

JOHN C. CRUDEN  
Assistant Attorney General  
Environment and Natural Resources Division  
United States Department of Justice  
WILLIAM E. GERARD  
JODY H. SCHWARZ  
REBECCA JAFFE  
P.O. Box 7611  
Washington, D.C. 20044  
(202) 305-0475  
(202) 305-0245  
(202) 305-0258

[william.gerard@usdoj.gov](mailto:william.gerard@usdoj.gov)  
[jody.schwarz@usdoj.gov](mailto:jody.schwarz@usdoj.gov)  
[rebecca.jaffe@usdoj.gov](mailto:rebecca.jaffe@usdoj.gov)

DAVID A. CARSON  
South Terrace – Suite 370  
999 18th Street  
Denver, CO 80202  
303-844-1349

[david.a.carson@usdoj.gov](mailto:david.a.carson@usdoj.gov)

CHRISTOPHER A. CROFTS  
United States Attorney  
NICHOLAS VASSALLO (WY Bar #5-2443)  
Assistant United States Attorney  
P.O. Box 668  
Cheyenne, WY 82003-0668  
Telephone: 307-772-2124  
[nick.vassallo@usdoj.gov](mailto:nick.vassallo@usdoj.gov)

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

STATE OF WYOMING, et al.,	)	Civil Case No. 15-CV-43-SWS
	)	(consolidated with 15-CV-41-SWS)
<i>Petitioners,</i>	)	
v.	)	<b>FEDERAL RESPONDENTS' BRIEF</b>
	)	<b>IN RESPONSE TO MERITS</b>
UNITED STATES DEPARTMENT OF	)	<b>BRIEFS OF INDUSTRY AND</b>
THE INTERIOR, et al.,	)	<b>STATE PETITIONERS</b>
	)	
<i>Respondents.</i>	)	
	)	
	)	

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**LIST OF ABBREVIATIONS**

APA	Administrative Procedure Act
APD	Application for Permits to Drill
API	American Petroleum Institute
BLM	Bureau of Land Management
CEL	Cement Evaluation Log
DOI	U.S. Department of the Interior
EPA	U.S. Environmental Protection Agency
FDA	U.S. Food and Drug Administration
FLPMA	Federal Land Policy and Management Act
FOIA	Freedom of Information Act
FTE	Full-Time Equivalent
IMDA	Indian Mineral Development Act
IMLA	Indian Mineral Leasing Act
IPAA	Independent Petroleum Association of America
MHFP	Master Hydraulic Fracturing Plan
MIT	Mechanical Integrity Test
MLA	Mineral Leasing Act of 1920
MMPA	Mining and Minerals Policy Act of 1970
MMS	Minerals Management Service
NOI	Notice of Intent
PPM	Parts per Million
SDWA	Safe Drinking Water Act
TDS	Total Dissolved Solids
UIC	Underground Injection Control
USDWs	Underground Sources of Drinking Water
USGS	U.S. Geological Survey

## INTRODUCTION

Respondent Bureau of Land Management (“BLM”) promulgated its Rule on Hydraulic Fracturing on Federal and Indian Lands (the “Rule”)<sup>1</sup> to fulfill its statutory responsibilities as manager and steward of federal lands and as trustee of Indian lands. The Rule updates BLM’s existing regulations to address substantial, recent changes in hydraulic fracturing technologies and practices. The Rule properly implements BLM’s long-standing authority under the Mineral Leasing Act and the Federal Land Policy and Management Act to regulate oil and gas development on federal lands. BLM’s authority has not been curtailed by the Safe Drinking Water Act, and the Rule does not improperly intrude on any authority reserved to the states.

The Rule is also reasonable, rational, and amply supported by the administrative record. Over nearly five years, BLM issued a proposed and supplemental proposed rule, reviewed over 1.5 million public comments, tracked various state efforts to regulate hydraulic fracturing, and carefully considered applicable industry guidance. The Rule is the culmination of a thorough decision-making process, and it reflects the agency’s considerable experience and expertise. The Rule protects usable water, ensures wellbore integrity, and ensures the safe, temporary storage of contaminated fluids, while also providing additional information about these operations to the public in a manner that safeguards proprietary industry information. Petitioners’ arguments to the contrary misconstrue the relevant legal authorities and mischaracterize the administrative record, and they should be rejected.

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<sup>1</sup> 80 Fed. Reg. 16,128–222 (Mar. 26, 2015).

## BACKGROUND

### *A. BLM's statutory authority to regulate oil and gas operations*

Through BLM, the Secretary of the Interior (“the Secretary”) oversees oil and gas development on federal lands under a leasing system principally created by the Mineral Leasing Act of 1920 (“MLA”), 30 U.S.C. §§ 181–287.<sup>2</sup> Under the MLA, BLM leases federal oil and gas rights, but title remains in the United States. *See generally Udall v. Tallman*, 380 U.S. 1, 22 (1965). BLM has broad regulatory power under the MLA, 30 U.S.C. § 189, to protect “the interests of the United States” and safeguard “the public welfare” in federal mineral leases, *id.* § 187. In addition, the Indian Mineral Leasing Act (“IMLA”) authorizes the Secretary of the Interior to regulate “operations under any oil, gas, or other mineral lease issued pursuant to . . . any other Act affecting restricted Indian lands.” 25 U.S.C. § 396d; *see also* Act of March 3, 1909, *id.* § 396<sup>3</sup>; Indian Mineral Development Act (“IMDA”), *id.* § 2107. Finally, through the Federal Land Policy and Management Act (“FLPMA”), 43 U.S.C. §§ 1701–1787, Congress also vested broad authority in BLM to regulate “the use, occupancy, and development of the public lands.”<sup>4</sup> *Id.* § 1732(b). In furtherance of the agency’s broad discretion to balance competing

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<sup>2</sup> The MLA applies on public domain lands. *See Wallis v. Pan Am. Petro. Corp.*, 384 U.S. 63 (1966). BLM also leases and regulates federal oil and gas under other federal mineral leasing statutes, including the Mineral Leasing Act for Acquired Lands of 1947, 30 U.S.C. §§ 351–360, and the Right-of-Way Leasing Act, 30 U.S.C. §§ 301–306. The operating regulations, however, are the same for lands leased under the different statutes. *See, e.g.*, 30 U.S.C. § 359; 43 C.F.R. §§ 3160.0-1, 3161.1(a). The Federal Oil and Gas Royalty Management Act of 1982, 30 U.S.C. §§ 1701–1759, authorizes BLM to conduct certain management and enforcement actions, in addition to royalty management.

<sup>3</sup> The Act of March 3, 1909, applies to mineral leases on lands held in trust or in restricted fee for individual Indian allottees.

<sup>4</sup> “Public lands” for the purposes of FLPMA “means any land and interest in land owned by the United States . . . administered by the Secretary of the Interior through [BLM], without regard to how the United States acquired ownership,” except (as pertinent here) Indian trust lands. 43 U.S.C. § 1702(e).

development and resource interests, FLPMA provides BLM several broad sources of regulatory authority. *See id.* §§ 1732(a), (b) and 1740.

***B. BLM’s existing regulatory structure for oil and gas operations***

BLM and its predecessor agencies<sup>5</sup> have regulated oil and gas operations on federal and Indian lands to protect surface and subsurface resources, including groundwater, for 96 years. *See* 1920 I.D. Lexis 47, at \*2–6 (§§ 1–13) (June 4, 1920); 30 C.F.R. Pt. 221 (1938 & 1982); 43 C.F.R. Pt. 3160 (1983 & 2014). BLM implements its authority through codified regulations and Onshore Oil and Gas Orders, which are promulgated by notice and comment procedures, published in the Federal Register, and binding on the regulated community. *See* 43 C.F.R. §§ 3164.1(b), 3162.1(a). BLM’s existing regulations include permitting and disclosure requirements, *see* 43 C.F.R. § 3162.3-1(c), such as the requirement to disclose geologic and operational planning details prior to drilling, *see, e.g., id.* § 3162.3-1(e); Onshore Oil and Gas Order 1, 72 Fed. Reg. 10,308, 10,331 (Mar. 7, 2007) (“Onshore Order 1”). These regulations require operators to “conduct operations in a manner which protects the mineral resources, other natural resources, and environmental quality.” 43 C.F.R. § 3162.5-1(a) (2014). Operators must “exercise due care and diligence to assure that leasehold operations do not result in undue damage to surface or subsurface resources.” *Id.* § 3162.5-1(b). These existing regulations also impose standards for well casing and cementing to ensure the structural integrity of the wellbore and to isolate and protect usable groundwater zones, Section III.B of Onshore Oil and Gas Order 2, 53 Fed. Reg. 46,798, 46,808–09 (Nov. 18, 1988) (“Onshore Order 2”), and requirements for storage and disposal of water produced by the well, *see* 43 C.F.R. § 3162.5-1(b); Part III.B of

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<sup>5</sup> Before BLM, the U.S. Geological Survey (“USGS”) and then the Minerals Management Service (“MMS”) regulated oil and gas operations on federal and Indian lands.



Onshore Oil and Gas Order 7, 58 Fed. Reg. 47,354, 47,362–65 (Sept. 8, 1993) (“Onshore Order 7”).

BLM’s predecessor, MMS, first expressly regulated hydraulic fracturing operations in 1982. *See* 47 Fed. Reg. 47,758, 47,770 (Oct. 27, 1982). The 1982 hydraulic fracturing rule required operators to obtain prior approval for “nonroutine fracturing jobs” and those that involved “additional surface disturbance.” *Id.*; *see also* 47 Fed. Reg. at 47,763. The 1982 regulation, though amended in other respects in 1988, remained in effect until superseded, in relevant part, by the Rule. 43 C.F.R. § 3162.3-2(a)–(b) (2014). This regulatory authority was transferred from MMS to BLM in 1983. Onshore Oil and Gas, General; Redesignation of Regulations: Final Rule, 48 Fed. Reg. 36,582 (Aug. 12, 1983).

### *C. Hydraulic fracturing*

Hydraulic fracturing is one type of “[w]ell stimulation technique” used by oil and gas operators. 80 Fed. Reg. at 16,130. It “involves the injection of fluid under high pressure to create or enlarge fractures in the reservoir rocks.” *Id.* at 16,131. Oil and gas operators have long used simple, small-scale hydraulic fracturing procedures and, as early as 1936, operators on federal and Indian lands were required to obtain approval before “stimulat[ing] production by vacuum, acid, gas, air, or water injection.” 1 Fed. Reg. 1996, 1998 § 2(d) (Nov. 20, 1936) (codified at 30 C.F.R. § 221.9 (1938)); *see also* 30 C.F.R. § 221.21(b) (1982).

“More recently, hydraulic fracturing has been coupled with relatively new horizontal drilling technology in larger-scale operations that have allowed greatly increased access to shale oil and gas resources across the country.” 80 Fed. Reg. at 16,128. About 90 percent of wells drilled on federal and Indian lands in 2013 were hydraulically fractured. *Id.* at 16,131. Before and during the rulemaking process, BLM solicited and received information about the risks of such high-pressure, high-volume hydraulic fracturing operations, and recommendations for

protective measures to mitigate those risks. *Id.* In 2011, the Secretary of Energy Advisory Board Natural Gas Subcommittee recommended that BLM update its hydraulic fracturing rule to “ensure well integrity, water protection, and adequate public disclosure” of fracturing chemicals. 80 Fed. Reg. at 16,128; *see also id.* at 16,131.

#### ***D. The Rule***

After concluding that existing requirements had not kept pace with changes in hydraulic fracturing technology and practices, and the risks they pose, BLM undertook a rulemaking to supplement and revise its existing regulations. *See, e.g.*, 80 Fed. Reg. at 16,130–31. BLM issued both a proposed rule, 77 Fed. Reg. 27,691 (May 11, 2012), and a supplemental proposed rule, 78 Fed. Reg. 31,636 (May 24, 2013). BLM received approximately 1.5 million public comments on the two proposals, and revised the Rule based on those comments and further internal analysis. *See, e.g.*, 80 Fed. Reg. at 16,131. The final Rule was published in the Federal Register on March 26, 2015. *Id.* at 16,128–222.

The Rule revises BLM’s existing regulations with respect to hydraulic fracturing. It “establishes new requirements to ensure wellbore integrity, protect water quality, and enhance public disclosure of chemicals and other details of hydraulic fracturing operations.” *Id.* at 16,129. The Rule requires operators to provide detailed information on designs, plans, and geology before commencing hydraulic fracturing. 43 C.F.R. §§ 3162.3-2, 3162.3-3(c)–(d). It specifies performance and design standards and requires monitoring and testing to ensure wellbore integrity and protection and isolation of particular groundwater zones. *Id.* §§ 3162.3-3(e)–(g); 3162.5-2(d). It fills a regulatory gap by providing requirements for temporary storage of recovered fluids. *Id.* § 3162.3-3(h). And it requires post-operation filing of information relating to the fracturing operation, including public disclosure of the fracturing fluids composition. *Id.* § 3162.3-3(i)–(j).

*E. Procedural posture*

On March 20, 2015, the Independent Petroleum Association of America and the Western Energy Alliance (collectively, “IPAA”) petitioned this Court to review the Rule. On March 26, 2015, the State of Wyoming filed its petition. These cases were subsequently consolidated, and the States of Colorado, North Dakota, and Utah and the Ute Tribe of the Uintah and Ouray Reservation (“Ute Tribe”) intervened as Petitioners. The Sierra Club, Earthworks, Western Resource Advocates, Conservation Colorado Education Fund, The Wilderness Society, and Southern Utah Wilderness Alliance intervened as Respondents. Petitioners filed preliminary injunction motions, and, on September 30, 2015, the Court preliminarily enjoined the Rule. ECF No. 119. That Order is currently under appeal.<sup>6</sup>

Petitioners filed their opening merits briefs on March 4, 2016. By the Court’s leave, ECF No. 198, Federal Respondents submit this combined response to IPAA and the States.<sup>7</sup> Federal Respondents respond separately to the Ute Tribe’s merits brief.

**ARGUMENT****I. Congress has vested in BLM broad authority to regulate hydraulic fracturing on federal and Indian lands**

Petitioners argue that BLM lacks authority to regulate hydraulic fracturing and, thus, that the Rule is invalid, IPAA Br. 47-52; Wyo. Br. 24-45; N.D. Br. 8-13, but they are wrong. BLM has the legal authority to regulate hydraulic fracturing on federal and Indian lands under the MLA, FLPMA, IMLA, and IMDA—authority that is not repealed by any other statute.

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<sup>6</sup> *State of Wyoming v. DOI*, No. 15-8126 (10th Cir., filed Nov. 27, 2015) (consolidated with No. 15-8134).

<sup>7</sup> Specifically, this brief responds to IPAA’s Opening Memorandum on the Merits, ECF No. 192 (“IPAA Br.”); the Brief in Support of Wyoming, Colorado, and Utah’s (collectively, “Wyoming”) Petition for Review of Final Agency Action, ECF No. 189 (“Wyo. Br.”); and North Dakota’s Opening Brief, ECF No. 190 (“N.D. Br.”).

Courts analyze agencies' implementation of their statutory authorities in the two-step process specified in *Chevron, USA, Inc. v. NRDC*, 467 U.S. 837, 842–44 (1984) (“*Chevron*”). At *Chevron* step one, courts determine whether Congress has “directly spoken to the precise question at issue,” or instead has delegated “authority to the agency to elucidate a specific provision of the statute by regulation.” *Id.* To make that determination, courts employ traditional tools of construction, including “the statute’s text, structure, purpose, history, and relationship to other statutes.” *Hackwell v. United States*, 491 F.3d 1229, 1233 (10th Cir. 2007). If the statute is “silent or ambiguous with respect to the specific issue,” courts proceed to step two, and the question “is whether the agency’s answer is based on a permissible construction of the statute.” *City of Arlington v. FCC*, 133 S. Ct. 1863, 1868 (2013). Under the *Chevron* test, BLM has authority to regulate hydraulic fracturing.

***A. Congress delegated BLM broad authority to regulate oil and gas operations on federal and Indian lands***

Under the MLA, FLPMA, IMDA, and IMLA Congress unambiguously granted BLM broad regulatory authority over oil and gas operations on federal and Indian lands. Hydraulic fracturing is an oil and gas extraction method, and thus falls directly within BLM’s regulatory sphere. BLM and its predecessors have long regulated hydraulic fracturing and other well stimulation techniques, and Petitioners fail to explain how the authority to regulate oil and gas operations on federal and Indian lands does not also include authority to regulate hydraulic fracturing. The MLA, IMLA, IMDA, and FLPMA do not specifically address hydraulic fracturing; but, as discussed below, neither do they specifically address other well stimulation techniques or other oil and gas operations long regulated by BLM under their authority. These statutes instead contain a broad grant of regulatory authority that encompasses regulating all aspects of oil and gas operations, including hydraulic fracturing.

Specifically, the MLA authorizes BLM to “prescribe necessary and proper rules and regulations and to do any and all things necessary to carry out and accomplish the purposes” of the Act. 30 U.S.C. § 189. The MLA’s purposes include ensuring the “exercise of reasonable diligence, skill, and care in the operation” of federal leases, protecting “the interests of the United States,” and safeguarding “the public welfare.” *Id.* § 187. IMDA and IMLA, the Indian minerals statutes, similarly subject oil and gas “operations” on Indian lands “to the rules and regulations promulgated by the Secretary.” 25 U.S.C. § 396d; *see also id.* §§ 396, 2107. Congress thus expressly delegated the Secretary authority to regulate oil and gas operations on federal and Indian lands, as BLM and its predecessors have been doing for 96 years. *See* 1920 I.D. Lexis 47, at \*2–6; 30 C.F.R. Pt. 221 (1938 & 1982); 43 C.F.R. Pt. 3160 (1983 & 2014); Onshore Order 2, 53 Fed. Reg. at 46,808–09; Onshore Order 7, 58 Fed. Reg. at 47,362–65.

FLPMA contains three additional delegations of regulatory authority to BLM, through the Secretary:

- FLPMA instructs BLM to use “published rules” to “regulate” the “use, occupancy, and development” of the public lands under principles of multiple use and sustained yield, 43 U.S.C. § 1732(a)–(b);
- FLPMA instructs BLM to, “by regulation or otherwise,” take any action necessary to prevent “unnecessary or undue degradation” of the public lands, *id.* § 1732(b); and
- FLPMA authorizes BLM to “promulgate rules and regulations to carry out the purposes of this Act and of other laws applicable to the public lands,” *id.* § 1740, including the purpose of managing public lands in a manner that “will protect the quality of . . . environmental, air and atmospheric [and] water resource . . . values,” *id.* § 1701(a)(8).

Oil and gas operations on federal lands fall within those broad delegations of authority. *See Theodore Roosevelt Conservation P'ship v. Salazar*, 661 F.3d 66, 76 (D.C. Cir. 2011); *Rocky Mountain Oil & Gas Ass'n v. Watt*, 696 F.2d 734, 745–50 (10th Cir. 1982) (BLM reasonably interpreted FLPMA to subject mineral leasing, including lease development activities, to regulation to prevent unnecessary or undue degradation). FLPMA's mandates have applied to BLM's actions of their own force since 1976, and BLM has cited FLPMA as authority for its oil and gas regulations since 1998, 63 Fed. Reg. 52,946, 52,952 (Oct. 1, 1998) (amending "authority citation for part 3160" to include 43 U.S.C. §§ 1732(b), 1740).<sup>8</sup>

The Indian minerals statutes likewise grant BLM broad authority for regulating oil and gas operations on Indian trust lands—authority that includes regulation of hydraulic fracturing on such lands. As addressed in greater detail in Federal Respondents' Brief in Response to the Ute Tribe, Congress authorized the Secretary (and, by delegation, BLM) under IMLA to promulgate regulations governing "[a]ll operations under any oil, gas, or other mineral lease . . . affecting restricted Indian lands," 25 U.S.C. § 396d, and to promulgate rules and regulations implementing the IMDA, *id.* § 2107. Congress also required that "[a]ll operations under any oil, gas, or other mineral lease issued pursuant to the terms of sections 396a to 396g [of IMLA] or any other Act affecting restricted Indian lands shall be subject to the rules and regulations promulgated by" BLM on behalf of the Secretary. *Id.* § 396d.

The express delegations in the MLA, FLPMA, and the Indian minerals statutes show that Congress intended BLM to determine how to ensure the proper conduct of oil and gas operations on federal and Indian lands. *Chevron* deference "does not turn on whether Congress' delegation of authority was general or specific." *Mayo Found. v. United States*, 562 U.S. 44, 57 (2011).

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<sup>8</sup> *See also* 43 C.F.R. § 3160 (1998); 67 Fed. Reg. 17,866, 17,894 (Apr. 11, 2002).

The Supreme Court has found “‘express congressional authorizations to engage in the process of rulemaking’ to be ‘a very good indicator of delegation meriting *Chevron* treatment.’” *Id.* (quoting *United States v. Mead Corp.*, 533 U.S. 218, 229 (2001)).<sup>9</sup>

Well-stimulation techniques like hydraulic fracturing are one type of oil and gas operation taking place on federal and Indian lands and fall within those broad delegations. “[T]he delegation of general authority to promulgate regulations extends to all matters ‘within the agency’s substantive field.’ Because ‘the whole includes all of its parts,’ courts need not try to discern whether ‘*the particular issue* was committed to agency discretion.’” *Helfrich v. Blue Cross & Blue Shield*, 804 F.3d 1090, 1109 (10th Cir. 2015) (quoting *City of Arlington*, 133 S. Ct. at 1874) (citation omitted); *see also Wyoming v. USDA*, 661 F.3d 1209, 1234–35 (10th Cir. 2011) (holding the Forest Service’s Organic Act’s “broad rulemaking authority” sufficient to support the Roadless Rule); *Colorado v. Resolution Trust Corp.*, 926 F.2d 931, 945 (10th Cir. 1991) (finding express delegation in broad rulemaking provision and upholding rule as “reasonably related to the purposes of its enabling legislation”); *Balelo v. Baldrige*, 724 F.2d 753, 760 (9th Cir. 1984) (en banc) (“[T]he specific content of [a] regulation need not be expressly authorized. The regulation is proper so long as it conforms to the fundamental objective of the Act . . .”).

Indeed, BLM and its predecessors have been regulating well-stimulation techniques similar to hydraulic fracturing since 1936. 1 Fed. Reg. at 1998, § 2(d) (requiring operators to obtain approval before “stimulat[ing] production by vacuum, acid, gas, air, or water injection”);

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<sup>9</sup> *See also Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 980–81 (2005); *Sullivan v. Everhart*, 494 U.S. 83, 87–89 (1990); *Commodity Futures Trading Comm’n v. Schor*, 478 U.S. 833, 842–43 (1986).

*see also* 30 C.F.R. § 221.9 (1938); 30 C.F.R. § 221.21(b) (1982).<sup>10</sup> The regulations have specifically covered hydraulic fracturing since 1982, albeit in much less detail than the Rule. 47 Fed. Reg. at 47,770; 43 C.F.R. § 3162.3-2 (1983). An agency’s long-held view that a “particular regulation is reasonably necessary to effectuate . . . the purposes of the Act the agency is charged with enforcing . . . is therefore due substantial deference.” *Schor*, 478 U.S. at 845–46 (internal quotation marks omitted).

No other interpretive tools evince a “clear” and “unambiguous” congressional intent to exclude hydraulic fracturing on federal and Indian lands from the express delegations summarized above, and thus, there is no basis to rule against BLM at *Chevron* step one. *Chevron*, 467 U.S. at 842–43; *see also Helicopter Ass’n Int’l v. FAA*, 722 F.3d 430, 433–35 (D.C. Cir. 2013) (no clear congressional intent to narrow broad grant of authority). Petitioners’ arguments fail under *Chevron* step one because they have not shown that the MLA, Indian minerals statutes or FLPMA “unambiguously forbid[s]” BLM’s interpretation of those broad delegations. *Barnhart v. Walton*, 535 U.S. 212, 218 (2002).<sup>11</sup> To rule for BLM in *Chevron* step one, the Court need only conclude that Congress provided broad rulemaking and regulatory authority to the Secretary and that nothing in the MLA, FLPMA, or the Indian minerals statutes precludes BLM from regulating hydraulic fracturing on federal and Indian lands.

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<sup>10</sup> All those regulations similarly covered “shoot[ing]” a well, *id.*, which involves “[e]xploding nitroglycerine or other high explosive in a hole, to shatter the rock and increase the flow of oil or gas,” William & Myers, *Manual of Oil and Gas Terms* (2015), *available on Lexis at* 8-S *Manual of Oil and Gas Terms* S. Hydraulic fracturing also commonly involves the use of explosive charges to perforate the wellbore casing to reach the production formation. DOIAR0002084.

<sup>11</sup> *See also Zuni Pub. School Dist. v. Dep’t of Educ.*, 550 U.S. 81, 93 (2007) (holding text did not “foreclose” agency’s interpretation); *Chemical Mfrs. Ass’n v. NRDC*, 470 U.S. 116, 134 (1985) (finding no “congressional intent to forbid” agency interpretation); *Babbitt v. Sweet Home Chapter of Communities*, 515 U.S. 687, 703 (1995) (“Congress did not unambiguously manifest its intent to adopt respondents’ view . . .”).



*1. The structure, purpose, and history of the MLA support BLM's authority over all oil and gas operations on federal land*

Before Congress enacted the MLA, any person could obtain title to federal oil and gas resources by prospecting for minerals and then becoming entitled to a patent for any minerals discovered. *See Tallman*, 380 U.S. at 21–22. The MLA instituted a leasing system preserving the United States' title to the land and resources. *Id.* Congress' intent in enacting the MLA was to “expand, not contract, the Secretary's control over the mineral lands of the United States.” *Boesche v. Udall*, 373 U.S. 472, 481 (1963). Congress sought to “reserv[e] to the Government the right to supervise, control, and regulate” the development of federal resources. *Id.* (quoting H.R. Rep. No. 65-1138, at 19 (1919) (Conf. Rep.)); *see also* H.R. Rep. No. 66-398, at 12–13 (1919) (MLA creates an “enlightened method” of mineral development, including “conservation measures” reserving the government's “right to prescribe rules and regulations against wasteful practices.”); H.R. Rep. No. 65-563, at 36 (1918) (MLA's purpose was to develop minerals “on such terms and conditions as will prevent their waste, secure proper methods of operation, encourage exploration and development, and protect the public.”).

