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2 **UNITED STATES DISTRICT COURT**
3 **NORTHERN DISTRICT OF CALIFORNIA**

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6 **STATE OF CALIFORNIA, ET. AL.,**

7 Plaintiffs,

8 v.

9 **DAVID BERNHARDT, ET. AL.,**

10 Defendants.

Case No. 4:18-cv-05712-YGR

CONSOLIDATED CASE

**ORDER: (1) GRANTING PLAINTIFFS’
MOTIONS FOR SUMMARY JUDGMENT; AND
(2) DENYING DEFENDANTS’ MOTIONS FOR
SUMMARY JUDGMENT**

Re: Dkt. Nos. 108, 109, 123, 125, 126, 127

11
12 **SIERRA CLUB, ET. AL.,**

13 Plaintiffs,

14 v.

15 **DAVID BERNHARDT, ET. AL.,**

16 Defendants.

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18 The Court attaches hereto the Order regarding the parties’ motions for summary judgment.

19 This Order terminates Docket Numbers 108, 109, 123, 125, 126, and 127.

20 **IT IS SO ORDERED.**

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22 Dated: July 15, 2020



23 **YVONNE GONZALEZ ROGERS**
24 **UNITED STATES DISTRICT JUDGE**
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United States District Court
Northern District of California

It is a cornerstone of our modern Constitutional republic that agencies created through the legislative process and administered through the executive branch can, through the rulemaking process, administer statutes and promulgate regulations within their statutory mandate. The Administrative Procedure Act (“APA”) imposes limits on these agencies’ actions, prohibiting actions found to be “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” Agencies are required to provide the public with a meaningful opportunity to participate in the rulemaking process. These constraints are subject to oversight by the judicial branch to safeguard the integrity of the same. It is not the judiciary’s place to question substantive policy decisions. Yet, the judiciary must ensure that the agency acts rationally, and permits the public to otherwise engage meaningfully. Where an agency fails to adhere to these edicts, a court must fulfill its duties in striking the defectively promulgated rule.

This litigation stems from the Bureau of Land Management’s (“BLM”) rulemaking process with respect to a 2018 rule (the “Rescission”) that rescinds an earlier 2016 rule (the “Waste Prevention Rule” or the “2016 Rule”). Six cross motions for summary judgment are pending. Plaintiffs, the states of California and New Mexico filed one, and certain “Citizen Groups”¹ filed another. Defendants and intervenor-defendants filed the remaining four, those of the “Federal Defendants” which includes the Department of the Interior (“DOI”) and BLM²; the state of Wyoming; and two industry groups.³

BLM’s efforts to enact, then to modify, suspend, and ultimately repeal the 2016 Rule have been the subject of numerous lawsuits. This suit only focuses on the adequacy of the Rescission, and not the 2016 Rule. In this regard, and in summary, the Court finds that the rulemaking process resulting in the Rescission was wholly inadequate. In its haste, BLM ignored its statutory mandate under the Mineral Leasing Act, repeatedly failed to justify numerous reversals in policy positions previously taken, and failed to consider scientific findings and institutions relied upon by both prior Republican and Democratic administrations.

¹ Sierra Club, Fort Berthold Protectors of Water and Earth Rights, The Wilderness Society, Western Organization of Resource Councils, Environmental Defense Fund, Los Padres ForestWatch, Center for Biological Diversity, Citizens for a Healthy Community, Diné Citizens Against Ruining Our Environment, Earthworks, Montana Environmental Information Center, National Wildlife Federation, San Juan Citizens Alliance, WildEarth Guardians, Wilderness Workshop, Wyoming Outdoor Council, Environmental Law & Policy Center, and National Resources Defense Council.

² BLM functions within the DOI. Over time the Secretaries have changed. Ryan Zinke, Secretary of the DOI, was replaced in April 2019 with David Bernhardt. Joseph Balash, Assistant Interior Secretary for Lands and Mineral Management resigned in August 2019. No apparent successor has been confirmed as of the date of this Order.

³ The American Petroleum Institute (“API”) and Western Energy Alliance and Independent Petroleum Association of America (“WEA-IPAA”).

The Court details herein the myriad inadequacies upon which the Rescission is based. First, the Court provides the factual and procedural background and the legal framework for its decision. (Sections I and II.) In Section III, the Court analyzes the statutory mandate of the Mineral Leasing Act and BLM’s attempt to narrow the same by employing a new economic definition of “waste” which the Court finds to have been arbitrary. Section IV then explains how BLM’s actions in the rulemaking process failed to comply with the Administrative Procedures Act. Section V focuses on BLM’s failure to comply with the National Environmental Policy Act (“NEPA”). Finally, in Section VI, the Court explains how, given the circumstances, no reason exists to depart from the standard remedy of vacatur.

I. BACKGROUND

A. STATUTORY FRAMEWORK

The Mineral Leasing Act of 1920 (the “MLA”), 30 U.S.C. § 181 *et seq.*, instructs BLM to require oil and gas lessees to observe “such rules . . . for the *prevention of undue waste* as may be prescribed by [the] Secretary,” to protect “the interests of the United States,” and to safeguard “the public welfare.” *Id.* § 187 (emphasis supplied). The MLA specifically requires that “[a]ll leases of lands containing oil or gas . . . shall be subject to the condition that the lessee will . . . use all reasonable precautions to prevent waste of oil or gas developed in the land[.]” *Id.* § 225.

Pursuant to the Indian Mineral Leasing Act of 1938, 25 U.S.C. §§ 396a–396g, and the Indian Mineral Development Act of 1982, 25 U.S.C. §§ 2101–08, BLM has authority to regulate oil and gas development on 56 million acres of Indian mineral estate held in trust by the federal government. *See, e.g.*, 25 U.S.C. § 396d (oil and gas operations on Indian lands subject “to the rules and regulations promulgated by the Secretary”).

Further, BLM has authority to regulate royalty payments pursuant to the Federal Oil and Gas Royalty Management Act of 1982 (“FOGRMA”), 30 U.S.C. § 1701 *et seq.* In FOGRMA, Congress reiterated its concern about the waste of public resources by providing that: “Any lessee is liable for royalty payments on oil or gas lost or wasted from a lease site when such loss or waste is due to negligence on the part of the operator of the lease, or due to the failure to comply with any rule or regulation, order or citation issued under this chapter or any mineral leasing law.” *Id.* § 1756.

B. FACTUAL AND PROCEDURAL BACKGROUND

BLM oversees more than 245 million acres of land and 700 million subsurface acres of federal mineral estate primarily located in twelve Western States, including Alaska, on which reside nearly 100,000 producing onshore oil and gas wells. Waste Prevention, Production Subject to Royalties, and Resource Conservation; Rescission or Revision of Certain Requirement, 83 Fed. Reg. 49,184 (Sept. 28, 2018) (AR 1). Notably, 44% of federal oil production and 24% of federal gas production emanate from plaintiff New Mexico whereas leases responsible for 22% of federal oil production and 44% of federal gas production are based in intervenor-defendant Wyoming. (AR 19 (83 Fed. Reg. 49,202), 341-42.) Ten to fifteen percent of the production is on Indian lands. (AR 101.) By way of context, this onshore production nationally only accounts for 9 percent of natural gas production, 5 percent natural gas

liquids production and 5 percent of oil production. 83 Fed. Reg. 49,184-85 (AR 1-2).

Between 2009 and 2015, nearly 100,000 oil and gas wells on federal land released approximately 462 billion cubic feet (“Bcf”) of natural gas through venting and flaring, enough gas to serve about 6.2 million households for a year. Waste Prevention, Production, Subject to Royalties and Resource Conservation, 81 Fed. Reg. 83,009 (Nov. 18, 2016) (AR 910). In 2014 alone, operators vented about 30 Bcf and flared at least 81 Bcf of natural gas, approximately 4.1 percent of the total production from BLM-administered leases or enough natural gas to supply 1.5 million households for a year. *Id.* at 83,010 (AR 911). Venting, flaring, and leaks of natural gas can release volatile organic compounds (“VOCs”), including benzene and other hazardous air pollutants, as well as nitrogen oxides and particulate matter, which can cause and worsen respiratory and heart problems. *Id.* at 83,014 (AR 915). In addition, the primary component of natural gas—methane—is an especially potent greenhouse gas, which contributes to climate change at a rate much higher than carbon dioxide. *Id.* at 83,009 (AR 910).

During oil and gas production, “it is not uncommon for gas to reach the surface that cannot be feasibly captured, used, or sold.” 83 Fed. Reg. 49,185 (AR 2). When this occurs, operators dispose of the gas either by burning it (flaring) or releasing it into the atmosphere (venting). *Id.* Certain types of production equipment and facilities also vent or flare gas both by design and, at times, as a result of leaks. *Id.*

1. 1980 to 2016: NTL-4A

In 1980, BLM established policies to address venting and flaring during the development of federal and Indian minerals in the Notice to Lessees and Operators of Onshore Federal and Indian Oil and Gas Leases regarding Royalty or Compensation for Oil and Gas Lost (“NTL-4A”). (AR 3010.) NTL-4A remained in effect between 1980 and November 2016 when BLM issued the 2016 Rule, also known as the Waste Prevention Rule. NTL-4A discouraged the loss of produced gas by imposing royalties on gas vented or flared in violation of NTL-4A or otherwise “avoidably lost” due to operator negligence, failure to take all reasonable measures to prevent or control the loss, or failure to comply with applicable orders and regulations. (AR 3010-11.) NTL-4A allowed venting and flaring during emergencies and well testing. (AR 3012.) It also provided a process by which an operator could seek *prior approval* to vent or flare oil-well gas royalty-free by showing that the cost to capture or use the gas was “not economically justified” and “would lead to the premature abandonment of recoverable oil reserves and ultimately to a greater loss of equivalent energy than would be recovered if venting or flaring were permitted.” (AR 3013.)

2. 2016 Waste Prevention Rule

Prior to 2016, BLM’s regulatory scheme governing the minimization of resource waste had not been updated in over three decades. 81 Fed. Reg. 83,008 (AR 909). Several oversight reviews, including those by the Government Accountability Office (“GAO”) and the DOI’s Office of the Inspector General, called on BLM to update its “insufficient and outdated” regulations regarding waste and royalties. *Id.* at 83,009-10 (AR 910-11). GAO specifically noted in 2010 that “around 40 percent of natural gas estimated to be vented and flared on onshore Federal leases could be economically captured with currently available control

technologies.” *Id.* at 83,010 (AR 911). The reviews recommended that BLM require operators to augment their waste prevention efforts and clarify policies regarding royalty-free, and on-site use of oil and gas. *Id.*

In 2014, BLM responded by initiating the development of a rule to update its existing regulations. *Id.* This was not a new regulatory regime but a modernization. After soliciting and reviewing input from stakeholders and the public, BLM released its proposal in February 2016. Waste Prevention, Production Subject to Royalties, and Resource Conservation, 81 Fed. Reg. 6,616 (Feb. 8, 2016) (“Proposed 2016 Rule”) (AR 992). Thereafter, BLM received approximately 330,000 public comments, including approximately 1,000 unique comments, on the Proposed 2016 Rule. 81 Fed. Reg. 83,021 (AR 922). The agency also hosted stakeholder meetings and met with regulators from states with significant federal oil and gas production. *Id.*

After seven months, BLM issued the final Waste Prevention Rule, titled “Waste Prevention, Production Subject to Royalties, and Resource Conservation,” in November 2016. *Id.* at 83,008 (AR 909). In the final 2016 Rule, BLM refined many of the provisions of the Proposed 2016 Rule based on public comments to ensure both that compliance was feasible for operators and that the 2016 Rule achieved its waste prevention objectives. *Id.* at 83,022-23 (AR 923-24). The Waste Prevention Rule was designed to attain considerable reductions in waste from flaring, venting, and equipment leaks, saving and utilizing up to 41 billion cubic feet of gas per year. *Id.* at 83,014 (AR 915). BLM estimated that the 2016 Rule would generate up to \$14 million in additional royalties, as well as annually avoid an estimated 175,000-180,000 tons of methane emissions and reduce emissions of both volatile organic compounds by 250,000–267,000 tons. *Id.* In the Proposed 2016 Rule, BLM explained that flaring is preferable to venting because leaked methane contributes to global climate change, while burned methane does not. *See, e.g.*, 81 Fed. Reg. 6,627 (AR 1003). However, BLM did not explain whether the preference for flaring over venting mattered for purposes of “waste prevention.” *See, e.g., id.* Ultimately, in the final rule, BLM noted that the addition of an averaging scheme, derived from North Dakota's state regulations, transforms the preference for flaring into a “waste prevention” mechanism. 81 Fed. Reg. 83,023 (AR 924).

While the 2016 Rule imposed requirements beyond those contained in NTL-4A, as a result of the administrative process, BLM modeled the rule not only on cost-effective standards that were already employed in some states, including, notably, Colorado, Wyoming, and North Dakota, and then-presently in use, voluntarily, by some operators, but it included reasonable exemptions where compliance would lead operators to abandon resources prematurely. *See, e.g., id.* at 83,017-19, 83,024, 83,028, 83,051 (AR 918–20, 925, 929, 952). In pertinent part, the 2016 Rule required operators to capture a certain percentage of produced gas each month, with the required percentage increasing over a ten-year period. *Id.* at 83,082-83 (AR 983-84). Operators were to inspect for and repair equipment leaks and replace certain types of equipment with equipment that vents or flares less gas. *Id.* at 83,085-86 (AR 986-87). BLM expanded the definition of “avoidably lost” to include any loss not expressly permitted by the other provisions of the 2016 Rule as well as gas that should have been captured under the rule’s capture requirements. *Id.* at 83,082 (AR 983). The Waste Prevention Rule would have reduced venting of natural gas by 35% and flaring by 49%, all the while decreasing the company profits an

average of 0.15% of per company, even those of small operators. *Id.* at 83,010-14 (AR 911–15). BLM recognized that in addition to preventing waste, the 2016 Rule would reduce greenhouse gas emissions and protect communities from smog and carcinogenic air toxins. (AR910–15 (81 Fed. Reg. 83,009-14), 1266.)

Based on its Regulatory Impact Analysis (the “2016 RIA”), BLM concluded the Waste Prevention Rule’s benefits outweighed its costs “by a significant margin.” *Id.* at 83,013 (AR 914). In monetizing the costs and benefits of changes in emissions, BLM used the global social cost of methane metric. *Id.* at 83,014, 83,016 (AR 915, 917).

The Waste Prevention Rule went into effect on January 17, 2017. *Id.* at 83,008 (AR 909). The rule applied to all existing oil and gas production facilities that either produce oil and gas or are combined for accounting purposes with facilities that do on federal land. *Id.* at 83,039 (AR 940). Accordingly, under the 2016 Rule, a well that produced state minerals that is combined with at least one federal well for royalty accounting purposes also needed to comply with the entirety of the rule. *See* 43 C.F.R. § 3217.11 (explaining the royalty accounting purposes for communitization agreements).

3. *Wyoming Litigation, Part I*

The 2016 Rule did not lack for opponents. Shortly after the rule was finalized, two industry groups and the states of Wyoming and Montana (later joined by North Dakota and Texas) (collectively, “*Wyoming Petitioners*”) challenged the 2016 Rule in the federal district court in Wyoming, on the alleged basis that BLM did not have statutory authority to regulate air pollution and that the Rule’s enactment was arbitrary and capricious. *Western Energy Alliance v. Jewell*, No. 2:16-cv-00280-SWS (D. Wyo. petition filed Nov. 16, 2016); *State of Wyoming v. United States Dep’t of the Interior*, No. 2:16-cv-00285-SWS (D. Wyo. petition filed Nov. 18, 2016). The states of California and New Mexico, along with several environmental organizations, intervened on the side of BLM in defense of the 2016 Rule. On January 16, 2017, the Wyoming district court denied the motions for a preliminary injunction, finding that the *Wyoming Petitioners* had failed to establish a likelihood of success on the merits or irreparable harm. *See generally Wyoming v. United States Dep’t of the Interior*, Case Nos. 2:16-cv-285-SWS, 2:16-cv-280-SWS, 2017 WL 161428 (D. Wyo. Jan. 16, 2017) (“*2017 Wyoming*”).

4. *Executive Motivation and Congressional Inaction*

In addition, after the last presidential election, intervenor-defendant API sent Interior Department officials a memo stating that the Waste Prevention Rule was its number one “[p]riority target for repeal.” (XR 1264.) BLM began working in March 2017 to determine what provisions of the Waste Prevention Rule to “drop.” (XR 1-2.)

On March 28, 2017, the president issued Executive Order 13783: “Promoting Energy Independence and Economic Growth.” 82 Fed. Reg. 16,093 (Mar. 31, 2017) (AR 1871). Section 7 of the same entitled “Review of Regulations Related to United States Oil and Gas Development,” specifically called on the Secretary of the Interior to review and “as soon as practicable, suspend, revise, or rescind” the Waste Prevention Rule. *Id.* at 16,096 (AR 1874). The next day, then-Secretary Ryan Zinke issued Secretarial Order 3349, providing that within 21

days, BLM would review the rule and issue an internal report as to “whether the rule is fully consistent with the policy set forth in Section 1 of the March 28, 2017 E.O.” (AR 1863-1867.)

Concurrently with the executive orders, various states and industry groups unsuccessfully lobbied Congress to repeal the Waste Prevention Rule using the Congressional Review Act, 5 U.S.C. § 801 *et seq.* On February 3, 2017, the House passed Joint Resolution 36 to disapprove of the Waste Prevention Rule. 163 Cong. Rec. H951-04, 2017 WL 465357 (Feb. 3, 2017). However, on May 10, 2017, a similar resolution failed in the Senate, leaving the 2016 Rule in effect. 163 Cong. Rec. S2853-01, 2017 WL 1945616 (May 10, 2017). The next week, through a cascade of emails, BLM staff were directed to generate a list of comments that opposed the Waste Prevention Rule because it was “overly burdensome,” (AR 180289-94) and a timetable and options for rescinding or replacing the 2016 Rule (*e.g.*, XR 162-69, 176-78).

5. *First Attempt to Rescind the Waste Prevention Rule -- California I*

On June 15, 2017, BLM published a notice in the Federal Register purporting to postpone certain compliance dates of the 2016 Rule subject to APA section 705, 5 U.S.C. § 705. Waste Prevention, Production Subject to Royalties, and Resource Conservation; Postponement of Certain Compliance Dates, 82 Fed. Reg. 27,430 (June 15, 2017) (“Postponement Notice”). State Plaintiffs challenged this action on July 5, 2017 in district court. *State of California v. United States Bureau of Land Management*, 277 F. Supp. 3d 1106 (N.D. Cal. 2017) (“*California P*”). On October 4, 2017, the Court ruled that Section 705 did not apply to an already-effective rule, that BLM had failed to comply with the APA’s notice and comment procedures, and as a consequence, its action was arbitrary and capricious in violation of the APA. *Id.* at 1121, 1123. Thereupon, the Court vacated the Postponement Notice, and the 2016 Rule went back into effect. *Id.* at 1127.

6. *Second Attempt to Rescind the Waste Prevention Rule -- California II*

On October 5, 2017, BLM published a notice in the Federal Register proposing to delay and suspend certain requirements of the 2016 Rule that were already in effect, or set to take effect in January 2018, until January 17, 2019. Waste Prevention, Production Subject to Royalties, and Resource Conservation; Delay and Suspension of Certain Requirement, 82 Fed. Reg. 46,458 (Oct. 5, 2017) (AR 685). The requirements BLM targeted for suspension include those covered by its prior Postponement Notice, as well as already-effective rules governing waste minimization plans, well drilling, well completion and related operations, and downhole well maintenance and liquids unloading. The public was permitted 30 days to submit comments, until Monday, November 6, 2017. *Id.* State Plaintiffs commented in opposition.

Thirty-two days later, on December 8, 2017, BLM issued a final rule suspending key requirements of the Waste Prevention Rule. Waste Prevention, Production Subject to Royalties, and Resource Conservation; Delay and Suspension of Certain Requirements, 82 Fed. Reg. 58,050 (Dec. 8, 2017) (“Suspension”) (AR 661). To justify the Suspension, BLM stated in conclusory manner it had “concerns regarding the statutory authority, cost, complexity, feasibility, and other implications” of the 2016 Rule, and therefore sought to suspend “requirements that may be rescinded or significantly revised in the near future.” *Id.*

State Plaintiffs challenged the Suspension. *State of California v. United States Bureau of Land Management*, 286 F. Supp. 3d 1054 (N.D. Cal. 2018) (“*California IP*”). On a motion for preliminary injunction, the court enjoined the suspension, finding that BLM had failed to provide a reasoned analysis for the Suspension or factual support for the concerns. *Id.* at 1068. The court also found that Suspension was likely to result in “concrete harms that BLM’s own data suggests are significant and imminent,” such as significant emissions of methane, VOCs, and other hazardous pollutants. *Id.* at 1073-75.

