DEPARTMENT OF THE INTERIOR

Bureau of Land Management

43 CFR Part 3160

[LLWO300000 L13100000 PP0000 18X]

RIN 1004–AE52

Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands; Rescission of a 2015 Rule

AGENCY: Bureau of Land Management, Interior.

ACTION: Final rule.

SUMMARY: On March 26, 2015, the Bureau of Land Management (BLM) published in the **Federal Register** a final rule entitled, ''Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands'' (2015 rule). With this final rule, the BLM is rescinding the 2015 rule because we believe it imposes administrative burdens and compliance costs that are not justified. This final rule returns the affected sections of the Code of Federal Regulations (CFR) to the language that existed immediately before the published effective date of the 2015 rule (June 24, 2015), except for changes to those regulations that were made by other rules published between the date of publication of the 2015 rule and now, and the phrase ''perform nonroutine fracturing jobs,'' which is not restored to the list of subsequent operations requiring prior approval. None of the changes by other rules are relevant to this rulemaking.

DATES: This final rule is effective on December 29, 2017.

FOR FURTHER INFORMATION CONTACT: Lorenzo Trimble, Acting Division Chief, Fluid Minerals Division, 202–912–7342, for information regarding the substance of this final rule or information about the BLM's Fluid Minerals program. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service (FRS) at 1–800–877–8339, 24 hours a day, 7 days a week, to leave a message or question with the above individuals. You will receive a reply during normal hours.

SUPPLEMENTARY INFORMATION:

Executive Summary

Pursuant to the Mineral Leasing Act (MLA), the Federal Land Policy and Management Act (FLPMA), the Indian mineral leasing laws, and other legal authorities, the BLM is charged with administering oil and gas operations on Federal and Indian lands in a manner that allows for responsible and appropriate resource development. This final rule is needed to prevent the unnecessarily burdensome and unjustified administrative requirements and compliance costs of the 2015 rule from encumbering oil and gas development on Federal and Indian lands.

The process known as ''hydraulic fracturing'' has been used by the oil and gas industry since the 1950s to stimulate production from oil and gas wells. In recent years, public awareness of the use of hydraulic fracturing practices has grown. New horizontal drilling technology has allowed increased access to oil and gas resources in tight shale formations across the country, sometimes in areas that have not previously experienced significant oil and gas development. As hydraulic fracturing has become more common, public concern increased about whether hydraulic fracturing contributes to or causes the contamination of groundwater sources, whether the chemicals used in hydraulic fracturing should be disclosed to the public, and whether there is adequate management of well integrity and of the ''flowback'' fluids that return to the surface during and after hydraulic fracturing operations.

On March 26, 2015, the BLM published in the **Federal Register** a final rule entitled, ''Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands'' (80 FR 16128) (2015 rule). The 2015 rule was intended to: Ensure that wells are properly constructed to protect water supplies, 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, and provide public disclosure of the chemicals used in hydraulic fracturing fluids. To achieve its objectives, the 2015 rule required oil and gas operators to:

- Obtain the BLM's approval before conducting hydraulic fracturing operations by submitting an application with information and a plan for the hydraulic fracturing design (43 CFR 3162.3–3(d)(4)).
- Include a hydraulic fracturing application in applications for permits to drill (APDs), or in a subsequent ''sundry notice'' (43 CFR 3162.3–3(c)).
- Include information about the proposed source of water in each hydraulic fracturing application so that the BLM can complete analyses required by the National Environment Policy Act (NEPA) (43 CFR 3162.3–3(d)(3)).
- Include available information about the location of nearby wells to help prevent ''frack hits'' (*i.e.,* unplanned surges of pressurized fluids into other wells that can damage the wells and equipment and cause surface spills) (43 CFR 3162.3–3(d)(4)(iii)(C)).
- Verify that the well casing is surrounded by adequate cement, and test the well to make sure it can withstand the pressures of hydraulic fracturing (43 CFR 3162.3–3(e)(1) and (2) and (f)).
- Isolate and protect usable water, while redefining ''usable water'' to expressly defer to classifications of groundwater by states and tribes, and the Environmental Protection Agency, 43 CFR 3160.0–7; and require demonstrations of 200 feet of adequate cementing between the fractured formation and the bottom of the closest usable water aquifer, or cementing to the surface (43 CFR 3162.3–3(e)(2)(i) and (ii)).
- Monitor and record the annulus pressure during hydraulic fracturing operations, and report significant increases of pressure (43 CFR 3162.3–3(g)).
- File post-fracturing reports containing information about how the hydraulic fracturing operation actually occurred (43 CFR 3162.3–3(i)).
- Submit lists of the chemicals used (non-trade-secrets) to the BLM by sundry notice (Form 3160–5), to FracFocus (a public website operated by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission), or to another BLM-designated database (43 CFR 3162.3–3(i)(1)).
- Withhold trade secret chemical identities only if the operator or the owner of the trade secret submits an affidavit verifying that the information qualifies for trade secret protection (43 CFR 3162.3–3(j)).
- Obtain and provide withheld chemical information to the BLM, if the BLM requests the withheld information (43 CFR 3162.3–3(j)(3)).
- Store recovered fluids in above-ground rigid tanks of no more than 500-barrel capacity, with few exceptions, until the operator has an approved plan for permanent disposal of produced water (as required by Onshore Oil and Gas Order No. 7) (43 CFR 3162.3–3(h)).

The 2015 rule also authorized two types of variances:

- Individual operation variances to account for local conditions or new or different technology (43 CFR 3162.3–3(k)(1)).
- State or tribal variances to account for regional conditions or to align the BLM requirements with state or tribal regulations (43 CFR 3162.3–3(k)(2)).

For either type of variance to be approved, the variance needed to meet or exceed the purposes of the specific provision of the 2015 rule for which the

variance is being granted (43 CFR 3162.3–3(k)(3)).

The 2015 rule was immediately challenged in court. The United States District Court for the District of Wyoming stayed the 2015 rule before it went into effect, and later issued a final order setting aside the rule, concluding that it was outside the BLM's statutory authority. On appeal, the United States Court of Appeals for the Tenth Circuit dismissed the appeal as prudentially unripe, and vacated the District Court's final order with instructions for the District Court to dismiss the case without prejudice. The plaintiffs have moved for rehearing or reconsideration en banc. Briefing on those petitions is complete. The Tenth Circuit has not yet issued its mandate to the District Court, and thus the 2015 rule has not gone into effect.

Commenters and a District Court have raised doubts about BLM's statutory authority to regulate hydraulic fracturing operations on Federal and Indian lands. The BLM believes that it is not only better policy to rescind the 2015 rule to relieve operators of duplicative, unnecessary, costly and unproductive regulatory burdens, but it also eliminates the need for further litigation about BLM's statutory authority.

On March 28, 2017, President Trump issued Executive Order 13783, entitled, ''Promoting Energy Independence and Economic Growth'' (82 FR 16093, Mar. 31, 2017), which directed the Secretary of the Interior to review four specific rules, including the 2015 rule, for consistency with the policy set forth in section 1 of the Order and, if appropriate, take action to lawfully suspend, revise, or rescind those rules that are inconsistent with the policy set forth in Executive Order 13783.

Section 1 of Executive Order 13783 states that it is in the national interest to promote clean and safe development of United States energy resources, while avoiding ''regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation.'' Section 1 states that the prudent development of these natural resources is ''essential to ensuring the Nation's geopolitical security.'' Section 1 finds that it is in the national interest to ensure that electricity is affordable, reliable, safe, secure, and clean, and that coal, natural gas, nuclear material, flowing water, and other domestic sources, including renewable sources, can be used to produce it.

Accordingly, Section 1 of Executive Order 13783 declares that the policy of the United States is that: (1) Executive departments and agencies immediately review regulations that potentially burden the development or use of domestically produced energy resources and, as appropriate, suspend, revise, or rescind those that unduly burden domestic energy resources development ''beyond the degree necessary to protect the public interest or otherwise comply with the law''; and (2) To the extent permitted by law, agencies should promote clean air and clean water, while respecting the proper roles of the Congress and the States concerning these matters; and (3) Necessary and appropriate environmental regulations comply with the law, reflect greater benefit than cost, when permissible, achieve environmental improvements, and are developed through transparent processes using the best available peer-reviewed science and economics.

To implement Executive Order 13783, Secretary of the Interior Ryan K. Zinke issued Secretarial Order No. 3349 entitled, ''American Energy Independence,'' on March 29, 2017, which, among other things, directed the BLM to proceed expeditiously in proposing to rescind the 2015 rule.

As directed by Executive Order 13783 and Secretarial Order No. 3349, the BLM conducted a review of the 2015 rule. As a result of this review, the BLM believes that the compliance costs associated with the 2015 rule are not justified.

In conjunction with its review of the 2015 rule, the BLM analyzed the potential economic implications of implementing the 2015 rule and this final rule that rescinds the 2015 rule. That analysis is documented in the regulatory impact analysis (RIA) document that the BLM prepared for this final rule. As described in detail in that RIA, the BLM has estimated that this final rule will provide a reduction in compliance costs relative to the 2015 rule of up to $9,690 per well or approximately $14 million to $34 million per year.

When issuing the 2015 rule, the BLM acknowledged that it already had ''an extensive process in place to ensure that operators conduct oil and gas operations in an environmentally sound manner'' and that ''the regulations and Onshore Orders that have been in place to this point have served to provide reasonable certainty of environmentally responsible development of oil and gas resources'' (80 FR at 16133 and 16137). However, in the RIA for the 2015 rule, while noting that many of the requirements of the 2015 rule were consistent with industry practice and that some were duplicative of state requirements or were generally addressed by existing BLM requirements, the BLM asserted that the 2015 rule would provide additional assurance that operators are conducting hydraulic fracturing operations in an environmentally sound and safe manner, and increase the public's awareness and understanding of these operations.

While the extent of the benefits that the additional assurances might provide are questionable, it follows that the rescission of the 2015 rule could potentially reduce any such assurances. However, considering state regulatory programs, the sovereignty of tribes to regulate operations on their lands, and the pre-existing Federal regulations, the proposed rescission of the 2015 rule would not leave hydraulic fracturing operations unregulated.

The BLM's review of the 2015 rule also included a review of state laws and regulations that found that most states are either currently regulating hydraulic fracturing or are in the process of establishing hydraulic fracturing regulations. When the 2015 rule was issued, 20 of the 32 states with currently existing Federal oil and gas leases had regulations addressing hydraulic fracturing. In the time since the promulgation of the 2015 rule, an additional 12 states have introduced laws or regulations addressing hydraulic fracturing. As a result, all 32 states with Federal oil and gas leases currently have laws or regulations that address hydraulic fracturing operations.[1] In addition, some tribes with oil and gas resources have also taken steps to regulate oil and gas operations, including hydraulic fracturing, on their lands.

The BLM also now believes that disclosure of the chemical content of hydraulic fracturing fluids to state regulatory agencies and/or databases

[1] The reference to 32 states with existing Federal oil and gas leases includes the following states: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Michigan, Mississippi, Montana, Nebraska, Nevada, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, and Wyoming. The State of Oregon regulates hydraulic fracturing operations by way of its regulations addressing ''Water Injection and Water Flooding of Oil and Gas Properties'' (Oregon Administrative Rules [Or. Admin. R.] sec. 632–010–0194). The State of Arizona regulates hydraulic fracturing operations under regulations addressing ''Artificial Stimulation of Oil and Gas Wells'' (Arizona Administrative Code [A.A.C.] sec. R12–7–117). The State of Indiana issued ''emergency rules'' in 2011 and 2012 that incorporated new legislation addressing hydraulic fracturing (Pub. L. 140–2011 and Pub. L. 16–2012) into Indiana's oil and gas regulations at 312 Indiana Administrative Code (IAC) Article 16. For further information about the state regulatory programs, see § 2.12 of the RIA and Appendix 1 of the EA prepared for this rule.

such as FracFocus is more prevalent than it was in 2015 and, therefore, there is no continuing need for a Federal chemical disclosure requirement, since companies are already making those disclosures on most operations, either to comply with state law or voluntarily. There are 25 states that currently use FracFocus for chemical disclosures. These include seven states where the BLM has major oil and gas operations, including Colorado, Montana, New Mexico, North Dakota, Oklahoma, Texas, and Utah.

In addition to state and tribal regulation of hydraulic fracturing, the BLM has several pre-existing regulations that it will continue to rely on, some of which are set out at 43 CFR subpart 3162 and in Onshore Oil and Gas Orders 1, 2, and 7. These regulations ensure that operators conduct oil and gas operations in an environmentally sound manner and also reduce the risks associated with hydraulic fracturing by providing specific requirements for well permitting; construction, casing, and cementing; and disposal of produced water.[2] The BLM also possesses discretionary authority allowing it to impose site-specific protective measures reducing the risks associated with hydraulic fracturing.

Prior to the 2015 rule, the regulations at 43 CFR 3162.3–2(a) (2014) provided in pertinent part that a ''proposal for further well operations shall be submitted by the operator on Form 3160–5 for approval by the authorized officer prior to commencing operations to . . . perform nonroutine fracturing jobs . . . .'' In the proposed rule that preceded this final rule, the BLM offered to restore the regulatory text in § 3162.3–2(a) regarding ''nonroutine fracturing jobs'' to exactly as it existed in the pre-2015 rule regulations. Those regulations, however, did not define ''nonroutine fracturing jobs'' or provide guidance to operators or BLM authorized officers on how to distinguish ''routine'' from ''nonroutine.'' Some of the comments that were submitted for the proposed rule noted this and criticized the regulations for being vague, confusing, and difficult for operators and the BLM to apply. In light of these comments, the BLM reconsidered its initial proposal to restore the regulation text in section 3162.3–2(a) requiring prior approval for ''nonroutine fracturing jobs.''

As a result of considerable advances in oil and gas development technology in the last 20 years, hydraulic fracturing practices that would have been considered ''nonroutine'' when the BLM originally issued the regulations requiring prior approval for ''nonroutine fracturing jobs'' are now commonly utilized and considered ''routine.'' The combination of advances in oil and gas development technology and the BLM's existing authority to mitigate the potential risks of hydraulic fracturing operations through site-specific protective measures that are applied as a part of the environmental review and approval process at the APD stage has made post-APD approvals for ''nonroutine fracturing jobs'' at most a very rare occurrence. In fact, while the BLM has not been tracking requests for approval of ''nonroutine fracturing jobs,'' recent inquiries to BLM state offices have not revealed any examples of ''nonroutine fracturing'' requests or approvals. Thus, given that the ''nonroutine fracturing'' requirement has not, and does not seem to serve any purpose, and removing it from the regulations could reduce the potential for unproductive confusion or paperwork without adverse effects, the BLM has not restored the ''nonroutine fracturing'' requirement in this final rule.

The BLM's review of the 2015 rule also included a review of incident reports from Federal and Indian wells since December 2014. This review indicated that resource damage is unlikely to increase by rescinding the 2015 final rule because of the rarity of adverse environmental impacts that occurred from hydraulic fracturing operations since promulgation of the 2015 rule. The BLM now believes that the appropriate framework for mitigating these impacts exists through state regulations, through tribal exercise of sovereignty, and through BLM's own pre-existing regulations and authorities (pre-2015 rule 43 CFR subpart 3162 and Onshore Orders 1, 2, and 7).

I. Background

The development and production of oil and gas, including hydraulic fracturing operations, are regulated under a framework of Federal, state, and local laws, and, on some tribal lands, by tribal regulations. Several Federal agencies implement Federal laws and requirements while each state in which oil and gas is produced has one or more regulatory agencies that administer state laws and requirements.

State and local laws apply on Federal lands, except to the extent that they are preempted by Federal law. Federal preemption is rare, and is not at issue in the final rule. Accordingly, the drilling and completion of oil and gas wells, including hydraulic fracturing operations, are subject to Federal and state and local regulation on Federal lands. If the requirements of a state regulation are more stringent than those of a Federal regulation, for example, the operator can comply with both the state and the Federal regulation by meeting the more stringent state requirement.

Tribal and Federal laws apply to oil and gas drilling and completion operations, including hydraulic fracturing operations, on tribal lands. Operators on tribal lands can comply with both tribal and Federal regulations governing drilling and completion requirements by complying with the stricter of those rules.

Regardless of any difference in operational regulations, operators on Federal lands must comply with all Federal, state, and local permitting and reporting requirements. On Indian lands, they must comply with all Federal and tribal permitting and reporting requirements.

Existing BLM Requirements—Not Affected by This Final Rule

The BLM has an extensive process in place to ensure that operators conduct oil and gas operations in a safe and environmentally sound manner that protects resources. The following discussion provides a description of some of the BLM's existing processes and requirements that are not affected by the rescission of the 2015 rule pursuant to this final rule that help to ensure that the risks of oil and gas operations, including hydraulic fracturing, are appropriately minimized.

The BLM applies a tiered decision-making approach when providing access for the development of Federal oil and gas resources on public lands. First, the BLM develops land use plans (the BLM refers to these plans as Resource Management Plans, or RMPs). The RMP serves as the basis for all land use decisions the BLM makes, including decisions to delineate public lands that are appropriate for oil and gas leasing. Establishment or revision of an RMP requires preparation of an environmental impact statement (EIS) in accordance with the National Environmental Policy Act (NEPA). In areas where lands are open for oil and gas leasing, the EIS prepared to support establishment or revision of the RMP analyzes oil and gas development related impacts that may be expected to

[2] Additional discussion regarding Onshore Oil and Gas Orders 1, 2, and 7, and 43 CFR subpart 3162, is provided in § 2.11 of the RIA and the EA prepared for this rule.

occur over the life of an RMP (typically 20 years). The RMP identifies the terms and conditions under which the BLM would allow oil and gas development to occur in order to protect other resource values. Those terms and conditions may include mitigation measures that would be evaluated through the EIS and are implemented as stipulations incorporated into oil and gas leases. If necessary, certain lands are closed to oil and gas leasing altogether when such use is incompatible with sensitive resources or other planned uses. In addition to compliance with NEPA, the BLM must comply with the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA), and other applicable Federal laws and regulations. Once an RMP has been approved, the BLM makes land use decisions, including oil and gas development decisions, in accordance with the RMP, or any revisions or amendments to that RMP.

