

D I A L O G U E

# BLM's Federal Lands Fracking Rule: Merits and Ramifications

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*Summary*

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On March 20, 2015, the Bureau of Land Management (BLM) issued a final rule regulating hydraulic fracturing on federal and Indian lands. The new regulations will require public disclosure of chemicals used in fracking fluids, higher standards for storing water produced by wells, and the provision of more geologic information in an effort to decrease the risk of cross-well contamination. Though the rule will only impact about 100,000 wells, or 10% of fracking operations in the United States, critics from across the political spectrum have challenged it in the press and in the courts. Industry groups filed suit arguing it is duplicative of state and tribal regulations and not based on scientific evidence. Wyoming and North Dakota went to court claiming, among other things, that BLM's rule conflicts with the Safe Drinking Water Act. Indian tribes have also spoken out, suggesting that the rule improperly affiliates Indian lands with federal land. On the other hand, environmental organizations have decried the rule as insufficient to prevent the risks associated with fracking and overly accommodating to industry. On May 28, 2015, the Environmental Law Institute held a seminar on the rule, which has since been stayed by the U.S. District Court of Wyoming. Below we present a transcript of the discussion, which has been edited for style, clarity, and space considerations.

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**Paul Smyth** (moderator) is a Senior Counsel at Perkins Coie, formerly with the U.S. Department of the Interior, Office of the Solicitor.

**Richard McNeer** is an attorney with the U.S. Department of the Interior, Office of the Solicitor, Division of Mineral Resources.

**Poe Leggette** is a Partner at Baker & Hostetler.

**Amy Mall** is a Senior Policy Analyst at the Natural Resources Defense Council.

**Hillary Hoffmann** is a Professor of Law at Vermont Law School's Environmental Center.

**Paul Smyth:** Today's Dialogue topic is the Bureau of Land Management (BLM) final rule providing some regulation of hydraulic fracturing, commonly known as fracking, on federal and Indian lands. The rules were issued by the U.S. Department of the Interior (DOI) on March 20, 2015, and published in the *Federal Register* on March 26. They set standards for fracking in oil and gas wells drilled on federal lands.<sup>1</sup> The rules require companies to disclose the specifics of chemicals used in the fracking process on FracFocus, a national hydraulic fracturing chemical registry, within 30 days of completing fracking operations.<sup>2</sup> In addition, the rules require operators on federal lands to inspect concrete barriers, the lining of fracking wells, and to provide detailed information regarding well geology to BLM.

We have an outstanding panel today. The first of our four speakers will be Richard McNeer, an attorney in the Solicitor's Office at DOI. Richard is in the Division of Mineral Resources, and has been with the Solicitor's Office since 1988. For the past five years, he's focused on onshore oil and gas and related resource issues for BLM.

Our second speaker, Poe Leggette, is a Partner in the Denver offices of Baker & Hostetler. His practice focuses on litigation and transactional work in the energy industry. His experience includes onshore shale plays, oil and gas companies operating on federal and Indian lands, and companies operating under federal leases in the Gulf of Mexico. He's also the co-leader of his firm's National Energy and Shale Practice Team. Before entering private practice, Poe was at DOI as Assistant Solicitor in the Energy and Resources Division, where he advised BLM and the then Minerals Management Service (MMS) on their onshore and offshore energy program, as well as MMS' Royalty Management Program.

Amy Mall, our third speaker, is a Senior Policy Analyst at the Natural Resources Defense Council. She focuses on protecting the environment and sensitive lands, and protecting communities from harmful oil and gas exploration and production operations. Before joining the Council, she worked in the private sector and in county, state, and federal government, including the White House National Economic Council and the U.S. Senate.

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1. Oil and Gas Hydraulic Fracturing on Federal and Indian Lands, 80 Fed. Reg. 16128 (Mar. 26, 2015).

2. For more information, visit the FracFocus Chemical Disclosure Registry, <http://fracfocus.org>.

Hillary Hoffmann, our fourth speaker, is a Professor of Law at Vermont Law School's Environmental Center, where she teaches natural resources, administrative, and Native American law. Professor Hoffmann's scholarship addresses the administration and management of federal public lands and tribal lands, including statutes and regulatory regimes covering livestock-raising, private access and private rights on federal lands, and cultural resources protection. Recently, she's focused her efforts on climate change as a regulatory driver, both in the public domain and in Indian country.

**Richard McNeer:** As a government attorney, I have to start with a disclaimer. The views I express are mine only and not necessarily the position of the United States or DOI; citing to my remarks will get you absolutely nowhere. Also, as a government attorney, I am most concerned with process, so that's where I'm going to start.

DOI started moving toward amending its rule governing—they really didn't govern anything prior to this—hydraulic fracturing on federal and Indian lands in late 2010 and 2011. It held a series of public forums to gather industry, citizen, and other stakeholder groups to discuss their concerns and viewpoints. A review and drafting process followed, and resulted in the initial draft Well Stimulation Rule published in the *Federal Register* in May 2012.

The three goals of that rule were: (1) to ensure wellbore integrity—in other words, we don't want fluids of any kind leaking out through or around the wellbore; (2) to improve public access to information about the chemicals used in fracking; and (3) to ensure proper management of the flowback to the surface. (I'm going to assume that this is a pretty sophisticated audience and you have general idea of what fracking is and does, so I'm not going to go into that.) After DOI received about 177,000 public comments, it was evident that the rule needed changes that would go beyond the standard of a "logical outgrowth" of the initial proposed rule. So, we went back to the drawing board, and in May 2013, published a supplemental proposed hydraulic fracturing rule. The goal was to have a more effective but less costly rule that would accomplish the same three objectives.

