

LEGAL MEMORANDUM

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The Regulation of Hydraulic Fracturing on Federal and Indian Land: *Wyoming v. Department of the Interior Paul J. Larkin, Jr., and Nicolas D. Loris*

Abstract

On March 26, 2015, the U.S. Department of the Interior's Bureau of Land Management adopted regulations to govern hydraulic fracturing on federal and Indian land "to ensure that wells are properly constructed to protect water supplies, to make certain that the fluids that flow back to the surface as a result of hydraulic fracturing operations are managed in an environmentally responsible way, and to provide public disclosure of the chemicals used in hydraulic fracturing fluids." Before 2005, the Safe Drinking Water Act gave the Environmental Protection Agency the responsibility to protect aquifers from hydraulic fracturing pursuant to the EPA's "underground injection control" program. In the Energy Policy Act of 2005, however, Congress transferred that role to the states. In June 2016, the U.S. District Court for the District of Wyoming ruled in Wyoming v. Department of the Interior that the BLM lacked the statutory authority to promulgate those regulations, both respecting Congress's decision and preventing the BLM from engaging in regulatory overreach.

The Controversy Over Hydraulic Fracturing

Over the past two decades, vast deposits of oil and gas have been unlocked in the United States by a late-20th-century extractionprocess innovation known as hydraulic fracturing (also known as hydrofracking or fracking). That process has enabled industry to recover oil and natural gas resources from shale buried deep underground, generating tremendous economic benefits in the process. Federal policy once presumed a future of forever dwindling domestic oil and gas resources, but thanks to hydraulic fracturing and directional drilling techniques, America's 30-year trajectory of declining supplies and rising prices has been reversed.¹

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KEY POINTS

- Hydraulic fracturing, despite its record of economic and environmental success, has become a significant source of legal and political controversy.
- The U.S. District Court for the District of Wyoming concluded in Wyoming v. Department of the Interior that the issue is not whether some level of government may regulate hydraulic fracturing to protect drinking water supplies, but which one has that authority.
- In 1974, Congress gave all federal supervision of drinking water safety to the EPA, but in the Energy Policy Act of 2005, it transferred that authority to the states with respect to any risks posed by hydraulic fracturing.
- None of the statutes cited by the Bureau of Land Management to justify its hydraulic fracturing rule even mentions hydraulic fracturing; only the Energy Policy Act does. As the Supreme Court explained in *Chevron*, the agency and the courts must respect Congress's decision to reassign regulatory authority over hydraulic fracturing to the states.

Hydraulic fracturing has been used in perhaps 90 percent of all natural gas well operations sunk over the past decade. Its effect on the domestic natural gas industry has been nothing short of revolutionary.² The "Shale Revolution" promises to supply America with oil and natural gas sufficient to meet our energy needs affordably well into the future.³ As one commentator recently put it, "The shale revolution has reduced America's dependence on foreign oil and gas, created valuable jobs for many Americans, and expanded American consumers' purchasing power and freedom of action in countless ways."⁴

Yet hydraulic fracturing has become a contentious social, economic, and political issue. Different people and organizations have strong views as to who should regulate this process-the states or the federal government-and what regulations are appropriate. Critics object to hydraulic fracturing on several grounds,⁵ but their principal concern is the risk that it poses of potentially contaminating aquifers or surface drinking water sources.⁶ Those risks are serious, critics argue, even if the hydraulic fracturing process goes awry in only a small fraction of cases. In response, the oil and gas industry argues that the National Academy of Sciences,7 the Environmental Protection Agency (EPA),8 the Department of Energy,9 and others10 have studied hydraulic fracturing and that no one has found that it contaminates drinking water when properly executed. The policy and legal dispute between opponents and supporters of hydraulic fracturing has been a heated one. At times, it has been reminiscent of the feud between the Hatfields and the McCoys. As one observer has noted, "So deep is the divide between advocates and opponents that a straightforward conversation about hydraulic fracturing is nearly impossible in certain communities."11

The propriety of hydraulic fracturing, however, has passed far beyond community-level conversations.

The Controversy Becomes a Legal Dispute: The Department of the Interior's Hydraulic Fracturing Rule

Alexis de Tocqueville once wrote that in America, every political dispute ultimately becomes a legal one.¹² The dispute over hydraulic fracturing is no exception.