Before oil and gas activities may occur on Federal lands, interested parties must obtain a lease from the BLM. Oil and gas leases are acquired through an auction-style sale process in which interested parties typically identify tracts of land that they would like to see leased. The BLM will conduct a preliminary evaluation to first determine whether the lands nominated for oil and gas leasing are under Federal jurisdiction and are open to leasing in accordance with the applicable RMP. The BLM will then conduct a second tier of NEPA review—typically through an EA—to address potential impacts that could be caused by oil and gas development within the nominated lease area. The NEPA review conducted at the leasing stage tiers to the EIS prepared for the RMP. If the BLM's analysis determines that the nominated tracts are suitable for leasing, the BLM would offer the tracts for lease during a competitive oil and gas lease sale auction. If any of the tracts are not bid upon during the lease sale auction, those tracts become available for non-competitive leasing by the first qualified applicant for a two year period that begins on the first business day following the last day of the lease sale. In addition to compliance with the NEPA, the BLM also complies with the NHPA and the ESA at the leasing stage. Upon issuance by the BLM, the lease allows the operator to conduct operations on the lease subject to the requirements of existing regulations, the lease terms and stipulations, and the requirement that the operator obtain BLM approval of a site-specific Application for Permit to Drill (APD).

When trust or restricted Indian lands are involved, the tribe or individual Indian mineral owner plans the uses of their own lands. They lease their own oil and gas resources with the consent of the Department of the Interior's (''DOI'' or ''the Department'') Bureau of Indian Affairs (BIA). Nonetheless, the BLM often serves as a cooperating agency during the development of the environmental review for such actions. Moreover, pursuant to delegations from the Secretary of the Interior (Secretary) and BIA regulations, the BLM regulates oil and gas operations on trust and restricted Indian lands, applying the same operating regulations that apply on Federal lands.

The procedures followed when issuing leases to develop Indian oil and gas resources may be similar to, or different from, the leasing process used for Federal lands, depending upon a number of different factors. For example, when tribal oil and gas resources are leased under the authority of the Indian Mineral Leasing Act of 1938 (IMLA), the BIA typically conducts a competitive lease sale process that shares many similarities with the leasing process for Federal lands. In contrast, the Indian Mineral Development Act of 1982 (IMDA), allows Indian mineral owners to forego the competitive auction-style leasing process and negotiate directly with potential operators for agreements to develop their oil and gas resources.[3] However, for both IMLA and IMDA authorized leases and agreements, the approval of the Indian mineral owner and the BIA or the DOI is required.[4] Much like with oil and gas leasing actions involving Federal lands, authorizations pursuant to the IMLA and the IMDA to develop Indian oil and gas resources are subject to compliance with applicable Federal statutes, including NEPA. The procedures for issuing leases and other development agreements for Indian oil and gas resources are outlined in the BIA's regulations at 25 CFR parts 211 (IMLA leasing), 212 (agreements for allotted lands), and 225 (IMDA agreements).

The BLM has existing regulations, including Onshore Oil and Gas Orders, to ensure that operators conduct oil and gas exploration and development in a safe and environmentally responsible manner that protects other resources. Sections 3162.3–1 and Onshore Order 1 require an operator to get approval from the BLM prior to drilling a well. The operator must submit an APD containing all of the information required by Onshore Order 1. This includes a completed Form 3160–3, Application for Permit to Drill or Re-Enter, a well plat, a drilling plan, a surface use plan, bonding information, and an operator certification.

Upon receiving a drilling proposal on Federal lands, the BLM is required by existing section 3162.3–1(g) to post information for public inspection for at least 30 days before the BLM can approve the APD. The information must include: The company/operator name; the well name/number; and the well location described to the nearest quarter-quarter section (40 acres), or similar land description in the case of lands described by metes and bounds, or maps showing the affected lands and the location of all tracts to be leased and of all leases already issued in the general area.

The public can review the posted information and provide any input they would like the BLM to consider during the environmental analysis the BLM prepares prior to making a decision on the APD.

The drilling plan provided by the operator must be in sufficient detail to permit the BLM to complete an appraisal of the technical adequacy of, and environmental effects associated with, the proposed project. The operator must provide geological information, including the name and estimated tops of all geologic groups, formations, members, and zones. The operator must also provide the estimated depths and thickness of formations, members, or zones potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals that the operator expects to encounter, and their plans for protecting such resources. The BLM uses this information and the BLM's geologists' and engineers' professional reviews to ensure that usable water zones are protected.

The operator must provide minimum specifications for blowout prevention equipment that they will use to keep control of well pressures encountered while drilling. The BLM evaluates the proposed equipment to determine that it is adequate for anticipated pressures that the well may encounter in order to prevent loss of control of the well and potential environmental issues. The operator must provide a proposed casing program, including the size, grade, weight, and setting depth of each

[3] The IMDA authorizes Indian tribes and individual Indian mineral owners to enter into leases, as well as other types of agreements, to explore for and develop their oil and gas resources. 25 U.S.C. 2102(a). Indian allotted lands may also be leased for mineral development pursuant to 25 U.S.C. 396.

[4] In certain situations, IMDA agreements may only be approved by the Secretary of the Interior or the Assistant Secretary for Indian Affairs. *See* 25 U.S.C. 2103(d) and 25 CFR 225.3.

casing string. The BLM engineers evaluate the proposed casing to ensure that it is being set at proper depths to protect other resources, including usable water. The BLM engineers also ensure that the casing size and strength is sufficient for the depths at which it will be set, and the pressures that the well will encounter.

The operator must provide information regarding the proposed cementing program. This includes the amount and types of cement the operator will use for each casing string, and the expected top of cement for each casing string. The cement is critical for the isolation and protection of usable water since it is the cement that establishes a barrier outside the casing between any hydrocarbon bearing zones and usable water zones. The proposed cementing program is the first step for this protection. The BLM engineers evaluate the proposed cementing program to ensure that the volume and strength of the cement is adequate to achieve the desired protections.

The operator must include in the drilling plan information regarding their proposed drilling fluid. The operator must provide the type and characteristics of the proposed circulating medium for drilling each well bore section, including the quantities and types of mud the operator will maintain, and the monitoring equipment the operator will utilize on the circulating system. The BLM engineers review this information to ensure that the drilling fluid system and additives will be compatible and not detrimental to all usable water and prospectively valuable mineral zones that the well bore may encounter. The operator must also provide their proposed testing, logging, and coring procedures. This may include resistivity, gamma ray, spontaneous potential, caliper, and neutron logs as well as cement evaluation logs. The BLM reviews the proposed logging suite and determines if the operator will need to run any additional logs to provide additional downhole information.

The operator's drilling plan must address the expected bottom-hole pressure and any anticipated abnormal pressures, temperatures, or potential hazards that the well may encounter. Hazards may include lost circulation zones, hydrogen sulfide zones, or faults and fractures. The operator must also include a plan for mitigating such hazardous. The BLM geologists review this information to determine if any other anticipated hazards exist. The BLM engineers review this information to ensure the proposed mitigation to address any anticipated hazards is adequate.

The operator must include in its drilling plan any other information regarding the proposed operation that it would like the BLM to consider. This might include, but is not limited to, the directional drilling plan for deviated or horizontal wells, which would provide the proposed wellbore path. The BLM engineers review the proposed directional plan to ensure there will not be any potential issues with existing wells.

The operator's APD must also include a surface use plan of operations, or the equivalent required by another surface management agency. The surface use plan must contain sufficient details of the proposed surface use to provide for safe operations, adequate protection of the surface resources, groundwater, and other environmental components. The operator must also describe any Best Management Practices (BMP) they plan to use. BMPs are state-of-the-art mitigation measures applied to oil and natural gas drilling and production to help ensure that operators conduct energy development in an environmentally responsible manner. BMPs can protect water, wildlife, air quality, or landscapes. The BLM encourages operators to incorporate BMPs into their plans.

The operator's surface use plan should follow the BLM's *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development,* which is commonly referred to as The Gold Book.[5] The BLM developed The Gold Book to assist operators by providing information on the requirements for obtaining permit approval and conducting environmentally responsible oil and gas operations.

The operator's surface use plan must include information regarding existing roads they plan to use to access the proposed well location and must explain how they will improve or maintain existing roads. The surface use plan must also include the operator's plan for any new access roads they plan to build. The operator must design roads based upon the type of road, the safety requirements, traffic characteristics, environmental conditions, and the type of vehicles that will use the road. The proposed road description must include: Road width, maximum grade, crown design, turnouts, drainage and ditch design, on-site and off-site erosion control, revegetation of disturbed areas, location and size of culverts and/or bridges, fence cuts and/or cattleguards, major cuts and fills, source and storage of topsoil, and the type of surface materials that the operator will use.

The operator must include a map showing all known wells, regardless of well status (producing, abandoned, etc.) within a one-mile radius of the proposed location. The BLM uses this information to ensure the proposal does not conflict with any current surface use. The BLM uses this well information to identify any potential downhole conflicts or issues between the existing wells and the proposed well. If the BLM does identify conflicts, the BLM will require the operator to modify their proposal or to submit plans to mitigate the issue.

The operator must include a map or diagram that shows the location of all production facilities and lines they will install if the well is successful (*i.e.,* a producing well), as well as any existing facilities. This would include all buried oil, water, or gas pipelines and all overhead and buried power lines. The BLM reviews this information to identify any potential conflicts with the proposed facilities.

The operator must include in their surface use plan information concerning the water supply, such as rivers, creeks, springs, lakes, ponds, and wells that the operator plans to use for drilling the well. This may or may not be the same source of water the operator plans to use for their hydraulic fracturing operations. The BLM does not regulate water usage, but the BLM does use the information about water supply in conducting the environmental analysis of the APD. The BLM uses the information to determine if the operator must obtain any additional approvals such as a right-of-way across Federal lands that may be necessary for the transport of water.

The operator must include a written description of the methods and locations it proposes for safe containment and disposal of each type of waste material (*e.g.,* cuttings, garbage, salts, chemicals, sewage, etc.) that results from drilling the proposed well. The narrative must include plans for the eventual disposal of drilling fluids and any produced oil or water recovered during testing operations. The operator must describe plans for the construction and lining, if necessary, of the reserve pit.

The surface use plan must include the character, intended use, and source of all construction materials, such as sand, gravel, stone, and soil material. The operator must identify the location and construction method and materials from

[5] The Gold Book is available on the BLM's website, at: *https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/operations-and-production/the-gold-book.*

all anticipated ancillary facilities such as camps, airstrips, and staging areas. This information will be used to assess the environmental impacts of the proposed operations.

The operator must include a diagram of the proposed well site layout. The layout must show the location and orientation of the following: The proposed drill pad, the reserve pit/blooie line/flare pit location, access road entry points, and the reserve pit showing all cuts and fills, the drilling rig, any dikes and ditches to be constructed, and topsoil and/or spoil material stockpiles.

The operator must submit a plan for the surface reclamation or stabilization of all disturbed areas. The plan must address interim (during production) post-drilling reclamation for the area of the well pad not needed for production, as well as final abandonment of the location. The plan must include, as appropriate, the following: Configuration of the reshaped topography, drainage systems, segregation of stockpiles, surface disturbances, backfill requirements, proposals for pit closures, redistribution of topsoil, soil treatments, seeding or other steps to reestablish vegetation, weed control, and practices necessary to reclaim all disturbed areas, including any access roads and pipelines.

If the BLM does not manage the surface, the surface management agency must approve the surface use plan according to their respective regulations and guidance documents.

The APD must provide proof of adequate bond coverage as required by existing 43 CFR 3104.1 for Federal lands and by 25 CFR 211.24, 212.24, and 225.30, for Indian lands. These regulations require the operator or the lessee to have an adequate bond in place prior to the BLM's approval of the APD. If the BLM determines that the current bond amount is not sufficient, the BLM can require additional bond coverage. The BLM determines the need for bond increases by considering the operator's history of previous violations, the location and depth of wells, the total number of wells involved, the age and production capability of the field, and any unique or unusual conditions in the planned drilling operations or in the surrounding environment.

Upon receipt of a complete APD, the BLM will schedule an onsite inspection with the operator. The purpose of the onsite inspection is for the BLM and operator to further identify site-specific resource concerns and requirements not originally identified during the application stage. Prior to, or in conjunction with, the onsite inspection, the BLM or other surface management agency will advise the operator if any special inventories or studies are required, such as for cultural resources or threatened and endangered species.

The onsite inspection team will include the BLM, a representative of any other surface management agency, the operator or permitting agent, and other parties associated with planning work on the project, such as the operator's principal dirtwork contractor, agency resource specialists, surveyors, and pipeline or utility company representatives. When the onsite inspection is on private surface, the BLM will invite the surface owner to attend. The purpose of the onsite inspection is to discuss the proposal; determine the best location for the well, road, and facilities; identify site-specific concerns and potential environmental impacts associated with the proposal; and discuss the conditions of approval (COA) or possible environmental BMPs. If the BLM identifies resource conflicts, the BLM has the authority to require the operator to move surface facilities to locations that would reduce resource impacts while still allowing development of the leased minerals.

After the BLM has reviewed the operator's proposed plans and conducted the onsite inspection, the BLM will prepare an environmental impacts analysis document in conformance with the requirements of NEPA, and the Department of the Interior's regulations. The extent of the environmental analysis process and the time period for issuance of a decision on the APD will depend upon the complexity of the proposed action and resulting analysis, the significance of the environmental effects disclosed, and the completion of appropriate consultation processes. In each case, the environmental analysis considers environmental concerns and resource issues in the area, including those the BLM or operator identified during the onsite inspection, such as potentially impacted cultural resources, endangered species, surface water, ground water, and other natural resources. A group of resource specialists conduct the analysis. The composition of the team depends on the resource issues in that area and any resource issues that the BLM or operator identified during the onsite inspection. The resource specialists may include petroleum engineers, geologists, natural resources specialists, wildlife biologists, archeologists, hydrologists, soil scientists, botanists, recreation specialists, range management specialists, and realty specialists.

The environmental analysis may be conducted for a single well, a group of wells, or for an entire field. The public is welcome to provide input to the BLM for inclusion in the analysis. The BLM posts notices of all Federal APDs for public inspection in the authorizing office and on the internet. For large projects, such as field development environmental assessments or environmental impact statements, the BLM will go through public scoping and will issue a draft analysis for public comment prior to completing the final analysis and issuing a decision.

The environmental analysis will identify potential impacts from the proposed action. The BLM will develop any necessary COAs to mitigate those potential impacts. If the BLM identifies unacceptable impacts, the BLM will ask the operator to modify its proposal, or the BLM may deny the application. The BLM will attach the COAs to the approved APD. The operator must follow the approved plan and all COAs.

Upon BLM's approval of an APD, the operator may commence drilling of the well. In addition to the approved plan and the COAs attached to the APD, the operator must also comply with the requirements of Onshore Order 2. Onshore Order 2 details the BLM's uniform national minimum standards of performance expected from operators when conducting drilling operations on Federal and Indian lands. Many of the requirements of Onshore Order 2 ensure the protection of usable water. Onshore Order 2 defines ''isolating'' as ''using cement to protect, separate, or segregate usable water and mineral resources'' and ''usable water'' as ''generally those waters containing up to 10,000 ppm of total dissolved solids.''

Onshore Order 2 requires that the operator conduct the proposed casing and cementing programs as approved to protect and/or isolate all usable water zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. It requires that the operator determine the casing setting depths based on all relevant factors, including: Presence/absence of hydrocarbons; fracture gradients; usable water zones; formation pressures; lost circulation zones; other minerals; or other unusual characteristics. It also requires the operator to report all indications of usable water.

Onshore Order 2 requires the operator to run centralizers on the bottom 3 joints of surface casing to help ensure the casing is centered in the drilled hole prior to cementing. This helps to ensure wellbore integrity. It also requires the operator to cement the surface casing

back to the surface either during the primary cement job or by remedial cementing. Cementing the surface casing back to the surface ensures that all usable water zones behind the surface casing are isolated and protected. Onshore Order 2 requires the operator to wait until the cement for all casing strings achieves a minimum of 500 psi compressive strength at the casing shoe prior to drilling out the casing shoe. It requires the operator to use top plugs during cementing operations to reduce contamination of the cement by displacement fluid. It requires the operator to use a bottom plug or other acceptable technique, such as a preflush fluid, inner string cement method, etc., to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry. By using proper cementing techniques such as these, the operator can complete the cement job as planned and thus protect usable water.

Onshore Order 2 requires the operator to pressure test the casing prior to drilling out the casing shoe. This test ensures the integrity of the casing. Onshore Order 2 requires the operator to conduct a pressure integrity test of each casing shoe on all exploratory wells, and on that portion of any well approved for a 5000 psi blowout preventer. The operator must conduct this test before drilling 20 feet of new hole. The pressure test ensures the integrity of the cement around the casing shoe.

Onshore Order 2 identifies the minimum requirements for blowout prevention equipment and the minimum standards for testing the equipment. Proper sizing, installation, and testing of the blowout prevention equipment ensures that the operator maintains control of the well during the drilling process, which is necessary for protection of usable water zones.

The BLM conducts inspections of drilling operations to ensure that operators comply with the Onshore Order 2 drilling regulations, the approved APD, and the associated COAs. The BLM drilling inspections consist of two general types of inspections: Technical and environmental. The BLM petroleum engineering technicians conduct technical inspections of the drilling operations, such as witnessing the running and cementing of the casing, witnessing the testing of the blowout prevention equipment, and detailed drilling rig inspections that include review of documentation such as the third party cementing job ticket, which describes the cementing operation including the type and amount of cement used, the cement pump pressures, and the observation of cement returns to the surface, if applicable. Through witnessing the operation or the review of the documentation, the BLM inspectors verify that the drilling operations are conducted in accordance with the approved plan and that no wellbore issues exist. The BLM natural resource specialists conduct environmental inspections of drilling operations. The environmental inspections focus primarily on the surface use portion of the approved APD. This includes inspection of the access road, the well pad, and any pits. While the BLM does not have the budget or personnel available to inspect every drilling operation as it is occurring on Federal and Indian minerals, the BLM conducts inspections in accordance with an annual strategy to ensure compliance with the regulations, lease stipulations, COAs for the plan, and permits.