BLM received about 1.35 million public comments, which we believe to be a record for BLM. Most of those were campaign comments, but almost 2,000 were unique comments. And many of those contained very detailed and thoughtful technical and policy analysis of almost every paragraph in the supplemental proposed rule. Let me say that BLM appreciates the time and effort that those commenters devoted to participating in the rulemaking. It really improved the final product. It took time to analyze that many comments and think very carefully about what we are doing.

DOI published the final hydraulic fracturing rule in the *Federal Register* on March 26, 2015, and promptly followed up with a notice correcting two errors.<sup>3</sup> If you're reading

the published final rule and you get to Subsection (a) of the main part of the rule and it doesn't seem to make any sense—you're right, it doesn't make any sense. The *Federal Register* does a tremendous job, but they had to make some corrections. So, look up the later notice and take your pen and mark out the areas and put in the correct dates.

The hydraulic fracturing rule creates new procedural requirements and substantive standards for oil and gas operators on federal and Indian lands. It's intended to set a commonsense baseline of regulation for all federal and Indian lands that meets the same three goals of the 2012 draft Well Stimulation Rule: wellbore integrity; transparency about chemicals; and proper management of recovered fluids.

Now, here's the litigation status as of today [May 28, 2015]: Setting an admirable new standard for promptness, the Independent Petroleum Association of America and the Western Energy Alliance filed petitions for judicial review of the final rule on March 20, 2015, in the U.S. District Court for the District of Wyoming. That was the date the rule was announced and available to the public, but six days before publication of the rule in the *Federal Register*. Those industry petitioners were already represented by our panelist Poe Leggette and his firm. Not long thereafter, the state of Wyoming filed a separate petition for review in the same court. The state of North Dakota intervened as a petitioner, and the state of Colorado is joined as a petitioner. Also I understand that the state of Utah has joined or intervened, but I haven't received a copy yet. I also understand that the parties agreed to consolidate the cases, but I haven't received a copy of that order. Industry petitioners filed a motion for a preliminary injunction. The response of the United States is due June 1. I'm not commenting on any of the merits of the claims or defenses. Those matters will be addressed by the U.S. Department of Justice in the Wyoming federal district court.<sup>4</sup>

Let me move on to what I consider to be some of the highlights of the final rule. One, operators must obtain BLM's approval before conducting hydraulic fractur-

4. *State of Wyoming v. Jewell*, No. 2-15-CV-043-SWS (D. Wyo. June 24, 2015). On June 24, 2015, the court postponed the effective date of the regulation until resolution of the pending motions for preliminary injunction. The administrative record was filed on August 28, 2015. The parties had until September 18, 2015, to add citations to the record to their existing briefs. Petitioners will likely file a motion for supplementation of the record. The court estimated that it will need two weeks to issue its decision on the motions. The petitioners are the Independent Petroleum Association of America, Western Energy Alliance, the states of Colorado, North Dakota, Utah, and Wyoming, and the Ute Tribe of the Uintah and Ouray Reservation. Intervenor-Respondents are the Sierra Club, Earthworks, the Wilderness Society, Western Resource Advocates, Conservation Colorado Education Fund, and the Southern Utah Wilderness Alliance. All petitioners filed or joined in motions for preliminary injunction.

A separate challenge to the regulation is pending in *Southern Ute Indian Tribe v. Dept. of Interior*, No. 15-cv-01303-MSK (D. Colo. June 22, 2015) (filed after this seminar). That court denied the plaintiff tribe's motion for a temporary restraining order. After a nonevidentiary hearing on June 23, 2015, the court set a briefing schedule on the declaratory judgment claim consolidated with the motion for preliminary injunction. The administrative record was due August 28, 2015. The tribe has filed its preliminary injunction brief. BLM's brief in opposition to the preliminary injunction and on the merits was due September 18, 2015.

3. See 80 Fed. Reg. 16577 (Mar. 30, 2015).

ing operations, and then follow up those with operation reports. Two, operators must verify that the well casing is surrounded by good cement by running any of the suite of tools that we collectively call cement evaluation logs (CELs), except for surface casings for which the cement has to be run to the surface and any other casings that are cemented all the way to the surface, as long as there's no excessive fallback or abnormal pump gauge readings. We want to make sure that the cement is good around the casings; that there aren't any significant voids or weak spots that could cause a leak or channeling around the casing.

Operators must pressure-test the casings prior to hydraulic fracturing operations. We call that a mechanical integrity test (MIT). Operators must report the chemicals actually used in each hydraulic fracturing operation, with a preference for reporting through FracFocus. That's a publicly accessible database set up and operated by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission, which are organizations of state regulators. Operators may withhold trade-secret information. All they have to do is submit an affidavit, probably attaching an affidavit by the owner of the trade secrets, who may be a service provider or chemical supply company, and then maintain access to that information in case BLM demands it for any reason.

The final rule elaborates on the existing requirement that operators isolate and protect usable water: (1) by amending the definition of "usable water" to expressly defer the classifications of groundwater by states and tribes to the U.S. Environmental Protection Agency (EPA); and (2) by specifying that isolation and protection will be deemed to have been achieved when the operator demonstrates at least 200 feet of good cement between the fractured formation and the bottom of the aquifer. Any aquifers higher than 200 feet of good cement will be deemed protected.

Also, operators must generally store recovered fluids in above-ground rigid tanks of no more than 500-barrel capacity each. Why? Because it's easier to detect, contain, isolate, and remediate a leak from an above-ground tank than from a pit, and because larger semi-rigid tanks that are constructed onsite (somewhat like glorified above-ground swimming pools) have catastrophically failed when used for storage of groundwater at oil and gas operations in, I believe, Colorado. But this requirement to use tanks only applies to the fluids recovered before the operator implements an approved permanent disposal plan. There is an incentive for operators, if they think the permanent disposal plans are going to be cheaper, to go ahead and get that approved ahead of time.

