

DIVIDING THE WATERS

Lessons from the West: Fracking and Water Resources

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INTRODUCTION

Hydraulic fracturing (“fracking”) of oil and gas wells in the United States has taken place for over 60 years,¹ but only recently has the technology and its growing industry been the focus of a national discourse on its safety, increased regulation by states, and litigation. The process of fracking has direct connections to water law and policy, with implications for both water quantity and water quality, and for both surface water and groundwater. Water used in fracking can be analyzed from its acquisition, through its use in fracking, to its ultimate treatment and disposal.

For a brief overview, the Environmental Protection Agency (“EPA”) describes fracking as follows:

Hydraulic fracturing involves the pressurized injection of fluids commonly made up of water and chemical additions into a geologic formation. The pressure exceeds the rock strength and the fluid opens or enlarges fractures in the rock. As the formation is fractured, a ‘propping agent,’ such as sand or ceramic beads, is pumped into the fractures to keep them from closing as the pumping pressure is released. The fracturing fluids (water and chemical additives) are then returned back to the surface. Natural gas will flow from pores and fractures in the rock into the well for subsequent extraction.²

The EPA also identifies the connections between water and fracking. First, it explains initial water acquisition:

Fracturing fluids can be up to 99% water. The volume of water needed for hydraulic fracturing varies by site and type of formation. Fifty thousand to 350,000 gallons of water may be required to fracture one well in a coalbed

¹ Philippe A. Charlez, ROCK MECHANICS: PETROLEUM APPLICATIONS 239 (1997) (noting the first hydraulic fracturing job was completed in 1947).

² EPA, “Hydraulic Fracturing Fact Sheet” at 1 (June 2010), www.epa.gov/tp/pdf/hydraulic-fracturing-fact-sheet.pdf.

formation while two to five million gallons of water may be necessary to fracture one horizontal well in a shale formation. Water used for fracturing fluids is acquired from surface water or groundwater in the local area.³

Second, the EPA explains “flowback” water and disposal:

Wastewaters from the hydraulic fracturing process may be disposed in several ways. For example, the flowback water following fracturing may be returned underground using a permitted underground injection well, discharged to surface waters after treatment to remove contaminants, or applied to land surfaces. Not all fracturing fluids injected into the geologic formation during hydraulic fracturing are recovered. Estimates of the fluids recovered range from 15-80% of the volume injected depending on the site. Some companies reuse flowback to hydraulically fracture more than one well as a way of conserving water and recycling the fluids.⁴

With that background of water’s involvement in fracking, this short paper analyzes how water law in western states applies to the overall use of water in fracking. This paper does so by offering several “Lessons from the West” on how western states with burgeoning fracking industries are addressing water law and policy issues related to fracking. This paper specifically examines statutes, regulations, and court decisions in ten western states: California, Colorado, Idaho, Kansas, Montana, North Dakota, Oklahoma, Texas, Utah, and Wyoming. “Discussion Points” are also included to stimulate thoughtful input on how courts and administrative agencies may encounter and address these issues.

LESSON #1: Water for Fracking in Appropriative Water Rights Systems

While most states in the east employ the riparian doctrine, most western states follow the traditional prior appropriation doctrine in dealing with water rights.⁵ The prior appropriation doctrine maintains that water rights are determined by priority of beneficial use. Simply put, this means that the first person to use water or divert water for a beneficial use or purpose can acquire individual rights to the water (i.e., “first in time, first in right”).

Most western states also utilize the “no injury rule” as part of the appropriative system. A user seeking to change the use of a water right must request permission from an administrative board, state engineer, or official (or, in Colorado, from a court). Changes in the way water is used, place of use, point of diversion, purpose, or time of use are permitted subject to the condition that the change must not impair uses by other water rights holders. This no injury rule extends to all appropriators, junior as well as senior, and can be extended to other water use claimants.

As discussed above, fracking requires a lot of water. Water for fracking may be obtained from surface water, groundwater, municipal water suppliers, treated wastewater from municipal and

³ *Id.* at 2.