As described above, the BLM has numerous processes and requirements to ensure that operators conduct oil and gas exploration and development in an environmentally responsible manner that protects mineral and other resources.

Within 30 days after the operator completes a well, the operator is required by Section IV(e) of Onshore Order 1 to submit to the BLM a Well Completion or Recompletion Report and Log (Form 3160–4), which provides drilling and completion information. This includes the actual casing setting depths and the amount of cement the operator used in the well along with information regarding the completion interval, such as the top and bottom of the formation, the perforated interval, and the number and size of perforation holes. The operator is required to submit copies of all electric and mechanical logs, including any cement evaluation logs, which the operator ran on the well prior to conducting completion operations. The BLM reviews this information to ensure that the operator set the casing and pumped the cement according to the approved permit.

Once a well goes into production, water is often produced with the oil and gas. The produced water tends to be of poor quality and is not generally suitable for drinking, livestock, or other uses without treatment and, therefore, must be disposed of properly. Onshore Oil and Gas Order 7 (Order 7) regulates the disposal of produced water. Under Onshore Order 7, operators must apply to the BLM for authorization to dispose of produced water by injecting the water into a suitable formation, by storing it in pits, or by other methods approved by the BLM. If the disposal is into injection wells, the operator must obtain approval under the Safe Drinking Water Act's Underground Injection Control (UIC) program that is administered by the Environmental Protection Agency (EPA). In many states, the EPA has granted primary enforcement authority for the UIC program to the state agency responsible for oil and gas development. If the water will be stored in pits, the BLM requires specific design standards to ensure the water does not contaminate the environment or pose a threat to public health and safety.

After a well has been drilled and completed, the BLM continues to inspect the well until it has been plugged and abandoned and the surface has been rehabilitated. During the production phase of the well, the BLM inspections focus on two primary issues: Production and the environment. The Federal Government (for Federal leases) or an Indian tribe or individual Indian allottee (for Indian leases) receives a royalty on the oil and gas removed or sold from the lease based on the volume, quality, and value of the oil and gas. Royalties from Federal leases are shared with the state as provided by statute. Production inspections are done to ensure the volume and quality of the oil and gas is accurately measured and properly reported. Environmental inspections are done to ensure that well pads and facilities are in compliance with regulations, Onshore Orders, and approved permits. Environmental inspections include ensuring that pits are properly constructed, maintained, and protected from wildlife; identifying leaking wells or pipelines; ensuring that the wellsite and facilities are properly maintained; and ensuring that proper erosion controls and rehabilitation measures are in place.

When a well has reached the end of its economic life, Federal regulations require it to be plugged and abandoned to prevent oil and gas from leaking to the surface or contaminating water bearing zones or other mineral zones. 43 CFR 3162.3–4. Well abandonment can be requested by the operator or required by the BLM. In either case, the operator must submit a proposal for well plugging, including the length, location, type of cement, and placement method to be used for each plug. Onshore Order 2 contains minimum requirements for well plugging. The operator must also submit a plan to rehabilitate the surface once the well has been plugged. The goal of surface rehabilitation is to remove obvious visual evidence of the pad and to promote the long-term stability of the site and vegetation.

The BLM inspects both well plugging and surface restoration. Well plugging inspections are done to ensure the plugs are set into the wellbore as approved by the BLM. The inspector will witness the depth and volume of cement used in each plug as well as the physical verification of the top of each plug. When an operator has complete surface restoration, it will notify the BLM. The BLM will send surface protection specialists to ensure the restoration is adequate. Once the BLM is satisfied with the restoration efforts, the BLM will approve the operator's Final Abandonment Notice.

II. Discussion of the Final Rule and Comments on the Proposed Rule

On July 25, 2017, the BLM proposed to rescind the 2015 final rule because we believed that rule was unnecessarily duplicative of state and some tribal regulations and imposed burdensome reporting requirements and other unjustified costs on the oil and gas industry. The 60-day comment period for that proposed rule (the 2017 proposed rule) ended on September 25, 2017 (82 FR 34464).

Discussion of Comments by Topic

Water Quality

Many commenters state that the 2017 proposal, if finalized, will have negative impacts on water quality and public health. Commenters state that science has shown that hydraulic fracturing can be injurious to the natural landscape as well as to human health and safety. Commenters state that one danger from hydraulic fracturing is contamination of surface water by toxic chemicals that leach off site. Another is that the fluids may leak from the well into underground aquifers. Commenters assert that contamination on Federal and tribal land runs off Federal lands into the water systems that we use and seeps into the groundwater we drink.

The BLM has reviewed incident reports from Federal and Indian wells since December 2014. This review indicated that resource damage is unlikely to increase by rescinding the 2015 rule because of the rarity of adverse environmental impacts that occurred from hydraulic fracturing operations before the 2015 rule, and after its promulgation while the 2015 rule was not in effect. The BLM believes that the appropriate framework for mitigating these impacts is through the state regulations, through tribal exercise of sovereignty, and through BLM's own pre-existing regulations and authorities (pre-2015 final rule 43 CFR subpart 3162 and Onshore Orders 1, 2, and 7). The review and approval of the APDs requires compliance with those existing authorities and regulations to ensure protection of the water resources, and the local environment.

Multiple commenters claim that hydraulic fracturing is a dangerous practice that can contaminate our air and water, while contributing to the release of greenhouse gases. One commenter states that, as the base of scientific knowledge regarding risks from hydraulic fracturing continues to develop, the evidence continues to build that hydraulic fracturing and shale and tight gas development processes pose a wide range of risks to human health and the environment. Another commenter asserts that no amount of regulation can make hydraulic fracturing safe, but that rescinding or weakening the recently updated rules only puts our shared resources at greater risk. Further, the commenter states that the updated rules are long overdue and simply lay out basic standards to follow. Commenters state that the 2015 rule was enacted after years of review and should not be weakened or repealed. Commenters state that rescinding the 2015 rule would put our Federal lands at risk by repealing our first line of defense against groundwater contamination.

The BLM initiated the development of the hydraulic fracturing rule in 2010 in response to public concerns. Relatively few states had any regulations on hydraulic fracturing at that time. In light of this, a BLM regulation covering wellbore integrity and usable water protection seemed appropriate at that time. Since promulgation of the 2015 rule, however, many states have updated their regulations to address hydraulic fracturing operations. The BLM now believes that the 2015 rule is duplicative of the states' and some tribal regulations, as well as some of the BLM's own pre-existing regulations and authorities (pre-2015 rule 43 CFR subpart 3162 and Onshore Orders 1, 2, and 7), and is not necessary.

Some commenters are concerned that hydraulic fracturing affects the availability of water resources. These commenters describe that once water is used for hydraulic fracturing, it cannot be returned to the water table and that water is a precious resource that should not be depleted in this fashion.

Recycling and reuse of flowback fluids from ongoing hydraulic fracturing operations is currently practiced in many states, but the majority of recovered fluids are still injected into disposal wells regulated under the Safe Drinking Water Act (SDWA). The 2015 rule, however, would not have mandated reuse or recycling. Therefore, rescinding the 2015 rule will not affect demands on water supplies or the reuse or recycling of recovered fluids.

One commenter states that, although incidents of contamination of groundwater from hydraulic fracturing are not frequent, due in part to improvements in technology, they have occurred in locations that raise concern about the adequacy of protection. In response to comments that list examples of studies that find no linkages between hydraulic fracturing and groundwater contamination, one comment points to the work of a former U.S. EPA scientist linking hydraulic fracturing with groundwater contamination. The commenter adds that not all laboratory tests have shown contamination of groundwater in areas of hydraulic fracturing because standard laboratory tests do not always test for exotic, highly water-soluble chemicals used in hydraulic fracturing.

The referenced study suggested that water wells in Pavillion, WY were contaminated with hydraulic fracturing wastes that had been stored in unlined pits dug into the ground. The BLM has several existing requirements, some of which are set out at 43 CFR subpart 3162 and in Onshore Oil and Gas Orders 1, 2, and 7, that allow it to mitigate the risks associated with oil and gas operations, including any risks to groundwater from hydraulic fracturing operations. The BLM also possesses discretionary authority allowing it to impose site-specific protective measures reducing the risks associated with hydraulic fracturing. The BLM Authorized Officers follow the BLM's regulations and authorities to review and approve each APD. Operators also must comply with existing state laws and regulations and, on tribal lands, tribal laws and regulations, including those that are intended to prevent groundwater contamination. The BLM does not believe that the 2015 final rule would reduce the risks of groundwater contamination to an extent that would justify the burdens imposed on operators or the BLM by that rule.

One commenter states that the cost of cleaning groundwater after it is contaminated is exorbitant and therefore that circumstances potentially causing contamination should be avoided.

We agree. The BLM Authorized Officers follow the BLM's regulations and authorities (pre-2015 rule 43 CFR subpart 3162 and Onshore Orders 1, 2, and 7) to review and approve each APD. Operators also must comply with existing state regulations, or, on tribal lands, tribal laws. Those requirements are intended to ensure protection of the

water resources and prevent any groundwater contamination. We are no longer persuaded, though, that the 2015 rule would improve protection of groundwater to an extent that would justify the burdens on operators or the BLM.

One commenter takes issue with the statements in the 2017 proposed rule that, ''a review of incident reports from Federal and Indian wells since December 2014,'' indicates that, ''resource damage is unlikely to increase by rescinding the 2015 final rule.'' The commenter asserts that the BLM provides no support or explanation for this statement and has failed to consider many of the significant adverse environmental impacts associated with rescinding the 2015 rule.

The BLM did not find any increase in the number of incidents related to hydraulic fracturing completions in BLM operations since December 2014. The EPA study (EPA 2016) on hydraulic fracturing was unable to identify any specific activities of hydraulic fracturing operations on Federal or Indian lands that impacted the drinking water resources, because the study did not distinguish between hydraulic fracturing on Federal or Indian lands and hydraulic fracturing on other lands.

One commenter states that he has lived in North Dakota for five years and personally witnessed the purposeful dumping of hydraulic fracturing water along roads and ditches on the roads leading to hydraulic fracturing sites. The commenter states that most of the oil and hydraulic fracturing waste spills that happen on or near sites do not get reported.

The 2015 rule did not address open dumping of recovered fluids. Neither the 2015 rule, nor this rule, alter the requirement that permanent disposal of produced water must be in accordance with an approved plan. See Onshore Oil and Gas Order No. 7, 58 FR 47354 (1993). Unpermitted dumping of recovered fluids is outside the scope of this rulemaking.

Multiple commenters assert that BLM's rescission of the 2015 rule is appropriate because there has been no proven case of groundwater contamination from hydraulic fracturing in the United States to date. Several commenters state that studies developed by the EPA and U.S. Geological Survey (USGS) indicate that hydraulic fracturing has not had an impact on groundwater quality. One commenter further states that several studies, including an EPA study, a Yale University study, and a study funded by the Natural Resources Defense Council, find no incidence of contamination of groundwater due to hydraulic fracturing, which has been performed on over 1.2 million wells since 1948. Absent any confirmed instances of hydraulic fracturing impacting underground sources of drinking water, a commenter asserts that there is no protective advantage to the environment from the 2015 rule.

The BLM generally agrees with the commenter. We conclude that state and some tribal regulations, in conjunction with the BLM's own pre-existing regulations and authorities (pre-2015 rule 43 CFR subpart 3162 and Onshore Orders 1, 2, and 7) have been effective in ensuring protection of the water resources and the local environment.

One commenter states that any studies contained in the BLM's original administrative record that suggest that a link exists between groundwater contamination and oil and gas production were focused on well construction rather than hydraulic fracturing as the cause of the contamination. The commenter further states the BLM and each of the states in which Federal oil and gas is produced had well construction rules prior to the 2015 rule, and that the BLM's administrative record does not provide any evidence that a rule focused on hydraulic fracturing would improve the degree of protection related to well construction.

The BLM agrees in part. Onshore Oil and Gas Order No. 2 continues to apply to the drilling and cementing of oil and gas wells on Federal and Indian lands. See 53 FR 46798 (1988). The 2015 rule would have imposed additional monitoring, testing, and reporting requirements. In the preamble and supporting documents for the 2015 rule, though, the BLM cited a few instances where surface or groundwater contamination was caused by inter-well communications during the hydraulic fracturing operations. Those were not directly linked to wellbore construction, but rather caused by geologic fractures and fissures which are prevalent in some areas, or by lack of awareness of other wellbores. However, the BLM also possesses discretionary authority allowing it to impose site-specific protective measures that can be applied when necessary to reduce the risks associated with hydraulic fracturing.

One commenter noted that, in Federal court, an oil company was found to have caused permanent and irreparable pollution of the Sac and Fox Nation's groundwater by oil and gas activities. As a result of ineffective and absent regulatory actions, portions of the Sac and Fox Nation's aquifer will be unsafe to drink for generations.

It appears that the operator in the cited case did not follow the conditions of the permit issued by the BLM for the operation, and is responsible for the damage. The BLM's 2015 rule would not have addressed such issues related to violation of the rule on tribal lands and neither would this rule.

One commenter describes that the 2015 rule would have redefined ''usable water,'' modifying the term's definition to include ''those waters containing up to 10,000 parts per million (ppm) of total dissolved solids.'' The commenter asserts a lack of any empirical evidence or science-based support for a need to protect water that is so saline that it can kill livestock, and asserts that this definition would expand the scope of protected waters well beyond EPA's regulations under the Safe Drinking Water Act.

Onshore Oil and Gas Order No. 2, Section II. Y, states that ''Usable Water means generally those waters containing up to 10,000 ppm of total dissolved solids.'' The BLM believes that the standard set forth in Onshore Order No. 2 is appropriate and it will continue to follow that standard.

Air Quality/Public Health

One commenter states that there are unsafe levels of air pollution at every stage of oil and gas development. Air quality testing at hydraulic fracturing sites in several states have revealed levels of hydrogen sulfide and volatile organic compounds capable of causing respiratory, neurologic, and cardiovascular disease, blood dyscrasias, birth defects, and malignancies after chronic and recurrent exposure. The commenter claims that we do not yet know the true level of risk related to air contamination for workers, neighboring families and communities. The commenter asserts that flowback, even when stored in closed tanks, can liberate toxic volatile pollutants (such as carcinogenic benzene) at very high concentrations into the atmosphere. The commenter states that workers should be wearing respirator masks to minimize serious health consequences.

In response to that comment, the BLM notes that the 2015 rule would have generally required recovered fluids to be stored in tanks until a permanent disposal plan was approved, but allowed for exceptions and did not require closed or vapor-recovery systems. The 2015 rule was never intended to be an air quality or emissions regulation. Health effects from air emissions and mitigation measures were not addressed in the 2015 rule and are outside the scope of this rule. Air quality and worker safety

are regulated by other Federal, state, or tribal agencies.

One commenter states that a new form of hydraulic fracturing-related air pollution may be increased levels of indoor radon concentration (the number one cause of lung cancer among non-smokers) in homes located in areas where hydraulic fracturing is used to extract natural gas from shale formations. The commenter highlights that a peer-reviewed study published in May 2015 by the National Institute of Environmental Health Sciences, ''Predictors of Indoor Radon Concentrations in Pennsylvania, 1989–2013,'' documents a progressive upward trend in ambient radon levels between 2005 and 2013 coincident with the onset of hydraulic fracturing in Pennsylvania. The commenter noted that, at present, there are no state or Federal regulations addressing this newly discovered association.

In response to that comment, the BLM notes that the 2015 rule did not address radon concentrations, and rescinding that rule will not affect radon concentrations. Radon ''association'' with hydraulic fracturing operations is outside the scope of this rulemaking.

One commenter states that unsafe levels of air pollution found near hydraulic fracturing sites are largely ignored by Federal and state agencies. The commenter suggest that, to remedy this, monitoring of pollution emissions, air testing of communities, and strict standards to limit pollution are sorely needed and should replace patchy, inadequate state protections that do not do enough to safeguard communities that are increasingly exposed to the deadly consequences of poorly regulated hydraulic fracturing sprawl. Another commenter states that diesel emissions from heavy trucks and machinery used during well site preparation, drilling, and production contain toxins and release diesel soot particles, which increase health risks including: Asthma attacks, cardiopulmonary disease, respiratory disease, pregnancy complications, and premature death. In addition, the commenter states that inhaling respirable silica can cause silicosis and lung cancer in miners, sandblasters, and foundry workers. The commenter further notes that, due in large part to methane leakage and venting, the greenhouse gas footprint of shale gas is larger than the footprint of oil, conventional gas, and even coal.

These comments are outside the scope of the present rulemaking action. Neither the 2015 rule nor this rescission will cause air pollution, fugitive dust, or greenhouse gas emissions to be greater or less. Air quality monitoring and emissions standards are regulated by other agencies.

In addition to air and water pollution, one commenter expressed concern about externalities of drilling operations, such as noise pollution and odors, which should be kept within tolerance levels as drilling expands to areas where more people live.

This comment is outside the scope of this rulemaking because it addresses oil and gas development in general and fails to assert any specific alternative approach or change from the 2017 proposed rule that the BLM should have considered in this final rule with respect to the regulation of hydraulic fracturing operations on Federal and Indian lands.

Chemical Disclosure

In this section, we describe the comments the BLM received regarding chemical disclosure and respond to them all in the final paragraph of the section.

Some commenters are concerned that rescinding the 2015 rule will result in chemicals used in the hydraulic fracturing process not being disclosed by operators. Commenters state that, as the Federal lands managed by the BLM are public lands, the public has a right to clearly understand what is occurring on them and any potential impacts that those activities could have on water resources. One commenter notes that a recent study conducted by the Yale School of Public Health found that, of the compounds used in hydraulic fracturing that they could identify and study, 44 percent of the water pollutants and 60 percent of air pollutants were either confirmed or possible carcinogens. Although these compounds often make up only a small percentage of the total volume of the fluid, many are known to be toxic to humans at levels as low as five parts per billion. The commenter suggests that the 2015 rule would help to ensure proper handling and would mitigate potential exposure and impacts to public health from hydraulic fracturing. Another commenter describes a 2015 report published by the EPA that stated that well operators refused to disclose 11 percent of their ingredient records, citing them as confidential business information. Furthermore, one or more ingredients in more than 70 percent of disclosures were omitted, according to the commenter.