The final rule allows for two types of variances: (1) individual or operation-specific; and (2) state or tribal. That means BLM can adjust specific requirements in the final rule to meet local conditions or an operator's new technologies or to align with the requirements of state or tribal regulations, so long as the variances will meet or exceed the purposes of the specific provision of the final rule. The state regulators and the BLM regulators are going to like this. If

we can align them like that, there's going to be a net benefit for everyone.<sup>5</sup>

The final rule becomes effective 90 days after publication (the usual minimum is 60 days) and includes a transitional period or phase-in of the rule's requirements. We established the phase-in dates based on general observations from the field and our discussions with operators. Operators, at least at the time we were writing the rule, usually sign contracts with hydraulic fracturing service providers about six months prior to the planned date of hydraulic fracturing. So, the transition is intended to avoid shutting down the industry on federal or Indian lands while contracts are being adjusted or renegotiated to comply with the rule. The details matter, so please refer to the rule text and preamble for more information.

As for implementation, BLM is busy training field office professionals to implement the rule. It's preparing instructional materials for its personnel. It is conducting outreach to the industry. It's also meeting with several state agencies to coordinate implementation and to explore opportunities for variances that could simplify compliance responsibilities for operators without compromising the effectiveness of the rule.

Because of time constraints, I've glossed over or left unaddressed many of the issues that BLM confronted in promulgating this rule and that may be relevant to practitioners. Such issues might include Indian concerns, social-economic impacts, state programs, and the evolution of FracFocus. Those are also a few of the topics that are beyond my expertise, but I'll try to answer questions when we reach that phase of the discussion.

**Poe Leggette:** Having been a government lawyer, I appreciate Richard McNeer's introductory disclaimer. I also recognize that, because of his extensive work with BLM on this regulation, I did not detect a single difference between his personal views and those of the department. I'm going to talk briefly about a few of the requirements and make an occasional comment on anything that touches on the pending motion for a preliminary injunction.

The rule applies to the areas you see on the map on this slide, essentially anywhere that there are public lands, a term that includes both full federal ownership and split state lands where the federal government owns the minerals of the state. It also applies to Indian lands, with the customary exclusions for the Osage Nation and others in Oklahoma.

Basically, with the one exception that Richard set forth, the rule applies to all future hydraulic fracturing operations. And it does so regardless of when the well was originally drilled or cased. That will have some significant bearing on proof of well integrity and the like for wells that already have been drilled or wells that have already been drilled and hydraulically fractured when the company decides it's time to refracture the well.

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5. Here, Mr. McNeer used a visual demonstration.

From the perspective of the regulated community, probably the single most significant change is that there is now a new permit required for hydraulic fracturing. One of the regulated community's significant concerns is that any time there is a new permit requirement, there may be new National Environmental Policy Act (NEPA)<sup>6</sup> issues. BLM has done some things in an attempt to ameliorate this. They give companies a range of options, including preparation of a so-called master hydraulic fracturing plan, to try to reduce some of the paperwork. This slide [figure below] explains how the option of retaining authorization is set out in the BLM rule.

### "Significant New Information"

New information "about the geology of the area, the stimulation operation or technology to be used, or the anticipated impacts of the hydraulic fracturing operation to any resource."<sup>1</sup>

43 C.F.R. §3162.3-3(c)(4)

<sup>1</sup> No express requirement to receive a second approval when a subsequent notice of intent is submitted.

Includes, but not limited to, information that:

1. changes the proposed drilling or completion of the well;
2. changes the hydraulic fracturing operation;
3. indicates increased risk of contamination of zones containing usable water or other minerals

The problem is that there is a requirement that one who spends a career in environmental law would expect. You always have to deal with so-called significant new information. This will be a greater problem than perhaps BLM realized, because there are many factors that can cause an operator to modify a plan to hydraulically fracture a well. Some of that information may come from drilling nearby wells, some of it may come from proof of a new technological development that facilitates fracturing, and some of it will come from the drilling of the well itself. So, if you try to use your Application for Permit to Drill as your vehicle for getting hydraulic fracturing approval, you will often have to confront the issue of significant new information when you finally get around to fracturing the well after the wellbore has been drilled.

As Richard mentioned, there are new information requirements that have to be submitted to BLM. The basic idea is to identify zones that will confine the propagation of hydraulic fractures upward or downward, as the case may be, and an identification of "usable water." Usable water is a concept that the agency had around since, I think, 1982. There was a rule put in place to protect freshwater and other usable water, defined as water with total dissolved solids not exceeding 5,000 parts per million (ppm). Shortly after that, BLM issued Onshore Order No. 2.<sup>7</sup> That order did

not affect the definition of freshwater. It said usable water would be water with up to 10,000 ppm total dissolved solids. The government, in assessing the impact of its changes on usable water, has asserted that adoption of the 10,000 ppm standard in the *Code of Federal Regulations* is no change at all, and therefore will have no cost consequences nor any other impacts. But despite saying this, the government did finally amend the 5,000 ppm provision in the *Code of Federal Regulations*. That's already an issue in the motion for a preliminary injunction.

As for states and tribes, there is a provision in the rule that honors state and tribal designations of usable water, but it does so only to the extent that those requirements are more stringent than the BLM requirement set out in the regulation. So, if a tribe wants to protect a zone of water that is too small to be used for a public drinking water system, BLM will defer to the tribal decision. If a state wants to protect water as usable or applies the definition of, say, 20,000 ppm total dissolved solids, BLM will defer to the state decision. So, all BLM is saying by this is that it's not preempting more stringent state or tribal regulations.