Thus, the MLA “not only reserved to the United States the fee interest in the leased land, but . . . also subjected the lease to exacting restrictions and continuing supervision by the Secretary.” *Boesche*, 373 U.S. at 477–78. The MLA authorizes BLM to prescribe “rules and regulations governing in minute detail all facets of the working of the land.” *Id.* at 478 (citing 30 U.S.C. § 189 and 30 C.F.R. Pt. 221 (1959)). And, as the Tenth Circuit has explained, BLM acts “in a proprietary capacity” under the MLA, fulfilling a congressionally delegated responsibility to ensure that development of the Nation's oil and gas resources serves the public interest. *United States v. Ohio Oil*, 163 F.2d 633, 639–40 (10th Cir. 1947) (citing U.S. Const. art. IV, § 3, cl. 2); *see also Forbes v. United States*, 125 F.2d 404, 408–09 (9th Cir. 1942) (affirming the

Secretary's authority to regulate downhole activities—in that case, plugging and abandonment under the 1920 regulations—and stating that the MLA validly delegates authority to “fix the terms on which [the United States'] property may be used”).

The Tenth Circuit also has held that the MLA's delegations should be “broadly construed in order for the Secretary to properly carry out [her] proprietary function on behalf of the government and its citizens.” *Hannifin v. Morton*, 444 F.2d 200, 202 (10th Cir. 1971) (citing *Ohio Oil*, 163 F.2d at 639–40); *see also Naartex Consulting v. Watt*, 722 F.2d 779, 790 (D.C. Cir. 1983) (MLA instructs BLM to act as “statutory guardian of [the] public interest” in “the proper allocation and development of the public lands.”).

Courts have, in many contexts, upheld BLM's authority to regulate oil and gas leases to conserve and protect natural resources and the environment. *See, e.g., Duesing v. Udall*, 350 F.2d 748, 751 (D.C. Cir. 1965) (upholding refusal to issue leases in wildlife refuge and rejecting argument that Interior may only “promote mineral development”); *Forbes*, 125 F.2d at 408 (upholding authority to require abandoned well to be plugged); *Getty Oil Co. v. Clark*, 614 F. Supp. 904, 915 (D. Wyo. 1985) (upholding authority “to grant, deny or mandate a suspension of operations in the interest of conserving the environmental values of the leased property” (citation omitted)); *United States v. Wilbur*, 283 U.S. 414, 419 (1931) (upholding refusal to issue oil and gas leases).

Indeed, for nearly 100 years, every version of the federal oil and gas regulations has required operators to avoid damaging surface *and* subsurface resources, including groundwater. 1920 I.D. Lexis 47, at \*2–6 (§§ 1–13); 30 C.F.R. § 221.24 (1938) (Lessees may not “pollute streams or damage the surface or pollute the underground water of the leased or other land.”); 30

C.F.R. § 221.32 (1982); 43 C.F.R. § 3162.5-1 to .5-2 (1983 & 2014).<sup>12</sup> These provisions refute Petitioners’ assertion that the sole focus of early oil and gas regulation was protecting the petroleum resource from groundwater, and not protecting groundwater itself. Wyo. Br. 41–42. BLM and its predecessors have always required operators to exercise “reasonable diligence, skill, and care in the operation” of federal leases to avoid groundwater pollution. 30 U.S.C. § 187. “An administrative practice has peculiar weight when it involves a contemporaneous construction of a statute by the persons charged with the responsibility of setting its machinery in motion . . . .” *Zenith Radio v. United States*, 437 U.S. 443, 450 (1978) (internal quotation marks and citation omitted).

Petitioners have not cited a single case holding that regulation of oil and gas operations falls outside BLM’s authority. Instead, they offer unpersuasive reasons for their contrary conclusion. First, Petitioners observe, N.D. Br. 12, that the MLA requires BLM to “regulate all surface-disturbing activities . . . in the interest of conservation of surface resources.” 30 U.S.C. § 226(g). But contrary to Petitioners’ implication, § 226(g) does not limit BLM to addressing surface-disturbing activities.

Section 226(g) is an action-forcing measure *requiring* BLM to consider surface impacts *before* issuing a drilling permit. Congress enacted § 226(g) as part of the 1987 amendments to the MLA. *See* Pub. L. No. 100-203, § 5102(b), 101 Stat. 1330, 1330-257 to 258. Congress was concerned about the “growing conflict” caused by “failure to consider potential developmental consequences prior to lease issuance.” H.R. Rep. No. 100-378 Pt. 1, at 8 (1987) BLM’s practice had been to “reserve these considerations until lease issuance.” *Id.* at 10. Section 226(g) thus

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<sup>12</sup> *See also* 30 C.F.R. §§ 221.5–221.6, 221.9, 221.14 (1938); 30 C.F.R. §§ 221.5, 221.8–221.9, 221.18, 221.21, 221.23 (1982); 43 C.F.R. §§ 3162.3-2, 3162.4-2 (1983 & 2014); Onshore Order 2, § III.B, 53 Fed. Reg. at 46,808–09.

provides that BLM may not issue a drilling permit until after approving “a plan of operations covering proposed surface-disturbing activities.” 30 U.S.C. § 226(g).

By the time of that amendment, BLM and its predecessors had been regulating oil and gas operations on federal and Indian lands to protect subsurface resources, including groundwater, for 67 years. 1920 I.D. Lexis 47, at \*2–6 (§§ 1–13). It is unimaginable that Congress used § 226(g)—a provision intended to *increase* review of surface impacts before lease issuance—to impliedly remove BLM’s authority to protect subsurface resources. *See* H.R. Rep. No. 100-378, at 14 (the bill “seeks to increase the amount of information, understanding and public awareness” of development impacts “for use prior to decisions relating to lease issuance”); *Boesche*, 373 U.S. at 481 (refusing to find a “restriction on the Secretary’s power” in a law “intended to expand, not contract, the Secretary’s control”).

Nothing in § 226(g) or its legislative history overrides BLM’s long-exercised authority to protect subsurface resources. In fact, for decades after § 226(g)’s enactment, BLM continued to exercise that authority without objection. *See* 43 C.F.R. §§ 3162.5-1 to 3162.5-2 (1988–2014); Onshore Order 2, 53 Fed. Reg. at 46,808–09 (1988); 57 Fed. Reg. 3023 (Jan. 27, 1992) (amending Onshore Order 2). “From the beginnings of the [MLA] the Secretary has conceived that he had the power drawn in question here, and Congress has never interfered with its exercise.” *Boesche*, 373 U.S. at 482; *see also Wyoming v. USDA*, 661 F.3d at 1234–35 & n.20 (holding subsequent statute did not impliedly repeal Forest Service’s general authority to regulate public land for conservation purposes).

Second, Petitioners misread the 1982 hydraulic fracturing rule as exclusively addressing “additional surface disturbance.” Wyo. Br. 14. The 1982 rule actually required operators on federal and Indian lands to seek approval of all “nonroutine fracturing jobs.” 43 C.F.R.

§ 3162.3-2(a) (2014); *see also* 47 Fed. Reg. at 47,763. BLM’s regulations further required all operations on those lands—including fracturing operations—to avoid “undue damage to surface or *subsurface* resources” and to “isolate” and “protect” usable water. 43 C.F.R. §§ 3162.5-1 to 3162.5-2 (2014) (emphasis added). A central purpose of the Rule is to modernize the required approvals given the advancement and expansion of fracturing techniques. 80 Fed. Reg. at 16,128–29, 16,131. The Rule is not the agency’s first foray into hydraulic fracturing; it is an update of previous regulations made necessary by changing technology and industry practices. *Id.*

Third, Petitioners argue that the MLA does not expressly authorize regulation of hydraulic fracturing. Wyo. Br. 22; N.D. Br. 11. Again, because general rulemaking delegations like those at issue here include all matters “within the agency’s substantive field,” courts do not ask whether “*the particular issue* was committed to agency discretion.” *Helfrich*, 804 F.3d at 1109 (quoting *City of Arlington*, 133 S. Ct. at 1874). Courts instead work from the “background presumption” that Congress “desired the agency (rather than the courts) to possess whatever degree of discretion [an] ambiguity allows.” *City of Arlington*, 133 S. Ct. at 1868. Since the MLA’s enactment, BLM and its predecessors have regulated well-stimulation techniques similar to hydraulic fracturing on federal lands, including to protect groundwater. Petitioners have identified no provision that “unambiguously forbid[s]” BLM’s interpretation of its authority. *Barnhart*, 535 U.S. at 218.

Petitioners cite, Wyo. Br. 42; N.D. Br. 12, a provision stating that 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,” 30 U.S.C. § 189. That provision does not give states veto power over federal regulation of federal oil and gas leases. Section 189 merely clarifies that the

MLA was not intended to preempt all state regulatory authority over federal oil and gas leases. In interpreting § 189, the Tenth Circuit has followed the “Supreme Court’s analytical approach,” which “focuses on whether applying state law to an issue affecting a federal mineral lease poses a ‘significant threat to any identifiable federal policy or interest.’” *Kirkpatrick Oil & Gas Co. v. United States*, 675 F.2d 1122, 1126 (10th Cir. 1982) (quoting *Wallis*, 384 U.S. at 68). In other words, ordinary principles of conflict preemption apply to state laws affecting federal oil and gas leases under the MLA. *Ventura Cty. v. Gulf Oil Corp.*, 601 F.2d 1080, 1086 (9th Cir. 1979) (explaining that § 189 does not alter the principle that states “have no right to apply local regulations impermissibly conflicting with achievement of a congressionally approved use of federal lands”), *aff’d* 445 U.S. 947 (1980); *see also Wyoming v. United States*, 279 F.3d 1214, 1234 (10th Cir. 2002) (interpreting similar clause to require “ordinary principles of conflict preemption to apply”).

The Rule does not purport to occupy the field of hydraulic fracturing regulation on federal and Indian lands and thereby preempt all state or tribal regulation. To the contrary, the Rule requires operators on federal and Indian lands to comply with all state and tribal laws, preserving those sovereigns’ concurrent regulatory authority. 80 Fed. Reg. at 16,133, 16,176, 16,178, 16,190. No Petitioner has shown that compliance with both the federal and state hydraulic fracturing rules, in whole or in part, is “a physical impossibility.” *See Keith v. Rizzuto*, 212 F.3d 1190, 1193 (10th Cir. 2000). BLM acted within its authority under § 189 to set baseline standards for hydraulic fracturing operations on federal lands. The rule is entirely consistent with the MLA’s goal of “reserv[ing] to the Government the right to supervise, control, and regulate” the development of federally owned resources. *Boesche*, 373 U.S. at 481 (quoting

H.R. Rep. No. 65-1138, at 19). The structure, purpose, and history of the MLA therefore support BLM's authority over hydraulic fracturing on federal lands.

2. *The structure, purpose, and history of FLPMA support BLM's authority to regulate hydraulic fracturing on federal lands*

FLPMA supplements and enhances BLM's authority to regulate oil and gas operations on federal lands to preserve and protect the environment. Before Congress enacted FLPMA, "BLM was charged with administering the lands and their resources under a myriad of public land laws serving a variety of competing and often conflicting interests." *Watt*, 696 F.2d at 737. Congress enacted FLPMA to "provide guidance and a comprehensive statement of congressional policies concerning the management of the public lands." *Id.*

FLPMA directs that public lands are to be managed in a manner that, inter alia, "will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values." 43 U.S.C. § 1701(a)(8). And to implement that and other statutory purposes, FLPMA authorizes BLM to "promulgate rules and regulations to carry out the purposes of this Act and of other laws applicable to the public lands," *id.* § 1740. At the same time, the public lands also must be managed to meet "the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands." *Id.* § 1701(a)(12). FLPMA thus "represents an attempt by Congress to balance the use of the public lands by interests as diverse as the lands themselves." *Watt*, 696 F.2d at 738; *see also Mineral Policy Ctr. v. Norton*, 292 F. Supp. 2d 30, 33 (D.D.C. 2003).

Moreover, FLPMA affirmatively requires BLM to, "by *regulation* or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C. § 1732(b) (emphasis added). FLPMA thus sets a minimum regulatory floor by requiring BLM to take steps to mitigate any "unnecessary" degradation. But BLM's discretion goes well beyond this floor

because FLPMA instructs BLM to use “published rules” to “regulate” the “use, occupancy, and development” of the public lands under principles of multiple use and sustained yield, 43 U.S.C. § 1732(a)–(b), a “deceptively simple term that describes the enormously complicated task of striking a balance among the many competing uses to which land can be put,” *Norton v. S. Utah Wilderness All.*, 542 U.S. 55, 58 (2004); *see also Theodore Roosevelt Conservation P’ship v. Salazar*, 616 F.3d 497, 518 (D.D.C. 2010) (BLM “has wide discretion to determine how those principles [of multiple use and sustained yield] should be applied”). Those standards require BLM to “balance potentially degrading uses—e.g., mineral extraction, grazing, or timber harvesting—with conservation of the natural environment.” *Theodore Roosevelt*, 661 F.3d at 76. “It is past doubt that the principle of multiple use does not require BLM to prioritize development over other uses.” *N.M. ex rel. Richardson v. BLM*, 565 F.3d 683, 710 (10th Cir. 2009). FLPMA thus provides BLM with authority to “disapprove of an otherwise permissible mining operation because the operation, though necessary for mining, would unduly harm or degrade the public land.” *Mineral Policy Ctr.*, 292 F. Supp. 2d at 42.

Contrary to Wyoming’s argument, FLPMA is not exclusively a “land planning statute.” *Wyo. Br.* 38–40. FLPMA’s land-use-planning provisions are found in Title II of the Act, 43 U.S.C. §§ 1711–23. BLM’s statutory authority under §§ 1732(a)–(b) and 1740, as described above, is contained elsewhere in FLPMA—in Title III, *id.* §§ 1731–48b. BLM has long interpreted those delegations to provide authority for its regulations governing oil and gas operations on federal lands. 63 Fed. Reg. at 52,952; 43 C.F.R. Part 3160 (1998) (citing 43 U.S.C. §§ 1732(b), 1740). Wyoming’s argument is premised on Title II and ignores the authority granted under Title III.



Moreover, the Tenth Circuit has held that § 1732(b) creates a “duty, *independent of the planning process*, to prevent undue degradation of resources.” *Utah Shared Access All. v. Carpenter*, 463 F.3d 1125, 1136 (10th Cir. 2006) (emphasis added). Section 1732(b) “underscor[es] the BLM’s duty to protect the environment.” *Id.* at 1129. And FLPMA expressly grants BLM authority to do so “by regulation or otherwise.” 43 U.S.C. § 1732(b). Wyoming’s crabbed view of FLPMA therefore finds no support.

Wyoming also mischaracterizes *California Coastal Commission v. Granite Rock Co.*, 480 U.S. 572 (1987), when it argues that case distinguishes BLM’s authority under FLPMA from authority for environmental regulation, Wyo. Br. 2, 15-16, 36, 38–40. In *Granite Rock*, the Supreme Court reviewed FLPMA’s land-use-planning provisions and determined that they did not preempt a state environmental regulation. *Id.* at 585–89. The Supreme Court did not consider the separate delegations of regulatory authority in §§ 1732(b) and 1740. *Granite Rock* thus provides no support for Wyoming’s assertion that FLPMA is exclusively concerned with land-use planning.

For similar reasons, Wyoming errs in arguing that FLPMA instructs BLM to “follow the applicable state and federal pollution laws, rather than giving it the authority to create its own.” Wyo. Br. 35–36. It is true that BLM’s land-use plans must “provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans.” 43 U.S.C. § 1712(c)(8). But requiring land-use plans to provide for compliance with pollution control laws does not undermine BLM’s separate authority to “regulate” the “use, occupancy, and development” of the public lands to prevent “unnecessary or undue degradation,” *id.* § 1732(b); BLM’s broad discretion to regulate the “use, occupancy, and development” of the public lands under principles of multiple use and sustained

yield, *id.* § 1732(a)–(b); or its broad discretion to “promulgate rules and regulations to carry out” FLPMA’s purposes, *id.* § 1740, including “protect[ing] the quality of . . . environmental, air and atmospheric [and] water resource . . . values,” *id.* § 1701(a)(8). Wyoming’s restrictive interpretation of § 1712(c)(8)—which appears in FLPMA’s land-use planning provisions—must be rejected because it essentially reads the separate delegation of regulatory authority in §§ 1732(a)–(b) and 1740 out of the statute.

Wyoming and North Dakota also cite, Wyo. Br. 37; N.D. Br. 12, an uncodified provision stating that FLPMA does not affect laws governing “appropriation or use” of water or “expand[] or diminish[] Federal or State jurisdiction, responsibility, interests, or rights in water resources development or control.” § 701(g), 90 Stat. at 2786. The Rule does not regulate the appropriation or use of water; it regulates hydraulic fracturing *operations* on federal and Indian lands to avoid unnecessary or undue groundwater contamination. *See* 80 Fed. Reg. at 16,142–43. The Rule is wholly consistent with FLPMA’s goal of ensuring that federal lands are managed in a manner that “will protect the quality of . . . water resource[s].” 43 U.S.C. § 1701(a)(8). The structure, purpose, and history of FLPMA support BLM’s authority to regulate hydraulic fracturing operations on federal lands.

3. *The SDWA does not repeal BLM’s authority to regulate hydraulic fracturing on federal and Indian lands*

Petitioners all argue that Congress intended to regulate all underground injection *exclusively* under the Safe Drinking Water Act (“SDWA”) underground injection control (“UIC”) program, *see* 42 U.S.C. §§ 300h to 300h-8, thus repealing by implication BLM’s authority to regulate any underground injection under the MLA, and causing a conflict with the broad authority expressed in FLPMA, enacted two years later. Wyo. Br. 27–30; N.D. Br. 9–10; IPAA Br. 48–52. Petitioners further argue that because Congress removed non-diesel hydraulic

fracturing from the SDWA's definition of "underground injection" when it passed the Energy Policy Act of 2005, *see* 42 U.S.C. § 300h(d)(1)(B), Congress must have intended that there be no federal regulation of non-diesel hydraulic fracturing. Wyo. Br. 31–32; N.D. Br. 10; IPAA Br. 51–52. Both arguments are incorrect.

Before the SDWA's passage, BLM's predecessor, USGS, had been regulating oil and gas operations on federal and Indian lands to protect groundwater for over 50 years. *See* 1920 I.D. Lexis 47, at \*2–6. The 1974 USGS regulations specifically required operators to obtain approval before "stimulat[ing] production by vacuum, acid, gas, air, or water injection, *or any other method.*" 30 C.F.R. §§ 221.21, 221.32 (1974) (emphasis added).<sup>13</sup> Thus, USGS was regulating oil and gas activity involving underground injections long before the SDWA was passed.

The SDWA left the USGS's authority to do so undisturbed. Nothing in the SDWA's text addressed USGS's authority, and the legislative history shows that Congress intended to preserve it. Congress does "not intend any of the provisions of this bill to repeal or limit any authority the U.S.G.S. may have under any other legislation." H.R. Rep. No. 93-1185, at 32 (1974), *as reprinted in* 1974 U.S.C.C.A.N. 6454, 6484–85. It further clarified Congress' intention "that [the Environmental Protection Agency] will not duplicate efforts of the U.S.G.S. to prevent groundwater contamination under the Mineral Leasing Act." *Id.*<sup>14</sup> Therefore, Congress did *not* intend the SDWA UIC program to be the *exclusive* mechanism for all federal regulation of any

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<sup>13</sup> *See also* 30 C.F.R. §§ 221.9, 221.24 (1938); 1 Fed. Reg. at 1998, § 2(d), (o) (1936).

<sup>14</sup> Petitioners attach significance to the fact that FLPMA was passed two years after the SDWA. Wyo. Br. 36. However, the SDWA's legislative history indicates that it was not intended to displace USGS' (and its successor agencies') authority under *any* legislation. H.R. Rep. No. 93-1185, at 32. Thus, when Congress passed the SDWA, it did not intend to prevent BLM from exercising any authority it may have, including authority subsequently provided under FLPMA, to regulate oil and gas activities, including those involving underground injections, as may be necessary to protect groundwater.

underground injection associated with oil and gas activities on federal lands. To the contrary, Congress specifically intended that the UIC program would not displace the USGS's authority to prevent groundwater contamination that might occur due to underground injections associated with oil and gas activity on federal lands.

Wyoming argues that the UIC program is “all-encompassing” because authorized States are charged with regulating all underground injections, ensuring that any authorized underground injection will not endanger drinking water sources, and applying their authorized programs on federal lands. Wyo. Br. 27–29. However, the fact that Congress intended the UIC program to apply to both federal and non-federal lands does not mean that it intended to repeal BLM's separate authority to regulate oil and gas related injection activities on federal lands under the MLA, or carve (in advance) an exception from the authority granted in 1976 under FLPMA. This is especially true in light of the legislative history to the contrary. In addition, states generally lack regulatory authority over Indian lands, which belies the assertion that state UIC authority is all-encompassing. *Alaska v. Native Vill. of Venetie Tribal Gov't*, 522 U.S. 520, 527 n.1. (1998) (“Generally speaking, primary jurisdiction over land that is Indian country rests with the Federal Government and the Indian tribe inhabiting it, and not with the States.”); *Indian Country, U.S.A., Inc. v. Okla. ex. rel. the Okla. Tax Comm'n*, 829 F.2d 967, 976 (10th Cir. 1987) (“There is a presumption *against* state jurisdiction in Indian country.”) (emphasis added).<sup>15</sup>

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<sup>15</sup> EPA generally exercises SDWA primacy over lands that meet the definition of “Indian lands” under 40 C.F.R. § 144.3. EPA has defined “Indian lands” under 40 C.F.R. § 144.3 to mean lands that are “Indian country” under 18 U.S.C. § 1151. “Indian country” includes Indian reservations (including tribal trust lands), dependent Indian communities, and certain Indian allotments. 18 U.S.C. § 1151. *See also* 40 C.F.R. § 144.3 (same). EPA may also delegate primary enforcement authority to Tribes. 42 U.S.C. § 300j-11(a).

In fact, for decades after the SDWA's enactment, BLM and its predecessors regulated well-stimulation and other oil and gas operations on federal and Indian lands to protect groundwater.<sup>16</sup> BLM's predecessor agency began exercising authority over hydraulic fracturing in 1982. 47 Fed. Reg. at 47,770; 43 C.F.R. § 3162.3-2 (1983). Meanwhile, the U.S. Environmental Protection Agency ("EPA") interpreted the SDWA to exclude well operations like hydraulic fracturing because "subsurface emplacement of fluids . . . is not a principal function of the operation." See 41 Fed. Reg. 36,730, 36,732 (Aug. 31, 1976); *id.* at 36,737. Thus, contrary to Wyoming's argument, BLM exercised authority over hydraulic fracturing after the SDWA was passed, and the process was *not* being regulated under the UIC program.

Wyoming argues that the legislative history of the SDWA shows that Congress originally intended to regulate hydraulic fracturing under the UIC program. Wyo. Br. 4–6, 29–30; *see also* IPAA Br. 49. Even if Congress did so intend, the same legislative history shows that Congress did *not* intend to displace BLM's predecessor from regulating *any* oil and gas activity under any of its independent authorities. H.R. Rep. No. 93-1185, at 32. EPA's interpretation that hydraulic fracturing was not regulated under the SDWA UIC program was intact until 1997, when the Eleventh Circuit overturned EPA's interpretation, thereby subjecting hydraulic fracturing to SDWA regulation for the first time. *Legal Envtl. Assistance Found. v. EPA*, 118 F.3d 1467, 1473–78 (11th Cir. 1997) ("*LEAF*"). While the *LEAF* decision could have altered the regulatory landscape under the SDWA UIC program, its effect was short-lived. The *LEAF* decision prompted Congress, in 2005, to amend the SDWA's definition of "underground injection." Energy Policy Act of 2005, Pub. L. No. 109-58, § 322, 119 Stat. 594, 694. As amended, the

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<sup>16</sup> See 30 C.F.R. §§ 221.21(b), 221.32 (1982); 43 C.F.R. §§ 3162.5-1 to 3162.5-2 (1983); 53 Fed. Reg. at 46,808–09 (1988); 57 Fed. Reg. at 3023 (1992).

SDWA provides that “for purposes of this part”—i.e., Part C of the SDWA—the term “underground injection” excludes hydraulic fracturing operations not involving diesel fuels. 42 U.S.C. § 300h(d)(1)(B)(ii).

Thus, on its face, the 2005 amendment applies only to Part C of the SDWA, constituting the UIC program, and effectively returns the regulatory landscape to its pre-*LEAF* status. Nothing in the Energy Policy Act addresses BLM’s authority over hydraulic fracturing on federal and Indian lands under any other provision of law or authority.<sup>17</sup>

That is true even though the Act imposes numerous other requirements on the Secretary of the Interior. *See, e.g.*, Pub. L. No. 109-58, 119 Stat. 594, 650–83, 694–748, 760–79. The Energy Policy Act simply does not “unambiguously forbid” BLM from continuing to exercise authority over hydraulic fracturing on federal and Indian lands. *See Barnhart*, 535 U.S. at 218.<sup>18</sup>

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<sup>17</sup> State Petitioners cite to statements by Representative Markey and Senator Feingold as evidence that the Energy Policy Act was intended to prevent any federal regulation of hydraulic fracturing. Wyo. Br. 30; N.D. Br. 3. It is well-settled that the views of single legislators are not controlling. *Mims v. Arrow Fin. Servs.*, 132 S. Ct. 740, 752 (2012). This is especially true where the legislators in question opposed the bill, as was the case with Representative Markey and Senator Feingold here. *See NRDC v. EPA*, 526 F.3d 591, 604–05 (9th Cir. 2008) (finding statements by opponents of the Energy Policy Act to be the least authoritative in the hierarchy of legislative history). Moreover, Senator Feingold stated only that the bill exempts hydraulic fracturing from the SDWA; he said nothing about BLM’s authority under FLPMA or the MLA. 151 Cong. Rec. S9335-01, S9337 (July 29, 2005) (statement of Sen. Feingold). Representative Markey’s statement more broadly indicated that the bill includes a special provision to protect Halliburton from facing federal regulation for hydraulic fracturing that actually injects diesel fuel into water supplies. 151 Cong. Rec. H2192-02, H2194-95 (Apr. 20, 2005) (statement of Rep. Markey). This statement should be afforded little weight because hydraulic fracturing using diesel fuel is regulated under the SDWA, as amended by the final language of the Energy Policy Act. *See* 42 U.S.C. § 300h(d)(1). Moreover, the Energy Policy Act amended only the definition of “underground injection” in the SDWA; it did not amend FLPMA or the MLA in any respect and should not be construed as indicative of congressional intent with respect to those acts. *See id.*

<sup>18</sup> IPAA cites a law review article for the proposition that in passing the Energy Policy Act, Congress intended to take away the only power to regulate hydraulic fracturing that it had ever provided to any federal agency. IPAA Br. 51 (citing Hannah Wiseman, *Untested Waters: The Rise of Hydraulic Fracturing in Oil and Gas Production and the Need to Revisit Regulation*, 20

Contrary to Petitioners' arguments, the Energy Policy Act clearly removed the regulation of non-diesel hydraulic fracturing under the UIC program from the authority of authorized states. By amending Part C's definition of "underground injection," Congress precluded the EPA *and* the states from regulating non-diesel hydraulic fracturing under the SDWA regime. Nowhere in that express direction is an inference that Congress intended the states to exclusively regulate hydraulic fracturing on federal lands as Petitioners argue.

