other changes, "notable" or otherwise, that is has made from the 2016 RIA. For the changes that it does note, BLM does not disclose key assumptions or methodologies. This lack of transparency renders BLM's analysis arbitrary, and forecloses opportunities for meaningful public comment.

For example, BLM has not even listed the oil and gas price assumptions it uses in the 2017 RIA, nor has it described in detail the "downward" adjustment methodology used or that downward adjustment's impact on price. 2017 RIA at 25. BLM instead cites generally to an Energy Information Administration forecast, which shows similar price projections to those used in the 2016 RIA. 2017 RIA at n. 26. In contrast, in the 2016 RIA, BLM described specific price projections and the downward-adjustment methodology, and acknowledged that the methodology is very conservative. 2016 RIA Table 7-5.

It appears that this change in price assumptions has led to decreases in the estimates of cost savings and royalties attributable to the Rule in the 2017 RIA relative to the 2016 RIA. However, because BLM did not disclose its price assumptions in the 2017 RIA, it is impossible to evaluate the 2017 RIA analysis or understand why it differs from the 2016 RIA.

Table 3

Estimated Cost Savings from Natural Gas Recovery Under Waste Prevention Rule ($ in million)										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016 RIA	$20	$44	$54	$76	$79	$92	$110	$140	$157	$152
2017 RIA	$19	$41	$54	$77	$80	$90	$99	$124	$138	$142

2017 RIA at Table 4.2c; 2016 RIA at Table 8-2a.

This lack of transparency is particularly problematic with the royalty estimates in the 2017 RIA. The 2017 RIA incremental royalty estimates attributable to the Waste Prevention Rule do not match the incremental royalties predicted in the 2016 RIA. BLM acknowledges in the 2017 RIA that the Suspension Proposal will result in lost royalties of $2.61 million over the one-year delay, and this "Year 1" estimate is generally in line with, although slightly lower than, the 2016 RIA's estimate that the Waste Prevention Rule would secure additional royalties of $2.7 million in its first year. 2017 RIA Table at 43; 2016 RIA Table 8-4b.

However, the 2017 RIA shows an incremental loss in royalties resulting from the Rule in later years whereas the 2016 RIA shows positive incremental royalties resulting from the Waste Prevention Rule in later years. The 2017 RIA does not provide details as to how the incremental

royalties were recalculated. Because the estimated incremental production resulting from the Waste Prevention Rule is the same between the 2016 RIA and 2017 RIA, and the forecasted oil and natural gas prices are similar, it should follow that the baseline incremental royalty as a result of the Waste Prevention Rule should be very similar. BLM's analysis in the 2017 RIA is arbitrary and fails to explain the significant divergences from the agency's previous analysis.

Based on this flawed analysis, the 2017 RIA calculates that a one-year suspension of the Waste Prevention Rule would result in a *net increase of royalties* over an eleven-year period: "We estimate a reduction in royalties of $2.61 million in Year 1. However, over 11 years of implementation (2017-2027), we estimate an increase in royalties from the baseline of $1.26 million (NPV using a 7% discount rate) or $380,000 (NPV using a 3% discount rate)." 2017 RIA at 43. This "positive" effect of the one-year suspension is solely a result of the fact that the 2017 RIA now calculates that the Waste Prevention Rule would result in a reduction of royalties, and is a completely unexplained change from BLM's royalty estimates in the 2016 RIA.

Table 4

Estimated Incremental Royalty Under Waste Prevention Rule ($ in millions)										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016 RIA	$2.7	$6	$6.8	$6.9	$3.7	$3.8	$6.9	$10.3	$10.2	$9
2017 RIA	$2.61	$4.72	$4.95	($2.29)	($15.70)	($18.00)	($8.60)	($0.13)	($3.19)	($3.52)

2017 RIA Table 4.4b; 2016 RIA Table 8-4b.

VI. The Suspension Proposal Violates The National Environmental Policy Act.

As discussed above, BLM's Suspension Proposal violates the MLA, the APA, and is arbitrary and capricious. BLM has no legal authority to suspend the Waste Prevention Rule. Moreover, BLM's analysis required under the National Environmental Policy Act ("NEPA") falls short of the statutory requirements. BLM's Environmental Assessment ("EA") for the Suspension Proposal violates NEPA because BLM predetermined the outcome, failed to consider a reasonable range of alternatives, prepared an EA rather than an environmental impact statement ("EIS"), and did not take a hard look at the impacts of suspending the Waste Prevention Rule.

A. BLM Unlawfully Predetermined the Outcome of this Proceeding.

BLM decided on its course of action—suspending the Rule while it reconsidered its requirements—months ago, and is only now producing an EA to retroactively justify its decision. NEPA requires agencies to "integrate the NEPA process with other planning at the earliest possible time." 40 C.F.R. § 1501.2. This ensures that agencies conduct NEPA analysis "before any irreversible and irretrievable commitment of resources" is made. *Conner v. Burford*, 848 F.2d 1441, 1446 (9th Cir. 1998). When an agency prepares an EA only after committing to a course of action, it does so "too late in the decision-making process." *Metcalf v. Daley*, 214 F.3d 1135, 1143 (9th Cir. 2000). BLM committed itself to both revising or rescinding the Waste

Prevention Rule, and to suspending the Rule while it settled on an exact course of action, prior to conducting any NEPA analysis.

BLM has committed to revising or rescinding the Waste Prevention Rule without undertaking any of the necessary NEPA analysis. As an outgrowth of this preordained assumption that the Waste Prevention Rule will be revised or rescinded, BLM predetermined that it would suspend the Rule to avoid imposing compliance costs during the reconsideration period. BLM also made this decision to suspend the Rule prior to conducting the necessary NEPA analysis. In March 2017, Secretary Zinke, without any supporting analysis, ordered BLM to draft a report on whether to revise or rescind the Rule. Secretary of the Interior Order No. 3349 at § 5(c)(ii) (Mar. 29, 2017). After this review—which was not provided to the public, let alone vetted through public review and comment—was completed, BLM unilaterally, without any public process, indefinitely stayed the Rule's compliance dates, concluding that operators should not have to incur compliance costs during the ongoing administrative reconsideration process. 82 Fed. Reg. at 27,431. Around the same time, BLM represented to the District of Wyoming that it had "developed a three step plan to propose to revise or rescind the Rule and prevent any harm from compliance with the Rule in the interim." Fed. Resp'ts' Mot. to Extend Briefing Deadlines at 3. Step two of that plan is "to conduct notice and comment rulemaking to propose to suspend certain provisions of the Rule already in effect and extend the compliance dates of requirements not yet in effect . . . . BLM intends to publish this proposed rule for public notice and comment before the end of August 2017, and to publish a final rule in advance of the January 2018 compliance dates." *Id.* at 3-4.

Consistent with this plan (although a few months behind schedule), BLM is now proposing to suspend or delay the Rule's requirements until its administrative review is complete. 82 Fed. Reg. at 46,460. As discussed above, *supra* Section III.B.3, just a few days after proposing the suspension Rule, BLM committed to the federal court in Wyoming that it would finalize the suspension by December 8, 2017, and that the outcome was set: "[o]nce the Suspension Rule is completed, it will provide the immediate relief sought by Petitioners—relief from the portions of the Waste Prevention Rule that would otherwise come into effect on January 17, 2018, as well as other provisions of the Waste Prevention Rule already in effect." Fed. Resp'ts' Mot. for an Extension of the Merits Briefing Deadline at 4, *Wyoming v. U.S. Dep't of the Interior*, No. 2:16-cv-285-SWS (D. Wyo. Oct. 20, 2017), ECF No. 155. BLM's multiple written commitments to a timeframe for suspending the Rule demonstrate that it made up its mind about the outcome of the NEPA process months before it even started its NEPA analysis, let alone sought public comment on the EA. This is deeply problematic; "[o]nce large bureaucracies are committed to a course of action, it is difficult to change that course—even if new, or more thorough, NEPA statements are prepared and the agency is told to 'redecide.'" *Massachusetts v. Watt*, 716 F.2d 946, 952-53 (1st Cir. 1983) (imposing injunction on sale of offshore oil and gas leases for NEPA violations).

BLM "did not even consider the potential environmental effects of the proposed action until long after [it] had already committed in writing" to its proposed action. *Metcalf*, 214 F.3d at 1143. BLM "commit[ted] itself to a plan of action that is dependent upon the NEPA environmental analysis producing a certain outcome, before the agency has completed that environmental analysis—which of course is supposed to involve an objective, good faith inquiry

into the environmental consequences of the agency's proposed action." *W. Slope Colo. Oil & Gas Ass'n v. Jewell*, No. 14-cv-02764-CMA, 2017 WL 3530283, at *8 (D. Colo. Aug. 16, 2017). BLM predetermined the outcome of its analysis in violation of NEPA.

B. BLM Failed to Analyze a Full Range of Reasonable Alternatives.

BLM does not have explicit or inherent authority to suspend the Waste Prevention Rule. *See supra* pp. 5-13. Accordingly, the only alternative under consideration that fulfills BLM's legal duties is keeping the Rule fully in effect—the No Action Alternative—unless and until BLM undertakes the necessary analysis to change the rule in full compliance with the MLA and APA. The Joint Environmental Commenters therefore support the No Action Alternative. But, even under BLM's flawed interpretation of its legal authority, its decision to analyze just two alternatives, the No Action Alternative and suspending or delaying the Waste Prevention Rule for a year, violates NEPA. *See* EA at 4.

BLM's preordained decision to suspend the Rule while it considers revising or rescinding it artificially constrained its NEPA analysis, and as a result the agency failed to analyze several reasonable alternatives, including alternatives that BLM admits were, and are, under consideration. NEPA requires BLM to analyze in detail "all reasonable alternatives." 40 C.F.R. § 1502.14(a). "Reasonable alternatives . . . include alternatives that are technically and economically practical or feasible and meet the purpose and need of the proposed action." 43 C.F.R. § 46.420(b). The range of alternatives is the heart of a NEPA document because "[w]ithout substantive, comparative environmental impact information regarding other possible courses of action, the ability of [a NEPA analysis] to inform agency deliberation and facilitate public involvement would be greatly degraded." *N.M. ex rel Richardson v. BLM*, 565 F.3d 683, 708 (10th Cir. 2009). That analysis must identify multiple viable alternatives, so that an agency can make "a real, informed choice" between the spectrum of reasonable options. *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1039 (9th Cir. 2008). BLM has not done that here.

1. BLM Unreasonably Narrowed the Purpose and Need for the Proposed Action by Considering Only Private Interests and Ignoring Its Own Statutory Mandates.

"[A]gencies are not permitted 'to define the objectives [of a proposed action] so narrowly as to preclude a reasonable consideration of alternatives.'" *Wyoming v. U.S. Dep't of Agric.*, 661 F.3d 1209, 1244 (10th Cir. 2011)) (alteration in original) (quoting *Citizens' Comm. to Save Our Canyons v. U.S. Forest Serv.*, 297 F.3d 1012, 1030 (10th Cir. 2002)). "A purpose and need statement will fail if it unreasonably narrows the agency's consideration of alternatives so that the outcome is preordained." *Alaska Survival v. Surface Transp. Bd.*, 705 F.3d 1073, 1084 (9th Cir. 2013). Although agencies must at least acknowledge private objectives, this "is a far cry from mandating that those private interests define the scope of the proposed project." *Nat'l Parks & Conservation Ass'n v. BLM*, 606 F.3d 1058, 1070 (9th Cir. 2010). Accordingly, agencies violate NEPA when they "draft a narrow purpose and need statement that excludes alternatives that fail to meet specific private objectives." *Id.* at 1072.

BLM has done exactly that here. Despite BLM's governing statutes—which plainly require BLM to consider the public interest—BLM has unreasonably narrowed its analysis by crafting a purpose and need statement that excludes alternatives that do not meet solely private objectives. BLM states that the purpose and need for its action is "to ensure that operators do not incur substantial and unnecessary compliance costs associated with regulatory requirements that may be revised or rescinded in the near future." EA at 3. Reducing compliance costs while depriving federal, state, and tribal treasuries of royalties benefits only private interests, not the public interest. BLM's myopic focus on compliance costs preordains the outcome of this proceeding, artificially narrowing the purpose and need of BLM's action, and causing it to consider only alternatives that benefit private interests, instead of the public as a whole. *See Or. Nat. Desert Ass'n v. BLM*, 625 F.3d 1092, 1124 (9th Cir. 2010) ("[U]ncritical privileging of one form of use over another . . . violates NEPA." (quotation omitted)).