A problematic area, and one where BLM and the industry disagree, is how to identify usable water. Industry has contended in the administrative record, and contends in court, that the issue has historically been addressed, even under Onshore Order No. 2, either by BLM in the field offices or by state oil and gas conservation authorities relying on state groundwater authorities, telling industry: "Here's the formation below which we want you to set your casing." As long as that casing is set where prescribed, there has been no further obligation on industry's part to sample water or attempt to make inferences from electric-induction logs about how saline or non-saline water may be. In industry's view, the wording of this regulation is a very significant departure from prior practice. That, too, is an issue in the motion for a preliminary injunction.

Turning to the matter of well casing, casing usually begins with something called conductor casing, which only goes down about 40 or 50 feet. Then, the well will be drilled through the conductor, and after some point, surface casing will be set with the primary goal of protecting water that people are using for drinking or other water designated for protection by the states or tribes or BLM. After that, intermediate casing may be required. And then within the intermediate casing, there will be production casing in most cases.

6. 42 U.S.C. §§4321-4370f, ELR STAT. NEPA §§2-209.

7. BLM, Onshore Oil and Gas Order No. 2, Drilling Operations on Federal and Indian Oil and Gas Leases (1988), available at [http://www.blm.gov/style/medialib/blm/nm/programs/0/og\\_docs/onshore\\_orders.Par.55992.File.dat/ord2.pdf](http://www.blm.gov/style/medialib/blm/nm/programs/0/og_docs/onshore_orders.Par.55992.File.dat/ord2.pdf).

style/medialib/blm/nm/programs/0/og\_docs/onshore\_orders.Par.55992.File.dat/ord2.pdf.

The rule's chief innovation here is that, with regard to intermediate and production casing, when the operator does not set cement all the way back up to the surface, the cement-evaluation log suite of tools must be followed. Industry does have a lot of concerns about that because reliance on some of these CELs can often lead to false positive readings of improper cementing. The way to fix improper cementing, whether it's actually improper or not, is to perforate the steel pipe and push cement in through the holes in the pipe. Now, you can put in cement by doing that, but you've weakened the integrity of the casing itself. That is not yet an issue in the litigation. I expect it to become so after the motion for a preliminary injunction is resolved.

Another innovation in the rule, something that Richard also mentioned, relates to temporary storage. I think the phrasing BLM is using is handling of fluid prior to disposal, so two words that will join the lexicon of regulation—handling and disposal—have distinct meanings. The alternative to tanks is lined pits. With respect to lined pits, BLM has said two things. It has said that lined pits will rarely be allowed during the interim or phase-in period. BLM also set forth criteria that have to be met for it to approve pits. Now, those criteria will often be met in a great many cases. So, there is some implementation tension, if you will, between the lined-pit requirement and the BLM preference for these more limited tanks.

**Amy Mall:** We at the Natural Resources Defense Council thought it was important that BLM issue the fracking rule, that it had many good reasons to do so, and that the rule was long overdue. The rule applies to more than 750 million acres of public and tribal lands, in addition to the 57-58 million acres of private surface that are in a split-state situation. The lands include our national forests, important sources of drinking water, wild lands and wilderness areas, as well as farms and ranches—all places that deserve strong protection from any of the risks associated with hydraulic fracturing. The rule had not been updated in decades despite the fact that technologies have changed and industry practices have changed. So, the regulations really needed to be brought up-to-date.

As Richard had said, the rule was designed to cover three main areas: fracking chemical disclosure; well integrity; and waste management. We're concerned that the rule didn't cover areas that we thought would have been vital to include in a rule designed to protect public lands and drinking water sources from the risks of fracking—for example, putting certain areas completely off-limits and including other well-stimulation techniques. Richard mentioned that the early draft of the rule did cover all well-stimulation techniques. But the final rule only covers fracking. There are other techniques, such as one called acid stimulation, that use very similar chemicals and present many of the same risks that fracking presents, and that we believe should be treated in the same way by the regulations. We also thought that the rule should have included

setbacks from a home's water wells, streams, and so forth in order to protect those areas.

When it comes to chemical disclosure, the rules do establish a federal requirement for disclosure of fracking chemicals, which is a good thing. We support a complete federal requirement for disclosure of all fracking chemicals. This rule only applies to federal leases. The concerns that we have about the chemical disclosure language in the final rule are that the rule allows fracking companies to decide which chemicals they will keep secret by making a trade-secret claim without providing any factual justification to BLM. There's no process established for members of the public to challenge the trade-secret claims. BLM, medical professionals, and first responders won't have that information handy when there is an emergency, which means someone will have to go to the company and try to obtain that information, and that takes time.

We're also concerned that, for public disclosure, the rules rely on FracFocus, a nongovernment website, which we don't feel complies with all the standards for government-required disclosure. There are concerns, for example, about quality control. Although FracFocus has recently announced some improvements to their website and their database, a recent EPA analysis that looked at almost 40,000 disclosures found that more than 70% made some trade-secret claims, so that in more than 70% of the filings, there was a lack of full disclosure of the fracking chemicals.

Well integrity: It's a good thing that operators will have to submit some evaluation logs. We're very supportive of that. We're not supportive of, and very concerned about, the establishment of the master hydraulic fracturing plan opportunity for companies. This will allow companies to submit information about one well in terms of the geology associated with that well and some of the risk factors such as local faults or the design of the fracturing operation. But they will be able to get approval for a number of wells even if those wells might have different circumstances than the one well that was used to provide the information.