Wyoming did not begin to regulate hydraulic fracturing until 2010. Wyo. Br. 11–12. Utah did not revise its regulations to specifically address hydraulic fracturing until 2012. *Id.* 13. North Dakota similarly updated its regulations to address hydraulic fracturing in 2012. N.D. Br. 5. Congress could not have intended that these States were to regulate hydraulic fracturing on federal lands to the exclusion of BLM when the Energy Policy Act was passed in 2005 because the States were not then specifically regulating the practice. Moreover, none of the State Petitioners, then or now, regulates underground injection on Indian lands under the UIC program. 40 C.F.R. § 147.300 (Indian lands in Colorado); *id.* § 147.1752 (Indian lands in North Dakota); *id.* § 147.2253 (Indian lands in Utah); *id.* § 147.2553 (Indian lands in Wyoming).

Nor are the MLA, Indian minerals statutes, or FLPMA "more general" than the SDWA, as amended by the Energy Policy Act. Wyo. Br. 32; IPAA Br. 52. Under the former authorities, BLM acts in a proprietary or trust capacity, as well as a sovereign, to regulate oil and gas

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Fordham Envtl. L. Rev. 115, 145 (2009)).) The article's author has since explained that it misconstrues her research to suggest that the Energy Policy Act withdrew all federal authority over hydraulic fracturing. See Hannah Wiseman, *An Unprecedented Fracturing Ruling with Broad Implications for Federal Environmental and Land Use Law* (Oct. 5, 2015), [http://lawprofessors.typepad.com/environmental\\_law/2015/10/an-unprecedented-fracturing-ruling-with-broad-implications-for-federal-environmental-and-land-use-la.html](http://lawprofessors.typepad.com/environmental_law/2015/10/an-unprecedented-fracturing-ruling-with-broad-implications-for-federal-environmental-and-land-use-la.html).

operations occurring on *federal* and *Indian* lands.<sup>19</sup> In contrast, the SDWA applies to all lands nationwide, even those owned by states and private parties. Excluding non-diesel hydraulic fracturing from the SDWA’s broad, nationwide regime implies nothing about the authority Congress wishes BLM to exercise over federal resources under different statutory regimes.<sup>20</sup>

“[U]nless Congress conveys its purpose clearly, it will not be deemed to have significantly changed the federal-state balance.” *United States v. Ryan*, 894 F.2d 355, 359 (10th Cir. 1990). Petitioners’ arguments would remove all federal authority to regulate a particular use of federal property, placing that property “completely at the mercy of state legislation.” *Kleppe v. New Mexico*, 426 U.S. 529, 543 (1976) (quoting *Camfield v. United States*, 167 U.S. 518, 526 (1897)). Absent a clear statement by Congress, this Court should not curtail BLM’s delegated authority under other statutes never mentioned by Congress in the Energy Policy Act. *See Forbes*, 125 F.2d at 408–09 (citing U.S. Const. art. IV, § 3, cl. 2); *Gonzalez v. Arizona*, 677 F.3d 383, 410 (9th Cir. 2012) (en banc) (“[T]he Constitution’s text requires us to safeguard the specific enumerated powers that are bestowed on the federal government.”), *aff’d sub nom. Arizona v. Inter Tribal Council*, 133 S. Ct. 2247 (2013).

Indeed, Petitioners’ arguments would effectively repeal authority that BLM and its predecessors have exercised since the MLA’s enactment. No such implied repeal may be found unless Congress’ intent to change settled law is “clear and manifest.” *In re Stephens*, 704 F.3d

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<sup>19</sup> Thus, if it were necessary to determine which statutes were more or less specific, it would be equally valid to hold that the MLA, FLPMA, and the Indian minerals statutes are more specific, and the SDWA as amended is more general.

<sup>20</sup> Wyoming argues that EPA’s comments to the effect that certain provisions of the Final Rule are consistent with EPA’s regulations for Class II injection wells shows that BLM is attempting an end-run around the Energy Policy Act. Wyo. Br. 33. However, EPA’s comments show only that the Final Rule should be effective for its intended purposes, including the protection of groundwater on federal and Indian lands where it is to apply. *See* DOIAR0103278\_002–\_004.



1279, 1286 (10th Cir. 2013) (quoting *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 662 (2007)). To impliedly repeal BLM's authority, the 2005 SDWA amendment would have to create an "irreconcilable conflict" or "cover[] the whole subject" of hydraulic fracturing on federal and Indian lands. *Elephant Butte Irrigation Dist. v. U.S. Dep't of Interior*, 269 F.3d 1158, 1164 (10th Cir. 2001). The amendment does neither. It is entirely consistent with that narrow amendment for BLM to continue regulating hydraulic fracturing under its other statutory authorities on federal and Indian lands.

North Dakota cites *FDA v. Brown & Williamson Tobacco*, 529 U.S. 120 (2000), in support of its argument that the SDWA and the Energy Policy Act were specifically intended to address BLM's authority over hydraulic fracturing on federal lands. N.D. Br. 8. However, this case is nothing like *Brown & Williamson*. In *Brown & Williamson*, the Supreme Court held that Congress had precluded the U.S. Food and Drug Administration ("FDA") from regulating tobacco products. 529 U.S. at 126. The Court "emphasized that the FDA had not only completely disclaimed any authority to regulate tobacco products, but had done so for more than eighty years, and that Congress had repeatedly legislated against this background." *Verizon v. FCC*, 740 F.3d 623, 638 (D.C. Cir. 2014) (distinguishing *Brown & Williamson* and deferring to agency interpretation despite change in position). Here, in contrast, BLM and its predecessors have consistently asserted authority to regulate well-stimulation techniques, including hydraulic fracturing, on federal lands.<sup>21</sup>

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<sup>21</sup> North Dakota also asserts that two BLM emails and a comment from EPA demonstrate that the agency knew it lacked authority. N.D. Br. 13 (citing DOIAR0007235, 29883, 16358). But a single conclusory statement by a federal official in an internal email chain—one where the same official alters his stance minutes later when he is reminded that BLM already regulates "nonroutine" hydraulic fracturing under existing regulations, *see* DOIAR0007235—is neither conclusive on the legal question of whether BLM has statutory authority nor a binding expression of the agency's position. *See Home Builders*, 551 U.S. at 659; *Wyoming*, 661 F.3d at

In *Brown & Williamson*, the Court also observed that FDA’s new assertion of authority over tobacco products would “logically require the agency to ban such products altogether, a result clearly contrary to congressional policy.” *Verizon*, 740 F.3d at 638 (citing *Brown & Williamson*, 529 U.S. at 135–43). As explained above, there is no irreconcilable conflict between the definition of “underground injection” in Part C of the SDWA and BLM’s continued regulation of hydraulic fracturing operations on federal and Indian lands. Accordingly, *Brown & Williamson* does not support North Dakota’s arguments.

Petitioners’ miscellaneous arguments likewise have no merit. Petitioners each note that a federal agency engaged in underground injection must comply with an authorized State’s UIC requirements. Wyo. Br. 28; N.D. Br. 9–10; IPAA Br. 49 n.29. The section of the SDWA to which Petitioners refer provides that federal agencies that are themselves engaged in underground injection which endangers drinking water within the meaning of 42 U.S.C. § 300h(d)(2), are subject to federal, state, and local requirements respecting underground injection in the same manner and to the same extent as any other person is subject to such requirements. 42 U.S.C. § 300j-6(a). Thus, like the similar provisions of the other federal environmental statutes, § 300j-6(a) simply requires that federal agencies that are actually

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1266; *see also WildEarth Guardians v. Nat’l Park Serv.*, 703 F.3d 1178, 1186 (10th Cir. 2013); *S. Shore Hosp. v. Thompson*, 308 F.3d 91, 103 n.7 (1st Cir. 2002). For the same reason, the stray comment of a BLM field office—which the Court previously referenced but which no Petitioner raises in merits briefing—does not establish BLM’s national policy or otherwise bind the agency. *See id.* BLM’s official position on its statutory authority is contained in the preambles to the proposed rule, supplemental proposed rule, and final rule. *See, e.g.*, 77 Fed. Reg. at 27,694; 78 Fed. Reg. at 31,640–41; 80 Fed. Reg. at 16,137, 16,141, 16,186. The other documents North Dakota cites offer even less support: one is merely recounting without elaboration or evaluation a list of issues raised by commenters, DOIAR0029883, and the other is a comment by EPA “recommend[ing] that the proposed rule clarify any jurisdictional ambiguity to avoid uncertainty and confusion,” to which BLM responds that it has addressed any ambiguity in the current version of the rule, DOIAR0016358.

engaged in the regulated activity—in this case, “underground injection”—comply with applicable requirements to the same extent as any other person must comply with those requirements. *Id.* Cf. *City of Olmsted Falls v. EPA*, 233 F. Supp. 2d 890, 897 (N.D. Ohio 2002) (“On its face, Section 313 [the federal facilities provision of the Clean Water Act] acts to waive sovereign immunity only where an arm of the federal government is an alleged polluter.”); *Colo. Wild, Inc., v. U.S. Forest Serv.*, 122 F. Supp. 2d 1190, 1194 (D. Colo. 2000) (Clarence Brimmer, J.) (“Section 313 . . . [is] limited to requiring a federal facility to comply with pollution control measures in the same fashion as a nongovernmental entity.”). Because BLM is not itself engaged in regulated underground injection, § 300j-6(a) is irrelevant here and does not curtail BLM’s authority to protect federal lands and resources in its regulatory role under FLPMA and the MLA. Insofar as Petitioners attempt to read § 300j-6(a) more expansively, that reading necessarily fails because as a waiver of the United States’ sovereign immunity § 300j-6(a) must be narrowly construed and cannot be “‘enlarge[d] . . . beyond what the [statute’s] language requires.’” *U.S. Dep’t of Energy v. Ohio*, 503 U.S. 607, 615 (1992) (citations omitted).<sup>22</sup>

Wyoming’s related argument—that state authority to regulate hydraulic fracturing must be exclusive of federal authority because state UIC programs are required to regulate underground injections occurring on federal lands—is likewise incorrect. Wyo. Br. 28–29 (citing 42 U.S.C. § 300h(b)(1)(D)). Nothing in § 300h(b)(1)(D) suggests that an authorized

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<sup>22</sup> Petitioners’ reliance on § 300j-6(a) is also puzzling because, while that section requires that federal agencies comply with federal, state, and local requirements regarding “underground injection,” the Energy Policy Act of 2005 specifically excluded non-diesel hydraulic fracturing operations from the definition of “underground injection.” 42 U.S.C. § 300h(d)(1). It therefore follows that, even if federal agencies *were* themselves engaged in non-diesel hydraulic fracturing operations, they would not be subject to any state or local requirements related to those operations under 42 U.S.C. § 300j-6(a).

State's regulation of underground injection on federal lands is intended to displace BLM's authority to regulate oil and gas operations on those lands. *See* 42 U.S.C. § 300h(b)(1)(D). Historically, the states and BLM have independently regulated oil and gas activities on federal lands. *See* 80 Fed. Reg. at 16,178 (noting that operators already must comply with both BLM rules and state rules regarding oil and gas operations on federal lands). Congress did not clearly indicate in the SDWA that this practice should not continue when it provided that state UIC programs are to include underground injections occurring on federal lands. *See United States v. Ryan*, 894 F.2d at 359 (“[U]nless Congress conveys its purpose clearly, it will not be deemed to have significantly changed the federal-state balance.”). To the contrary, as discussed above, the SDWA's legislative history made clear that Congress did not intend the UIC program to displace BLM's regulatory authority over oil and gas operations. H.R. Rep. No. 93-1185, at 32. In addition, states are prohibited from regulating non-diesel hydraulic fracturing on federal lands under the SDWA UIC program under the Energy Policy Act amendment, rendering 42 U.S.C. § 300h(b)(1)(D) irrelevant to any claim of exclusive state authority in this case.<sup>23</sup>

North Dakota's reference to wellhead protection areas is similarly unhelpful. N.D. Br. 10. The SDWA provides for states to adopt programs to protect wellhead protection areas. 42 U.S.C. § 300h-7(a). A “wellhead protection area” is the “surface and subsurface area

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<sup>23</sup> State Petitioners argue that because § 189 of the MLA provides that nothing in the MLA shall be construed to affect the rights of the States to exercise any rights they may have, the MLA prohibits BLM's fracking rule. Wyo. Br. 42–43; N.D. Br. 12–13. However, § 189 of the MLA merely provides that that the MLA is not intended to preempt state law. 30 U.S.C. § 189. It does not provide that state law is to displace federal authority. *Id.* While the SDWA prohibits states from regulating non-diesel hydraulic fracturing under the SDWA UIC program, the Rule does not displace states' rights to regulate hydraulic fracturing on federal lands under state law. Rather, it accommodates such rights in the same manner that BLM's rules have always accommodated such rights. 80 Fed. Reg. at 16,178 (“Operators on Federal leases must comply both with this rule and any applicable state requirements, just as they already must comply with both BLM rules and state rules on a variety of drilling and completion issues.”).

surrounding a *water well or wellfield, supplying a public water system*, through which contaminants are reasonably likely to move toward and reach such water well or wellfield.” *Id.* § 300h-7(e) (emphasis added). Thus, the wells protected in wellhead protection areas are drinking water wells, not oil and gas wells. North Dakota provides no support for its illogical assertion that wellhead protection areas originally included hydraulically fractured oil and gas wells. N.D. Br. 10. It is true that federal agencies that “own or operate” a facility in a wellhead protection area and are engaged in any activity at that facility which may result in the contamination of water supplies at the wellhead protection area are subject to state regulatory requirements in the same manner and to the same extent as anyone else. 42 U.S.C. § 300j-6(a)(1). *See also* 42 U.S.C. § 300h-7(a), (h) (federal agencies having jurisdiction over any anthropogenic potential source of contamination identified by a state in a wellhead protection area must comply with state wellhead protection programs in the same manner and to the same extent as anyone else). However, the fact that BLM may be subject to state regulatory requirements when it is itself engaged in activities that might contaminate water supplies at a wellhead protection area has nothing to do with BLM’s authority to regulate hydraulic fracturing operations under FLPMA and the MLA. *See U.S. Dep’t of Energy*, 503 U.S. at 619 (“A clear and unequivocal waiver of anything more cannot be found; a broader waiver may not be inferred.”); *Bennett v. Spear*, 520 U.S. 154, 173 (1997) (recognizing Congress’ distinction between federal agencies as regulated parties and regulators under citizen suit provision of Endangered Species Act, 16 U.S.C. § 1540(g)(1)(A)).

North Dakota alone argues that § 300h(b)(3)(B) is relevant to BLM’s authority here. N.D. Br. 9. That provision of the SDWA is directed solely at the Administrator of EPA, not any other federal official or agency, such as the Secretary of the Interior or BLM. 42 U.S.C.

§ 300h(b)(3)(B). *See also id.* § 300f(7) (“The term ‘Administrator’ means the Administrator of the Environmental Protection Agency.”). In addition, North Dakota selectively quotes the statutory language. It does not inform the Court that an EPA regulation will be deemed to disrupt a state UIC program *only* if it would be *infeasible* to comply with both the EPA regulation and an approved state UIC requirement. 42 U.S.C § 300h (b)(3)(B)(ii). Thus, in addition to being inapplicable to BLM, the statutory provision would not prohibit the Rule because it is feasible to comply with the Rule and applicable state UIC requirements. Nothing in the Rule implicates state UIC programs. Operators seeking to dispose of recovered fluids by underground injection must use a well permitted under the applicable UIC program. *See, e.g.*, 80 Fed. Reg. at 16,178. Thus, none of Petitioners’ arguments regarding the SDWA has merit, and the Court should reject them.

***B. BLM’s interpretation of its statutory authority is permissible and deserves deference***

At *Chevron* step two, the sole question is whether BLM’s conclusion that it has authority over hydraulic fracturing operations on federal and Indian lands “is based on a permissible construction” of the relevant statutes. *Chevron*, 467 U.S. at 843. An agency interpretation of an express delegation is permissible if it is not “arbitrary, capricious, or manifestly contrary to the statute.” *United States v. Power Eng’g Co.*, 303 F.3d 1232, 1236–37 (10th Cir. 2002). The Court must uphold the agency’s interpretation if it is a “reasonable accommodation of conflicting policies that were committed to the agency’s care by the statute.” *Chevron*, 467 U.S. at 845. In making that determination, the Court must consider “the text, the structure, and the underlying purpose” of the statute. *Midwest Crane & Rigging v. Fed. Motor Carrier Safety Admin.*, 603 F.3d 837, 840 (10th Cir. 2010).

BLM's conclusion is permissible for many of the reasons already discussed. The Rule's preamble repeatedly emphasizes BLM's statutory responsibility to act as "steward for the public lands and trustee for Indian lands." 80 Fed. Reg. at 16,132; *see also id.* at 16,137, 16,176, 16,178–79. That is entirely consistent with the role Congress expected BLM to play under the MLA, FLPMA, IMLA, and IMDA. BLM has broad authority to "carry out [its] proprietary function on behalf of the government and its citizens" and its trust responsibilities over Indian lands. *Hannifin*, 444 F.2d at 202 (citing *Ohio Oil*, 163 F.2d at 639–40). BLM acts as "the statutory guardian of [the] public interest" by ensuring "the proper allocation and development of the public lands." *Naartex*, 722 F.2d at 790.

BLM reasonably accommodated FLPMA's divergent policies, which include protecting the quality of ecological, environmental and water resource values, while managing in recognition of the Nation's need for domestic sources of minerals. 43 U.S.C. § 1701(a)(8), (12). BLM must also manage public lands under the principles of multiple use and sustained yield, and take any action necessary to prevent unnecessary or undue degradation of the lands. 43 U.S.C. § 1732(a), (b). Concerning FLPMA, commenters suggested "a moratorium or permanent ban on hydraulic fracturing." 80 Fed. Reg. at 16,179. BLM explained that such a ban "would not satisfy the BLM's multiple-use responsibilities under the FLPMA when regulations can adequately reduce the risks associated with hydraulic fracturing operations." *Id.* The Rule will ensure that such operations "continue to provide the Nation with domestically produced oil and gas and at the same time protect public lands." *Id.* BLM's explanation is fully consistent with FLPMA's requirement that BLM "balance potentially degrading uses—e.g., mineral extraction, grazing, or timber harvesting—with conservation of the natural environment." *Theodore Roosevelt*, 661 F.3d at 76.

Regarding groundwater, BLM acknowledged “the importance of states and tribes regulating the *use* of groundwater within their jurisdictions,” and that “regulation of groundwater *quality* is not within the BLM’s authority.” 80 Fed. Reg. at 16,143 (emphasis added). BLM explained, however, that it has a statutory responsibility to regulate oil and gas *operations* on federal and Indian lands, and that “[o]f primary importance when drilling or hydraulic fracturing a well is the protection of groundwater.” *Id.* The Rule ensures that operators follow best practices to avoid groundwater contamination; the rule does not dictate water uses or set water-quality standards. *See* 80 Fed. Reg. at 16,142–43 (explaining that the Rule’s definition of “usable water” defers to EPA, state, and tribal designations of the zones to be protected or exempted from protection); 43 C.F.R. § 3160.0-5 (defining “usable water”).

BLM further explained that its pre-existing regulations have the same aim, *id.* at 16,134–36, and BLM was revising the 1982 hydraulic fracturing rule to address the technique’s vastly expanded use and ensure that operators follow modern best practices, *id.* at 16,137; *see also id.* at 16,128–29, 16,131, 16,155, 16,176–77, 16,183, 16,187–89, 16,197–99. BLM and its predecessors have consistently asserted authority to protect groundwater from oil and gas operations, including well-stimulation techniques, since the MLA’s inception. Although “neither antiquity nor contemporaneity with the statute is a condition of validity” for an agency interpretation, those “that are of long standing come before [the court] with a certain credential of reasonableness, since it is rare that error would long persist.” *Smiley v. Citibank*, 517 U.S. 735, 740 (1996).

Beyond groundwater protection, the Rule also sought to achieve many objectives within BLM’s authority, among them:



- mandating disclosures of operational information to BLM to enable it to better manage lease operations;
- reducing interference with other wells through “frack hits,” which are unplanned surges of fluid from the fractured well into nearby wells, leading to surface spills, equipment damage, possible stranding of oil and gas resources, and other problems;
- ensuring that fluids recovered during fracturing operations are stored and managed properly to protect surface (and subsurface) resources;
- requiring disclosure of hydraulic fracturing chemicals, in part to enable effective responses to spills and contamination events; and
- identifying the sources of water used in hydraulic fracturing so that BLM can evaluate possible environmental impacts under the National Environmental Policy Act.

*See* 80 Fed. Reg. at 16,128–31, 16,137, 16,148–49, 16,152–54, 16,160–64, 16,167, 16,179–80, 16,182, 16,188–89, 16,193–95, 16,204.

In sum, Petitioners are wrong that BLM lacked authority to revise existing hydraulic fracturing regulations. BLM permissibly concluded that it is responsible for ensuring that oil and gas operations on federal and Indian lands do not contaminate groundwater. BLM and its predecessor agencies have interpreted their authority to include regulating downhole operations to isolate groundwater contemporaneously with the enactment of MLA and consistently for the last 96 years (including both before and after enactment of the MLA and FLPMA). Further, Petitioners’ authority arguments ignore many of the Rule’s objectives other than groundwater protection. Petitioners’ legal-authority arguments therefore should be rejected.

***C. BLM's regulation of hydraulic fracturing does not intrude on state sovereignty***

State Petitioners also ask the Court to set aside or permanently enjoin the Rule on the basis that it intrudes on their sovereignty. N.D. Br. 13–21, 26–29; Wyo. Br. 15–17. North Dakota, in particular, argues for reverse-preemption, i.e., that state regulations preempt BLM's regulations. *See* N.D. Br. 18–22. There is no basis for that argument, and, even if states feel that the Rule intrudes on their sovereignty, that is not a statutory basis for invalidating the Rule.

The United States' power over federal property derives from the Property Clause of the U.S. Constitution, art. IV, § 3, cl. 2, and "is without limitations," *Kleppe*, 426 U.S. at 539 (citation and quotation marks omitted). That power encompasses the proprietor's right to set terms and conditions for use of its property and also regulatory authority, i.e., "the power of legislating for the protection of the public lands." *Camfield*, 167 U.S. at 525–26.<sup>24</sup> Pursuant to the Property Clause and the Supremacy Clause, art. VI, cl. 2, federal statutes and regulations govern on federal lands and resources and trump any conflicting state statute or regulation. State regulations may apply to federal lands and resources, but they do not displace federal regulation. *Ventura Cty.*, 601 F.2d at 1086; *see also United States v. Wyoming*, 331 U.S. 440 (1947) (State cannot lease federal lands for oil and gas development.); *Kirkpatrick*, 675 F.2d at 1125-26 (State cannot pool federal lands for oil and gas development without the Secretary's consent.).

North Dakota and Wyoming cite an uncodified provision stating that FLPMA does not affect laws governing "appropriation or use" of water or "expand[] or diminish[] Federal or State jurisdiction, responsibility, interests, or rights in water resources development or control." Pub.

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<sup>24</sup> *See also Ohio Oil*, 163 F.2d at 639; *Diamond Shamrock Expl. Co. v. Hodel*, No. 86-537, 1987 U.S. Dist. LEXIS 509, at \*17–18 (E.D. La. Jan. 21, 1987), *aff'd in part & remanded*, 853 F.2d 1159 (5th Cir. 1988) (Congress delegated dual regulatory and proprietary authority to BLM under the MLA); *Forbes v. United States*, 125 F.2d at 408.

L. No. 94-579, § 701(g), 90 Stat. 2743, 2786 (1976). However, no Petitioner explains how the Rule intrudes on state laws governing appropriation or use of water or diminishes state jurisdiction over water resources development or control, given that the preamble repeatedly explains that operators must comply with state laws in acquiring the water used for hydraulic fracturing operations and in disposing of that water. *See, e.g.*, 80 Fed. Reg. at 16,179, 16,183–84, 86.

State Petitioners seek support in § 189 of the MLA. The last sentence of that section provides that “[n]othing in [the MLA] shall be construed or held to affect the rights of States or other local authority to exercise any rights which they may have, including the right to levy and collect taxes upon improvements, output of mines, or other rights, property, or assets of any lessee of the United States.” That sentence does not authorize reverse preemption or state veto of BLM’s regulations of operations on federal leases. *Kirkpatrick*, 675 F.2d at 1125-26; *Ventura Cty.*, 601 F.2d at 1086; *see generally, Mid-Northern Oil Co. v. Walker*, 268 U.S. 45 (1925).

Therefore, State Petitioners are mistaken in asserting that, where there is a conflict between state and federal regulation of federal minerals and lands, the federal regulation must give way.<sup>25</sup> Further, State Petitioners have not asserted a basis on which they can claim sovereignty or a sole right to regulate Indian lands and minerals held in trust.<sup>26</sup>

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<sup>25</sup> North Dakota also premises its argument that the Rule intrudes on its sovereignty on its mistaken view that the SDWA exclusively reserves to states the authority that BLM applies in its Rule. *See* N.D. Br. 15–17. That position is refuted above, in Section I.A.3.

<sup>26</sup> In particular, North Dakota argues that the Rule is invalid because it intrudes on state and tribal sovereignty because it will “evict” North Dakota from a cooperative agreement with the Three Affiliated Tribes of the Fort Berthold Reservation for regulating private and Indian lands. N.D. Br. 16–17. But, as addressed above and in Federal Respondents’ Brief in Response to the Ute Tribe, BLM has statutory authority to regulate oil and gas operations on Indian lands, authority that extends to the Rule and preempts any conflicting state or tribal regulations. Moreover, by its own terms, the Rule applies only to federal lands and minerals, and to Indian

Furthermore, the Rule specifically *preserves* the states’ regulatory authority. The Rule expressly contemplates concurrent state regulation, maintaining states’ ability to regulate hydraulic fracturing within their borders under state law, including on federal lands. 80 Fed. Reg. at 16,130 (“Operators with leases on Federal lands must comply with both the BLM’s regulations and with state operating requirements.”); *see also id.* at 16,133, 16,176, 16,178, 16,190. Existing regulations require all operators to comply with all applicable laws and regulations, including state authorities. *See, e.g.,* 43 C.F.R. § 3162.1(a). The Rule simply supplements existing federal regulations applicable to federal and Indian lands, and, as discussed below in Section II.C.4, sets a floor of protection for federal lands and minerals which states are free to exceed in their regulations.<sup>27</sup> To the extent that the Rule and state regulations overlap, that is legally permissible. State Petitioners thus have failed to demonstrate a basis for invalidating the Rule because of any alleged intrusion on state sovereignty.