In fact, BLM ignores its statutory obligations to prevent unreasonable waste and protect the environment altogether. Agencies are to determine the purpose of and need for their actions based on "the views of Congress, expressed, to the extent that the agency can determine them, in the agency's statutory authorization to act." *Nat'l Parks & Conservation Ass'n*, 606 F.3d at 1070 (quotation omitted). Thus, "[w]here an action is taken pursuant to a specific statute, the statutory objectives of the project serve as a guide by which to determine the reasonableness of objectives outlined in an EIS." *Alaska Survival*, 705 F.3d at 1084–85 (quoting *Westlands Water Dist. v. U.S. Dep't of the Interior*, 376 F.3d 853, 866 (9th Cir. 2004)). In other words, "an alternative is reasonable only if it falls within the agency's statutory mandate." *N.M. ex rel. Richardson*, 565 F.3d at 709. Here, BLM has defined the purpose and need narrowly without consideration of its relevant statutory mandates, such as requiring operators to "use all reasonable precautions to prevent waste of oil or gas" under the MLA, 30 U.S.C. § 225, and taking "any action necessary to prevent unnecessary or undue degradation of the lands" under FLPMA, 43 U.S.C. § 1732(b). None of these directives instruct BLM to fixate on compliance costs to the exclusion of a broad range of public interest values that BLM must account for pursuant to the MLA and FLPMA.

Moreover, as discussed above, BLM has not identified an actual *need* for its proposed course of action. *See supra* pp. 10-12. Although BLM claims the compliance costs pose a "substantial burden" to industry, the evidence in the record points to the opposite conclusion. BLM has offered no contrary evidence to support its stated need for the proposed action. Indeed, BLM acknowledges that it has developed the purpose and need for its proposed action not based on an objective consideration of the facts before the agency in light of the relevant statutes, but rather based on directives in Executive and Secretarial orders. *See* EA at 3.

2. BLM Failed to Analyze Alternatives to Fill the Regulatory Void Created by Its Action.

Because BLM artificially constrained the purpose and need for the proposed action, it failed to analyze multiple reasonable alternatives. For example, by virtue of proposing to suspend compliance dates until 2019, BLM has created a regulatory void that abdicates its responsibilities to prevent waste. *See supra* p. 10. By not identifying and considering—let alone choosing—any action alternatives that would fill this void during the time period the Waste Prevention Rule's provisions are suspended, BLM violates NEPA's duty to assess reasonable

action alternatives that implement the agency's MLA and FLPMA duties to prevent natural gas waste.

The RIA claims that "[t]he temporary suspension or delay of certain requirements in the 2016 final rule would not leave the oil and gas operations on Federal and Indian leases unregulated with respect to the activities governed by the provisions being suspended or delayed." RIA at 17; *see also* EA at 12 ("Where EPA and State regulatory overlap exists, the Proposed Action to delay the 2016 final rule's requirements would not represent a change from the baseline environment."). But BLM has previously concluded that these existing regulations are not sufficient to meet is statutory obligations to prevent waste and has provided no analysis sufficient to justify a change in position. *See infra* pp. 40-41, 47, 49. BLM, by not considering action alternatives that satisfy its MLA and FLPMA duties, thus fails to "sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. § 1502.14.

3. BLM Failed to Consider Suspending Leasing and Permitting Decisions While the Waste Prevention Rule Is Also Suspended.

In proposing to suspend the Waste Prevention Rule's compliance dates, BLM failed to consider a reasonable action alternative: the temporary suspension of new decisions to issue new oil and gas leases and to approve new applications for permits to drill. Given that the proposed rule leaves a regulatory void during the time that the rule is suspended (other than existing state and federal requirements that BLM has determined are inadequate to prevent waste), if BLM is going to proceed with this approach, it must consider other alternatives that would mitigate this waste. A temporary suspension of decisionmaking involving the issuance of new oil and gas leases and the approval of new applications for permits to drill would help ensure that the agency, during the time period the Waste Prevention Rule's provisions are suspended, satisfies its duty to prevent waste.

Critically, while this would address the risk of waste from new oil and gas leases and drilling permits, it would not prevent waste from ongoing, already-approved production operations—an important aspect of the Waste Prevention Rule, and a reason the Conservation Groups support the No Action Alternative. Nonetheless, even under BLM's narrow purpose and need, it is a viable, reasonable alternative that BLM should consider through the NEPA process.

4. BLM's Artificially Narrow Objective Caused It to Overlook Delaying Only Portions of the Rule With Future Compliance Dates.

Although BLM "initially considered . . . delaying only the portions of the 2016 final rule" with future compliance dates, it "eliminated [this alternative] from further consideration" because it "would leave intact requirements that appear to impose unnecessary burdens on operators." EA at 8. By BLM's own admission,"[a]s a result of [its] unreasonably narrow purpose and need statement, the BLM necessarily considered an unreasonably narrow range of alternatives." *Nat'l Parks & Conservation Ass'n*, 606 F.3d at 1072.

BLM did not quantify or support its assertion that requirements that have been in effect for nearly a year "appear to impose unnecessary burdens on operators." BLM's logic is circular. Because BLM did not actually analyze the alternative of delaying only provisions of the Rule with future compliance dates, it cannot say for certain whether provisions of the Rule that operators are already complying with actually impose unnecessary costs. As the Seventh Circuit has explained, "[a]lternatives might fail abjectly on economic grounds. But [agencies] and, more important, the public cannot know what the facts are until the [agency] has tested its presumption." *Simmons v. U.S. Army Corps of Eng'rs*, 120 F.3d 664, 669 (7th Cir. 1997).

5. BLM Failed to Analyze the Impacts of a Six-Month Suspension, Even Though It Continues to Consider this Option.

Even under its flawed and overly-narrow focus solely on private interests, BLM violated NEPA by failing to analyze reasonable middle-ground options, such as suspending the Waste Prevention Rule for a shorter time period of six months. Agencies cannot willfully ignore plausible alternatives that present "potentially appealing middle-ground compromise[s] between the absolutism of [a high-impact proposed action] and no action alternatives." *Wilderness Soc'y v. Wisely*, 524 F. Supp. 2d 1285, 1312 (D. Colo. 2007). Agencies violate NEPA when they ignore an alternative that goes farther than the no action alternative, but less far than the agency's proposed action. *N.M. ex rel. Richardson*, 565 F.3d at 711.

In the EA, BLM acknowledged that it "considered the appropriate length of a proposed suspension or delay," before "[u]ltimately . . . decid[ing] to propose a suspension or delay for one year." EA at 8. Agencies must provide specific analysis about why they choose to reject an alternative. *See Colo. Envtl. Coal. v. Salazar*, 875 F. Supp. 2d 1233, 1249–50 (D. Colo. 2012). BLM's conclusory explanation, without further reason, violates NEPA's requirement that an agency provide a "reasonable explanation justifying" its selection of alternatives. *California v. Block*, 690 F.2d 753, 769 (9th Cir. 1982) (holding that agency violated NEPA by "overlook[ing] the obvious alternative" of taking a middle-ground approach which met its purpose and need).

Indeed, there is ample evidence that BLM is, in fact, still actively considering a six-month suspension. In the proposed rule, BLM also explained that it "considered alternative timeframes for which it could suspend or delay the requirements (*e.g.* 6 months and 2 years)." 82 Fed. Reg. at 46,465. The agency acknowledged that "[a] shorter suspension of [sic] delay of the same 2016 final rule requirements would result in a smaller reduction in compliance costs, smaller reduction in cost savings, and a smaller amount of foregone emissions reductions, relative to the proposal." *Id.* BLM also solicited public comment about "the appropriate length of the proposed suspension and delays," and "whether the period should be longer or shorter (*e.g.*, six months, 18 months, or 2 years)." *Id.* at 46,460.

In the RIA, BLM was even more explicit that it is still considering a six-month suspension. The RIA acknowledges that BLM initially considered other timeframes before settling on one year, but goes on to explain that BLM's 1-year decision is still open to reconsideration, and the agency "may revise the length of the suspension or delay for the final rule." 2017 RIA at 10. Throughout the RIA, BLM quantifies the costs and benefits of limiting the suspension to six months. *Id.* at 29–30, 33–34, 36–39, 41, 43, 48–49. In a section of the RIA

devoted entirely to analyzing the costs and benefits of the six-month suspension, BLM acknowledges that the shorter suspension would have "a smaller change in the value of emissions reductions" and quantifies the foregone methane emissions reductions. RIA at 48. The analysis in the RIA demonstrates that BLM continues to actively consider the six-month suspension option—but the purely economic analysis in the RIA is no substitute for an actual analysis of the environmental and public health impacts of suspending the Waste Prevention Rule for a shorter period of time. In order to meaningfully consider this option, and for the public to meaningfully comment on it, BLM needs to provide a side-by-side comparison of not only compliance costs and foregone gas capture, but also the reduced methane, VOC, and HAPs emissions from a shorter suspension. BLM's failure to analyze the impacts of an alternative that remains under active consideration, especially an alternative with greater environmental benefits than the one alternative that the agency did analyze, also violates NEPA. *See 'Ilio'ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1098–99 (9th Cir. 2006).[23] While Joint Environmental Commenters reiterate that a suspension or delay for any amount of time is inappropriate, BLM is nevertheless obligated under NEPA to evaluate alternatives that fall between all and nothing.

BLM's decision not to analyze the impacts of an alternative that remains under consideration violates the "rule of reason" for determining whether an agency assessed a reasonable range of alternatives. *Wyoming*, 661 F.3d at 1243–44. Agencies violate NEPA when they dismiss alternatives "in a conclusory and perfunctory manner that do[es] not support a conclusion that it was unreasonable to consider them as viable alternatives in the EA." *Davis v. Mineta*, 302 F.3d 1104, 1122 (10th Cir. 2002). The only explanation that BLM gave for its choice not to consider the six-month alternative is that "BLM believes [one year] to be the minimum length of time practicable within which to review the 2016 final rule and undertake a notice-and-comment rulemaking to revise that regulation, if necessary." EA at 8. BLM did not explain why reconsideration requires a year, rather than six months. Indeed, the agency soliciting public comment about the appropriate length of a stay demonstrates that it is uncertain about the appropriate amount of time for reconsideration. BLM's conclusory explanation falls short of what NEPA demands. *Davis*, 302 F.3d at 1122.

C. BLM Must Prepare an Environmental Impact Statement Because Suspending the Waste Prevention Rule Has Significant Effects.

[23] Agencies need not consider "every conceivable permutation" or "alternatives which are not significantly distinguishable from alternatives actually considered, or which have substantially similar consequences." *Westlands Water Dist. v. U.S. Dep't of the Interior*, 376 F.3d 853, 871–72 (9th Cir. 2004) (quotations omitted). But, as demonstrated by BLM's own economic analysis in the RIA, there are meaningful distinctions—in terms of lost waste reduction benefits and increased methane emissions, as well as reduced compliance costs—between the no action alternative, suspending the Rule for six months, and suspending the Rule for a year. *See* RIA at 30, 33-34, 36–39, 41, 43, 48–49. BLM has analyzed only an action and no-action alternative, with no mid-range alternatives; analyzing the impacts of a middle ground alternative would foster informed decisionmaking and better public participation. *Cf. Mont. Wilderness Ass'n v. Connell*, 725 F.3d 988, 1004–05 (9th Cir. 2013).

BLM's cursory 21-page EA gives little insight into the significance of BLM's proposal to suspend or delay a nationally applicable regulation that prevents the waste billions of cubic feet of natural gas and of millions of dollars of lost royalties while simultaneously reducing emissions of hundreds of thousands of tons of dangerous pollutants. For a proposal of this magnitude, NEPA requires BLM to prepare an EIS in order to look before it leaps. *See Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs*, No. CV 16-1534 (JEB), 2017 WL 4564714, at *10 (D.D.C. Oct. 11, 2017). Yet BLM has not even conducted the analysis necessary to determine whether an EIS is necessary. Considering the relevant factors, it is clear that BLM must indeed prepare an EIS before it suspends the Waste Prevention Rule.

1. BLM Has Not Yet Conducted the Analysis Necessary to Determine Whether an EIS Is Necessary.

BLM has neither crossed the threshold step of determining whether an EIS is necessary, nor acknowledged that it must do so. EAs must "[b]riefly provide[] sufficient evidence and analysis for determining whether to prepare an [EIS]." *See Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 757 (2004) (first and third alternations in original) (quoting 40 C.F.R. § 1508.9(a)). "If, pursuant to the EA, an agency determines that an EIS is not required under applicable [Council on Environmental Quality (CEQ)] regulations, it must issue a 'finding of no significant impact' (FONSI), which briefly presents the reasons why the proposed agency action will not have a significant impact on the human environment. *Id.* at 757–58 (citing 40 C.F.R. §§ 1501.4(e), 1508.13). Interior Department regulations provide that "[u]pon review of the environmental assessment by the Responsible Official, the environmental assessment process concludes with" one of several options, including a decision to complete an EIS, abandon the project altogether, or a FONSI. 43 C.F.R. § 46.325. BLM has not yet fulfilled this requirement.