Waste management: We called for a full ban on all pits associated with federal leases. BLM did not take that route in the final rule. So, we're very concerned that the pit limitations, while they are certainly a step in the right direction, only pertain to temporary storage, not to permanent disposal, and there are opportunities for companies to get around that also. We support a requirement that all of the waste be stored in tanks.

We're very concerned about the variance provision. The new rules create a variance that allows BLM a great deal of discretion in exempting fracking operations in an entire state from provisions of the new rules if the agency determines that a state rule satisfies the objectives of the BLM regulation. We're not opposed to the concept that there should be a way to eliminate any confusion or overlap or duplication between state and federal rules. That's something that state and the federal agencies deal with all the time. Before this rule was promulgated, there were already ways to deal with any duplication, especially if one rule

is much more stringent than the other. However, the language as written is too vague. We feel that it provides an opportunity for abuse. It doesn't require that the state rules be as strong or stronger than the BLM regulations. We're concerned that this can hamper BLM's ability to enforce its own rules or manage the risk associated with the wells that are being drilled and fracked under federal leases.

One of the things that we did when we commented on the drafts was look at what states already have on the books. The state rules are a patchwork. Some states have strong rules pertaining to one area of activity, but might have weak rules pertaining to another. We felt that BLM should strive to meet the most stringent state rules that are out there. But what ended up in the final rule are some provisions that are stronger than what some states have, but weaker than what other states have. So, there might be a benefit in the states that have weaker rules, but there will be no benefit in states where there were stronger state rules. Because BLM has jurisdiction over federal oil and gas leasing in 40 states, we felt that this is a national issue that called for a strong federal rule to raise standards in every location where federal oil and gas leasing may occur.

**Hillary Hoffmann:** By way of introduction, since I'm a relative newcomer to the world of fracking, I'd like to tell the story about how I ended up writing the article that I spent the past two years working on and that led me to this panel.<sup>8</sup> In 2012, there was an article on the National Public Radio (NPR) website about some produced-water discharges on the Wind River Indian Reservation in central Wyoming. My students sent me the article because I have a great interest in livestock grazing policies across the country. What was happening on the reservation was that the discharges were coming out of pipes and being distributed to reservation livestock. The cattle on Arapaho ranches were drinking this produced water.

An NPR reporter went to the reservation and took photos of the discharges. She was warned while she was there that she should stand back from the pipes and the points of discharge, and stand back from the fluids themselves. She could tell that the fluid didn't smell like typical water that livestock might be drinking. The reporter noted high temperatures and sorts of growths and crystals around the edges of the pipes.

When I read that piece, I started wondering: How is it possible? Where is this water coming from? How is it possible that these reservation wildlife and livestock are being either exposed to it or given it as a source of drinking water? There are two types of discharges that are happening on the Wind River Reservation: land-based and water-based discharges. The land-based discharges would normally be governed by the Resource Conservation and

Recovery Act (RCRA),<sup>9</sup> and the water-based discharges by the Clean Water Act (CWA).<sup>10</sup>

So, BLM's new rule sort of adds a new element to the formula. But I don't think that it completely closes off what the article co-author and I have come to call the livestock loophole, meaning the exemptions under various statutes that allow these discharges to occur. In terms of what was in the water, it was really difficult for tribal officials to determine the contents because of the trade-secret protections for the chemical formulas.

In terms of the new rule, that lack-of-disclosure requirement remains a cause of concern for the Wind River tribes and throughout Indian Country<sup>11</sup> because of a lack of information about what exactly the tribes are getting in their livestock's water. The discharges under the CWA are under the livestock and wildlife water sub-use category,<sup>12</sup> which allows produced water to be fed to livestock as a so-called beneficial use. Under RCRA, the discharges are permissible as an exemption from that statute's general prohibition on toxic, land-based discharges under Subtitle C.<sup>13</sup> It's not clear to me how that exemption ties into BLM's new rule because under the RCRA and CWA exemptions, if water can be put to beneficial use for livestock, it's allowed to be discharged.

The fact that BLM's new rule doesn't require complete disclosure was one of the things that jumped out at me when I was reading the text. That provision is called the disclosure requirement. Yet, it requires operators to submit only those components of fracking fluids that are not protected as proprietary formulas. If there's not complete disclosure, then there are tribal concerns about what is actually in these chemical formulations. It's impossible to know whether the water is truly safe for livestock or wildlife without full and complete required disclosure.

Tribes have also raised some concerns about sovereignty because, as they are sovereign nations, the legal regime that governs Indian Country is a bit different. Tribes are not able to regulate discharges of flowback fluids under RCRA. Under the new BLM rule, tribal sovereignty hasn't really been incorporated, except during the consultation process. Under the statutes that authorize the new BLM rule, there's really no space for sovereign rules or regulations that tribes could develop themselves to govern these types of discharges. Tribes can decide whether or not to enter into agreements to allow oil and gas operations on their reservations, so on the front end, they have more power and authority than they do on the back end.

I think where that leaves the tribes, where that leaves the Wind River Reservation now, is in a state of uncertainty. It remains to be seen how closely BLM will be inspecting any discharges that continue to occur after implementation of the rule. It remains to be seen whether under the

8. Hillary Hoffmann & Heather Whitney, *Fracking Near Indian Country: The Federal Trust Relationship, Tribal Sovereignty, and the Beneficial Use of Produced Water*, YALE J. ON REG. (forthcoming 2015), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2364376](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2364376).

9. 42 U.S.C. §§6901-6992k, ELR STAT. RCRA §§1001-11011.

10. 33 U.S.C. §§1251-1387, ELR STAT. FWPCA §§101-607.