The Bureau of Land Management (BLM) of the Department of the Interior (DOI) is responsible for overseeing oil and gas development on approximately 700 million acres of subsurface mineral estate and 56 million acres of Indian land, in addition to millions more above ground.¹³ Until 2012, the BLM did not separately regulate hydraulic fracturing on federal or Indian lands, which remained under individual Indian and state regulation. The BLM regulated the surface effects of using hydraulic fracturing in oil or gas extraction but generally did not regulate the subterranean aspects of that technique.¹⁴

On March 26, 2015, the BLM adopted regulations to govern hydraulic fracturing on federal and Indian land.¹⁵ The bureau summarized the goals of the rule as follows:

To ensure that wells are properly constructed to protect water supplies, to make certain that the fluids that flow back to the surface as a result of hydraulic fracturing operations are managed in an environmentally responsible way, and to provide public disclosure of the chemicals used in hydraulic fracturing fluids.¹⁶

The BLM Fracking Rule seeks to achieve that result in several ways. It imposes additional drilling and construction requirements on shale mining companies for operations on federal or Indian lands. It requires disclosure of the chemicals and propping agents used in hydraulic fracturing. And it imposes new management requirements for the surfaceoperation aspects of hydraulic fracturing, including the use of above-ground storage tanks, instead of below-ground pits, to hold "flowback" (returned drilling fluid) and "produced water" (briny water found in shale containing oil and gas).¹⁷

The primary effects of the rule would land on seven western states where some 98 percent of hydraulic fracturing operations on federal lands take place.¹⁸ The vast majority of BLM land is located in the West, leaving fracking operations in other areas of high activity like Pennsylvania, Texas, and Ohio mostly untouched by the BLM's rule. The rule would therefore give eastern states a competitive advantage in the extraction process and could render some drilling in the western states unprofitable.

The District Court Decision in Wyoming v. Department of the Interior

Several parties—including four states, an Indian tribe, and several independent organizations challenged the BLM's regulations. The petitions were consolidated before the U.S. District Court for the District of Wyoming, which entered a preliminary injunction barring the BLM from enforcing the rule pending the court's decision on the merits.¹⁹ In June 2016, that court ruled that the BLM lacked the statutory authority to promulgate those regulations. In the court's view, Congress assigned the responsibility for protecting drinking water supplies to the states. The case is on appeal to the U.S. Court of Appeals for the Tenth Circuit, which is likely to issue its decision late in 2016 or early in 2017.

The government argued that several federal statutes, particularly the Mineral Leasing Act of 1920 (MLA)²⁰ and the Federal Land Policy and Management Act of 1976 (FLPMA),²¹ empower the BLM to regulate hydraulic fracturing. Those laws make the government the trustee of federal and Indian land for all generations, present and future, and the statutes require the government to consider a host of factors when granting mining leases, including any potential environmental effects of the extraction process.²² Implicit in those laws, the government argues, is the authority to issue whatever regulations are necessary to prevent mining operations from befouling surface and underground water.23 No other act of Congress, moreover, repeals the authority those statutes grant the BLM to protect drinking water. Accordingly, the government concluded, the BLM had ample power to regulate hydraulic fracturing on federal and Indian land.

As the district court recognized, however, the BLM approached this issue from the wrong direction. The Supreme Court's decision in *Chevron U.S.A. Inc. v. NRDC*²⁴ requires courts to follow a two-step process when reviewing an agency's interpretation of a statute it administers.²⁵ First, did Congress directly speak to the issue?²⁶ If so, the inquiry is over because Congress's word is final.²⁷ Second, if Congress did not answer that question, is the agency's interpretation of the relevant statute "permissible"?²⁸ If so, the court must accept the agency's interpretation because Congress is presumed to have intended to leave interpretive authority to the agency.²⁹

The district court reasoned that this case can be resolved at *Chevron* Step 1. It found that Congress had vested regulatory authority over hydraulic fracturing in the states, not the federal government, through the Safe Drinking Water Act (SWDA) of 1974³⁰ and the Energy Policy Act (EP Act) of 2005.³¹ Under *Chevron*, Congress's decision to make the states responsible for regulating hydraulic fracturing resolved the legal dispute. As the district court summarized:

"[N]o matter how important, conspicuous, and controversial the issue...an administrative agency's power to regulate in the public interest must always be grounded in a valid grant of authority from Congress."... Having explicitly removed the only source of specific federal agency authority over fracking, it defies common sense for the BLM to argue that Congress intended to allow it to regulate the same activity under a general statute that says nothing about hydraulic fracturing. Despite the lack of authority, the BLM persisted in its rulemaking efforts. Comments made by the EPA itself suggest that the Fracking Rule is an attempt to resurrect EPA's pre-2005 EP Act authority (see DOI AR 0103278_002-3); that is, the BLM is attempting to regulate hydraulic fracturing as underground injection wells in a manner that the EPA would have done under the SDWA absent the 2005 EP Act. The BLM has attempted an endrun around the 2005 EP Act; however, regulation of an activity must be by Congressional authority, not administrative fiat. The Court finds the intent of Congress is clear, so that is the end of the matter; "for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress."32

That ruling correctly read the text of the relevant federal statutes and properly rejected the BLM's attempt at regulatory overreaching.

The Safe Drinking Water Act of 1974

Historically, states and localities had the responsibility to regulate drinking water supplies for public health purposes.³³ The federal government played only an advisory role. Beginning in 1914, the U.S. Public Health Service promulgated drinking water standards that, by 1974, the states or local governments had adopted for all public water systems.³⁴ In that latter year, Congress modified that regulatory scheme by adopting the Safe Drinking Water Act of 1974.

That statute creates a program of shared regulatory authority. To take advantage of the federal

government's expertise in devising water quality standards, the act directed the Environmental Protection Agency to adopt national drinking water standards that would bind the states.³⁵ To respect the state's historic role in protecting local drinking water, the act also contemplates that the states will have the primary responsibility for enforcement -"the most direct oversight"³⁶-with the federal government (in particular, the EPA) playing a subordinate role.37 To establish that mechanism, the act requires the EPA to designate state agencies as having "primary enforcement responsibility" if state law is "no less stringent" than the relevant federal rules and if the state has appropriate enforcement mechanisms.³⁸ In other words, the act assumes that the EPA has superior scientific knowledge than the states regarding water safety, and so it assigns the EPA the responsibility to develop standards that will assure satisfactory drinking water quality. But the act also contemplates that once the EPA has approved a state's drinking water quality regulatory program, the state can be trusted to implement that program and protect local health without direct federal involvement in each case.

Particularly important is Part C of the Safe Drinking Water Act. It directed the EPA to adopt regulations establishing minimum requirements for "underground injection control" programs "to prevent underground injection which endangers drinking water sources."39 Initially, the EPA took the position that the SDWA did not regulate hydraulic fracturing because the "principal function" of that technique is to extract natural gas, not to emplace fluids by well injection. In 1997, however, the U.S. Court of Appeals for the Eleventh Circuit rejected the EPA's position and ruled that hydraulic fracturing fell within the statutory definition of "underground injection."40 The Eleventh Circuit's decision required the EPA to regulate that practice throughout the nation, "on all lands, federal, state and tribal,"41 with regard to the permitting, construction, operation, monitoring, and closure of wells using hydraulic fracturing.42

That is where the law remained until 2005.

The Energy Policy Act of 2005

In 2005, Congress modified this regulatory scheme.Section 322 of the Energy Policy Act of 2005 excluded from the "underground injection control" program construed by the Eleventh Circuit "the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities."⁴³ The effect of that provision was to overrule the Eleventh Circuit's interpretation of the Safe Drinking Water Act and to transfer to the states authority to regulate hydraulic fracturing insofar as it could affect underground drinking water supplies. In other words, the Energy Policy Act singled out hydraulic fracturing for special treatment and assigned to the states the responsibility to protect drinking water from any danger that hydraulic fracturing might pose.⁴⁴ The EPA agrees with that reading of the statute's text.⁴⁵

As the district court concluded in Wyoming v. Dep't of the Interior, the text of the Energy Policy Act directly answers the question in that case. The issue is not *whether* some level of government may regulate hydraulic fracturing to protect drinking water supplies, but which one has that authority. The text of the Safe Drinking Water Act and the Energy Policy Act answers that question directly. In 1974, Congress chose to vest all federal supervision of drinking water safety in the EPA's hands, but in 2005, Congress decided to wrest that authority from the EPA and transfer it to the states with respect to any risks posed by hydraulic fracturing. That decision is critical. None of the statutes cited by the BLM specifically addresses-or even mentions-hydraulic fracturing; only the Energy Policy Act does. In those circumstances, as the Supreme Court explained in *Chevron*, both the agency and the courts must respect Congress's decision to reassign regulatory authority over hydraulic fracturing from the EPA to the states.46