Failing to provide a draft FONSI at the proposed rule stage is inconsistent with BLM's prior practices in nationally-applicable regulatory proceedings. Just a few months ago, BLM issued an EA for a different regulatory change—its proposal to rescind the Hydraulic Fracturing Rule. BLM, *Environmental Assessment: Rescinding the Hydraulic Fracturing on Federal and Indian Lands Rule, DOI-BLM-WO-WO3100-2017-0001-EA* (July 2017), www.regulations.gov/document?D=BLM-2017-0001-0003. That EA included a FONSI that considered the requisite factors for determining whether an EIS is necessary. *Id.* at 41–46. BLM also included a FONSI in the draft EA accompanying both of its proposed Hydraulic Fracturing Rules. *See* BLM, *Environmental Assessment: Proposed Hydraulic Fracturing Rule, DOI-BLM-WO300-2012-XXX-EA* at 42–43 (May 24, 2013), https://www.regulations.gov/document?D=BLM-2013-0002-0003; BLM, *Environmental Assessment: Proposed Well Stimulation Rule, DOI-BLM-WO300-2012-XXX-EA* at 23–24 (May 10, 2012), https://www.regulations.gov/document?D=BLM-2012-0001-0002. BLM's failure to provide a draft FONSI hinders the public's ability to comment on BLM's analysis of the significance factors.[24]

[24] Notably, the Federal Register notice for the Suspension Proposal states that a draft FONSI has "been posted in the docket for the rule on the Federal eRulemaking Portal," and solicits public comment on the draft FONSI. 82 Fed. Reg. at 46,473. But there is in fact no draft FONSI available in the e-docket of for the Rule on Regulations.gov. *See* Regulations.gov, *Docket Folder Summary: Proposed rule; Waste Prevention, Production Subject to Royalties, and Resource*

2. An EIS Is Necessary Under CEQ's Significance Factors.

Although BLM has performed the analysis, the relevant significance factors demonstrate that an EIS is indeed necessary. NEPA requires BLM to complete an EIS before undertaking any "major Federal action[] significantly affecting the quality of the human environment." 42 U.S.C. § 4332(C). Agencies need not be certain that significant effects will occur in order to prepare an EIS; rather, they must prepare an EIS if there are "substantial questions whether a project may have a significant effect on the environment." *Anderson v. Evans*, 371 F.3d 475, 488 (9th Cir. 2004) (quotation omitted). CEQ's NEPA regulations define "[s]ignificantly" as requiring "considerations of both context and intensity." 40 C.F.R. § 1508.27.

a. Context

Context requires analyzing impacts at a variety of scales, including national, regional, and local, and over both the short and long term. *Id.* § 1508.27(a). The types of actions that BLM's NEPA Handbook lists as requiring completion of an EIS include: approvals of resource management plans, regional coal leases, and mining operations of greater than 640 acres. BLM *National Environmental Policy Act Handbook H-1790-1* § 7.2(1), (3), (7) (2008), https://www.ntc.blm.gov/krc/uploads/366/NEPAHandbook_H-1790_508.pdf. Suspending or delaying nationally-applicable regulations governing thousands of oil and gas wells throughout the 700 million acres of lands that BLM manages is even broader in scale than any of these listed activities, and thus requires preparation of an EIS.

Moreover, even if BLM thinks that, in the aggregate, impacts may not be nationally significant, there may be locally significant impacts to specific places or communities, in particular communities proximate to federal oil and gas leases and drilling sites that must be accounted for through an Environmental Impact Statement and preclude BLM's reliance on an EA and Finding of No Significant Impact. *Anderson*, 371 F.3d at 490 (noting that "local effects" may provide "a basis for a finding that there will be a significant impact" even where regional impacts are not significant). Suspension of the Waste Prevention Rule's compliance dates may create locally disparate impacts, in particular because BLM's action, if completed, would create a regulatory void that provides no direction to operators of federal oil and gas resources in terms of how they must prevent methane pollution and waste in accord with the MLA and FLPMA. Instead, BLM is relying on a patchwork of other federal and state requirements that differ across states. *See* RIA at 17-20. BLM fails to account for these distinctive local contexts in taking a hard look at impacts of its proposed rule, and the prospect that the agency's actions could impact local places and communities in widely disparate fashion, in particular relative to public health. As a 2016 report details, state-level rules targeting methane fall short in satisfying BLM's mandate to prevent waste and are riddled by myriad differences and inconsistencies. *See* W. Envtl. Law Ctr. & W. Org. of Resource Councils, *Falling Short: State Oil & Gas Rules Fail to Control Methane Waste* (2016), https://westernlaw.org/sites/default/files/2016StateMethaneWasteReport_0.pdf (Falling Short).

Conservation; Delay and Suspension of Certain Requirements (last visited Nov. 4, 2017), https://www.regulations.gov/docket?D=BLM-2017-0002 .

For example, there is wide disparity in how—and even whether—states address specific methane emission sources pertaining to oil well completions, well liquids removal, gas capture planning, and penalties. Moreover, each state fails to adequately control some methane sources. *Id.* at 4, 6–7. This creates distinct, localized impacts that BLM must address in taking a hard look at impacts and in determining whether an EIS is required.

These disparate impacts may create inequities and injustices relative to certain particularly vulnerable communities. Colorado, for example, has a fairly strong set of rules to reduce methane emissions. But New Mexico does not, creating serious risk that communities—e.g., Navajo communities—living in New Mexico's San Juan Basin will be harmed far more than similarly-situated communities in Colorado by federal oil and gas production operations as a result of BLM's Suspension Proposal. Such disparate impacts warrant thoughtful consideration through an EIS.

b. Intensity

"[I]ntensity . . . refers to the severity of impact." 40 C.F.R. § 1508.27(b). CEQ has developed a list of ten factors that should be considered when an agency is determining whether an action has sufficient intensity to be considered significant. *Id.* The presence of any "one of these factors may be sufficient to require preparation of an EIS in appropriate circumstances." *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 865 (9th Cir. 2005). For the Suspension Proposal, at least three of the ten significance factors require BLM to prepare an EIS.

i. Public Health and Safety

Increasing emissions of climate and air pollutants by hundreds of thousands of tons significantly impacts public health. A key factor in determining intensity is "[t]he degree to which the proposed action affects public health or safety." 40 C.F.R. § 1508.27(b)(2). An action can be significant because of its public health and safety impacts even if it is not the only cause of the health or safety risk at issue. *See Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1222 (9th Cir. 2008) (*CBD v. NHTSA*) (setting vehicle emission standards had significant impact on public health even though it was not the sole cause of global climate change). According to BLM's NEPA Handbook, this factor requires the agency to evaluate air quality in relation to public health and safety. BLM Handbook H-1790-1 § 7.3.

Emissions of ozone precursors, HAPs, and greenhouse gases affect public health. Courts have held that agency actions that have even relatively minor impacts on greenhouse gas emissions have an effect on public health and safety because of their climate change implications. *CBD v. NHTSA*, 538 F.3d at 1222. They have also recognized that oil and gas development on public lands contributes to ozone formation, and that "in sufficiently large concentrations, ozone can have a negative impact on public health." *Amigos Bravos v. BLM*, No. 6:09-CV-00037-RB-LFG, 2011 WL 7701433, at *20 (D.N.M. Aug. 3, 2011).[25]

[25] Another court acknowledged that oil and gas development's air quality impacts could show significance under § 1508.27(b)(2), but focused its analysis on water quality impacts. *Ctr. for Biological Diversity v. BLM*, 937 F. Supp. 2d 1140, 1158 (N.D. Cal. 2013) (*CBD v. BLM*).

The emissions from suspending the Waste Prevention Rule for a year well exceed emissions from some of the largest BLM-approved oil and gas projects on federal leases that BLM has analyzed in recent years. As demonstrated in Table 5 below, the VOC and methane emissions from suspending or delaying the Waste Prevention Rule are orders of magnitude greater than VOC and methane emissions from these projects, which BLM deemed sufficiently significant to necessitate EISs. HAP emissions from suspending the Waste Prevention Rule are also greater than HAP emissions from any of these projects. Suspending the Waste Prevention Rule will thus have greater impacts on public health than projects for which BLM has previously prepared EISs.

Table 5, Emissions from BLM Oil and Gas Projects[26]

Project	Annual CH_4 Emissions (tons)	Annual VOC Emissions (tons)	Annual HAPs Emissions (tons)
Suspending Waste Prevention Rule	175000	250000	1860
West Tavaputs	2629	12130	434
Monument Butte	12587	10361	1005
Normally Pressured Lance	6008	808	71
Bull Mountain Unit	n/a	80	20

The climate impacts of suspending or delaying the Waste Prevention Rule for a year will affect public health to a significant degree. BLM acknowledges that Alternative B will allow greenhouse gas emissions from existing sources to "continue more or less unabated until January 2019." EA at 16. BLM quantifies the foregone methane emissions reductions between January 2018 and January 2019 at 175,000 tons, which is equivalent to 0.61% of total U.S. methane emissions in 2015. *Id.* The climate impacts of these emissions are significant. By comparison, the Ninth Circuit has held that there is a "substantial question" about whether a smaller, 0.2% decrease in U.S. carbon dioxide emissions may cause significant impacts "in light of the compelling scientific evidence concerning positive feedback mechanisms in the atmosphere." *CBD v. NHTSA*, 538 F.3d at 1221 (quotations omitted).

[26] All values represent one year of emissions, based on quantified annual emissions, or the project year BLM identified as representative. EA at 16–17; BLM, *Final Environmental Impact Statement (EIS) for the West Tavaputs Gas Full Field Development Plan* at 4-17 (July 30, 2010); BLM, *Final Environmental Impact Statement for Newfield Exploration Corporation Monument Butte Oil & Gas Development Project in Uintah and Duchesne Counties, Utah, UT-G010-2009-0217* at 4-7 (2016) https://eplanning.blm.gov/epl-front-office/projects/nepa/62904/75396/83266/FEIS_2_Chapter_4_thru_Attachment_2.pdf; BLM, *Normally Pressured Lance Natural Gas Development Project Draft Environmental Impact Statement* at 4-21, 4-26, 4-57 (July 2017), https://eplanning.blm.gov/epl-front-office/projects/nepa/57654/111398/138955/NPL_DEIS_July2017web.pdf (using year-10 values); BLM, *Final Environmental Impact Statement for the Bull Mountain Unit Master Development Plan* at 4-46 (July 2016), https://eplanning.blm.gov/epl-front-office/projects/nepa/66641/81730/95952/Bull_Mtn_Final_EIS_July_2016_Vol_I_508_reduced.pdf(using year-5 values; greenhouse gas emissions for year 5 were quantified at 44,389 tons of CO_2e, rather than tons of methane).

The conventional air pollution impacts of suspending the Waste Prevention Rule will also significantly affect public health. BLM admits that Alternative B "would result in additional natural-gas losses in the short-term future, thereby increasing various air pollutants/pollutant precursors, HAPs, and GHGs." EA at 17. And that "[n]atural gas contains VOCs, which are precursors to ozone and particulate matter, and various toxic air pollutants, such as benzene. These air pollutants affect the public health and welfare of humans. . . ." *Id.* This analysis demonstrates the significant health impacts from BLM's proposed action, warranting preparation of an EIS.

Moreover, when considering the degree to which a proposed action impacts public health, courts have previously considered whether oil and gas sector emissions could contribute to an area being in nonattainment for ozone. *See Amigos Bravos*, 2011 WL 7701433, at *20–*21. BLM administers oil and gas development in several ozone nonattainment areas, including Colorado's Denver-Boulder-Greeley-Ft. Collins-Loveland area. *See* EPA, *8-Hour Ozone (2008) Nonattainment Area Area/State/County Report* (Sept. 30, 2017), www3.epa.gov/airquality/greenbook/hnca.html (Green Book); *see also* Ava Farouche, *Producing Wells on Public Lands Within the Nonattainment Area* (Oct. 26, 2017) (documenting 186 oil and gas wells on public lands within the Denver-Boulder-Greeley-Ft. Collins-Loveland nonattainment area). The Uinta Basin, which contains significant development on federal and tribal leases, also has severe ozone pollution problems, but the recommendations for designation as a nonattainment area have not been finalized by the Trump administration, in violation of the CAA. *See* Utah Dep't of Envtl. Qual., *Utah Area Designation Recommendations for the 2015 8-Hour Ozone National Ambient Air Quality Standard* at 554–57 (Sept. 2016), https://www.epa.gov/sites/production/files/2016-11/documents/ut-rec-tsd.pdf (Utah 2015 NAAQS Designation Proposal); *see also* Letter from Am. Lung Ass'n et al., to Scott Pruitt, Adm'r, EPA, re: Notice of intent to sue under the Clean Air Act for failure to designate areasunder the 2015 Ozone National Ambient Air Quality Standard as required by 42 U.S.C. §7407(d)(l)(B)(i) (Oct. 3, 2017), https://www.epa.gov/sites/production/files/2017-10/documents/enviros_noi_10032017.pdf. Additional ozone precursor emissions in these areas can significantly impact human health.

ii. Controversy

Ongoing scientific debate, along with concerns raised by many governments and other public controversies warrant preparing an EIS. Another significance factor is "[t]he degree to which the effects on the quality of the human environment are likely to be highly controversial." 40 C.F.R. § 1508.27(b)(4). An action "is highly controversial when there is a substantial dispute about the size, nature, or effect of the major Federal action rather than the existence of opposition to a use. Put another way, a proposal can be considered controversial if substantial questions are raised as to whether a project … may cause significant degradation of some human environmental factor." *Anderson*, 371 F.3d at 489 (alterations in original) (citations and quotations omitted). Similarly, BLM's NEPA handbook explains that "[c]ontroversy in this context means disagreement about the nature of the effects . . . . Substantial dispute within the scientific community about the effects of the proposed action would indicate that the effects are likely to be highly controversial." BLM Handbook H-1790-1 § 7.3.