⁴ *Id.*

⁵ California, Oklahoma, and Texas integrate riparian and prior appropriation doctrines.

industrial treatment facilities, recycled produced water, and flowback water. The source depends upon the volume and water quality requirements, regulatory and physical availability, competing uses, and characteristics of the formation to be fractured. Companies engaged in fracking generally try to use wastewater from other industrial facilities or recycled fracking water, followed by ground and surface water sources, with preference for non-potable sources over potable sources.

Securing water for fracking under an appropriate water rights system raises many issues:

- When is a new water right is required?
- If a permit is required then what are its limitations?
- If a water right is acquired, when can it be transferred?
- What limitations exist on purchasing water or wastewater from a right holder or municipality?
- Is a water right required in order to use produced water from fracking activity?

While most states require a permit to divert and use water for fracking,⁶ some exempt fracking activities from permit requirements. Texas⁷ has a permit exemption for temporary water supply wells that service oil rigs.⁸ A groundwater district in Texas may not require any permit issued by the district for “the drilling of a water well used solely to supply water for a *rig* that is actively engaged in drilling or exploration operations for an oil or gas well permitted by the [Railroad Commission of Texas] provided that the person holding the permit is responsible for drilling and operating the water well and the well is located on the same lease or filed associated with the drilling rig.”⁹ The term “rig” is interpreted broadly to include workover rigs and other implements of well completion, which includes those related to hydraulic fracturing.¹⁰ That means operators are free to drill as many water wells as they want and use as much fresh groundwater as they need with few restrictions or guidelines.¹¹

In addition to Texas, Idaho has a permitting exemption that the Idaho Legislature recently enacted as part of its comprehensive overhaul of Idaho’s laws governing oil and gas development. This permitting exemption is for the withdrawal of geothermal and low temperature geothermal water in connection with oil and gas development, though it also adopted a procedure in which the Idaho Department of Water Resources can initiate a contested case proceeding regarding the withdrawal if it has reason to believe that other users could be

⁶ For a discussion of the sources of water that could potentially be used for fracking in Colorado and water rights application, see THE COLORADO DIVISION OF WATER RESOURCES, THE COLORADO WATER CONSERVATION BOARD, AND THE COLORADO OIL AND GAS CONSERVATION COMMISSION, “Water Sources and Demand for the Hydraulic Fracturing of Oil and Gas Wells in Colorado from 2010 through 2015,” pp. 6-8, cogcc.state.co.us/Library/Oil_and_Gas_Water_Sources_Fact_Sheet.pdf.

⁷ For a discussion of this topic in relation to Texas water law, see Thomas E. Kurth, Cameron Gulley, and William D. White, “Shaking Up Established Case Law and Regulation: The Impacts of Hydraulic Fracturing,” 57 THE ADVOC. (TEXAS) 18 (Winter, 2011).

⁸ TEX. WATER CODE § 36.117.

⁹ *Id.* § 36.117(b)(2) (emphasis added).

¹⁰ THE RAILROAD COMMISSION OF TEXAS, “Water Use in Association with Oil and Gas Activities regulated by the Railroad Commission of Texas,” www.rrc.state.tx.us/barnettshale/wateruse.php.

¹¹ Rebecca Jo Reser & David T. Ritter, “State and Federal Legislation and Regulation of Hydraulic Fracturing,” 57 THE ADVOC. (TEXAS) 31, 34 (Winter, 2011).

impacted.¹² It seems that the purpose of the exemption is to alleviate the need to obtain a water permit for the withdrawal of "produced water," i.e., the groundwater that is within the oil/gas formation that is brought to the surface along with the oil/gas, regardless of whether it is wanted or not. Since this water is usually pretty far down underground, it is usually pretty warm, thus falling within the exemption. By way of reminder, the reason that this exemption is even necessary in the first place is because in prior appropriation states, the general rule is that water in its natural state is the property of the state, and withdrawal of such water from its natural source requires permission from the state in the form of a water right.