That decision was a sensible one. The states traditionally have protected local drinking water supplies, and the Safe Drinking Water Act recognized in 1974 that the states are still competent to do so. Nothing in the Energy Policy Act of 2005 suggests that Congress has changed its mind that state and local officials are fully capable of protecting the same aquifers that they use for their own drinking water. The BLM can exercise only the authority that Congress has delegated to the agency, and it perforce cannot exercise authority that Congress has decided to lodge elsewhere. The BLM's attempt to do so was a classic example of regulatory overreaching, and the district court properly put a halt to it.

Conclusion

Prior to 2005, the Safe Drinking Water Act gave the EPA the responsibility to protect aquifers from hydraulic fracturing pursuant to the agency's "underground injection control" program. In the Energy Policy Act of 2005, however, Congress transferred that role to the states. The result was to remove the EPA from that business. In *Wyoming v. DOI*, the district court paid respect to Congress's decision and prevented the BLM from engaging in regulatory overreach.

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Endnotes

- For discussions of the mechanics and economics of hydraulic fracturing, as well as the legal issues it raises, see, for example, ERIC GEORGE, FRACKING 101: A BEGINNER'S GUIDE TO HYDRAULIC FRACTURING (2016); RUSSELL GOLD, THE BOOM: HOW FRACKING IGNITED THE AMERICAN ENERGY REVOLUTION AND CHANGED THE WORLD (2015); MICHAEL HOLLOWAY & OLIVER RUDD, FRACKING: THE OPERATIONS AND ENVIRONMENTAL CONSEQUENCES OF HYDRAULIC FRACTURING (2013); VIKRAM RAO, SHALE AND GAS: THE PROMISE AND THE PERIL (2012); MARY TIEMANN & ADAM VANN, CONG. RES. SERV., R41760, HYDRAULIC FRACTURING AND SAFE DRINKING WATER ACT REGULATORY ISSUES (July 13, 2015); ADAM VANN ET AL., CONG. RES. SERV., R43151, HYDRAULIC FRACTURING: SELECTED LEGAL ISSUES (July 13, 2015); Nicolas D. Loris, *Hydraulic Fracturing: Critical for Energy Production, Jobs, Economic Growth*, HERITAGE FOUNDATION BACKGROUNDER NO. 2714 (Aug. 28, 2012), http://thf_media.s3.amazonaws.com/2012/pdf/bg2714.pdf.
- 2. See, e.g., Alex Prud'homme, Hydrofracking: What Everyone Needs to Know 10–13 (2013).
- 3. See Energy INFO. AGENCY, DEP'T OF ENERGY, INTERNATIONAL ENERGY OUTLOOK-2016 (May 2016), http://www.eia.gov/beta/international/.
- 4. Eric R. Claeys, The Case for Shale, 28 NAT'L AFF. 68, 70 (Summer 2016).
- 5. According to its critics, hydraulic fracturing generates tremors and earthquakes in the vicinity of the drilling, requires excessive quantities of water, aggravates air pollution, increases traffic and road use in communities where drilling occurs, and undercuts the nascent effort to develop renewable fuels. See, e.g., Thomas W. Merrill & David M. Schizer, The Shale Oil and Gas Revolution, Hydraulic Fracturing, and Water Contamination: A Regulatory Strategy, 98 MINN. L. REV. 145, 170–80 (2013). For discussions of the potential environmental problems caused by hydraulic fracturing, see, for example, FRED DAVIS, HYDRAULIC FRACKING: MYTH-V-REALITY (2015); FRANK R. SPELLMAN, ENVIRONMENTAL IMPACTS OF HYDRAULIC FRACTURING (2012); Lisa J. Molofsky et al., Evaluation of Methane Sources in Groundwater in Northeastern Pennsylvania, 51 GROUNDWATER 333 (May–June 2013); Avner Vengosh et al., A Critical Review of the Risks to Water Resources from Unconventional Shale Gas Development and Hydraulic Fracturing in the United States, 10 ENVTL. Sci. & TECH. 405118 (2014).
- 6. Contamination could occur in one or more ways. For example, sloppy drilling operations could spill flowback or produced waters onto the pad, where it could leak into nearby lakes, rivers, or streams. Or ineffective storage of those fluids could allow seepage into the ground and ultimately into surface or groundwater. See, e.g., Merrill & Schizer, supra note 5, at 180–96; David B. Spence, Federalism, Regulatory Lags, and the Political Power of Energy Production, 161 U. PA. L. REV. 431, 440–47 (2013).