7. *Wyoming Litigation, Part II*

Opponents of the 2016 Rule then returned to the Wyoming district court to revive their dormant challenge. On April 4, 2018, following briefing on the *Wyoming* Petitioners’ renewed motions for preliminary relief, the Wyoming district court issued an Order staying implementation of the Waste Prevention Rule’s provisions with January 2018 compliance deadlines on the grounds that the Rescission’s finalization was forthcoming, and “proceeding to address the merits of these cases will put BLM in the difficult situation of litigating and defending a rule that it is in the midst of reconsidering and of taking positions on issues that are currently subject to public comment.” Stay Order, *Wyoming v. United States Dep’t of the Interior*, Case No. 2:16-cv-00285-SWS, ECF No. 215 (D. Wyo. Apr. 4, 2018) (AR 23323-23333). *See also Wyoming v. United States Dep’t of the Interior*, 366 F.Supp.3d 1284, 1290-92 (D. Wyo. 2018). California, New Mexico and the various citizen groups in the *Wyoming* matter appealed the matter to the Tenth Circuit, which later vacated the stay order in light of the fact that the Rescission was already finalized by the time the appeal was heard, and dismissed the appeal as moot. *Wyoming v. United States Dep’t of the Interior*, 768 F. App’x 790, 794-96 (10th Cir. 2019).⁴

8. *The 2018 Rescission and New Definition of Waste Prevention*

As noted, on February 22, 2018, BLM published a proposed “Rescission or Revision of Certain Requirements” of the Waste Prevention Rule, 83 Fed. Reg. 7,924 (Feb. 11, 2018) (“Proposed Rescission”) (AR 415), in which the agency proposed to repeal the majority of the provisions of the Waste Management Rule. *Id.* at 7,928 (AR 419). BLM offered three primary justifications: (1) the agency had reconsidered the balance of the 2016 Rule’s burdens and benefits, (2) the 2016 Rule overlapped with other federal and state requirements, and (3) the 2016 Rule would have an undue impact on marginal or low-producing wells. *Id.* at 7,924 (AR 415).

The agency also requested comment on “whether the 2016 final rule is consistent with [BLM’s] statutory authority,” without elaborating on whether BLM had changed its longstanding position that the Rule was within its broad authority to regulate waste or providing a basis for its request and despite its unchallenged actions since at least 1980. (AR 418 (83 Fed. Reg. 7,927);

⁴ In light of the ongoing litigation here, the *Wyoming* district court upon remand stayed the litigation pending the outcome of this Court’s decision. *See* Order Granting Motions to Stay Proceedings, *Wyoming v. United States Dep’t of the Interior*, Case No. 16-cv-285-SWS, ECF No. 261, at 14-15 (D. Wyo. Aug. 23, 2019).

see also AR 21397 (BLM arguing that “[b]ecause the Rule is aimed at waste prevention, it falls squarely within BLM’s authority under the Mineral Leasing Act”).) In contrast to the eight public hearings and listening sessions held in promulgating the Waste Prevention Rule, BLM held none with respect to the Proposed Rescission. (AR 911, 84043.) State Plaintiffs submitted comments on April 23, 2018, urging BLM to preserve the Waste Prevention Rule’s requirements to prevent waste, protect public resources, boost royalty receipts for American taxpayers, and ensure the safe and responsible development of oil and gas resources. (*See, e.g.*, AR 84743-84760, 104442-104461.)

On September 28, 2018, BLM issued a final rule entitled “Waste Prevention, Production Subject to Royalties, and Resource Conservation; Rescission or Revision of Certain Requirements.” 83 Fed. Reg. 49,184 (AR 1). The Rescission eliminated key provisions of the Waste Prevention Rule, including: (1) waste minimization plans, (2) gas-capture percentages, (3) well drilling requirements, (4) well completion and related operations requirements, (5) pneumatic controller requirements, (6) pneumatic diaphragm pump requirements, (7) storage vessel requirements, and (8) leak detection and repair requirements. *Id.* at 49,190 (AR 7.) The Rescission also modified requirements related to gas capture, downhole well maintenance and liquids unloading, and measuring and reporting volumes of flared and vented gas—effectively reverting to regulatory requirements that preceded the 2016 Rule. *Id.* As BLM admits, the final rule “will remove almost all of the requirements in the 2016 [R]ule that [BLM] previously estimated would pose a compliance burden to operators and generate benefits of gas savings or reductions in methane emissions.” *Id.* at 49,204 (AR 21).

The Rescission does not rescind the entirety of the 2016 Rule - some provisions from the 2016 Rule survive to which oil and gas operators objected. The Rescission prohibits venting of gas except in limited circumstances. (*See* AR 16 (83 Fed. Reg. 49,199) (explaining that “the [Rescission] retains most of the provisions in previous § 3179.6” that limited venting); AR 119287-289 (in comments on 2016 Rule, objecting to venting limitations).) Further, both the Rescission and 2016 Rule narrowed the “emergency” exception. (*See* AR 30 (excluding gas flared due to lack of pipeline capacity from definition of emergency in section 3179.103(c)(2)); AR 17 (“The provisions in final § 3179.103 are nearly identical to those in previous § 3179.105.”); AR119340-341 (objecting to the narrow proposed emergency limitations in 2016 Rule).)

Core to the parties’ dispute is BLM’s new justifications for the Rescission which contradicted earlier findings. BLM reversed course and now claims that the Waste Prevention Rule “added regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation”; that the 2016 Rule would have “imposed compliance costs well in excess of the value of the resource (natural gas) that would have been conserved,” especially with regard to marginal wells; and that the 2016 Rule overlapped with EPA and state requirements for oil and gas operations. *Id.* at 49,184 (AR 1). Next, BLM argued for the first time that the 2016 Rule “exceeded BLM’s statutory authority to regulate the prevention of ‘waste.’” *Id.* at 49,185 (AR 2). Critically, BLM adopted a new regulatory definition of “waste of oil or gas” so that it would only apply “where compliance costs are not

greater than the monetary value of the resources they are expected to conserve.” *Id.* at 49,185-86, 49,197 (AR 2-3, 14).

BLM further expanded its reversals. In releasing the “Regulatory Impact Analysis for the Final Rule to Rescind or Revise Certain Requirements of the 2016 Waste Prevention Rule” (the “2018 RIA”), it noted that while drawing “heavily upon the analysis conducted in the RIA for the 2016 [R]ule,” it reached the opposite conclusion in finding that the costs of the 2016 Rule’s requirements outweigh its benefits for three primary reasons. (AR 36-37.) First, BLM relied upon a new “interim domestic social cost of methane” metric that excludes the “global” costs resulting from increased methane emissions. (AR 36, 74-78.) Next, BLM found that the administrative burdens of the Rule were twice as high as those calculated in 2016, and added a new discussion regarding the impacts of the Rule on marginal wells. (AR 73-74.)

Finally, BLM also issued a 26-page Final Environmental Assessment (“EA”), and a Finding of No Significant Impact (“FONSI”), concluding that the Rescission would have no significant impacts on the environment. (AR 297-323 (EA), 332-339 (FOSNI).) The following portions of the EA are noteworthy: First, while BLM admits that the Rescission would result in increased VOCs emissions (80,000 tons per year) and hazardous air pollutants (1,860 tons per year) and that “minority and low-income populations living near oil and gas operations would have benefitted from the reductions in emissions” under the 2016 Rule, it provides no consideration of this issue other than to state that “[t]hese air pollutants affect the health and welfare of humans, as well as the health of plant and wildlife species.” (AR 316, 318.) Second, although BLM’s estimates of increased methane emissions are similar to what it calculated in 2016 (175,000 tons per year), the agency concludes that “the actual effects of such emissions on global climate change cannot be reliably assessed and thus are sufficiently uncertain as to be not reasonably foreseeable.” (AR 315.) Finally, based on the EA, BLM concluded that rescinding the Waste Prevention Rule’s nationwide protections has no significant environmental impacts, and a more comprehensive environmental impact statement (“EIS”) is not required. (AR 332–39.) This despite a contradictory conclusion that the Rescission would result in an additional 299 billion cubic feet of publicly owned natural gas being released into the atmosphere in the next decade, erasing the gains it predicted would result from the Waste Prevention Rule. (AR 22, 91–92.)

II. APPLICABLE LEGAL STANDARDS

A. ADMINISTRATIVE PROCEDURE ACT

The Administrative Procedure Act, 5 U.S.C. § 551 *et seq.*, governs the procedural requirements for agency decision-making, including the rulemaking process. Prior to formulating, amending, or repealing a rule, agencies must engage in a notice-and-comment process. 5 U.S.C. §§ 551(5), 553. Notice must include “the legal authority under which the rule is proposed,” and “either the terms or substance of the proposed rule or a description of the subjects and issues involved.” *Id.* § 553(b). The public may then submit comments which the agency must consider before promulgating a final rule. *Id.* § 553(c). Specifically, “the agency shall give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments with or without opportunity for oral presentation.” *Id.* To

satisfy the requirements of Section 553, notice of a proposed rule must “provide an accurate picture of the reasoning that has led the agency to the proposed rule,” so as to allow an “opportunity for interested parties to participate in a meaningful way in the discussion and final formulation of rules.” *Connecticut Light & Power Co. v. Nuclear Regulatory Comm’n*, 673 F.2d 525, 528-30 (D.C. Cir. 1982); *Safe Air for Everyone v. EPA*, 488 F.3d 1088, 1098 (9th Cir. 2007) (finding that the APA requires that interested parties have a “meaningful opportunity to comment on proposed regulations”). The above notice and comment requirements likewise apply when an agency seeks to amend or repeal a rule that has previously been promulgated. *See Am. Hosp. Ass’n v. Bowen*, 834 F.2d 1037, 1044 (D.C. Cir. 1987) (“Section 553 of the [APA] requires agencies to afford notice of a proposed rulemaking and an opportunity for public comment prior to a rule’s promulgation, amendment, modification, or repeal.”).

“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.” *Consumer Energy Council of Am. v. Fed. Energy Regulatory Comm’n*, 673 F.2d 425, 446 (D.C. Cir. 1982). If an agency fails to comply with these procedures, a court “must” set aside the rule. *California v. Azar*, 911 F.3d 558, 575 (9th Cir. 2018).

Section 706 charges the “reviewing court” to decide “all relevant questions of law [and] interpret constitutional and statutory provisions[,]” and mandates that the court “(1) compel agency action unlawfully withheld or unreasonably delayed;” and “(2) hold unlawful and set aside agency actions, findings, and conclusions found to be -- (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(1), (2)(A). However, the reviewing court does not make policy decisions nor instruct an agency to make a particular discretionary choice. *River Runners for Wilderness v. Martin*, 593 F.3d 1064, 1070 (9th Cir. 2010) (“The APA does not allow the court to overturn an agency decision because it disagrees with the decision or with the agency’s conclusions about environmental impacts.”).

Because the process by which an agency reaches a result must be “logical and rational,” agency action must rest “on a consideration of the relevant factors.” *Michigan v. E.P.A.*, 135 S. Ct. 2699, 2706 (2015). “An agency’s decision is arbitrary and capricious if it fails to consider important aspects of the issue before it, if it supports its decisions with explanations contrary to the evidence, or if its decision is either inherently implausible or contrary to governing law.” *Dreamcatcher Wild Horse & Burro Sanctuary v. United States Dep’t of the Interior*, 751 F.3d 1054, 1061 (9th Cir. 2014) (citing *Lands Council v. Powell*, 395 F.3d 1019, 1026 (9th Cir. 2005)). Agency action may also be arbitrary and capricious where it has relied on factors which Congress did not intend the agency to consider. *National Ass’n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 658 (2007). “This standard of review is ‘highly deferential, presuming the agency action to be valid and affirming the agency action if a reasonable basis exists for its decision.’” *Nw. Ecosystem All. v. United States Fish & Wildlife Serv.*, 475 F.3d 1136, 1140 (9th Cir. 2007) (quoting *Indep. Acceptance Co. v. California*, 204 F.3d 1247, 1251 (9th Cir. 2000)).

B. CHEVRON STANDARD

In terms of analyzing an agency’s interpretation of a statute, the two-step framework of *Chevron* controls. *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984).

At *Chevron* step one, a Court must first determine “whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.” *Id.* at 842-43. In conducting this analysis, a court “start[s] with the plain statutory text” – reading the words “in their context and with a view to their place in the overall statutory scheme” – and examines “the legislative history, the statutory structure, and other traditional aids of statutory interpretation in order to ascertain congressional intent.” *Altera Corporation & Subsidiaries v. Commissioner of Internal Revenue*, 926 F.3d 1061, 1075 (9th Cir. 2019) (internal quotation marks and citations omitted). The “question in every case is, simply, whether the statutory text forecloses the agency’s assertion of authority.” *City of Arlington v. FCC*, 569 U.S. 290, 301 (2013). If the statute is “silent or ambiguous with respect to the specific issue,” the court proceeds to step two to consider “whether the agency’s answer is based on a permissible construction of the statute.” *Id.* at 296 (quoting *Chevron*, 467 U.S. at 843).

At *Chevron* step two, “if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency’s answer is based on a permissible construction of the statute.” *Chevron*, 467 U.S. at 843. “Regardless of how serious the problem an administrative agency seeks to address, . . . it may not exercise its authority ‘in a manner that is inconsistent with the administrative structure that Congress enacted into law.’” *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 125 (2000) (quoting *ETSI Pipeline Project v. Missouri*, 484 U.S. 495, 517 (1988)). *See also Michigan*, 135 S. Ct. at 2708 (“*Chevron* allows agencies to choose among competing reasonable interpretations of a statute; it does not license interpretive gerrymanders under which an agency keeps parts of statutory context it likes while throwing away parts it does not.”).

When conducting its review under *Chevron*, a statute “must be interpreted, if possible, to give each word some operative effect.” *Walters v. Metro. Educ. Enters.*, 519 U.S. 202, 209 (1997); *see also Chubb Custom Ins. Co. v. Space Sys./Loral, Inc.*, 710 F.3d 946, 965 (9th Cir. 2013) (“In interpreting statutes, we observe the cardinal principle of statutory construction that a statute ought, upon the whole, to be so construed that, if it can be prevented, no clause, sentence, or word shall be superfluous, void, or insignificant.”) (internal quotations and citations omitted); *Tovar v. Sessions*, 882 F.3d 895, 901 (9th Cir. 2018) (“When interpreting the language of a statute we do not look at individual subsections in isolation. Instead, ‘when deciding whether the language is plain, we must read the words in their context and with a view to their place in the overall statutory scheme. Our duty, after all, is to construe statutes, not isolated provisions.’” (quoting *King v. Burwell*, 135 S. Ct. 2480, 2489 (2015))). “Where . . . [an examination of the ordinary meaning and structure of the law] yields a clear answer, judges must stop. Even those of us who sometimes consult legislative history will never allow it to be used to muddy the meaning of clear statutory language.” *Food Mktg. Inst. v. Argus Leader Media*, 139 S. Ct. 2356, 2364 (2019) (internal quotations and citations omitted).

“*Chevron* . . . analyzes the reasonableness of an agency's interpretation [of a statute], while ‘arbitrary and capricious’ review under the APA focuses on the reasonableness of an agency's decision-making *processes*.” *CHW W. Bay v. Thompson*, 246 F.3d 1218, 1223 (9th Cir. 2001) (emphasis in original) (citation omitted). Any permissible interpretation is still subject to the arbitrary and capricious review of the APA. *See California v. Azar*, 385 F. Supp. 3d 960, 1002 (N.D. Cal. 2019) (holding that a “permissible” interpretation under *Chevron* does not insulate an agency from arbitrary and capricious review and the requirement to provide a “reasoned analysis”).

III. INTERPRETATION OF THE MINERAL LEASING ACT

A. THE MEANING OF “WASTE” IN THE WASTE PREVENTION MANDATE

Fundamental to the issues before the Court is whether BLM misinterpreted the MLA by establishing a definition of the term “waste” in the Rescission which it then used to justify successive reversals. Accordingly, the Court first analyzes the interpretation of “waste” under *Chevron* steps one and two, before analyzing it under the APA’s arbitrary and capricious rubric.

1. *Chevron* Step One

As outlined above, the Court at *Chevron* step one must determine whether Congress has “directly spoken to the precise question at issue.” *City of Arlington*, 569 U.S. at 296 (quoting *Chevron*, 467 U.S. at 842-43). Here, the Court concludes that Congress has not directly spoken to the issue of whether “waste” has a specific endowed meaning as used in the MLA.

A review of the plain language of the statute confirms that it is silent as to the exact meaning of its waste prevention mandate. The MLA only indicates that oil and gas lessees shall observe “such rules . . . for the prevention of undue waste . . .” and that they shall “use all reasonable precautions to prevent waste of oil or gas developed in the land[.]” 30 U.S.C. § 225. By its silence, Congress created a measure of ambiguity. As discussed below, the language of the statute instructs on the nature of “waste,” but a precise definition is lacking.⁵

Where a statute is ambiguous as to the meaning of a term, step one is satisfied. *See Exxon Corp. v. Lujan*, 970 F.2d 757, 760-62 (10th Cir. 1992) (holding term “natural gas” in MLA ambiguous where term has a variety of dictionary definitions and definition “within the industry” and legislative history is not definitive); *N. Cal. River Watch v. Wilcox*, 633 F.3d 766, 773-77 (9th Cir. 2011) (holding “areas under Federal jurisdiction” in Endangered Species Act

⁵ This finding is consistent with that of the Wyoming district court’s opinion providing that BLM had authority to regulate the meaning of waste and define waste under step one. *See 2017 Wyoming*, 2017 WL 161428 at *6 (“The question here, then, is not whether the MLA and FOGRMA specifically grant BLM the authority to regulate venting, flaring and equipment leaks, but rather whether they unambiguously grant BLM authority to regulate the development of federal and Indian oil and gas resources *for the prevention of waste*. The answer to that question, largely undisputed by Petitioners, is ‘yes.’”).

was ambiguous as to whether it included waters, as opposed to just lands, owned by the United States, and that *Chevron* step one was therefore satisfied); *see also Nat. Res. Def. Council v. EPA*, 526 F.3d 591, 603-05 (9th Cir. 2008) (holding, in the context of the Clean Water Act, that “waste product” in reference to oil and gas related activities is an ambiguous term).

The legislative history supports a finding of ambiguity. References show, on the one hand, a concern for conservation and conduct in the public interests. *See* H.R. Rep. No. 65-206, 65th Cong. (1917), at 2 (AR 21724) (finding that under existing laws, “little effort was made to protect the public interest or the rights of the public”); H.R. Rep. No. 65-563, 65th Cong. (1918), at 23 (AR 21756) (“The purpose of this bill is to open up all of these deposits for use, on such terms and conditions as will prevent their waste, secure proper methods of operation, encourage exploration and development, and protect the public”); *see also Boesche v. Udall*, 373 U.S. 472, 481 (1963) (“Conservation through control was the dominant theme of the debates” in legislative history of Mineral Leasing Act); 81 Fed. Reg. 83,038-39 (AR 939-40) (BLM finding in 2016 “no statutory or jurisprudential basis” requiring the agency to “conduct an inquiry into a lessee’s economic circumstances before determining a loss of oil or gas to be ‘avoidable’” or to regulate waste).

On the other hand, other references show an objective of promoting the mining of mineral and gas from public lands. *See* S. 2775, 66th Cong., 1st session (1919) (“An Act to promote the mining of coal, phosphate, oil, gas and sodium on the public domain.”); *see also Hrg. Before S. Subcomm. Of the Comm. on Public Lands on S. 4898, A Bill to Encourage the Mining of Coal, Oil, Gas, Etc. on the Public Domain*, at 26 (May 25, 1914) (“[I]f there is more wealth being used in the production of new wealth than the new wealth amounts to, it represents a loss to society and not a gain, and it does not make any difference what is the magnitude of the wealth production in that case; it is an absolute loss if there is not something left above the cost of production, of the labor and capital required to produce that wealth . . .”).

The language of the statute is broad. References therein, as supported by the legislative history, indicate that the purposes were myriad. None of the language, though, reveals precision with respect to the meaning of “waste”. Thus, the Court concludes that – at *Chevron* step one – the statute is both silent and ambiguous as to the meaning of “waste” as used in the MLA.⁶

2. *Chevron Step Two*

Under step two, the question is whether the agency’s interpretation is reasonable and a permissible construction of the statute. Here, BLM defines waste to mean:

⁶ The parties’ tunneled arguments do not prove otherwise. For instance, defendants claim statutes enacted prior to the MLA encouraged monopolistic, fraudulent, and speculative behavior among land owners, and that the MLA was intended to rectify this situation by “secur[ing] bona fide prospecting,” “protect[ing] the prospector,” and “reward[ing] the prospector who does the drilling.” *Exploration for & Disposition of Coal, Oil, Gas, etc.*, H. Rep. No. 64-17, at 6 (Jan. 4, 1916). Meanwhile, plaintiffs focus on the broad public purpose language of the statute itself. These arguments merely reinforce the Court’s finding.

any act or failure to act by the operator . . . for proper development and production, *where compliance costs are not greater than the monetary value of the resources they are expected to conserve*, and which results in: (1) A reduction in the quantity or quality of oil and gas ultimately producible from a reservoir under prudent and proper operations; or (2) Avoidable surface loss of oil or gas.