Since reusing another entity's treated wastewater is generally the industry's preferred alternative for securing water for hydraulic fracturing, it is important to understand that under the prior appropriation doctrine one cannot just buy someone else's treated wastewater and use it, no questions asked. In western states like Idaho, reusing someone else's wastewater for hydraulic fracturing most likely requires some sort of approval in the form of a transfer or a Water Supply Bank lease/rental.

On a related topic, the fate of the flowback water is a focal point of attention for operators, surface owners, regulatory agencies, and environmentalists. Typical flowback water may have a concentration of 20,000 to 30,000 parts per million (PPM) of chlorides and 40,000 to 50,000 PPM of total dissolved solids (TDS).¹³ The fracking process, and most other petrochemical extraction processes, also results in produced water. Essentially, it is salt water, but with a typical chloride concentration of over 70,000 PPM and a TDS concentration of over 150,000 PPM.¹⁴ The salinity and chemical content of produced water means that it may be corrosive as well as toxic. Often, where disposal wells are available, such water is injected deep in the ground into nonproducing formations.

Returning back to water right applications, when a permit is required and obtained, the applicant must consider limitations. These limitations include water availability, priority limitations, and place of use restrictions. When using wastewater from a right holder or municipality, the user may be limited by rules regarding increases in consumptive use, or reuse being limited to the original water right. Public interest considerations also exist, such as whether fallowing irrigation land for water supply is consistent with the public interest. For produced water, questions arise as to whether it is considered waste or a beneficial use under water law principles. These are a few of the many considerations when analyzing water supplies for fracking in appropriative water rights systems.

A concrete example of case law in this area is provided from Colorado. In a decision that will have broad implications for oil and gas producers in the state, the Colorado Supreme Court ruled

¹² I.C. § 42-237(a).

¹³ Tom Hayes, "Development of Technologies for the Reuse of Flowback and Produced Waters Associated with Shale Gas Production," www.rpsea.org/attachments/contentmanagers/3328/2010_International_CSGS_Forum-Reuse_of_Flowback_and_Produced_Waters-Tom_Hayes-5-19-10.pdf.

¹⁴ Marcellus-Shale.us, "Our Look at Gas Drilling Wastewater Flowback and Brine Treatment in Pennsylvania," www.marcellus-shale.us/drilling_wastewater.htm.

in 2009 that the extraction of tributary groundwater produced from coal bed methane (“CBM”) wells is a “beneficial use” of water that must be regulated under state water laws.¹⁵

In November 2005, a group of ranchers – one of them William Vance – in southwestern Colorado filed a lawsuit in the water court alleging that water extraction from CMB was a beneficial use of water. As such, Vance argued this water use must be subject to the same regulations as agricultural or sand/gravel operations (i.e. have to augment for seepage and evaporation, and prevent injury to other water users). The State argued (and lost) that groundwater for CBM was not subject to the usual “beneficial use” review by the State Engineer. Instead, the State sought to keep water use for coal-bed seams within the purview of the Colorado Oil and Gas Conservation Commission (“COGCC”), Colorado’s agency that regulates all oil and gas activities.

Discussion Points:

- As fracking of oil and gas resources continues to expand, will states streamline the process for obtaining water rights or even exempt water right permit requirements for that industry?

LESSON #2: Future Fights in the West Regarding Fracking and Water May Primarily Involve Challenges Over Water Rights Rather Than Water Quality

One of the most visible places right now for water and fracking in the west is locating sufficient water supplies. Some evidence already exists that the water requirements for hydraulic fracturing are creating conflicts with other uses and could constrain future natural gas production in some areas. For example, in Texas, a major drought in 2011 prompted water agencies in the region to impose mandatory reductions in water use. Water agencies, some of which sold water to natural gas companies, indicated they might have to reconsider these sales if the drought persisted. Natural gas companies also tried to purchase water from local farmers, offering \$9,500 to nearly \$17,000 per million gallons of water.¹⁶ Likewise, at an auction of unallocated water in Colorado during the spring 2012, natural gas companies successfully bid for water that had previously been largely claimed by farmers, raising concerns among some about the impacts on agriculture in the region and on ecosystems dependent on return flows.¹⁷

These issues have also gained attention in recent news reports. A New York Times article out of Colorado discusses a new race for water “rippling through the drought-scorched heartland” that is “pitting farmers against oil and gas interests.”¹⁸ “Farmers and environmental activists say they

¹⁵ *Vance v. Wolfe*, 205 P.3d 1165 (Colo. 2009). For a discussion of the decision and its implications, see www.westernwaterlaw.com/articles/Vance_v_Wolfe.html.