Here, there is substantial controversy about whether the Waste Prevention Rule, and BLM's proposal to suspend its provisions, are significant in terms of mitigating climate change. For example, in their opening merits brief challenging the Rule in the District of Wyoming, Industry Petitioners argued that the Waste Prevention Rule reduces global methane emissions by "an insignificant amount." Br. in Supp. of W. Energy All. & Indep. Petroleum Ass'n of Am.'s Pet'n for Rev. of Final Agency Action at 5, *Wyoming v. U.S. Dep't of the Interior*, No. 2:16-cv-00285-SWS (D. Wyo. Oct. 2, 2017), ECF No. 142. By contrast, the Joint Environmental Commenters have provided substantial evidence demonstrating that the Waste Prevention Rule does, indeed, have significant climate benefits. Citizen Groups' Resp. to Mots. for a Prelim. Inj. at 48–49, *Wyoming v. U.S. Dep't of the Interior*, No. 2:16-cv-00285-SWS (D. Wyo. Dec. 15, 2016), ECF No. 69.

Another controversy is the appropriate scale for the social cost of methane. As discussed above, *see supra* Section V, BLM initially used the global social cost of methane. *See* 2016 RIA at 31. Now, BLM is using an interim value for the domestic social cost of methane that relies on different discount rates from the global metric. *See* RIA at 24–27. As some petitioners in the District of Wyoming recently explained, the social cost of methane is "a controversial calculation." Jt. Open. Br. of the States of N.D. & Tex. at 33, *Wyoming v. U.S. Dep't of the Interior*, No. 16-cv-00285-SWS (D. Wyo. Oct. 2, 2017), ECF No. 143. These significant controversies warrant the preparation of an EIS.

Additionally, "[a]lthough mere opposition to the project does not in itself create a controversy, the volume of comments from and the serious concerns raised by federal and state agencies specifically charged with protecting the environmental may support a finding that an EIS is necessary." *CBD v. BLM*, 937 F. Supp. 2d at 1158 (quotation omitted). BLM received approximately 330,000 public comments prior to finalizing the Waste Prevention Rule. 81 Fed. Reg. at 83,010. A wide range of groups submitted comments in support of the Rule, including three U.S. Senators, four U.S. Congresspeople, two former BLM Directors, six New Mexico local governments, 41 current and former state and local elected officials in New Mexico, nine Colorado local governments, 26 current and former state and local elected officials in Colorado, and dozens of businesses and faith, environmental, public health, tribal, and sportsmens' groups. *See* Envtl. Def. Fund, *List of Elected Officials, Groups, Businesses, and Individuals that Called for Action in Reducing Natural Gas Waste on Public and Tribal Lands* (2016). After the Rule was promulgated, numerous states, tribes, and local governments raised concerns with various attempts to repeal or stay the Rule. California and New Mexico successfully sued BLM when the agency unlawfully attempted to stay the Rule's compliance dates. *California v. BLM*, No. 17-cv-3804-EDL, 2017 WL 4416409 (Oct. 4, 2017). One hundred thirteen local elected officials, including mayors from Colorado, New Mexico, Idaho, Nevada, Wyoming, and Utah urged the U.S. Senate not to repeal the Waste Prevention Rule using the Congressional Review Act. Kellie Lunney & Geof Koss, *Repeal of BLM Methane Rule Will Pass Senate—Barrasso*, E&E News (Apr. 27, 2017), www.eenews.net/stories/1060053662. The Navajo Nation, Standing Rock Sioux Tribe, and the Mandan, Hidatsa, and Arikara Nation also asked Congress not repeal the Waste Prevention Rule. *Tribal Groups Press U.S. Senate to Keep BLM Methane Waste Rule*, Pub. News Serv. (May 8, 2017), www.publicnewsservice.org/2017-05-08/climate-change-air-quality/tribal-groups-press-u-s-senate-to-keep-blm-methane-waste-rule/a57587-1. Ultimately, the

Senate failed to rescind the Rule. Given the tremendous support for the Waste Prevention Rule, an EIS is warranted.

iii. Individually Insignificant but Cumulatively Significant

BLM must prepare an EIS because the Suspension Proposal is significant when considered alongside BLM's long-term efforts to revise the Rule, and EPA's efforts to revise its own methane regulations. An action can be significant if it "is related to other actions with individually insignificant but cumulatively significant impacts." 40 C.F.R. § 1508.27(b)(7). As BLM's NEPA handbook explains, this analysis overlaps with the cumulative impacts inquiry. *See* BLM Handbook H-1790-1 § 7.3. This factor is thus also addressed in the cumulative impacts section below. *See infra* pp. 47-49.

BLM's proposed action is cumulatively significant because it is just one step in BLM's broader reconsideration. CEQ regulations provide that "[s]ignificance cannot be avoided by terming an action temporary or by breaking it down into small component parts." 40 C.F.R. § 1508.27(b)(7). BLM has explained that its proposal to suspend the Rule is just one step in its long-term process of revising or rescinding the Rule. EA at 2–3. Indeed, this is BLM's second attempt to delay the Waste Prevention Rule's compliance dates; BLM's earlier attempt to do so without notice and comment was rejected as unlawful by a federal court. *California v. BLM*, No. 17-cv-3804-EDL, 2017 WL 4416409 (Oct. 4, 2017). Despite acknowledging that the Suspension Proposal is designed to buy time for a larger reconsideration process, BLM downplays the environmental impacts of the Suspension Proposal by emphasizing that it is only temporary. *See* EA at 4, 15, 17, 20. BLM must assess the full cumulative impacts of its plan to rescind or revise the Waste Prevention Rule.

D. BLM Has Not Taken a Hard Look at the Impacts of Its Proposed Action.

BLM's brief and conclusory EA does not provide the reasoned analysis that NEPA demands. NEPA "establish[es] procedural mechanisms that compel agencies . . . to take seriously the potential environmental consequences of a proposed action. [Courts] have termed this crucial evaluation a 'hard look.'" *Ocean Advocates*, 402 F.3d at 864 (quotation omitted). Agencies "cannot avoid preparing an EIS by making conclusory assertions that an activity will have only an insignificant impact on the environment." *Id.* "If an agency . . . opts not to prepare an EIS, it must put forth a convincing statement of reasons that explain why the project will impact the environment no more than insignificantly." *Id.* (quotations omitted). Agencies fail to take a hard look when they rely on "patently inaccurate factual contention[s]," and unsupported assertions without reasoned evaluation. *Id.* at 866. Agencies also fail to take a "hard look" when they jump to a conclusion that an impact will be minimal despite evidence demonstrating that harmful impacts are possible. *N.M. ex rel. Richardson*, 565 F.3d at 714–15. BLM has relied on irrational assumptions, failed to consider indirect impacts, and glossed over the cumulative impacts of its proposed action.

1. BLM Has Not Taken a Hard Look at the Direct Impacts of Its Proposed Action.

First, BLM quantified the direct impacts of the Suspension Proposal—increased emissions of methane, VOCs, and HAPs—but it did not consider what those increased emissions mean for human health and the environment. For example, there is no discussion of the impact of increased methane emissions on climate change. *See Mont. Envtl. Info. Ctr. v. U.S. Office Of Surface Mining*, No. CV 15-106-M-DWM, 2017 WL 3480262, at *12 (D. Mont. Aug. 14, 2017). Furthermore, despite the significant increased VOC and HAP emissions, the EA contains no discussion of ozone pollution, *see Sierra Club v. U.S. Dep't of Transp.*, 962 F. Supp. 1037, 1045 (N.D. Ill. 1997), nor of the impacts of heightened exposure to HAP, *see S. Fork Band Council of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 588 F.3d 718, 726 (9th Cir. 2009). This failure is particularly troubling because many areas under BLM jurisdiction have been, currently are, or soon will be designated in nonattainment with federal ozone standards.[27] Indeed, as BLM acknowledged in the 2016 EA, "exceedances of the ozone standards under the NAAQS have occurred in Northeastern Utah, where the BLM oversees numerous oil and gas operations from Federal and Indian leases." BLM, Environmental Assessment: Waste Prevention, Production Subject to Royalties, and Resource Conservation 31 (2016) (2016 EA). The 2016 EA also explained the negative impacts of ozone on public health and on children in particular, as well as on vegetation and ecosystems. *Id.* at 30–31. Absent a similar discussion of health and environmental problems caused by releasing these pollutants, and whether the quantities released are likely to contribute to such impacts, BLM has failed to take a hard look at the impacts of its proposed action.

Second, BLM also failed to take a hard look at the disparate impacts of the proposed rule to distinct, local places and communities proximate to federal oil and gas leases and drilling sites—impacts that may implicate serious environmental justice concerns. *See infra* pp 40-41.

Third, BLM assumes that the impacts of suspending the Waste Prevention Rule will be "potentially modulated to some degree by State requirements and voluntary industry actions in some areas." EA at 16; *see also* RIA at 17. But BLM neither discusses state regulations, nor quantifies the extent to which they will "modulate" the negative impacts of suspending the Rule. BLM has not provided sufficient evidence to justify this blanket assertion. *WildEarth Guardians v. BLM*, 870 F.3d 1222, 1235 (10th Cir. 2017) (holding that agencies must justify their choices with evidence "sufficient in volume and quality to sharply define the issues and provide a clear basis for choice among options," rather than mere "blanket assertion[s]"). As for "voluntary

[27] Colorado's Denver-Boulder-Fort Collins-Greeley area has been designated nonattainment with the 2008 NAAQS and is also slated to be designated nonattainment with the 2015 NAAQS. Colo. Dep't of Pub. Health & Env't, *Technical Support Document for Recommended 8-Hour Ozone Designations* at 51 (Sept. 15, 2016), https://www.epa.gov/sites/production/files/2016-11/documents/co-rec-tsd.pdf. The same is true for Eastern Kern County, California. Cal. Air Res. Bd., *Recommended Area Designations for the 0.070 ppm Federal 8-Hour Ozone Standard: Staff Report* at 9 (Sept. 2016) https://www.epa.gov/sites/production/files/2016-11/documents/ca-rec-enclosures.pdf. Wyoming's Upper Green River Basin was designated nonattainment with the 2008 NAAQS, *see* EPA, Green Book, although EPA later determined that it attained the NAAQS, 81 Fed. Reg. 26,697, 26,700–01 (May 4, 2016). The State of Utah has recommended that the Uinta Basin be designated as a nonattainment area. Utah 2015 NAAQS Designation Proposal at 55–57.

industry actions," courts have held that agencies fail to take a "hard look" when they "rely on unsupported assumptions that future mitigation technologies will be adopted." *High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1197 (D. Colo. 2014).

BLM also states that new and modified sources will be covered by EPA regulations and therefore "not contribute to a deviation from the baseline." EA at 16. But, as discussed, *see infra* p. 49, BLM did not consider that EPA has proposed to suspend and will likely propose to revise or rescind key components of its regulations. *See Ocean Advocates*, 402 F.3d at 864-66 (holding that agencies fail to take a "hard look" when their assessments include only conclusory assertions and do not discuss contrary evidence). Given that EPA is currently reconsidering its methane rule and has formally proposed to stay a number of its key requirements, BLM must account for the associated and reasonably foreseeable impacts to the environment from those actions. Furthermore, EPA's rule covers only new and modified sources, so does not overlap with the BLM rule to the extent that the latter covers existing sources on Federal and Indian lands.

Finally, BLM failed to take a hard look at the impacts of increased flaring. BLM acknowledges that one of the benefits of the Waste Prevention Rule is reducing noise and light pollution from flares, which benefits residents, recreationists, and wildlife near oil and gas development. EA at 10, 14. But BLM only briefly discusses the impacts of increased flaring caused by suspending the Rule, cross-referencing its 2016 EA and noting that the suspension "is expected to have noise and light impacts on dwellings, residences, and recreation in the short-term future," potentially affecting nearby communities, wildlife, night-sky resources, and recreation. EA at 18. This cursory list of impacts falls short of what NEPA requires. *See Nat'l Audubon Soc'y v. Dep't of Navy*, 422 F.3d 174, 194 (4th Cir. 2005) ("An agency's hard look should include neither researching in a cursory manner nor sweeping negative evidence under the rug.").