(AR 14 (83 Fed. Reg. 49,197), economic limitation italicized.) At issue here is the newly added “**economic limitation**: Waste does not occur where the cost of conserving the oil or gas exceeds the monetary value of that oil or gas.” (*Id.*, characterization emphasized.)

While generally upheld, courts have nonetheless struck down an agency’s interpretation where the interpretation would prevent consideration of a relevant factor, or where its interpretation conflicts with the language, structure, subject matter, context, and history of the statute. *Davis v. EPA*, 348 F.3d 772, 783–84 (9th Cir. 2003) (rejecting agency interpretation at *Chevron* step 2 where it would “prevent[] consideration of a factor that Congress stated was relevant” and interfere with a goal of the statute); *Akhtar v. Burzynski*, 384 F.3d 1193, 1199–1202 (9th Cir. 2004) (invalidating an agency interpretation at *Chevron* step two after considering the statute’s “language, structure, subject matter, context, and history”).

As an initial matter, the Court first addresses whether BLM’s interpretation is accorded any deference. It is undisputed by the parties and reflected in the record that the Rescission was developed by BLM in consultation, and after debate, with the Office of Information and Regulatory Affairs (“OIRA”).⁷ Plaintiffs aver that because OIRA initiated and effectively directed BLM in the rulemaking process, BLM is not afforded agency deference under *Chevron*.

Plaintiffs do not persuade. Even assuming that the definition of waste included in the Rescission was initially drafted by OIRA as part of the consultation process mandated by Executive Order 12866, 58 Fed. Reg. 51,735 § 2(b) (Sept. 30, 1993), and that OIRA pressured and directed BLM in the rulemaking process, plaintiffs do not dispute that the Rescission was ultimately adopted by BLM and included in BLM’s rulemaking process. In an analogous situation, the D.C. Circuit in *Paralyzed Veterans of Am. v. D.C. Arena L.P.* held that a Department of Justice regulation that adopted proposed guidelines drafted by another agency was

⁷ (*See, e.g.*, AR 173940 (“OIRA has requested two significant changes that require policy direction from leadership.”); AR 164724 (“OMB/OIRA examiner pushed for its inclusion, but the team is concerned that it would allow operators to broadly claim no losses are waste”); AR 172946 (“Statements Regarding Statutory Authority: OIRA recommended that the BLM explicitly state that it lacked the authority to issue the 2016 final rule. BLM disagrees but provided alternate preamble language as compromise. . . . Economic Definition of Waste to Regulatory Text: OIRA provided subject language. BLM accepted and added preamble discussion”); AR 173733 (“There are 3 primary issues that have been brought up during the OMB/OIRA review The third issue is whether we need/want an explicit definition of waste.”); AR 173828 (addition of definition to proposed rule); AR 173733 (“The second issue is in relation to whether and how we speak to our authority surrounding the rule itself. Seems DOI/DOJ are on one side and OMB/OIRA are on another.”).)

nevertheless owed *Chevron* deference because “the doctrine of deference is based primarily on the agency’s statutory role as the sponsor of the regulation, not necessarily on its” role in drafting the text. 117 F.3d 579, 585 (D.C. Cir. 1997), *abrogated on other grounds by Perez v. Mortg. Bankers Ass’n*, 135 S. Ct. 1199 (2015). Just as in *Paralyzed Veterans*, here, “[o]nce [OIRA’s] language was put out by [BLM] as its own regulation, it became, as the statute contemplates, the [BLM’s] and only the [BLM’s] responsibility.” *Id.*; *see also Bortone v. United States*, 110 Fed. Cl. 668, 676 (2013) (“[C]ourts will give deference to an agency’s interpretation of regulations drafted by another agency where, as here, the interpreting agency adopts and administers the subject regulations.”). The Court finds that BLM is afforded some deference in its interpretation under the MLA.

Having concluded that BLM is afforded some deference in its interpretation, the Court turns to consideration of the relevant factors under *Chevron* step two, namely the “language, structure, subject matter, context, and history.” While BLM is accorded some deference to its interpretation, the Court finds, as discussed below, that BLM’s definition of “waste” fails to satisfy *Chevron* step two.

First, while the Court concluded that the plain language and structure of the MLA failed to supply an unambiguous meaning as to “waste,” they nonetheless provide explicit direction with respect to its ultimate meaning. Under the MLA and other related statutes, BLM has a duty to “prevent[] undue waste” and “protect[] . . . the interests of the United States . . . and . . . safeguard[] . . . the public welfare.” 30 U.S.C. § 187. Under the analogous Federal Land Policy and Management Act (“FLPMA”), BLM must “protect . . . air and atmospheric” resources and “prevent unnecessary or undue degradation of the [public] lands.” 43 U.S.C. §§ 1701(a)(8), 1732(b). Further, the MLA requires that private operators exploiting public minerals “use *all* reasonable precautions to prevent waste.” 30 U.S.C. § 225 (emphasis supplied). The word “all” means “as much as possible”⁸ or, here, “as much as is reasonably possible.” *See Halliburton, Inc. v. Admin. Review Bd.*, 771 F.3d 254, 266 (5th Cir. 2014) (statutory term “all relief necessary” authorized broad remedies because “we think Congress meant what it said[:] All means all” (quotation and citations omitted)).

The words of the statute require that it be read broadly. More specifically, the statute mandates that BLM act comprehensively to prevent the waste of public resources. Indeed, and significant here, BLM’s slate was not blank. Under the NTL-4A, BLM had regulated venting and flaring since 1980. In the 2016 Rule, BLM updated those regulations. Therein, BLM interpreted the Waste Prevention Rule in a manner not limited solely to operator economics, but in harmony with the other referenced statutes such as the FOGRMA and the FLPMA. So, for example, the FLPMA “mandates that the Secretary, ‘[i]n managing the public lands . . . shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.’” (AR 921 (81 Fed. Reg. 83,020), quoting 43 U.S.C. §1732(b).) The FLPMA further declares that “BLM should balance the need for domestic sources of minerals against the need to ‘protect the quality of scientific, scenic, historical, ecological, environmental, air and

⁸ *All*, MERRIAM-WEBSTER DICTIONARY, available at <https://www.merriam-webster.com/dictionary/all> (last visited July 13, 2020).

atmospheric, water resources, and archeological values; . . . [and] provide for outdoor recreation and human occupancy and use.” (*Id.*, quoting 43 U.S.C. §1701(a)(8).) Thus, in 2016, BLM recognized that “Congress has directed the Secretary to ‘aggressively carry out [her] trust responsibility in the administration of Indian oil and gas.’” (*Id.*, quoting 30 U.S.C. § 1701(a)(4).) Consequently, BLM found that “[the] FOGRMA provides . . . an independent statutory authorization to impose royalties on oil or gas lost as a result of an operator’s negligence or failure to comply with any rule or regulation issued under the mineral leasing laws, without further economic analysis.” (AR 939 (Fed. Reg. 83,038), citing 30 U.S.C. § 1756.) The statutory language demonstrates on its face that any consideration of waste management limited to the *economics* of individual well-operators would ignore express statutory mandates concerning BLM’s public welfare obligations.

Second, the legislative history corroborates a broad statutory approach, contradicting BLM’s attempt to limit the definition of waste to one related solely to the economics of the operators. As discussed in *Chevron* step one, the legislative history here confirms that the MLA’s enactment was in pursuit of several competing objectives. Certainly, the MLA was, in part, concerned with encouraging the development of federal lands for gas, oil, and minerals. *See California Co. v. Udall*, 296 F.2d 384, 388 (D.C. Cir. 1961) (“The public does not benefit from resources that remain undeveloped, and the Secretary must administer the Act so as to provide some incentive for development.”). However, the MLA was enacted with the additional purpose of protecting federal resources in order to promote efficient extraction and development of federal lands. *See also Boesche*, 373 U.S. at 481. In essence, the MLA established the government’s *regulation* of the development of natural resources on public lands. *See* H.R. Rep. No. 65-1138, at 19 (1919) (AR 21815) (concern was to “reserve to the Government the right to supervise, control, and regulate” the development of public natural resources and “prevent monopoly and waste and other lax methods that have grown up in the administration of our public-land laws”); *see also* H.R. Rep. No. 65-206, at 6 (1917) (AR 21728) (“Careful provisions relative to continued development to prevent waste and speculation are inserted in the bill that will . . . practice conservation of this resource that is so universally used and in which we all feel a keen interest in the prevention of its waste in any form.”). Notably, never does the legislative history nor the authority cited by defendants support the inclusion of an operators’ economics into the MLA’s meaning of “waste.”

Defendants aver that an economic limitation is required because operators would otherwise be required to prevent *all* waste, and that the reasonable diligence requirement of the prudent operator standard are incorporated into the waste prevention requirements through the MLA’s section 187. This section provides in its entirety:

Each lease shall contain provisions for the purpose of insuring the exercise of reasonable diligence, skill, and care in the operation of said property; a provision that such rules for the safety and welfare of the miners ***and for the prevention of undue waste*** as may be prescribed by said Secretary shall be observed, including a restriction of the workday to not exceeding eight hours in any one day for underground workers except in cases of

emergency; provisions prohibiting the employment of any child under the age of sixteen in any mine below the surface; provisions securing the workmen complete freedom of purchase; provision requiring the payment of wages at least twice a month in lawful money of the United States, and providing proper rules and regulations to insure the fair and just weighing or measurement of the coal mined by each miner, and such other provisions as [the Secretary] may deem necessary to insure the sale of the production of such leased lands to the United States and to the public at reasonable prices, for the protection of the interests of the United States, for the prevention of monopoly, and for the safeguarding of the public welfare.

30 U.S.C. § 187 (emphasis supplied). Defendants argue that the first italicized clause is an umbrella provision that applies to later clauses. In so doing, defendants reason that the “reasonable diligence” requirement in the first clause is incorporated into the “undue waste” requirements of the second.

The Court disagrees. As in analogous provisions of the FLPMA, BLM has “a great deal of discretion in deciding how to achieve” the MLA’s goals. *See Gardner v. United States Bureau of Land Mgmt.*, 638 F.3d 1217, 1222 (9th Cir. 2011) (quoting *Norton v. S. Utah Wilderness All.*, 542 U.S. 55, 66 (2004)). However, here, BLM’s exercise of its discretion is grounded in a faulty interpretation of the terms “reasonable” and “undue” as used in the statute. Congress used a semi-colon between the two clauses, which signals independent, albeit related, clauses. Had Congress instead used a colon, defendants’ argument might have had some merit. It did not. Thus, the requirements are separate and distinct: *operators* must use “reasonable diligence, skill, and care” and *BLM* must employ rules to “prevent[] undue waste.” Nothing in the structure of the statute suggests that the extensive mandated lease provisions are merely “examples” of how BLM might regard “reasonable diligence, skill, and care.” *See* 30 U.S.C. § 187. Likewise, nothing in the legislative history supports conflating the two clauses. *See* H.R. Rep. No. 65-563, 65th Cong. (1918), at 26 (AR 21759) (“This section also contains provisions to prevent waste *and* to insure the exercise of reasonable diligence, skill, and care in operating the property. These and similar provisions have the ultimate object of securing to the consumer the various products at a reasonable price and the preventing of same from passing into monopolistic control.” (emphasis supplied)).

Third, BLM’s interpretation would create conflict with other federal statutes. Such an interpretation would stand in sharp contrast to the Waste Prevention Rule, which harmonized similar statutes administered by BLM. *See Section I.B.2, supra*. Thus, the Court concludes these factors weigh against BLM’s interpretation under *Chevron* step two.

Defendants’ remaining arguments similarly fail to persuade. Defendants suggest BLM’s interpretation merely returns to the longstanding concepts of “waste” and “avoidable loss” as metrics in the economics of preventing loss. *See Rife Oil Properties*, 131 IBLA 357, 374 (1994) (“To the extent that BLM read NTL-4A as barring the venting of gas from a producing oil well without regard to whether it was avoidably lost, i.e., whether it was economic to market the gas,

we find that BLM misread NTL-4A.”); *Ladd Petroleum Corp.*, 107 IBLA 5, 8 (1989) (holding BLM must consider “whether it was uneconomic to capture that gas” in determining if gas was avoidably lost and thus royalty-bearing).⁹ They also now attempt to argue that BLM’s prior actions with respect to the 2016 Rule exceeded the mandate of the MLA, and encroached upon the jurisdiction of the EPA.¹⁰ Both arguments are strained and premature. BLM is not attempting to return to NTL-4A. Nor is the Court tasked with determining whether the Waste Prevention Rule adequately addressed economic issues or resulted from an excess of jurisdiction. The appropriateness of that process not being challenged here. Rather, it is BLM’s hasty repudiation of its own regulation that is at issue in this action.

Moreover, defendants misconstrue the *2017 Wyoming* decision on which they rely. Contrary to defendants’ assertions, the *Wyoming* court did *not* determine that BLM erred by basing the 2016 Rule, in part, on air quality concerns. Rather, the court in the *Wyoming* case found it could not reach a conclusion on the merits of Wyoming’s arguments in the absence of an administrative record. *2017 Wyoming*, 2017 WL 161428, at *12-13. As the court there stated, “[o]f course, BLM has authority to promulgate and impose regulations which may have air quality benefits and even overlap with CAA regulations *if* such rules are independently justified as waste prevention measures pursuant to its MLA authority.” *Id.* at *9 (emphasis original).

Accordingly, defendants have failed to demonstrate that BLM’s interpretation of “waste” under *Chevron* step two is reasonable, and the Court **FINDS** in favor of plaintiffs on this issue.

3. *Interpretation as part of the APA*

As an alternative ground, the Court addresses whether BLM’s definition of “waste” as part of the APA process is arbitrary and capricious. A review of the record reveals that BLM’s interpretation creates: (i) internal inconsistencies within the Rescission itself; (ii) inconsistencies with other BLM regulations; (iii) unaccounted and unexplained variable compliance costs; (iv) a departure from past practices at odds with the “waste” definition BLM now offers; and (v) unexplained inconsistencies between the Rescission and the Waste Prevention Rule. These findings confirm that in enacting the Rescission, BLM circumvented normal and reasoned administrative processes and failed to provide reasoned explanations from its departure of the 2016 Rule in violation of the APA.

First, the proffered definition of “waste” would create internal inconsistencies within the Rescission. For example, the Rescission eliminates the requirement that operators install low-bleed pneumatic controllers despite the overall cost benefit return. (AR 11-12 (83 Fed. Reg. at 49,194-95); AR 88-89.) Specifically, the monetary value of the natural resources conserved by

⁹ (*See also* AR 939 (“[T]he BLM’s practice under NTL–4A has generally been to engage in case-by-case economic assessments before making avoidable/unavoidable loss determinations”).)

¹⁰ (AR 172946 (“OIRA recommended that the BLM explicitly state that it lacked the authority to issue the 2016 final rule. BLM disagrees but provided alternate preamble language as compromise.”).)

the existing low-bleed pneumatic controller requirement (\$20-26 million) *exceeds* its compliance costs (\$12-13 million). (*Id.*) BLM’s actions would eliminate the requirement despite the overall cost-benefit return. In fact, under BLM’s new definition, if compliance costs are greater than resource values for a particular operator, the escaping natural gas is not “waste” by definition, *i.e.* there is no actual regulation with respect to that resource for that operator only. Without any factual or logical basis, BLM baldly proclaims that it “expects many operators to adopt low-bleed pneumatic controllers even in the absence of” a requirement to do so. (AR 12 (83 Fed. Reg. at 49,195).) BLM blindly trusts the industry to act voluntarily. Some may, but the real effect is that the new regulation protects the opposite of a “prudent” or a market-based efficient operator.¹¹

With this understanding, the Rescission also unsurprisingly creates inconsistencies with other BLM regulations. Most notably, other regulations promulgated by BLM do not define “waste of oil or gas” as merely protecting the economics of certain operators in the way the Rescission does. *See* 43 C.F.R. § 3160.0-5 (defining “waste of oil or gas” as “any act or failure to act by the operator that is not sanctioned by the authorized officer as necessary for proper development and production and which results in: (1) A reduction in the quantity or quality of oil and gas ultimately producible from a reservoir under prudent and proper operations; or (2) avoidable surface loss of oil or gas.”); 47 Fed. Reg. 47,758 (Oct. 27, 1982) (Oil and Gas Operating Regulations; final rule). BLM contends the discrepancy arises only because other definitions do not concern venting and flaring. The point strains credulity. Consistency in regulations extends to all similar operations and does not countenance carveouts which benefit a select few. *See* Section 3160.0-5 (pertaining to onshore oil and gas operations promulgated under the MLA, FLPMA, and other statutes which are otherwise identical with the exception of BLM’s added economic limitation defining “waste” here); 43 C.F.R. § 3160.0-1 (“The regulations in this part govern operations associated with the exploration, development and production of oil and gas deposits from—(a) Leases issued or approved by the United States”) (citing 30 U.S.C. § 189, among other authorities).

Third, BLM fails to explain and account for variable compliance costs adequately. Markets learn to operate efficiently not only in a regulatory regime but also within nationwide and global contexts. Here, BLM does not explain why it ignored the market *as a whole* in favor of economic protection of certain market players on federal lands. Compliance costs vary based on company size and location. Fluctuating oil and gas prices and other state regulatory regimes also impact the market. Periodic review is completely lacking. The analysis is complex and, in BLM’s rush to revise, it failed to provide any reasoned explanation. As a result, the definition of “waste” effectively protects inefficient players in the market to the detriment of others without explanation.

¹¹ BLM’s further argument—that the removal of the low-bleed pneumatic controller requirement would be in compliance with Executive Order 12866—is no more than an insubstantial, post-hoc rationalization that was not part of basis for the Rescission. The Court rejects this contention as an appropriate consideration in its analysis.

Next, defendants exaggerate history when they claim the Rescission *returns* to the practice of considering marginal profits of operators. In fact, the NTL-4A did not include a similar economic limitation but instead considered economics only in the broadest sense. The NTL-4A stated that BLM could only approve venting or flaring of oil well gas when justified by “an evaluation report supported by engineering, geologic, and economic data which demonstrates” *both*:

[1] that the expenditures necessary to market or beneficially use such gas are not economically justified *and* [2] that conservation of the gas, if required, would lead to the premature abandonment of recoverable oil reserves and ultimately to a greater loss of equivalent energy than would be recovered if the venting or flaring were permitted to continue

(AR 3013 (emphasis supplied).) The NTL-4A further specified that “[w]hen evaluating the feasibility of requiring conservation of the gas,” BLM must examine not simply whether the requirement pays for itself, but must take into account “the total leasehold production, including both oil and gas, as well as the economics of a fieldwide plan” to determine “whether the *lease* can be operated successfully if it is required that the gas be conserved.” (AR 3014 (emphasis supplied).) BLM’s approach under the Rescission now takes into account *only* the interests of the lessee, and not the lessor—here, the United States.

Fifth, BLM failed to explain adequately the inconsistencies between the Rescission and the Waste Prevention Rule. BLM claims that it previously “exceeded” its own “statutory authority,” under a prior administration, “to regulate for the prevention of ‘waste.’” *See* 83 Fed. Reg. 49,185 (AR 2). It offered no more than conclusory justifications for its reversal of the prior rule. *See id.* at 49,189 (AR 6) (“even if the 2016 rule did *not* exceed BLM’s statutory authority, it is nonetheless within BLM’s authority to revise its ‘waste prevention’ regulations in a manner that balances compliance costs against the value of the resources to be conserved” (emphasis supplied). Indeed, BLM initially did not take the position that the Waste Prevention Rule exceeded its statutory authority under the MLA to regulate waste. *Id.* at 49,190 (AR 7), 49,197 (AR 14) (characterizing the position as a policy determination).

As the Supreme Court made clear in *Fox*, when an agency seeks to disregard facts underlying a prior rule, it must provide a more detailed justification than it would for a new policy. *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009) (“*Fox*”). While the Executive branch holds the power to issue executive orders, an agency cannot flip-flop regulations on the whims of each new administration. The APA requires reasoning, deliberation, and process. These requirements exist, in part, because markets and industries rely on stable regulations. Here, BLM was not writing on a blank slate. It was required to provide a “reasoned explanation” for disregarding prior factual findings. *See California by & through Becerra v. United States Dep’t of the Interior*, 381 F. Supp. 3d 1153, 1165 (N.D. Cal. 2019) (“*California IIP*”) (citing *Fox*, 556 U.S. at 515); *see also Organized Vill. of Kake v. United States Dep’t of Agric.*, 795 F.3d 956, 968 (9th Cir. 2015) (*en banc*) (“*Kake*”). BLM’s conclusory, boilerplate justifications for a complete reversal do not suffice.