¹⁶ J. Carroll, *Worst Drought in More Than a Century Strikes Texas Oil Boom*, BLOOMBERG, June 13, 2011, www.bloomberg.com/news/2011-06-13/worst-drought-in-more-than-a-century-threatens-texas-oil-natural-gas-boom.html.

¹⁷ B. Finley, *Colorado Farms Planning for Dry Spell Losing Auction Bids for Water to Fracking Projects*, THE DENVER POST, April 1, 2012, www.denverpost.com/environment/ci_20299962/colorado-farms-planning-dry-spell-losing-auction-bids.

¹⁸ Jack Healy, *For Farms in the West, Oil Wells Are Thirsty Rivals*, THE NEW YORK TIMES, Sept. 5, 2012, www.nytimes.com/2012/09/06/us/struggle-for-water-in-colorado-with-rise-in-fracking.html.

are worried that deep-pocketed energy companies will have purchase on increasingly scarce water supplies as they drill deep new wells that use the technique of hydraulic fracturing.”¹⁹ The article does point out limitations, that energy producers cannot simply snap up the rights to streams and wells: “To fill their storage tanks, they lease surplus water from cities or buy treated wastewater that would otherwise be dumped back into rivers. In some cases, they buy water rights directly from farmers or other users — a process that in Colorado requires court approval.”²⁰

A recent report by the Pacific Institute summarized some of the issues as follows:

Given the proposed expansion of drilling in many regions, conflicts between natural gas companies and other users are likely to intensify. More and better data are needed on the volume of water required for hydraulic fracturing and the major factors that determine the volume, such as well depth and the nature of the geological formation. Additional analysis is needed on the cumulative impacts of water withdrawals on local water availability, especially given that water for hydraulic fracturing can be a consumptive use of water. Finally, more research is needed to identify and address the impacts of these large water withdrawals on local water quality. This work must be done on a basin-by-basin level.²¹

Thus, a lot of the cases coming to courts in the coming years may likely focus more on water quantity and water rights issues for fracking rather than water quality and contamination claims.

LESSON #3: Thus Far, State Regulation of Fracking Primarily Focuses on Disclosure, and Not Yet on Water Quality

Given the general exemptions for fracking regarding water quality in the Clean Water Act (CWA) and Safe Drinking Water Act (SDWA), federal law leaves jurisdiction and authority over hydraulic fracturing operations in the states. Thus, this section examines how states have regulated fracking and its impacts on water quality. In general, many state regulations that apply to fracking also apply to all other oil and gas operations. For the purposes of this paper, we tried to discern the specific statutes and regulations that have been enacted and promulgated in recent years in response to new fracking technologies.

One aspect of state regulation of fracking involves the extent of disclosure of the composition of chemicals in fracking fluids. Environmental groups that claim fracking fluids contaminate groundwater demand detailed public disclosure of the composition of the fluids. The fracking industry is not theoretically opposed to such disclosure, but it generally wants trade secret

¹⁹ *Id.*

²⁰ *Id.*

²¹ Heather Cooley & Kristina Donnelly, “Hydraulic Fracturing and Water Resources: Separating the Frack from the Fiction,” THE PACIFIC INSTITUTE 1, 17 (June 2012), www.pacinst.org/reports/fracking/full_report.pdf.

protection for certain chemicals.²² Fracking-impacted states have recently begun to pass statutes and regulations concerning frack-fluid disclosure, with differing provisions as to the level of trade secret protection. Colorado, Montana, Oklahoma, North Dakota, Texas, Utah, and Wyoming have regulations requiring disclosure, as discussed further below.