## **II. The Rule and its provisions are rational and amply supported**

Petitioners also challenge the Rule on grounds that it is insufficiently supported by the administrative record. Specifically, State Petitioners assert that the Rule is “arbitrary and capricious,” and must be set aside under 5 U.S.C. § 706(2)(A), because BLM failed to establish a rational connection between the facts found and the decision made. Wyo. Br. 46–57; ND Br. 22–35. IPAA similarly asserts that the Rule should be set aside because it is not supported by “substantial evidence” and because BLM failed to consider the relevant statutory factors in promulgating the Rule. IPAA Br. 3–47. Petitioners are mistaken on all counts.

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lands and minerals held in trust—and does not apply to purely private estate lands. *See, e.g.,* 80 Fed. Reg. at 16,183.

<sup>27</sup> Thus, to the extent that North Dakota is correct in arguing that particular provisions of its hydraulic fracturing regulations are more stringent than the Rule, *see* N.D. Br. 19–20, operators will have to comply with those more stringent provisions as well as the Rule.

***A. The standard of review under the APA is highly deferential***

Section 706(2) of the Administrative Procedure Act (“APA”) sets the applicable standard for judicial review of agency action, specifying that a court shall “hold unlawful and set aside agency action, 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(2); *see also Olenhouse v. Commodity Credit Corp.*, 42 F.3d 1560, 1574 (10th Cir. 1994).

A court’s review of agency action under the APA, although “searching and careful,” “is highly deferential.” *Ecology Ctr. v. U.S. Forest Serv.*, 451 F.3d 1183, 1188 (10th Cir. 2006) (quoting *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989)). “The scope of review under the [APA] is narrow and a court is not to substitute its judgment for that of the agency.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). Furthermore, “[a]n agency’s action is entitled to a presumption of validity, and the burden is upon the petitioner to establish the action is arbitrary or capricious.” *Sorenson Commc’ns, Inc. v. FCC*, 567 F.3d 1215, 1221 (10th Cir. 2009) (citing *Citizens’ Comm. to Save Our Canyons v. Krueger*, 513 F.3d 1169, 1176 (10th Cir. 2008)). In its review, a court must “ascertain whether the agency examined the relevant data and articulated a rational connection between the facts found and the decision made” and must “determine whether the agency considered all relevant factors and whether there has been a clear error of judgment.” *Citizens’ Comm. to Save Our Canyons*, 513 F.3d at 1176 (citing *Olenhouse*, 42 F.3d at 1574) (other citation omitted); *see also Friends of the Earth v. Hintz*, 800 F.2d 822, 831 (9th Cir. 1986) (“The court may not set aside agency action as arbitrary or capricious unless there is *no rational basis* for the action.”) (footnote and citation omitted) (emphasis added). “Even when an agency explains its decision with less than ideal clarity, a reviewing court will not upset the decision on that account if the

agency's path may reasonably be discerned.” *Alaska Dep’t of Env’tl. Conservation v. EPA*, 540 U.S. 461, 496 (2004) (internal quotation marks omitted).

The Tenth Circuit affords BLM “especially strong” deference on all issues discussed below because they implicate “technical or scientific matters within the agency’s area of expertise.” *Utah Env’tl. Cong. v. Russell*, 518 F.3d 817, 824 (10th Cir. 2008). BLM is the agency tasked with regulating oil and gas production on federal and Indian lands, and has done so for decades. *See, e.g.*, 80 Fed. Reg. at 16,131. “When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinion of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive.” *Marsh*, 490 U.S. at 378.<sup>28</sup>

Further, agency factual conclusions need be supported only by “substantial evidence,” which is “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” *Andalex Res. v. Mine Safety & Health Admin.*, 792 F.3d 1252, 1257 (10th Cir. 2015); *see also Utah Shared Access All.*, 463 F.3d at 1134. Substantial evidence means enough evidence “to justify, if the trial were to a jury, a refusal to direct a verdict.” *NLRB v. Columbian Enameling & Stamping Co.*, 306 U.S. 292, 300 (1939). The standard is even more deferential than the “clearly erroneous” standard for appellate review of trial court findings. *Dickinson v.*

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<sup>28</sup> Petitioners argue repeatedly that the Rule is invalid because a few BLM employees had critical comments during the rulemaking process, *see, e.g.*, Wyo Br. 51; IPAA Br. 12 n.6, 46–47; N.D. Br. 31, but the APA does not demand unanimous agreement within an agency. In *WildEarth Guardians v. National Park Service*, the Tenth Circuit upheld an agency decision even though “several emails and other internal communications from [agency] employees” showed internal disagreement. 703 F.3d at 1186. The agency’s decision was not “arbitrary and capricious” because disagreement from some individual employees “does not demonstrate that the agency ignored its own experts or inexplicably changed its mind” and because “a diversity of opinion by local or lower-level agency representatives will not preclude the agency from reaching a contrary decision.” *Id.* at 1186–87.

*Zurko*, 527 U.S. 150, 162, 164 (1999). The Court “neither reweigh[s] the evidence nor substitute[s] [its] judgment for that of the agency.” *Andalex*, 792 F.3d at 1257; *see also id.* at 1260.

Importantly, an agency’s “hands are not tied just because it must act based on scientific knowledge that is incomplete or disputed.” *NRDC v. Muszynski*, 268 F.3d 91, 101 (2d Cir. 2001). And a court does not sit as a “panel of scientists,” ordering the agency to explain “every possible scientific uncertainty.” *Lands Council v. McNair*, 537 F.3d 981, 988 (9th Cir. 2008) (en banc); *see also id.* at 993–94. To the contrary, courts are at their “most deferential” when an agency is “making predictions, within its area of special expertise, at the frontiers of science.” *Balt. Gas & Elec. v. NRDC*, 462 U.S. 87, 103 (1983); *see also Andalex*, 792 F.3d at 1258; *Biodiversity Conservation Alliance v. Jiron*, 762 F.3d 1036, 1060 (10th Cir. 2014); *W. Watersheds Project v. BLM*, 721 F.3d 1264, 1277 (10th Cir. 2013); *Oklahoma v. EPA*, 723 F.3d 1201, 1216 (10th Cir. 2013).

The Court’s review is limited to the administrative record, i.e., the documents and information that were before the agency when it issued the Rule. “[T]he focal point for judicial review should be the administrative record already in existence, not some new record made initially in the reviewing court.” *Camp v. Pitts*, 411 U.S. 138, 142 (1973); *see also* 5 U.S.C. § 706 (mandating that “the court shall review the whole record or those parts of it cited by a party”). This standard is pellucid: “The task of the reviewing court is to apply the appropriate APA standard of review, 5 U.S.C. § 706, to the agency decision based on the record the agency presents to the reviewing court.” *Fla. Power & Light Co. v. Lorion*, 470 U.S. 729, 743–44 (1985). The Tenth Circuit repeatedly has enforced this standard. *See, e.g., Olenhouse*, 42 F.3d

at 1579 (criticizing a district court’s “reliance on arguments, documents and other evidence outside the administrative record”).

Despite this clear standard, Petitioners’ briefs are littered with impermissible references to extra-record evidence. *See, e.g.*, N.D. Br. 5–7, 17, 23–27, 29, 31–32; Wyo. Br. 11, 54–56; IPAA Br. 13 n.7, 20 n.11. By citing evidence they submitted for the preliminary injunction hearing, they improperly ask this Court to decide the merits on a record made “initially in the reviewing court,” in clear violation of *Camp v. Pitts*. At the time of the preliminary injunction hearing, BLM had not yet provided a certified record. Extra-record evidence is permissible in such circumstances. “[O]nly if there is no record and no feasible method of requiring the agency to compile one in time to protect the objector’s rights—in short, only . . . if there is an emergency—should an objector be allowed to present evidence in court showing why the agency acted unlawfully.” *Cronin v. USDA*, 919 F.2d 439, 444 (7th Cir. 1990). But reliance on such evidence is prohibited now that the case has moved on to the merits and the Respondents have submitted a full administrative record. *See N.M. Envtl. Improvement Div. v. Thomas*, 789 F.2d 825, 835 (10th Cir. 1986) (“It is the function of the court to review agency action based on the record before the agency unless exceptional circumstances justify use of extra-record materials.”). In addition, the evidence submitted during the preliminary injunction is not properly before the Court because it did not comply with the Federal Rules of Evidence; thus, even if the APA did not already bar the consideration of extra-record evidence, the evidence from the preliminary injunction hearing would still be inadmissible. *See Heideman v. S. Salt Lake City*, 348 F.3d 1182, 1188 (10th Cir. 2003) (“The Federal Rules of Evidence do not apply to preliminary injunction hearings.”).



Because Petitioners' citations to extra-record evidence are impermissible, the Court should not consider this evidence and should strike those citations and any corresponding arguments from Petitioners' briefs. *See Lee v. U.S. Air Force*, 354 F.3d 1229, 1242 (10th Cir. 2004) (affirming "the district court's order to strike . . . extra-record evidence" in an APA case); *N. Arapaho Tribe v. Ashe*, 92 F. Supp. 3d 1160, 1173 (D. Wyo. 2015) ("[F]or the purposes of arbitrary-and-capricious review of Defendants' action, this Court will limit its review to the administrative record and Defendants' motion to strike in this regard should be granted.").

***B. BLM adequately considered all relevant statutory factors***

IPAA asserts that the Rule "is arbitrary and capricious and should be set aside" "because it fails to consider the 'relevant factors'" prescribed in the MLA, FLPMA, the Energy Policy Act of 2005, and the Mining & Minerals Policy Act of 1970 ("MMPA"), 30 U.S.C. § 21a. IPAA Br. 5–6. Most notably, IPAA contends that "accounting for the productivity of the federal mineral estate is a statutory imperative" and that, while "BLM has a responsibility" under FLPMA "to prevent unnecessary or undue degradation of the [public] lands[,] . . . BLM must ensure that regulatory measures do not prevent the extraction of federal minerals." *See id.* (citations, internal quotations omitted). This argument fails.

The record shows that BLM fully considered all statutory standards and properly exercised its broad discretion to balance the exploitation of natural resources with conservation of the natural environment. As a threshold matter, IPAA's argument fails because it focuses exclusively on mineral development provisions while ignoring BLM's statutory duties to protect federal property and natural resources.

For example, while the MLA promotes mineral development on federal lands, it does not mandate maximization of development nor does it allow BLM to ignore environmental protection. BLM acts under that statute both in a proprietary and sovereign capacity as a

guardian of the public interest in development of the public lands. Courts have long upheld BLM's authority under the MLA to protect natural resources and the environment in the context of mineral development. *See above*, Section I.A.1. The MLA's goals explicitly include ensuring the "exercise of reasonable diligence, skill, and care in the operation" of federal leases, protecting "the interests of the United States," and safeguarding "the public welfare." 30 U.S.C. § 187. It is IPAA—not BLM—that ignores relevant statutory factors by focusing myopically on the MLA's goal of promoting mineral development.

Similarly, FLPMA directs BLM to "manage the public lands under principles of multiple use and sustained yield," 43 U.S.C. § 1732(a), and to "take any action necessary to prevent unnecessary or undue degradation of the lands," *id.* § 1732(b). And FLPMA's "multiple use and sustained yield" directive refutes IPAA's assertion that BLM must give oil and gas extraction primacy over other uses of federal lands. *See, e.g., N.M. ex rel. Richardson*, 565 F.3d at 710 ("It is past doubt that the principle of multiple use does not require BLM to prioritize development over other uses."); *Strickland v. Morton*, 519 F.2d 467, 469 (9th Cir. 1975) (FLPMA's multiple-use principle "breathe[s] discretion at every pore."). FLPMA reflects Congress' intent that public lands be managed in a manner that "will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values . . . ." 43 U.S.C. § 1701(a)(8). Here again, it is IPAA that ignores relevant statutory factors.

There is also no merit to IPAA's assertion that the "unnecessary or undue degradation" provision in FLPMA is a ceiling on BLM's authority to mitigate environmental harm. IPAA Br. 6. IPAA cites *Theodore Roosevelt Conservation Partnership v. Salazar*, 661 F.3d at 78, but that case does not support its argument. The D.C. Circuit in that case upheld BLM's decision—which included a host of mitigation measures, including seasonal restrictions, buffer zones and a

compensatory mitigation fund—but rejected the appellant’s argument that FLPMA required BLM to do even more. *Id.* at 78. The D.C. Circuit stated only that the unnecessary or undue degradation provision did not require BLM to prevent all degradation, but the court in no way implied that this required floor of regulation was also the ceiling, as IPAA suggests. Other provisions in FLPMA provide ample authority to mitigate environmental harm independent of the “unnecessary or undue degradation” mandate, as explained in Section I.A.2 above.<sup>29</sup>

Furthermore, the MMPA has never been held to override the discretion provided in the authorizing statutes. *See, e.g., Krueger v. Morton*, 539 F.2d 235, 240 (D.D.C. 1976) (upholding the Secretary’s suspension of issuance of coal prospecting permits pending preparation of a program for more orderly development of coal resources on public lands under the MLA).

Putting aside IPAA’s mischaracterization of the relevant statutes, BLM appropriately considered Congress’ desire for orderly, economic, and efficient development of oil and gas resources on public lands—and it did so while balancing its statutory stewardship obligations. The preamble acknowledges BLM’s obligation to “administer[] oil and gas operations in a manner that protects Federal and Indian lands while allowing for appropriate development of the resource.” 80 Fed. Reg. at 16,129. In developing the Rule, BLM sought to avoid “introducing unnecessary new procedures or delays in the process of developing oil and gas resources on public and Indian lands.” *Id.* at 16,130. Among other provisions, BLM introduced a state variance provision to address concerns regarding duplicative regulation of hydraulic fracturing under state, tribal, and federal rules and the resulting burden on operators. *See, e.g., id.*

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<sup>29</sup> Even assuming the undue or unnecessary degradation provision was BLM’s sole available source of authority, as IPAA contends, the Rule does not exceed that authority because it is not intended to prevent *all* degradation; it is intended only to prevent degradation that is “unnecessary or undue,” i.e., degradation that could be avoided through appropriate mitigation.

In addition, BLM addressed comments regarding the potential for the Rule to delay the permitting process, explained how operators can avoid or minimize delays, observed that “BLM intends to avoid delays whenever possible,” and noted that BLM revised the Rule to “reduce the amount of staff time required to implement the rule and limit any permitting delays.” 80 Fed. Reg. at 16,177. In this respect, BLM observed that “[t]he operational requirements of the final rule generally conform to industry guidance on hydraulic fracturing and state regulations.” *Id.* at 16,203. BLM also evaluated as part of its economic analysis the potential for the Rule to “negatively affect jobs, revenue, and effective government,” and “found the impacts to be nominal in relation to current overall costs of drilling operations.” *Id.* at 16,180. Thus, in developing of the Rule, BLM properly weighed and considered the orderly and efficient exploitation of federal mineral resources.

***C. The Rule identifies and reasonably addresses risks associated with hydraulic fracturing***

The Rule responds to evidence of various specific risks associated with changes in the technology and practice of hydraulic fracturing, including the risk of groundwater contamination and concern over “frack hits.” Its provisions are tailored to address and mitigate these risks, and so fill a gap in the existing federal regulations. Thus, the Rule is amply supported and rational.

BLM began assessing the adequacy of its oil and gas regulations in response to the Secretary of Energy Advisory Board Natural Gas Subcommittee’s 2011 recommendation that BLM make changes to “ensure well integrity, water protection, and adequate public disclosure” of fracturing chemicals. *See, e.g.*, 80 Fed. Reg. at 16,128, 30–31. In the rulemaking process, BLM considered significant changes in the technology and practice of hydraulic fracturing and the gaps those developments created with respect to the agency’s ability to meet its statutory stewardship and trust responsibilities. *Id.* BLM promulgated the Rule based on voluminous

supporting documentation, a review of industry guidance and best practices, the input of its “engineers and field managers [who] have decades of experience exercising oversight of these wells during the evolution of this technology,” and “input from the public, industry, state, academic and other experts.” *Id.* BLM updated its regulations with a Rule tailored to the particular risks, concerns, and objectives the agency and commenters had identified. *Id.*

In asserting that the Rule lacks sufficient justification, Petitioners mischaracterize this evidence, ask the Court to elevate their assertions above BLM’s judgments, and misapply the relevant legal standard. In particular, Petitioners err in asserting that BLM (1) may not act to protect groundwater resources until definitive proof exists that hydraulic fracturing has caused particular incidents of groundwater contamination, (2) has not shown that there have been any changes in hydraulic fracturing practices justifying new regulations, (3) is unable to regulate on federal lands absent a gap in state regulations, (4) failed to consider state regulations in its rulemaking, and (5) was barred from considering public comments and evidence on frack hits as an additional justification for the Rule. *See* IPAA Br. 7–13; Wyo. Br. 46–50, 53–57; N.D. Br. 34–35.

As addressed above in Section I.A, BLM has broad stewardship responsibility and management authority for public lands and resources under the MLA and FLPMA. In light of these statutory obligations and powers, Petitioners’ theory that BLM must wait until harm is done to public lands or resources cannot be sustained. As addressed below, Petitioners incorrectly suggest an absence of evidence linking hydraulic fracturing to groundwater contamination, but, even so, BLM may take steps to proactively mitigate and manage the risk of future groundwater contamination. Absent a contrary statutory command, “it is for the agency to

make, within the limits of rationality, the policy determination as to what degree of risk is to be tolerated.” *Schwartz v. Helms*, 712 F.2d 633, 639 (D.C. Cir. 1983).

Petitioners similarly misconstrue the legal standard and evidence when arguing that BLM failed to consider state hydraulic fracturing regulations or demonstrate that they were inadequate. As discussed below, the record demonstrates that BLM extensively considered state regulations—many of which were issued during the Rule’s development—but BLM promulgated the Rule because there was a *federal* regulatory gap. BLM reasonably concluded that the Rule was needed to comply with the agency’s resource stewardship and trustee responsibilities and ensure a consistent floor of regulatory standards across federal and Indian lands—one that no state could remove by repealing or changing its regulations.

Nor have Petitioners shown that BLM’s decision to issue the Rule lacks a rational connection to the facts before the agency and thus should be set aside as “arbitrary and capricious,” Wyo. Br. 46–49, or that this decision is not supported by “substantial evidence.” IPAA Br. 7–13. Particularly in light of the APA’s “highly deferential” standard of review, *Ecology Ctr.*, 451 F.3d at 1188, BLM has more than established that it “examined the relevant data and articulated a rational connection between the facts found and the decision made,” *Olenhouse*, 42 F.3d at 1574 (footnote, citation omitted). Petitioners’ disagreement with BLM’s conclusions is an insufficient basis to overturn the Rule.

1. *BLM articulated numerous rational bases for the Rule, which are supported by the record*

BLM articulated numerous bases for the Rule, such as:

- risks of groundwater contamination due to, e.g., design deficiencies, inadequate casing and cementing, or inadequate pressure testing;

- inadequate information to enable BLM to effectively manage lease operations, assess risks, prevent and respond to contamination events, and meet its other legal obligations, such as under the National Environmental Policy Act;
- risks of surface spills and contamination from inadequate handling and storage of fluids;
- surface contamination and waste of federal minerals due to frack hits; and
- public concerns about human health, well integrity, and management of recovered fluids.

*See, e.g.*, 80 Fed. Reg. at 16,128–31, 16,137, 16,148–49, 16,152–54, 16,160–64, 16,167, 16,179–82, 16,188–89, 16,193–95, 16,204.

Those bases are supported by evidence before BLM and its extensive experience as a regulator, and BLM reasonably and rationally tailored the Rule to address these factors. Further, BLM largely adopted existing industry guidance and best practices when designing the Rule’s provisions,<sup>30</sup> as it reasonably concluded such provisions reduced the risks associated with hydraulic fracturing on federal public and Indian lands, *see, e.g., id.* at 16,203; DOIAR0100527. There is ample basis for affirming the Rule.

While BLM was well aware that hydraulic fracturing had long been used in some form, “[f]or decades, hydraulic fracturing was completion or re-completion technology that used relatively small quantities of fluid to improve the flow of hydrocarbons around the bottom of conventional wells.” *Id.* at 16,194; *see also* DOIAR0100533. However, the evidence before the agency—including the 2011 reports of the Secretary of Energy Advisory Board Natural Gas

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<sup>30</sup> The preamble extensively addresses the Rule’s use of industry guidelines and best practices. *See, e.g.*, 80 Fed. Reg. at 16,128–29, 16,131, 16,155, 16,159, 16,176–77, 16,183, 16,187–89, 16,197–99; *see also* DOIAR0100525–27, 560–65.

Subcommittee—showed that, over the prior decade or so, innovations in technology and changes in the use of hydraulic fracturing, particularly in combination with advances in directional drilling, led to both an explosion in the use of hydraulic fracturing and a sea change in how hydraulic fracturing was used. *See, e.g.*, DOIAR0007391 (stating that “[o]wing to breakthroughs in technology, production from shale formations has gone from negligible amount just few years ago to being almost 30 percent of total U.S natural gas production”); DOIAR0007403 (observing that “modern shale gas fracturing of two mile long laterals has only been done for something less than decade”); 80 Fed. Reg. at 16,194 (“[d]ue to advances in horizontal drilling hydraulic fracturing operations are now conducted on wells with longer lateral legs (often 1 to 2 miles) and require larger volumes of water”); DOIAR0100533. Thus, BLM explained that the Rule was promulgated to address “significant technological advances” over the last ten or so years “in horizontal drilling, which is now frequently combined with hydraulic fracturing,” a “combination, together with the discovery that these techniques can release significant quantities of oil and gas from large shale deposits, [that] has led to production from geologic formations in parts of the country that previously did not produce significant amounts of oil or gas.” 80 Fed. Reg. at 16,131.

Moreover, these changes in technology and practice, in light of their potential environmental and safety impacts, had outpaced existing regulations and left BLM concerned about the adequacy of those regulations to satisfy its statutory responsibilities as the manager of federal lands. *See, e.g., id.* As BLM explained, “[t]hose [existing] regulations were established in 1982 and last revised in 1988, long before the latest hydraulic fracturing technologies were developed or became widely used.” *Id.* Further, under the existing regulations, “an operator must seek approval from the BLM before performing non-routine fracturing operations” but does



not need approval for “routine fracturing operations.” *Id.* at 16,194; *see also* 43 C.F.R. § 3162.3-2 (1988). And the regulation does not define what is and is not “routine,” an “omission [that] makes the distinction functionally difficult to apply and confusing for both the agency and the regulated public.” 80 Fed. Reg. at 16,194. Public comments echoed these concerns. *See, e.g.*, DOIPS0179304 (noting the challenges posed by “[t]he increasing prevalence of high volume hydraulic fracturing of horizontal boreholes” and that BLM’s regulations had failed to keep pace compared to regulations in states such as Texas and Ohio).

BLM identified several risks and concerns which were not sufficiently addressed by existing regulations, and the Rule was tailored to fill those gaps. For one, BLM observed that “[t]he information that the BLM currently requires before and after fracturing operations is inadequate and does not reflect the complex nature of the operations” and thus, “[f]rom a resource management perspective, the current regulation results in incomplete information being provided to the BLM” to meet its responsibilities as a steward of federal lands and minerals. 80 Fed. Reg. at 16,194. Further, “[t]hat lack of information restricts the BLM’s ability as the resource manager to make informed resource decisions about hydraulic fracturing operations or to respond effectively to incidents that may occur.” *Id.* at 16,194–95. To address this gap, the Rule mandates the submission of information regarding hydraulic fracturing plans and operations, both before and after such operations. The Rule thereby “seeks to improve governmental processes by requiring necessary information about proposed hydraulic fracturing operations and subsequent reports to confirm that the operations were conducted in safe manner,” DOIAR0100530, which “will help the BLM better manage and protect public and tribal resources,” 80 Fed. Reg. at 16,195. *See also* DOIAR0100530 (concluding that “the

reporting requirements will help [BLM] better manage and protect the public's resources and to carry out the Secretary's responsibilities on Indian lands").

Other gaps identified by BLM and addressed by the Rule relate to "externalities"—i.e., "undesirable events or incidents," including harms to the environment, health, safety, and federal mineral resources—which have a "greater potential . . . to occur when operations are conducted in wells that are constructed improperly, where the plans are inadequate, or when the fluids are not properly managed." 80 Fed. Reg. at 16,195. BLM observed that hydraulic fracturing poses greater risks in several respects, relative to other well operations. *See, e.g., id.* (in hydraulic fracturing operations, "the well may extend laterally and for longer distances, greater pressures are placed on the well, and larger volumes of fluids are used and recovered").

Some of these risks relate to groundwater contamination, while others involve surface contamination and waste of resources due to frack hits. Each of these is discussed separately below. However, the Rule also responded to concerns about other risks, which include, for example, "whether the chemicals used in fracturing pose risks to human health[] and whether there is adequate management of well integrity and the fluids that return to the surface during and after fracturing operations." *See, e.g., id.* at 16,128. BLM likewise discussed increasing public concern about risks to water sources, human health, well integrity, and management of recovered fluids. *See id.* at 16,128; *see also* DOIAR0100533 ("The chemical content of the hydraulic fracturing fluids is also a growing concern to the public such that many state regulatory authorities now require the disclosure of the chemicals in fracturing fluids."). Evidence of such risks was raised in many public comments. *See, e.g.,* DOIPS0393495–96 (comments discussing threats to water resources), DOIPS0393497 (comments discussing cement integrity),

DOIPS0393498 (discussing recovered fluids), DOIPS0010183–85 (same), DOIPS0179045–58 (same).