2. BLM's Cursory Consideration of Cumulative Impacts Violates NEPA

BLM devotes only a half of one page to analyzing the cumulative impacts of suspending or delaying the Waste Prevention Rule's requirements. EA at 20. "Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7. "NEPA is, 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." *Del. Riverkeeper Network v. Fed. Energy Reg. Comm'n*, 753 F.3d 1304, 1314 (D.C. Cir. 2014) (quotation omitted).

"NEPA always requires that an environmental analysis for a single project consider the cumulative impacts of that project together with 'past, present and reasonably foreseeable future actions.'" *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 895 (9th Cir. 2002) (quoting 40 C.F.R. § 1508.7). According to BLM's NEPA Handbook, a cumulative effects analysis

should consider scope, timeframe, and past, present, and reasonably foreseeable future actions. BLM NEPA Handbook § 6.8.3.2 to .4. The Handbook provides that "[f]or each cumulative effect issue," BLM should "analyze the direct and indirect effects of the proposed action and alternatives together with the effects of the other actions that have a cumulative effect." *Id.* § 6.8.3.5. This analysis should include describing the existing condition, the effects of other present actions, the effects of reasonably foreseeable actions, the effects of the proposed action and each alternative, the interaction of these impacts, and the relationship of these cumulative effects to any thresholds. *Id.*; *see also Grand Canyon Trust v. Fed. Aviation Admin.*, 290 F.3d 339, 345 (D.C. Cir. 2002) (providing a similar list).

BLM's plan to revise or rescind the Waste Prevention Rule is a reasonably foreseeable future action with an impact on the same resources being considered in the EA, but BLM has failed to analyze the cumulative impacts of the two actions. When multiple reasonably foreseeable actions may impact the same resources within a short timeframe, agencies are required to analyze the cumulative impacts of all the actions. *See Native Ecosystems Council*, 304 F.3d at 897; *Kern v. BLM*, 284 F.3d 1062, 1078–79 (9th Cir. 2002). BLM's Suspension Proposal is a first step towards BLM's ultimate goal of revising or rescinding the Rule. EA at 2–3. BLM has committed in writing that the Suspension Proposal is just the second of three steps towards revising or rescinding the Rule. Fed. Resp'ts' Mot. to Extend Briefing Deadlines at 3, *Wyoming v. U.S. Dep't of the Interior*, No. 2:16-cv-285-SWS (D. Wyo. June 20, 2017), ECF No. 129; Fed. Resp'ts' Mot. for an Extension of the Merits Briefing Deadline at 4, *Wyoming v. U.S. Dep't of the Interior*, No. 2:16-cv-285-SWS (D. Wyo. Oct. 20, 2017), ECF No. 155. Given that BLM has discussed the revision or rescission of the Rule in the EA itself, as well as numerous other documents, it is a reasonably foreseeable development that will clearly impact that the same resources impacted by the Suspension Proposal, and thus BLM must analyze the cumulative impacts of both the suspension and the possible rescission or revision of the Rule.

If BLM does not analyze the cumulative impacts of both the Suspension Proposal and the revision or rescission of the Rule, it will impermissibly segment its NEPA analysis. The purpose of requiring agencies to consider cumulative impacts is to prevent them from "dividing one project into multiple individual actions each of which individually has an insignificant environmental impact, but which collectively have a substantial impact." *Del. Riverkeeper Network*, 753 F.3d at 1314 (quotation omitted). But that is exactly what BLM is doing here. Because the Suspension Proposal is not only reasonably foreseeable, but also inextricably linked with BLM's ongoing administrative review of the Rule, BLM must analyze the cumulative impacts of both proposals (the temporary suspension and the permanent change) together. Its failure to do so violates NEPA.

BLM's analysis further falls short of NEPA's cumulative impact requirements because BLM does not identify a geographic scope, timeframe, or set of past, present, and future actions related to its action. Nor does BLM describe existing conditions, impacts of other actions, or how suspending the Waste Prevention Rule will interact with these actions. Instead, BLM states only that "in the short-term future, the BLM would anticipate additional GHG emissions which would have climate impacts and air quality impacts." EA at 20. It then lists every potential benefit of suspending the Rule. *Id.* This cursory summary is not a cumulative impacts analysis. *See Lands Council v. Powell*, 395 F.3d 1019, 1028 (9th Cir. 2005).

BLM also states that its "site-specific inspection and approval procedures would still apply to any surface-disturbing project, and would ensure evaluation and mitigation of site-specific adverse impacts." EA at 20. This is the antithesis of a cumulative impacts analysis. BLM cannot dismiss impacts by asserting that they are disconnected and can be dealt with later. *See Del. Riverkeeper Network*, 753 F.3d at 1319. A cumulative impacts analysis must consider all impacts, whether they are site-specific or not. Moreover, these site-specific impacts are directly related to BLM's decision to suspend the Waste Prevention Rule: if the Rule is in effect, then every oil and gas facility under BLM's jurisdiction must comply with it. Only if the Rule is not in effect will BLM's site-specific analysis become relevant.

Finally, BLM claims that "[w]here EPA and State regulatory overlap exists, the Proposed Action to delay the 2016 final rule's requirements would not represent a change from the baseline environment," and that, because EPA's rule applies to new and modified sources, "overlap with EPA regulations is expected to grow over time," and "the impact of the proposed delay of the 2016 final rule's requirements is expected to decline over time." EA at 12–13. But BLM also acknowledged that "EPA recently proposed to delay the fugitive emissions, pneumatic pumps at well sites, and professional engineer certification for close vent system requirements for two years." *Id.* at 12. BLM did not mention that EPA has proposed a two-year stay of key regulatory provisions—including its LDAR program—in order to reconsider the rule in its entirety. *See* EPA, *Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources: Stay of Certain Requirements*, 82 Fed. Reg. 27,645, 27,646 (June 16, 2017). The fact that BLM has ignored this significant fact is unreasonable. Moreover, although BLM references overlap with state regulations, the only specific regulation it cites is Colorado's LDAR program. EA at 12. BLM has not offered any basis to conclude that state regulations will reduce the impacts of BLM's Suspension Proposal. BLM must consider the cumulative impacts of its actions, combined with all existing sources of methane waste, rather than assuming that other regulatory agencies will address the problem.

3. BLM Has Not Taken a Hard Look at the Social Cost of Methane.

BLM has failed to take a hard look at whether the interim domestic social cost of methane is truly the best means available to quantify the costs of suspending the Waste Prevention Rule for a year. NEPA requires agencies to take a "hard look at all aspects" of the issue under consideration. *See Greater Yellowstone Coal. v. Larson*, 641 F. Supp. 2d 1120, 1149 (D. Idaho 2009). Although NEPA does not require a cost-benefit analysis, it is arbitrary and capricious for an agency to quantify benefits of its actions while ignoring available means of quantifying the costs of its actions. *High Country Conservation Advocates*, 52 F. Supp. 3d at 1191; *see also Michigan*, 135 S. Ct. at 2707 (agencies must consider the advantages *and* disadvantages of their decisions); *CBD v. NHTSA*, 538 F.3d at 1200 (holding it arbitrary to consider an artificially low cost to greenhouse gas emissions); *Hughes River Watershed Conservancy v. Glickman*, 81 F. 3d 437, 446–48 (4th Cir. 1996) (agencies cannot rely on inaccurate economic assumptions); *Sierra Club v. Sigler*, 695 F.2d 957, 979 (5th Cir. 1983) (agencies must consider both costs and benefits of their actions); *California*, 2017 WL 4416409, at *11 (same). Yet that is exactly what BLM did here.

As discussed above, BLM has chosen to analyze the costs and benefits of its decision to suspend or delay the Waste Prevention Rule using an interim domestic value for the social cost of methane. *See* RIA at 25. But another means of quantifying the social cost of methane is available—calculating the global value of the social cost of methane. BLM relied on this global value when it initially promulgated the Rule. *See* 81 Fed. Reg. at 83,014, 83,068–69; 2016 RIA at 31–37. Courts have upheld the use of the global social cost of carbon, a similar measure, as a valid exercise of agencies' regulatory authority. *See Zero Zone, Inc*, 832 F.3d at 677. Yet BLM has now chosen to abandon the global value of the social cost of methane, based on instructions from an Executive Order. RIA at 25. BLM notes that the values it has used are merely "interim values" to be used only until "an improved estimate of the impacts of climate change to the U.S. can be developed." *Id.* But it also claims that it "has estimated all of the significant costs and benefits of this rule to the extent that data and available methodologies permit, consistent with the best science currently available." RIA at 26. These contrary explanations simply cannot be reconciled—BLM has not explained why its interim domestic estimates of the social cost of methane are indeed the best available science, when another protocol—the global social cost of carbon—is available and was used by the agency just a year ago, and has been upheld as a valid measure by a federal court.

BLM's failure to do so violates NEPA. A court struck down an agency's NEPA analysis under similar circumstances in *High Country Conservation Advocates*. There, the agency relied on the social cost of carbon in its draft EIS, but chose not to rely on it in its final EIS. *High Country Conservation Advocates*, 52 F. Supp. 3d at 1193. The court held that the agency choosing not to use the social cost of carbon despite initially relying on it, while offering a factually inaccurate justification for why its change of course, violated NEPA. *Id.* at 1191–93 (citing *N.M. ex rel. Richardson*, 565 F.3d at 704). Similarly, the District of Montana has held that it is arbitrary and capricious for an agency to quantify the benefits of an action without quantifying the costs, even though such an analysis is possible. *Mont. Envtl. Info. Ctr.*, 2017 WL 3480262, at *13. BLM has provided a robust explanation of the reduced compliance costs from its proposed action, but it has not explained why it chose not to use an available tool that it had already used in the past—the global social cost of methane—to quantify the costs of its proposed action. BLM's failure to explain and justify its changed position about the validity of the global social cost of methane violates NEPA.

Indeed, NEPA mandates that BLM consider all the impacts of its actions—regardless of whether those impacts are domestic or global. "[T]he fact that climate change is largely a global phenomenon that includes actions that are outside of the agency's control does not release the agency from the duty of assessing the effects of its actions on global warming within the context of other actions that also affect global warming." *CBD v. NHTSA*, 538 F.3d at 1217 (quotations and alterations omitted). "The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." *Id.*
Although NEPA does not extend to projects located entirely in another country, agencies acting domestically must analyze the impacts of their actions that occur outside the United States. *See Friends of the Earth, Inc. v. Mosbacher*, 488 F. Supp. 2d 889, 908 (N.D. Cal. 2007). BLM's Suspension Proposal will impact the entire planet by increasing methane emissions, which contribute to global climate change. *See* EA at 16. BLM therefore must consider not only the

domestic, but also the global, impacts of its decisions. BLM's choice to consider only the domestic social cost of methane violates NEPA.

4. BLM Has Not Taken a Hard Look at the Impacts of Its Proposed Action on Tribal Lands.

BLM's NEPA analysis entirely ignores the unique public health impacts of suspending the Waste Prevention Rule on tribal lands. Although the EA frequently refers to impacts on "Federal and Indian oil and gas leases," *see, e.g.*, EA at 13, nowhere in the EA does BLM analyze impacts specific to Indian Country. BLM similarly overlooks the environmental and public health impacts of suspending the Rule in the Federal Register preamble, which simply notes that BLM estimates economic impacts for Indian leases and royalty implications for tribes in the RIA. 82 Fed. Reg. at 46,466; *see also* RIA at 45–46 (analyzing economic, but not environmental, impacts of the Suspension Proposal on tribal lands). BLM's oversight is significant because suspending the Rule *does* have disparate public health and environmental impacts on tribal lands. There are more likely to be residences, schools, and offices on tribal lands than federal lands where oil and gas is developed, elevating public health concerns about exposure to hazardous air pollutants, and exacerbating the negative noise and light pollution impacts of flaring.

BLM has also overlooked the environmental justice implications of suspending the Rule, which disparately impacts Native Americans who live on tribal lands. As BLM acknowledged in the 2016 EA, Executive Order 12,898 requires BLM to address disproportionate adverse human health or environmental effects of its actions on minority and low-income populations. 2016 EA at 36. BLM acknowledges that not suspending the Rule "would have a beneficial effect on [sic] minority and low-income population segment due to the reductions in air pollutants." EA at 15. But it nevertheless concludes that suspending the Rule "is not expected to have a significant impact on minority and low-income populations living near oil and gas operations" despite the increase in air pollution, because of the incidental reduction in other forms of air pollution from decreased truck traffic. *Id.* at 19. This is not consistent with BLM's own analysis, just a few pages earlier in the EA, which shows that the decrease in truck traffic-related pollution is orders of magnitude smaller than the increase in pollution from suspending the Rule. *Compare id.* at 17 (suspending the Rule increases VOC emissions by 250,000 tpy) *with id.* at 18 (reduction in truck traffic-related emissions decreases VOC emissions by 0.8 tpy, and NOx emissions by 20.29 tpy). Jumping to a conclusion that an impact will be minimal despite contrary evidence about harmful impacts violates NEPA's hard look mandate. *N.M. ex rel Richardson*, 565 F.3d at 714–15.