Under the new Texas law requiring disclosure well operators are required to “complete the form posted on the hydraulic fracturing chemical registry Internet website of the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission” with respect to the well in which fracking fluids are used. The referenced website, FracFocus.org, is available for operators to post data about the chemical composition of their fracking fluids. Several states’ regulations require disclosure to that website.

However, it is important to note that in most of the states that require disclosure, the amounts and proportions do not need to be disclosed. For example, the required disclosure in Texas only includes both the volume of water used and the chemical ingredients of the fracturing fluids used. That was probably the result of some political compromise – amounts and proportions speak to recipes, and recipes involve proprietary information.

Besides disclosure, few states have directly addressed water quality issues in their regulations. Here is a brief overview of regulation in each western state examined:

California

California’s Division of Oil, Gas and Geothermal Resources (“DOGGR”)²³ oversees oil drilling operations, but since fracking occurs in existing wells, there are no specific rules for its use. DOGGR is developing a regulatory proposal that will include definitions, well construction, and reporting requirements, which should be released by the end of 2012.

Colorado

Colorado implemented discretionary chemical disclosure rules in spring 2009, but those rules were supplanted by more rigorous rules adopted in December 2011 that went into effect in April 2012.²⁴

The Colorado Oil and Gas Conservation Commission (“COGCC”) released a formal draft of the groundwater monitoring and well setback standards it intends to apply to oil and gas operations within the state. The setback rule would establish four separate setback requirements depending on the occupancy and use of the zone. High occupancy zones would require specific approval from COGCC. The depth of the remaining setbacks vary from 350 feet to 750 feet.

²² For a general overview of the chemical disclosure debate in fracking, see Mike Soraghan, *In Fracking Debate, ‘Disclosure’ is in the Eye of the Beholder*, THE NEW YORK TIMES, June 21, 2010.

²³ CALIFORNIA DEPARTMENT OF CONSERVATION, DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES, “Oil, Gas & Geothermal - Publications - Laws and Regulations,” www.conservation.ca.gov/dog/pubs_stats/Pages/law_regulations.aspx.

²⁴ 2 COL. CODE. REGS. § 404-1:205A (2011).

The proposed groundwater monitoring rule increases both the frequency of sampling and the range of wells required to be sampled. Drilling operators would be required to conduct baseline sampling of two groundwater sources within a mile of the drill site before operations, and then again 18 months and five years after sampling.

Idaho

The Idaho Oil and Gas Conservation Commission is currently engaged in rulemaking regarding fracking.²⁵ The proposed rule would add application, operating, and reporting requirements for well treatments for hydraulic fracturing.

Kansas

The Kansas Corporation Commission regulates fracking in that state. Currently, its regulations do not require disclosure.²⁶ For well casing, the applicable regulation is fairly limited: “The use of cement in setting casing or sealing off producing formations, underground porosity gas storage formations, or fresh and usable water formations shall be required.”²⁷

Montana

In August 2011, the Montana Board of Oil and Gas adopted a fracking fluid disclosure rule, which contains a trade-secret exemption.²⁸ The rule does not require prior notification for adjacent landowners of well fracking, but it does lay out specific requirements for well evaluation, well casings, testing, and setbacks.

North Dakota

The North Dakota Industrial Commission imposed new regulations on fracking, which took effect in April 2012.²⁹ These new rules include chemical disclosure requirements.

Provision 43-02-03-20 requires sealing off strata during operations: “During the drilling of any oil or natural gas well, all oil, gas, and water strata above the producing horizon shall be sealed or separated where necessary in order to prevent their contents from passing into other strata.”