Indeed, BLM otherwise entirely ignores the “oversight reviews” (AR 2) that led to the adoption of the Waste Prevention Rule, and fails to explain why it disagrees with the reviews’ conclusions or recommendations. BLM expressly agreed with the conclusions of the independent reviews that NTL-4A was “outdated,” was subject to “inconsistent application,” and was not effective in minimizing waste and lost royalties. (AR 918, 939 (81 Fed. Reg. 83,017, 83,038); *see also* AR 1935–36.) Yet, in the Rescission, BLM “reinstate[d] the NTL–4A standard for flaring in the absence of applicable State or tribal regulations” 83 Fed. Reg. 49188 (AR 5), without referencing any of the content of these reviews, ignoring their findings and failing to explain any disagreement with their conclusions and recommendations. Thus, BLM failed not only to provide a “a reasoned explanation . . . for disregarding facts and circumstances that underlay” the Waste Prevention Rule, *Kake*, 705 F.3d at 966, it provided no explanation at all. *Cf. NPCA v. EPA*, 788 F.3d 1134, 1142–44 (9th Cir. 2015) (upholding challenge to CAA regulations where EPA failed to provide any explanation or reasoning for determination of cost-effectiveness).

Finally, the Rescission does not address the public welfare provision, much less attempt to ground the new meaning of “waste” in terms of “public welfare.” The Waste Prevention Rule made specific factual findings to demonstrate the need to curb venting, flaring, and leaks due to increased oil and gas production. (*See* AR 915-16.) In the Rescission, BLM largely ignored these factual conclusions, again failing to provide any “reasoned explanation” for doing so. *Kake*, 795 F.3d at 968; *California III*, 381 F.Supp.3d at 1166–71.

Based on the foregoing, and upon its review of the complete record, the Court finds BLM has failed to provide sufficient reasoned explanation for its complete reversal in policy. Such a failure generally warrants reversal under the APA. *See Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2126 (2016) (holding that an agency’s change in practice without a reasoned explanation for disregarding prior findings was arbitrary and capricious and not entitled to Chevron deference, citing *Fox*); *see also California III*, 381 F. Supp. 3d at 1168 (finding that DOI’s rule repeal was arbitrary and capricious where it failed to “explain the inconsistencies between its prior findings in enacting the” rule and its decision to repeal the rule).

Accordingly, the Court **FINDS** in favor of plaintiffs on this ground.

B. DEFERENCE TO INDIVIDUAL STATES AND TRIBES

As an entirely separate ground for reversal, plaintiffs contend that BLM misinterpreted its duty under the MLA and thereby inappropriately abdicated that duty to the states and tribes through the Rescission. Defendants disagree.

By way of background, in 2016, BLM recognized that it has an “independent legal responsibility” to minimize waste “to ensure that the public’s resources are not wasted.” 81 Fed. Reg. 83,010 (AR 911). Further, BLM acknowledged that the MLA, unlike other statutes, did not authorize delegations to state agencies. *Id.* at 83,036 (AR 937). In relevant part, BLM stated:

Neither . . . State [nor] tribal requirements obviate the need for this rule [because] the BLM has an independent legal responsibility and a proprietary interest as a land and resource manager to

oversee and minimize waste from oil and gas production activities conducted pursuant to Federal and Indian . . . leases, as well as to ensure that development activities on Federal and Indian leases are performed in a safe, responsible, and environmentally protective manner.

Id. at 83,010 (AR 911). At the time, BLM reviewed state and tribal regulations and found that they did not “fully address the issue of waste of gas from BLM-administered leases” noting that “no State or tribe has established a comprehensive set of requirements addressing all three avenues for waste—venting, flaring, and leaks—and only a few States have significant requirements in even one of these areas.” *Id.* (AR 911).

The Rescission reverses this finding, rescinding gas capture requirements and “defer[ring] to State and tribal regulations for the flaring of associated gas.” 83 Fed. Reg. 49,197 (AR 14). In other words, the Rescission allows any and all royalty-free venting and flaring of oil-well gas so long as such venting and flaring does not violate state or tribal requirements. *Id.* at 49,213 (§ 3179.201(a)) (AR 30). Only where a state or tribe has no applicable regulations will BLM engage and apply requirements similar to the NTL-4A framework. *Id.* at 49,188 (AR 5).

Defendants contend BLM – in exercising its own authority – reviewed state regulations, determined they effectively prevent waste, and deferred to those existing individual state and tribal regulations. *See La. Pub. Serv. Comm’n v. Fed. Energy Regulatory Comm’n*, 860 F.3d 691, 696 (D.C. Cir. 2017) (holding Federal Energy Regulatory Commission [FERC] did not improperly delegate its authority over electricity rates by deferring to state rates because the agency “used its own judgment” in reviewing and accepting those rates and retains authority to take action if states set unjust or unreasonable rates); *Alaska Ctr. for the Env’t v. West*, 157 F.3d 680, 686 (9th Cir. 1998) (holding no improper delegation of authority where Army Corps coordinated with municipality regarding wetland permits but “retain[ed] its full legal authority”).

Defendants’ justifications are as follows: First, deference to state and tribal regulations comports with the MLA, which encourages BLM to minimize conflict between federal and state regulations. *See* 30 U.S.C. § 187 (lease provisions may not “be in conflict with the laws of the State in which the leased property is situated”); 30 U.S.C. § 189 (“Nothing [in the MLA] shall be construed or held to affect the rights of the States or other local authority to exercise any rights which they may have”). The new definition of “waste,” BLM contends, is consistent with state laws because states already have their own statutory regulatory regimes in effect. (AR 340-45.) Second, nearly all states with federal leases have regulations that defendants assert are fact-based and reasonable in light of its new definition of waste. (*Id.*; *see also* AR 19 (83 Fed. Reg. 49,202).) Third, the Rescission creates a blanket variance for all appropriate state regulations, thereby reducing the administrative burdens of processing variances on a case-by-case basis. (*See* AR 14 (83 Fed. Reg. 49,197), 47, 120-27.)

Defendants’ proffered justifications do not persuade. Again, in the rulemaking process here, BLM failed to explain its departure from its prior position. *See Fox*, 556 U.S. at 515-16; *California III*, 381 F. Supp. 3d at 1168 (agency acted arbitrarily in “fail[ing] to satisfy its obligation to explain the inconsistencies between its prior findings in enacting [a] Rule and its

decision to repeal such Rule”). Contrary to its proffered justifications, the record is devoid of evidence that BLM undertook any substantive analysis of state or tribal laws or regulations in light of its new definition of waste and the issue of whether the value of conserved gas as compared to the cost of capture. *Cf. NRDC v. EPA*, 857 F.3d 1030, 1040 (9th Cir. 2017) (dismissing agency’s post-hoc rationalization where it lacked supporting evidence in the record). Instead, BLM’s analysis was confined to the question of whether states had in place laws about flaring and venting. (See AR 19-20, 26-29 (83 Fed. Reg. 49,202-201, 49,209-12); AR 340-45.) Indeed, BLM does not explain how a patchwork of state and tribal rules constitutes “*all* reasonable precautions” to prevent waste of federal minerals. BLM’s summary, lacking in *any* comparative much less in-depth analysis, does not satisfy BLM’s obligation to justify its reversal of a prior position.

Further, BLM’s blanket delegation renders meaningless Congress’ express mandate with respect to all federal minerals. “[A]bsent clear proof of legislative intent to relieve the Secretary of a portion of his duties,” BLM may not abandon them. *Assiniboine & Sioux Tribes of the Fort Peck Indian Reservation v. Bd. of Oil & Gas Conservation of Mont.*, 792 F.2d 782, 795 (9th Cir. 1986). To the contrary, the MLA has been used from its outset to provide *federal* minimal standards. Lack of such a federal standard carries risks which have not been vetted adequately through the rulemaking process here.¹² Indeed, a “blanket variance” is not adequately justified and, in fact, is contradicted by the language of the rule itself and prior procedures. The NTL-4A permitted deferral *only after* a case-by-case analysis of state standards. (See AR 3010.) The Waste Prevention Rule’s variance provision set a *federal floor*, requiring states to show their regulations would “perform at least equally well in terms of reducing waste of oil and gas,” and “reducing environmental impacts from venting and or flaring of gas.” 81 Fed. Reg. 83,089 (§ 3179.401(a)(2)(iv)) (AR 990). The Rescission’s blanket variance—based on the mere

¹² For example, as part of the process for the 2016 Rule, BLM previously found only one of the nine states with extensive oil and gas operations on federal leases had comprehensive requirements to reduce flaring. 81 Fed. Reg. 83,019 (AR 920). Three of the ten states BLM reviewed do not even require approval from a state regulatory agency before operators can begin flaring, 83 Fed. Reg. 49,202 (AR 19), a practice previously found to be waste *per se* under NTL-4A. See *Lomax Expl. Co.*, 105 IBLA 1, 6-7 (Oct. 7, 1988). BLM did not address this known problem. Although BLM explains that the state regulations “account[] for the differing geological and infrastructure realities faced by operators in different regions” 83 Fed. Reg. 49,203 (AR 20), several neighboring states with the same exact geologic basin, crossing state lines, have different standards. (Compare AR 1010 (Mont. Admin. R. 36.22.1220-.1221) (allowing operators in the Bakken shale basin to flare up to 100 thousand cubic feet per day, approximately 65% capture) with AR 3333–35 (North Dakota state regulation establishing gas capture goals for the Bakken shale basin that require up to 91% capture). These differing standards demonstrate the problem with having rules focused on the economics of an operator, versus a market or some other more rational basis, and the failure to analyze the proposal appropriately through the administrative process. Since promulgation of the 2016 Rule, only California had issued new regulations concerning waste. 83 Fed. Reg. 49,188 (AR 5).

existence of standards, no matter their laxity—effectively eliminates any federal regulation.¹³ See 83 Fed. Reg. 49,213-14 (§ 3179.201) (AR 30-31).

Accordingly, the Court **FINDS** in favor of plaintiffs on this issue.

IV. COMPLIANCE WITH THE ADMINISTRATIVE PROCEDURE ACT

By establishing a new definition of “waste,” BLM laid the cornerstone for its justification of the Rescission. Using this new vantage point, BLM attempted to dismantle the foundation for the 2016 Rule on four grounds: (a) the 2016 Rule imposed excessive regulatory burdens; (b) the costs of the 2016 Rule exceeded its benefits; (c) the 2016 Rule improperly monetized certain benefits; and (d) the 2016 Rule did not account for certain costs. Given the Court’s findings, BLM’s justifications ring hollow. Nonetheless, the Court analyzes each of those four justifications, and where appropriate, incorporates its prior analysis.

A. EXCESSIVE REGULATORY BURDENS

BLM claims that the Waste Prevention Rule “would have added regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation,” contrary to the policies set forth in Section 1 of Executive Order 13783. (AR 1, 2 (83 Fed. Reg. 49,184-85); AR 40-41.) To reach this conclusion, BLM focused on the impact to marginal wells using the new definition of waste.¹⁴ Defendants’ claims do not persuade given: (i) BLM’s inadequate justification of its reversal in position; and (ii) its impermissible reliance on Executive Order 13783.

First, BLM did not adequately justify its reversal of course, especially regarding its prior conclusion that the 2016 Rule contained “economical, cost-effective, and reasonable” requirements and that compliance costs only represented 0.15% of even small companies’ revenues. In fact, BLM’s specific findings for the Rescission do not differ in any material way. (*Compare* detailed 2016 Rule findings at AR 910, 914-15, 929, 971, 978 (81 Fed. Reg. 83,009; 83,013-14; 83,028; 83,070; 83,077) *with* AR 22-24, 28 (83 Fed. Reg. 49,205-07; 49,211); AR 37,

¹³ Indeed, in a footnote to their reply, the federal defendants concede as much. They note that the mechanism for BLM to reconsider whether certain state laws are inadequate would be through new rulemaking authority; in other words, creating an entirely new rule, and not through any mechanism inherent in the Rescission itself. (*See* Dkt. No. 145 at 32.)

¹⁴ As noted in the Rescission, the Interstate Oil and Gas Compact Commission (“IOGCC”) defines a “marginal well” as “a well that produces 10 barrels of oil or 60 [million cubic feet “Mcf”] of natural gas per day or less.” 83 Fed. Reg. 49,187 (AR 4). “By other definitions, marginal or stripper wells might include those with production of up to 15 barrels of oil or 90 Mcf of natural gas per day or less.” *Id.*

91, 94, 97, 117.) Indeed, having analyzed BLM’s proffered rationale for the Rescission,¹⁵ the Court finds its language frequently conditional or vague (*e.g.*, *might* affect employment, and impact *unknown*). To the extent BLM’s language in support of the Rescission is more definite, it states – just as the Waste Prevention Rule found less than two years prior – that the impacts on job creation or regulatory costs are insignificant or minimal, and profits accruing to companies are minimal with little effect on investment decisions.¹⁶

Second, to the extent that BLM attempts to justify its reversal by relying on Executive Order 13783, issued on March 28, 2017, such reliance is impermissible. *See* 82 Fed. Reg. 16,093, 16,096 (AR 1871, 1874). A president’s Executive Order cannot “impair or otherwise affect” statutory mandates imposed on BLM by Congress. *See In re Aiken County*, 725 F.3d 255, 260 (D.C. Cir. 2013) (“[T]he President and federal agencies may not ignore statutory mandates or prohibitions merely because of a policy disagreement with Congress.”). Here, BLM previously concluded during the 2016 rulemaking process that regulating waste was *within its statutory mandate*. *See* 81 Fed. Reg. 83,010 (AR 911) (“rule [was] a necessary step in fulfilling its statutory *mandate* to minimize waste of the public’s and tribes’ natural gas resources”) (emphasis supplied); *id.* (“[BLM] “must carry out its responsibility, delegated by Congress, to ensure the public’s resources are not wasted and are developed in a manner that provides for long term productivity and sustainability.”). Having determined already that it had a statutory duty to manage and regulate waste on public lands, BLM’s duty could not be eliminated by the Executive Order.¹⁷

¹⁵ (*See* AR 1, 4, 22-24 (83 Fed. Reg. 49,184, 49,187, 49,205-07); AR 41, 99, 115-16, 149, and 166.)

¹⁶ Intervenor WEA-IPAA’s arguments regarding the 2016 Rule’s cost-benefit analysis cannot relieve BLM of its duty to justify its current actions. Further, the Court need not determine the accuracy of WEA-IPAA’s proffered calculations in this action. In light of the significant evidence supporting the Waste Prevention Rule, BLM bears the burden to show how it was false. BLM did not or, more likely, it could not. Hence BLM conceived of the tactical move to change the definition of “waste.” *See Ctr. for Biological Diversity v. Zinke*, 900 F.3d 1053, 1070 (9th Cir. 2018) (“*Zinke*”) (vacating agency decision that came to opposite conclusion “without providing any additional evidence”); *Earth Island Inst. v. United States Forest Serv.*, 442 F.3d 1147, 1160 (9th Cir. 2006) (rejecting agency justification where it was not a “reasoned decision based on [the agency’s] evaluation of the evidence”), *overruled on other grounds* by *Winter v. Nat’l Res. Def. Council, Inc.*, 555 U.S. 7, 21 (2008); *Kake*, 795 F.3d at 969 (agency must offer a “rationale to explain the disparate findings”) (internal citation and quotation omitted).

¹⁷ Notably, BLM’s justification for the Rescission, offered before it proposed the Rescission or solicited any public comment, mirrored its response to Executive Order 13783 and similarly lacked any supporting analysis. (*See* XR 91-96.)

Even so, BLM fails to explain how the Waste Prevention Rule is contrary to the edicts of Executive Order 13783. The Waste Prevention Rule itself discusses the importance of natural gas to the security of the United States. Although defendants attempt to couch the order as focusing on the regulatory costs imposed on third parties, the executive order also notes that developing energy in a clean manner is also an articulated goal. 82 Fed. Reg. 16,093 (AR 1871). In short, BLM's reliance on Executive Order 13783 falls short of supplying the required "reasoned explanation" for the Rescission. *See Amerijet Int'l, Inc. v. Pistole*, 753 F.3d 1342, 1350 (D.C. Cir. 2014) (conclusory agency statements deemed insufficient); *California III*, 381 F. Supp. 3d at 1169-70 (DOI failed to provide "reasoned explanation" for its reliance on Executive Order 13783 to justify rule repeal).

At best, BLM attempted to shore up its justification that the Waste Management Rule created an "excessive regulatory burden" with a new marginal wells analysis and a claim of premature shut-in.¹⁸ Here, the question arises as to whether those analyses were properly disclosed and subject to public comment.

The law is established with respect to this issue. Agencies are required to provide the public with notice and meaningful opportunity to comment on issues. *See Idaho Farm Bureau Fed'n v. Babbitt*, 58 F.3d 1392, 1403-04 (9th Cir. 1995) (holding failure to provide the public with "an opportunity to review" a report "central" to the agency's decision violated the APA); *Cal. Cmities. Against Toxics v. EPA*, 688 F.3d 989, 993 (9th Cir. 2012) (an agency "must identify and make available technical studies and data that it has employed in reaching the decision to propose particular rules" (quotations and citations omitted)). *See also California III*, 381 F. Supp. 3d at 1172 ("Among the purposes of the APA's notice and comment requirements [is] . . . 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." (quoting *Prometheus Radio Project v. FCC*, 652 F.3d 431, 449 (3d Cir. 2011))). However, "the public is not entitled to review and comment on every piece of information utilized during rule making." *Kern Cty. Farm Bureau v. Allen*, 450 F.3d 1072, 1076 (9th Cir. 2006).

Where new, additional, or supplemental data "do not provide the sole, essential support" for an agency's conclusion, but rather "provid[e] additional grounds for the well-supported conclusions in the Proposed Rule," such an action is permissible under the APA so long as no prejudice is shown. *Id.* at 1076, 1079. An agency need not re-open the comment period every time it identifies additional data, "[o]therwise the process might never end." *Nat. Res. Def. Council v. EPA*, 863 F.2d 1420, 1429 (9th Cir. 1988); *Rybachek v. EPA*, 904 F.2d 1276, 1286 (9th Cir. 1990) ("Adherence to [plaintiff's] view" would mean that "either the comment period

¹⁸ To the extent that BLM attempts to include new arguments in the reply brief for the first time, the Court declines to consider them. *See Zamani v. Carnes*, 491 F.3d 990, 997 (9th Cir. 2007) ("The district court need not consider arguments raised for the first time in a reply brief."); *Rodman v. Safeway Inc.*, 125 F. Supp. 3d 922, 930 n.6 (N.D. Cal. 2015) ("Generally, the Court does not consider new arguments made for the first time in a reply brief.").

would continue in a never-ending circle, or, if the [agency] chose not to respond to the last set of public comments, any final rule could be struck down for lack of support in the record.”).

BLM concedes that it did not provide the analysis during the rulemaking process. Rather, it was only *after* Citizen Group Plaintiffs asked BLM to confirm the materials did BLM provide them with a spreadsheet of the data BLM claims supports its conclusion. (*See* Dkt. No. 109-2 at 3-4 (Ex. B., Winn Decl. ¶¶ 7-8).) Importantly, the “modeling” from this spreadsheet was then used in the calculations and the creation of several graphs in the RIA. Given the timing, no data, analysis, or conclusions pertaining to marginal wells was available for public comment. *See* 83 Fed. Reg. 7,926 (AR 417) (discussing marginal wells and concluding with no supporting analysis that the Waste Prevention Rule would impose undue burdens on them), 7,940 (AR 431).

BLM excuses its conduct by claiming that it articulated its concerns about marginal wells in the Proposed Rescission and the 2018 RIA, including its concern that the compliance costs imposed by the 2016 Rule could lead to premature shut-in. (*See* AR 417, 423-24, 431 (83 Fed. Reg. 7,926, 7,932-33, 7,940); AR 497-99.) Consequently, plaintiffs had adequate notice, left an extensive comment on the topic, and suffered no prejudice. (*See* AR 497-499; *compare* AR 180479 with AR 103-06; *see also* Dkt. No. 151 at 11-13 (chart with record/document and description putting Citizen Groups on notice re: marginal wells).) Ironically, BLM further rationalizes that analysis was done in response to plaintiffs’ comments on the Proposed Rescission that the rule was “unsupported by factual evidence.” (AR 84083-85.) Hence, the calculations only confirmed its conclusion that the 2016 Rule would result in premature shut-in of wells. (*Compare* AR 1-2, 4-5, 13, 22-26 (83 Fed. Reg. 49,184-85, 49,187-88, 49,196, 49,205-49,209) and AR 103-06 with AR 417, 423-24, 431, (83 Fed. Reg. 7,926, 7,932-7,933, 7,940) and 497-99.)

BLM’s backwards approach to rulemaking is not acceptable. It cannot propose a rule based on a factual conclusion, provide no evidence for the same, and then, when confronted with the glaring inadequacy, attempt to backfill the record without public comment. Notably, the “analysis” which forms the backbone of BLM’s new justification on this issue is a relatively simple Excel spreadsheet. (AR 180479.)

The claims of adequate notice do not persuade. The “analysis” became key to BLM’s adoption of the Rescission, as none other existed. BLM’s failure to provide the “analysis” to the public during the rulemaking process has deprived the public of a meaningful opportunity to comment. Accordingly, the Court finds that BLM violated the APA when it did not provide notice and comment on these issues.¹⁹

¹⁹ Defendants’ argument that the Citizen Group Plaintiffs lack standing to raise this argument under Regulatory Flexibility Act (“RFA”) is misplaced. As summarized, the APA requires that agencies provide the public with notice and a meaningful opportunity to comment on issues. The RFA is irrelevant to this determination.