IPAA and Wyoming both dismiss the premise that hydraulic fracturing complexity, technology, and practice—and thus risk—have changed over the last decade or so, with IPAA portraying hydraulic fracturing as a practice that has remained essentially unchanged for 47 years. *See* IPAA Br. 2, 8–9; Wyo. Br. 47. But Petitioners’ position is at odds with the facts before the agency, on which BLM reasonably relied. Moreover, their position cannot be reconciled with Petitioners’ recognition that more than a dozen states (including State Petitioners) regulate hydraulic fracturing, several purport to do so comprehensively, *see* IPAA Br. 10–11, Wyo. Br. 11–13, N.D. Br. 4–6, and nearly all have done so only since 2010, *see* below, Section II.C.4. *See also* Wyo. Br. 11 (claiming that Wyoming is one of the first states to regulate hydraulic fracturing and did so beginning in 2010); N.D. Br. 5 (North Dakota legislature first “formally recognized hydraulic fracturing as an acceptable technique to recover oil and natural gas” in 2011 and the State “supplemented its existing regulations in 2012” to “provide[] . . . more comprehensive control over hydraulic fracturing practices within its borders and . . . more fully protect its underground drinking water sources.”); Wyo. Br. 1 (“[I]n the last ten to fifteen years, shale oil production has increased more than 500% and shale gas production has increased over 400% in the United States . . . Before the advent of these modern techniques, much of the oil and gas in these shale formations was considered unrecoverable.”) (citations omitted). The Rule is reasonable and based on substantial evidence in the record. Petitioners fail to show otherwise.

2. *The record contains ample evidence of groundwater contamination risks*

The Rule was also motivated by the risk that hydraulic fracturing may cause groundwater contamination, in tandem with the concern that existing regulations did not sufficiently protect

groundwater resources. *See, e.g.*, 80 Fed. Reg. at 16,143, 16,154, 16,180, 16,193–16,194. The record substantiates this risk and BLM’s choice of measures in the Rule to mitigate it, including, among others:

- pre- and post-operation disclosures, including fracturing fluid chemical composition, geologic and fracture information, and other operational details, *see, e.g., id.* at 16,154;
- use of cementing to isolate and protect groundwater zones, *id.* at 16,155, 16,219;
- tests to ensure cement integrity, *id.* at 16,155–16,159;
- pressure testing to ensure wellbore casing integrity, *id.* at 16,159–16,160, 16,219;
- and
- temporary surface storage of recovered water in tanks, *id.* at 16,162–16,163.

There was nothing arbitrary or capricious about BLM’s reasoning. BLM “considered the relevant data and rationally explained its decision.” *WildEarth Guardians v. EPA*, 770 F.3d 919, 927 (10th Cir. 2014). And the record contains far “more than a mere scintilla” of evidence to support BLM’s conclusion that hydraulic fracturing operations pose some risk to groundwater, and therefore is supported by “substantial evidence.” *Andalex*, 792 F.3d at 1260.

To begin, BLM explained that “abnormally high concentrations of methane in water wells or monitoring wells” have occurred in some areas near hydraulic fracturing. 80 Fed. Reg. at 16,193. For example, two studies showed “increased methane concentrations observed in water wells that existed around shale gas wells in Pennsylvania.” *Id.* at 16,194 (citing DOIAR0005413–17, 9465–91). These and other studies also found “systematic evidence for methane contamination of drinking water associated with” hydraulic fracturing operations. DOIAR0005413–17; *see also* DOIAR0049055 (“[A] subset of homeowners has drinking water

contaminated by drilling operations, likely through poor well construction.”); DOIAR0084561, 66 (finding four clusters of groundwater contamination likely resulting from inadequate wellbore cementing, three contamination clusters likely caused by faulty production casings, and one cluster due to an underground gas well failure).

BLM’s scientific literature review also “identified four plausible risks to water resources” from hydraulic fracturing operations, including groundwater contamination from “improperly constructed or failing gas wells.” DOIAR0076069–79; *see also* DOIAR0042868 (discussing several studies and white papers and describing mixed results in linking hydraulic fracturing to groundwater contamination and other environmental impacts.).

Recommendations in the 2011 reports of the Secretary of Energy Advisory Board Natural Gas Subcommittee, *see* 80 Fed. Reg. at 16,128, 16,194, also support the Rule. The Subcommittee found that “[a]n improperly executed fracturing fluid injection can of course lead to surface spills and leakage into surrounding shallow drinking water formations.” DOIAR0007409–10.

Relying on these studies, BLM’s literature review, the subcommittee recommendation, and a panoply of other evidence,<sup>31</sup> BLM determined that there are several potential pathways for

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<sup>31</sup> *See, e.g.*, DOIAR0006634–45 (finding that case studies of groundwater-contamination incidents near hydraulically fractured wells show that “[w]ellbore construction and integrity are paramount in protecting drinking water”); DOIAR0053073 (listing well incidents, including where “hydraulic fracturing pressures breached the available cement” causing “numerous shallow water wells . . . to become contaminated with natural gas”); DOIAR0084566 (reporting in study of groundwater contamination near shale gas wells that, “[i]n general, our data suggest that where fugitive gas contamination occurs, well integrity problems are most likely associated with casing or cementing issues”); DOIAR0004638 (finding, in EPA’s Draft Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources, that “high injection pressures associated with the hydraulic fracturing process, and the increased potential for aquifer contamination due to the close proximity of the aquifer to the well, make cementing and casing activities a crucial step in protecting groundwater”); DOIAR0004656 (finding “evidence showing that improper well construction or improperly sealed wells may provide subsurface

groundwater contamination, and concluded that “the most likely pathway would be a leak in the wellbore casing.” 80 Fed. Reg. at 16,193; *see also id.* at 16,195 (inadequately constructed wells “may not sufficiently isolate formation gas or fluids from water resources or may be more likely to fail during fracturing operations”); DOIAR0100530. The Rule is tailored to address such pathways by requiring adequate cementing and casing, testing and evaluation of those structural elements, and disclosure of information regarding operational plans, which enables BLM to assess the adequacy of the plans and their implementation in minimizing contamination risks.

Numerous other documents in the record confirm the soundness of BLM’s approach to mitigating risk to groundwater resources. For example, the American Petroleum Institute’s (“API”) hydraulic fracturing guidelines provide that “maintaining well integrity” is “critical in protecting the environment, including groundwater.” DOIAR0002133. Similarly, a journal article on managing risk in hydraulic fracturing, published by the Society of Petroleum Engineers, noted “a pollution risk” where “well construction is not properly done [and] then communication may be possible through the wellbore annulus,” i.e., the area between the uncemented casing and the wellbore rock wall. DOIAR0012505. That article also documented groundwater pollution caused by “cement isolation problems,” DOIAR0012508, and noted that, although its author views the potential for groundwater contamination of zones below 2000 feet from the surface as an extreme rarity, “inadequate well construction methods usually centered on

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pathways for ground water pollution by allowing contaminant migration to sources of drinking water”); DOIAR0005416 (reasoning that elevated methane levels in drinking water wells near shale gas extraction were likely due to inadequate well casing, rather than other contamination pathways); DOIAR0049034 (reasoning that “a subset of homeowners has drinking water contaminated by drilling operations likely through poor well construction,” in particular, “(i) faulty or inadequate steel casings . . . and (ii) imperfections in the cement sealing of the annulus or gaps between casings and rock that keep fluids from moving up the outside of the well”).

inadequate cementing operations” are a potential cause of contamination of groundwater or surface water at lesser depths, DOIAR0012563.<sup>32</sup>

Despite all of this evidence, BLM candidly acknowledged that “efforts to trace contaminants in groundwater to specific hydraulic fracturing operations have been controversial, in light of the technical difficulties and scientific uncertainties.” 80 Fed. Reg. at 16,188–89. However, given its statutory duty to be “proactive in the protection of resources on Federal and Indian lands,” BLM reasonably concluded that it could not “wait for a significant pollution event before promulgating common-sense preventative regulations.” *Id.* BLM need not wait to regulate in such circumstances; indeed, “[i]t is not infrequent that the available data does not settle a regulatory issue and the agency must then exercise its judgment in moving from the facts and probabilities on the record to a policy conclusion.” *State Farm*, 463 U.S. at 52; *see also Ethyl Corp. v. EPA*, 541 F.2d 1, 24–27 (D.C. Cir. 1976).

Equally important, those lingering uncertainties about the risks of hydraulic fracturing exist in large part due to the limited data and information—particularly relating to the composition of fracturing fluids and fracture and geologic information—available to the agency and public. For example, the authors of a study finding man-made contamination of drinking water wells near shale gas operations attributed to information gaps uncertainties as to when and how such operations lead to groundwater contamination. *See* DOIAR0049034. To address those

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<sup>32</sup> *See also* DOIAR0001400; DOIAR0006605–19; DOIAR0009469 (observing that some geographical areas may be at greater risk due to a “preexisting network of cross-formational pathways”); DOIAR0011360–63; DOIAR0011370; DOIAR0011504 (concluding that the number of “underground blowouts” associated with fracturing likely is underreported); DOIAR0023208; DOIAR0027307–12 (ConocoPhillips explaining that “[w]ell integrity is the foundation of water protection” and praising BLM’s focus on “well integrity”); DOIAR0030072–74; DOIAR0037351–58 (“Proper construction of wells—well integrity—is widely viewed by experts as a key factor in reducing risks to groundwater from hydraulic-fracturing operations.”); DOIAR0045604; DOIAR0089696–98.

uncertainties, the authors recommended greater disclosure of site-specific and operational data to regulators and the public. *Id.* Likewise, in a 2011 study finding “systematic evidence for methane contamination of drinking water associated with” shale gas extraction, the authors identified the need for greater regulation of hydraulic fracturing and called for the collection of baseline data and research to improve the scientific understanding of the mechanism of fluid mineral transmission to ground water. DOIAR0005416–17; *see also* DOIAR0003135–36 (recommending, in light of health risks of chemicals known to be used in fracturing but limited public information on the composition of fracturing fluids, improved disclosure and documentation of those constituents, more comprehensive record-keeping of their use, enhanced air and water quality monitoring near gas plays, and mandated waste management plans); DOIAR0027829–28028, 27915 (recounting EPA investigation of and endangerment action for groundwater contamination linked to produced water pits and a leaking, plugged well in an oilfield in Poplar, Montana). It is exactly this information and transparency that BLM targets in the Rule’s requirements. BLM thus reasonably required the disclosure of such information in its Rule to fill this gap.

Finally, the Rule contains a provision requiring any temporary onsite storage of recovered water to normally be in rigid aboveground tanks, rather than in pits, 43 C.F.R. § 3162.3-3(h). For this provision, as well, BLM looked to evidence that temporary storage of flowback and produced water in pits and surface impoundments can lead to leaks or spills to the surface or shallow subsurface, *see, e.g.*, DOIAR0011793, risks that can be reduced through the use of rigid aboveground tanks. BLM also observed that, “in [its] experience, the use of tanks in lieu of pits in high [water] volume operations” such as hydraulic fracturing operations “limits potential environmental impacts, . . . reduces reclamation requirements, eliminates longer term



environmental risk, reduces risks of spills or leaks, and increases safety.” 80 Fed. Reg. at 16,163.

Substantial evidence therefore supports BLM’s conclusion that hydraulic fracturing operations pose a risk to groundwater. *See Sierra Club v. Bostick*, 787 F.3d 1043, 1055 (10th Cir. 2015) (upholding agency’s technical conclusion because plaintiffs did not show it “lacked any substantial basis in fact”); *see also Andalex*, 792 F.3d at 1258; *Biodiversity Conservation Alliance*, 762 F.3d at 1060; *W. Watersheds Project*, 721 F.3d at 1277; *Oklahoma*, 723 F.3d at 1216. And since BLM “examined the relevant data and articulated a rational connection between the facts found and the decision made,” *Olenhouse*, 42 F.3d at 1574 (footnote, citation omitted), Petitioners cannot demonstrate that the Rule is arbitrary and capricious.

All the aforementioned evidence, along with other similar evidence in the record, also refutes Petitioners’ assertions, *see* IPAA Br. 7–10, Wyo. Br. 47–49, that the Rule is premised solely on unsubstantiated public concern about groundwater contamination.<sup>33</sup> That body of evidence is not rebutted by the statement of a single engineer in the Vernal, Utah BLM Field Office, as Petitioners claim. *See* Wyo. Br. 48; IPAA Br. 12 n.6. Unanimity of BLM staff opinions is not required to demonstrate that the Rule is rational, and dissenting voices in the

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<sup>33</sup> IPAA’s sources do not demonstrate that there is no meaningful risk of groundwater contamination from hydraulic fracturing operations. *See* IPAA Br. 7–10. Those sources—which largely include statements of government officials without context and industry comments, rather than scientific sources—at most show that BLM and other government officials were not aware of proven instances where a hydraulic fracturing operation definitively caused an instance of groundwater contamination. *See, e.g.*, BLM Engineer Subijoy Dutta’s 2012 presentation, DOIAR0051928 (stating only that it is a “myth” that “Fracking Fluids from *all* Hydraulic Fracturing operations are getting into Groundwater”) (emphasis added); API Comments DOIAR0056627 (quoting current and former EPA Administrators that there were no “definitive” or “proven” cases of fracturing fluids contaminating groundwater). None of that evidence refutes BLM’s expert determination, based on scientific evidence, that fracturing poses a risk to groundwater that can be mitigated or reduced by the Rule.

record merely show that the agency was rationally considering all viewpoints during its rulemaking process. *See* above, footnote 28.

BLM's conclusions, moreover, are supported by State Petitioners' own practices, which stand in sharp contrast to their and IPAA's claims that hydraulic fracturing has neither changed significantly in the last decade nor poses any cognizable threat of groundwater contamination. Wyoming, Colorado, and Utah assert that they were among the first states to regulate hydraulic fracturing, starting in 2010–12, and that their hydraulic fracturing regulations are “comprehensive,” because they require “chemical disclosures, monitoring and reporting of pressures and fracture lengths, and post-fracturing reporting of pressures and volumes of fluid used during the process”; “operators to construct wells so as to prevent pollution of groundwater formations”; “mechanical integrity testing to ensure well integrity”; “detailed sampling of groundwater near wells, both before and after drilling, to detect any effects of oil and gas operations on groundwater quality”; and “best-engineering construction practices to ensure wellbore integrity . . . [to] protect[] water resources.” Wyo. Br. 11–13. Likewise, North Dakota states that, after its legislature first “formally recognized hydraulic fracturing as an acceptable technique to recover oil and natural gas” in 2011, the State “supplemented its existing regulations in 2012” to “provide[] . . . more comprehensive control over hydraulic fracturing practices within its borders and . . . more fully protect its underground drinking water sources.” N.D. Br. 5. Those new regulations include “robust casing requirements to protect North Dakota's groundwater,” “additional structural integrity and monitoring requirements,” pressure testing requirements, and produced water and other waste materials disposal requirements, including a requirement to temporarily store such water “in closed-top above ground tanks” except when otherwise approved. N.D. Br. 6.

The record also demonstrates that the states that regulate hydraulic fracturing do so in significant part to protect groundwater, 80 Fed. Reg. at 16,180, and specifically that state regulations “reflect the view that developers’ drilling casing and cementing practices are critical to the long-term integrity and safety of wells, particularly in terms of groundwater safety,” DOIAR0048684–94; *see also* DOIAR0103448–82. That states, including State Petitioners, regulate for this purpose undermines any argument that hydraulic fracturing operations pose no groundwater risk worth regulating.

3. BLM appropriately considered the risk of frack hits

Additional record evidence supporting the Rule relates to frack hits, which have occurred in recent years, resulting in spilling of fracturing fluids, surface contamination, interruption of well operations, and stranding and waste of oil and gas resources. *See, e.g.*, 80 Fed. Reg. at 16,193, 204; DOIAR0100531. The Rule addresses the risk of frack hits through provisions requiring the submission of geologic information and information regarding nearby wells prior to commencing hydraulic fracturing. *See, e.g.*, 80 Fed. Reg. at 16,153.

Substantial evidence in the record supports BLM’s assessment of these risks and its approach to mitigate them in its Rule. Several instances of recent frack hits and their detrimental impacts are documented in the record. *See, e.g.*, DOIAR0012724 (listing recent recorded frack hits in New Mexico); DOIAR0012722 (reporting frack hit and its impacts, including surface spills); DOIAR0078346–48 (listing options for controlling the risk of frack hits, noting five such incidents on federal lands, and addressing the need for information requirements beyond those in existing regulations); DOIAR0100531 (listing four sample frack hit incidents and their impacts); 80 Fed. Reg. at 16,204 (describing a sample frack hit and its harms, including surface

contamination and waste of federal minerals).<sup>34</sup> Public comments likewise highlighted the risks from, impacts of, and measures needed to address frack hits. *See, e.g.*, DOIPS0179311 (explaining that “[s]ubsurface communication of hydraulic fracturing fluid through existing boreholes and natural fractures is a serious concern”); DOIPS0365444 (explaining that “[c]ommunication between offset wells during stimulation is a serious problem, risking blow outs in adjacent wells and/or aquifer contamination during hydraulic fracturing.”).

Petitioners do not dispute the evidence of frack hits. Instead, IPAA asserts that frack hits cannot support the Rule because they were not discussed in the proposed rule. IPAA Br. 12–13. IPAA is mistaken.

“Contrary to petitioner’s argument, the statutory duty to submit a proposed rule for comment does not include an obligation to provide new opportunities for comment whenever the final rule differs from the proposed rule.” *Air Transp. Ass’n v. Civil Aeronautics Bd.*, 732 F.2d 219, 224 (D.C. Cir. 1984).<sup>35</sup> Although frack hits were not addressed in the proposed rule, they

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<sup>34</sup> *See also* DOIAR0095539–40 (containing Frack Hits Synopsis); DOIAR0054034–35 (press report on frack hit in Weld County, Colorado); DOIAR0065730 (press report on frack hit in Sandoval County, New Mexico); DOIAR0066043–44 (press report on Exxon Mobil Corp. studies on minimizing frack hits); DOIAR0075052–54 (press report titled “In N.M., a sea of ‘frack hits’ may be tilting production”).

<sup>35</sup> This Court should likewise dismiss IPAA’s astonishing argument that, because its Vice President testified at the preliminary injunction hearing as to a hearsay statement that frack hits were not logical outgrowth of the supplemental proposed rule, and BLM did not give testimony rebutting that bare assertion, the Chief of BLM’s Fluid Mineral Division somehow conceded that point. IPAA Br. 13 n.7 (citing Tr. of Prelim. Injunction Proceedings at 90:5–91:7 (Naatz) (June 23, 2015)). The assertion is a legal conclusion and cannot be established by a fact witness based on hearsay. Nor is it meaningful that this statement was unrebutted. Federal Respondents offered no witness testimony at the preliminary injunction hearing. Moreover, Federal Respondents were instructed by the Court that it would not entertain objections to testimony, as the Federal Rules of Evidence do not apply to preliminary injunction proceedings. *See id.* at 46:16–18. And as addressed above in Section II.A, IPAA cannot rely here on extra-record testimony from the preliminary injunction hearing.

were raised in public comments. BLM reasonably responded to these comments in the final Rule by mitigating the risk of frack hits with operational disclosures.

Because of the initial proposed rule and the supplemental proposed rule, the public was on notice that the proposed rule was aimed at, *inter alia*, addressing risks of environmental contamination and waste or stranding of resources. Petitioners cannot claim that they were unaware that BLM intended the Rule to prevent environmental contamination from hydraulic fracturing operations. And BLM's proposed supplemental rule already contained similar mandatory pre-operation information disclosures, *see* 78 Fed. Reg. at 31,675–76, which are also supported by evidence independent of the evidence of frack hits. Thus, the public was “fairly apprise[d] . . . of the subjects and issues the agency was considering.” *Am. Transfer & Storage Co. v. Interstate Commerce Comm’n.*, 719 F.2d 1283, 1303 (5th Cir. 1983) (citations omitted). Petitioners have not alleged that consideration of frack hits has led the final Rule to contain substantial differences from the supplemental proposed rule; but even so, an agency “may adopt a new rule which is different, even one containing substantial differences from the one proposed and still have acted lawfully.” *Am. Transfer & Storage Co.*, 719 F.2d at 1303 (citing *Int’l Harvester Co. v. Ruckelshaus*, 478 F.2d 615, 632 n.51 (D.C.Cir.1973)).

Wyoming takes a different tack from IPAA, but its argument regarding frack hits should also be rejected. Wyoming asserts that “the record does not show frack hits cause contamination of usable water” and concludes on this basis that “the rule lacks a rational connection between the desire to prevent frack hits and the goal of protecting the environment.” Wyo. Br. 49. Wyoming’s conclusion does not follow from its premise. BLM explained the risks and harms associated with frack hits, particularly, with respect to contamination of surface water and other surface resources and stranding and waste of federal mineral resources, as noted above.

Moreover, BLM explained how various provisions of the Rule, including mandatory pre-operation information disclosure, are designed to address this problem. That frack hits were not offered as a basis for every Rule provision in no way undermines their value as a basis for some provisions.

4. *The Rule addresses a federal regulatory gap*

IPAA and Wyoming both argue that the Rule lacks justification because states are already regulating hydraulic fracturing and because BLM failed to identify any places where hydraulic fracturing is occurring without state regulation. IPAA Br. 10–12; Wyo. Br. 33–34, 53–57. Similarly, North Dakota argues that BLM failed to consider existing state regulations. N.D. Br. 26–29. Petitioners’ arguments miss the mark: while BLM extensively considered state regulations, BLM reasonably issued the Rule to ensure consistent, minimum standards on federally administered lands and to address a *federal* regulatory gap.

BLM issued the Rule because it concluded that existing federal regulations were insufficient. BLM explained that the “existing hydraulic fracturing regulations . . . were established in 1982 and last revised in 1988, long before the latest hydraulic fracturing technologies were developed or became widely used.” 80 Fed. Reg. at 16,131; *see also id.* at 16,137 (“The regulations and Onshore Orders that have been in place to this point . . . are in need of revision as extraction technology has advanced.”) Moreover, the previous regulations’ application to certain hydraulic fracturing operations was confusing. BLM explained that, under previous regulations, “an operator must seek approval from BLM before performing ‘non-routine’ fracturing operations,” but the regulation did not define the distinction between “routine” and “non-routine” fracturing operations. DOIAR0100532; *see also* 43 C.F.R. § 3162.3-2(a)–(b) (2014). The lack of definition made the distinction between “routine” and “non-routine” operations “functionally difficult to apply and confusing for both the agency and the

regulated public.” DOIAR0100532. Another flaw of the previous regulatory regime was that BLM obtained only “incomplete information” about hydraulic fracturing operations.

DOIAR0100533. “As the resource manager or trustee, the lack of information restricts BLM’s ability to make informed resource decisions about proposed hydraulic fracturing operations or to respond effectively to incidents that may occur.” DOIAR0100533. Even though states collected information through their regulations, BLM needed its own information-collection requirements because “[t]he information that states, tribes, or other Federal agencies collect is neither uniform nor uniformly accessible to the BLM.” 80 Fed. Reg. at 16,154.

Aside from its inability to access information provided to states, BLM also concluded that the Rule was needed to establish consistent standards. BLM found that “regulations continue to be inconsistent across states” and that “state rules may not apply to Indian lands.” *Id.* at 16,178; *see also Washington v. Confederated Tribes of Colville Indian Reservation*, 447 U.S. 134, 154 (1980) (“[T]ribal sovereignty is dependent on, and subordinate to, only the Federal Government, not the States.”). The Rule was necessary to “establish a consistent standard across Federal and Indian lands.” 80 Fed. Reg. at 16,178.

BLM could not rely on states to regulate hydraulic fracturing because BLM has to satisfy its own statutory responsibilities as a resource manager and trustee. BLM explained that “a major impetus for a separate BLM rule is that states are not legally required to meet the stewardship standards that apply to public lands and do not have trust responsibilities for Indian lands under Federal laws.” 80 Fed. Reg. at 16,133; *see also id.* at 16,178 (“This rule is not about state regulatory programs. It is about the Secretary fulfilling her obligations under the statutes that assign to her stewardship over public lands and trusteeship over Indian lands.”). BLM considered comments that the Rule was unnecessary “because the states adequately protect and

manage hydraulic fracturing,” but BLM concluded that the Rule was needed to “fulfill BLM’s stewardship and trust responsibilities.” 80 Fed. Reg. at 16,178. Wyoming argues that BLM should have deferred to the states, Wyo. Br. 55, but there is no legal requirement to do so. And, in any event, “BLM is unable to delegate its responsibilities to the states and tribes.” 80 Fed. Reg. at 16,190.

Wyoming argues that the Rule’s variance provision “defeats the Bureau’s contentions that the rule is necessary to create uniformity across public lands,” Wyo. Br. 56–57, but Wyoming misunderstands the variance. BLM has emphasized that “[i]ndividual variances could only be granted where the operator’s proposal meets or exceeds the objectives of the rule, and state or tribal variances may only be granted if the state or tribal provisions meet or exceed the objectives of the rule.” 80 Fed. Reg. at 16,175. In other words, a variance is only permissible when “it is clear that the alternative requirement is equally or more protective than the BLM’s rule.” *Id.* The Rule sets a floor of minimum, consistent standards across all federal and Indian lands. Setting a federal “floor” for regulation is hardly unique; in fact, “it is generally assumed that Federal regulation merely sets a ‘floor,’ over which States are free to impose additional regulations.” *Steel Inst. of New York v. City of New York*, 832 F. Supp. 2d 310, 331 (S.D.N.Y. 2011). *See also Bay Shore Union Free Sch. Dist. v. Kain*, 485 F.3d 730, 733 (2d Cir. 2007) (The Individuals with Disabilities Education Act requires “a ‘basic floor’ . . . , but states may exceed the federal floor.”); *United States v. Marine Shale Processors*, 81 F.3d 1361, 1367 (5th Cir. 1996) (The Resource Conservation and Recovery Act “expressly allowed states to impose regulations more stringent than those outlined in the federal floor.”). The variance provision does not obviate BLM’s need to establish consistent, minimum standards.



North Dakota contends that BLM failed to consider state regulations but, to the contrary, BLM considered state regulations throughout the rulemaking process. When BLM first contemplated promulgating the Rule, most states (including Petitioners Colorado, North Dakota, Utah, and Wyoming) did not have any regulations specifically addressing hydraulic fracturing. *See, e.g.*, DOIAR0001904–15 (Colorado), DOIAR0002010–13 (North Dakota), DOIAR0002056–58 (Utah), DOIAR0002068–72 (Wyoming); *see also* Wyo. Br. 11–13; N.D. Br. 5–6. As states implemented hydraulic fracturing regulations, BLM tracked these regulatory developments. *See, e.g.*, DOIAR0004772 (excel spreadsheet). BLM also compared its existing and proposed requirements with states’ requirements. For example, BLM compiled a chart entitled “State Regulations Covering Requirements in the Revised Proposed Rule,” which compared the requirements in California, Colorado, Montana, New Mexico, North Dakota, Oklahoma, Texas, Utah, and Wyoming. DOIAR0100580.<sup>36</sup>

In sum, the Rule reasonably addressed a federal regulatory gap, and the existence of similar state regulations is irrelevant. BLM thoroughly considered state regulations, but it opted to set a floor of federal standards in order to ensure compliance with its responsibilities as resource manager and trustee.