- 7. See Thomas Darrah et al., Noble Gases Identify the Mechanisms of Fugitive Gas Contamination in Drinking-Water Wells Overlaying the Marcellus and Barnett Shales, 111 PROCEEDINGS OF THE NAT'L ACAD. OF SCIENCE 14,076, 14,081 (2014) ("In general, our data suggest that where fugitive gas contamination occurs, well integrity problems are most likely associated with casing or cementing issues. In contrast, our data do not suggest that horizontal drilling or hydraulic fracturing has provided a conduit to connect deep Marcellus or Barnett Formations directly to surface aquifers.").
- 8. See Off. of Research & Develop., EPA, Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources (External Review Draft) (June 2015); EPA, Evaluation of Impacts to Underground Sources of Drinking Water by Hydrofracking Coal-Bed Methane Reservoirs (2014); Off. of Res. & Develop., EPA, Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources—Progress Report (Dec. 2012); EPA, Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs (June 2004).
- 9. See Sec'y of Energy Advisory Bd., Dep't of Energy, Shale Gas Production Subcommittee: 90-Day Report 3 (Aug. 18, 2011); see also Nat'l Energy Tech. Lab., Off. of Fossil Fuel, An Evaluation of Fracture Growth and Gas/Fluid Migration as Horizontal Marcellus Shale Gas Wells Are Hydraulically Fractured in Greene County, Pennsylvania, No. NETL-TRS-3-2014 (Sept. 15, 2014).
- 10. See, e.g., SCOTT KELL, THE GROUNDWATER PROTECTION COUNCIL, STATE OIL AND GAS AGENCY GROUNDWATER INVESTIGATIONS AND THEIR ROLE IN ADVANCING REGULATORY REFORMS: A TWO STATE REVIEW: OHIO AND TEXAS 2 (Aug. 2011) ("During the study period, over 16,000 horizontal shale gas wells, with multi-staged hydraulic fracturing stimulations, were completed in Texas. Prior to 2008, only one horizontal shale gas well was completed in Ohio. During their respective study periods, neither the [Texas Railroad Commission, which regulates oil and gas exploration in that state] or the [Ohio Division of Mineral Resource Management] identified a single groundwater contamination incident resulting from site preparation, drilling, well construction, completion, hydraulic fracturing stimulation, or production operations at any of these horizontal shale gas wells."); ERNEST J. MONIZ ET AL., MIT, THE FUTURE OF NATURAL GAS 7 (2011) ("Shale development requires large-scale fracturing of the shale formation to induce economic production rates. There has been concern that these fractures can also penetrate shallow freshwater zones and contaminate them with fracturing fluid, but there is no evidence that this is occurring."); *id.* at 40 ("In the studies surveyed, no incidents are reported which conclusively demonstrate contamination of shallow water zones with fracture fluids."); *id.* app. 2E at 2 ("It is noteworthy that no incidents of direct invasion of shallow water zones by fracture fluids during the fracturing process have been recorded."); Lynn Kerr McKay et al., *Science and the Reasonable Development of Marcellus Shale Natural Gas Resources in Pennsylvania and New York*, 32 ENERGY L.J. 125, 135-36 (2011) (noting that a 2009 survey of state regulators stated that they were unaware of any verified case of hydraulic fracturing-caused water contamination); Molofsky et al., *supra* note 5, at 333, 347; see also, e.g., Merrill & Schizer, *supra* note 5, at 149-50.
- 11. PRUD'HOMME, supra note 2, at 71.
- 12. Alexis de Tocqueville, Democracy in America 257 (2000) (1835 & 1840).
- Dep't of the Interior, Bureau of Land Mgmt., Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands: Final Rule, 80 Fed. Reg. 16,128, 16,129; id. ("As of June 30, 2014, there were approximately 47,000 active oil and gas leases on public lands, and approximately 95,000 oil and gas wells."); see also BUREAU OF LAND MGMT., DEP'T OF THE INTERIOR, MINERAL AND SURFACE ACREAGE MANAGED BY THE BLM (Oct. 13, 2011), http:// www.blm.gov/wo/st/en/info/About_BLM/subsurface.html (last accessed August 24, 2016).