Because the “analysis” was not properly vetted, the Court need not engage in a comprehensive review of the same, although on its face, the analysis lacks economic rigor.²⁰ In general, “[a]n agency’s scientific methodology is owed substantial deference.” *Gifford Pinchot Task Force v. United States Fish & Wildlife Serv.*, 378 F.3d 1059, 1066 (9th Cir. 2001), *amended*, 387 F.3d 968 (9th Cir. 2004). Complex, “science-driven” analyses “do[] not easily lend [themselves] to judicial review.” *San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 621 (9th Cir. 2014).²¹ Once again, BLM conducted a rigorous analysis when it promulgated the 2016 Rule. The cursory analysis which followed in the Rescission need not be afforded the same deference. *See Tripoli Rocketry Ass’n v. Bureau of Alcohol, Tobacco, Firearms, & Explosives*, 437 F.3d 75, 77 (D.C. Cir. 2006); *Coburn v. McHugh*, 679 F.3d 924, 926, 934 (D.C. Cir. 2012) (where an agency’s supposedly scientific “decisions are largely incomprehensible . . . they are unworthy of any deference”). As oral argument revealed, the assumptions contained therein are facially faulty. More importantly, the analysis withers in comparison to one required to justify the reversal promulgated by the Rescission.

It follows then that BLM cannot be permitted to rescind the Waste Prevention Rule based thereon. Moreover, “[w]hen considering revoking a rule, an agency must consider alternatives in lieu of a complete repeal, such as by addressing the deficiencies individually.” *California III*, 381 F. Supp. 3d at 1168-69 (collecting cases). The APA does not require an analysis of *all* regulatory alternatives. *See* 5 U.S.C. § 553; *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983) (“*State Farm*”). Rather, an agency must simply “consider[] the relevant factors and articulate[] a rational connection between the facts found and the choice made.” *Nat’l Ass’n of Home Builders v. Norton*, 340 F.3d 835, 841 (9th Cir. 2003) (quoting *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 105 (1983)). In other words, the APA does not require that the agency rules be narrowly tailored. *E.g., Regents of the Univ. of Calif. v. Burwell*, 155 F. Supp. 3d 31, 54 (D.D.C. 2016) (“The APA does not mandate that regulations be narrowly tailored to their objective”).

Here, while it is true that BLM was not required to list *all* conceivable alternatives, BLM still was required to consider alternatives in lieu of removing the requirements it did in the Rescission.²² BLM does not point to any part of the record – and the Court can find none – that

²⁰ The following deficiencies were briefed: the inflation of costs in the marginal well analysis; the comparison of ten years of compliance costs to one year of revenue; the lack of evidence of premature well shut-in; and post-hoc explanations.

²¹ The Court agrees with defendants that it should not, and does not, consider Citizen Group Plaintiffs’ response had they been provided with the analysis. *Ctr. for Biological Diversity v. United States Fish & Wildlife Serv.*, 450 F.3d 930, 943 (9th Cir. 2006) (citation omitted). A court will “normally refuse to consider evidence that was not before the agency because ‘it inevitably leads the reviewing court to substitute its judgment for that of the agency.’” *Id.* (citation omitted).

²² The argument that *California III* was only about a complete revocation of a rule lacks merit. The cases upon which *California III* relies confirm the requirement to consider

demonstrates that it considered alternatives to rescission. This is especially important given the context. BLM admits that most of the lands it manages are in twelve Western States and the leases yield only constitute a fraction of national production. Certainly, alternative regulations could have been explored given the production levels from such marginal wells, other than giving them a free pass under a new definition containing the “economic limitation.” Accordingly, BLM’s failure to do so does not support rescinding the 2016 Rule and is therefore arbitrary and capricious.

For the reasons set forth in this section, the Court **FINDS** for plaintiffs on this issue.

B. COSTS EXCEED ITS BENEFITS

Next, the Court analyzes whether BLM acted in an arbitrary and capricious manner in using a new model, the “interim domestic” social cost of methane, for its analysis in enacting the Rescission, instead of using the previous social cost of methane model that was developed and used for the Waste Prevention Rule.

1. Background

In 2016, to estimate the benefits of reducing methane emissions, BLM drew upon the conclusions of an Interagency Working Group (“IWG”)²³ founded under the Administration of

alternatives. *See Yakima Valley Cablevision, Inc. v. F.C.C.*, 794 F.2d 737, 746 n.36 (D.C. Cir. 1986) (“The failure of an agency to consider obvious alternatives has led uniformly to reversal.”) (citing cases); *Farmers Union Cent. Exch., Inc. v. F.E.R.C.*, 734 F.2d 1486, 1511 (D.C. Cir. 1984) (“It is well established that an agency has a duty to consider responsible alternatives to its chosen policy and to give a reasoned explanation for its rejection of such alternatives.”); *Pub. Citizen v. Steed*, 733 F.2d 93, 103-05 (D.C. Cir. 1984) (holding that the National Highway Traffic Safety Administration’s suspension of tire-grading regulation was arbitrary and capricious because agency failed to pursue available alternatives). *See also National Black Media Coalition v. FCC*, 775 F.2d 342, 357 (D.C. Cir. 1985) (FCC’s failure to consider options other than full seven-year license renewal was flaw in agency decisionmaking); *ILGWU v. Donovan*, 722 F.2d 795 815-18 (9th Cir. 1983) (failure to consider less far-reaching choices than complete rescission of homework restrictions was arbitrary and capricious); *Office of Communication of United Church of Christ v. FCC*, 707 F.2d 1413, 1440 (D.C. Cir. 1983) (FCC’s failure to give sufficient consideration to modification, rather than elimination, of programming log requirements was arbitrary and capricious); *Action on Smoking & Health v. CAB*, 699 F.2d 1209 (D.C. Cir.), *opinion supplemented by* 713 F.2d 795 (D.C. Cir. 1983) (failure to consider alternatives to rescission of certain restrictions on smoking in airplanes mandated remand).

²³ The IWG was comprised of members from the Council of Economic Advisors, Council on Environmental Quality, Department of Agriculture, Department of Commerce, Department of Energy, DOI, Department of Transportation, Department of Treasury, Environmental Protection

George W. Bush. (AR 104455-104456.) The IWG was specifically organized to develop a single, harmonized value for greenhouse gas emissions for federal agencies to use in their regulatory impact analyses for rulemaking under Executive Order 12866. (AR 21377, 104456.) The IWG’s approach, known as the social cost of greenhouse gases, estimates the present value of the damages caused from each additional ton of greenhouse gas emitted at a point in time, or conversely, the present value of the benefits from reducing a ton of greenhouse gas emissions. (AR 21376.) As the IWG stated in 2015, these damages must be considered globally “because emissions of most greenhouse gases contribute to damages around the world and the world’s economies are now highly interconnected.” (AR 22069.) This approach was developed over several years through robust scientific and peer-reviewed analyses and public processes, and represents the best available science on this issue. (AR 21377, 104456.) Notably, federal agencies have relied on the IWG’s valuation of the impacts of greenhouse gas emissions in rulemaking since 2009, and courts have upheld this approach. *See Zero Zone, Inc. v. United States Dep’t of Energy*, 832 F.3d 654, 678-79 (7th Cir. 2016) (finding that agency acted reasonably in utilizing social cost methodology and considering global estimates).

In 2016, during the rulemaking process of the Waste Prevention Rule, BLM used the IWG methodology and estimated that the benefits of methane emission reductions from the 2016 Rule would be from \$189 to \$247 million per year, which far outweighed the estimate of costs. 81 Fed. Reg. 83,014 (AR 915). In other words, BLM concluded “that the benefits of [the Waste Prevention Rule] would outweigh its costs by a significant margin” – between \$46 and \$204 million per year. *Id.* at 83,013 (AR 914).²⁴

2. *The “Interim Domestic” Model*

BLM now justifies the Rescission on an opposite finding: the 2016 Rule’s “compliance costs for industry and implementation costs for BLM **exceed** the rule’s benefits.” 81 Fed. Reg. 49,186 (AR 3, emphasis supplied). To achieve this new conclusion in part with respect to the benefits portion of the analysis, BLM declined to rely upon the original social cost of methane or

Agency, National Economic Council, Office of Management and Budget, and the Office of Science and Technology Policy. (AR 21377.)

²⁴ To reach this conclusion, BLM monetized the costs and benefits of the rule. BLM determined the rule would cost \$1.2 to \$1.5 billion over a ten-year period and the costs would consist primarily of the cost of compliance, namely replacement and installation of equipment, implementation of new protocols, completion of new paperwork, and other required tasks. (AR 1172.) BLM estimated that the 2016 Rule would result in \$2.2 to \$2.7 billion in benefits over a ten-year period, consisting of approximately \$603 to \$764 million from the sale of additional captured gas and \$1.6 to \$1.9 billion from the foregone methane emissions. (AR 1174, 1176.) In total, BLM determined the 2016 Rule would have net benefits of \$740 million to \$1 billion over a ten-year period. (AR 1178.)

the IWG estimate. (AR 7 (83 Fed. Reg. 49,190) (declining to use IWG model); *see also* AR 84091-92 (Citizen Group comments against use of IWG model and use of the interim model).)

In the Rescission, BLM’s view of the benefits cut the estimate of the foregone emissions from methane from \$1.6 to \$1.9 billion as found in the 2016 Rule, to \$66 to \$259 million. (*Compare* AR 38 with AR 1174.) BLM did so by relying on its own “interim” metric and by ignoring most of the costs associated with an increased methane emissions. (AR 128.) The interim metric purports to estimate the “domestic” cost of methane. BLM claims that it created this new “interim” approach because Executive Order 13783 disbanded the IWG and rescinded its technical support documents. 83 Fed. Reg. 49,186-87, 49,190 (AR 3-4, 7). BLM admits that this approach relies upon “interim values . . . until an improved estimate of the impacts of climate change to the U.S. can be developed.” (AR 75.)

In rolling back many of the more “costly portions” of the 2016 Rule, BLM determined that the Rescission would reduce compliance costs by \$1.359 to \$1.634 billion over ten years. (AR 79.) BLM further calculated a \$559 to \$734 million worth of gas not captured, and 79,000 to 80,000 tons/year of VOC emissions. (AR 81-83.) Thus, BLM calculated net benefits of \$720 million to \$1.083 billion. (AR 86.) As BLM explained, the difference between the two analyses is largely due to BLM’s use of the global social cost of methane in its analysis of the 2016 Rule versus the domestic social cost of methane in its analysis of the Rescission. (AR 41.)

3. *Legal Standard for Consideration of Competing Models*

In general, courts are required to give agencies “ample latitude to adapt their rules and policies to the demands of changing circumstances.” *State Farm*, 463 U.S. at 42 (internal quotation marks omitted). Courts must generally “defer to agency expertise on questions of methodology unless the agency has completely failed to address some factor.” *Inland Empire Pub. Lands Council v. Schultz*, 992 F.2d 977, 981 (9th Cir. 1993).

A failure to “consider an important aspect of the problem” is arbitrary and capricious. *See State Farm*, 463 U.S. at . . . *See also High Country Conservation Advocates v. United States Forest Serv.*, 52 F. Supp. 3d 1174, 1189-93 (D. Colo. 2014) (agency’s failure to use social cost of carbon protocol to qualify greenhouse gas emissions from coal lease modifications was arbitrary and capricious); *Zinke*, 900 F.3d at 1068 (although an agency has discretion to rely on expert opinions of its choosing “it cannot ignore available . . . data”); *Greater Yellowstone Coal, Inc. v. Servheen*, 665 F.3d 1015, 1030 (9th Cir. 2011) (agency cannot ignore evidence “pointing in the opposite direction” from its conclusions). Where an agency reverses its prior position, an agency is required to provide a more “detailed justification.” *Fox*, 556 U.S. at 515.

An agency may “use[] the best scientific data available, even if that science [is] not always perfect.” *San Luis & Delta-Mendota Water Auth. v. Locke*, 776 F.3d 971, 996 (9th Cir. 2014); *see Jewell*, 747 F.3d at 602; *Lands Council v. McNair*, 537 F.3d 981, 993 (9th Cir. 2008) (en banc) (in challenge to reliability of scientific methodology underlying the Forest Service’s analysis of a logging project’s effect on wildlife, agency is owed deference in an area involving a “high level of technical expertise”).

However, this standard still “prohibits [an agency] from disregarding available scientific evidence that is in some way better than the evidence [it] relies on.” *Jewell*, 747 F.3d at 602 (quoting *Kern Cty. Farm Bureau*, 450 F.3d at 1080) (brackets in original). *See also Western Watersheds Project v. Salazar*, No. CV 09-159-M-CCL, 2011 WL 882641, at *4 (D. Mont. Mar. 10, 2011) (agency satisfied best available science standard by choosing not to rely on “eleventh-hour scientific paper” that was “neither peer-reviewed nor published”); *Defenders of Wildlife v. United States Fish & Wildlife Serv.*, No. 15-cv-01993-LHK, 2016 WL 4382604, at *20 (N.D. Cal. Aug. 17, 2016) (“Courts have recognized that the peer review process, while not necessary, clearly is designed to ensure the accuracy and reliability of scientific information relied on by agencies.”) (internal quotations and citation omitted).

Where an agency does not use available scientific evidence, no deference is owed to the agency’s decision. *See Zinke*, 900 F.3d at 1067 (“[W]e need not defer to the agency when the agency’s decision is without substantial basis in fact”) (internal quotations and citation omitted); *Center for Biological Diversity v. Lubchenco*, 758 F. Supp. 2d 945, 954 (N.D. Cal. 2010) (“[T]he court need not defer to the agency when the agency’s decision is without substantial basis in fact, and there must be a rational connection between the facts found and the determinations made.”) (internal quotations and citation omitted).

4. Analysis

Here, BLM used an “interim domestic” model over the IWG’s social cost of methane model, which was used in the Waste Prevention Rule. As noted, the IWG model resulted from an interagency team of experts developed through years of public comment and peer review. The model at issue was developed in months without *any* public comment or peer review. (Compare AR 21861-81, 21882-901, 21902-52, and 21953-22003 (thorough explanation of process and basis for interagency estimate), with AR 128-33 (six pages of explanation for “interim” estimate, leading with a promise to update it later).) Even now, a more comprehensive model does not exist nor is there any indication that one was initiated.²⁵ BLM’s argument that its actions were required by executive order and that it is entitled to deference do not persuade.

First, BLM claims its acts were consistent with Office of Management and Budget (“OMB”) Circular A-4 and the withdrawal of the relevant technical support documents through Executive Order 13783. *See* 82 Fed. Reg. 16,095-96 (AR 1873-74) (withdrawing of technical documents). The executive order and Circular A-4 directed agencies to ensure their analyses of the costs and benefits of rulemaking be “focus[ed] on benefits and costs that accrue to citizens and residents of the United States” and report costs and benefits to the United States separately from those that accrue globally, the latter of which was optional. (AR 7598, 7600, 7609-10.)

The Court disagrees. While Executive Order 13783 may have withdrawn the relevant technical support documents for political reasons, it did not and could not erase the scientific and economic facts that formed the foundation for that estimate—facts that BLM now ignores. *See*

²⁵ BLM has been promising to develop its “improved estimate” for almost two years. (*See* AR 178220.) Nothing in the record supports the assertion further substantiating the finding that it is arbitrary and capricious to rely on the “interim” estimate. *State Farm*, 463 U.S. at 43.

Kake, 795 F.3d at 969 (“The absence of a reasoned explanation for disregarding previous factual findings violates the APA.”). In other words, the President did not alter by fiat what constitutes the best available science. The Executive Order in and of itself has no legal impact on the consensus that IWG’s estimates constitute the best available science about monetizing the impacts of greenhouse gas emissions. (See, e.g., AR 104456 (California Air Resources Board commenting that “California continues to utilize the IWG-supported social cost of [greenhouse gas] values in its policy and regulatory planning, as they continue to represent the best available science.”); AR 83471 (Richard L. Revesz, *et al.*, “Best Cost Estimate of Greenhouse Gases,” 357 SCIENCE 6352 (2017), stating that the “IWG’s estimates already are the product of the most widely peer-reviewed models and best available data”).)

Further, none of the regulatory rules or orders require exclusion of global impacts, despite BLM’s assertions to the contrary. (Compare AR 74-75 (“interim” estimate limiting consideration to domestic effects is consistent with OMB Circular A-4) with AR 83419-24 and AR 7598, 7609-10 (consideration can be given to global effects); see also AR 22770 (noting that under Circular A-4 analysis of regulations from domestic perspective is required while analysis from the international perspective is optional).) For instance, Executive Order 13783 specifically identified the need for agencies to consider “domestic versus international impacts.” 82 Fed. Reg. 16,096 (AR 1874). Executive Order 13783 also assumes that federal agencies will continue to “monetiz[e] the value of changes in greenhouse gas emissions,” and instructs agencies to ensure that such estimates are “consistent with the guidance contained in OMB Circular A-4.” *Id.* In addition, Executive Order 12866 also directs agencies to assess “all costs and benefits” of regulatory actions. Executive Order 12866, 58 Fed. Reg. 51,735, Section 1(a) (Oct. 4, 1993) (emphasis supplied); *id.* at Section 1(b)(6) (“Each agency shall assess both the costs and the benefits of the intended regulation”). Further, the order indicates that “[e]ach agency shall base its decision on the best reasonably obtainable scientific, technical, economic, and other information.” *Id.* at Section 1(b)(7). It also requires that all costs and benefits must be considered “unless a statute requires another regulatory approach.” *Id.* at Section 1(a) (emphasis supplied).

Thus, the Court concludes that the withdrawal of the technical documents does not impact the fact that the IWG model used the best available scientific data, nor do the executive orders and regulations require BLM to limit its consideration to domestic impacts.²⁶

²⁶ As an alternative argument, BLM contends that it was perfectly reasonable to use the interim domestic social cost of methane as a result of Executive Order 13783 until the final domestic impacts are developed. (See AR 128; *San Luis & Delta-Mendota Water Auth.*, 776 F.3d at 996 (9th Cir. 2014) (Agency may “use[] the best scientific data available, even if that science was not always perfect.”); *Sierra Club v. EPA*, 167 F.3d 658, 662 (D.C. Cir. 1999) (“We generally defer to an agency’s decision to proceed on the basis of imperfect scientific information, rather than to ‘invest the resources to conduct the perfect study.’” (citation omitted))). In this instance, the Court disagrees. Using an “interim” estimate indefinitely is illusory. See *California III*, 381 F. Supp. 3d at 1171 (noting “predicted future actions cannot be used to support a decision already made”).

Next, BLM asserts that it is owed substantial deference as the expert agency and that agencies are not limited to metrics that are “peer reviewed.” *See Baltimore Gas & Elec.*, 462 U.S. at 103 (“When examining this kind of scientific determination . . . a reviewing court must generally be at its most deferential.”); *Lands Council v. Martin*, 529 F.3d 1219, 1226 (9th Cir. 2008) (“We find no legal requirement that a methodology be “peer-reviewed or published in a credible source.”). BLM argues that while the interim domestic model is not peer reviewed, it is based on the peer-reviewed IWG models. (*Compare* AR 128-133 *with* AR 7564-7583.) Thus, any criticism of the interim domestic model extends to the IWG models. (AR 8949 (noting that there is “extremely large structural uncertainty about the SCC [global social cost of carbon]” in the IWG estimate for the global metric).) It also claims to have provided a lengthy explanation of its calculations and reasoning, including the sources upon which it relied, which identified a significant degree of uncertainty as to the social cost of domestic or global methane. (AR 128-33.)

First, the Court does not owe “substantial deference” where BLM concedes that the social cost of methane is beyond BLM’s expertise and is outside BLM’s statutory authority to consider. (*See* Dkt. No. 123 at 50 (BLM Br. at 38) (“BLM determined that its waste prevention authority under the [Mineral Leasing Act] did not sweep broadly to address societal or environmental impacts”); Dkt. No. 125 at 27 (Wyoming Br. at 20) (“Because the Bureau lacks the statutory authority to regulate air emissions and climate change, the agency should not have relied upon *any* ‘Social Cost of Methane’”) (emphasis in original).)

Second, even if peer review is not required, the “interim domestic” model is riddled with flaws. BLM admits that the “interim” estimate underestimates the *domestic* effects of the Rescission. (AR 128 (acknowledging “interim” estimate “may understate the U.S. share” of global damages from methane emissions); *see also* AR 83422–31.) The analysis ignores impacts on 8 million United States citizens living abroad, including thousands of United States military personnel; billions of dollars of physical assets owned by United States companies abroad; United States companies impacted by their trading partners and suppliers abroad; and global migration and geopolitical security. (AR 6806-6807, 83422-83426, 83508-83515.) Thus, even if it were permissible for BLM to consider only domestic impacts from climate change, its “interim” estimate “fail[s] to consider . . . important aspect[s] of the problem” and “runs counter to the evidence before the agency.” *State Farm*, 463 U.S. at 43.