***D. The Rule’s definition of “usable water” is consistent with existing law and practice and is well supported***

The Rule contains several requirements designed to (i) protect particular groundwater zones from contamination by fracturing fluids, oil, and gas, and (ii) isolate the wellbore and

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<sup>36</sup> *See also* DOIAR0006861, DOIAR0007893–94, DOIAR0008295, DOIAR0016200, DOIAR0022272, DOIAR0037418, DOIAR0037995, DOIAR0040098, DOIAR0040741–48, DOIAR0042974, DOIAR0045017, DOIAR0045018, DOIAR0045611, DOIAR0049010–15, DOIAR0070396, DOIAR0076802, DOIAR0080243, DOIAR0084129, DOIAR0091641–41\_0004, DOIAR0095648–49, DOIAR0096027–27\_0002, DOIAR0098353–56, DOIAR0098951–58.

extracted minerals from those waters. These requirements apply to zones containing “usable water.” The Rule requires operators to report usable water zones with their drilling or fracturing plans and to isolate and protect the zones with casing and cementing. *See id.* §§ 3162.3-3(b), 3162.5-2. The Rule defines “usable water” to include those groundwater zones that are or may potentially be used for drinking, agricultural, and industrial purposes, subject to exclusion or inclusion of groundwater zones by state or tribal regulators. *See id.* § 3160.0-5.

IPAA contends that BLM has expanded the definition of “usable water” from water containing 5,000 parts per million (“ppm”) or less of total dissolved solids (“TDS”) to water containing up to 10,000 ppm TDS. They argue that this alleged change is an unexplained and irrational departure from prior regulations, and they complain that the change will result in undisclosed compliance costs. IPAA Br. 17–25. IPAA is wrong on all counts.

First, IPAA is mistaken about the law in force when BLM issued the Rule. Onshore Order 2, which has been in force since 1988, requires operators to report to BLM all indications of usable water—defined as “generally those waters containing up to 10,000 ppm of total dissolved solids”—and to isolate and protect all usable water zones through proper casing and cementing. 53 Fed. Reg. at 46,805, 808–809. As the preamble explains, 80 Fed. Reg. at 16,141, a 1982 regulation required that operators engaged in any well site activity “isolate freshwater-bearing and other usable water containing 5,000 ppm or less of dissolved solids and other mineral-bearing formations and protect them from contamination,” 43 C.F.R. 3162.5-2(d) (1982). However, Onshore Order 2 updated this regulation to require, for purposes of drilling, casing, cementing, plugging and abandonment, that the operator “protect and/or isolate all usable water zones,” 53 Fed. Reg. at 46,808–46,809, and defined “usable water” as “generally those waters containing up to 10,000 ppm of total dissolved solids,” *Id.* at 46,805. The Rule maintains

the Onshore Order 2 standard in the definition of “usable water.” *See* 43 C.F.R. § 3160.0-5. And, as in Onshore Order 2, the Rule applies the “usable water” standard to specify the zones that must be reported to BLM and must be isolated and protected by cementing. *See id.* §§ 3162.3-3(b), 3162.5-2.

IPAA argues that the Court should simply ignore the existence of Onshore Order 2. It insists that the 5,000 ppm standard for “freshwater-bearing and other usable water” zones that applied to well site activities under the 1982 rule was the only pre-existing “usable water” standard, and it concludes on that basis that the Rule’s adoption of a 10,000 ppm TDS standard is an arbitrary departure from prior practice. IPAA Br. 17–19.

But there can be no doubt as to Onshore Order 2’s validity, even if this suit were a proper vehicle for challenging a 1988 regulation. Onshore Orders, including Onshore Order 2, are promulgated by notice-and-comment rulemaking and are binding on owners and operators of Federal and restricted Indian oil and gas leases. 43 CFR § 3164.1(b); *see also id.* § 3162.1(a) (operators are responsible for complying with all applicable laws and regulations, including Onshore Orders). Nor must Onshore Order 2 supersede the 1982 regulation to supply the applicable standard for “usable water.” There is no conflict between the 1982 performance standard for “freshwater-bearing [formations] and other usable water containing 5,000 ppm [TDS],” 43 C.F.R. § 3162.5-2(d) (1982), and Onshore Order 2’s requirement to isolate and protect “usable water” of up to 10,000 ppm TDS by cementing and casing. An operator could comply with both. And BLM may promulgate Onshore Orders “to implement *and supplement* the regulations” via notice and comment rulemaking procedures and publication in the Federal

Register, 43 C.F.R. § 3164.1(a) (emphasis added).<sup>37</sup> Thus, it is not improper for Onshore Order 2 to supplement the definition of usable water in the 1982 regulation.

It is also clear from the record and other relevant regulations that BLM viewed Onshore Order 2 as supplying the applicable legal standard. For example, Onshore Order 2’s “usable water” standard for isolation and protection of groundwater zones was reflected in changes to other BLM regulations as they were updated, such as Onshore Order 1. *Compare* 48 Fed. Reg. 48,916, 48,925 (Oct. 21, 1983) (operator must identify in its drilling plan the locations of “anticipated water (particularly fresh water)” formations and its plan for protecting such resources) *with* 72 Fed. Reg. at 10,331 (operator must identify in its drilling plan the locations of “zones potentially containing usable water” and its plan for protecting such resources). The updated Onshore Order 1 also expressly requires operators to “adhere to the provisions and standards of” Onshore Order 2. 72 Fed. Reg. at 10,331.

IPAA argues that BLM’s reference to the 1982 standard in two documents, two statements in the preamble, and a single 1994 State Director’s decision show that, even if Onshore Order 2 is valid, BLM has not applied it. IPAA Br. 19 n.11, 20–21. IPAA’s argument is neither legally nor factually correct. For one, any “informal practice” cannot supersede the legal standard set forth in Onshore Order 2. The existing legal standard is the only relevant inquiry in assessing whether the Rule’s definition of “usable water” effects a change in law. Further, IPAA’s sources do not even support its position as to BLM’s informal practice. The

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<sup>37</sup> During the public comment process, BLM acknowledged that some in the regulated community believed the 1982 regulation—rather than Onshore Order 2—supplied the relevant standard, *see* 80 Fed. Reg. 16,141. Relying on these comments, IPAA claims BLM was “aware that the regulated community considered the final rule to effect a change in the law,” IPAA Br. 20 n.12. But the mere fact that some in industry viewed the up to 10,000 ppm TDS standard as a change in law does not make it so.

preamble passages cited by IPAA both expressly state that Onshore Order 2 has been in effect since 1988 and has supplied the applicable standard for protecting and isolating usable water since that time, *see* 80 Fed. Reg. at 16,141, 16,196. BLM’s reference to the 1982 standard in two documents, *see* DOIAR0005111, 5309, also does not refute the validity of Onshore Order 2. Likewise, while IPAA also claims that BLM has never enforced the Onshore Order 2 standard, it concedes that it can find no cases or administrative decisions supporting its position, aside from a single 1994 decision by a BLM State Director concerning a single operator, *see* IPAA Br. 19 n.11. And even that decision fails to support IPAA’s argument, because in that decision, the operator, the field office, and the State Director all invoked Onshore Order 2 as supplying the applicable standard.<sup>38</sup>

Second, even if IPAA were correct in characterizing the Rule’s definition of usable water as a departure from prior law—and it is not—this fact would not advance Petitioners’ cause because BLM adequately explained its use of the 10,000 ppm standard. BLM affirmed the reasoning for the standard applied in Onshore Order 2, *id.* at 16,142, and it supplied additional and independent reasoning for its continued use of that standard. *See id.* at 16,142–16,143.

IPAA argues that the “usable water” standard is irrational because only waters with a TDS concentration below 10,000 ppm are usable, without treatment, for human or livestock consumption or irrigation. *See* IPAA Br. 18. But BLM expressly stated that the Rule “is not limited to” drinking water; it is also intended to protect aquifers that “might be usable for agricultural or industrial purposes, or to support ecosystems.” 80 Fed. Reg. at 16,143. BLM

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<sup>38</sup> *See David L. Robertson*, SDR No. 922-94-05 at 2–3 (BLM Mont. State Office, April 21, 1994), available at:

[http://www.blm.gov/style/medialib/blm/mt/blm\\_programs/energy/oil\\_and\\_gas/operations/sdrs.P ar.38840.File.dat/922-94-05.pdf](http://www.blm.gov/style/medialib/blm/mt/blm_programs/energy/oil_and_gas/operations/sdrs.P ar.38840.File.dat/922-94-05.pdf).

observed that, “[g]iven the increasing water scarcity and technological improvements in water treatment equipment, it is not unreasonable to assume aquifers with TDS levels above 5,000 ppm are usable now or will be usable in the future.” *Id.* at 16,142. BLM’s reasoning was also supported by comments in the record. *See, e.g.,* High Country Citizens Alliance, DOIAR0057701 (“Usable water is especially important in areas, like Colorado, where the climate is dry, droughts are not uncommon, and a robust agriculture sector thrives. Protecting water with up to 10,000 ppm [TDS] ensures such water remains viable for agricultural and industrial purposes.”); Wyoming Outdoor Council, DOIAR0054344–45; The Nature Conservancy, DOIAR0057180 (“This provision will help to protect the quality . . . of water that supports groundwater-dependent ecosystems . . . such as springs, streams, and wetlands . . .”).<sup>39</sup>

Moreover, the “up to 10,000” ppm TDS standard is only a backstop. The Rule expressly contemplates that states and tribal regulators will make determinations in the first instance about groundwater that should or should not be protected. That is, the Rule defers to state and tribal regulators to specify which groundwater zones must be isolated and protected, and which groundwater zones are exempt from protection (other than USDWs), regardless of the 10,000 ppm standard. 43 C.F.R. § 3160.0-5 (defining “usable water” to exclude any zones (other than USDWs) that the relevant state or tribe has exempted from protection and to include zones that the relevant state or tribe has designated as USDWs or designated for protection). Simply put,

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<sup>39</sup> IPAA argues that the justification for the 10,000 ppm standard in Onshore Order 2 improperly relied on EPA’s definition of underground sources of drinking water (“USDWs”) in regulations implementing the SDWA. IPAA Br. 21–22. Whether true or not in the rulemaking that produced Onshore Order 2, Petitioners have not invoked the Court’s jurisdiction over that regulation and thus are not entitled to challenge it collaterally in this case. But even if IPAA’s argument were correct, it would not undermine the Rule. BLM’s rationale for adopting the 10,000 ppm TDS standard in the Rule was expressly not limited to USDWs, but included other water uses beyond human consumption. *See* 80 Fed. Reg. at 16,142–16,143. And the record amply supports BLM’s decision.

the 10,000 ppm TDS standard applies only where a state or tribal regulator has declined to act. And, for those instances, BLM's use of the standard is reasonable and amply supported.

Third, IPAA argues BLM has failed to account for the fact that the Rule imposes a new and unreasonable burden on operators with respect to identification of usable water zones. IPAA Br. 22–25. Specifically, IPAA contends that the Rule requires operators to identify usable water zones, whereas under “current practice, state oil and gas agencies and BLM field offices inform operators about the location of usable water that must be protected.” *Id.* IPAA is mistaken, as there is no such new, unreasonable burden.

IPAA cannot dispute that operators must, under existing regulations, identify usable water zones in their pre-drilling disclosures. Whether the Rule deviates from these pre-existing reporting requirements is the only relevant inquiry for purposes of assessing the adequacy of the Rule's statement of reasons—and it does not. Onshore Order 1 states that an operator “must include” in its Drilling Plan the “[e]stimated depth and thickness of formations, members, or zones potentially containing usable water . . . that the operator expects to encounter, and the operator's plans for protecting such resources.” Onshore Order 1, 72 Fed. Reg. 10,308, 10,331 (Mar. 7, 2007) (Section III.D.3). Further, Onshore Order 2 requires operators to report to BLM all indications of usable water. 53 Fed Reg. at 46,808. Those are the existing requirements. Similarly, the Rule specifies that an operator's request for approval of hydraulic fracturing must contain “[t]he estimated depths (measured and true vertical) to the top and bottom of all occurrences of usable water based on the best available information.” 43 C.F.R. § 3162.3-3(d)(1)(iii).

In addition, the information that operators must supply under the Rule is cabined in two very significant respects, which further refute IPAA's assertion that the Rule imposes a new,

onerous requirement. For one, what operators identify need only be “based on the best available information.” 43 C.F.R. § 3162.3-3(d)(1)(iii). In addition, the zones that do or do not qualify as usable water, and thus must be identified in the operator’s application, can be specified by state and tribal regulators under their own standards, with no need for operators to perform additional water quality testing or to apply the Rule’s fallback 10,000 ppm TDS standard. 43 C.F.R. § 3160.0-5. These limitations substantially reduce any burden on operators.

Even if it were legally relevant that operators may currently learn about the location of usable water from state and federal regulators, the argument is premature, because IPAA cannot show that the Rule will be *applied* in a way that imposes more onerous obligations. In other words, IPAA fails to establish that any existing *informal* practice will not continue under the new Rule, particularly since the Rule formalizes that existing practice by expressly incorporating in the definition of “usable water” deference to state and tribal regulators in determining zones to identify or protect.

Fourth, IPAA argues BLM has failed to account for an additional new burden on operators, namely, the Rule’s requirement to apply casing and cementing to “existing wells” that were drilled and cased “under the former practice.” IPAA Br. 24–25. This argument is largely premised on IPAA’s misstatement of the existing standard for such casing and cementing to isolate and protect usable water zones—i.e., IPAA’s assertion that only the 1982 regulation, and not Onshore Order 2, supplies the current standard for groundwater zones to isolate and protect—and IPAA’s resulting mistaken conclusion that the Rule deviates from this standard. That conclusion is refuted above.

Further, under the Rule, “[f]or any well completed pursuant to an [existing application for permit to drill] that did not expressly authorize hydraulic fracturing operations,” operators need



not reapply casing and cementing or take additional steps to isolate and protect usable water zones so long as they maintained documentation demonstrating compliance with the existing standard. *See* 43 C.F.R. § 3162.3-3(e)(1)(ii); 80 Fed Reg. at 16,155. BLM explained that it expects that most operators will already have such documentation. 80 Fed Reg. at 16,155. And, if the operator did not maintain its records, it can provide the available information to BLM, which “could approve the operator’s request once there is assurance that the hydraulic fracturing operation in the well would be consistent with the requirements of proper isolation and protection of the usable water zones.” *Id.* at 16,155–56. In the infrequent instance where operators cannot show compliance with the existing standard, “the rule provides . . . that operators must provide the relevant documentation that is available, and that the BLM may require additional testing or verifications on a case-by-case basis.” *Id.* at 16,146; *see also* 43 C.F.R. § 3162.3-3(e)(1)(ii). BLM reasonably concluded that, since the Rule maintains existing requirements applicable since 1988 (but adds provisions allowing for relief in certain circumstances), these requirements would not impose new, incremental costs. *See* DOIAR0100583–84 (cost analysis).

***E. The certification requirements are reasonable and amply supported***

IPAA argues that two certification provisions and related affidavit requirements in the Rule are irrational, but these arguments have no merit. The provisions at issue pertain to operators’ withholding of proprietary information from otherwise mandated public disclosures and to operators’ duty to ensure that activities on their sites comply with legal requirements. IPAA complains that, in instances where operators retain other companies to conduct fracturing operations, operators will lack the information necessary to make the certifications, and it complains that BLM neglected to address comments to that effect. IPAA Br. 38–41. In fact, BLM acknowledged these contractual arrangements, responded to such comments, and provided

accommodations for operators' retention of contractors. But BLM also explained that the operator is the party subject to BLM's authority and on which ultimate responsibility for compliance with BLM regulations must fall. BLM's decision was not arbitrary or capricious.

The first certification ("the access certification") applies where operators seek to withhold proprietary chemical information from required post-operation public disclosures. Operators can withhold such information by submitting an affidavit attesting to the information's commercial sensitivity and eligibility for legal protection—e.g., by identifying the statute or regulation under which the information would be shielded from public disclosure and affirming that its release would cause actual competitive harm. 43 C.F.R. § 3162.3-3(j)(1). Since the information will be withheld from both the public and BLM, these attestations are necessary to assure BLM that information is being withheld in good faith. *See* 80 Fed. Reg. at 16,173–74. The Rule also specifies the time periods during which records must be maintained and accessible to BLM in the event that such information is required to, for example, assist with identifying sources of a spill or other contamination discovered after fracturing operations. *See* 43 C.F.R. § 3162.3-3(j)(5). Both the post-operation disclosure requirement and the procedure for invoking protection from such disclosures are directed at operators, *see id.* §§ 3162.3-3(i)(1), (j)(1), as operators are the permittees authorized to conduct operations on the well, the entities regulated under the Rule, and the entities over which BLM has authority through the lease, *see, e.g.*, 80 Fed. Reg. at 16,168 ("BLM primarily has authority over the parties who hold or operate the lease—the lease being the instrument through which the BLM exercises its authority over the lessee or operator"); *see also* 43 C.F.R. §§ 3160.05 (definition of "operator"), 3162.1(a) (general requirements for operators), 3162.3(a),(b) (indicating that operators are responsible for all activities on a well site, including those of its contractors).

Nevertheless, the Rule responds to industry comments and concerns by accommodating the situation where a third party, such as a contractor or service company hired by the operator, owns the proprietary information. In particular, the Rule requires that the *owner* of the information provide an affidavit that includes the information that would be within that company's exclusive control—e.g., attesting to the risk of competitive harm from release of the information and the inability of competitors to readily reverse-engineer the withheld information from publicly available sources. *Id.* § 3162.3-3(j)(2). The Rule also allows an operator to certify *either* that it “has been provided the withheld information from the owner of the information and is maintaining records of the withheld information, *or* that the operator has access and will maintain access to the withheld information held by the owner of the information.” *Id.* § 3162.3-3(j)(1)(iii) (emphasis added).

IPAA asserts that this access certification—i.e., that the operator has been provided the information or has access to the information—and the related affidavit requirements “disregard comments in the record explaining that, in the oil and gas industry, trade secret holders such as service companies generally do not provide operators ... with access to the trade secret holder's trade secrets,” and therefore impose an impossible obligation on operators. IPAA Br. 38–39. On the contrary, BLM considered and reasonably responded to those industry comments by explaining the Rule's reasonable accommodations for such situations.

With respect to the access certification, both the Rule and BLM's responses to comments in the preamble show that the certification imposes no impossible obligation on operators. For operators who wish to certify that they have “been provided the withheld information” and are “maintaining records” of that information, the Rule clarifies that “[t]he operator will be deemed to be maintaining the records if it can promptly provide the complete and accurate information to

BLM, *even if the information is in the custody of its owner.*” 43 C.F.R. § 3162.3-3(j)(5) (emphasis added); *see also* 80 Fed. Reg. at 16,175. Alternatively, the Rule allows an operator to comply by certifying that it “has access and will maintain access to the withheld information held by the owner of the information.” 43 C.F.R. § 3162.3-3(j)(1)(iii). In either scenario, the Rule does not require that the operator have possession of, or the ability to scrutinize, the proprietary information itself, but merely places on the operator the responsibility to ensure that the information will be maintained and provided to BLM if needed. The Rule thus makes clear that an operator can comply as long as it can direct its contractor to maintain the information and provide it to BLM upon request.<sup>40</sup>

IPAA has not explained why such arrangements are impossible, given that operators voluntarily select and contract with service providers. Operators already are responsible under existing regulations to maintain, maintain access to, or provide to BLM potentially sensitive information that may be in contractors’ possession. For example, pre-existing regulations already require operators to “keep accurate and complete records with respect to all lease operations including, but not limited to, production facilities and equipment, drilling, producing, redrilling, deepening, repairing, plugging back, and abandonment operations, and other matters pertaining to operations,” with no exception made for the trade secrets or proprietary information of a third party. 43 C.F.R. § 3162.4-1(a) (2014).

With respect to the requirements (other than the access certification) of the withholding affidavit, the Rule similarly accommodates situations where a third party owns the trade secrets

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<sup>40</sup> IPAA appears to acknowledge that the Rule does not require an operator to review the contents of a third party’s proprietary information, but claims that this conclusion is evident only from “post hoc clarifications” contained in Federal Respondents’ briefing papers, and not in the Rule or preamble. IPAA Br. 40. On the contrary, the Rule and preamble make plain that no such impossible obligation is imposed on an operator, and no “post hoc clarification” is needed.

to be withheld. Operators need not have access to the contents of its contractor's trade secrets to comply with the affidavit requirements when withholding such information. *See* 43 U.S.C. § 3162.3-3(j)(2) (directing operator to provide affidavit from third party "that sets forth the relied upon information" required to invoke withholding). As explained in the preamble, "because the operator will not always be in the best position to declare why certain information should be withheld, the final rule allows the operator to submit an affidavit from the owner of the information attesting to the confidential status of the information in addition to the affidavit required from the operator." 80 Fed. Reg. at 16,173; *see also id.* at 16,174. Moreover, in such a situation, "both the operator and the owner of the information may provide the BLM with any materials that would substantiate a claim of trade secret status, and both the operator and the owner of the information would receive advance notice of any BLM decision that the information" must nevertheless be submitted. *Id.* at 16,173. Thus, the withholding affidavit poses no impossible obligation on operators.

The second certification ("the compliance certification") that IPAA challenges requires that, as part of post-operation disclosures, operators must certify that "the hydraulic fracturing fluid constituents, once they arrived on the lease, complied with all applicable permitting and notice requirements as well as all applicable Federal, [State or Tribal], and local laws, rules, and regulations." 43 C.F.R. § 3162.3-3(i)(8)(ii)-(iii). IPAA concedes that "operators assume legal responsibility for the conduct of the operators' contractors on the lease site." IPAA Br. 41; *see also* DOIAR0056260 (acknowledging that IPAA "understand[s] and accept[s] that BLM will hold operators responsible for any incidents associated with hydraulic fracturing that may occur even those [the] contractor may cause"). Nevertheless, IPAA maintains that this compliance

certification is irrational because operators must “make certifications of information the operators do not possess.” IPAA Br. 41.

IPAA’s concession of ultimate operator responsibility is the crux of the matter. Operators are responsible for ensuring that activities on the lease are conducted in accordance with all applicable laws, and, therefore, they have a broad duty to supervise their contractors. The compliance certification requirement aligns with existing regulatory obligations, under which “the operator is the entity that is responsible for the operations conducted under the terms and conditions of the lease,” regardless of the party that does the work. 80 Fed. Reg. at 16,159; *see also* 43 C.F.R. §§ 3160.0–5, 3162.1(a) (2014) (describing operator’s duty to comply with all applicable laws and regulations in its operations on leases); *id.* § 3162.3(b) (2014) (providing that operators remain responsible for their contractors’ compliance with applicable laws and regulations); *id.* § 3100.0-5(a) (2014) (providing that operators voluntarily undertake responsibility for operations on their leases). Therefore, although BLM acknowledged comments expressing concern about the compliance certification where operators employ contractors, 80 Fed. Reg. at 16,158–59, BLM appropriately concluded that “it is the operator who has voluntarily taken responsibility for all operations in and on its wells . . . and it is the operator who is responsible for submitting all required reports and information.” *Id.* at 16,173; *see also id.* at 16,168 (indicating that BLM’s authority, through the lease and the terms of BLM regulations, is over the operator). In sum, IPAA fails to demonstrate that the access certification, other withholding affidavit requirements, or the compliance certification is arbitrary or capricious.

***F. Proprietary information submitted under the Rule is protected***

IPAA contends that the Rule fails to safeguard proprietary information that must be submitted to BLM prior to fracturing, despite protecting similar information submitted after such operations. IPAA argues that this distinction is arbitrary and capricious, and it insists that this disparate treatment signals that BLM will violate the Freedom of Information Act (“FOIA”) and the Trade Secrets Act. IPAA Br. 25–33. These arguments are specious.

All of IPAA’s arguments proceed from a single flawed premise. Pre-operation submissions that operators make directly to BLM are *already* protected under public records laws, as implemented in U.S. Department of the Interior’s (“DOI”) existing regulations and policies, which apply to BLM. *See generally*, 43 C.F.R. §§ 2.1–2.36.<sup>41</sup> And these protections will continue to apply to information submitted pursuant to the Rule.<sup>42</sup> The Rule thus required no special provisions to protect these submissions. *See, e.g.*, 80 Fed. Reg. at 16,173 (explaining that there is no need to extend the withholding provision applicable to post-operation disclosures to other submissions, because submitters are already able to flag information as a trade secrets in any submission); *see also id.* at 16,128 (For some information submitted under the Rule, BLM seeks greater public disclosure, but will do so “consistent with the requirements of federal law.”).

Under these DOI provisions, submitters may segregate or label any submission as confidential. 43 C.F.R. § 2.26(a). Before releasing any information labeled confidential or any information which “the bureau believes . . . may be protected from disclosure under Exemption

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<sup>41</sup> DOI’s regulations at 43 C.F.R. part 2 apply to all of its bureaus, including BLM. *See, e.g.*, 43 C.F.R. 2.1(a), 2.3(a), 2.12(a), 2.26; *Nkihtaqmikon v. BIA*, 453 F. Supp. 2d 193 (D. Me. 2006) (43 C.F.R. 2.32 applies to FOIA request to the Bureau of Indian Affairs).

<sup>42</sup> In contrast to pre-operation information submitted directly to BLM—for which no new protections were needed—the Rule’s new protections were needed for post-operation information that would be publicly disclosed, rather than be submitted to BLM, and thus would not covered by the existing protections.

4,”<sup>43</sup> BLM “must promptly notify [the] submitter in writing” and give it an opportunity to object to the information’s release. *Id.* § 2.27; *see also id.* § 2.26(b) (agency must consult with submitter and provide an opportunity to object to release of any information for which agency is unable to determine is confidential). “If the bureau decides to disclose information over the objection of a submitter, the bureau must notify the submitter” in writing, with the reasons for disclosure, and provide advance notice to the submitter, *see id.* § 2.33, which allows the submitter time to seek judicial relief.

These DOI regulations expressly reference trade secrets and other information subject to FOIA Exemption 4, *see id.* § 2.31, and state that “[i]f a bureau determines that the requested information is protected from release by Exemption 4 of the FOIA, the bureau has no discretion to release the information” because such an action is “prohibited by the Trade Secrets Act.” 43 C.F.R. § 2.36. And, the designation procedure and advance notice requirements apply more generally to *all* information designated by the submitter as confidential, *see e.g., id.* §§ 2.26, 2.33, not just information protected by Exemption 4. As such, these protections also apply to any confidential information that may qualify for another FOIA exemption, such as Exemption 9.<sup>44</sup>

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<sup>43</sup> FOIA Exemption 4 exempts from release any “trade secrets and commercial or financial information obtained from a person that is privileged or confidential,” 5 U.S.C. § 552(b)(4). Such information includes trade secrets, for which the Trade Secrets Act prohibits disclosure, subject to criminal penalty. *See* 18 U.S.C. § 1905.