One comment referred to a 2016 article entitled, ''Hydraulic Fracturing Chemicals Reporting: Analysis of Available Data and recommendations for Policy Makers,'' which highlighted that 16.5 percent of chemicals used in hydraulic fracturing between the years 2012 and 2015 were unreported.

One commenter expressed concern regarding the BLM's reliance on a third party (FracFocus) to replace specific transparency and public accountability. In response to commenters on the 2015 rule, the BLM stated that, ''compliance with these rules will increase transparency of the hydraulic fracturing approval process and provide a means for disclosure to the public of the fluids utilized in the hydraulic fracturing process.'' The commenter complains that the BLM now states that disclosure of the chemical content of hydraulic fracturing fluids to states or databases, such as FracFocus, is more prevalent than it was in 2015 and so there is no need for a Federal chemical disclosure requirement. The commenter asserts that the slight shift in reporting frameworks is insufficient justification to remove regulations that promote administrative transparency and public disclosure of potentially harmful chemicals. Furthermore, the commenter stated that the BLM has yet to respond to questions from the Secretary of Energy's Advisory Board raised in 2015 with respect to technical issues with FracFocus, including a lack of verification for data accuracy.

One commenter states that the BLM's analysis of state requirements for chemical disclosure indicates that all states reviewed require chemical disclosure of hydraulic fracturing fluids to FracFocus (with the possible exception of New Mexico). The commenter states that the BLM rule, however, requires much more than just disclosure of chemicals used in the fracturing fluid. The commenter asserts that California is the only state that has equivalent requirements for each of the elements that had been required in the 2015 rule and the only other state that has any equivalent requirements is Wyoming.

One commenter states that radioactive substances are used in hydraulic fracturing fluid to determine the injection profile and location of fractures created by hydraulic fracturing. The commenter asserts that these chemicals should be heavily regulated as a matter of national security and that all chemicals onsite should be identified and reported by the operator. The commenter states that the contents of all materials and quantities injected into the wells should be documented, reported, and provided upon request. The commenter states that polluters should not remain unidentified because the identifying features of the injected slurry are protected as ''trade secrets.''

Some commenters assert that it is not burdensome to require the oil and gas industry to disclose the chemicals they are pumping into the ground in order to extract petroleum.

In response to all of the foregoing comments in this section, although we agree that the information is readily available to the operators or their contractors, we are no longer convinced that a BLM regulatory requirement would improve access to that information sufficiently to justify the cost of compliance.

Most states with existing oil and gas operations now have regulations that require operators to disclose the chemical content of hydraulic fracturing fluids to either a publicly accessible forum, such as FracFocus, state regulatory agencies, or both. This includes the States of California, Colorado, Montana, New Mexico, North Dakota, Oklahoma, Texas, Utah, and Wyoming, which accounted for approximately 99 percent of the total well completions on Federal and Indian lands from fiscal year (FY) 2010 to 2016. In addition, there are 25 states that currently use FracFocus for chemical disclosures. These include seven states, Colorado, Montana, New Mexico, North Dakota, Oklahoma, Texas, and Utah, with substantial BLM administered oil and gas operations. The BLM now believes that the disclosures of the chemical content of hydraulic fracturing fluids to state regulatory agencies and/or databases, such as FracFocus is more prevalent than it was in 2015 and that there is no need for a duplicate Federal chemical disclosure requirement, since companies are already making those disclosures on most of the operations, either to comply with state law or voluntarily. Furthermore, the 2015 rule did not require disclosure of trade secrets. See generally, 18 U.S.C. 1905; 43 CFR 3162.3–3(j) (2016). Therefore, there is no reason to believe that rescinding the 2015 rule will cause operators to withhold more confidential information about chemicals used in hydraulic fracturing operations. To the extent that the comments address control of hazardous substances generally, they are beyond the scope of this rulemaking.

Earthquakes

Some commenters suggest that there is a link between earthquakes and hydraulic fracturing of rock formations. One commenter states that significant seismic activity is allowed without any state or Federal constraints. Commenters suggest a link between hydraulic fracturing and wastewater injection and earthquakes in Oklahoma and Ohio. Several commenters describe a 2016 study that cautioned that hydraulic fracturing in the United States may be causing higher-than-recognized induced earthquake activity that is being masked by more abundant wastewater-induced earthquakes. The commenters assert that the injection of oil and gas wastewater, often associated with hydraulic fracturing, has been linked to the dangerous proliferation of earthquakes, including damaging earthquakes in many parts of the country.

In addition, one commenter asserts that the hydraulic fracturing industry has burdened tribal businesses and homeowners that have to pay to repair damages inflicted by these earthquakes. The commenter asserts that induced seismicity prevents tribal members from access to Department of Housing and Urban Development (HUD) funds for home construction in areas that are now unable to be adequately insured for earthquake damage.

In response to the comments, U.S. Geological Survey research indicates that most induced seismicity has been linked to wastewater injection, and seldom to hydraulic fracturing operations. While the 2015 rule contains provisions regarding the storage of recovered fluids, it did not include any provisions regarding wastewater disposal by underground injection, which is regulated under the SDWA by the EPA or an approved state or tribe. The 2015 rule also did not change the provisions of 43 CFR 3162.3–2 that apply to injection activities. Pursuant to Onshore Order 7, operators must submit a wastewater disposal plan prior to commencing operations, and they must provide the BLM with a permit from the EPA, state or tribe along with this plan. Even if hydraulic fracturing operations were found to cause damaging seismicity, the 2015 rule would not have controlled the effect, and, therefore, rescinding that rule will not increase the likelihood of seismicity damage.

Rule Authorities

Commenters expressed a variety of opinions about whether the BLM has statutory authority to regulate hydraulic fracturing operations on Federal and Indian lands. This section of the preamble first summarizes the arguments for the BLM's statutory authority (and duty) and responds to them. It next summarizes the arguments against the BLM's authority and responds to them.

Some commenters assert that the BLM has clear authority to regulate hydraulic fracturing while other commenters disagree. More specifically, some commenters state that the BLM issued the 2015 rule as part of carrying out its statutory duties to prevent unnecessary or undue degradation of public lands consistent with 43 U.S.C. 1732(b) and to issue ''comprehensive'' regulations ''necessary to implement the provisions'' of FLPMA, and to ''carry out the purposes of [FLPMA] and of other laws applicable to the public lands.'' In addition, the commenters state that, under the MLA, Congress charged the BLM with ensuring that Federal lessees conduct their operations with ''reasonable diligence, skill and care,'' and instructed the BLM to protect the ''interests of the United States'' and ''the public welfare.'' The commenters state that Congress authorized the 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 MLA. These commenters conclude that the 2015 rule is consistent with the BLM's duties under FLPMA and MLA.

Similarly, some commenters state that BLM lands are multiple use lands that must fulfill not only resource acquisition goals but public recreation and public benefit goals. The commenters state that actions must be consistent with all the uses of BLM property and the BLM cannot make this determination without the information requested in the 2015 rule. Some commenters assert that activity on public lands must be regulated consistently across the nation, especially when activities may affect the ability of the BLM to uphold its multiple use mandate. Some commenters argue that the proposed action indicates a preference for oil and gas leasing and development over other multiple uses. The commenters argue that this mandate prohibits DOI from managing public lands primarily for energy development or in a manner that unduly or unnecessarily degrades other uses.

Some commenters state that the proposed rescission rule is inconsistent with the BLM's statutory duties under FLPMA, the MLA, and the IMLA. The commenters state that the BLM concluded in 2015 that the requirements of the 2015 rule were necessary to meet those obligations. The commenters assert that the BLM's proposed reversal of the 2015 rule is not permissible under FLPMA and other laws because the BLM failed to explain its departures from the factual conclusions it drew when promulgating the rule in 2015.

Similarly, some commenters state that it is a dereliction of duty to abdicate the responsibility of management of the

appropriate and proper use of public lands to the states. Commenters state that they rely on BLM oversight to manage the use of these public lands for the benefit of all Americans, not just the profits of oil and natural gas companies. Commenters assert that the 2017 proposed rule, if finalized, is guided by the short term interests of a few at the expense of long-term efforts to protect our lands and most importantly, our water.

We agree in part with the comments in the previous four paragraphs. The BLM's actions related to oil and gas operations on Federal land are subject to FLPMA, MLA, the Mineral Leasing Act for Acquired Lands (MLAAL), and other statutes. FLPMA prescribes that the public lands are to be managed for multiple use and sustained yield, and that the BLM is to prevent unnecessary or undue degradation. The MLA requires that Federal oil and gas leases include provisions to ensure the exercise of reasonable diligence, skill, and care in operations. No court, however, has held that FLPMA requires BLM to manage each acre of public land to support all uses at all times. Rather, oil and gas operations are statutorily authorized uses of the Federal lands, and thus may be thought of as ''necessary or due'' degradation when conducted according to appropriate standards for protection of the lands and associated resources.

With respect to legal duties, no statute requires the BLM to regulate hydraulic fracturing operations, and no statute requires all oil and gas operations on Federal lands to be subject to the same regulations. (Indeed, lease stipulations and COAs are often different in different areas to address local conditions.) Rather, the contents of operating regulations are within the discretion of the Secretary. *Mineral Policy Ctr.* v. *Norton,* 292 F. Supp. 2d 30, 44–45 (D.D.C. 2003). State laws have always applied to oil and gas operations on public lands, even when those laws differ from one another. Particularly where, as here, there is no compelling indication that modern state regulations are allowing unnecessary or undue degradation to the public lands, the Secretary is within his discretion to decide that rescinding the 2015 rule would reduce the burdens both on operators and the BLM, with little reduction in the protection of those lands.

This final rule represents no dereliction of duty. *See generally, Gardner* v. *BLM,* 638 F.3d 1217, 1222 (9th Cir. 2011). Furthermore, it has nothing to do with decisions about which Federal lands to open for leasing, or which parcels to be offered for lease. Private, for-profit, development of oil and gas on Federal lands is authorized by the MLA, the MLAAL, and other statutes, and thus objections to those authorizations are outside the scope of this rulemaking.

Other commenters assert that the BLM lacked authority to issue the 2015 rule. Some commenters argue that Congress has not delegated authority to the BLM to regulate hydraulic fracturing and has granted only limited authority to the EPA to regulate hydraulic fracturing under the Safe Drinking Water Act (SDWA). Another commenter states that the BLM concedes that it cannot regulate enhanced oil recovery, disposal wells, or hydraulic fracturing using diesel because Congress has designated the EPA as the agency with regulatory authority over those forms of underground injection in the SDWA, and the same conclusion should apply with respect to non-diesel hydraulic fracturing.

Some commenters argue that the 2015 final rule requirement to submit water source and recovered fluid disposal method encroaches upon state jurisdiction over waters of the state and over underground injection control covered in the primacy agreement between North Dakota and the EPA in 1983.

A commenter asserts that North Dakota has a large number of ''split-estate'' tracts where the Federal minerals have been severed from the surface estate, which is owned by either the State of North Dakota or private parties. The commenter argues that the 2015 final rule inappropriately broadened BLM's authority to regulate surface operations for hydraulically fractured wells that penetrate Federal minerals, but where the United States does not own the surface.

With few exceptions, the arguments described in the previous three paragraphs were raised in the litigation challenging the 2015 rule. We believe that rescinding the 2015 rule alleviates these concerns and, therefore, the BLM need not address them here. The more immediate point is that the BLM has authority to rescind the 2015 rule, and to restore the regulations existing prior to the 2015 rule with the few exceptions previously discussed. Those regulations were promulgated in 1982 and amended in 1988. See 43 CFR 3612.3–2 (2014); 47 FR 47765 (1982); 48 FR 36583 (1983); 52 FR 5391 (1987); 53 FR 17363 (1988); 53 FR 22847 (1988). No commenter provided evidence that this rescission would interfere with the regulation of underground injections by states, tribes, or the EPA under the SDWA (as amended). The BLM does not regulate disposal wells; but BLM's authorization is required for use of BLM-managed surface for a disposal well. Other ''enhanced recovery'' operations are also outside the scope of this rulemaking. Aside from ''split estates'' being common in several states where the BLM regulates oil and gas operations, no commenter provided evidence that rescission of the 2015 rule would be ''inappropriate'' as applied to split-estate lands. If after this rescission of the 2015 rule, the BLM needs to approve an operation that would, for example, require substantial quantities of water, the requirements of NEPA and the applicable regulations would apply.

One commenter states that, regardless of the 2015 rule, the BLM already has the ability to impose additional conditions related to hydraulic fracturing on operators. This includes the authority to require the submission of additional information in relation to the permitting process as well as the ability to require that specific actions be taken by operators on-site to minimize environmental impacts and ensure site safety and security. The commenter states that the agency has broad authority to collect information. The commenter also noted that, pursuant to 43 CFR 3160.0–9, the BLM may request data so that proposed operations may be approved or to enable the monitoring of compliance with granted approvals, and operators must respond to such requests as a condition of Federal oil and gas leases and as a precondition to issuance of a permit to drill. Finally, the commenter notes that the BLM also has the authority to require operators to take specific actions when developing a lease.

The commenter is essentially correct. After this rescission, the BLM will continue to responsibly use its authorities to carry out its duties under the applicable statutes and regulations.

One commenter criticizes the BLM's intention to restore the regulations under which prior approval is required for ''non-routine'' hydraulic fracturing operations. 43 CFR. 3162.3–2 (2014). The commenter asserts that the BLM has never treated the ''fracturing'' referred to in 43 CFR. 3162.3–2 as equivalent to hydraulic fracturing. The commenter further argues that proponents of the 2015 rule have recognized that under 43 CFR. 3162.3–2 ''companies generally treated all hydraulic fracturing operations as routine'' and the BLM did not exercise approval authority over hydraulic fracturing.

In response to this and other similar comments, the BLM reconsidered its proposal to restore the regulatory text in

43 CFR 3162.3–2(a) (2014) requiring prior approval for ''nonroutine fracturing jobs.'' As a result of this review, the BLM decided not to restore the ''nonroutine fracturing'' requirement in this final rule.

As previously mentioned, prior to the 2015 rule, the regulations at 43 CFR 3162.3–2(a) (2014) provided in pertinent part that a ''proposal for further well operations shall be submitted by the operator on Form 3160–5 for approval by the authorized officer prior to commencing operations to . . . perform nonroutine fracturing jobs. . . .'' Those regulations, however, did not define ''nonroutine fracturing jobs'' or provide guidance to operators or the BLM authorized officers on how to distinguish ''routine'' from ''nonroutine.''

The BLM further notes that as a result of considerable advances in oil and gas development technology in the last 20 years, hydraulic fracturing practices that would have been considered ''nonroutine'' when the BLM originally issued the regulations requiring prior approval for ''nonroutine fracturing jobs'' are now commonly employed and considered ''routine.'' The combination of advances in oil and gas development technology and the BLM's existing authority to mitigate the potential risks of hydraulic fracturing operations through site-specific protective measures that are applied as a part of the environmental review and approval process at the APD stage has made post-APD approvals for ''nonroutine fracturing jobs'' at most a very rare occurrence. In fact, while the BLM has not been tracking requests for approval of ''nonroutine fracturing jobs,'' recent inquiries to BLM state offices have not revealed any examples of ''nonroutine fracturing'' requests or approvals. Thus, given that the ''nonroutine fracturing'' requirement has not, and will not foreseeably serve any purpose, and that removing it from the regulations could reduce the potential for unproductive confusion or paperwork without adverse effects, the BLM has removed ''nonroutine fracturing'' from 43 CFR 3162.3–2(a) in this final rule.

As for whether the word ''fracturing'' in 43 CFR 3162.3–2 (2014), includes hydraulic fracturing, both the plain meaning and its use in the industry, includes ''hydraulic fracturing.'' See, *e.g.,* Williams & Myers Manual of Oil and Gas Terms, p. 420 (10th ed. 1997) (quoting American Gas Ass'n, Glossary for the Gas Industry (3d ed. 1981)). The BLM has always interpreted that regulation to include hydraulic fracturing. The commenter does not offer any other rational interpretation. Therefore, including ''routine fracturing'' in the restored section 3162.3–2(b) makes plain that an operator does not need the BLM's prior approval for hydraulic fracturing operations, except those that involve increased surface disturbance or that do not conform to the standard of prudent operating practice.

Adequacy of Existing Regulations and Industry Practices

The following paragraphs summarize comments regarding whether existing regulations and industry practices are adequate to protect public lands. We first summarize and respond to comments critical of the existing regulations and industry practices, and opposed to rescission of the 2015 rule. Then we summarize and respond to comments arguing that existing state and Federal regulations and industry practices provide adequate protection for federal lands and associated resources, and in favor of rescission of the 2015 rule.

Multiple commenters state that when the BLM rescinds the 2015 rule, regulations would be as they existed prior to adoption of the 2015 rule. One commenter states that it is apparent that almost no oversight of hydraulic fracturing was required prior to the 2015 rule, however, and that the inadequacy of the prior regulation for dealing with issues related to hydraulic fracturing was noted in the rulemaking process for the development of the 2015 rule. The commenter states that the prior regulations required that the BLM approve proposals for ''further well operations,'' which included ''nonroutine fracturing jobs'' and eight other activities. The commenter states that no BLM approval was required for ''routine fracturing'' jobs unless there was additional surface disturbance. However, the commenter states that ''nonroutine fracturing jobs'' was not a defined term and the BLM proposes to continue to not define the term. The commenter states that the lack of defined distinction between nonroutine hydraulic fracturing jobs and routine hydraulic fracturing jobs made ''this distinction functionally difficult to apply and confusing for both the agency and those attempting to comply with the regulations.'' The commenter states that the BLM therefore acknowledges that almost all fracturing operations were deemed routine and not requiring approval from the BLM prior to commencing operations. A separate commenter notes that this ''pre-existing authority'' clearly existed at the time the 2015 rule was promulgated and fails to provide a valid basis for the BLM's change in position.