Other than bald assertions, BLM provides no evidence of specialists’ conflicting views or alternative scientific models.²⁷ If anything, evidence in the record reflects that the IWG model disregarded by BLM *underestimates* the potent effect of greenhouses gases including methane. (*See, e.g.*, AR 15547-48.) BLM acknowledges this evidence but does not take it into account.

²⁷ *Lands Council v. Martin*, 529 F.3d 1219 (9th Cir. 2008), cited by defendants, involved a methodology verified through “field testing and practical experience,” rather than peer-review or formal publication. *Id.* at 1226. BLM has disregarded an estimate verified through peer-review for a new interim estimate that has *not* been verified by any method – peer-review or otherwise. *Id.*

(AR 130.) BLM’s failure to provide a “rational connection between the best available science” and its “interim” estimate renders its decision to rely upon that “interim” estimate arbitrary and capricious. *Turtle Island Restoration Network v. United States Dep’t of Commerce*, 878 F.3d 725, 739 (9th Cir. 2017).²⁸

Moreover, focusing solely on domestic effects has been soundly rejected by economists as improper and unsupported by science. For example, in 2015, the IWG concluded that “good methodologies for estimating domestic damages do not currently exist.” (AR 22074.) In 2017, the National Academies of Science found that the calculation of a domestic social cost of methane cannot be credibly done using current models, as they ignore important spillover effects given the global nature of climate change. (AR 22728; 22770-22772.) Thus, Dr. Robert S. Pindyck, whose work is also cited in the 2018 RIA (See AR 133, 134), previously commented on BLM’s attempt to use this approach for the Suspension, stating that “the domestic-only approach as implemented in the RIA is wrong from an economic perspective. The most economically justifiable approach is, instead, to use the full international value.” (AR 83411; AR 180231-32 (June 8, 2017 email exchange between EPA and BLM economists regarding the complications of domestic only analysis); AR 8945, 8949 (study from expert William Nordhaus, whose works were incorporated for the 2018 RIA, concluding that “regional damage estimates are both incomplete and poorly understood,” and “[a] key message here is that there is little agreement on the distribution of the SCC by region”).²⁹

Finally, the promise of a “final” estimate taking into “consideration the recent recommendations from the National Academies of Sciences, Engineering, and Medicine for a comprehensive update to the current methodology to ensure that the social cost of greenhouse gas estimates reflect the best available science” rings hollow. (AR 128.) The National Academies’ recommendations have been available since early 2017 (AR 22703, 84092) yet remain largely ignored. See *California III*, F. Supp. 3d at 1176 (holding that agency cannot “defer[] consideration of substantive comments regarding the regulations at issue”). The National Academies report specifically states that it is not possible, using an existing model, to limit consideration to a specific region. (AR 22770-72.) Additionally, the National Academies

²⁸ The Court notes that BLM continues to rely on some “inputs and modeling” developed for the interagency estimate with respect to “discrete alternative scenarios.” (AR130.) However, BLM cannot rely on the interagency recommendations while at the same time disregarding other findings from the same body. This “internally inconsistent” treatment of the interagency group’s findings is arbitrary and capricious. See *General Chemical Corp. v. United States*, 817 F.2d 844, 846, 854 (D.C. Cir. 1987) (agency “cannot have it both ways” by citing evidence as supportive of one conclusion, but disregarding the same evidence when making another finding).

²⁹ To the extent BLM relies on the Nordhaus study to contend that the IWG approach is unreliable, the Court rejects such a post-hoc explanation outside the record. *Humane Soc’y of U.S. v. Locke*, 626 F.3d 1040, 1049 (9th Cir. 2010) (agency’s post-hoc explanations cannot substitute for an adequate explanation in the administrative record itself). Further, as discussed above, this explanation is at odds with what the Nordhaus study actually stated.

emphasize that international effects can have significant spill-over effects in the United States, such as on trade and migration, which must be considered in any attempt to estimate domestic impacts. (*Id.*) BLM concedes it did not consider these spill-over effects. (AR 7 (83 Fed. Reg. 49,190), 206–07; *see also* AR 84092 (raising 2017 National Academies recommendation).) BLM cannot “avoid its duty to confront these inconsistencies by blinding itself to them.” *Humane Soc’y*, 626 F.3d at 1051.

For all these reasons, the Court **FINDS** BLM’s use of the interim domestic measure to be arbitrary and capricious. *See Center for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1198–1201 (9th Cir. 2008) (“*CBD v. NHTSA*”) (agency “cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards” by failing to “monetize or quantify the value of carbon emissions reduction”); *Zero Zone*, 832 F.3d at 677–679 (agency reasonably relied on IWG’s estimates to calculate global benefits of greenhouse gas reductions from energy efficiency rules).³⁰ An agency simply cannot construct a model that confirms a preordained outcome while ignoring a model that reflects the best science available.

C. EVALUATION OF BENEFITS ASSOCIATED WITH THE 2016 RULE

Given the specific findings in the Waste Prevention Rule as to the environmental impacts, BLM was required to address those impacts and quantify the foregone environmental benefits of the Rescission. *See California I*, 277 F. Supp. 3d at 1122 (“[w]ithout considering both the costs and the benefits of” a deregulatory action, an agency “fail[s] to take [an] ‘important aspect’ of the problem into account”). *See also id.* at 1123 (“[F]ailure to consider the benefits of compliance with the provisions that were postponed, as evidenced by the face of the Postponement Notice, rendered [the agency] action arbitrary and capricious and in violation of the APA.”). Moreover, plaintiffs aver that BLM was also required to consider the foregone public health benefits due to the Rescission where the Rescission states that its enactment will lead to increased VOC emissions on federal and tribal lands. (AR 81).

BLM advances two arguments to address these deficiencies. First, BLM avers that it was not legally required by the APA, MLA, or any other statute or regulation to “monetize” benefits, including those that involve public health and safety. *See* 58 Fed. Reg. 51,735 § 1(a) (“Costs and benefits shall be understood to include both quantifiable measures . . . and qualitative measures of costs and benefits that are difficult to quantify . . .”). Second, BLM again contends that emissions is outside of its statutory mandate, but that, while it did not monetize the health benefits from the foregone VOCs emissions, it did quantify the foregone emissions reductions and explicitly recognized that that “VOC and hazardous air pollutants pose negative impacts on climate, health, and human welfare.” (AR 82.)

BLM’s arguments do not persuade. First, the Court notes that by relying on the “interim domestic” model discussed above, BLM has failed to quantify accurately the foregone methane

³⁰ To the extent that BLM argues that *California I* resolved the issue of BLM’s use of the “interim domestic [social cost of methane]” for the Suspension, the Court disagrees. *See Univ. of Tex. v. Camenisch*, 451 U.S. 390, 395 (1981) (finding that “the findings of fact and conclusions of law made by a court granting a preliminary injunction are not binding at trial on the merits”).

emissions and the resulting environment impacts. Thus, the foregone environmental benefits in the Rescission have not been appropriately quantified or monetized.

Second, BLM has an obligation not to exclude benefits that could be monetized. *High Country*, 52 F. Supp. 3d at 1191 (“In effect the agency prepared half of a cost-benefit analysis, incorrectly claimed that it was impossible to quantify the costs, and then relied on the anticipated benefits to approve the project.”); *see also CBD v. NHTSA*, 538 F.3d at 1198–1203 (failure to consider the social cost of carbon because it was uncertain was arbitrary and capricious, in part because the agency monetized other uncertain benefits). At the very least, BLM was obligated to weigh health impacts before claiming that the costs of the Waste Prevention Rule outweighed its benefits. *See* Executive Order 12866, 58 Fed. Reg. 51,735, Section 1(b)(6) (“Each 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.” (emphasis supplied)).³¹

Third, the Court is again unpersuaded by BLM’s arguments that consideration of emissions is outside its statutory mandate. Here, BLM has a statutory obligation under the MLA to “safeguard[] . . . the public welfare.” 30 U.S.C. § 187. Likewise, the FLPMA mandates that BLM prevent “unnecessary or undue degradation” to public lands, 43 U.S.C. § 1732(b), and “protect . . . air and atmospheric” values of public lands,” *id.* § 1701(a)(8).³² Thus, its statutory mandate does not prohibit consideration of emissions – on the contrary, the statutory mandate seems to harmonize with such consideration.

Fourth, BLM’s scant recognition of foregone benefits demonstrates that BLM did not appropriately weigh the costs against the benefits. BLM acknowledges that the Rescission will eliminate the Waste Prevention Rule’s health benefits by foregoing emission reductions and that “VOC and hazardous air pollutants pose negative impacts on climate, health, and human

³¹ Executive direction is in accord. OMB Circular A-4 provides: “When there are important non-monetary values at stake, you should also identify them in your analysis so policymakers can compare them with the monetary benefits and costs. When your analysis is complete, you should present a summary of the benefit and cost estimates for each alternative, including the qualitative and non-monetized factors affected by the rule, so that readers can evaluate them.” (AR 7586.) Executive Order 12866 requires agencies to assess “*all* costs and benefits” of regulatory actions. 58 Fed. Reg. 51,735, Section 1(a) (emphasis supplied).

³² Defendant State of Wyoming’s reliance on *Michigan v. EPA*, 135 S. Ct. 2699 (2015) is misplaced. *Michigan* invalidated EPA’s rule because the EPA failed to consider cost under the statute but it left open whether an agency can rely on ancillary benefits when deciding whether to adopt a regulation. *Id.* at 2711. But *Michigan* concerned a “unique procedure” under the federal Clean Air Act Amendments requiring study and regulation of emissions by power plants. *Id.* at 2705-07. Neither the unique procedure nor *Michigan* vacated the general requirements for conducting regulatory impact analyses under the APA.

welfare.” (AR 75, 82.) But BLM made no attempt to evaluate these “negative impacts,” or to weigh them against the purported benefits, and ignored requests from commenters to do so. (AR 220-21, 84100-01.) Instead, BLM merely concluded that any health impacts from foregone emissions will be minimized because “the emissions resulting from this rulemaking will be dispersed across BLM-managed oil and gas operations nationwide.” (AR 221.) Where an agency chooses to engage in a cost-benefit analysis, it cannot short shrift the benefits side of the equation by failing to monetize certain benefits. *See CBD v. NHTSA*, 538 F.3d at 1198-03 (requiring agency to monetize carbon emission reduction benefits); *see also id.* at 1198 (an agency doing a cost-benefit analysis “cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards”). Thus, the Court concludes that BLM did in fact have a duty to monetize the foregone benefits of the rescinded Waste Prevention Rule, and that its failure to do so is an arbitrary action in violation of the APA.³³

Accordingly, the Court concludes that BLM arbitrarily ignored the benefits of the Waste Prevention Rule in the rulemaking process of the Rescission in violation of the APA. Thus, the Court **FINDS** for plaintiffs on this issue.

D. EVALUATION OF COSTS ASSOCIATED WITH THE 2016 RULE

The final issue raised under the APA is whether BLM adequately explained its alleged inflation of the administrative burdens and the compliance costs imposed by the Waste Prevention Rule. The Court addresses each.

1. Administrative Burdens

The Rescission claims that the “administrative burdens” for the industry are double what was calculated for the Waste Prevention Rule. (AR 1, 5 (83 Fed. Reg. 49,184, 49,188); AR 73-74, 120-127.) In particular, the 2016 RIA calculated the burden to industry at \$5.5 million (based on an estimated 85,170 hours of administrative effort), and the burden to BLM at \$1.3 million (based on 30,117 hours). (AR 1163-69). But the 2018 RIA inflates the industry’s estimated administrative burden to \$10.7 million (and 164,000 hours), and increases BLM’s burden to \$3.27 million (and 72,700 hours). (AR 74.)

The 2016 RIA estimates were developed in consultation with BLM staff. (AR 1163) (“Estimates for the number of responses and burden hours per response were provided by BLM program staff”). BLM provides no basis for this drastic increase other than to state that it, again, consulted “with BLM State and field offices to determine the level of expected response per provision.” (AR 120.)

BLM failed to identify or explain any changed circumstances, technology, or economic conditions that would justify this dramatic recalculation. BLM’s new and inflated calculations do not rest on a “more detailed justification” as required to explain its prior inconsistent factual

³³ BLM’s arguments – that the Waste Prevention Rule did not monetize the public health costs and so the Rescission did not need to consider these costs as well – are irrelevant because the Waste Prevention Rule is not before the Court.

findings. *Fox*, 556 U.S. at 515; *see also Friends of Alaska Nat'l Wildlife Refuges v. Bernhardt*, 381 F. Supp. 3d 1127, 1139-40 (D. Alaska 2019) (finding that Secretary of the Interior violated APA by impermissibly disregarding “prior factual findings without a reasoned explanation” in approving land exchange to construct road through national wildlife refuge) (citing *Kake*, 795 F.3d at 969).

Accordingly, the Court **FINDS** that BLM arbitrarily overstated and failed to explain the difference in administrative costs claimed by the Rescission.

2. Compliance Costs

With respect to compliance costs, BLM’s analysis turned on an assumption that operators had not begun compliance with Waste Prevention Rule even though it had taken effect over a year and a half before BLM finalized the Rescission. (AR 67; *see also* AR 909 (81 Fed. Reg. 83,0008).) However, Operators were legally obligated to comply with the Rule for much of 2017 and 2018—with BLM itself stating in March 2018 that it “expects operators to comply with all BLM regulations that are in effect.” (AR 84096 (statement quoting BLM spokesperson).)

The administrative record here is mixed. BLM appears to have disregarded that major operators were complying with the Rule. (*See, e.g.*, AR 24151 (noting that XTO, the production subsidiary of ExxonMobil, is complying).) Moreover, in the context of BLM’s effort to suspend the Rule, another judge in this district rejected BLM’s identical assumption, explaining BLM’s “baseless calculation of industry cost savings is not a ‘judgment call’ entitled to deference, but rather an estimated figure that lacks a reasonable basis.” *California II*, 286 F. Supp. 3d at 1069.

BLM identifies several factors upon which its assumption is based, including a year-long phase-in periods for many of the most capital-intensive provisions of the 2016 Rule (AR 67-68, 225); early efforts in 2017 to postpone and suspend certain provisions of the 2016 Rule (AR 67); the February 2018 publication of a significantly revised proposed rule; and the 2018 Stay Order. (AR 67, 225.) *See also Wyoming*, 366 F.Supp.3d at 1290-92.

On balance, the Court concludes that in its rush to implement the Rescission, BLM erred in assuming no compliance with the Waste Prevention Rule where evidence to the contrary existed and was readily available from its lessees had inquiry been made. BLM’s concession that it “overstated” the benefits of the Rescission cannot be overcome by its new unsupported claim that this overstatement was counterbalanced by the potential for understatement of costs elsewhere. *See California II*, 286 F. Supp. 3d at 1069 (requiring “factual, objective data and values” when calculating costs and benefits). (*See also* AR 70 (concession that estimate could be overstated).)

The Court thus **FINDS** BLM’s compliance costs calculations arbitrary and capricious and insufficient under the APA.

V. COMPLIANCE WITH NEPA

The challenge raised here includes whether BLM failed to comply with NEPA by not considering the Rescission's: (i) impact on public health, including on tribal communities; (ii) impact on climate; and (iii) overall impact on cumulative effects. As a final challenge, plaintiffs further aver that BLM failed to prepare an environmental impact statement – an EIS. While addressing each, the Court begins with the standard.

A. LEGAL FRAMEWORK

NEPA serves the dual purpose of informing agency decision makers of the environmental effects of proposed major federal actions and ensuring that relevant information is made available to the public. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). *See also* 42 U.S.C. § 4321; 40 C.F.R. § 1501.1. NEPA helps ensure that “important effects will not be overlooked or underestimated.” *Robertson*, 490 U.S. at 349. NEPA is “our basic national charter for protection of the environment.” 40 C.F.R. § 1500.1(a). The statute provides “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 v. United States Army Corps of Eng’rs*, 402 F.3d 846, 864 (9th Cir. 2005) (citation omitted); *see also Robertson*, 490 U.S. at 351 (“NEPA merely prohibits uninformed – rather than unwise – agency action.”).

Agencies must take a “hard look” at environmental impacts before “taking substantive environmental protections off the books.” *Cal. ex rel. Lockyer v. United States Dep’t of Agric.*, 575 F.3d 999, 1014-16 (9th Cir. 2009) (“*Lockyer II*”) (holding that agency violated NEPA by failing to analyze impacts of rescinding nationwide regulation); *Citizens for Better Forestry v. United States Dep’t of Agric.*, 632 F. Supp. 2d 968, 981 (N.D. Cal. 2009) (rejecting EIS for failure to “actually discuss the environmental consequences of eliminating the specific protections that are provided in the previous . . . [nationwide] rules”). To satisfy its hard look duty, agencies must consider “the direct, indirect, and cumulative” impacts of its proposed action, including “health” impacts. 40 C.F.R. § 1508.8; *see also* 40 C.F.R. §§ 1508.7, 1508.27(b)(7).

Generally, “because determining the appropriate level of environmental analysis ‘is fairly debatable,’ courts have recognized an ‘obligation [] to defer to the expertise of the agency.’” *Ctr. for Food Safety v. Salazar*, 898 F. Supp. 2d 130, 149 (D.D.C. 2012) (quoting *Pac. Rivers Council v. United States Forest Serv.*, 689 F.3d 1012, 1030 (9th Cir. 2012)).

That said, “[b]ecause speculation is implicit in NEPA, [a court] must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as crystal ball inquiry.” *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1079 (9th Cir. 2011) (quotations and alterations omitted); *Cal. ex rel. Lockyer v. United States Dep’t of Agric.*, 459 F. Supp. 2d 874, 901 (N.D. Cal. 2006) (“*Lockyer I*”) (“Mere uncertainty about the precise contours of the environmental impact of this major change in [federal regulations] . . . does not excuse the absence of any overall programmatic NEPA analysis.”).

Agencies cannot “postpone analysis of an environmental consequence to the last possible moment”; they must consider impacts “as soon as it can reasonably be done.” *Kern v. BLM*, 284 F.3d 1062, 1072 (9th Cir. 2002) (rejecting agency’s attempt to defer analysis to later site-specific proposals); see *Lockyer I*, 459 F. Supp. 2d at 908 (explaining that future site-specific NEPA analysis does not “excuse [] the failure to comply with NEPA where a nationwide Rule has been repealed and replaced with a less environmentally protective scheme”). In *Kern*, the Ninth Circuit required BLM to consider impacts in a NEPA document where the problem was “readily apparent” and there was enough information available to “permit productive analysis.” 284 F.3d at 1072-73. *But see Defs. of Wildlife v. Hall*, 807 F. Supp. 2d 972, 987-88 (D. Mont. 2011) (upholding EA’s higher level analysis of impacts with understanding that agency would analyze localized impacts at later stage); *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 66-67 (D.D.C. 2019) (no requirement to analyze site-specific oil and gas impacts at leasing stage of NEPA analysis).

B. ANALYSIS

1. Public Health, Including Tribal Communities

The parties dispute whether BLM satisfied its “hard look” obligations under NEPA when it considered the Rescission’s impact on both public health generally, and specifically on the health of tribal communities. BLM admits increased emissions. Nonetheless, BLM responds that its incorporation by reference of large portions of the EA for the 2016 Rule is sufficient for a NEPA analysis. (AR 306-07; see 40 C.F.R. § 1502.21 (encouraging incorporation by reference).) The 2016 EA included extensive discussion on the nature of air quality impacts, including specific types of emissions that result from oil and gas development such as ozone, particulate matter, and hazardous air pollutants. (See AR 1262-65, 1282-87.) It warned that “[t]hese air pollutants affect the public health and welfare of humans” (AR 1262) and described particular health impacts, such as ozone’s potential to “inflamm[e] and damage the airways” (*id.*), particulate matter’s link to “premature mortality for adults and infants” (AR 1264), and hazardous air pollutants’ suspected connection to “cancer” among other health problems.” (AR 1265.)

Yet despite these acknowledgements, BLM conducted no further or substantive analysis with respect to the impact of the Rescission. (AR 176-77.) Even though BLM’s EA acknowledges repeatedly that the Waste Prevention Rule’s environmental benefits dwarfed its environmental impacts (see AR 311-313; AR 1297), BLM justifies the lack of additional analysis on the grounds that the Rescission’s impacts would be too narrowly focused on specific sites or locations, and alternatively, are too speculative for a nationwide rule.

BLM cannot have it both ways. The Court agrees that “nothing in the statute or CEQ Regulations . . . requires an agency to include a site-specific analysis for every particular area affected by the proposed action,” especially for broad nationwide rules. *Wyoming v. United States Dep’t of Agric.*, 661 F.3d 1209, 1255 (10th Cir. 2011); see also *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982) (“The detail that NEPA requires in an EIS depends upon the nature and scope of the proposed action.”). However, neither does the statute allow for an abdication of an analysis, especially where increased harm on certain populations living near active oil and gas

development on federal and tribal lands is acknowledged and the potential for alternative approaches exists. *Compare Wyoming, supra*, (proposal increased protections).