CONCLUSION

In conclusion, we urge BLM to withdraw the Suspension Proposal, and retain the Waste Prevention Rule in full.

Sincerely,

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APPENDIX 1: INDEX OF EXHIBITS

On November 6, 2017, the following exhibits were submitted to BLM, via hand-delivery to BLM's Washington Office, 20 M Street SE., Room 2134 LM, Washington, DC 20003, on a USB Drive. Due to their voluminous size, it was not possible to submit the exhibits via Regulations.gov. However, Joint Environmental Commenters fully intend for BLM to consider and include all of these documents, which are cited above, in the Administrative Record for this rulemaking. Also submitted via Hand Delivery on a USB is the Addendum to the Joint Environmental Commenters Comments. As noted above, the Addendum contains the Administrative Record for the 2016 Waste Prevention Rule.

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Appendix 2: Table Comparing Questions Raised Regarding Technical Standards with Existing Findings Regarding Same Standards

The following table identifies various reasons BLM has set forth for reconsidering (a separate action from suspending) technical standards in the Suspension Proposal, as well as BLM's existing record findings and analysis supporting those standards. As is demonstrated from the table, BLM has already fully considered and responded to all of the purported issues raised in the Suspension Proposal in its final Waste Prevention Rule, and BLM here does not purport to make any contrary factual findings, but rather lists questions and concerns that it may at some future point reassess.

Standard	**Questions Raised in Suspension/Suspension Proposal**	**Existing Record Findings and Analysis Supporting Standard**
Waste-Minimization Plans. 43 C.F.R. § 3162.3–1(j).	Is burden necessary and can it be reduced? 82 FR 46460.	BLM determined that the requirement is a reasonable, low cost, and effective way to reduce waste; BLM streamlined the final rule to narrow information required in response to comments. 81 FR 83042.
	Information is possessed by midstream companies. 82 FR 46460.	Final rule requires information "to the extent that the operator can obtain it." BLM RTC p.172; 81 FR 83078.
	Compliance with state plans should suffice. 82 FR 46461.	Operator may submit same plan as submitted to state if state plan meets most or all of requirements of BLM plan. 81 FR 83042.
Gas Capture Requirement. 43 C.F.R. § 3179.7.	Is final rule unnecessarily complex? 82 FR 46461.	BLM developed capture target approach in order to provide greater flexibility to industry in response to concerns that the proposal was overly prescriptive, expensive and technically infeasible. 81 FR 83024–25; BLM RTC p.115–16. Final rule approach is based on ND approach, which ND and operators developed and strongly support. 81 FR 83025; BLM RTC p.115–16.

Standard	Questions Raised in Suspension/Suspension Proposal	Existing Record Findings and Analysis Supporting Standard
	Is final rule a significant improvement over NTL-4A? 82 FR 46461.	BLM determined that requiring operators to obtain individual flaring authorizations is not efficient or effective. RTC p. 113.
	Could market-based incentives such as royalty obligations improve capture in a more straightforward and efficient manner? 82 FR 46461.	BLM rejected this approach as ineffective in the final rule. BLM noted that BLM NM office already does this, but it has not reduced flaring to any significant degree. 81 FR 6644; BLM RTC 148–49. BLM determined that increasing capture rates is the most effective way to reduce flaring. 81 FR 83011. The final rule provides flexibility to operators in how to meet gas capture requirements. 81 FR 83050–51.
Measuring and Reporting Volumes of Gas Vented and Flared from Wells. 43 C.F.R. § 3179.9.	Should this be imposed only on a case-by-case basis? 82 FR 46461.	BLM determined that this provision should apply to all volumes of vented or flared gas in order to provide a complete understanding of wasted gas and ensure that "reasonable precautions are taken to avoid such waste." BLM RTC p.158; 81 FR 83053.
Well Drilling. 43 C.F.R. § 3179.101.	Imposes constraints only in exceptional circumstances where operators must make decision re: how to safely and effectively dispose of gas. 82 FR 46462.	Final rule provides exceptions for safety and technical infeasibility. 81 FR 83055.

Standard	Questions Raised in Suspension/Suspension Proposal	Existing Record Findings and Analysis Supporting Standard
Well Completion and Related Operations. 43 C.F.R. § 3179.102.	Necessary or confusing in light of EPA standards? 82 FR 46462.	BLM requirements provide a backstop in the event that EPA requirements are no longer in effect. 81 FR 83056; *see also* 81 FR 83018 (BLM and EPA have independent legal and proprietary responsibilities).
	In light of EPA requirements and industry practice, only affects small universe of sources that may otherwise quality for exemption. 82 FR 46462.	Final rule includes exemptions based on demonstration of technical infeasibility or if compliance would cause operator to cease production and abandon significant recoverable oil resources. 81 FR 83055.
	Necessary or confusing in light of industry practices? 82 FR 46462.	BLM and EPA requirements are aligned, such that compliance with EPA requirements satisfies BLM requirements. 81 FR 83055-56.
Equipment Requirements for Pneumatic Controllers. 43 C.F.R. § 3179.201.	Questioned necessity of standards in light of EPA standards; asserted that operators will upgrade equipment where it makes economic sense to do so. 82 FR 46462.	Final rule applies to existing controllers that are not covered by EPA. 81 FR 83058. BLM noted that operators may not invest in gas capture even where there are positive net returns because they are focused on potentially higher net returns from expanding oil production. 81 FR 6638.
Downhole Well Maintenance and Liquids Unloading. 43 C.F.R. § 3179.204.	Concerns regarding reporting requirements and whether reporting requirements could be made more consistent. 82 FR 46463.	BLM streamlined reporting requirements in final rule in response to concerns. 81 FR 83063.

Standard	Questions Raised in Suspension/Suspension Proposal	Existing Record Findings and Analysis Supporting Standard
Pneumatic Diaphragm Pumps. 43 C.F.R. § 3179.202.	Questioned necessity of standards in light of EPA standards. 82 FR 46463.	Final rule applies to existing pumps that are not covered by EPA and applies differing requirements than EPA in certain instances due to differences in two agencies' regulatory authorities. 81 FR 83059–60; 81 FR 83017-18.
	Zero bleeds may not save gas b/c need gas to power electricity for electric pump. 82 FR 46463.	Final rule only requires zero-bleed pumps where feasible; operators may use alternative compliance pathways in addition to installing zero-bleed pumps. 81 FR 83059–60.
Storage Vessels. 43 C.F.R. § 3179.203.	Questioned necessity of standards in light of EPA standards. 82 FR 46463.	BLM and EPA have independent legal and proprietary responsibilities, EPA requirements do not cover existing sources, state rules have gaps, and BLM may grant a variance in the event a state requirement is as effective as the BLM rule. 81 FR 83017-18; *see also* 81 FR 83061-62.
	Concerns regarding compliance costs. 82 FR 46463.	The final rule contains an exemption based on a demonstration that compliance would cause operator to cease production and abandon significant recoverable oil resources. BLM RTC p.295. BLM's final cost assumptions reflect retrofit costs for existing tanks, in response to comments. BLM RTC p.429.

Standard	Questions Raised in Suspension/Suspension Proposal	Existing Record Findings and Analysis Supporting Standard
Leak Detection and Repair Requirements. 43 C.F.R. § 3179.301.	Necessary given analogous EPA and state requirements? 82 FR 46464.	BLM and EPA have independent legal and proprietary responsibilities, EPA requirements do not cover existing sources, state rules have gaps, and BLM may grant a variance in the event a state requirement is as effective as the BLM rule. 81 FR 83017-18. EPA has proposed to suspend its requirements.
	Are reporting burdens justified? 82 FR 46464.	BLM determined that reporting requirements are necessary to evaluate the program and ensure compliance. BLM RTC p.237.
	Allow for less frequent inspections? 82 FR 46464.	After extensive consideration of alternative inspection regimes, BLM determined that semi-annual inspections are cost-effective and allow operators to align inspections with EPA requirements. 81 FR 83032
	Allow for non-instrument based inspections? 82 FR 46464.	BLM did not receive any information supporting the contention that non-instrument audio-visual-olfactory (AVO) inspections are as effective as a technology-based program and so did not allow for a solely non-instrument based program. However, operators may supplement instrument-inspections with AVO. 81 FR 83032

Standard	Questions Raised in Suspension/Suspension Proposal	Existing Record Findings and Analysis Supporting Standard
	Exemption for low-producing wells? BLM RTC p. 198	BLM determined that low-producing wells can be associated with high-emitting events; third party providers are available to conduct inspections at low costs; final rule allows operators to use alternative program if equally effective as BLM requirement, and to obtain an exception from this requirement in certain circumstances. 81 FR 83029–30.

APPENDIX 3: Select Issues with the Bureau of Land Management's Interim Domestic Social Cost of Methane

This Appendix highlights numerous issues with the Bureau of Land Management's ("BLM") use of an interim domestic social cost of methane to monetize climate impacts when analyzing its proposal to suspend or delay requirements in the final rule entitled Waste Prevention, Production Subject to Royalties, and Resource Conservation, 81 Fed. Reg. 83,008 (Nov. 18, 2016). 82 Fed. Reg. 46,458 (Oct. 5, 2017). This is not an exhaustive list of the issues with BLM's use of an interim domestic social cost of methane. For a more detailed discussion, see the Comment of Institute for Policy Integrity at New York University School of Law, Environmental Defense Fund, Natural Resources Defense Council, Sierra Club, and Union of Concerned Scientists in this docket, discussing flaws in BLM's SCM analysis.

I. BLM applies arbitrary and unsupported discount rates to future costs and benefits when calculating its interim domestic social cost of methane.

In its Regulatory Impact Analysis, BLM purports to calculate net benefits of delaying the Rule using a novel "interim domestic Social Cost of Methane," applying flat discount rates of 7% and 3% to future costs and benefits of the Rule.[28] The use of such high discount rates, normally applied to decisions regarding private capital investments, is wholly inappropriate in the context of costs and benefits to the broader public welfare, particularly in the context of long-term, intergenerational impacts such as climate change mitigation.

BLM justifies use of these discount rates by relying on Office of Management and Budget ("OMB") Circular A-4.[29] As an initial matter, federal guidance on Circular A-4 itself is explicit that use of the 7% discount rate is not appropriate in cases – such as climate change harms – involving "intergenerational discounting," or costs and benefits involuntarily imposed on future generations. A 2015 Interagency Working Group on Social Cost of Carbon document, created with participation by OMB, states: "Circular A-4 is a living document . . . [T]he use of 7 percent is not considered appropriate for intergenerational discounting. There is wide support for this view in the academic literature, and it is recognized in Circular A-4 itself."[30] OMB Circular A-4, although contemplating the use of 3% and 7% discount rates in certain contexts, is explicit that agencies must "[u]se sound and defensible values or procedures to monetize benefits and costs, and ensure that key analytical assumptions are defensible."[31] Circular A-4 further requires that agencies must "state in your report what assumptions were used, such as… the discount rates applied to future benefits and costs," and to explain the basis for those assumptions.[32] BLM has not provided any such explanation here. Given the inappropriateness of applying a high discount

[28] BLM, *Regulatory Impact Analysis for the Proposed Rule to Suspend or Delay Certain Requirements of the 2016 Waste Prevention Rule,* 2 (Sept. 27, 2017) ("RIA").
[29] RIA at 4.
[30] Interagency Working Group on the Social Cost of Carbon, *Response to Comments: Social Cost of Carbon for Regulatory Impact Analysis under Executive Order 12,866* ("IWG RTC 2015") at 36 (July 2015). This document was not withdrawn by Executive Order 13,783.
[31] Circular A-4 at 27.
[32] *Id.* at 3.

rate, particularly a capital investment discount rate of 7%, to public intergenerational harms, reliance on Circular A-4's general reference to rates of 3% and 7% fails entirely to satisfy the requirement to explain the basis for BLM's discount rate assumptions.

Given OMB's clear 2015 guidance, it is arbitrary and flatly inconsistent with the 2015 OMB Response to Comments to even consider the use of a 7% discount rate, generally applied in the context of capital investments, to analyses of effects to the public welfare. Circular A-4 explicitly states that "[w]hen regulation primarily and directly affects private consumption… a lower discount rate is appropriate."[33] A 7% discount rate is designed at evaluating optimal outcomes solely for the purpose of private capital investment. OMB acknowledges, however, that in the climate change context, analysis should focus on effects to future individual consumption rather than capital investment:

> The consumption rate of interest is the correct concept to use . . . as the impacts of climate change are measured in consumption-equivalent units in the three IAMs used to estimate the SCC. This is consistent with OMB guidance in Circular A-4, which states that when a regulation is expected to primarily impact private consumption—for example, via higher prices for goods and services—it is appropriate to use the consumption rate of interest to reflect how private individuals trade-off current future consumption.[34]

Not only should the discount rate applied to long-term intergenerational analyses be wholly distinct from the rate for capital investment, it should be well below 2%. The Council on Economic Advisers has stated that, given interest rate changes since the original Circular A-4, a discount rate based on consumption rather than capital "should be at most 2 percent."[35] However, given several significant distinguishing characteristics of the harms from climate change and the benefits of climate change mitigation, even that figure of "at most 2%" is inappropriately high.