11. "Indian Country" is a legal term of art that refers to dependent Indian communities, reservations, and trust allotments. 18 U.S.C. §1151.

12. 40 C.F.R. §435.5.

13. 42 U.S.C. §6921(b)(3).

RCRA Subtitle C exemption tribal ranchers will still be able to “accept” produced-water discharges onto reservations, and whether tribes will be able to determine what exactly is in the water under the FracFocus voluntary disclosure requirement.

It took me two years to unravel this story on the Wind River Reservation. What I discovered is that, across the country, all tribes are similarly situated with respect to land-based disposals: They don’t have the authority to fully protect their livestock and resident wildlife from produced-water disposal on land. Water-based discharges can be regulated if the tribe has obtained TAS (Tribes as States) status under the CWA, but neither of the Wind River tribes has been able to establish this status with EPA, leaving them, and other tribes like them, at the mercy of EPA to regulate produced-water discharges in their best interest.

**Paul Smyth:** Let’s open it up for audience questions now.

**Audience Member:** I’m Jan Mares with Resources for the Future. We’ve done some work on evaluating the use of pits and ponds. Our research tells us that there have been accidents in both pits and ponds, probably less with double-lined ponds and with leak detectors. But for sure, there have been leaks and problems with tanks. Also, our sense is that there’s almost no state that prevents the use of lined ponds with detection. Yet, there’s a sure flavor in this rule that BLM has concluded they shouldn’t be used. Could Richard McNeer elaborate as to why the rule went so far from what is the current practice and the experience, because tanks have problems too? And maybe Poe Leggette wants to address that as well.

**Richard McNeer:** There is great concern that pits, though maybe appropriate for normal produced water from conventional wells, may not be secure enough for what we started calling flowback and now we’re calling recovered fluids, just because of the additional chemical makeup of that water and the volumes going into wells—2 million to 5 million gallons per frack job, according to a National Academy of Sciences publication.<sup>14</sup> There was a significant portion of those recovered fluids that had to be dealt with even before or in the early days of production of oil and gas. We thought that the enhanced temporary storage requirements were appropriate. Under the present Onshore Order No. 7,<sup>15</sup> which governs produced-water disposal, there can

be up to 90 days between completion of a well and the deadline when the operator needs to implement a permanent disposal plan approved by BLM. The intent was to fill that 90-day gap.

The other advantage of tanks is that we are hoping that they will encourage reuse and recycling of these recovered fluids. Since you have to put them in a tank anyway, 500 barrels is about the maximum that you can do with a street-legal trailer. We are hoping that we could facilitate reuse and recycling, but we didn’t think that we could mandate reuse and recycling because although that’s going to be possible in some locations with a lot of infrastructure, some of these oil and gas exploration sites are 200 miles from the nearest infrastructure. So, we didn’t think mandating reuse and recycling would be productive.

**Poe Leggette:** Industry generally sees a lot of tension between BLM’s desire over the past 20 years to reduce the footprint of oil and gas operations on federal lands with the requirement for tanks in the interim period. For any substantial hydraulic fracturing job, a lot of 500-barrel tanks will be required. They will, in the main, take up more room than a lined pit. Now, lined pits, when they are used for recycling as a lot of the flowback water is now used, can be quite large. You certainly couldn’t accommodate that number of barrels on a typical Rocky Mountain lease site. It is perhaps too soon to say whether BLM is going to be less stingy than the preamble to the rule suggests about allowing double-lined pits with leak detectors. But it’s a potential problem, and it’s an economic cost added to operators that we believe BLM has not adequately accounted for.

**Amy Mall:** In terms of state laws, New Mexico in particular had a very strong pit rule that was issued after quite lengthy deliberations with large amounts of evidence about the risk of pits contaminating groundwater in New Mexico. That state rule was subsequently weakened by a more recent gubernatorial administration, so it’s not exactly the same as it used to be. But it was a good example of a strong rule where the industry continued to grow despite the requirements that made it much rarer for them to use pits. And it was a very successful model.

**Audience Member:** My question goes to Richard McNeer on the disclosure requirements. How does that work? Operators are initially able to claim a trade secret. But there’s a provision that allows BLM to then do a sort of in-camera review of the information to determine whether it’s actually a trade secret or a presumption that is really hard to rebut in the end.

**Richard McNeer:** Well, procedurally, yes. We don’t want the trade-secret information normally, because normally we won’t be doing anything with it. We’re regulating all of these operations with the assumption that the chemicals used in the hydraulic fracturing fluid are going to be hazardous. So, we really wouldn’t change cementing require-

14. See, e.g., Robert B. Jackson, *The Integrity of Oil and Gas Wells*, 111 PROC. OF THE NAT’L ACAD. OF SCI., 10902-03 (2014), available at <http://www.pnas.org/content/111/30/10902.full> (average volume of water to fracture a well doubled from 2000 to 2008 to between 2.6 and 4.6 million gallons). See Secretary of Energy’s Advisory Committee, Subcommittee on Natural Gas, Shale Gas Production Subcommittee 90 Day Report, at \*19 (Aug. 18, 2011), [http://www.shalegas.energy.gov/resources/081811\\_90\\_day\\_report\\_final.pdf](http://www.shalegas.energy.gov/resources/081811_90_day_report_final.pdf) (between 1 and 5 million gallons per frack job). See also Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources (External Review Draft), ch. 4 (“Water Acquisition”) (2015), <http://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=244651> (discussing regional totals and variations in per-well water consumption).