BLM's claim that the task is too speculative is belied by the record. On the one hand, BLM submitted that "[d]ue to numerous variables, including market prices, local resource concerns, state, county and/or local municipality rules and regulations, and many others, it is impossible to predict precisely where and how fast oil and gas development may progress." (AR 176-177.) Then, on the other hand, it identified total nationwide effects and explained broadly why it finds those impacts insignificant. The record contains ample evidence of regional impacts, especially on tribal populations,³⁴ which was ignored.

Moreover, the promise that it would delay NEPA analysis to later stages of oil and gas development, including regional planning, leasing, and permitting of individual wells (AR 237, 298-300, 318, 321, 335) puts the proverbial cart before the horse. BLM is on notice that air quality problems due to oil and gas development already exist on public and tribal lands (*see* AR 176-77), and that removing the Waste Prevention Rule's protections will lead to additional ozone precursor emissions. (*See* AR 316.) This punctuates the obligation to analyze the impact of the Rescission, irrespective of analysis done for the 2016 Rule.³⁵ In effect, BLM leaves the issue wholly unstudied and violative of NEPA's fundamental purpose, and thus fails to satisfy the hard look required under NEPA.

In fact, under NEPA, BLM must not only disclose through the rulemaking process that certain communities and localities are at greater risk, but must also fully assess these risks. *Citizens for Better Forestry*, 632 F. Supp. 2d at 981 (rejecting EIS for nationwide rescission because "it does not actually discuss the environmental consequences of eliminating the specific protections that are provided in previous . . . rules"); *Anderson v. Evans*, 371 F.3d 475, 489-92 (9th Cir. 2002) (rejecting as a "major analytical lapse" agency's failure to consider local impacts of broad management plan).³⁶ The cross-reference to the Waste Prevention Rule EA's general

³⁴ *See* information about: existing ozone nonattainment areas and likely impacts in these areas (AR 84145-46 (identifying areas in Colorado, Utah and Wyoming)); and disruption to the health and the daily lives of Native Americans living in areas with substantial BLM-administered oil and gas development (AR 83397-98, 83403-04 (noting increased in asthmatic and respiratory health conditions of tribal members), 96468, 159766-67, 163165-66, 163171-73 (Fort Berthold resident explaining that "we are surrounded by well pads and flares that have been burning for years," and that "[o]ur air quality has changed . . . there's a constant haze over Fort Berthold from the hundreds of flares surrounding us"); *see also* AR 104080-82 and 180467-69 (letters from tribes noting that the Rescission was promulgated with little input from tribal communities in contrast to the significant outreach conducted for the 2016 Rule)).

³⁵ The Court takes no position as to whether the study in 2016 was sufficient as the adequacy of that NEPA review is not before the Court.

³⁶ BLM does not persuade in its attempts to distinguish *Anderson* on the ground that the court there found this error by reference to the "significance" factors in 40 C.F.R. § 1508.27,

discussion of the “nature of air quality impacts” does not fill the void to satisfy BLM’s “hard look” obligations under NEPA.

The acknowledged increase in broad scale impact³⁷ warrants more NEPA review, not less. *See Kraayenbrink*, 632 F.3d at 493 (holding BLM violated NEPA by glossing over environmental impacts of weakening nationwide grazing regulations that would impact 25 million acres); *Sierra Club v. Bosworth*, 510 F.3d 1016, 1028 (9th Cir. 2007) (recognizing that nationwide scope of agency action warranted more NEPA analysis).

Thus, in this context, BLM’s incorporation by reference was insufficient and does not sustain the agency’s obligation to take a “hard look” at the environmental impacts of the proposed project.³⁸ *See S. Fork Band Council of W. Shoshone v. United States Dep’t of Interior*, 588 F.3d 718, 726 (9th Cir. 2009) (holding BLM’s failure to consider the air pollution associated with the transport and processing of gold mining ore “shows that it did not take the requisite ‘hard look’”). These reasons alone suffice to find a failure of BLM to comply with NEPA.

Additional environmental justice concerns compound the issue. In summary, evidence shows that the environmental impacts disproportionately affected Native Americans living in low-income communities. (*See* AR 161881–86 (concluding that tribal communities experience disproportionate health risks from oil and gas emissions because they are more likely to live within 0.5 miles of an oil and gas well, and that Native Americans living on tribal land in North Dakota, New Mexico, and Utah experience more than double each state’s average poverty rates).)³⁹ Despite raising these concerns in the public comment period, the EA does not mention,

rather than the “hard look” requirement. The “hard look” and “significance” factors are necessarily interrelated: BLM must take a hard look at all impacts in the appropriate scale to determine their significance. *Anderson*, 371 F.3d at 492.

³⁷ Indeed, BLM estimates that the Waste Prevention Rule decreased volatile organic compound emissions by five orders of magnitude more than it increased the emissions from truck traffic. (*See* AR 316.) *See also W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 491 (9th Cir. 2011) (NEPA analysis “must include a discussion of adverse impacts that does not improperly minimize negative side effects”).

³⁸ For instance, BLM ignored the prior detailed analysis showing that thousands of wells that would have been required to reduce emissions under the Waste Prevention Rule are located in counties that are already suffering from ozone levels above federal public health standards and the evidence showing areas in Colorado, Utah, and Wyoming where oil and gas development on public and tribal lands contribute significantly to violations of federal standards. (*See e.g.*, AR 84145–46.)

³⁹ The Court does not consider any additional declarations submitted from tribal members that were not within the administrative record. *See supra* n.21 (the Court is limited to

much less address, these specific impacts. *See Standing Rock Sioux Tribe v. United States Army Corps of Eng'rs*, 255 F. Supp. 3d 101, 140 (D.D.C. 2017) (holding agency's "bare-bones" environmental justice analysis concluding that Tribe would not be disproportionately harmed violated NEPA's hard look requirement); *see also Sierra Club v. FERC*, 867 F.3d 1357, 1369 (D.C. Cir. 2017) (upholding EIS that fully discussed disproportionate impacts on environmental-justice communities while recognizing that plaintiffs "[p]erhaps would have a stronger claim if the agency had refused entirely to discuss the demographics of the populations that will feel the pipelines' effects").⁴⁰ The generic claim that they were considered as part of the nationwide reference is insufficient for the same reasons cited above.

Similarly, the EA's conclusion that the Rescission is not expected to have a significant impact on minority or low-income populations is not supported by the record. As discussed above, *supra* Section IV.B.4, it is insufficient to assert merely that while the Rescission eliminates certain emissions reductions, the "emissions would be geographically dispersed" and only occur in "sparsely populated areas," and are offset by a rescission of some of the 2016 Rule's requirements. (AR 221; *see also* AR 312, 318, 219-23 (response to comments on air and health), 237, 336.)

The only other citation provided by defendants is to a map located in the EA for the 2016 Rule. (AR 1251.) BLM contends that this map shows that most federally administered oil and gas development occurs in sparsely populated areas. But even a cursory review of this map demonstrates that this is not so. First, the map itself does not show tribal or population overlays with activity from oil and gas leases on federal lands, so it is not visibly possible to draw a correlation that such activity occurs in sparsely populated areas or that the emissions would be geographically dispersed. Second, comparing this map to a general map of the United States, the Court notes that significant oil and gas activity on federal lands seems to, in fact, occur near several tribal reservations (including the Navajo, Uintah and Ouray, and Ute Mountain reservations) and population centers (Grand Junction, Colorado, Carlsbad and Roswell, New Mexico, and Sheridan and Buffalo, Wyoming). The map further reflects that significant activity is identified in portions of both New Mexico and Wyoming, with remaining activity occurring in Utah, Colorado, Montana, North Dakota, California, and Nevada. Although BLM avers that it is not possible to conduct a regional analysis at this time for the Rescission, this map would suggest that regional analysis is possible. Indeed, this map only confirms that BLM knows where

administrative record that was before the agency, because otherwise it could lead the reviewing court to substitute its judgment for that of the agency).

⁴⁰ The Court notes that *Standing Rock* discussed environmental justice claim separately from other "hard look" claims under NEPA. Because the parties briefed environmental justice as part of "hard look" of public health impacts specifically on tribal communities under NEPA, the Court coextensively discusses these arguments here.

emissions are occurring on federal lands and that BLM would be capable of conducting regional analysis for these high-activity areas.⁴¹

In sum, NEPA requires more. BLM cannot discount the localized impacts to people for whom the public health impacts are of clear significance. *See Anderson*, 371 F.3d at 490 (holding that even if the proposed action did not significantly impact the overall whale population, the “local effects” to the summer population in the Washington area might be significant and therefore warranted preparation of an EIS); *White Tanks Concerned Citizens, Inc. v. Strock*, 563 F.3d 1033, 1041 (9th Cir. 2009) (rejecting agency’s attempt to ignore water pollution impacts merely because they only impacted a small area). Moreover, BLM cannot ignore its duty to inform through the rulemaking process under NEPA the most impacted communities about the threats to their health that will result from permanently rescinding these same protections by failing to appropriately assess the risks from such a rescission. *See Anderson*, 371 F.3d at 489-92 (agency’s failure to consider local impacts of management plan deemed a “major analytical lapse”); *Lockyer II*, 575 F.3d at 1012, 1015 (requiring “hard look” before “taking substantive environmental protections off the books”). Where BLM has acknowledged increased risk, it cannot then conclude impacts are not significant absent a comprehensive analysis. *Anderson*, 371 F.3d at 492 (9th Cir. 2004) (holding that where a “critical question” was never analyzed, the agency could not support its finding that the impacts were not significant).

Thus, the Court **FINDS** for plaintiffs on this issue: BLM has failed to satisfy its “hard look” obligation under NEPA with respect to the Rescission’s impact on public health both generally and specifically on tribal communities.

2. *Climate*

Next, the parties dispute whether BLM took a “hard look” on the Rescission’s impact on climate. NEPA requires an agency to acknowledge collective harm by considering the “incremental impact” of a new regulation “when added to other past, present, and reasonably foreseeable future actions.” 40 C.F.R. § 1508.7; *see infra* p. 35. “[T]he impact of greenhouse gas emission on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.” *CBD v. NHTSA*, 538 F.3d at 1217. Thus, in this context, BLM must communicate the “*actual* environmental effects resulting from . . . emissions” of greenhouse gas, not just quantify them. *Id.* at 1216 (emphasis in original). That said, NEPA does not require a per se cost-benefit analysis or quantification. 40 C.F.R. § 1502.23 (“For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are more important qualitative considerations.”); *see also Mont. Env’tl. Info. Ctr. v. United States Office of Surface Mining*, 274 F. Supp. 3d 1074, 1095-96 (D. Mont. 2017) (“*MEIC*”).

⁴¹ Furthermore, the attempt to defer analysis to “a project-specific basis by the local BLM field office” (AR 318) is an abdication, not compliance, of BLM’s NEPA obligations.

The Rescission EA fails to do so. For instance, the Rescission EA incorporates by reference climate-related information from the Waste Prevention Rule, including observed and projected climate impacts in regions where federal and Indian oil and gas leases are located, and quantifies the estimated foregone emissions reductions caused by the Rescission: 175,000 to 180,000 tons of methane per year. (AR 307–08, 314.) BLM then dismisses the Rescission’s climate impacts by concluding that they are less than 1% of total United States methane emissions.⁴² (AR 315.) Citizen Group Plaintiffs aver that BLM inappropriately limits considerations to total United States emissions, despite the significant cumulative impacts on climate change attributable to emissions sources that may appear relatively insignificant in isolation. *See Stack & Vandenberg, The One Percent Problem*, 111 COLUM. L. REV. 1385, 1393 (2011) (framing sources as less than 1% of global emissions is dishonest and a prescription for climate disaster). Mere quantification is insufficient.

Second, BLM avers that, consistent with 40 C.F.R. § 1508.27, it discussed climate change impacts throughout, and specifically in considering the environmental effects with its incorporation by reference to the 2016 EA. (AR 311, 315, 318.) The Court disagrees. By definition, an incorporation of the analysis of a rule which a new rule repeals does not account for the impact of a *reversed* position.

Third, BLM cannot ignore scientifically robust methods that exist to assess the actual effects of greenhouse gas emissions by again insisting they are too speculative or not “reasonably foreseeable.” (AR 319.) *See CBD v. NHTSA*, 538 F.3d at 1200 (citing a range of values for carbon emissions reductions, and noting that it “is certainly not zero”). BLM concedes as much by purporting to estimate the *domestic* social cost of methane in its 2018 RIA, and yet it fails to use the social cost of methane in the 2018 EA to fulfill its duty to take a hard look. It is arbitrary for an agency to quantify an action’s benefits while ignoring its costs where tools exist to calculate those costs. *See High Country*, 52 F. Supp. 3d at 1192. (*See also* AR 301–02 (discussing the Rescission’s reduction in compliance costs, but nowhere discussing climate damages).)

NEPA does not mandate any particular methodology. *See, e.g., WildEarth*, 368 F. Supp. 3d at 79. *See also W. Org. of Res. Councils v. United States Bureau of Land Mgmt.*, No. CV 16-21-GF-BMM, 2018 WL 1475470, at *14 (D. Mont. Mar. 26, 2018) (“Plaintiffs identify no case, and the Court has discovered none, that supports the assertion that NEPA requires the agency to use a global carbon budget analysis.”)⁴³ Instead, “[w]hile an agency must apply a sufficient

⁴² The *California II* court rejected BLM’s minimization of this figure, noting that the annual climate impact of an increase in .61% of methane emissions is equivalent to putting nearly 3 million passenger vehicles on the road. *See California II*, 286 F. Supp. 3d at 1073. (*See also* AR 84146.) The Court agrees with *California II*.

⁴³ For this reason, the Court need not address whether use of carbon budgeting was necessary. (*See* AR 84158–61 (discussing carbon budgeting, noting that it is “[a]nother measuring standard available to BLM”); *see also* 173–74 (BLM disagreeing it must use the social cost of methane in its EA, but not mentioning carbon budgeting).)

level of rigor to its NEPA analyses, it is within ‘the expertise and discretion of the agency’ to determine the methodologies underlying those analyses.” *WildEarth*, 368 F. Supp. 3d at 79 (citing *Sierra Club v. United States Dep’t of Transp.*, 753 F.2d 120, 128 (D.C. Cir. 1985)). In other words, NEPA mandates that an agency use state of the art science to make sound scientific decisions. *Id.* at 79 n.31; 40 C.F.R. §§ 1500.1(b), 1502.22(b), 1502.24. The chosen methodology must be accurate and defensible. *See Nat. Res. Def. Council v. United States Forest Serv.*, 421 F.3d 797, 813 (9th Cir. 2005) (holding that agency’s “misleading” economic methodology violated NEPA’s “procedural requirement to present complete and accurate information to decision makers and to the public to allow an informed comparison of the alternatives”). That said, BLM also cannot ignore the science.

BLM’s broad-based failures do not satisfy NEPA. The argument that the issue is not about scientific methodology but about policy choices is a red herring. Different policy choices are acceptable. Coercing them through the process without analysis is not. *See S. Fork Band*, 588 F.3d at 726 (“A non-NEPA document . . . cannot satisfy a federal agency’s obligations under NEPA.”) (citation omitted); *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 998 (9th Cir. 2004) (rejecting agency’s reliance on a study that was “not a NEPA document”). Deference need not be afforded where NEPA’s basic requirements are not met.

Thus, the Court **FINDS** for plaintiffs on this issue: BLM has failed to satisfy its “hard look” obligation under NEPA with respect to the Rescission’s impact on climate.

3. *Cumulative Impact*

The next challenge under NEPA focuses on whether BLM failed to consider the cumulative impact of concurrent deregulations aimed at oil and gas emissions, namely the EPA’s October 2018 proposed rule regarding air quality regulations, as well as BLM’s fossil fuel program for federal and tribal lands.

To avoid the “tyranny of small decisions,” agencies must consider the cumulative impact of their proposed actions. *See Kern*, 284 F.3d at 1076-78; *Te-Moak Tribe of W. Shoshone v. United States Dep’t of the Interior*, 608 F.3d 592, 602-03 (9th Cir. 2010) (requiring that “an EA fully address cumulative environmental effects”) (citation omitted). “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 Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” *Id.* at 603 (quoting 40 C.F.R. § 1508.7). “The Ninth Circuit defines ‘reasonably foreseeable’ in this context to include only ‘proposed actions.’” *Chilkat Indian Vill. of Klukwan v. BLM*, 399 F. Supp. 3d 888, 920 (D. Alaska 2019) (citation and internal quotation marks omitted); *see also* 40 C.F.R. § 1508.25(a)(2) (“Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.”).

A court can reject an agency’s analysis for failure to consider cumulative impacts. *See CBD v. NHTSA*, 538 F.3d at 1216-17 (rejecting agency’s cumulative impact analysis for emissions from certain model years of light trucks that ignored emissions from other model years of light trucks and passenger vehicles); *Hall v. Norton*, 266 F.3d 969, 978–79 (9th Cir. 2001)

(rejecting BLM’s cumulative impact analysis that ignored emissions from other BLM-managed projects in the region).

Salient here, at the time BLM was in the rulemaking process for the Rescission, EPA was in the process of weakening its own oil and gas air quality regulations. (AR 84164-65.) Two weeks after the finalization of the Rescission, EPA proposed rescinding provisions in a regulation that would lead to annual increases in emissions of 380,000 tons of methane, 100,000 tons of VOCs, and 3,800 tons of hazardous air pollutants. Oil and Natural Gas Sector: Emissions for New Reconstructed, and Modified Sources Reconsideration, 83 Fed. Reg. 52,056, 52,059 (Oct. 15, 2018). BLM did not analyze the additional impact of EPA’s proposed amendments. Instead, BLM’s cumulative impact analysis relies on EPA’s *existing* regulations. (AR 321.)

BLM’s failure to consider EPA’s proposed amendments does not violate NEPA. As noted, EPA’s proposed amendments were published over two weeks *after* BLM issued the final Rescission. 83 Fed. Reg. 52,056 (Oct. 15, 2018). *See also* AR 210 (acknowledging EPA has not published a proposed revision). BLM was not required to prejudge the outcome of that proposed rulemaking in its EA. *See* 83 Fed. Reg. 52,056 (Oct. 15, 2018); *Ctr. for Food Safety v. Vilsack*, 718 F.3d 829, 843 (9th Cir. 2013). Accordingly, the Court **FINDS** for defendants on this issue with regard to EPA’s October 2018 proposed rule.

By contrast, BLM should have considered the cumulative impact of the Rescission when combined with its nationwide oil and gas program, also known as the “fossil fuel program.” *See WildEarth*, 368 F. Supp. 3d at 75-77 (requiring cumulative climate assessment for lease sale to include assessment of BLM’s oil and gas leasing program nationwide). Between 2003 and 2014, approximately 25% of all United States and 3–4% of global fossil fuel greenhouse gas emissions were attributable to federal coal, oil, and gas resources leased and developed by the Interior Department. (AR 21185.) Other studies indicate that in 2012 private extraction of federal fossil fuels contributed approximately 1,344 million metric tons of carbon dioxide to the atmosphere. (AR 84160.)

BLM disagrees but claims that it nevertheless did comply in the context of its overall aggregate analysis, by cross reference to the 2016 AR analysis of the NTL-4A, and due to anticipated offsets in other emissions. (*See* AR 314-16, 321, 1268-69, 1306-09.) *See also Concerned Citizens & Retired Miners Coal. v. United States Forest Serv.*, 279 F. Supp. 3d 898, 920 (D. Ariz. 2017) (noting that a court “must look not only to the specific section title ‘Cumulative Effects’ . . . but to the broader analysis contained in the EA” in assessing an agency’s analysis) (citing *Ctr. for Env’t. Law & Policy v. United States Bureau of Reclamation*, 655 F.3d 1000, 1009 (9th Cir. 2011)); *Ctr. for Env’t. Law & Policy*, 655 F.3d at 1007 (“An agency may . . . characterize the cumulative effects of past actions in the aggregate without enumerating every past project that has affected an area.”).

BLM’s arguments do not persuade. As the *WildEarth* court recognized, given the “cumulative nature of climate change, considering each individual drilling project in a vacuum deprives the agency and the public of the context necessary to evaluate oil and gas drilling on federal land before irretrievably committing to that drilling.” 368 F. Supp. 3d. at 83; *CBD v. NHTSA*, 538 F.3d at 1217 (“The impact of greenhouse gas emissions on climate change is

precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.”); *San Juan Citizens All. v. BLM*, 326 F. Supp. 3d 1227, 1248 (D.N.M. 2018) (rejecting “facile conclusion” that leasing decision’s climate impacts were “minor” and no cumulative impacts analysis was required). *See also Kleppe v. Sierra Club*, 427 U.S. 390, 414 (1976) (discussing “practical considerations” of studies).