Overall, governmental policy decisions with implications for climate change deserve a very small or even negative discount rate.[36] Climate policy justifies a negative discount rate both because the future harms of climate change are deeply uncertain, stretch far into the future, affect future generations involuntarily, and potentially involve extraordinarily large "fat-tail" risks, including the remote but possible risk of human extinction. Two economists explain the case for extreme care in selecting discount rates in the climate change context:

> The discount rate is useful to evaluate small transfers of consumptions across individuals living at different times. It is not the all-purpose tool that can serve for all evaluations. It is not adapted to large scale changes, and it is also not adapted

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[33] *Id.* at 33.
[34] IWG RTC 2015 at 22.
[35] Council of Econ. Advisers, *Discounting for Public Policy: Theory and Recent Evidence on the Merits of Updating the Discount Rate* at 3 ("CEA 2017") (CEA Issue Brief, 2017).
[36] *See* Marc Fleurbaey & Stephane Zuber, Climate policies deserve a negative discount rate, 13 Chi. J. Int'l Law 565 (2013), https://www.law.uchicago.edu/files/files/Fleurbaey%20paper_0.pdf.

> to evaluating policies that change the size of the population or the probabilities of different scenarios. For such policies one has to go back to the underlying social welfare criteria. This is an additional reason to pay attention to the selection of such criteria on sound ethical principles.[37]

Because climate mitigation costs imposed today are likely to most benefit our children, grandchildren, and future generations, the choice of a discount rate is fundamentally an ethical one.[38] Circular A-4 itself acknowledges the special case of intergenerational benefits or costs: "If your rule will have important intergenerational benefits or costs you might consider a further sensitivity analysis using a lower but positive discount rate . . . ."[39] In the particular case of climate change, multiple factors make even a "lower but positive" discount rate methodologically and ethically questionable.

Taking into account the intergenerational, long-term, and catastrophic effects of climate change, ethical principles weigh against the use of a high, private discount rates for decisions such as governmental policies affecting future methane emissions. Private discount rates are not sound and defensible in the context of very long time horizons. Circular A-4 expressly states that "[p]rivate market rates provide a reliable reference for determining how society values time within a generation, but for extremely long time periods no comparable private rates exist."[40] Because no comparable private rates exist for evaluating the effects of massive and uncertain harms, including but not limited to adverse health effects, sea level rise, impaired agriculture, loss of biodiversity, social disruption, and more, there is no defensible basis for using private rates as comparable in evaluating future costs and benefits of climate policies.

Private discount rates are also not sound and defensible in the context of situations catastrophic worst-case outcomes. As economists have explained:

> Martin Weitzman's important recent work on uncertainty suggests that policy should be directed at reducing the risks of worst-case outcomes, not at balancing the likely values of costs and benefits. This fits well with a large portion of the prevailing discourse on climate change: the expected damages are important and costly; the credible worst-case outcomes are disastrously greater. The urgent priority is to protect ourselves against those worst cases, not to fine-tune expenditures to the most likely level of damages.[41]

Weitzman explains, "[t]he basic issue here is that spending money to slow global warming should perhaps not be conceptualized primarily as being about consumption smoothing as being about how much insurance to buy to offset the small chance of a ruinous catastrophe

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[37] *Id.* at 22-23.
[38] *See* Frank Ackerman & Elizabeth A. Stanton, *The Social Cost of Carbon* 2 (Apr. 2010).
[39] Circular A-4 at 36.
[40] *Id.*
[41] Ackerman & Stanton 2010 at 12 (citing Martin L. Weitzman, "On Modeling and Interpreting the Economics of Catastrophic Climate Change," *Review of Economics and Statistics* 91:1-19.

that is difficult to compensate by ordinary savings."[42] At the very high levels of greenhouse gas concentrations readily foreseeable under current emission trends, "climate change might conceivably cause catastrophic damages with small but nonnegligible probabilities. Other things being equal, this should lower the discount rate used to evaluate mitigation-investment decisions and raise the social cost of carbon."[43]

II. BLM's domestic social cost of methane is inappropriate.

The domestic social cost of methane developed and used by BLM here is inappropriate for multiple reasons. If each country calculated only its own domestic social cost of carbon, the vast majority of the harm caused by climate change would not be reflected in any country's cost-benefit analysis of climate action because much of the harm from each ton pollution will occur outside the county where it was emitted. If countries then acted based on these analyses, the result would be far less climate mitigation world-wide than would be economically efficient. This is the familiar economic concept of the tragedy of the commons. And if the United States takes a domestic-only approach, it will be difficult to convince other countries to do otherwise, which ultimately harms the United States.

In addition, the BLM's calculation of the domestic-only social cost of methane itself is significantly under-inclusive because many of the effects of climate change that occur in other countries will result in spillover effects on the United States. We highlight impacts to U.S. trade below, but there are a wide range of effects—political instability and the resulting security costs, migration and refugees, impacts on U.S. citizens and assets located abroad, impact on willingness of other countries to undertake mitigation policies that have benefits for the US (reciprocity), etc.—that BLM fails to consider here.[44]

A. The interim domestic social cost of methane used by BLM fails to adequately account for the costs associated with trade impacts caused by climate change.

Evidence is overwhelming that the performance of the U.S. economy, including levels of domestic employment and the profitability of U.S. companies, are affected by global trade and investment. This was recognized by the National Academy of Sciences ("NAS") in a recent report on improving estimates of the social cost of carbon:

> Correctly calculating the portion of the SC-CO2 that directly affects the United States involves more than examining the direct impacts of climate that occur within the country's physical borders, which is what the 7-23 percent range [estimating the share of the global economy accounted for by the U.S.] is intended

[42] Martin L. Weitzman, "A Review of *The Stern Review on the Economics of Climate Change*," 45 *Journal of Econ. Lit.* 703 (2007).
[43] Martin L. Weitzman, "Fat Tails and the Social Cost of Carbon," 104 *Amer. Econ. Rev.* 544 (2014).
[44] *See* Comment of Institute for Policy Integrity at New York University School of Law, Environmental Defense Fund, Natural Resources Defense Council, Sierra Club, and Union of Concerned Scientists to this docket discussing flaws in BLM's SCM analysis.

> to capture. Climate damages to the United States cannot be accurately characterized without accounting for consequences outside U.S. borders.
>
> In addition, the United States could be affected by changes in economic conditions of its trading partners: lower economic growth in other regions could reduce demand for U.S. exports, and lower productivity could increase the prices of U.S. imports. The current SC-IAMs do not fully account for these types of interactions among the United States and other nations or world regions in a manner that allows for the estimation of comprehensive impacts for the United States.[45]

The NAS concluded that estimating the domestic-only SCC (and presumably the SCM) was feasible but could not be based on the IAMs currently used to develop the SCC. Nevertheless, BLM did just that – justifying its actions to present "interim values for use in regulatory analyses until an improved estimate of the impacts of climate change to the U.S. can be developed."[46] According to the NAS:

> Estimation of the net damages per ton of CO2 emissions to the United States alone, beyond the approximations done by the IWG, is feasible in principle; however, it is limited in practice by the existing SC-IAM methodologies, which focus primarily on global estimates and do not model all relevant interactions among regions. It is important to consider what constitutes a domestic impact in the case of a global pollutant that could have international implications that impact the United States. More thoroughly estimating a domestic SC-CO2 would therefore need to consider the potential implications of climate impacts on, and actions by, other countries, which also have impacts on the United States.[47]

In its regulatory impact analysis, BLM states that "[s]ome uncertainties are captured within the analysis, as discussed in detail in this appendix, while other areas of uncertainty [which include 'inter-regional and inter-sectoral linkages'] have not yet been quantified in a way that can be modeled."[48] However, according to the NAS:

> Most of the structural and empirical studies that can be used to calibrate a damage function focus on a single type of impact or on the direct effect of climate change on regions in isolation. There is an emerging literature that also incorporates interactions among regions and impacts (e.g., Reilly et al., 2007; Warren, 2011; Diffenbaugh et al., 2012; Taheripour et al., 2013; Baldos and Hertel, 2014; Grogan et al., 2015; Harrison et al., 2016; Zaveri et al., 2016). For example, given global markets, migration, and other factors, effects of a crop failure in India will

[45] National Academies of Sciences, Engineering, & Medicine, *Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide*, 53 (2017) ("NAS Report").
[46] 2017 RIA at 25.
[47] NAS Report at 53.
[48] 2017 RIA at 56.

> also have impacts in other countries, and reductions in water availability in one region will have impacts across many regions and sectors.
>
> One set of interactions occurs through market mechanisms, such as trade. For example, the economic impacts of climate change on crop yield in one region will depend in part on the changes in crop yields in other regions. These interactions can be captured by multisectoral, multiregional economic computable general equilibrium (CGE) models. Models of global agriculture and forestry impacts have been developed over more than two decades (e.g., Reilly et al., 1994; Sohngen et al., 2001; Reilly et al., 2007; Roson and van der Mensbrugghe, 2012; Nelson et al., 2014).[49]

In developing an interim domestic social cost of methane ("IDSCM"), BLM is obligated to include the potential for disruptions in trade and investment due to climate impacts on our trading and investment partners, and the damages such disruptions would have on the U.S. economy. In analyzing the costs and benefits of the proposed rule, BLM is obligated to conduct a careful and transparent analysis using quantitative methods where existing techniques and modeling tools are available and qualitative analyses where such tools are unavailable. Adopting a faulty, expedient IDSCM by simply carving out a domestic U.S. share of global economic damages from the IWG's global Social Cost of Methane has been thoroughly discredited in the literature. The 2017 RIA values the costs of an additional year of methane waste due to suspension of the rule with a flawed IDSCM and is unacceptable.

[49] NAS Report *supra* n.45.

Table 1

Table 2. Potential direct impacts and consequences on trade infrastructures

Climate change effect	Mode	Direct impact	Consequences on trade infrastructure
Increased temperature and solar radiation	Land-based	Road pavement cracking; Asphalt rattling; Rail buckling; Loss of water seal causing potholing	Require more frequent maintenance (-) Require track and road repairs or speed restrictions to avoid derailments (-) Higher maintenance and insurance costs (-)
	Aviation	Reduced life of asphalt on airport tarmacs; Reduced airlift capacity	Need to construct longer runways to compensate for reduced airlift (-); Need for ground-cooling mechanisms (-) Higher maintenance and insurance costs (-)
	Sea-based	Reduced refrigeration storage period	Increase refrigeration costs (-)
Increased precipitation and river floods	Land-based	Flooding of land infrastructures; River bridge scour; Wet pavements and safety risks	Need to re-route to avoid climate change–affected roads (-); Higher maintenance and insurance costs (-)
	Aviation	Flooding of runways and access roads; Reduced visibility; Damage facilities including airstrips;	Higher maintenance costs and insurance costs (-)
	Sea-based	Reduced capabilities in loading/uploading of cargo at ports; Increased rates of corrosion / oxidation equipment	Risk of delays (-); Increased construction and maintenance costs (-)
Sea level rise and sea storm surges	Land-based	Permanent or temporary inundation; Submerge of bridges	Risk of delays (-); Higher maintenance and insurance costs (-)
	Aviation	Submerge of terminals and villages	Relocation and migration of people and business (-)
	Sea-based	Lower clearance under waterway bridges; Damage to port infrastructure; Increased rates of corrosion and oxidation equipment	Need for new ship design (-); Need for reconfiguration of operational areas (-); Higher maintenance costs and repair of port facilities (-)
Extreme weather conditions	Land-based	Disturbance to transport electronic infrastructures, signalling, etc.	Disruption to operations (-); Higher maintenance and insurance costs (-)
	Aviation	Disturbance to transport electronic infrastructures, signalling, etc.	Risk of delays; (-); Higher maintenance and insurance costs (-)
	Sea-based	Temporary shutdown of ports; Deterioration of sailing conditions; Disturbance to transport electronic infrastructures, signalling, etc.	Risk of delays (-); Higher maintenance and insurance costs (-)
Reduced Arctic sea ice cover	Sea-based	Opening of Arctic shipping routes	Reduced distances and time (+); Need for additional navigation aids such as ice-breakers for ships using the Arctic route (-); Higher insurance costs for ships using the Arctic route (-)

Source: OECD based on Race (2015), UNCTAD (2014), Maddocks et al. (2010).

B. Disruptions to U.S. trade flows and foreign investment due to climate impacts will have a significant impact on the U.S. economy.