15. Onshore Oil and Gas Order No. 7, 58 Fed. Reg. 47354 (1993). See also 43 C.F.R. §3164.1(b) and (table) (onshore orders are noncodified regulations).

ments or anything like that if they were using “tetraethyl death” as opposed to “2% milk and Grape-Nuts.” And it’s a little bit of the tail wagging the dog. If we had that information, yes, we would secure it as best we could. But could we afford it? We have to go through an informal adjudication as to whether this is or is not a trade secret. And we wouldn’t have time or resources to do anything else that we’re supposed to do.

So, the best thing we could come up with is: Don’t submit it. Either maintain it or maintain the access to it, so BLM can get that information if and when BLM asks for it for any reason. Yes, we can do spot checks. We could have a request from EPA to get the information for some reason. It could be anything. Once we do get it, by the time we get it, we’ve already notified the operator and the owner of the information that we want it and they give it to us.

So, they know that we’re going to be adjudicating it. And we’re going to keep them involved and we’re going to ask them for any other information in addition to their affidavits that would support a finding that this information contains a trade secret or confidential business information, or is otherwise exempt from disclosure under the Freedom of Information Act (FOIA). At the end of our investigation, we come to a conclusion, we tell the submitters that we’re going to do an informal adjudication to determine whether it is or is not a trade secret. And this is what our answer is going to be.

We’ll give them at least 10 days’ advance notice. If it’s a really meritorious case, we’ll probably give them more than that, but they get a minimum of 10 days under departmental regulations. In that 10-day period, they can go to federal court and file for a temporary restraining order and then it’s in the hands of the courts. We’ll give the courts our analysis. Operators will give the courts their analysis. The courts will resolve it. Obviously, we don’t want to go through that process thousands of times every year. But if we do need to do it, that’s the process. The existing FOIA and confidential business information regulations are at 43 C.F.R. §§2.26 to 2.36.

**Audience Member:** I’m Jessica Sarnowski, with ELI. I’d like to find out a bit about that 200-foot barrier between the aquifer and the cements. How did you determine 200 feet to be the accurate displacement?

**Richard McNeer:** Our engineers looked at state requirements. Some are greater. Some are 500 feet. But we decided that, as a conservative baseline nationwide, 200 feet was a reasonable minimum that would ensure that fluids will not leak around the well casing and then up to aquifers. It was an engineering judgment.

**Audience Member:** I’m Emily Meredith, from *Energy Intelligence*. I have a sort of practical question, mainly for Amy Mall. We’ve heard the states talk about the variance provision and they’re not happy with it. From your perspective, are there states where using the state law would be

better, or is that a provision for just in case, a provision that doesn’t have much practical use?

**Amy Mall:** There are state rules that in some cases are stronger than what BLM is going to require for federal oil and gas permits. In those cases, it does make sense for the state rule to be the governance without any confusion about what companies need to do. So, we are more concerned with the actual language in the BLM rule that provides for the variance than we are with the concept itself.

**Paul Smyth:** We have an online audience member question about what the concerns were regarding the wording.

**Amy Mall:** I think the language says something like if the state rule meets the same objectives as the BLM rules. Our concern is that standard about “meeting the same objectives.” We think that’s vague because the state rule doesn’t necessarily have to be as strong as BLM’s rule. Whether something meets an objective is too subjective and broad from our perspective.

**Paul Smyth:** Amy, on that topic, does the Natural Resources Defense Council have any program to approach state legislatures about strengthening fracking rules in particular states or everywhere?

**Amy Mall:** We do. We don’t work in every state where there’s fracking going on right now. We have a few offices around the country that have been involved. California, Illinois, New York, Ohio, and Pennsylvania are some of the states where we’ve been working on state-level policy. (My work is focused on federal policy.) We also partner with groups in other states that are working on state policies. In most states where there’s fracking going on, there is an active effort to strengthen the rules. And many states have strengthened their rules over the past few years in particular because of the call for stronger rules from communities around the country.

So, states have been doing that. We just don’t think they’re doing it fast enough or going as far as they need to. And what we’re regularly seeing is that a state will update their rule. Problems will still happen. The legislature will revisit the issue. They’ll issue a new rule. So, at least there is acknowledgement that the risks are there, that the rules need to be updated. But no state has been sufficiently proactive to get ahead of the problem and establish a full set of what we would consider the strongest rules.

**Poe Leggette:** I would like to toss a liter of gasoline on the smoldering issue of variances. For those following in the regulatory pew bibles, the language that folks are looking for is: “Variances for states or tribes may be approved only if the BLM determines that the proposed alternative meets or exceeds the objectives of the regulation for which the vari-

ance is being requested.”<sup>16</sup> That’s the text of the rule, which sounds more lenient and open to a variance. However, so far, the indications from BLM’s public statements are that BLM would be willing to entertain a variance only to the extent that a state regulation is more stringent. Operators have to comply with both state and federal or tribal and federal requirements. So, that isn’t much of a variance if that is indeed how it will be implemented.

**Paul Smyth:** We have an online audience member question for Hillary Hoffman. Do you know of tribal working groups that are working on fracking issues and sharing information nationally?

**Hillary Hoffmann:** Yes, there are tribal working groups. I know of about 10 tribes who have adopted fracking bans, tribal ordinances, or legislation banning fracking altogether. There’s no real central repository of that information; the way that I’ve been able to find it is just by looking at the tribes where there are oil and gas reserves on or near the reservation. But none of those fracking bans address the produced water issue. To my knowledge there are no tribal working groups operating at a national level.

**Poe Leggette:** The questioner might wish to inquire of the National Congress of American Indians (NCAI). I don’t know the answer myself to that question. The NCAI will know better whether there are working groups on fracking issues.