<sup>44</sup> Exemption 9 exempts from release any “geological and geophysical information and data, including maps, concerning wells.” 5 U.S.C. § 552(b)(9). IPAA relies on Exemption 9 as an independent category of operator-submitted information that must be protected from release. IPAA Br. 29. But to the extent such information is confidential or proprietary—and it would not necessarily be, since not all geological and geophysical information is developed by the operator or its contractors—that information is already protected under Exemption 4 and DOI regulations. IPAA’s extended discussion of Exception 9 is therefore irrelevant. Even if that were not the case, however, BLM explained how confidential and proprietary information submitted under the Rule is protected, and IPAA (and other commenters) failed to reference Exemption 9 in



IPAA does not even attempt to show that these existing regulations are inadequate to protect operators' trade secrets, nor could it. The same DOI regulations have long protected confidential information collected under BLM's existing oil and gas regulations. Many existing BLM reporting requirements implicate information that may include trade secrets, and those trade secrets are already protected by DOI's existing regulations. *See, e.g.*, 43 C.F.R. § 3162.3-1 (requiring disclosure of "description of the drilling program, the surface and projected completion zone location, pertinent geologic data, expected hazards, and proposed mitigation measures to address such hazards"); *id.* § 3162.3-2 (requiring disclosures with sundry notices), *id.* § 3162.3-4 (requiring disclosure of plan to plug and abandon); *id.* § 3162.4-1 (requiring disclosure of well operation reports, including all logs run on the well); Onshore Order 1, 72 Fed. Reg. at 10,331 (requiring disclosure of "all geologic groups, formations, members, or zones").<sup>45</sup>

Unlike the pre-operation disclosures required under the Rule, DOI's existing protections do not extend to all post-operation disclosures, *see* 43 C.F.R. § 3162.3-3(j), because those disclosures are not necessarily provided to BLM. Unlike pre-operation disclosures, where all information will be provided directly to BLM, *see* 43 C.F.R. § 3162.3-3(d), post-operation disclosures include fracturing fluid composition information that will be uploaded to FracFocus. *See* 43 C.F.R. § 3162.3-3(i); *see also* 80 Fed. Reg. at 16,166. FracFocus is a publicly-accessible database, and "information on FracFocus concerning Federal or tribal wells is public information." 80 Fed. Reg. at 16,169. Accordingly, special provisions were needed to allow

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public comments, much less assert the litigation theory that existing regulations would not protect information subject to Exemption 9. *See, e.g.*, DOIAR0056212–85 (IPAA Aug. 22, 2013 Comments); DOIPS0010651–93 (IPAA Sept. 10, 2012 Comments). Accordingly, there was no reason for BLM to specifically address Exemption 9 in the preamble.

<sup>45</sup> *See also* 43 C.F.R. 3152.6(a) (requiring submission of geophysical exploration data in Alaska).

companies to withhold confidential information when posting information on that public site.

*See* 43 C.F.R. § 3162.3-3(j).

BLM explained both the rationale for this special provision and that the level of protection for such information does not vary from that provided to other proprietary information submitted under the Rule. *See* 80 Fed. Reg. at 16,166. IPAA is thus mistaken in its assertions that there is disparate treatment in the protection of trade secrets among pre- and post-operation disclosures and that BLM failed to explain such disparate treatment. The preamble specifically explains that the Rule “provides the same procedural safeguards for hydraulic fracturing information as for all other information” submitted to BLM. 80 Fed. Reg. at 16,173.<sup>46</sup>

IPAA is also mistaken that another, related statement in the preamble demonstrates BLM’s intent to disregard federal law and its own regulations and thus “alone is reason to set aside BLM’s rule.” IPAA Br. 27–28. BLM stated that it did not change the Rule as a result of “[a] few commenters[’] . . . concern about confidentiality of the information in providing the required details on the estimated fracture length, height, and direction,” because it “believes that the submission of these estimated values would not *routinely* meet any of the criteria within [FOIA] regulations.” 80 Fed. Reg. at 16,153–54 (emphasis added). That statement responded to comments that BLM should extend the Rule’s withholding provision to information required as part of pre-operation disclosures, and particularly “fracture length and orientation data.” *See, e.g.,* DOIAR0056227 (IPAA Comments). But both IPAA’s comments, *see id.*, and those of

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<sup>46</sup> BLM expressly applied the same standard for (i) invoking protection from release for proprietary information submitted to BLM and (ii) withholding proprietary information from disclosure to Fracfocus. For example, BLM explained that “[a]n operator may withhold information as exempt from public disclosure only if it identifies a Federal statute or regulation that would prohibit the BLM from disclosing the information if it were in the BLM’s possession.” 80 Fed. Reg. at 16,171.

other industry groups that it cites, IPAA Br. 26–27 n. 16, merely asserted that protection of trade secrets is “inadequate” in not extending the withholding option to pre-operations submissions. These comments offered no compelling reason why information already protected from public release under existing regulations should also be categorically exempted from submission to BLM. *See* DOIPS0364932 (Noble Energy), DOIPS0365626 (Ultra Petroleum). The comments that IPAA cites discussed the sensitive nature of information to be submitted *only* with respect to fracture extent modeling, which is information no longer required under the final Rule. *See* DOIAR0056256–57, 62 (IPAA); DOIPS0365294 (Devon Energy); DOIPS0364933 (Noble Energy), DOIPS0301588–89 (America’s Natural Gas Alliance); DOIPS0179035 (Encana). BLM thus reasonably rejected the requested blanket exemption from submission, *see* 80 Fed. Reg. at 16,153–54, while reaffirming its commitment to reviewing, on a case-by-case basis, all pre-operation submissions marked as confidential or proprietary, *id.* at 16,173. It was not required to do more.

In sum, BLM adequately explained why the Rule explicitly addresses the protection of some categories of information but not others, and IPAA’s arguments are specious.

***G. The Mechanical Integrity Test is reasonable***

IPAA argues that the Rule’s Mechanical Integrity Test (“MIT”) requirement is arbitrary and capricious because it is vague; it is an unexplained departure from the pressure test required in Onshore Order 2; it is not limited to the vertical wellbore; and BLM found it did not pose an additional cost burden. IPAA Br. 13–17. These arguments lack merit and mischaracterize the MIT.

First, contrary to IPAA’s assertions, the MIT is not vague; BLM clearly specified the MIT requirements. It is “a pressure test of the casing through which the hydraulic fracturing will

occur or through the fracturing string (if used).”<sup>47</sup> 80 Fed. Reg. at 16,159. The Rule mandates that “[p]rior to hydraulic fracturing, the operator must perform a successful [MIT],” and then the Rule outlines the test requirements depending on the two types of well configurations that operators may use. If operators plan to conduct hydraulic fracturing through casing, then “the casing must be tested to not less than the maximum anticipated surface pressure that will be applied during the hydraulic fracturing process.” 43 C.F.R. § 3162.3-3(f)(1). If operators plan to use a fracturing string instead of casing, then “[t]he fracturing string must be tested to not less than the maximum anticipated surface pressure minus the annulus pressure applied between the fracturing string and the production or intermediate casing.” *Id.* § 3162.3-3(f)(2). In either case, “the [MIT] will be considered successful if the pressure applied holds for 30 minutes with no more than a 10 percent pressure loss.” *Id.* § 3162.3-3(f)(3). The test requirements are clear.

Second, BLM adequately explained its basis for imposing the MIT requirement and thus justified its departure from the testing requirements in Onshore Order 2. The Rule mandates the MIT “to ensure that an existing well is properly bonded and sheathed to sustain high pressures during a hydraulic fracturing operation.” 80 Fed. Reg. at 16,160. The MIT is “necessary” to ensure “that the casing provides sufficient structural strength to protect usable water and other subsurface resources during hydraulic fracturing operations.” *Id.* To that end, operators must conduct the MIT “prior to the first hydraulic fracturing operation in any well, and prior to all subsequent hydraulic fracturing operations in that well.” *Id.* BLM “believe[d] that ensuring

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<sup>47</sup> Operators hydraulically fracture either through the casing, i.e., steel pipe that is inserted and cemented into a section of a recently drilled wellbore, or through a fracturing string, i.e., steel pipe temporarily inserted inside the casing for the purpose of hydraulic fracturing. Operators use a fracturing string if the casing integrity is insufficient to withstand the required pressures from hydraulic fracturing or if they desire an additional barrier in the wellbore to protect the permanent casing from damage due to the high pressures that occur during hydraulic fracturing operations.

casing integrity prior to hydraulic fracturing is essential and that the only way to verify the integrity of the casing is to require a test to the anticipated hydraulic fracturing pressure.” *Id.*

While IPAA apparently believes the pressure testing mandated by Onshore Order 2 already addresses all these concerns, BLM reasonably disagreed. Onshore Order 2 applies more generally to the drilling of all oil and gas wells on federal and Indian lands, and many of those wells will not be hydraulically fractured and thus need not withstand the pressures that occur during hydraulic fracturing. Onshore Order 2 mandates that “[a]ll casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or 1500 psi, whichever is greater.”<sup>48</sup> 53 Fed. Reg. at 46,809. These pressures, i.e., 0.22 psi per foot or 1500 psi, are typically less than the pressures applied in hydraulic fracturing, which is why the Rule requires operators to test casing to “not less than the maximum anticipated surface pressure that will be applied during the hydraulic fracturing process.” 43 C.F.R. § 3162.3-3(f)(1).

Third, BLM rationally and reasonably removed the language in the supplemental proposed rule that limited the MIT to vertical wellbore sections. BLM justified this change by explaining that “it was unclear to what the term vertical section would apply in a directionally drilled well.” 80 Fed. Reg. at 16,159. In other words, many wellbores travel in vertical, lateral, or angled directions *before* they reach the portion of the well that will be fractured. When BLM removed the vertical limitation, it ensured that the Rule would address the various drilling configurations that its engineers have encountered in the field. While many hydraulically fractured wells are “L-shaped” wells, with both vertical and horizontal sections, there are also directionally drilled wells or well segments that are neither vertical not horizontal. For example,

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<sup>48</sup> Onshore Order 2 also mandates a different pressure test for exploratory wells and well sections approved for a certain level of blow-out prevention equipment.

some directionally drilled wells deviate from vertical at a shallow depth and continue on an angle until the target is reached, and other directionally drilled wells deviate from the vertical at a shallow depth, continue at an angle until the required displacement is reached, and then return to vertical and drill to the target depth (typically referred to as “S-shaped” trajectory). Given the actual well configurations that occur, applying the MIT only to the vertical wellbore sections would be illogical and would not achieve BLM’s purpose.

By removing the vertical limitation, BLM applied its expertise and reasonably required operators to “ensure[] that the entire length of casing or fracturing string, not just the vertical section, *prior to* the perforations or open-hole section of the well, is able to withstand the applied pressure and contain the hydraulic fracturing fluids.” 80 Fed. Reg. at 16,159 (emphasis added). The preamble thus explains that the Rule requires operators to ensure that all wellbore sections—vertical, horizontal, or angular—before or “uphole from” the sections that will be perforated can withstand hydraulic fracturing pressures. Contrary to IPAA’s assertions, the Rule does not require pressure testing of the sections that will be perforated.<sup>49</sup>

Finally, BLM reasonably determined that, while the hydraulic fracturing MIT is different from the pressure test in Onshore Order 2, it does not pose an additional cost for most operators.<sup>50</sup> BLM noted that “[i]ndustry guidance and many state regulations are consistent with [the MIT] requirement. The API guidance clearly indicates the need for the MIT. The threshold

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<sup>49</sup> Counsel for Federal Respondents inadvertently misstated some of these facts at the preliminary injunction hearing. When the Court asked counsel whether the MIT “require[d] testing and monitoring and integrity tests for the lateral that is going to be fracked,” counsel responded “[y]es, I believe so.” Prelim. Hr’g Tr. 148:13–16, ECF No. 103. This statement was inaccurate, and the correct application of the Rule is explained above.

<sup>50</sup> To be clear, an operator need not perform two tests to comply with the Rule and Onshore Order 2. If an operator conducts an MIT, that test will satisfy the requirements of both Onshore Order 2 and the Rule.

of 30 minutes with no more than 10 percent loss of applied pressure is used by many states . . . .” 80 Fed. Reg. at 16,159. BLM reviewed hydraulic fracturing regulations in California, Colorado, Montana, New Mexico, North Dakota, Oklahoma, Texas, Utah, and Wyoming—the states which account for 99.3 percent of the total well completions on federal and Indian lands nationwide—and found that “those states either require pressure tests on all casing strings or on the casing strings through which the completion operation will occur.”<sup>51</sup> 80 Fed. Reg. at 16,187. BLM thus reasonably concluded that, between industry guidance and state regulations, “the MIT requirement will not pose an incremental cost to most responsible operators” because they are already conducting this test. *Id.*<sup>52</sup> That conclusion was rationally based on BLM’s expertise and its examination of existing practices, informed public comments, industry guidance, and state regulations. *See Balt. Gas & Elec. Co.*, 462 U.S. at 103 (recognizing that “a reviewing court

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<sup>51</sup> For example, Montana’s MIT regulation is almost identical to the Rule. It requires wells to be tested “to the maximum anticipated treating pressure” and “[a] casing pressure test will be considered successful if the pressure applied has been held for 30 minutes with no more than ten percent pressure loss.” Mont. Admin. R. 36.22.1106. North Dakota’s regulation is more stringent in that it requires pressure testing “for at least thirty minutes with less than five percent loss to a pressure equal to or in excess of the maximum frac design pressure.” N.D. Admin. Code 43-02-03-27.1.

<sup>52</sup> Indeed, some “commenters indicated that because MITs are already completed as a matter of industry practice prior to any pumping procedure, regulating such procedure is merely bureaucratic and serves no environmental protection.” 80 Fed. Reg. at 16,160. For example, the Black Hills Exploration Production and Midstream LLCs argued that the MIT requirement was redundant because “[s]uccessful MITs are already completed as matter of industry practice prior to any pumping procedure. Operators already conduct MITs to ensure that their large investment in a well is not lost due to the hydraulic stimulation of a formation that does not contain hydrocarbons.” DOIAR0028371. The Industrial Commission of North Dakota commented that the MIT requirement “duplicates North Dakota regulations” and “North Dakota regulations already address mechanical integrity testing prior to well stimulation. BLM regulations are unnecessary . . . .” DOIAR0048267. Of course, as explained above in Section II.C.4, BLM cannot rely on state regulations or voluntary compliance with industry guidance to satisfy its resource management and trust responsibilities. Moreover, these commenters’ references to state regulations and voluntary compliance support BLM’s conclusion that the MIT requirement will not impose new costs.

must generally be at its most deferential” when examining scientific determinations within an agency’s area of special expertise).

***H. The temporary fluid storage provision is rational and reasonable***

IPAA challenges as irrational, IPAA Br. 33–35, a provision requiring above-ground tank storage for “all fluids recovered between the commencement of hydraulic fracturing operations and the authorized officer’s approval of a produced water disposal plan under BLM requirements,” except where BLM approves storage in lined pits, 43 C.F.R. § 3162.3-3(h). BLM explained that this provision fills a regulatory gap in Onshore Order 7. 80 Fed. Reg. at 16,162–64. IPAA has failed to demonstrate any irrationality.

Onshore Order 7 requires BLM’s approval of permanent disposal methods and on-site facilities for water produced from the well during oil and gas operations. *See* 58 Fed. Reg. at 47,354–70; *see also* 43 C.F.R. § 3164.1(b). Operators must have an approved plan for permanent disposal of such produced water. 58 Fed. Reg. at 47,362–63. While operators are free to obtain that approval prior to drilling, that is not required. Instead, Onshore Order 7 allows operators 90 days after well completion to have a permanent disposal plan approved and allows produced water to be stored in a temporary pit for those 90 days. *Id.* at 47,356, 47,362.<sup>53</sup>

Because “Onshore Order 7 generally applies to all recovered fluids, including those fluids recovered immediately after hydraulic fracturing,” that Order would allow an operator “to temporarily dispose of produced water from newly completed wells” into reserve pits “for up to

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<sup>53</sup> IPAA points out that BLM typically approves a disposal method under Onshore Order 7 *before* an operator begins drilling. IPAA Br. 34–35. This is correct. And BLM expects operators will continue to obtain advance approval for the permanent disposal of water recovered or produced from wells, and that they will implement those plans immediately with respect to fluids recovered from hydraulic fracturing. The fact remains, however, that operators are not *required* to obtain advance approval. The Rule addresses those instances when operators may choose instead to store recovered fluids in temporary pits.



90 days, until an application for the disposal of produced water is approved by the authorized officer.” 80 Fed. Reg. at 16,164. As compared to other historic well operations and current non-fractured wells, fracturing operations lead to much larger volumes of water used, and thus ultimately recovered, from the well. *Id.* at 16,195. Further, this 90-day interim period is typically when the highest percentage of hydraulic fracturing fluid is recovered from the well. *Id.* at 16,164. As BLM explained, and as addressed above in Section II.C.2, disposal of large volumes of recovered water in surface pits risks environmental contamination, whereas the use of aboveground tanks “limits potential environmental impacts . . . eliminates longer term environmental risk, reduces risks of spills or leaks, and increases safety.” *Id.* at 16,163. Thus, BLM elected to include a provision which addresses this regulatory gap and mandates above-ground tank storage for “all fluids recovered between the commencement of hydraulic fracturing operations and the authorized officer’s approval of a produced water disposal plan under BLM requirements,” except where BLM specifically approves storage in lined pits. 43 C.F.R. § 3162.3-3(h); *see also* 80 Fed. Reg. at 16,162 (explaining that “the final rule requires that all recovered fluids to be stored in above-ground tanks unless otherwise approved by the BLM”). There is nothing irrational in the structure or explanation of the temporary fluid storage provision, and IPAA has not shown otherwise.

### **III. BLM’s cost assessment was thorough and rational**

Petitioners also seek to vacate the Rule on grounds that BLM allegedly failed to conduct a reasonable costs assessment. In addition to criticizing BLM’s analysis of the regulated community’s cost of compliance, Petitioners contend that BLM lacks the staff to implement the Rule, the Rule will cause delays for operators waiting for BLM to approve their Applications for Permits to Drill (“APD”) and Notices of Intent (“NOI”), and these delays and costs will deter operators from investing in Federal and Indian lands, thus diminishing mineral lease royalties,

tax revenues, and employment. Wyo. Br. 51–53, 55; N.D. Br. 29–34; IPAA Br. 46. All of these arguments lack merit.

BLM assessed the costs and benefits of the Rule through its Regulatory Impact Analysis, where it thoroughly reviewed field practices, existing federal regulations, and state regulations. In response to comments, BLM modified the Rule to minimize cost burdens where practicable. And BLM’s cost analyses for the CEL<sup>54</sup> and recovered fluids storage requirements, among others, were thorough and reasonable. Furthermore, BLM reasonably concluded that the Rule would not deter investment because compliance with the Rule will cost only between .13 and .21 percent of the cost of drilling a well. Its analysis was reasonable and, therefore, must be upheld.

***A. Courts defer to agencies’ reasonable cost analyses***

Courts review an agency’s assessment of a regulation’s costs deferentially so long as the cost analysis is reasonable. “[C]ost-benefit analyses epitomize the types of decisions that are most appropriately entrusted to the expertise of an agency.” *Office of Commc’n of United Church of Christ v. FCC*, 707 F.2d 1413, 1440 (D.C. Cir. 1983); *see also Nat’l Ass’n of Home Builders v. EPA*, 682 F.3d 1032, 1040 (D.C. Cir. 2012) (Courts “review such a cost-benefit analysis deferentially.”) A reviewing court’s role is to “ensure that an agency has at least understood the relevant factors to be considered and has provided an adequate explanation of its reasoning process.” *United Church of Christ*, 707 F.2d at 1440. “[I]n view of the complex nature of economic analysis typical in the regulation promulgation process, [Petitioners’] burden to show error is high.” *Nat’l Wildlife Fed’n v. EPA*, 286 F.3d 554, 563 (D.C. Cir. 2002). “[C]ourts of review should be mindful of the many problems inherent in an undertaking of this

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<sup>54</sup> A CEL is a cement evaluation log, and the term encompasses various tools that verify the integrity of annular cement bonding.

nature and uphold a reasonable effort made by the Agency.” *FMC Corp. v. Train*, 539 F.2d 973, 979 (4th Cir. 1976).

***B. Overview of BLM’s cost analysis process***

BLM’s cost analysis was reasonable. First, BLM reviewed each requirement of the Rule and assessed whether the requirement would pose an additional cost to operators. Because so many of the Rule’s requirements cohere with industry guidance and state regulations, BLM found that few requirements pose additional costs for most operators. BLM explained that “[m]any of the requirements are currently conducted by operators as a matter of standard industry practice or in compliance with existing state regulations or other BLM regulations (including Onshore Orders 1 and 2). We measure the incremental burden to operators against that baseline.” DOIAR0100526. Thus, for example, BLM concluded that the MIT requirement will not impose an additional cost for most operators because “[i]ndustry guidance and state regulations are consistent with this requirement.” DOIAR0100542; *see also* Section II.G, above. By contrast, as discussed below, BLM found that the CEL and recovered fluid storage requirements might impose additional burdens, and BLM analyzed those two requirements extensively.

BLM considered the Rule’s benefits, but reasonably concluded that it was unable to estimate the Rule’s incremental benefits because it could not “ascribe incremental benefits to the particular provisions of the rule.” DOIAR0100604–05. BLM also acknowledged the primary sources of uncertainty, including the “[n]umber of hydraulic fracturing operations on Federal and Indian lands occurring in the future.” *Id.* And it considered the administrative costs associated with the Rule, both for operators and for BLM, including BLM’s ability, both in terms of time and expertise, to process the permits. Finally, BLM concluded that the Rule’s minimal cost, as

compared to the cost of drilling a well for hydraulic fracturing, showed that the Rule would not impact operators' investment decisions.

Four aspects of BLM's cost analysis warrant emphasis: BLM's cost-reduction measures, the cost analysis for recovered fluid storage requirements, the cost analysis for the CEL requirement, and BLM's consideration of the Rule's impacts on development. All of these aspects of BLM's analysis were reasonable.

*C. BLM's efforts to reduce costs*

In response to comments, BLM took several steps to reduce the Rule's costs both for well operators and for BLM. It removed a general requirement to run a CEL on surface casings; allowed operators to submit chemical data through FracFocus; provided a mechanism to submit a request for approval of multiple hydraulically fractured wells in one master hydraulic fracturing plan ("MHFP"); clarified that isolating and protecting usable water means 200 feet of competent cement between the fractured zone and the lowest usable water zone; and clarified that the Rule does not require expensive modeling of fissure propagation. 80 Fed. Reg. at 16,210.

BLM also incorporated operation-specific, state, and tribal variances into the Rule to provide another cost-reduction mechanism. BLM's cost analysis found that the variances should reduce compliance costs for some requirements for specific operations, or for all operators within an area subject to a State-wide or tribe-wide variance. DOIAR0100549.<sup>55</sup> In sum, BLM

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<sup>55</sup> Wyoming objected that issuance of variances is subject to the discretion of the BLM State Director and that there is no administrative appeal process for denial of a variance. Wyo. Br. 56. This objection lacks merit. As a threshold matter, BLM's variance process is neither unusual nor improper. "[T]he variance provisions in the rule are substantially similar to existing provisions in 43 C.F.R. 3162.7-5(b)(9) as well as in Onshore Orders 2 through 7 regarding variances." 80 Fed. Reg. at 16,175. More fundamentally, however, Wyoming's criticism misses the point of the variance provision, which is to save costs in some instances. Wyoming does not dispute that some variances will be granted, and Wyoming cannot credibly dispute that those variances will save costs.

considered public comments and minimized costs where reasonable. Its actions epitomize careful rulemaking.

***D. BLM reasonably considered the costs and benefits of recovered fluid storage requirements***

IPAA argues that BLM's cost analysis for recovered fluid storage was erroneous and baseless.<sup>56</sup> On the contrary, BLM thoroughly and reasonably considered the costs and benefits of various recovered fluid storage mechanisms. BLM compared three options—rigid tanks,<sup>57</sup> semi-rigid tanks,<sup>58</sup> and lined pits—and reasonably concluded that rigid tanks were the best option.

BLM quickly determined that semi-rigid tanks were not a viable option. Semi-rigid tanks “can be susceptible to failures of seams or welds,” such failures have been documented, and such failures “pose particular risks of harm to humans and wildlife.” 80 Fed. Reg. at 16,163.

BLM then examined practices across the nation in terms of state requirements and operators' use of rigid tanks versus pits. BLM's “observations of field operations indicate[d] that the use of rigid above-ground tanks . . . is a common but not universal practice, regardless of the state's requirements.” DOIAR0100590. BLM noted that “Colorado requires storage tanks in Surface Water Supply Areas,” 80 Fed. Reg. at 16,199, and it found that, in Colorado, operators were “predominantly using rigid steel tanks.” DOIAR0100591. For example, the Grand Junction Field Office observed vented tanks and closed pits, and all of the operations that the

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<sup>56</sup> Notably, IPAA's argument that BLM underestimated the costs of the Rule's fluid storage requirements cannot be reconciled with its argument, discussed above in Section II.H, that the temporary recovered fluids storage requirements will never apply.

<sup>57</sup> Rigid tanks are typically constructed of steel, can hold up to 500 barrels, and can be transported on roads.

<sup>58</sup> Semi-rigid tanks are constructed of steel sections and assembled on-site, and they can hold larger volumes of fluid, up to 40,000 barrels. DOIAR0100590.

Royal Gorge Field Office witnessed in the year before issuance of the Rule used rigid tanks. *Id.* In Montana and North Dakota, BLM found that “operators generally use open-topped rigid steel tanks.” *Id.* BLM noted that “New Mexico and Texas have regulations that require tanks, but also allow the supervisor to approve permits for pits.” DOIAR0100544–45.

BLM then examined the volume of recovered fluids expected and the relative costs of using rigid tanks versus pits for these volumes. BLM “contacted service providers of tanks . . . to better examine the per-operation incremental costs of using rigid steel tanks instead of a pit.” DOIAR0100595. It found that “pits are limited to a single geographic location and tanks are portable and can be deployed at different geographic locations over the 5-year period; thereby servicing a larger number of operations and reducing the per-operation cost of using tanks over that time period.” DOIAR0100593. BLM also considered data from Halliburton and the EPA about the volume of recovered fluid from different fracturing operations. DOIAR0100594.