Considering the Rescission in a vacuum, as BLM urges the Court to do, would deprive the public of the broader context: the significant climate impacts of BLM’s overall fossil fuel program. BLM’s only response is the familiar refrain that it will analyze any cumulative impacts *later* and the Rescission has *nationwide* impacts, including cumulative impacts, that are not appropriate for site-specific analysis. (See AR 337.) *See also Bosworth*, 510 F.3d at 1027-28 (noting the importance of a cumulative analysis where the action is “nationwide in scope”). But the Ninth Circuit has held that future impacts analysis at the project level “does not relieve [the agency] of its obligation to ensure that the [project] as a whole has no cumulative impacts.” *Id.* at 1027.⁴⁴

Thus, the Court **FINDS** for plaintiffs on this issue with regard to the fossil fuel program for federal and tribal lands.

4. *Failure to Prepare an Environmental Impact Statement (“EIS”)*

a. Legal Framework

“As a preliminary step, the agency may prepare an Environmental Assessment (‘EA’) to determine whether the environmental impact of the proposed action is significant enough to warrant an EIS.” *High Sierra Hikers Ass’n v. Blackwell*, 390 F.3d 630, 639 (9th Cir. 2004); *see also* 40 C.F.R. § 1501.4(b)–(c). “Not every project necessitates an EIS.” *Ocean Advocates*, 402 F.3d at 864. Thus, in order to determine whether a proposal has significant effects requiring an EIS, an agency may first prepare an EA. 40 C.F.R. §§ 1501.3, 1501.4(b)–(c). If the agency determines the proposal will not have significant effects, it must explain its determination in a finding of no significant impact or FONSI. *Id.* §§ 1501.4(e), 1508.13; *see also Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000). The FONSI must supply a “convincing statement of reasons” demonstrating the proposed action does not have a significant impact. *CBD v. NHTSA*, 538 F.3d at 1220, 1223 (quotation marks omitted).

An EA is “a concise public document” that serves to “[b]riefly provide sufficient evidence and analysis for determining whether to prepare” an EIS or a FONSI. 40 C.F.R. § 1508.9(a). An EA should include “brief discussions of the need for the proposal, of [reasonable] alternatives as required by [NEPA], and of the environmental impacts of the proposed action and alternatives.” *Id.* § 1508.9(b). A court “examine[s] the EA with two purposes in mind: to determine whether it has adequately considered and elaborated the possible consequences of the

⁴⁴ Arguing that such a cumulative impact analysis would be unprecedented or not feasible where the record shows that none has even been attempted proves nothing. If BLM were to undertake such an analysis, BLM could consider the impacts on both regional and national levels as BLM has after other courts have ordered. *See WildEarth*, 368 F. Supp. 3d at 77 (requiring BLM to consider cumulative climate impacts for “BLM lease sales in the region and nation”).

proposed agency action when concluding that it will have no significant impact on the environment, and whether its determination that no EIS is required is a reasonable conclusion.” *CBD v. NHTSA.*, 538 F.3d at 1215.

Agencies must prepare an EIS for any “major Federal action[] significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C). *See also Ocean Advocates*, 402 F.3d at 846 (“[A]n EIS must be prepared if ‘substantial questions are raised as to whether a project . . . may cause significant degradation of some human environmental factor.’”) (quoting *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1149 (9th Cir. 1998)). Under NEPA, “both beneficial and adverse” effects on the quality of the human environment determine whether a proposed federal action is “significant” and thus requires an EIS. 40 C.F.R. § 1508.27(b)(1) (“A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.”). “Major federal actions” include “new or revised agency rules [and] regulations.” *Id.* § 1508.18(a). The threshold to prepare an EIS is not high; agencies must prepare an EIS if there are “substantial questions” about whether a project’s impacts are significant. *Anderson*, 371 F.3d at 488 (citation omitted).

In deciding whether a proposal’s impacts are significant, agencies must consider a number of factors including: (i) “[t]he degree to which the proposed action affects public health or safety”; (ii) “[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts”; (iii) “[t]he degree to which the effects on the . . . environment are likely to be highly controversial”; and (iv) “the degree to which the possible effects . . . are highly uncertain.” 40 C.F.R. § 1508.27(b). The presence of any “one of these factors may be sufficient to require preparation of an EIS in appropriate circumstances.” *Ocean Advocates*, 402 F.3d at 865.

b. Analysis

“In evaluating the significance of the impact of the proposed action, the agency must consider both the context of the action as well as the intensity.” *Ctr. for Biological Diversity v. Bureau of Land Mgmt.*, 937 F. Supp. 2d 1140, 1154 (N.D. Cal. 2013) (“*CBD v. BLM*”); 40 C.F.R. § 1508.27(a) (significance “varies with the setting of the proposed action”). “Context simply delimits the scope of the agency’s action, including the interests affected.” *In Def. of Animals v. United States Dep’t of the Interior*, 751 F.3d 1054, 1068 (9th Cir. 2014) (citation omitted). Consideration of context involves analysis “in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality.” 40 C.F.R. § 1508.27(a). “[I]n the case of a site-specific action, significance . . . usually depend[s] upon the effects in the locale rather than in the world as a whole.” *Id.* However, the appropriate context for a nationwide rulemaking that contributes to a global problem is the “world as a whole.” *See MEIC*, 274 F. Supp. 3d at 1101–02 (for greenhouse gases, agency may not “limit its context analysis to the local and regional level”); *accord Barnes v. United States Dep’t of Transp.*, 655 F.3d 1124, 1139–40 (9th Cir. 2011) (noting “the effect of greenhouse gases on climate is a global problem” (emphasis in original)).

Here, the Rescission establishes a nationwide rule affecting global greenhouse gas emissions, which further results in localized and regional effects, especially in the twelve Western States where most of BLM-managed lands are located. Thus, on the basis of the record, the appropriate context includes global, national, and regional interests.

Public Health Impacts: Normally, the public health impacts weigh in favor of issuing an EIS. The Rescission’s air and climate pollution poses significant risks to public health. *See CBD v. NHTSA*, 538 F.3d at 1222 (recognizing global warming will have an impact on “public health and safety”); *CBD v. BLM*, 937 F. Supp. 2d at 1158 (recognizing that potential public health impacts from fracking satisfied public health significance factor). However, an agency’s “factual determination on whether the impacts are significant or not . . . implicates substantial agency expertise and is entitled to deference.” *Alaska Ctr. For Env’t v. United States Forest Serv.*, 189 F.3d 851, 859 (9th Cir. 1999).

BLM disputes that any significant public health impacts warrant an EIS, on the prior grounds that such impacts are “geographically dispersed” and occur in “sparsely populated areas.” The fact that an area is sparsely populated says nothing about the significance of the impacts to the people that live in areas surrounded by BLM-managed oil and gas wells. *See CBD v. BLM*, 937 F. Supp. 2d at 1158. Moreover, the record contains evidence suggesting that impacts to these areas could be significant but this evidence has not been evaluated. *See supra*, Section IV.B.4. This factor weighs in favor of an EIS.

Cumulative Impacts: As discussed above, BLM was not required by NEPA to consider the EPA proposal since it was issued after the Rescission. Indeed, BLM attempts to downplay the significance of EPA’s nationwide rule, without even considering the expected 380,000 tons of increased annual methane emissions. 83 Fed. Reg. 52,059. That said, BLM’s FONSI violates NEPA because it ignores the cumulative impacts with respect to overall federal and tribal oil and gas programs. (AR 337.) *See generally* Section V.B.3. Accordingly, this factor is neutral but weighs in favor of an EIS.

Controversial Effects: An action “is highly controversial when there is a substantial dispute about [its] size, nature, or effect.” *Anderson*, 371 F.3d at 489 (citations and quotation marks omitted). In other words, “[c]ontroversy’ sufficient to require preparation of an EIS occurs when substantial questions are raised as to whether a project . . . may cause significant degradation of some human environmental factor, or there is a substantial dispute [about] the size, nature, or effect of the major Federal action.” *Pub. Citizen v. Dep’t of Transp.*, 316 F.3d 1002, 1027 (9th Cir. 2003), *rev’d on other grounds*, 541 U.S. 752 (2004) (citation and internal quotation marks omitted). To be controversial, a dispute must go “beyond a disagreement of qualified experts.” *Nat’l Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, 737 (9th Cir. 2001) (“*NPCA v. Babbitt*”). Where “there is conflict in the data, or the evidence supports several conflicting opinions, the agency may rely upon the opinion of its expert” without rendering its decision “highly controversial.” *Id.* at 737 n.17; *Native Ecosystems Council v. United States Forest Serv.*, 428 F.3d 1233, 1241 (9th Cir. 2005).

The record here is mixed. The results emerging from the IWG model and the Interim model demonstrate discord. The Court has detailed the criticisms of BLM’s use of the “interim metric” (*see also* AR 206; AR 83414; AR 83419-31; AR 83471), despite BLM’s insistence on the model to justify a significantly different impact. *CBD v. BLM*, 937 F. Supp. 2d at 1158 (“[T]he serious concerns raised by federal and state agencies specifically charged with protecting the environment [may] support a finding that an EIS is necessary.”) (internal citation omitted); *NPCA v. Babbitt*, 241 F.3d at 736 (holding that there was a significant controversy where there was a high volume of comments “cast[ing] substantial doubt on the adequacy of the [agency’s] methodology and data”); *CBD v. NHTSA*, 538 F.3d at 1222 (recognizing that the volume of comments raising questions about the stringency of the agency’s proposal satisfied the controversy factor). While the Court has found BLM’s reliance thereon to be arbitrary and capricious, *see supra* Section IV.B.4., the fact remains that a disagreement about methodology is not a disagreement about the “size, nature, or effect” of the Rescission. *Pub. Citizen*, 316 F.3d at 1027. That said, BLM does not adequately explain its rejection of the IWG model. Accordingly, this factor is neutral but leaning in favor of an EIS.

Degree of Uncertainty: NEPA “regulations do not anticipate the need for an EIS anytime there is some uncertainty, but only if the effects of the project are ‘highly’ uncertain.” *Ctr. For Biological Diversity v. Kempthorne*, 588 F.3d 701, 712 (9th Cir. 2009) (“*CBD v. Kempthorne*”) (citation omitted). Such uncertainty “argue[s] in favor of preparing an EIS, not against it.” *NPCA v. Babbitt*, 241 F.3d at 731–35, 737 (citing 40 C.F.R. § 1508.27(b)); *Ocean Advocates*, 402 F.3d at 870–71.

On the one hand, the EA here does estimate total greenhouse gas emissions for the proposed project and their contribution as a percentage of total U.S emissions. (AR 314-15, 1259-62.) Yet, BLM does not translate the percentage “into locally-quantifiable environmental impacts” despite the fact that oil and gas regulation and development are not new, nor are the expected impacts. *See Barnes*, 655 F.3d at 1140; *see also CBD v. Kempthorne*, 588 F.3d at 712; *Am. Wild Horse Campaign v. Zinke*, 353 F. Supp. 3d 971, 988 (D. Nev. 2018); *WildEarth*, 368 F. Supp. 3d at 83 (“Defendants correctly note that ‘oil and gas leasing is commonplace in the mountain west,’ and that the ‘uncertainties Plaintiffs point to concerning quantity of GHG emissions . . . do not establish uncertainty as to the effect of GHG emissions.’”).

On the other hand, the EA itself concludes that “there [are] a number of *significant uncertainties* involved in estimating the climate impacts of methane emissions.” (AR 308 (emphasis supplied).) BLM identifies the uncertainties as pertaining to “aspects of the natural world” as well as “population and economic growth, [greenhouse gas] emissions, the translation of Earth system changes to economic damages, and the role of adaptation.” (*Id.*) Yet, BLM’s FONSI conveniently asserts later that “there *are no* reasonably foreseeable environmental effects that are considered to be highly *uncertain*.” (AR 337 (emphasis supplied).) BLM does not attempt to reconcile the conflicting statements. BLM cannot have it both ways. Thus, given the admission of uncertainty on the face of the EA itself, this factor weighs in favor of an EIS.

On balance, the factors weigh in favor of a finding that an EIS is required. Defendants' argument that an EIS is not required because the Waste Prevention Rule did not require an EIS does not convince otherwise.⁴⁵ The standard for triggering an EIS instead of an EA is not high; agencies must prepare an EIS if there are "substantial questions" about whether a project's impacts are significant. *Anderson*, 371 F.3d at 488. While some factors present close questions, the overall analysis weighs in favor of finding that an EIS is necessary. Accordingly, the Court **FINDS** that BLM erred when it did not file an EIS statement and chose instead to file an EA.⁴⁶

VI. REMEDY

As noted at the outset, and detailed herein, BLM failed to comply with the APA and NEPA on myriad grounds. Vacatur is the standard remedy under the APA and NEPA if a court determines that an agency action is unlawful. 5 U.S.C. § 706(2)(A) ("The reviewing court shall . . . set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law"); *Cal. Wilderness Coal. v. United States Dep't of Energy*, 631 F.3d 1072, 1095 (9th Cir. 2011) ("When a court determines that an agency's action failed to follow Congress's clear mandate the appropriate remedy is to vacate that action."); *Kake*, 795 F.3d at 970 ("Ordinarily when a regulation is not promulgated in compliance with the APA, the regulation is invalid" and the "effect of invalidating an agency rule is to reinstate the rule previously in force") (citation omitted); *Lockyer II*, 575 F.3d at 1020 (upholding vacatur and reinstatement of prior regulation based on NEPA violation).

Remedies other than vacatur apply in "limited circumstances." *Pollinator Stewardship Council v. EPA.*, 806 F.3d 520, 532 (9th Cir. 2015) (quoting *Cal. Cmities. Against Toxics*, 688 F.3d at 994). One such circumstance exists where "vacating a faulty rule could result in possible environmental harm"; in that situation, a court may decide "to leave a rule in place when vacating would risk such harm." *Id.* (citation omitted); *see also Ctr. for Food Safety v. Vilsack*, 734 F. Supp. 2d 948, 951 (N.D. Cal. 2010) ("[T]he Ninth Circuit has only found remand without vacatur warranted by equity concerns in limited circumstances, namely serious irreparable environmental injury."). For example, courts have declined to vacate an illegal agency action when vacatur would increase risks to imperiled species, *Idaho Farm Bureau Fed'n*, 58 F.3d at 1405-06, or increase harmful pollution, *Cal. Cmities. Against Toxics*, 688 F.3d at 994.

A second circumstance exists where the agency's errors are minor and the consequences of vacating would be more harmful or disruptive than not vacating. *See Pollinator Stewardship Council*, 806 F.3d at 532 (citation omitted). For instance, "[c]ourts generally only remand without vacatur when the errors are minor procedural mistakes, such as failing to publish certain documents in the electronic docket of a notice-and-comment rulemaking." *California I*, 277 F.

⁴⁵ Further, despite substantial litigation, the lack of an EIS was never challenged.

⁴⁶ The Court notes that had the rulemaking process not been replete with error, the Court could have used the option of remanding the issue back to BLM for appropriate reconsideration. *See CBD v. NHTSA*, 538 F.3d at 1225-27.

Supp. 3d at 1125. By contrast, circumventing notice-and-comment requirements is not a minor error. *Id.*

Circumstances do not exist here warranting departure from the general rule that vacatur is the appropriate remedy. First, leaving the Rescission in place is more likely to result in environmental harm than vacating it. The Rescission removes “almost all of the requirements in the 2016 rule that [BLM] previously estimated would . . . generate benefits of gas savings or reductions in methane emissions.” 83 Fed. Reg. 49,204 (AR 21). In particular, BLM admits that the Rescission will result in increased methane emissions. (*See* AR 315- 316; *see also* AR 21-22 (83. Fed. Reg. 49,204-05), 91 (recognizing that the Rescission allows the loss of 299 billion cubic feet of publicly owned natural gas).)

Second, the seriousness of BLM’s APA and NEPA violations as found herein are far from minor. *See California III*, 381 F. Supp. 3d at 1178-79 (finding “serious violations” of the APA where agency “violated clearly established Supreme Court precedent requiring an agency to provide a reasoned explanation for disregarding and contradicting facts and circumstances underlying the adoption of the rules that it now seeks to repeal” and “failed to comport with the APA’s notice and comment requirement, thereby denying the public a meaningful opportunity to participate in the regulatory process”); *Friends of Alaska Nat’l Wildlife Refuges*, 381 F. Supp. 3d at 1143 (finding that “the Secretary’s failure to acknowledge the change in agency policy and his failure to provide a reasoned explanation for that change in policy are serious errors” warranting vacatur); *Pub. Emp. for Env’tl. Responsibility v. United States Fish & Wildlife Serv.*, 189 F. Supp. 3d 1, 2-3 (D.D.C. 2016) (finding that “[a] review of NEPA cases in this district bears out the primacy of vacatur to remedy NEPA violations”) (collecting citing cases). Indeed, departing from the default remedy of vacatur risks giving BLM a “free pass . . . [to] ignore [its] legal obligations under the APA, making a mockery of the statute.” *California I*, 277 F. Supp. 3d at 1126.

The fact that vacatur may not lead to “immediate compliance” with the 2016 Rule does not warrant a remand without vacatur. *See California III*, 381 F. Supp. 3d at 1179 (rejecting federal defendants’ position that vacatur would be “unduly disruptive” because lessees and agency would need time to adjust to new rules); *California I*, 277 F. Supp. 3d at 1126 (finding that industry’s alleged inability to meet Waste Prevention Rule’s compliance deadlines “is a problem to some extent of their own making and is not a sufficient reason for the Court to decline vacatur”). Indeed, this is not a situation where “[t]he egg has been scrambled and there is no apparent way to restore the status quo ante.” *Sugar Cane Growers Co-op. of Fla. v. Veneman*, 289 F.3d 89, 97 (D.C. Cir. 2002). The “status quo ante” here is the confines of the Waste Prevention Rule. Defendants fail to show that a return to the Waste Prevention Rule would have disruptive effects; even the Rescission recognizes that compliance costs are but a small fraction of operator profits. 83 Fed. Reg. 49,206 (AR 23). Thus, the Court concludes vacatur is the appropriate remedy.

BLM's arguments to the contrary do not persuade. The notion that BLM should be allowed to "correct its actions" is meritless given the context. *See Idaho Farm Bureau Fed'n*, 58 F.3d at 1405 (noting that "when equity demands, the regulation can be left in place while the agency follows the necessary procedures"). BLM systematically ignored the basics of rulemaking and steamrolled over the APA and NEPA framework to advance certain special interests. Such conduct should not be condoned. Moreover, given the fundamental flaws, severability is not feasible. *See City and Cty. of San Francisco v. Azar*, 411 F. Supp. 3d 1001, 1024-25 (N.D. Cal. 2019) ("When a rule is so saturated with error, as here, there is no point in trying to sever the problematic provisions. The whole rule must go.").

Finally, the Court considers the parties' request to stay the vacatur of the Rescission. Defendants request that the Court stay any vacatur of the Rescission by up to one (1) year. Plaintiffs oppose but agree that a stay of up to ninety (90) days is appropriate to permit the parties to return to the District of Wyoming in a timely manner that would minimize the expenditure of resources. The Court agrees that a stay of ninety (90) days is appropriate for the parties to determine next steps.⁴⁷

Accordingly, the Court concludes that **VACATUR** of the Rescission is the appropriate remedy and shall be applied prospectively. However, the Court **STAYS THE VACATUR** and re-implementation of the Waste Prevention Rule for **NINETY (90) DAYS** from the date of this Order.

VII. CONCLUSION

In sum, BLM's actions undertaken in enacting the Rescission demonstrate its unmitigated fervor to abolish a rule that it enacted only two years prior. While deference exists as a concept, where the slate is not blank, as here, BLM could not act in a vacuum. Rather, it was required to provide its reasoned explanation for its abrupt reversal as to the findings in the Waste Prevention Rule and to comply with its obligations under NEPA by considering the impacts of its rulemaking on the environment both thoroughly and thoughtfully. Instead, in its zeal, BLM simply engineered a process to ensure a preordained conclusion. Neither the APA, NEPA, or *Chevron* tolerate such fickle actions. Where a court has found such widespread violations, the court must fulfill its duties in striking the defectively promulgated rule.

For the foregoing reasons, the Court **GRANTS** plaintiffs' motions for summary judgment, and **DENIES** defendants' and intervenors' motions for summary judgment. In light of this Order, the Rescission is **VACATED**. However, such vacatur is **STAYED** for **NINETY (90) DAYS** from the date of this Order.

⁴⁷ Wyoming's arguments to limit any "injunctive" remedy to the Ninth Circuit and New Mexico are without merit. Plaintiffs have sought vacatur, not an injunction, and Wyoming's authority and arguments are inapplicable. *See Alsea Valley All. v. Dep't of Commerce*, 358 F.3d 1181, 1186 (9th Cir. 2004) (setting aside an unlawful agency decision through vacatur "prohibits, as a practical matter, the enforcement of" that decision, but is not "the practical equivalent of 'enjoining' the agency").

Unless, and until, steps are taken to revive the challenge to the Waste Prevention Rule, and its implementation is otherwise enjoined, BLM shall within thirty (30) days of this Order provide the Court with a report detailing the anticipated compliance process with said rule, including a declaration by the agency official who is responsible for effectuating the same and is identified as the most knowledgeable person on the topic. BLM shall provide additional updates thirty (30) and sixty (60) days thereafter.

IT IS SO ORDERED.