- 14. 43 C.F.R. § 3162.3-1 & 3-2 (2014). Those rules have existed for at least 25 years. 80 Fed. Reg. 16,128, 16,129 (Mar. 26, 2015).
- 15. Dep't of the Interior, Bureau of Land Mgmt., Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands: Final Rule, 80 Fed. Reg. 16128–222 (Mar. 26, 2015).
- 16. Id. at 16,128; id. ("The final rule also: (1) Improves public awareness of where hydraulic fracturing has occurred and the existence of other wells or geologic faults or fractures in the area, as well as communicates what chemicals have been used in the fracturing process; (2) Clarifies and strengthens existing rules related to well construction to ensure integrity and address developments in technology; (3) Aligns requirements with state and tribal authorities with regard to water zones that require protection; and (4) Provides opportunities to coordinate standards and processes with individual states and tribes to reduce costs, increase efficiencies, and promote the development of more stringent standards by state and tribal governments.").
- 17. The rule requires a company to submit to BLM a considerable amount of detailed information to obtain approval to engage in hydraulic fracturing. That information includes information regarding wellbore geology (including information regarding the formation into which fracturing fluids will be injected, the estimated depths of confining zones, and the occurrences of usable water, also with a map regarding known or suspected faults or fractures); a map showing the planned wellbore trajectory and the estimated length, direction, and depth of the fractures the driller hopes to propagate; information about the source, location, transport, and volume of water to be used in hydraulic fracturing; information regarding well spacing, setbacks, water withdrawal, and the estimated volume of fluid to be recovered from the fracturing operations; and the proposed mechanism for the handling and disposing of any recovered fluids. MICHAEL RATNER & MARY TIEMANN, CONG. RES. SERV., R43148, AN OVERVIEW OF UNCONVENTIONAL OIL AND NATURAL GAS: RESOURCES AND FEDERAL ACTIONS 18--19 (Apr. 22, 2015).
- 18. WESTERN ENERGY ALLIANCE, BLM FRACKING RULE 2, https://www.westernenergyalliance.org/printpdf/552 (last accessed Aug. 26, 2016). Four of those states—Colorado, North Dakota, Utah, and Wyoming—later challenged those rules in court.
- 19. Wyoming v. Dep't of the Interior, 2016 WL 3509415, at *1 (D. Wyo. June 21, 2016).
- 20. 30 U.S.C. §§ 181-287 (2012).
- 21. 43 U.S.C. §§ 1701–1787 (2012). The BLM also relied on the Indian Mineral Leasing Act of 1938, 25 U.S.C. §§ 396a–396g (2012), and the Indian Mineral Development Act of 1982, 25 U.S.C. §§ 2101–2108 (2012).
- 22. See, e.g., 43 U.S.C. § 1732(a) (requiring BLM management of public lands "under principles of multiple use and sustained yield"); *id.* § 1701(a) (stating that "the policy of the United States" is that "public lands be managed in a manner that will protect the quality of scientific...ecological, environmental, air and atmospheric, water resource, and archeological values"); *id.* § 1701(c) (stating that resources should be managed "so that they are utilized in the combination that will best meet the present and future needs of the American people" and in a manner "that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and...scientific and historical value.").
- 23. See, e.g., 30 U.S.C. § 189 (authorizing the Secretary of the Interior "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 Mineral Lease Act]"); 43 U.S.C. § 1733 ("The Secretary shall issue regulations necessary to implement the provisions of [the Federal Land Policy and Management] Act with respect to the management, use, and protection of the public lands, including the property located thereon.").
- 24. 467 U.S. 837 (1984).
- 25. See Paul J. Larkin, Jr., The World After Chevron, The Heritage Foundation, Legal Memorandum No. 186 (2016).
- 26. Wyoming, 2016 WL 3509415, at *3 (quoting Chevron, 467 U.S. at 842).
- 27. Id.
- 28. Id.
- 29. Id.
- 30. Pub. L. No. 93-523, 88 Stat. 1660 (1974) (codified as amended at 42 U.S.C. §§ 300f-300j-26 (2012)). The Safe Drinking Water Act is codified as Title XIV of the Public Health Service Act, ch. 373, 58 Stat. 682 (1944) (codified as amended at 42 U.S.C. § 201 *et seq.* (2012)).
- 31. Pub. L. No. 109-58, 119 Stat. 594 (2005) (codified as relevant here at 42 U.S.C. § 300h (2012)).
- 32. Wyoming, 2016 WL 3509415, at *11 (first citation omitted; later quoting *Chevron*, 467 U.S. at 842–43); *id*. ("In recent years, as does the BLM here, federal agencies have increasingly relied on *Chevron* deference to stretch the outer limits of its 'delegated' statutory authority by revising and reshaping legislation.").
- 33. See Steven J. Burian et al., Urban Wastewater Management in the United States: Past, Present, and Future, 7 J. URBAN MGMT. 33 (2000).
- 34. See Environmental Law Handbook 460 (21st ed. Thomas F. P. Sullivan ed., 2011) (hereafter Environmental Law Handbook).
- 35. The Safe Drinking Water Act directs the EPA to establish National Primary and Secondary Drinking Water Standards (NPDWS and NSDWS). Primary standards either specify the maximum permissible levels for man-made chemicals and other substances in drinking water that could adversely affect human health or define necessary procedures for treating water to remove contaminants. 42 U.S.C. § 300g-1(b)(3); OFF. OF WATER, EPA, EPA 816-F-04-030, UNDERSTANDING THE SAFE DRINKING WATER ACT 2 (June 2004). There are more than 80 such standards. ENVIRONMENTAL LAW HANDBOOK, *supra* note 34, at 466. Secondary standards address aesthetic considerations such as the taste, odor, color, and appearance of drinking water. Primary standards are federally enforceable, but secondary standards are not. UNDERSTANDING THE SAFE DRINKING WATER ACT, *supra*, at 4.