Multiple commenters express concern that state laws are insufficient to regulate hydraulic fracturing activities. The commenters state that, while some states have requirements regarding particular issues that are equivalent to the 2015 rule, many gaps in regulation remain. The commenters state that each state has areas where its regulations are weaker than the 2015 rule, and no state requires the same best practices across the board. The BLM should keep the 2015 rule in place to ensure consistent protections across the dozens of states with existing Federal oil and gas leases. One commenter notes that, if the BLM recognizes that certain states have less comprehensive regulations and enforcement mechanisms, it necessarily concedes that the legal framework within those states will not provide the same protections as the regulations promulgated by the 2015 rule and therefore that the 2015 rule is not duplicative of state regulations. Another commenter offers that the 2015 rule provided specific direction to states on how to protect groundwater and other resources and set forth a common standard of environmental protection at hydraulic fracturing sites and brought together requirements for a set of environmentally protective requirements that could be easily referenced in one place for consistent implementation.

Multiple commenters argue that the BLM's analysis of state regulations included in the RIA suggests the 2015 rule is not redundant. In particular, two commenters highlight that the BLM, in its discussion of the mechanical integrity test requirement, states it ''is an industry recommended practice and is required by almost all of the states whose regulations we reviewed.'' One commenter states that the BLM rule requires operators to perform a successful mechanical integrity test prior to fracturing at a test pressure equal to that which will be applied during the actual fracturing operation and that the applied pressure must hold for 30 minutes with no more than a 10 percent pressure loss. The commenter states that only California and Montana have rules that include these requirements. The commenter states that similar issues exist with regard to the annulus pressure monitoring and reporting provisions. The commenter states further that, in its analysis of state regulations for monitoring pressure during hydraulic fracturing operations, the BLM claims that all states reviewed, other than New Mexico, Oklahoma, and Utah, explicitly require monitoring

during fracturing operations. The commenter states that, as with state mechanical integrity test rules, the mere presence of a rule is not sufficient. Rather, the commenter states, the substance of state rules must be analyzed to determine whether state rules contain safeguards equivalent to the BLM rule. In addition, with respect to review of the storage tank requirements, some commenters state that the BLM acknowledges that ''Although the use of tanks is reportedly common, only 5 out of the 9 states in our in-depth regulatory review had requirements specifying that operators must use tanks.''

One commenter asserts that the fact that all 32 states currently with Federal oil and gas leases now have laws or regulations that address hydraulic fracturing operations in no way indicates those regulations are sufficient to fulfill the stipulations under Executive Order 13783, Promoting Energy Independence and Economic Growth. Another commenter highlighted that despite the existence of state requirements, the BLM explained in 2015 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 FR 16133; see id. at 16154. The commenters assert that ''an additional 12 states have introduced laws or regulations'' regarding hydraulic fracturing is a natural consequence of the significant public concern about the practice, but does not obviate the need for Federal regulatory standards that promote the responsible development of public lands and fulfill BLM's own independent statutory duties to ensure that oil and gas operations on Federal and Indian lands are performed in a safe, responsible, and environmentally protective manner.

One commenter states that, unlike BLM's 2015 rule, many states do not require operators to obtain a permit specifically for fracturing operations. The commenter notes that, of the states the BLM reviewed in the RIA, only California, Montana, and Wyoming require a permit for fracturing operations. The commenter notes that Oklahoma and Colorado require notification before fracturing, while New Mexico, North Dakota, Texas, and Utah require neither a permit nor advanced notification. The commenter states that this is a significant difference between state regulations and the 2015 rule.

One commenter specifically claims that New Mexico is second only to Wyoming in the number of producing oil and natural gas leases on federally managed land, yet state regulations lack important safeguards included in the 2015 rule. The commenter notes that, for example, New Mexico's hydraulic fracturing regulations do not include measures to prevent ''frack hits,'' which occur when the hydraulic fracturing of one well causes a pressure transfer that interferes with production in another well. The commenter states that, as acknowledged in the EA for the rescission of this rule, these frack hits pose a tangible threat to water resources and the ecological integrity of public land subjected to excessive and haphazard drilling.

One commenter contends that the 2015 rule contains two essential safety components: Wellbore testing prior to hydraulic fracturing and storage of flowback waste in tanks rather than pits. The commenter states that these two areas, if not adequately regulated, present significant risks of environmental contamination. The commenter asserts that the 2015 rule represented improvements over existing Federal and Colorado state rules in these areas. The commenter states that, in proposing to rescind them, the BLM clearly recognized what researchers have also concluded: Hydraulic fracturing poses pollution risks to air, soil and water that are highly correlated with failure to ensure wellbore integrity and pit storage of waste. The commenter states that the 2015 rule is the BLM's best determination, based on its own expertise and expert outside input, for preventing such contamination and the rule should therefore not be rescinded.

One commenter stated that BLM's suggestion that a major expansion of state regulation has occurred since 2015 is misleading because the states with new regulations represent an insignificant fraction of Federal oil and gas development.

One commenter states that the Appendix to the EA for the proposed rule showed that the new state regulations lack many of the protections imposed by the 2015 rule. The commenter states that, for example, most state regulations do not mandate the use of tanks instead of open pits, do not require measures to prevent frack hits, and do not require the same measures to ensure adequate cementing.

One commenter said that the BLM assumes substantial continued use of storage tanks by operators in many states even after the rule is rescinded, although this is implausible. The commenter states that, for example, the BLM assumes that 100 percent of operators in Texas and New Mexico will use tanks even after rescission because of state regulations despite the fact that both states allow exemptions to their regulatory standards. The commenter states that the BLM also assumes 100 percent voluntary compliance in Utah despite the state's ''unclear'' standards, and 92 percent voluntary compliance in Wyoming. The commenter states that the estimation of voluntary compliance rates is based partly on the fact that ''tanks are likely to be less costly than pits on smaller and medium volume jobs.'' The commenter states that without a Federal regulatory backstop, past voluntary compliance rates and past evidence of job size in particular states do not guarantee the continued use of tanks in the future.

In response to the foregoing paragraphs in this section, when issuing the 2015 rule, the BLM acknowledged that it already had ''an extensive process in place to ensure that operators conduct oil and gas operations in an environmentally sound manner that protects resources'' (80 FR 16133). At that time, the BLM also noted that while ''the regulations and Onshore Orders that have been in place to this point have served to provide reasonable certainty of environmentally responsible development of oil and gas resources . . .,'' the 2015 rule ''will complement these existing rules by providing further assurance'' that hydraulic fracturing operations are conducted in an environmentally responsible manner across all public and Indian lands (id. at 16137). However, as previously noted, in accordance with Executive Order 13783 and Secretarial Order No. 3349, the BLM recently conducted a review of the 2015 rule, existing state laws and regulations, existing Federal authorities and recent incident reports submitted to the BLM for Federal and Indian oil and gas operations. As a result of this review, the BLM now believes that the 2015 rule imposes unnecessary and unjustified compliance costs and burdens. Moreover, in light of state regulatory programs, the sovereignty of tribes to regulate oil and gas operations on their lands, and the BLM's pre-existing regulations and Onshore Oil and Gas Orders and other Federal authorities, the rescission of the 2015 rule will not lead to poorly regulated oil and gas development activities, including hydraulic fracturing operations, on Federal and Indian lands. State regulatory programs can more readily address local conditions than may the BLM's rules. Thus, the fact that state rules differ from each other and are not identical to the 2015 rule do not render state programs ineffective, or the

2015 rule essential. Furthermore, as expressed in the Executive Orders, it is this Administration's policy to reduce unnecessary regulatory burdens on energy development. Based on the rarity of adverse environmental impacts that have occurred from hydraulic fracturing operations before the 2015 rule, and the lack of compelling evidence that state regulatory programs are inadequate, the 2015 rule is a duplicative layer of Federal regulation that should be rescinded. To the extent that the comments address the pre-2015 rule requirements for prior approval of ''nonroutine fracturing jobs,'' see the BLM's response to comments in the *Rule Authorities* section above. As previously discussed, the BLM has decided not to restore the requirements for ''nonroutine fracturing jobs'' in 43 CFR 3162.3–2(a).

One commenter states that the proposed rescission of the 2015 rule does not provide substantive evidence that industry practice is sufficient to prevent the pollution and degradation of hydrological resources on public lands. The commenter states that, given its self-described mandate to provide bona fide minimum standards to ensure industry compliance, as well as its obligations under NEPA, the BLM should not rescind protections given to groundwater in the 2015 Rule.

While industry practices can and often do work to appreciably reduce the risks associated with oil and gas development, the BLM does not solely rely on industry practice to ensure that oil and gas development operations on public lands are conducted in an environmentally responsible manner. Operators on Federal lands must comply with all Federal, state, and local requirements. On Indian lands, they must comply with all Federal and tribal permitting and reporting requirements. As previously noted, the BLM has an extensive process in place to ensure that operators conduct oil and gas operations in a safe and environmentally sound manner that protects resources. The environmental reviews conducted under NEPA provide an opportunity for the BLM to consider and mitigate potentially adverse environmental impacts, including those involving hydrological resources. If hydrological concerns arise during the BLM's review of a specific oil and gas proposal, the BLM may require additional information, or impose protective measures, such as lease stipulations or COAs attached to APDs, to mitigate the potential adverse impacts.

One comment disapproves of the proposed rescission because of a lack of reasonable regulation in Idaho to protect the communities impacted by hydraulic fracturing. The commenter adds that there is a lack of standardization in incident reporting processes in different states by highlighting a peer-reviewed study published in February 2017 in the *Journal of American Chemical Society* entitled, ''Unconventional Oil and Gas Spills: Risks, Mitigation Priorities, and State Reporting Requirements.'' The study points out differences in reporting requirements in each of the four states that produce most oil and gas using hydraulic fracturing, and documents a total of 6,648 spills between 2005 and 2014.

Contrary to the commenter's assertion, the BLM reviewed the applicable Idaho state laws and regulations and found an extensive regulatory framework for addressing the risks associated with hydraulic fracturing. *See* Idaho Admin. Code §§ 20.07.02.210 and 20.07.02.211. As previously discussed, the fact that state regulatory programs differ from each other and are not identical to the 2015 rule does not render the state programs ineffective, or the 2015 rule essential. Furthermore, operators on Federal or Indian lands are required to report adverse incidents directly to the BLM. The BLM requires operators to clean up spills promptly and thoroughly. Those requirements will not change with the rescission of the 2015 rule.

Multiple commenters asserted that the hydraulic fracturing regulations of specific states are adequate, and thus the 2015 rule is not needed. One commenter highlighted that there has never been a mechanical failure in North Dakota since the North Dakota Industrial Commission's hydraulic fracturing regulations were implemented; a separate commenter asserts that the regulatory oversight provided by the State of North Dakota protects the environment while providing permitting in a careful but timely manner. Another commenter suggested that, in Wyoming, operators have employed hydraulic fracturing technology safely and efficiently for decades. Another commenter asserts that New Mexico's hydraulic fracturing rules and regulations are protective of the environment and that hydraulic fracturing is proficiently regulated by the State of New Mexico, including rigorous protocols for casing, cementing, completions, recompletions and all associated procedures, including extensive monitoring and pressure-testing requirements, as well as mechanical and pressure-based well integrity testing. That commenter states that adding an additional layer of Federal regulation on top of an efficient and effective set of existing state regulations will provide no additional environmental protection. Additionally, one commenter states that the State of Utah has an effective regulatory program that, for many years, has successfully monitored the construction and operation of oil and gas wells, including well completion operations, such as hydraulic fracturing, water management, and chemical disclosure. Another commenter also asserts that Colorado rules and regulations along with the Memorandum of Agreement with the BLM (and the United States Forest Service) for Permitting of Oil and Gas Operations on BLM and National Forest Service Lands in Colorado should suffice in coordinating the permitting of oil and gas operations on Federal lands. One commenter states that, in Oklahoma, regulators live in the communities most affected, are in touch with evolving technical and scientific data, and have a demonstrated track record of working effectively with industry as well as the other stakeholders of public and private lands. In addition, a commenter asserts that Western States with oil and gas production have robust regulations to protect the environment and public health and are best-equipped to regulate oil and gas development. The commenter asserts that the Western States have experienced few, if any, adverse impacts involving water quality and water allocation attributable to hydraulic fracturing and that the process has been used for more than a million wells for over sixty years, and is responsible for increasing the nation's ability to recover oil and gas at great economic benefit.

The BLM thanks the commenters for providing comments and supporting information.

One commenter states that the EA for the 2017 proposed rule reveals that misguided public sentiment regarding hydraulic fracturing was a lead motivator for the BLM's initiation of rulemaking in 2010. The commenter states that BLM also accurately observed that adverse environmental impacts from hydraulic fracturing were a rare occurrence prior to the final 2015 rule, and that observation remains true today. The commenter asserts that, instead of imposing a costly regulatory burden on oil and gas operators, the BLM would be better served by dedicating resources to countering these unfounded public concerns.

The BLM agrees that the 2015 rule imposes compliance costs on the oil and gas industry that are no longer justified. The remaining statements in this

comment are outside the scope of this rulemaking.

One commenter states that the 2015 rule would have required that 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 must be stored in rigid enclosed, covered, or netted and screened above-ground tanks. The commenter further states that no regulatory mechanism exists for the ''approval of a produced water disposal plan'' on an individual well basis, thus the limitations the 2015 rule purports to apply to recovered fluids storage are premised on an administrative approval process that does not exist.

As this final rule rescinds the 2015 rule, this comment is outside the scope of the present rulemaking action.

Adequacy of Tribal Regulations

Multiple commenters state that the BLM's suggestion that the 2015 rule is ''duplicative'' of existing tribal regulation is unsupported. The commenters state that the differences between the 2015 BLM rule and other regulations are even greater on Indian lands, where many tribes have not developed their own regulatory programs to manage hydraulically-fractured oil and gas development. The commenters state that this is acknowledged in the EA. Another commenter asserts that relying on state regulations is inadequate for protecting tribes. One commenter describes experiencing multiple oil spills related to injection wells on tribal lands and the lack of resources to respond and hold corporations accountable for the injury, damage, and unnecessary burden the oil industry placed on the tribe and its resources. The commenter states that, even though the sovereignty of tribes to regulate operations on their lands may be an option and reality for some tribes, others have yet to develop the capacity to enforce such regulations on their lands and may never have the resources to effectively manage and enforce oil and gas regulations. The 2015 rule would directly benefit and help protect these tribes.

We acknowledge that not all oil and gas producing tribes have exercised their sovereignty to regulate hydraulic fracturing activities. Rescission of the 2015 rule, however, does not affect those tribes' options for promulgating and implementing programs in exercise of their self-governance and sovereignty. In addition, the BLM regulations applicable to tribal lands, which include the regulations at 43 CFR subpart 3162, as amended by this final rule, and Onshore Oil and Gas Orders 1, 2, and 7, reduce the risks associated with hydraulic fracturing by providing specific requirements for well permitting; construction, casing, and cementing; and disposal of produced water. These BLM regulations, along with the enforcement mechanisms that are available to the BLM on tribal lands, provide reasonable assurance that oil and gas development on tribal lands will occur in an environmentally responsible manner, even when tribal regulations or enforcement mechanisms to ensure responsible oil and gas development are not fully developed.

Rule Process

Multiple commenters assert that the BLM has failed to explain why the 2015 rule is no longer needed to ensure the environmentally responsible development of Federal oil and gas resources. These commenters note that the Supreme Court has outlined procedures that an agency must take to comply with the Administrative Procedure Act (APA) when changing an existing regulation, including the need to provide a reasoned analysis or reasoned explanation for the change. The commenters contend that the BLM's 2017 proposed rule does not meet these requirements and is fraught with loose language that does not demonstrate a reasoned basis or reasoned explanation for the change.

Some commenters assert that the BLM's decision to rely on Executive Order 13783 and Secretarial Order 3349 to justify the proposed rescission fails to provide the ''reasoned explanation'' required by the APA. These commenters note that Executive Order 13783 directs agencies to review regulations that ''unduly burden the development of domestic energy resources beyond the degree necessary to protect the public interest or otherwise comply with the law.'' They contend that the BLM does not explain why the 2015 rule ''burdens'' the development of energy resources as defined by the Executive Order, particularly in light of the BLM's findings that the 2015 rule would cost just a small fraction of a percent of the profit margins of small operations. The commenters further state that the proposed rescission does not address other provisions of the Executive Order, including that ''all agencies should take appropriate actions to promote clean air and clean water for the American people.''

Finally, some commenters state that the BLM articulated a reasoned justification in 2015 for the storage tank requirement, and that the agency now proposes to rescind that same requirement without addressing the evidence from the 2015 record or offering any explanation for why a tank requirement would no longer deliver important environmental benefits.

On the contrary, the BLM believes that it has articulated a reasoned justification for rescinding the 2015 final rule. It therefore has not changed this final rule based on these comments. The Supreme Court has explained that ''[a]gencies are free to change their existing policies as long as they provide a reasoned explanation for the change,'' ''display awareness that [they are] changing position,'' and ''show that there are good reasons for the new policy.'' *Encino Motorcars, LLC* v. *Navarro,* __U.S. __, 136 S. Ct. 2117, 2125–26 (2016). However, agencies do not need to show ''that the reasons for the new policy are better than the reasons for the old one'' or necessarily ''provide a more detailed justification than what would suffice for a new policy created on a blank slate.'' *FCC* v. *Fox Television Stations, Inc.,* 556 U.S. 502, 515 (2009).

The BLM has provided a reasoned explanation for rescinding the 2015 rule that accords with these requirements: The BLM believes that the 2015 rule, which would impose compliance costs and information requirements that are duplicative of regulatory programs of many states and some tribes, is redundant and therefore unnecessarily burdensome on regulated entities. Any marginal benefits provided by the 2015 rule do not outweigh the rule's costs, even if those costs are a small percentage of the cost of a well. In fact, benefits were largely unquantified in the 2015 rule. The BLM has also provided good reasons for its new policy, explaining that state regulatory programs (including those of the states with most of the Federal oil and gas leasing), the sovereignty of tribes to regulate operations on their lands, and other preexisting Federal regulations provide a better framework than the 2015 rule for mitigating the impacts associated with hydraulic fracturing operations. For example, there are currently laws or regulations to address hydraulic fracturing in all 32 of the states in which the BLM currently manages oil and gas leases, and the BLM has several existing requirements, some of which are set out at 43 CFR 3162.3–1 and in Onshore Oil and Gas Orders 1, 2, and 7, that allow it to reduce the risks associated with hydraulic fracturing. Additionally, the BLM has explained that rescinding the 2015 rule's storage tank requirement may alleviate some on-the-ground indirect impacts, such as

those associated with truck traffic to transport tanks to and from well sites.