Provision 43-02-03-27.1 directly addresses fracking. For hydraulic fracture stimulation performed through a frack string run inside the intermediate casing string, it requires that the frack string must be either stung into a liner or run with a packer set at a minimum depth of one hundred feet below the top of cement or one hundred feet below the top of the Inyan Kara formation, whichever is deeper. For hydraulic fracture stimulation performed through an

²⁵ See IDAHO OIL AND GAS CONSERVATION COMMISSION, “Proposed Rulemaking for IDAPA 20.07.02, Rules Governing Conservation of Crude Oil and Natural Gas in the State of Idaho,” www.idl.idaho.gov/adminrule/oilgasrulemaking.html.

²⁶ KANSAS CORPORATION COMMISSION, OIL & GAS CONSERVATION DIVISION, “Rules and Regulations,” www.kcc.state.ks.us/conservation/index.htm.

²⁷ K.A.R. 82-3-105.

²⁸ MONTANA BOARD OF OIL AND GAS, “Hydraulic Fracturing Rulemaking,” bogc.dnrc.mt.gov/Frac.asp.

²⁹ NORTH DAKOTA OIL AND GAS DIVISION, “Rules and Regulations,” www.dmr.nd.gov/oilgas.

intermediate casing string, the maximum treating pressure shall be no greater than eighty-five percent of the American petroleum institute rating of the intermediate casing.

Oklahoma

The Oklahoma Corporation Commission regulates hydraulic fracturing of oil and gas wells as a well completion operation.³⁰ The Commission adopted a new rule in 2010 that cross-references hydraulic fracturing regulations.³¹ Rule 165:10-3-10 expressly prohibits the pollution of fresh water in the conduct of hydraulic fracturing operations.

Texas

Texas House Bill 3328 passed in May 2011.³² The bill requires operators to disclose and report hydraulic fracturing chemicals and the amount of water used in hydraulic fracturing operations. House Bill 3328 protects operators who do not disclose chemicals if the discovered chemicals are not “purposefully added.”³³ The Railroad Commission of Texas adopted a hydraulic fracturing chemical disclosure rule in December 2011. The rule is effective on wells that are issued an initial drilling permit after February 1, 2012.³⁴

Texas' regulations do not require operators to disclose chemicals that are not disclosed to them by manufacturers, or chemicals that are present in trace amounts.³⁵ Texas' regulations allow an operator to withhold fluid data from disclosure if it is considered a “trade secret.”³⁶ Texas does not have any other particular requirements for disclosure or special casing requirements for hydraulic fracturing operations.³⁷ Operators still must comply with general proper wellhead practices for casing and well-waste disposal.³⁸

Utah

The Utah Board of Oil, Gas and Mining approved a hydraulic fracturing rule, which has an effective date of November 1, 2012.³⁹ Rule R649-3-39 requires all operators to report the amount and type of chemicals used in hydraulic fracturing operations to the national registry

³⁰ OKLAHOMA CORPORATION COMMISSION, OIL AND GAS DIVISION, www.occeweb.com/og/oghome.htm.

³¹ 201 OAC 165:10-3-10(b), OKLAHOMA CORPORATION COMMISSION, July 11, 2010.

³² *See generally* H.B. 3328, 82d Reg. Sess. § 1, www.capitol.state.tx.us/BillLookup/History.aspx?LegSess=82R&Bill=HB3328.

³³ TEX. NAT. RES. CODE ANN. § 91.851(1)(E).

³⁴ Press Release, R.R. Comm'n of Tex., “Railroad Commissioners Adopt One of the Nation's Most Comprehensive Hydraulic Fracturing Chemical Disclosure Requirements,” Dec. 13, 2011, www.rrc.state.tx.us/pressreleases/2011/121311.php; H.B. 3328 § 2.

³⁵ 16 TEX. ADMIN. CODE § 3.29(d); *but see* 16 TEX. ADMIN. CODE § 3.29(c)(2)(A) (detailing the disclosures that are required).

³⁶ *Id.* § 91.851(3).

³⁷ *See* 16 TEX. ADMIN. CODE § 3.13 (describing general casing requirements); *see generally* TEX. NAT. RES. CODE § 91.011.