- 36. UNDERSTANDING THE SAFE DRINKING WATER ACT, *supra* note 35, at 2.
- 37. Environmental Law Handbook, supra note 34, at 466.
- 38. 42 U.S.C. § 300g-2(a)(1) & (2) (2012); UNDERSTANDING THE SAFE DRINKING WATER ACT, *supra* note 35, at 3-4; Environmental Law Handbook, *supra* note 34, at 466.
- 39. 42 U.S.C. § 300h(b)(1).
- 40. See Legal Envtl. Assistance Found., Inc. v. EPA, 118 F.3d 1467 (11th Cir. 1997); see also Legal Envtl. Assistance Found., Inc. v. EPA, 276 F.3d 1253 (11th Cir. 2002).
- 41. Wyoming, 2016 WL 3509415, at *9.
- 42. See Michael Burger, Fracking and Federalism Choice, 161 U. PA. L. REV. ONLINE 150, 151 (2013).
- 43. 119 Stat. at 694 (codified at 42 U.S.C. § 300h(d)(1)(B)(ii)).
- 44. See U.S. EPA, NATURAL GAS EXTRACTION—HYDRAULIC FRACTURING (Apr. 27, 2016) ("A core element of the Safe Drinking Water Act's (SDWA) Underground Injection Control (UIC) program is setting requirements for proper well siting, construction, and operation to minimize risks to underground sources of drinking water. The Energy Policy Act of 2005 excluded hydraulic fracturing, except when diesel fuels are used, for oil, gas or geothermal production from regulation under the UIC program."), https://www.epa.gov/hydraulicfracturing; Burger, *supra* note 42, at 151 ("As a general matter, oil and gas injection wells—including so-called "enhanced recovery" wells like fracking wells—are regulated under the UIC program's Class II requirements. However, in the 2005 Energy Policy Act (EPAct), Congress amended the definition of 'underground injection' under the SDWA specifically to exclude 'the underground injection of fluids or propping agents (other than diesel fuels)' associated with fracking. That is, since the passage of EPAct, fracking operations can legally inject anything but diesel into the ground without obtaining a UIC permit.") (footnotes omitted).
- 45. Id.
- 46. See Wyoming, 2016 WL 3509415, at *10-11.