The BLM is not required to demonstrate that its reasons for rescinding the 2015 rule are better than or refute its rationale for initially promulgating the 2015 rule. This is especially true where, as here, the 2015 rule was never operational and did not engender serious reliance interests on the part of the regulated community. By providing an explanation for why it is rescinding the 2015 rule and demonstrating that there are good reasons for relying on state regulations, tribal sovereignty, and the BLM's preexisting regulations, the BLM has provided the necessary justification for changing its policy regarding the regulation of hydraulic fracturing. Furthermore, there is no legal impediment to this Administration implementing its policies and priorities through rulemaking to rescind or amend existing regulations.

Some commenters state that the BLM failed to consider a full range of alternatives in its environmental assessment. In particular, the commenters state that the BLM should have analyzed alternatives that strengthen the rule instead of rescinding it, including alternatives that regulate stimulation operations broadly, area of review, strengthen frack hit protections, baseline water testing, well construction, and restricted chemicals.

The BLM disagrees. The BLM considered a reasonable range of alternatives in its environmental assessment in light of the proposed action's purpose and need and the environmental effects that may result from rescinding the 2015 final rule. NEPA requires an agency to analyze all reasonable alternatives related to the purposes of the agency's action. Where, as here, an agency prepares an EA, the range of alternatives that the agency must consider, and the degree of analysis that is required, is less than is required for environmental impact statements. Moreover, '''the range of alternatives that [an] agency must consider [in an EA] decreases as the proposed action's environmental impact becomes less and less substantial,' '' *Earth Island Inst.* v. *United States Forest Serv.,* 697 F.3d 1010, 1023 (9th Cir. 2012) (quoting *Louisiana Crawfish Producers Ass'n–West* v. *U.S. Army Corps of Engineers,* 463 F.3d 352, 356–57 (5th Cir. 2006) (alterations omitted)), and it becomes even more diminished where, as here, an agency concludes that the action being considered will have a minimal environmental effect. See *Save Our Cumberland Mts.* v. *Kempthorne,* 453 F.3d 334, 342–43 (6th Cir. 2006). Furthermore, although the unsigned draft EA accompanying the proposed rulemaking analyzed only two alternatives, the signed EA for this final rule analyzes four alternatives, and explains why other alternatives were considered but not carried forward for analysis.

As described in detail above, this final rule will have minimal environmental effects. It will not authorize hydraulic fracturing operations as a whole, it will not authorize any particular hydraulic fracturing operation on Federal or Indian lands, and it will not impact the overall number of hydraulic fracturing operations on Federal or Indian lands. What few impacts may result from the final rule will be mitigated by state and tribal regulations and the preexisting Federal regulations. In light of these minimal impacts, the BLM did not need to analyze additional alternatives beyond the alternative that were analyzed in the EA that has been prepared for this final rule.

Additionally, the commenters are mistaken that the BLM should have analyzed alternatives that strengthened the 2015 final rule. The purpose and need of a proposed action determines the universe of alternatives that an agency must consider. The purpose of the BLM's proposed action (the 2017 prosed rule) ''is to reduce and eliminate unnecessary regulatory requirements in order to more efficiently manage oil and gas operations,'' and the need is ''to more prudently balance the BLM's interest in mitigating the risks of oil and gas development operations, including hydraulic fracturing, . . . with the compliance burdens it imposes on the oil and gas industry.'' Alternatives that would retain or increase the regulatory burdens imposed by the 2015 final rule on the oil and gas industry would not further the BLM's purpose and need for action and, therefore, did not have to be analyzed.

Some commenters assert that the BLM's proposed rescission of the 2015 rule fails to comply with NEPA. These commenters state that the EA prepared by the BLM contains only a brief discussion of a few of the impacts related to groundwater, surface water, and greenhouse gas emissions, which it determines to be insignificant. The commenters contend that these determinations contradict those found in the EA that the BLM prepared when it promulgated the 2015 rule, ignore recent science regarding hydraulic fracturing, and contradict several reviews of hydraulic fracturing conducted in California and elsewhere that demonstrate the potential for other significant environmental impacts that may result from the repeal of the 2015 rule.

The BLM disagrees with the commenters that the EA's discussion of impacts constituted a NEPA violation. Pursuant to CEQ's regulations implementing NEPA, an EA needs to include only ''brief discussions . . . of the environmental impacts of the proposed action and alternatives.'' (See 40 CFR 1508.9(b).) The EA's discussion of the impacts related to groundwater, surface water, and greenhouse gas emissions satisfies this requirement. Moreover, BLM notes that the EA references appropriate portions of the 2015 EA addressing these impacts, incorporating them into this EA.

Similarly, the BLM disagrees with the commenters that its determinations that the impacts to groundwater, surface water, and greenhouse gas emissions of this final rule are insignificant contradict its determinations in the EA prepared for the 2015 rule. With regard to surface water and groundwater, the 2015 EA merely stated that, under the No Action Alternative (*i.e.,* existing regulations), the impacts to surface water and groundwater described in the EA would be ongoing. The 2015 EA neither stated nor concluded that the impacts to those resources from the No Action alternative would be significant. Similarly, there is no contradiction between the two EAs regarding impacts related to greenhouse gas emissions. The 2015 EA did not, as the commenters suggest, determine that greenhouse gas emissions related to the No Action alternative would be significant. On the contrary, the 2015 EA found that although ''the various action alternatives would result in some small variations in [greenhouse gas emissions],'' none of them ''would appreciably affect the amount of GHG emissions arising from oil and gas operations on Federal and tribal lands as compared to [existing regulations].'' This finding is consistent with the BLM's current determination that rescinding the 2015 final rule would not result in an appreciable increase in greenhouse gas emissions.

The BLM also disagrees that the determinations in the EA ignores recent science regarding hydraulic fracturing. The BLM reviewed and considered a wide range of scientific evidence, including recent studies, in assessing the environmental impacts associated with rescinding the 2015 final rule. For example, the BLM gave considerable weight to the EPA's December 2016 study of hydraulic fracturing's potential impact on drinking water resources. NEPA, however, does not require the BLM to rely equally on all such studies.

Rather, NEPA permits agencies to rely on their expertise to determine which studies are particularly relevant or scientifically accurate. The fact that the EA does not specifically address the findings in the studies referenced in the comment does not mean that such studies were not considered. It simply means that, in analyzing the impacts associated with rescinding the 2015 final rule, the BLM found other studies more relevant.

Some commenters assert that the BLM violated NEPA by basing its EA on unfounded assumptions rather than sufficient evidence or analysis. The commenter states, for example, while acknowledging potential risks from the impacts that it did consider, the BLM finds that existing state and tribal regulations and the BLM's existing authorities will ''allow it to reduce the risks associated with hydraulic fracturing.'' However, the commenter states, the 2015 final rule remains more comprehensive than the requirements in many states and tribes, and the BLM has previously stated that the final rule ''would result in a reduction of the risks associated with hydraulic fracturing operations on Federal and Indian lands.''

The commenters are mistaken. The BLM based its EA on evidence, analysis, and technical expertise, not unfounded assumptions. For example, the specific conclusion referenced by the commenters that existing regulatory frameworks will allow the BLM to reduce the risks associated with hydraulic fracturing is based on the BLM's detailed review of state, tribal, and Federal regulations. *See* RIA at § 2.12, and EA at Appendix 1. That review indicated that all 32 states with existing Federal oil and gas leases currently have regulations to address hydraulic fracturing operations, as do some tribes with oil and gas resources. Additionally, the BLM has several existing requirements, some of which are set out at 43 CFR subpart 3162 and in Onshore Oil and Gas Orders 1, 2, and 7, that allow it to reduce the risks associated with oil and gas operations, including those of hydraulic fracturing. The BLM also possesses discretionary authority allowing it to impose site-specific protective measures reducing the risks associated with hydraulic fracturing. Relying on this evidence to conclude that the 2015 final rule was duplicative of an existing regulatory framework that will reduce the risks associated with hydraulic fracturing operations is a technical judgment within the BLM's area of expertise. The BLM may rely on the judgment of its own experts, see *San Juan Citizens Alliance* v. *Stiles,* 654 F.3d 1038, 1057 (10th Cir. 2011), even if the same regulatory framework would have led the commenters to arrive at a different conclusion. See *Greater Yellowstone Coal.* v. *Flowers,* 359 F.3d 1257, 1271 n. 14 (10th Cir. 2004).

The commenters are also mistaken that the 2015 rule's potential to reduce risks somehow calls into question the BLM's conclusion that it can rely on state, tribal, and Federal regulatory framework to reduce the risks associated with hydraulic fracturing operations. The 2015 rule was meant to ''add to'' and ''complement'' this existing regulatory framework. (80 FR 16128). Regardless of whether those additions would have resulted in additional risk reductions, the BLM's conclusion that the existing regulatory framework is capable of reducing risks remains valid.

Some commenters assert that the BLM must prepare a full EIS before rescinding the 2015 rule.

The BLM has not prepared an EIS in response to those comments. NEPA requires an agency to prepare an EIS when it proposes to take a major Federal action that significantly affects the quality of the human environment. Agencies must consider the context of the action and the intensity of its impacts to determine whether an action significantly affects the quality of the environment. As discussed in the BLM's EA and FONSI, the BLM considered the context of rescinding the 2015 rule and determined that doing so would remove information requirements that are duplicative of the regulatory programs of many states and some tribes with active oil and gas development. The BLM also considered the intensity, as that term is defined in CEQ's NEPA regulations, of rescinding the 2015 final rule. Applying the intensity factors listed in 40 CFR 1508.27(b), the BLM determined that rescinding the 2015 rule would not have a severe impact on the quality of the human environment. Based on its considerations of the context and intensity of the proposed action, the BLM determined that rescinding the 2015 rule will not significantly affect the quality of the human environment. In light of that determination, it is unnecessary to prepare a full EIS before rescinding the 2015 rule.

Some commenters assert that the BLM failed to analyze indirect and cumulative impacts of rescinding the 2015 rule.

Agencies are required to analyze the indirect and cumulative impacts associated with a proposed action. The BLM's analysis of those impacts is set forth, respectively, in sections 4.0 and 5.0 of the EA.

One commenter states that ESA and NHPA consultations are required before the 2015 final rule can be rescinded.

The ESA requires an agency to consult with the U.S. Fish and Wildlife Service or National Marine Fisheries Service to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties included on or eligible for inclusion on the National Historic Register of Historic Places (NRHP), and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings.

The BLM is not required to perform ESA or NHPA consultations to rescind the 2015 rule. Neither the rescission nor implementation of the 2015 rule would, by themselves, authorize or prohibit hydraulic fracturing operations as a whole, or any particular hydraulic fracturing operation on Federal or Indian lands. These actions are also not expected to impact the number of hydraulic fracturing operations. As such, the actions would not, by themselves, have an effect on any listed species or its habitat nor any historic properties that are listed on or eligible for listing on the NRHP. After the 2015 rule is rescinded, the BLM will continue to make decisions involving the development of oil and gas resources on BLM-administered lands at the land use planning, leasing, and permitting stages in compliance with NEPA, the ESA, and the NHPA. Indeed, site-specific proposals to drill for and develop oil and gas resources that involve hydraulic fracturing operations would require the same level of compliance with the ESA and NHPA if the BLM did not rescind the 2015 rule. Given that the BLM considers the cumulative and site-specific effects of proposed oil and gas operations as part of its land use planning, leasing, and permitting processes, as is discussed earlier in this preamble, and will conduct appropriate consultations whenever and wherever appropriate, consultation under the ESA and NHPA is not required at this time.

Some commenters state that, because the issue of ''frack hits'' was not part of the discussions between stakeholders and the agency during the rulemaking process for the 2015 rule, it is reasonable that the BLM would rescind the 2015 rule and defer issuance of any

rule related to ''frack hits'' until the appropriate regulatory procedures are invoked.

Some commenters also state that the 2015 rule would have required that before hydraulic fracturing operations begin, the operator must perform a successful mechanical integrity test of any casing or fracturing string through which the operation will be conducted. These commenters contend that the administrative record prepared for the 2015 final rule ''does not contain comments regarding the efficacy, cost, or purpose of testing the lateral portion of the wellbore because that requirement was not part of the proposed rule.''

The commenters contend that measures to protect against ''frack hits'' and requiring mechanical integrity tests included in the 2015 rule were not logical outgrowths of the BLM's proposed rule. Because the BLM is rescinding the 2015 rule, and because the present rule rescission does not contain measures related to ''frack hits'' or require mechanical integrity tests, it is unnecessary to address whether the issues of ''frack hits'' and mechanical integrity tests are a logical outgrowth of the proposed rule that the BLM published.

One commenter states that it is impossible to reconcile a requirement to conduct a mechanical integrity test on casing that does not protect usable water and it is likely to increase costs of completing a well by $75,000 to $100,000. Given the absence of any benefit that will be derived from these costs, rescission of the 2015 rule is reasonable and appropriate.

The BLM agrees that rescission of the 2015 rule is appropriate and good policy.

Costs of 2015 Rule and Effects on Industry

Multiple commenters state that the 2015 rule would not be burdensome for industry. One commenter states that there are several problems with BLM's assertion that the 2015 rule ''imposes burdensome reporting requirements and other unjustified costs on the oil and gas industry'' (82 FR 34464). The commenter states first, that the BLM's own RIA finds that the 2015 rule would cost approximately $9,690 per well, or about 0.1 percent to 0.2 percent of the cost of drilling a well (RIA at 3, Tables 4.2.2.a, 4.2.2.b). The commenter further notes that the BLM's estimate of the costs of the 2015 rule have not substantially changed since 2015 (80 FR 16,130 (estimating compliance costs to be ''approximately 0.13 to 0.21 percent of the cost of drilling a well'')). The commenter states that BLM also noted that its cost estimates may be overstated where industry is already in compliance.

In the RIA for the 2015 rule, the BLM asserted that regulation would result in a reduction of the risks associated with hydraulic fracturing operations on Federal and Indian lands, without providing an estimate for the monetary benefits of this risk reduction. The BLM noted in the 2015 RIA that the majority of the requirements were consistent with industry practice and that some were required by state regulations or were generally addressed by existing BLM requirements. In light of the protections available under other Federal regulations, the increased prevalence of state and tribal laws and regulations to address hydraulic fracturing, and new industry practices, the BLM believes that the requirements imposed by the 2015 rule are redundant and therefore unnecessarily burdensome. There were no monetary estimates of any incremental benefit that the 2015 rule provides in addition to existing Federal, state, and tribal regulations and industry standards. Such incremental benefits, however, are likely to be too small in light of the increased prevalence and comprehensiveness of these standards since the original RIA was published to justify compliance costs that are both monetized and certain to exist.

One commenter notes that, in 2015, in response to commenters' arguments that the rule was not economically justified and that benefits did not exceed costs, the BLM responded that the 2015 rule was ''prudent,'' ''necessary,'' and ''common-sense,'' and that the rule's ''burden should be minimal.'' The commenter asserts that, in its proposed rescission, the BLM never sufficiently explains why those same prudent, common-sense requirements, deemed necessary to environmental protection after weighing compliance costs, are now suddenly unnecessary.

As noted in previous responses, in light of the protections available under other Federal regulations, the increased prevalence of state and tribal laws and regulations to address hydraulic fracturing, and new industry practices, the BLM now believes that the requirements imposed by the 2015 final rule are redundant or only marginally beneficial, and therefore unnecessarily burdensome.

One commenter states that the BLM fails to acknowledge the forgone cost savings of the tank requirement that will partly offset any estimated cost savings from the rescission. The commenter notes that storage tank requirement from the 2015 rule was anticipated to generate long-term cost savings for industry that would have partly offset their compliance costs. The commenter suggests that rescinding the requirement will forgo those cost savings, and that loss of cost savings will partly offset any positive cost savings anticipated from the rescission.

In response to the previous comment, the BLM notes that it is not clear that requiring operators to use storage tanks for flowback and produced water would generate any cost savings. Operators that instead use central reservoirs may have decided to do so precisely because it is the most cost-effective option available to them, and requiring them to do otherwise may have the unintended consequence of increasing costs for them.

One commenter states that an unanticipated cost associated with rescinding the 2015 rule is related to road and infrastructure damage associated with trucks hauling large quantities of salt water and drilling mud at load weights exceeding legal limits by 35 percent. The commenter offers that Texas has incurred more than $2 billion debt to repair about 40 percent of their damaged roads in absence of having a dedicated revenue source to pay for it. A commenter states that failure to hold businesses accountable for their externalities amounts to indirect subsidies, which is not fair to producers of clean energy who do not receive these advantages. The commenter states that Federal lands are leased to these extractors at prices that are well below market values for extraction on private lands. The commenter asserts that this is another indirect subsidy for the extractors and is a bad deal for the taxpayers.

The use of public roads for the transport of materials and equipment both to and from energy production sites, including weight restrictions and taxation, is regulated by states and localities, and on tribal lands by tribes. It was not addressed in the 2015 rule, and thus is outside the scope of this rulemaking. Operators do need BLM's approval for access roads from public roads across public lands to their operation sites.

The BLM also disagrees with the assertion that Federal lands are leased at ''well below market values'' for oil and gas extraction on comparable private lands. Although private leases may often have higher royalty rates, there are often greater regulatory burdens uniquely associated with Federal leasing requirements. These include NEPA reviews for leasing nominations and drilling permits, production

measurement compliance requirements, and other fees and assessments, that operators do not encounter to the same extent on non-Federal lands. A simple comparison of royalty rates between Federal and non-Federal oil and gas leases is insufficient to support the commenter's conclusion about market values. Furthermore, bonus bids, rentals and royalties are outside the scope of this rulemaking.

One commenter suggests that California's growing economy is an example to counter industry's claims that the 2015 rule and regulations in general, unnecessarily encumber energy production, constrain economic growth, and prevent job creation.

The commenter does not provide evidence that regulation of hydraulic fracturing in California specifically has an impact on statewide economic growth. Also, different states have different mixes of industries and employers, as well as different geology, land ownership patterns, and other conditions important to business growth. Thus, we have no reasonable basis to extrapolate from any state's economic growth to a conclusion that the 2015 rule would be a net benefit for job creation.