BLM considered comments that favored pits over tanks, primarily because of costs, *e.g.*, 80 Fed. Reg. at 16,162; DOIAR0100592–94, and concluded that “above-ground tanks, when compared to pits, are less prone to leaking, are safer for wildlife, and will have less air emissions,” 80 Fed. Reg. at 16,162. It determined that “[t]he use of storage tanks in lieu of pits reduces the potential risk to surface and groundwater resources . . . and provide[s] the best possible avoidance of surface and groundwater spills and contamination.” *Id.* at 16,203. Moreover, with tanks, “any leaks are readily detectable without special equipment.” *Id.* Even in high-volume operations where tanks are more expensive, the use of tanks in lieu of pits “limits potential environmental impacts, allows for quicker site preparation, reduces reclamation requirements, eliminates longer term environmental risk, reduces risks of spills or leaks, and

increases safety.” *Id.* at 16,163. And tanks have additional benefits: “A tank can be removed in a day and there is no waiting required to recontour and seed the surface for reclamation purposes”; tanks also “provide[] the additional advantage of not requiring any long-term monitoring and mitigation,” whereas pits “require periodic upkeep, monitoring, and fences.” *Id.*

BLM acknowledged the uncertainties in its analysis of the benefits of tanks versus pits. “[T]he risk of spills associated with the use of pits versus the risk of spills associated with the use of storage tanks is unknown, though it is generally recognized that tanks carry less risk onsite.” *Id.* at 16,204. BLM was unable to value the reduction in risk because the available information did not represent modern hydraulic fracturing and because BLM could not distinguish between the risks posed by hydraulically fractured wells versus conventional wells. *Id.* BLM also noted that “the compliance costs of this requirement are still likely to be overestimated” because field observations indicate that the actual current use of storage tanks is higher than what BLM had estimated in conducting its cost analysis. DOIAR0100604–05.

BLM determined that “rigid steel tanks are likely to be less costly than pits on smaller and medium volume jobs . . . and likely to be more costly than pits for higher volume jobs.” DOIAR0100596. BLM noted, however, that the high-volume recovered fluids occurred in “only a small subset of total operations,” typically in states that represent only 0.8% of estimated hydraulic fracturing activities on federal and Indian land. 80 Fed. Reg. at 16,205.

In sum, BLM decided to require rigid tanks for temporary storage of fluids only after conducting a reasonably thorough and careful analysis, in which it applied its expertise in oil and gas drilling and examined field practices across the country. And BLM incorporated an appropriate level of flexibility in the Rule to accommodate operation-specific circumstances. For example, operators may apply to use a lined pit instead of rigid tanks for temporary fluid

storage and may also request permission to use tanks that exceed 500 barrel capacity. 43 C.F.R. § 3162.3-3(h).

Despite BLM's thorough analysis, IPAA insists that pits, instead of tanks, are the best temporary storage option. IPAA Br. 37–38. IPAA's argument misses the mark. “To satisfy the substantial evidence standard, an agency need only rely on ‘such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.’” *Andalex*, 792 F.3d at 1257 (quoting *Lax v. Astrue*, 489 F.3d 1080, 1084 (10th Cir. 2007)). Courts “neither reweigh the evidence nor substitute [their] judgment for that of the agency.” *Id.* (quoting *Branum v. Barnhart*, 385 F.3d 1268, 1270 (10th Cir. 2004)). The Court's task is merely to assess whether BLM's analysis was reasonable, rational, and supported. It was and, therefore, the Rule must be upheld.

***E. BLM's cost analysis for the CEL requirement was reasonable***

IPAA argues that BLM's analysis of the CEL requirement's costs was based on unsupported assumptions. Specifically, IPAA asserts that BLM erroneously concluded that some states already require operators to perform this test, that CELs are consistent with industry guidance, and that only five percent of wells have intermediate casing that protects usable water, which triggers the CEL requirement. IPAA Br. 41–42. All of these arguments are meritless.

The CEL requirement is one of the Rule's mechanisms for protecting usable water and other subsurface resources. “[T]he rule requires the operator to run a CEL on the intermediate casing if that casing string protects usable water and if the operator chooses not to cement the casing to the surface.” DOIAR0100607. BLM explained that “indications of an inadequate cement job are much more difficult to observe when cement is not brought to the surface.” 80 Fed. Reg. at 16,156. This requirement will ensure that operators “demonstrate isolation and protection of the usable water zone from the zone to be hydraulically fractured.” 80 Fed. Reg. at



16,152. Where the CEL requirement does apply, BLM calculated a cost of \$111,200.

DOIAR0100587. That figure includes “the test (\$20,000) and the cost of maintaining idle drilling equipment on-site (\$91,200).” *Id.* BLM assumed that operators would need to wait 48 hours, with idle drilling equipment, for cement to harden to conduct the CEL.

BLM purposely placed its cost estimate at the upper end of the potential cost range for a CEL. For example, it noted that, in terms of cement-hardening time, “48 hours is the upper bound of the potential cost” because an operator could potentially avoid delays by running the CEL while drilling the production casing, thus eliminating the cost of idle drilling equipment. *Id.*

BLM reasonably concluded, based on its extensive field experience, that only five percent of wells subject to the Rule would have intermediate casing to protect usable water, and thus only five percent of wells would require a CEL. 80 Fed. Reg. at 16,197. IPAA argues that field experience is insufficient, and that BLM should have surveyed “an appropriately sized sample” of BLM’s drilling records “for every well ever drilled on federal lands” to determine the precise applicability of the CEL requirement. IPAA Br. 44. But the APA does not demand such precision in every cost calculation. Courts generally give an agency “wide leeway in its analysis of costs.” *Kennecott Copper Corp. v. EPA*, 612 F.2d 1232, 1238 (10th Cir. 1979). The agency’s “duty is to develop no more than a ‘rough idea’ of cost to industry.” *Id.* (quoting *BASF Wyandotte Corp. v. Costle*, 598 F.2d 637, 657 (1st Cir. 1979)).

BLM next examined existing state regulations to determine whether the CEL requirement would be a new cost for operators. It found that Colorado and North Dakota already require CELs and, thus, reasonably concluded that the Rule posed no additional cost in those states. 80 Fed. Reg. at 16,197. It also found that Texas requires operators to determine the top of the

cement for intermediate casing, and a CEL is one mechanism that Texas regulations allow operators to use to determine the top of the cement. 16 Tex. Admin. Code § 3.13(b)(2)(A). On that basis, BLM estimated that operators in Texas would use a CEL pursuant to the Texas regulations half the time, and it assumed the Rule would impose the CEL requirement on the remaining half. In sum, BLM estimated for purposes of its cost analysis that the Rule's CEL provision would impose new costs on zero percent of operations in North Dakota and Colorado, 2.5 percent of operations in Texas, and five percent of operations in other states. 80 Fed. Reg. at 16,197. IPAA criticizes these estimates, IPAA Br. 42, but they are reasonable estimates that satisfy BLM's duty to "develop no more than a 'rough idea' of cost to industry," *Kennecott Copper Corp.*, 612 F.2d at 1238 (quoting *BASF Wyandotte Corp.*, 598 F.2d at 657).

BLM's estimates, in fact, were conservative. For example, BLM found that "Wyoming and California may require CELs" and that "states may require operators to log the intermediate casing as a condition of approval" in certain circumstances. DOIAR0100541. In other words, BLM found that some states, other than North Dakota, Colorado, and Texas, may require a CEL, in which case the Rule would not impose an additional requirement. Similarly, BLM recognized that some operators may conduct CELs, regardless of whether any regulation requires the test—a finding supported by API guidance stating that, if the intermediate casing "'is not cemented to the surface,' . . . operators may run a CEL and/or other diagnostic tools to determine the adequacy of the cement integrity and that the cement reached the desired height." 80 Fed. Reg. at 16,155 (quoting API Guidance Document HF1, DOIAR0002083). Notwithstanding these

findings, BLM adopted the conservative assumption that no operator would conduct CELs unless already required by law.<sup>59</sup> See DOIAR0100607.

In sum, BLM's cost analysis on the CEL requirement was conservative and reasonable, and it is entitled to broad deference from this Court. *Balt. Gas & Elec. Co.*, 462 U.S. at 103. IPAA has not identified any credible flaw in the analysis, and its request to vacate the Rule on that basis must be denied.

***F. BLM reasonably considered potential delays and investment impacts***

Petitioners argue that BLM failed to consider the delays and investment impacts that the Rule will cause. IPAA Br. 44–47; Wyo. Br. 50–53; N.D. Br. 29–34. They argue that the increased costs and delays stemming from compliance with the Rule will deter investment from federal and Indian lands, diminish state and tribal tax and royalty revenues, and reduce employment. To the contrary, however, BLM carefully considered potential delays and investment impacts. BLM reasonably concluded that the delays would be minimal and that the Rule would not impact operators' investment decisions.

BLM carefully considered the time required to submit applications under this Rule and rationally concluded that costs will be minimal because operators already possess the required information. BLM acknowledged that “[t]he application requirement is new and poses an incremental administrative burden to the operator.” DOIAR0100582. It noted, however, that “[t]he information required in the application should be readily available or known to the

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<sup>59</sup> IPAA complains that BLM relied on the API guidance even though the API guidance only says that operators “may” use CELs and does not indicate whether operators *actually* use CELs where not required by law. IPAA Br. 43. This fly-specking criticism lacks merit. BLM did not adjust its cost estimate based on the API guidance. Instead, BLM reasonably assumed that some operators do CELs, and BLM thus recognized that its cost assessment was conservative because it made no deductions for voluntary CEL usage.

operator” and “should not require any additional information gathering.” *Id.* (emphasis omitted).<sup>60</sup> BLM also noted that operators are already subject to permit application requirements that require much of the same information. For example, existing regulations already require an operator to obtain approval from BLM prior to drilling a well, including submitting a well plat, a drilling plan, a surface use plan, and a certification. DOIAR0100567. Moreover, if the information required for a state application is the same as the data required by the Rule, an operator may attach its state application to its BLM application, thus substantially reducing the reporting burden. 80 Fed. Reg. at 16,154–55. And the MHFP option will create efficiencies for operators in submitting applications. DOIAR0100582. In short, BLM rationally found that the Rule imposes a minimal time burden upon operators because operators already submit drilling applications, they already have or have easy access to the required information, and, in some circumstances, operators can submit an MHFP to save time.

BLM also adequately considered commenters’ concerns about delays in processing applications. For example, BLM acknowledged that some commenters were concerned over possible delays and asked BLM to mandate processing deadlines in the Rule. 80 Fed. Reg. at 16,155. BLM chose not to revise the Rule in response to these comments because “the imposition of a timeframe or ‘automatic’ approvals could limit the BLM’s ability to ensure protection of usable water and other resources” and because BLM “cannot abdicate its statutorily

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<sup>60</sup> See also 80 Fed. Reg. at 16,148 (“Operators planning to conduct hydraulic fracturing should already possess that information [required in the application] because hydraulic fracturing is a complex operation and would only be conducted pursuant to a plan for performance.”); 80 Fed. Reg. at 16,189 (“Monitoring reports of cement jobs are common in the industry and the operator should be able to provide such documentation to the BLM without any burden even for wells drilled prior to this rule.”); 80 Fed. Reg. at 16,187 (“Operators would not undertake the expense of hydraulically fracturing a well without an estimation or calculation of the propagation of the fissures. The final rule does not require additional modeling.”).

mandated responsibilities to prevent unnecessary or undue degradation of public lands and to protect Federal and Indian resources by establishing an arbitrary deadline.” *Id.* Furthermore, BLM must ensure compliance with relevant statutes and Executive Orders, which may require more than 30 days. *Id.* BLM thus reasonably considered the suggestion to impose a processing deadline and rationally rejected it.

Other commenters suggested that BLM lacked the staffing, the budget, and the expertise to evaluate fracturing proposals. BLM considered those comments and disagreed because “BLM employs qualified and experienced petroleum engineers and geologists” and because “BLM understands the time-sensitive nature of oil and gas drilling and well completion activities.” *Id.* at 16,177. BLM also disagreed because the additional information that the Rule requires “would be reviewed in conjunction with the APD and within the normal APD processing timeframe.” *Id.* BLM acknowledged that, if an operator submits a hydraulic fracturing application after submitting its APD, then “further processing time should be expected.” *Id.* But an operator can control when it will submit its hydraulic fracturing application. Moreover, operators are unlikely to undertake the expense of drilling a well for hydraulic fracturing if they do not have approval for hydraulic fracturing and, accordingly, they likely will submit their hydraulic fracturing applications with their APDs. BLM also noted that it revised the Rule to reduce the amount of staff time required and to limit any permitting delays. *Id.* And the MHFP option will save per-well processing time and result in fewer total applications for BLM to process. DOIAR0100582. BLM thus thoroughly considered concerns about processing time at the agency. Insofar as IPAA would have preferred a higher level of precision, that simply is not required by the APA.

BLM also acknowledged the staffing burdens associated with the Rule. BLM calculated that “[t]he review of information associated with the application, subsequent report, remedial

action report (when applicable), and variance request (when applicable) will pose an additional workload to the BLM of about 25,400 hours per year” and will require “about 13.80 staffed positions.”<sup>61</sup> 80 Fed. Reg. at 16,207. This analysis shows that BLM carefully considered the time required to process applications under the rule and candidly acknowledged the additional staffing requirements. BLM also acknowledged that the Rule “may place an additional burden on inspectors monitoring compliance.” DOIAR0100613. Petitioners may dislike this regulation, but BLM satisfied the APA by reasonably considering the costs and potential delays in terms of BLM staff time associated with the Rule.<sup>62</sup>

Petitioners’ argument that BLM failed to consider the Rule’s impacts on investment and employment is similarly meritless. BLM rationally compared the costs of drilling a well to the costs of compliance with the Rule. It collected different cost estimates, noting that “[t]he costs of drilling a well may vary by reservoir or formation, depth and length, site-specific characteristics as well as operator efficiencies.” DOIAR0100606. For example, it noted estimates of \$5.4 million per well, but concluded that those figures were low because, *inter alia*, they were last updated in 2007 and were not specific to horizontal wells or hydraulically fractured wells. *Id.* BLM found that horizontal wells drilled in the Bakken formation cost \$5.6 million in 2010 and \$7–9 million per well in 2015. *Id.* BLM then noted that “[t]he estimated per-operation compliance costs of about \$11,400 represent about 0.13 to 0.21 percent of the cost

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<sup>61</sup> To place this 13.8 number into context, Federal Respondents note that BLM budgeted for 344 “full-time equivalent” (“FTE”) employees to process APDs in fiscal year 2015 and 471 FTEs to process APDs in fiscal year 2016. DOI, *Budget Justifications and Performance Information Fiscal Year 2017*, at VII-99 to VII-100, [https://www.doi.gov/sites/doi.gov/files/uploads/FY2017\\_BLM\\_Budget\\_Justification.pdf](https://www.doi.gov/sites/doi.gov/files/uploads/FY2017_BLM_Budget_Justification.pdf).

<sup>62</sup> Wyoming asserts that BLM failed to consider comments that it lacked sufficient staff to implement the Rule, especially in the Vernal, Utah field office, Wyo. Br. 50–53, but the rulemaking process is separate from budgeting, hiring, and staffing. Wyoming cannot credibly argue that BLM failed to consider the Rule’s impact on its staffing and workload.

of drilling a well.”<sup>63</sup> *Id.* And, in those cases where fluid volumes exceed a certain threshold, BLM estimated that “the compliance with the storage tank requirement could cost an operator \$74,400 (representing approximately 0.8 to 1.4 percent of the cost of drilling a well).”<sup>64</sup> *Id.* BLM estimated that the higher costs would apply to “only a small subset of total operations” because the operations with high-volumes of fluids typically occur in states (Arkansas, Louisiana, Mississippi, Ohio, Oklahoma, and Pennsylvania) that “represent only about 0.8% of estimated hydraulic fracturing activities on Federal and Indian land.” *Id.*

Based on this data, BLM specifically considered “to what extent, if any, would an operator choose to invest in other areas, non-Federal and non-Indian lands, when faced with the cost requirements of the rule.” DOIAR0100619. It concluded that the Rule is unlikely to affect firms’ investment decisions because the estimated compliance costs are not substantial when compared with the total costs of drilling a well.<sup>65</sup> 80 Fed. Reg. at 16,208. This conclusion was rational and satisfied the APA’s requirements. *See API v. EPA*, 540 F.2d 1023, 1037–38 (10th Cir. 1976) (upholding EPA regulation with requirements equivalent to “3.3% of the total capital requirements of the industry” because “[w]e are convinced that EPA made a serious, careful, and comprehensive study of the costs which compliance will impose on the industry”).

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<sup>63</sup> These cost figures and percentages represent all costs, including the CEL cost, because BLM prorated the CEL cost based on the percentage of wells to which it expected the CEL requirement to apply.

<sup>64</sup> Again, these cost figures and percentages include the CEL cost.

<sup>65</sup> Petitioner North Dakota cites contrary evidence from its own experts regarding the Rule’s economic impact on investment in North Dakota. N.D. Br. 33–34. Aside from the fact that such cites to extra-record evidence are impermissible, *see* Section II.A, “the agency was free to side with the reasonable opinions of its own qualified experts.” *Citizens For Alternatives To Radioactive Dumping v. U.S. Dep’t of Energy*, 485 F.3d 1091, 1099 (10th Cir. 2007). *See also Marsh*, 490 U.S. at 378 (“[A]n agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive.”).

#### IV. North Dakota's split estates argument is baseless

Petitioner North Dakota argues that the Rule is arbitrary and capricious because the Rule impacts, to some extent, surface estates that are separate from mineral estates. N.D. Br. 23–26. This argument mischaracterizes property law and regurgitates North Dakota's faulty arguments that the Rule lacks justification and infringes upon state sovereignty.

Split estates are lands where the surface and mineral estates have separate owners. BLM routinely manages split estate lands, including 58 million acres nationwide where the United States owns the mineral estate and a non-federal entity owns the surface.

Mineral estates are dominant over surface estates, and mineral estate owners (or their lessees) can, with care, access and use surface estates as is reasonably necessary to develop the minerals. As the North Dakota Supreme Court has explained, “where the mineral estate is severed from the surface estate, the mineral estate is dominant.” *Hunt Oil Co. v. Kerbaugh*, 283 N.W.2d 131, 135 (N.D. 1979). This law is no different when the United States is the mineral estate owner. See *Kinney-Coastal Oil Co. v. Kieffer*, 277 U.S. 488, 504 (1928) (“[A] servitude is laid on the surface estate for the benefit of the mineral estate to the end . . . that the United States may realize, through the separate leasing, a proper return from the extraction and removal of the minerals.”). When the United States is the mineral estate owner, it has “(1) the right to enter and use so much of the surface as might be ‘reasonably incident’ to the exploration and removal of mineral deposits, and (2) the right to enact future laws and regulations regarding the ‘disposal’ of the mineral estate.” *Entek GRB, LLC v. Stull Ranches, LLC*, 763 F.3d 1252, 1254 (10th Cir. 2014) (quoting 43 U.S.C. § 299(a)). The mineral estate owners’ rights “are limited to so much of the surface and such use thereof as are [r]easonably necessary to explore, develop, and transport the minerals.” *Kerbaugh*, 283 N.W.2d at 135.



North Dakota wholly misconstrues the “reasonably necessary” standard in *Kerbaugh*. It argues that “[b]ecause of the effectiveness and success of North Dakota law governing hydraulic fracturing and protecting USDWs, the BLM Rule provisions impacting the surface . . . do not qualify as ‘reasonably necessary.’” N.D. Br. 24. This argument defies logic. *Kerbaugh* explains that mineral estate owners may access the surface estate as is reasonably necessary to develop the minerals. North Dakota is arguing that this “reasonably necessary” language applies to the necessity of the Rule, but it plainly does not. It applies to mineral estate owners’ right to access and use the surface estate. And, even if this “reasonably necessary” language did apply to the justification for the Rule, BLM’s responsibilities as a manager and steward of federal resources and trustee of Indian lands justify the Rule, as explained in Section II.C.

North Dakota also argues that, because the Rule was not “reasonably necessary,” BLM should have used the Rule to minimize its access to surface estates. Specifically, North Dakota states that BLM “failed to reduce its surface jurisdiction over split-estate lands when it promulgated the Rule” and that “[t]his failure infringes on North Dakota’s sovereign rights.” N.D. Br. 25–26. North Dakota’s argument strains credulity. The Rule does not change state property law, nor does it abolish a federal property right, i.e., the right of the federal government as owner of the dominant mineral estate to access the surface estate.

Moreover, the mineral estate owner must act with “due regard” for the surface owners’ rights and exercise care in using the surface estate, *see Kerbaugh*, 283 N.W.2d at 135; the Rule ensures compliance with that standard. The Rule’s goals were “[t]o ensure that wells are properly constructed to protect water supplies” and “to make certain that the fluids that flow back to the surface as a result of hydraulic fracturing operations are managed in an

environmentally responsible way.” 80 Fed. Reg. at 16,128. Thus, the Rule is consistent with state laws requiring mineral estate owners to act with care toward surface estates.

BLM carefully limited the Rule to ensure that, where split estates are involved, BLM would not exceed its statutory authority to regulate production from the federal mineral estate.<sup>66</sup> For example, some commenters wanted the Rule to require baseline monitoring of air and water quality. BLM refused to include such a requirement because, *inter alia*, “there are many places where the BLM either does not manage the surface above the leased minerals, or the locations where baseline testing and monitoring would be necessary or most useful would be off of BLM-managed land.” 80 Fed. Reg. at 16,183. BLM said that it “has no authority to require air or water quality monitoring on non-Federal lands, and limited authority on non-Federal surface estates (‘split estates’).” *Id.*

North Dakota’s split-estate argument is meritless. BLM carefully crafted the Rule to ensure compliance with property laws that give the mineral estate owner the dominant estate and that require the mineral estate owner to exercise care on the surface estate.

**V. The Court should order expedited briefing on remedy, if necessary**

The Court should uphold the Rule and dissolve the preliminary injunction. However, if the Court does not rule in Federal Respondents’ favor, the Court should order expedited briefing on the appropriate remedy. Any remedy the Court issues must be narrowly tailored because “injunctive relief should be no more burdensome to the defendant than necessary to provide

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<sup>66</sup> North Dakota also asserts that the Rule intrudes into private and state property in spacing units, which are groupings of separately owned tracts developed by a single well. N.D. Br. 23–24. North Dakota’s argument ignores that, for decades, non-federal and federal mineral estates have been developed together through spacing units under “unitization” or “communitization” agreements. *See* 43 C.F.R. §§ 3105.2-2, 3105.2-3, 3181.4, 3183.4. The Rule does not supersede the regulations providing for these agreements.

complete relief to the plaintiffs.” *Califano v. Yamasaki*, 442 U.S. 682, 702 (1979); *see also Zepeda v. INS*, 753 F.2d 719, 728 n.1 (9th Cir. 1983) (citing “the traditional rule that injunctive relief should be narrowly tailored to remedy the specific harms shown by plaintiffs”). The appropriate relief will depend on the Court’s decision and its reasoning. For example, if the Court finds legal violations with specific Rule provisions, the parties may need to brief whether vacatur of the rule is required or whether those specific provisions may be severed or otherwise addressed on remand without vacatur. *See, e.g., Black Warrior Riverkeeper, Inc. v. U.S. Army Corps of Eng’rs*, 781 F.3d 1271, 1290 (11th Cir. 2015) (“In deciding whether an agency’s action should be remanded without vacatur, a court must balance the equities.”). Similarly, the parties may need to brief the appropriateness and scope of any injunction. *See Hospice of N.M., LLC v. Sebelius*, 691 F. Supp. 2d 1275, 1294–95 (D.N.M. 2010) (“Although this is clearly a nationwide problem, the Court does not have before it nationwide plaintiffs, and imposing such a broad injunction would be inappropriate.”). Accordingly, if the Rule is not upheld, the Court should order expedited briefing on the appropriate remedy.

### CONCLUSION

Petitioners fail to establish a basis to set aside or permanently enjoin the Rule or any of its provisions, and their petitions should be denied. BLM has statutory authority under the MLA, FLPMA, IMLA, and IMDA to regulate hydraulic fracturing on federal and Indian lands. It had ample justification for promulgating the Rule, its rulemaking process was reasonable, and the Rule’s provisions are rational and amply supported. The Court should defer to the BLM’s expertise and its reasonable analysis and, accordingly, should uphold the Rule.

Respectfully submitted this 4th day of April 2016.

/s/ William E. Gerard  
WILLIAM E. GERARD  
JODY H. SCHWARZ  
REBECCA JAFFE  
U.S. Department of Justice  
Environment & Natural Resources Division  
P.O. Box 7611  
Washington, DC 20044-7611  
Telephone: (202) 305-0475  
(202) 305-0245  
(202) 305-0258  
Facsimile: (202) 305-0506  
[william.gerard@usdoj.gov](mailto:william.gerard@usdoj.gov)  
[jody.schwarz@usdoj.gov](mailto:jody.schwarz@usdoj.gov)  
[rebecca.jaffe@usdoj.gov](mailto:rebecca.jaffe@usdoj.gov)

DAVID A. CARSON  
U.S. Department of Justice  
Environment and Natural Resources Division  
South Terrace – Suite 370  
999 18th Street  
Denver, CO 80202  
Telephone: 303-844-1349  
Facsimile: 303- 844-1350  
[david.a.carson@usdoj.gov](mailto:david.a.carson@usdoj.gov)

CHRISTOPHER A. CROFTS  
United States Attorney

/s/ Nicholas Vassallo  
NICHOLAS VASSALLO (WY Bar #5-2443)  
Assistant United States Attorney  
P.O. Box 668  
Cheyenne, WY 82003-0668  
Telephone: 307-772-2124  
[nick.vassallo@usdoj.gov](mailto:nick.vassallo@usdoj.gov)

*Attorneys for Federal Respondents*

### **CERTIFICATE OF COMPLIANCE**

I hereby certify that this brief complies with the type volume limitation set in Fed. R. App. P. 32(a)(7)(B), as applied under Local Rule 83.6(c) and as modified by this Court's Order of March 15, 2016, ECF No. 198. This brief comprises a total of 35,760 words (excluding caption, table of contents, table of authorities, list of abbreviations, signatures, and certificates of counsel), as determined in reliance on the word-processing system used to prepare the brief.

/s/ William E. Gerard  
WILLIAM E. GERARD

### **CERTIFICATE OF SERVICE**

I hereby certify that on this 4th day of April 2016 a copy of the foregoing **Federal Respondents' Brief in Response to Merits Briefs of Industry and State Petitioners** was electronically filed with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to all counsel of record.

/s/ William E. Gerard  
WILLIAM E. GERARD