In 2016, the U.S. exported $2.21 trillion worth of goods and services, 12% of U.S. GDP.[50] Imports amounted to $2.71 trillion, almost 16% of GDP.[51] Exports of goods were $1.46 trillion, including capital goods such as machinery and equipment, industrial supplies such as chemicals, and consumer goods. Services exports, including banking, insurance, and transportation, were $750 billion (of which $208 billion were travel expenditures by foreigners in the U.S.). Exports of agricultural products were $129.7 billion.[52] Climate damages to our trading partners would disrupt these export flows by reducing their economic activity and limiting their ability to purchase U.S. goods and services.

Millions of U.S. jobs are supported by exports. According to the U.S. International Trade Administration, in 2016 the export of goods supported 6.7 million domestic jobs and the export of services supported 4.8 million jobs.[53] The leading states for export-based jobs included Texas (1,046,549), California (706,969), Washington (375,009), Illinois (333,674), New York (315,221), Michigan (270,240), Ohio (260,436), Florida (243,755), Georgia (198,488), and Indiana (190,511). Regionally, these jobs were based on exports to Asia and the Pacific (3.4 million), Europe (3.1 million), Canada and Mexico (2.8 million), South and Central America (1 million), the Middle East (.5 million), the Caribbean (.5 million), and Africa (.2 million). Roughly 300,000 U.S. companies engaged in exporting, and 98% were small- or medium-sized businesses with 500 or fewer employees.[54]

Imports represent an even larger share of the U.S. economy. Imports of goods and services totaled $2.71trillion in 2016, or almost 16% of GDP.[55] Climate damages disrupting countries that are sources for inputs and consumption goods would harm the U.S. economy. For example, a major supply shock occurred when Thailand, the world's second-largest producer of hard drives, experienced extreme flooding in 2011 which severely damaged manufacturing facilities. As a result U.S. consumers faced higher prices for many electronic goods, from computers to cameras.[56] Agricultural products, which represent 44% of U.S. imports, are also at risk from climate impacts, including fruits, vegetables, and wine. Sugar and tropical products

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[50] U.S. Dep't of Commerce, Int'l Trade Admin., *U.S. Trade Overview 2016,* 5 (Apr. 2017) https://www.trade.gov/mas/ian/build/groups/public/@tg_ian/documents/webcontent/tg_ian_005537.pdf (last accessed Nov. 6, 2017).
[51] *Id*.
[52] U.S. Dep't of Agric., Foreign Agric. Serv., *Infographic: U.S. Agricultural Exports*, FY 2016, https://www.fas.usda.gov/data/infographic-us-agricultural-exports-fy-2016 (last accessed Nov. 6, 2017).
[53] U.S. Trade Overview 2016, *supra* n. 50.
[54] *Id.* at 9-10.
[55] *Id.* at 5.
[56] Charles Arthur, *Thailand's Devastating Floods are Hitting PC Hard Drive Supplies, Warn Analysts*, The Guardian (Oct. 25, 2011), https://www.theguardian.com/technology/2011/oct/25/thailand-floods-hard-drive-shortage.

such as coffee, cocoa, and rubber comprised over 20 percent of U.S. agricultural imports in 2015.[57]

In addition to disrupting trade, climate impacts could also disrupt inward and outward foreign direct investment that would negatively affect the U.S. economy. Foreign direct investment is distinguished from financial investment as investment to acquire, establish, or expand businesses conveying management control. U.S. entities own or invest in businesses, infrastructure, factories, office buildings, and hotels in foreign countries, and foreign entities own similar assets in the U.S. According to the Office of the U.S. Trade Representative, "international investment pays large and important dividends for the U.S. economy and American workers by increasing exports, improving productivity, creating jobs, and raising wages."[58] Climate impacts could damage overseas assets owned by U.S. businesses and individuals as well as reduce the flows of capital into the U.S. from foreign entities experiencing climate damages and reduced economic activity in their own countries.

In 2015, U.S. direct investment abroad totaled roughly $5 trillion. Climate impacts in countries hosting U.S. foreign direct investment could damage the profitability of U.S. companies, which reportedly hold roughly $2.6 trillion in profits abroad from their operations in foreign countries.[59] According to Forbes, "US companies are now making very large profits outside the US economy … that accrue to American companies."[60]

Foreign direct investment within the United States was roughly $3 trillion.[61] In 2016, new foreign direct investment flows into the U.S. exceeded $370 billion.[62] Significant levels of foreign investment in the U.S. come from over thirty countries, are widely distributed across

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[57] USDA, Economic Research Service, *Agricultural Trade* (May 5, 2017), https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/agricultural-trade/ (last accessed Nov. 6, 2017).

[58] Exec. Office of the President, Office of the U.S. Trade Rep., *Investment* https://ustr.gov/issue-areas/services-investment/investment (last visited Nov. 6, 2017).

[59] Nick Wells, *Companies are holding a $2.6 trillion pile of cash overseas that's still growing*, CNBC (Apr. 28, 2017), https://www.cnbc.com/2017/04/28/companies-are-holding-trillions-in-cash-overseas.html (last visited Nov. 6, 2017).

[60] Tim Worstall, *Why Have Corporate Profits Been Rising As A Percentage Of GDP? Globalisation* , Forbes (May 7, 2013), https://www.forbes.com/sites/timworstall/2013/05/07/why-have-corporate-profits-been-rising-as-a-percentage-of-gdp-globalisation/#1c976c8e2a6e (last visited Nov. 6, 2017).

[61] Derrick T. Jenniges & James J. Fetzer, Bureau of Econ. Analysis, *Direct Investment Positions for 2015 – Country and Industry Detail*, Bureau of Economic Analysis 1 (2016),https://www.bea.gov/scb/pdf/2016/07%20July/0716_direct_investment_positions.pdf (last visited Nov. 6, 2017).

[62] U.S. Dep't of Commerce, Bureau of Econ. Analysis, *Expenditures by Foreign Direct Investors for New Investment in the United States, 2014 - 2016* (2017), https://www.bea.gov/newsreleases/international/fdi/fdinewsrelease.htm (last visited Nov. 6, 2017).

sectors of the economy, and are found in virtually every state.[63] Nationally, newly acquired, established, or expanded foreign-owned businesses in 2016 employed 480,800 workers.[64] In Texas alone, foreign-controlled companies employed 460,100 workers in 2011, 5.2 percent of the state's total private-industry employment.[65] Major sources of this foreign investment included United Kingdom, France, Japan, Switzerland, and the Netherlands.

Domestic economic impacts from climate change abroad could result in damage to U.S. overseas assets, slow inward foreign direct investment, reduce corporate profits, and reduce returns on U.S. financial investments in other countries.

C. Climate change will have adverse impacts on the domestic and foreign infrastructure on which U.S. trade depends.

The latest U.S. National Climate Assessment (NCA) describes the vulnerability of the U.S. transportation system to climate change that can disrupt U.S. trade flows and negatively impact the economy. It found that:

> The impacts from sea level rise and storm surge, extreme weather events, higher temperatures and heat waves, precipitation changes, and other climatic conditions are affecting the reliability and capacity of the U.S. transportation system in many ways.
>
> Most ocean-going ports are in low-lying coastal areas, including three of the most important for imports and exports: Los Angeles/Long Beach (which handles 31% of the U.S. port container movements) and the Port of South Louisiana and the Port of Galveston/Houston (which combined handle 25% of the tonnage handled by U.S. ports).[66]

The recently-released Climate Science Special Report of the 4th National Climate Assessment continues to find that "it is virtually certain that sea level rise this century and beyond will pose a growing challenge to coastal communities, infrastructure, and ecosystems from increased (permanent) inundation, more frequent and extreme coastal flooding, [and] erosion of coastal landforms."[67]

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[63] *Id.*
[64] *Id.*
[65] Org. for Int'l Investment, *Foreign Direct Investment in Texas*, http://www.ofii.org/sites/default/files/Texas_0.pdf.
[66] U.S. Global Change Research Program, *National Climate Assessment: Chapter 5, Transportation* at 134, 146 (2014), http://nca2014.globalchange.gov/ (last accessed Nov. 6, 2017) ("2015 NCA Report").
[67] U.S. Global Change Research Program, *National Climate Assessment Climate Science Special Report* 334 (2017), https://science2017.globalchange.gov/ (last accessed Nov. 6, 2017).

The 3rd NCA also detailed that numerous studies indicate increasing severity and frequency of flooding throughout much of the Mississippi and Missouri River basins. The report found that, "[d]isruptions to the nation's inland water system from floods or droughts can, and has, totally disrupted barge traffic."[68] Further, the nation has seen increasingly severe hurricanes damage to road and rail systems that bring goods to U.S. ports for shipment abroad.

Similar climate impacts to trade infrastructure abroad will also negatively impact the U.S. economy. In a recently-released report, the Organization for Cooperation and Development (OECD) concluded that the adverse impacts of climate change, including higher temperatures, sea level rise, increased storm surges, and extreme weather events, may affect the production of commodities that are heavily traded internationally, that climate change threatens trade infrastructure, and that the economic consequences of climate change damages in one region may affect other regions. [69]

The OECD found that climate-related disruption and damage to seaports will increase trade costs.

> Maritime shipping, which accounts for around 80% of global trade by volume and more than 70% of global trade by value, could experience some negative consequences from climate change. Increased storms, increased precipitation, and sea level rise may cause more frequent port closure, affect speed of passage, necessitate the use of alternative shipping routes or additional safety measures, and increase the maintenance costs for ships and ports.[70]

These impacts may also require changes in ship design and reconfiguration of port operational areas.

The study also found that airports are exposed to the same climate impacts. "Research suggests that sea level rise, increased storminess, and extreme precipitation induced by climate change can affect the operations of airports, lead to more frequent disturbances, and affect infrastructures in weather-exposed or low-lying areas."[71] Increased temperatures could also reduce airlift capacities and require longer runways to compensate for reduced airlift. Table 1, above, presents a detailed summary of the direct impacts and consequences of climate change on trade infrastructure from the OECD report.

OECD concluded that:

> One key direct effect of climate change is that supply, transport and distribution chains might become more vulnerable to disruptions due to climate change,

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[68] 2015 NCA Report at 138.
[69] R. Dellink, R. *et al.*, *International Trade Consequences of Climate Change*, OECD Trade & Environment Working Papers 19 (2017), http://www.oecd-ilibrary.org/trade/international-trade-consequences-of-climate-change_9f446180-en?crawler=true (last visited Nov. 6, 2017).
[70] *Id.* at 19.
[71] *Id.*

> thereby affecting future international trade patterns. Extreme weather events, for instance, may lead to the temporary shutdown of ports and transport routes; they might also damage infrastructure critical to trade and thus have longer-lasting effects. These and other interruptions can lead to delays, increase the costs of international trade and could lead to a shift in trade patterns as companies involved in trade seek alternatives to increase reliability of shipping.[72]

The threats to international trade from climate change are recognized by other international institutions. The World Trade Organization (WTO), has found that "[c]limate change may increase the vulnerability of the supply, transport and distribution chains upon which international trade depends" and that "[i]mpacts on infrastructure will include damage to buildings, roads, railways, airports, bridges, and to port facilities due to storm surges, flooding and landslides.[73] The WTO also warns that "[m]any tourist destinations rely on natural assets – beaches, clear seas, tropical climate, or abundant snowfall, for example – to attract holiday-makers. A rise in sea levels or changes in weather patterns might deprive countries of these natural assets."[74] The World Economic Forum has concluded that "climate change is also affecting the world's capacity to trade," that "many ports, especially in developing countries, are not ready to withstand stronger and more frequent storms or rising sea levels," and that [t]ransport systems – the arteries of trade – are not prepared to cope with climate change.[75]

Higher trade costs due to climate impacts are also recognized by the U.S. Census Bureau, which compiles U.S. trade statistics. It found that "during port closures, export and import shipments may be diverted, amended, or canceled."[76] The Commerce Department's Bureau of Economic Analysis reports that "there are several possible impacts of the hurricanes on U.S. trade in services. For example, transport services may be affected by port closures and by diverted shipments. Travel expenditures and other services trade may be affected to the extent that service activities are interrupted."[77]

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[72] *Id*. at 18.
[73] World Trade Org. & United Nations Env't Prog., *Trade and Climate Change* (2009), https://www.wto.org/english/res_e/booksp_e/trade_climate_change_e.pdf (last visited Nov. 6, 2017).
[74] *Id.*
[75] World Economic Forum, *What Does Climate Change Mean for the Future of World Trade?* (2015), https://www.weforum.org/agenda/2015/12/what-does-climate-change-mean-for-the-future-of-trade/ (last visited Nov. 6, 2017).
[76] U.S. Dep't of Commerce, U.S. Census Bureau, *Effects of 2017 Atlantic Hurricanes on U.S. International Trade in Goods and Services* (2017), https://www.census.gov/foreign-trade/statistics/notices/20170928_Hurricane.html (last visited Nov. 6, 2017).
[77] *Id.*