One commenter suggested it is valuable to have a unified standard with which to regulate hydraulic fracturing. The commenter states that frack hits also pose a threat to industry profits, as they may also lead to a decrease in well production. The commenter states that, without firmly regulating irresponsible drilling practices, we run the risk of not only damaging the ecological health of our public lands and water resources, but also sabotaging the success of the extractive industry.

As noted in the RIA, the American Petroleum Institute does provide uniform, national voluntary standards for conducting hydraulic fracturing. Hydraulic fracturing oversight is and will continue to be provided through the state laws and regulations detailed in API 100–1 and API 100–2. There is ample evidence from national production data that hydraulic fracturing allows oil and gas production that would not otherwise be realized. Any frack hits on neighboring wells from using the technology are unfortunate but not nationally significant compared to the overall industry growth emanating from this technology.

One commenter suggests that, because the 2015 rule presented significant conflicts with existing Federal and state regulations, its adoption held the potential to create regulatory uncertainty and confusion, increasing project costs, thus providing further disincentives to operators to develop resources on Federal lands that the agency manages for the American people.

The BLM does not agree that regulations that are largely consistent with state rules and industry practices necessarily increase uncertainty or confusion. The BLM does agree, however, that such overlap can make such regulations redundant, marginally beneficial, and unnecessarily burdensome, which is the why it is rescinding the 2015 rule.

Multiple commenters state that additional BLM regulation of a process already regulated by the states will decrease efficiency and increase costs. Commenters assert that the BLM does not have the staff, the budget, or the expertise to process APDs with the same efficiency as the states. One commenter states that the delay in processing APDs by the BLM will result in declining production from Federal lands to the detriment of the public. Another commenter asserts that the BLM severely underestimated the cost of the 2015 rule by not including the cost of delays in permit approval. The commenter asserts that if APDs are not approved in a timely manner, the re-leasing process will cost additional millions. A separate commenter highlights that BLM officials conceded that, given the combination of increases in workload associated with the hydraulic fracturing rule and reductions in the agency budget, getting the work done could be an issue. The commenter also notes that, among other problems, the BLM recognizes that ''skills gaps'' are a ''program vulnerability'' for the BLM's existing oil and gas programs. The commenter therefore concludes that rescission of the 2015 rule is entirely appropriate given the admonitions of agency leaders that the BLM does not have the expertise in the field to administer the rule.

The BLM's engineers and field managers have decades of experience exercising oversight of these wells during the evolution of hydraulic fracturing technology. However, as stated in the RIA for this rule, the BLM recognizes the potential that the 2015 rule might pose unnecessary delays and implementation costs to the BLM and operators. These costs were not quantified in the RIA for the 2015 rule. The BLM's staffing levels, budget and appropriations are outside the scope of this rulemaking.

One commenter argues that, due to North Dakota's unique history of land ownership, it is typical for oil and gas spacing units to consist of a combination of Federal, state, and private mineral ownership. The commenter notes that, even in circumstances where the Federal mineral ownership within a spacing unit is small relative to other mineral ownership, the 2015 rule would have required all the oil and gas operators within the unit, as a practical matter, to conduct operations in accordance with the 2015 rule applicable to the development of Federal minerals. The commenter asserts that complying with the Federal requirements and permitting timelines imposed by the 2015 final rule will substantially delay operations on any spacing units that contain Federal minerals and that this delay adversely affects the development of all minerals within the unit, including state and private oil and gas minerals.

As stated in the RIA for this rule, the BLM recognizes the potential that the 2015 final rule might pose unnecessary delays and implementation costs to the BLM and operators. We understand the commenter's concerns that many long directional wells are completed in many tracts, some Federal, and some not federal. The operators' burdens of complying with the 2015 rule could adversely affect the owners of the non-federal tracts. Those concerns support the BLM's decision to rescind the 2015 rule.

Some commenters state that the 2015 rule would have represented an expansion of the information that oil and gas developers are required to disclose publicly both before and after operations and that, much of this information, and particularly information regarding local geology and the operators' technical designs for extracting resources from that geology, is highly proprietary and represents economically valuable commercial information. The commenters argue that the 2015 rule failed to account both for the confidential nature of the information the rule required to be disclosed and the commercial consequences of that disclosure. The commenters state that, because the 2015 rule would have required public disclosure of highly confidential and commercially valuable information, it is contrary to Federal public records law and its rescission is appropriate. Another commenter argued that the same requirement of the 2015 rule failed to account for service companies owning the trade secrets.

As the commenter notes, by rescinding the 2015 rule, the BLM would no longer require that the operator submit information to the BLM and/or FracFocus after the hydraulic fracturing operation is complete. As

stated in the RIA, the removal of this requirement would alleviate some administrative burden. At least for Federal wells, operators are likely to report the chemicals used regardless of whether the BLM requires them to or not, since almost all states currently have chemical disclosure requirements.

One commenter estimates that the 2015 rule would have imposed a minimum per-well additional cost of $1,500 associated with assembling, analyzing and adding new information to APDs and final reports submitted to the BLM, not including the potential additional costs associated with legal review and requirements for the operator to verify and manage proprietary information that is claimed to be exempt from disclosure. The commenter estimates the following additional costs of the 2015 rule: Potential work stoppage during completions if there is a ''false positive'' 500 psi increase in annulus pressure (assumed $200,000 to $500,000 per day standby cost); managing ''recovered fluids'' or produced water by constructing and utilizing a central storage and treatment facility according to rule requirements (estimated 5-year net present cost of $2.3 million for a lined pit, vs. $23 million for using 500-barrel tanks to provide a storage capacity of 250,000 barrels); concern that a BLM field office could interpret the 2015 rule in a more stringent fashion than intended, which could lead to a slowdown, stoppage, or delay of work, or additional costs for specific requirements.

The BLM acknowledges that there are several potential compliance costs for the 2015 rule that it did not quantify in the economic analysis that was prepared for that rule. However, because this final rule rescinds the 2015 rule, it is not necessary to review whether the BLM's cost estimates for that rule were adequate, or to determine if the commenters' estimates are appropriate.

A commenter critiqued the effects of the 2015 rule on operators, concluding that the rule would have caused unintended burdens or delays.

Because we are rescinding the 2015 rule, there is no need to analyze the commenters' predictions.

One commenter asserts that small businesses will benefit from this final rule because elimination of the 2015 rule would eliminate any future possibility that they must pay the compliance costs associated with the rule.

We agree that small businesses would benefit to the degree that they are no longer subject to the compliance costs associated with the 2015 rule.

One commenter states that a comprehensive analysis of the costs the 2015 rule would have imposed demonstrates that costs savings resulting from the rule's rescission are likely to exceed $220 million per year due to increased administrative costs ($17.8M), delay costs ($6.7M), additional casing costs ($174M), additional mechanical integrity testing costs ($17M), and additional costs of recovered fuel storage ($4.9M).

The comment has been considered in developing the final regulatory impact analysis (RIA), but we find that the estimated cost savings discussed in the RIA are more supportable and are adequate for the decision to rescind the 2015 rule.

Regional and National Implications

One commenter states that the economic impact of rescinding the 2015 final rule on the outdoor industry and farming should be seriously considered when evaluating whether rescinding the 2015 rule is good for economic growth and job creation. The commenter asserts that hydraulic fracturing operations effectively destroy natural and rural areas integral to the outdoor industry. The commenter notes that, in 2011, the outdoor industry employed 6.1 million Americans and Americans spend approximately $646 billion annually on outdoor recreation.

There is little to no evidence that properly regulated hydraulic fracturing operations have a significantly greater effect on natural and rural areas integral to the outdoor industry compared to the conventional oil and gas drilling operations that have taken place on BLM lands for decades. In its decision to rescind the 2015 rule, the BLM examined existing state regulations—as well as existing Federal regulations contained in Onshore Orders 1, 2, and 7—and determined that they are sufficient to ensure that hydraulic fracturing operations on Federal lands remain properly regulated.

To the degree that lands open for oil and gas development could have an opportunity cost in that they could otherwise be used for recreational activities, the BLM has long implemented FLPMA's policy of multiple use that uses the NEPA environmental review process to determine how best to plan for the public's desires to put the lands to competing uses. The BLM's land use planning, however, is beyond the scope of this rulemaking.

Multiple commenters support the proposed rescission asserting that the 2015 rule imposes unnecessary costs, hinders energy production, and constrains economic growth. Commenters argue that the potential cost impacts of the 2015 rule on exploration and production activities on BLM managed lands would greatly exceed the estimates that the BLM provided in its original RIA. One commenter asserts that governments should take care to ensure that any regulations they issue to ensure safety and protect the environment recognize the economic importance of, and avoid unduly burdening the use of, hydraulic fracturing to develop America's energy resources.

In analyzing the 2015 rule, the BLM has reached the same conclusion regarding its unnecessary costs and impact on energy production and economic growth. As a result, the BLM has decided to rescind the 2015 rule.

One commenter stated that BLM's 2015 rule would exacerbate the decline in oil and natural gas production on Federal lands and that this would have a severe, negative effect on Wyoming's tax revenue and employment numbers, would increase the costs for energy to all consumers, and could increase this country's reliance on imports from less than friendly nations.

Regardless of whether the 2015 rule would have had a ''severe, negative effect'' on any state, or whether it would have caused an increase in reliance upon imported oil or gas, the BLM does believe that the costs of complying with the 2015 rule would be an unnecessary burden on industry. This Administration's policy is to increase revenues and to reduce reliance on imported oil through this and other actions to reduce unnecessary burdens on energy industries, including oil and gas on Federal and Indian lands. Thus, we are rescinding the 2015 rule.

Climate Change

Some commenters contend that the BLM cannot, in evaluating its oversight of hydraulic fracturing on the public lands, overlook the fact that extracting the new oil and gas resources made exploitable by modern hydraulic fracturing techniques is inconsistent with any reasonable likelihood of avoiding the most catastrophic effects of global climate change. Some commenters recommend that the United States shift toward alternative forms of energy.

Some commenters assert that the BLM must weigh the relative effects on oil and gas production, supply, markets, and ultimately emissions of its actions in regulating public lands hydraulic fracturing. The commenters assert that this must include an assessment of the net emissions consequences of all

reasonable alternatives—including implementation of the 2015 hydraulic fracturing rule, the BLM's proposed rescission of that rule, or an alternative rule banning public lands hydraulic fracturing.

Those commenters seek a reduction in leasing and production of oil and gas from Federal and Indian lands with the goal of reducing emissions of greenhouse gasses. Issues of land use planning, leasing of parcels, and levels of production from Federal and Indian lands are beyond the scope of this rulemaking. Hydraulic fracturing was a technology available to operators on Federal and Indian lands prior to the promulgation of the 2015 rule, it would have been available had the 2015 rule become effective, and it will be available after promulgation of this rescission rule. The BLM is committed to compliance with NEPA at each stage of its decision-making. NEPA does not require the BLM to consider banning hydraulic fracturing in its analysis of this rescission rule. As previously stated, the purpose and need for the rule is to reduce unnecessary burdens on oil and gas production from Federal and Indian lands. Furthermore, since emission levels from future hydraulic fracturing operations are necessarily speculative (because they depend upon geologic, technical, and economic variables, plus the potential substitution of sources for oil and gas), a comparison of ''net emissions consequences'' would not provide useful information to the decision-maker or the public.

The BLM has not made a change from the 2017 proposed rule to this final rule in response to those comments.

Recommendations

Multiple commenters suggest the BLM should conduct additional research regarding the impacts of hydraulic fracturing and of rescinding the 2015 rule, including the impacts of hydraulic fracturing on drinking water resources and human health. Some commenters assert that the BLM must thoroughly study the effects of repealing the rule, including consideration of new circumstances, studies, and information developed since the rule was adopted. The commenters assert that this should include, for example, consideration of recent information regarding connections between disposal of drilling-related waste and earthquakes, according to some commenters. Moreover, the commenters state that the BLM must consider the likelihood that the proposed deregulation will lead to a significant expansion in poorly controlled oil and gas drilling and hydraulic fracturing and the consequences for global climate change. Some commenters suggest that the BLM should consider and adopt a rule that protects public lands, public health, and the climate by banning hydraulic fracturing altogether on public lands.

In response to the previous comments, the BLM notes that, in December 2016, EPA completed its nationwide study of hydraulic fracturing. U.S. EPA, Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (Final Report), EPA/600/R–16/236F (available at *2016https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990*). The BLM has considered the findings in that report. That report demonstrated that, like most industrial processes, hydraulic fracturing has the potential to cause the release of pollutants into the environment, including groundwater resources. A logical conclusion is that hydraulic fracturing activities should be regulated to control those risks. It is not clear, however, that the 2015 rule was the best or only way to regulate hydraulic fracturing on Federal and Indian lands. Commenters have failed to provide facts demonstrating that the BLM needs to conduct another study a year after EPA's report. Risks of induced seismicity from hydraulic fracturing operations are beyond the scope of this rulemaking. The USGS studies both natural and induced seismicity. Several USGS publications are listed at *https://earthquake.usgs.gov/research/induced/references.php*. Those studies show that induced seismicity from hydraulic fracturing operations is uncommon, and seems to occur mostly in areas with small percentages of federally owned minerals. More common is seismicity induced by the injection of waste fluids for disposal. Those disposal wells, however, are regulated by states, tribes and the EPA under the Safe Drinking Water Act, and are beyond the scope of this rulemaking.

This final rule will not lead to poorly regulated drilling of oil and gas wells on Federal and Indian lands. Drilling operations will continue to be subject to the BLM's regulations, including Onshore Oil and Gas Order No. 2, (53 FR 46798, 1988), state regulations on Federal land, and tribal regulations on tribal lands. We do not believe that hydraulic fracturing operations will be poorly regulated under the present rule, with states and tribes taking the lead for regulating most hydraulic fracturing activities.

As previously explained, we do not believe it is in the national interest to ban hydraulic fracturing on Federal and Indian lands. Hydraulic fracturing activities can be conducted in ways that reduce risks to the environment while providing the benefits of domestically produced oil and gas, including jobs. Furthermore, a ban on hydraulic fracturing on Federal and Indian lands would most likely cause production to move to areas that are not subject to the BLM's regulations, and have no impact on emissions.

One commenter asserts that the 2015 rule provides for a ''type well'' to be used for an entire field to satisfy the pre-fracturing approval requirements. The commenter recommends that the 2015 rule should be rescinded in its entirety or expanded to allow a type well to cover an entire county or basin if the geology is substantially similar.

The commenter is mistaken. The 2015 rule does not mention a ''type well.'' The present rule rescinds the 2015 rule in its entirety.

The BLM has not made a change from the 2017 proposed rule to this final rule based on these commenters' recommendations.

Discussion of the Final Rule

As previously discussed in this preamble, the BLM is revising 43 CFR part 3160 to rescind the 2015 rule. The regulatory amendments in this final rule are identical to those in the proposed rule, except that the phrase ''perform nonroutine fracturing jobs'' has been removed from the regulations at 43 CFR 3162.3–2(a). This final rule restores the regulations in part 3160 of the CFR to exactly as they were before the 2015 rule, except for changes to those regulations that were made by other rules published between March 26, 2015 (the date of publication of the 2015 final rule) and now, and the phrase ''perform nonroutine fracturing jobs,'' which is not restored to the list of subsequent operations requiring prior approval in section 3162.3–2(a). None of the amendments to part 3160 by other rules are relevant to this rulemaking. See, *e.g.,* 82 FR 83008 (2016). The following section-by-section analysis discusses returning to the pre-2015 rule regulations.

Section 3160.0–3 Authority

The BLM amends § 3160.0–3 by removing the reference to the Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. 1701). The 2015 rule added this reference as an administrative matter. This final rule returns this section to the language it contained before the 2015 rule and does not have any substantive impact.

Section 3160.0–5 Definitions

The BLM amends this section by removing several terms that were added by the 2015 rule and by restoring the definition of ''fresh water'' that the 2015 rule removed. This final rule removes the definitions of ''annulus,'' ''bradenhead,'' ''Cement Evaluation Log (CEL),'' ''confining zone,'' ''hydraulic fracturing,'' ''hydraulic fracturing fluid,'' ''isolating or to isolate,'' ''master hydraulic fracturing plan,'' ''proppant,'' and ''usable water.'' The 2015 rule used those terms in the operating regulations. Since those operating regulations are rescinded, these terms are no longer necessary in this definitions section. This final rule restores the previous definition of ''fresh water'' to the regulations.

Section 3162.3–2 Subsequent Well Operations

This final rule amends § 3162.3–2 by making non-substantive changes to paragraph (a), which include replacing the word ''must'' with the word ''shall,'' replacing the word ''combine'' with the word ''commingling,'' replacing the word ''convert'' with the word ''conversion,'' and removing the language from the first sentence of paragraph (a) that the 2015 rule only added to more fully describe Form 3160–5.

In response to comments received, § 3162.3–2(a) of this final rule does not include the requirement to obtain prior approval to ''perform nonroutine fracturing jobs.'' As previously discussed in this preamble, as a result of considerable advances in oil and gas development technology in the last 20 years, hydraulic fracturing practices that would have been considered ''nonroutine'' when the BLM originally issued the regulations requiring prior approval for ''nonroutine fracturing jobs'' are now commonly employed and considered ''routine.'' See the ''Rule Authorities'' discussion of comments for more information about this revision.

The final rule makes non-substantive changes to paragraph (b) of § 3162.3–2, which include replacing ''using a Sundry Notice and Report on Well (Form 3160–5)'' with ''on Form 3160–5.''

The final rule restores ''routine fracturing or'' to paragraph (b) of § 3162.3–2. The 2015 rule removed those words from the list because it amended § 3162.3–3 to include a detailed listing of requirements for hydraulic fracturing operations to be approved by the authorized officer. This final rule removes that requirement from § 3163.3–3, which is discussed below.

Section 3162.3–3 Other Lease Operations

The BLM revises this section by removing language that was added by the 2015 rule and returning this rule to the exact language it contained previously. The 2015 rule made substantial changes to this section and revised the title to read as ''Subsequent well operations; Hydraulic fracturing.''