**Paul Smyth:** Poe, let me ask you a question. I appreciate you’re involving the judiciary in this issue. You also may be better-informed than anyone else here as to whether there are any legislative efforts in the U.S. Congress around the fracking issue?

**Poe Leggette:** There is the customary annually introduced bill by certain Democrats to ban hydraulic fracturing or severely restrict it on federal lands.<sup>17</sup> I don’t anticipate that’s going to go anywhere. I’m not aware at the moment (although my statement comes without warranty) that there is any bill active to prevent DOI from implementing the rule. But then, as most of you know, there are appropriations bills, and appropriations bills are a popular vehicle for inserting no-money-shall-be-spent provisions. But where things are at the moment, I do not know.

**Paul Smyth:** Richard, what was the reasoning for not requiring disclosure of fracking chemicals in fluids before operations? The rule requires disclosure after.

**Richard McNeer:** That’s correct. We got a lot of comments on that and gave it a lot of thought. At one point

(and perhaps currently), Wyoming had some sort of predisclosure requirements, and at one point, they had a requirement that, you know, you post the menu of chemicals you might use, and then later you tell us which ones you actually used. We looked into that approach. And we initially decided instead to go with: Tell us what you think you’re going to use when you submit your application to hydraulically fracture your well, either an Application for Permit to Drill or a Sundry Notice.

There are too many reasons why that information would not be robust. There are very good operational, economic, and technical reasons why the planned chemicals would not be the same as the ones actually used. New information; change of the fracking service provider; changes in the availability of chemicals, particularly in very hot boomtowns or where a distributor goes out of business. Who knows what? There are a lot of reasons why we could get that information. We could supply it to the public, but then it wouldn’t be accurate.

Now, at that point, we either let the public and BLM and everyone else think that the chemical is going to be X when it’s actually going to be Y and we let the operation go forward. Or we could say: Give us all your updates and, by the way, delay your operations while we make these updates public. That didn’t seem to be a very good answer either.

This is an industry that runs on schedules. They have a lot of other uncertainties relating to schedules. They don’t really need another one. We didn’t think that requiring disclosure before operations would provide useful robust information. By contrast, when the service provider unhooks its equipment and moves offsite, the operator already knows what they’ve injected. That information would be readily available and would not be subject to change, editing, or modifying. So, it was a reliability issue.

**Paul Smyth:** Other questions? I have one. This is for Richard and Hillary. It seems to me that tribes are probably on both sides of this issue. Hillary mentioned that there are tribes that have, under tribal laws, outright banned fracking. And then, Richard, I’m sure you’ve got comments from Indian country, from tribes, claiming that BLM was stepping on their sovereignty and that this rule would be another burden to development of oil and gas resources on tribal lands. So, Hillary and Richard, is that true? Is it a split decision for Indian country on this issue? What’s your assessment on that divide?

**Hillary Hoffmann:** That’s absolutely my understanding. One of the reasons why I chose the Wind River Reservation for the article I wrote is that there are two tribes on the reservation, the Shoshone and the Arapaho, and they have differing opinions on the issue of fracking and particularly on disposal issues with the produced water.

Oil and gas development is the biggest source of revenue for tribes living in Indian Country. For the 565 federally recognized tribes, the single biggest source of revenue is

16. 80 Fed. Reg. 16128, 16221 (Mar. 26, 2015) (adopting 43 C.F.R. §3162.3-3(k)(3)).

17. Protect Our Public Lands Act, H.R. 1902, 114th Cong. (introduced Apr. 21, 2015).

from oil and gas development. Yet, while it's the lifeblood of many tribes throughout the country, there are some tribes, such as the 10 that I mentioned, that have decided to take this sort of extreme step of banning fracking altogether. Then, there are other tribes that rely on oil and gas development to support most of their tribal programs and services. The revenue does support a lot of programs on various reservations. So, it definitely is a split issue.

**Richard McNeer:** I agree. I attended regional meetings with tribes and reviewed a lot of the comments they submitted. Something of a predictor of the tribe's position would be whether they sent their oil and gas people or their public health people to the meeting. Another predictor of their position would be how much oil and gas is actually being produced on their tribal lands, or are they, in a sense, downhill from oil and gas operations on someone else's lands and they're only getting the environmental consequences. But yes, we certainly got an earful, and the most active participants were the ones that had the largest oil and gas operations. They were convinced that the rule would drive the oil and gas industry off Indian lands and result in major decreases in tribal revenues and employment.

**Paul Smyth:** Any other questions from our audience?

**Audience Member:** Are there bonding requirements, similar to mining, for remediation?

**Richard McNeer:** There are bonding requirements in BLM's oil and gas regulations. Those are not amended in this rulemaking.

**Paul Smyth:** We have a question submitted by an online audience member. The questioner understands that BLM has requested that states sign a memorandum of understanding (MOU) to harmonize the regulations with BLM's rule and then carry out enforcement. Seeing as certain states are suing BLM, is it reasonable to assume that those MOUs won't get signed? Can BLM enforce the rule without them?

**Richard McNeer:** Yes. Nothing in BLM's regulations requires BLM to get a state's cooperation before it enforces its rules. Similarly, nothing in BLM regulations in this rule or elsewhere requires a state to have a variance to enforce its own rules. But over the years, BLM and state regulators have worked together, cooperatively sharing information. MOUs memorialized some of those cooperation procedures. And many BLM state offices believe that the MOU is a logical place to memorialize variances or other sorts of cooperation for inspection or whatever it might be. Will certain states be willing to enter into them? Some are, but I'm not going to predict what state agencies are going to do. I do know that discussions are underway in several states.

**Paul Smyth:** That brings us to the end of our Dialogue time. Many thanks to our panelists and audience members for joining us today.