Paragraph (a) of this section in the 2015 rule, as reflected in the 2015 edition of the CFR, includes an implementation schedule that the BLM would have followed to phase in the requirements of the rule, had the rule gone into effect. Paragraph (b) of this section contains the performance standard referencing § 3162.5–2(d). Paragraph (c) of this section would have required prior approval of hydraulic fracturing operations. Paragraph (d) of this section lists the information that an operator would have been required to include in a request for approval of hydraulic fracturing. Paragraph (e) of this section specifies how an operator would have had to monitor and verify cementing operations prior to hydraulic fracturing. Paragraph (f) of this section would have required mechanical integrity testing of the wellbore prior to hydraulic fracturing. Paragraph (g) of this section would have required monitoring and recording of annulus pressure during hydraulic fracturing. Paragraph (h) of this section specifies the requirements that would have applied for managing recovered fluids until approval of a permanent water disposal plan. Paragraph (i) of this section specifies information that an operator would have been required to provide to the authorized officer after completion of hydraulic fracturing operations. Paragraph (j) of this section specifies how an operator could have withheld information from the BLM and the public about the chemicals used in a hydraulic fracturing operation. Paragraph (k) of this section describes how the BLM would have approved variances from the requirements of the 2015 final rule.

For the reasons discussed earlier in this preamble, the BLM believes this section of the 2015 rule is unnecessarily duplicative and would impose costs that would not be clearly exceeded by its benefits and, therefore, removes these 2015 rule provisions and restores the previous language of the section.

Section 3162.5–2 Control of Wells

The BLM amends paragraph (d) of this section by restoring the term ''fresh water-bearing'' and the phrase ''containing 5,000 ppm or less of dissolved solids.'' The final rule also restores other non-substantive provisions that appeared in the previous version of the regulations.

Good Cause for Immediate Effectiveness

The APA normally requires regulations to become effective no sooner than 30 days after publication in the **Federal Register** (5 U.S.C. 553(d)). Nonetheless, the APA allows regulations to go into effect immediately upon publication when ''a substantive rule grants or recognizes an exemption or relieves a restriction'' (5 U.S.C. 553(d)(1)). As explained in this preamble, this final rule relieves oil and gas operators on Federal and Indian lands from the numerous restrictions and burdens that would be imposed if the 2015 rule were to go into effect.

The primary purpose of the delayed effective date requirement in section 553(d) is to give people a reasonable time to prepare to comply with or take other action with respect to the rule (See Attorney General's Manual on the Administrative Procedure Act 37 (1947)). As explained elsewhere in this preamble, the 2015 rule has never been operational. Therefore, no one requires time to conform their conduct to avoid the legal consequences of ''violating'' the regulations that would remain in effect after rescission of the 2015 rule. Even if persons not subject to the 2015 rule could claim a benefit from a 30-day effective date, that would not prevent this final rule from becoming effective immediately upon publication (*Independent U.S. Tanker Owners Comm.* v. *Skinner,* 884 F.2d 587, 591–92 (D.C. Cir. 1989), *cert. denied,* 495 U.S. 904 (1990)).

The APA also allows regulations to go into effect immediately upon publication for ''good cause'' (5 U.S.C. 553(d)(3)). Application of the good cause exception requires an '' 'urgency of conditions coupled with demonstrated and unavoidable limitations of time,' '' with the ''primary consideration . . . be[ing] the 'convenience or necessity of the people affected' '' (*United States* v. *Gavrilovic,* 551 F.2d 1099, 1104 (8th Cir. 1977) (quoting 92 Cong. Rec. 5650–51 (1946) (remarks of Cong. Walter))). In determining whether to invoke the good cause exception, an ''agency is required to balance the [public] necessity for immediate implementation against principles of fundamental fairness which require that all affected persons be afforded a reasonable time to prepare for the effective date of its ruling'' (*Gavrilovic,* 551 F.2d at 1105).

The current posture of the litigation related to the 2015 rule makes it possible that the 2015 rule could become operational within 30 days of the publication of this final rule. Were that to happen, oil and gas operators—the persons most affected by this final rule—would have to go to significant expense to comply with the 2015 rule, even though that rule would be rescinded in a matter of days upon the effective date of this final rule. Those significant burdens would not be offset by the de minimus environmental benefits of a few days of compliance with the 2015 rule. Requiring oil and gas operators to incur such significant expense to comply with a rule that will be rescinded in a matter of days would be fundamentally unfair. Thus, there are urgent conditions, unavoidable limitations of time, and a risk to the convenience or necessity of the people affected.

For both of these reasons, the BLM finds that there is good cause for this final rule to be effective upon publication in the **Federal Register**.

III. Procedural Matters

Regulatory Planning and Review (Executive Orders 12866, 13563, and 13771)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the Office of Management and Budget will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is significant because it will raise novel legal or policy issues.

Executive Order 13563 reaffirms the principles of Executive Order 12866 while calling for improvements in the Nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The Executive Order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Executive Order 13771 (82 FR 9339, Feb. 3, 2017) requires Federal agencies to take proactive measures to reduce the costs associated with complying with Federal regulations. Consistent with Executive Order 13771, we have estimated the cost savings for this final rule to be $14—$34 million per year from the 2015 rule. Therefore, this final rule is expected to be a deregulatory action under Executive Order 13771.

Regulatory Flexibility Act

The BLM certifies that this rule will not have a significant economic effect on a substantial number of small entities pursuant to 5 U.S.C. 605(b). The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) (RFA) generally requires that Federal agencies prepare a regulatory flexibility analysis for rules subject to the notice and comment rulemaking requirements under the Administrative Procedure Act (5 U.S.C. 500 *et seq.*), if the rule would have a significant economic impact, either detrimental or beneficial, on a substantial number of small entities (*See* 5 U.S.C. 601—612). Congress enacted the RFA to ensure that government regulations do not unnecessarily or disproportionately burden small entities. Small entities include small businesses, small governmental jurisdictions, and small not-for-profit enterprises.

The BLM reviewed the Small Business Administration (SBA) size standards for small businesses and the number of entities fitting those size standards as reported by the U.S. Census Bureau in the Economic Census. The BLM concluded that the vast majority of entities operating in the relevant sectors are small businesses as defined by the SBA. As such, the final rule will likely affect a substantial number of small entities.

Although the final rule will likely affect a substantial number of small entities, the BLM does not believe that these effects would be economically significant. This final rule is a deregulatory action that will remove all of the requirements placed on operators by the 2015 rule. Operators will not have to undertake the compliance activities, either operational or administrative, that are outlined in the 2015 rule, except to the extent the activities are required by state or tribal law, or by other pre-existing BLM regulations.

The BLM conducted an economic analysis which estimates that the average reduction in compliance costs will be a small fraction of a percent of the profit margin for small companies, which is not a large enough impact to be considered significant. For more detailed information, see section 5.3 of the RIA prepared for this final rule. The final RIA has been posted in the docket for the final rule on the *Federal eRulemaking Portal: http://www.regulations.gov.*

Small Business Regulatory Enforcement Fairness Act (SBREFA)

This rule is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. This rule will not cause a major increase in costs or prices for consumers, individual industries, Federal, state, or local government agencies, or geographic regions. The rule will not have an annual effect on the economy of $100 million or more.

This rule will not cause a major increase in costs or prices for consumers, individual industries, Federal, state, or local government agencies, or geographic regions.

This rule will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises.

This final rule is a deregulatory action that removes all of the requirements placed on operators by the 2015 rule. Operators will not have to undertake the compliance activities, either operational or administrative, that would have been required solely by the 2015 rule. The screening analysis conducted by the BLM estimates the average reduction in compliance costs will be a small fraction of a percent of the profit margin for companies, which is not large enough to: Have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises; cause a major increase in costs or prices for consumers, individual industries, Federal, state, or local government agencies, or geographic regions; or have an annual effect on the economy of $100 million or more.

Unfunded Mandates Reform Act

This rule does not impose an unfunded mandate on state, local, or tribal governments, or the private sector of more than $100 million per year. The rule does not have a significant or unique effect on State, local, or tribal governments or the private sector. A statement containing the information required by the Unfunded Mandates Reform Act (2 U.S.C. 1531 *et seq.*) (UMRA) is not required. This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments, because it contains no requirements that apply to such

governments, nor does it impose obligations upon them.

Takings (EO 12630)

This rule does not affect a taking of private property or otherwise have taking implications under Executive Order 12630. A takings implication assessment is not required. This rule is a deregulatory action that removes all of the requirements placed on operators solely by the 2015 rule and therefore will impact some operational and administrative requirements on Federal and Indian lands. All such operations are subject to lease terms which expressly require that subsequent lease activities be conducted in compliance with subsequently adopted Federal laws and regulations. This rule conforms to the terms of those leases and applicable statutes and, as such, the rule is not a government action capable of interfering with constitutionally protected property rights. Therefore, the BLM has determined that the final rule will not cause a taking of private property or require further discussion of takings implications under Executive Order 12630.

Federalism (E.O. 13132)

Under the criteria in section 1 of Executive Order 13132, this rule does not have sufficient federalism implications to warrant the preparation of a federalism summary impact statement. A federalism summary impact statement is not required. The final rule will not have a substantial direct effect on the states, on the relationship between the Federal Government and the states, or on the distribution of power and responsibilities among the levels of government. It will not apply to states or local governments or state or local governmental entities. The rule will affect the relationship between operators, lessees, and the BLM, but it does not directly impact the states. Therefore, in accordance with Executive Order 13132, the BLM has determined that this final rule does not have sufficient federalism implications to warrant preparation of a federalism assessment.

Civil Justice Reform (E.O. 12988)

This rule complies with the requirements of Executive Order 12988. More specifically, this rule meets the criteria of section 3(a), which requires agencies to review all regulations to eliminate errors and ambiguity and to write all regulations to minimize litigation. This rule also meets the criteria of section 3(b)(2), which requires agencies to write all regulations in clear language with clear legal standards.

Consultation With Indian tribes (E.O. 13175 and Departmental Policy)

The Department strives to strengthen its government-to-government relationship with Indian tribes through a commitment to consultation with Indian tribes and recognition of their right to self-governance and tribal sovereignty. The BLM has evaluated this final rule in accordance with the Department's consultation policies and under the criteria in Executive Order 13175. The BLM authorizes oil and gas operations that are proposed on Indian onshore oil and gas leases. Therefore, the rule has the potential to affect Indian tribes and tribal lands.

Potentially affected tribes were provided an opportunity to provide feedback and consult with the BLM regarding this rule. The BLM has fully considered tribal views made known to us in preparing this final rule.

Paperwork Reduction Act (44 U.S.C. 3501 et seq.)

The Paperwork Reduction Act (PRA) (44 U.S.C. 3501–3521) provides that an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information, unless it displays a currently valid control number issued by the Office of Management and Budget (OMB). Collections of information include requests and requirements that an individual, partnership, or corporation obtain information, and report it to a Federal agency. See 44 U.S.C. 3502(3); 5 CFR 1320.3(c) and (k).

This rule rescinds information collection activities that would have required approval by the OMB under the PRA had the 2015 rule become effective. OMB pre-approved those activities and assigned control number 1004–0203 to them, but the control number was not activated. In view of the rescission, there will be no need to continue the information collection activities that the OMB has pre-approved under control number 1004–0203. Accordingly, the BLM will request that the OMB discontinue that control number after the effective date of this final rule.

In accordance with this final rule, the BLM will include in its request for renewal of control number 1004–0137 (expires January 31, 2018) that nonroutine fracturing jobs be removed from the information collection activity for subsequent well operations, at 43 CFR 3162.3–2.

National Environmental Policy Act

The BLM prepared an environmental assessment (EA) to document its examination of the potential environmental impacts that may occur as a result of this final rule. The BLM has determined that this rule does not constitute a major Federal action significantly affecting the quality of the human environment. A detailed statement under the National Environmental Policy Act of 1969 is not required because we reached a Finding of No Significant Impact (FONSI) for this final rule.

The final EA and FONSI that were prepared for this final rule have been placed in the file for the BLM's Administrative Record for the final rule at the BLM's 20 M Street address specified in the **ADDRESSES** section. The final EA and FONSI have also been posted in the docket for the final rule on the *Federal eRulemaking Portal: http://www.regulations.gov.* The BLM invites the public to review these documents.

Effects on the Energy Supply (E.O. 13211)

This final rule is not a significant energy action under the definition in Executive Order 13211. A statement of Energy Effects is not required. Section 4(b) of Executive Order 13211 defines a ''significant energy action'' as ''any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of rulemaking, and notices of rulemaking: (1)(i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of [OIRA] as a significant energy action.''

Since this final rule is a deregulatory action and would reduce compliance costs, it is likely to have a positive effect, if any, on the supply, distribution, or use of energy, and not a significant adverse effect. As such, we do not consider the final rule to be a ''significant energy action'' as defined in Executive Order 13211.

Authors

The principal author(s) of this rule are Justin Abernathy, Senior Policy Analyst, BLM, Washington Office; Michael Ford, Economist, BLM, Washington Office; James Tichenor, Economist, BLM, Washington Office; Ross Klein, (Acting) Natural Resource Specialist, BLM, Washington Office; Subijoy Dutta, Lead

Petroleum Engineer, BLM, Washington Office; Jeffrey Prude, Petroleum Engineer/Oil and Gas Program Lead, BLM, Bakersfield Field Office; and James Annable, Petroleum Engineer, BLM, Royal Gorge Field Office; assisted by Charles Yudson of the BLM's Division of Regulatory Affairs and by Richard McNeer and Ryan Sklar of the Department of the Interior's Office of the Solicitor.

Dated: December 22, 2017.

Joseph Balash,

Assistant Secretary—Land and Minerals Management, U.S. Department of the Interior.

List of Subjects in 43 CFR Part 3160

Administrative practice and procedure, Government contracts, Indians-lands, Mineral royalties, Oil and gas exploration, Penalties, Public lands-mineral resources, Reporting and recordkeeping requirements.

For the reasons stated in the preamble, and under the authorities stated below, the Bureau of Land Management amends 43 CFR part 3160 as follows:

PART 3160—ONSHORE OIL AND GAS OPERATIONS

■ 1. The authority citation for part 3160 continues to read as follows:

Authority: 25 U.S.C. 396d and 2107; 30 U.S.C. 189, 306, 359, and 1751; 43 U.S.C. 1732(b), 1733, and 1740; and Sec. 107, Pub. L. 114–74, 129 Stat. 599, unless otherwise noted.

Subpart 3160—Onshore Oil and Gas Operations: General

■ 2. Revise § 3160.0–3 to read as follows:

§ 3160.0–3 Authority.

The Mineral Leasing Act, as amended and supplemented (30 U.S.C. 181 *et seq.*), the Act of May 21, 1930 (30 U.S.C. 301–306), the Mineral Leasing Act for Acquired Lands, as amended (30 U.S.C. 351–359), the Act of March 3, 1909, as amended (25 U.S.C 396), the Act of May 11, 1938, as amended (25 U.S.C. 396a-396q), the Act of February 28, 1891, as amended (25 U.S.C. 397), the Act of May 29, 1924 (25 U.S.C. 398), the Act of March 3, 1927 (25 U.S.C. 398a-398e), the Act of June 30, 1919, as amended (25 U.S.C. 399), R.S. § 441 (43 U.S.C. 1457), the Attorney General's Opinion of April 2, 1941 (40 Op. Atty. Gen. 41), the Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C 471 *et seq.*), the National Environmental Policy Act of 1969, as amended (40 U.S.C. 4321 *et seq.*), the Act of December 12, 1980 (94 Stat. 2964), the Combined Hydrocarbon Leasing Act of 1981 (95 Stat. 1070), the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1701), the Indian Mineral Development Act of 1982 (25 U.S.C. 2102), and Order Number 3087, dated December 3, 1982, as amended on February 7, 1983 (48 FR 8983) under which the Secretary consolidated and transferred the onshore minerals management functions of the Department, except mineral revenue functions and the responsibility for leasing of restricted Indian lands, to the Bureau of Land Management.

■ 3. Amend § 3160.0–5 by removing the definitions of ''Annulus,'' ''Bradenhead,'' ''Cement Evaluation Log (CEL),'' ''Confining zone,'' ''Hydraulic fracturing,'' ''Hydraulic fracturing fluid,'' ''Isolating or to isolate,'' ''Master hydraulic fracturing plan,'' ''Proppant,'' and ''Usable water,'' and by adding the definition of ''Fresh water'' in alphabetical order to read as follows:

§ 3160.0–5 Definitions.

* * * * *

Fresh water means water containing not more than 1,000 ppm of total dissolved solids, provided that such water does not contain objectionable levels of any constituent that is toxic to animal, plant or aquatic life, unless otherwise specified in applicable notices or orders.

* * * * *

Subpart 3162—Requirements for Operating Rights Owners and Operators

■ 4. Amend § 3162.3–2 by revising the first sentence of paragraph (a) and revising paragraph (b) to read as follows:

§ 3162.3–2 Subsequent well operations.

(a) A proposal for further well operations shall be submitted by the operator on Form 3160–5 for approval by the authorized officer prior to commencing operations to redrill, deepen, perform casing repairs, plug-back, alter casing, recomplete in a different interval, perform water shut off, commingling production between intervals and/or conversion to injection. * * *

(b) Unless additional surface disturbance is involved and if the operations conform to the standard of prudent operating practice, prior approval is not required for routine fracturing or acidizing jobs, or recompletion in the same interval; however, a subsequent report on these operations must be filed on Form 3160–5.

* * * * *

■ 5. Revise § 3162.3–3 to read as follows:

§ 3162.3–3 Other lease operations.

Prior to commencing any operation on the leasehold which will result in additional surface disturbance, other than those authorized under § 3162.3–1 or § 3162.3–2, the operator shall submit a proposal on Form 3160–5 to the authorized officer for approval. The proposal shall include a surface use plan of operations.

■ 6. Amend § 3162.5–2 by revising the heading and first sentence of paragraph (d) to read as follows:

§ 3162.5 -2 Control of wells.

* * * * *

(d) *Protection of fresh water and other minerals.* The operator shall 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. * * *

[FR Doc. 2017–28211 Filed 12–28–17; 8:45 am]

BILLING CODE 4310–84–P