³⁸ *Id.*

³⁹ UTAH DIVISION OF OIL, GAS & MINING, “Notice to Oil and Gas Operators – Rule R649-3-39,” oilgas.ogm.utah.gov.

website (FracFocus.org) within 60 days of the work being performed. The rule also imposes several requirements for cement casing in order to prevent contamination of water supplies.

Wyoming

Wyoming's fracking rules are disclosure-based and they took effect on September 15, 2010. Operators must disclose fracturing fluids, comply with casing and cementing requirements, and comply with notification requirements to nearby landowners.⁴⁰ Wyoming's regulation, somewhat similar to regulations in Texas, allowed companies to submit fracking chemicals to the Wyoming Oil and Gas Conservation Commission ("WOGCC") for a determination as to whether they qualify as trade secrets.⁴¹ Under the regulations, operators must submit to the WOGCC a complete list of chemicals used in fracking operations on a well-by-well basis.⁴² As of August 24, 2011, the Commission had granted exemptions for 146 chemicals, rejecting two applicants.⁴³

LESSON #4: Plaintiffs May Turn to Regulatory Enforcement Litigation Given the Lack of Success Under Common Law Theories

At least 35 lawsuits have been filed in state and federal courts alleging some level of harm to person, property, or the environment caused by fracking or related activities, including in California, Colorado, and Texas.⁴⁴ Although one principally voiced complaint regarding fracking is the potential by which the practice can contribute to groundwater pollution,⁴⁵ no lawsuit has successfully created a legal link between the specific process of hydraulic fracturing and pollutant liability.⁴⁶ This fourth "Lesson" predicts that future litigation regarding hydraulic fracturing will most likely focus on operators' violations of governmental regulations that are designed to protect against risk or trespass.

Common Law Actions

The majority of fracking lawsuits filed to date have been filed based on common law theories of liability.⁴⁷ The predominant claim by plaintiffs has been that, as a result of fracking of natural

⁴⁰ Operational Rules, Drilling Rules, Wyoming Oil & Gas Conservation Comm'n, Doc. 7928, Ch. 3, § 45 (Aug. 17, 2010), sos.wy.state.wy.us/Rules/RULES/7928.pdf.

⁴¹ Jeremy Fugleberg, *Wyoming Regulators Exempt 146 'Fracking' Chemicals from Public Disclosure*, CASPER STAR-TRIBUNE, Aug. 24, 2011.

⁴² WOGCC Rules and Regulations, Ch. 3, § 45 (d).

⁴³ *Id.*

⁴⁴ For an extensive update of litigation on fracking and water supply impacts, see Dave Neslin, "Hydraulic Fracturing Litigation – Recent Developments and Current Issues in Cases Involving Alleged Water Supply Impacts," 2012 No. 3 RMMLF-INST. PAPER No. 7 (2012).

⁴⁵ For a discussion of fracking and groundwater contamination litigation, see Jeffrey C. King, Jamie Lavergne Bryan, and Meredith Clark, "Factual Causation: The Missing Link in Hydraulic Fracture – Groundwater Contamination Litigation," 22 DUKE ENVTL. L. & POL'Y F. 341 (Spring 2012).

⁴⁶ See Francis Gradijan, "State Regulations, Litigation, and Hydraulic Fracturing," 7 ENVTL & ENERGY L. & POL'Y J. 47, 56 (Spring 2012).

⁴⁷ For extensive discussions of these legal theories, see generally Hannah Wiseman, "Beyond Coastal Oil v. Garza: Nuisance and Trespass in Hydraulic Fracturing Litigation," 57 THE ADVOC. (TEXAS) 8 (Winter, 2011); David E.

gas wells located near plaintiffs' property, plaintiffs have suffered medical issues and their property, including groundwater wells, has become contaminated due to the release of contaminants to the land, water and air during the fracking process. Common-law theories of liability that have been asserted include: (1) public nuisance; (2) private nuisance; (3) trespass; (4) negligence; (5) negligence per se; (6) strict liability for abnormally dangerous activities; (7) fraud; (8) indemnification; and, (9) contribution.⁴⁸

Perhaps the most significant non-environmental issue raised by fracking concerns subsurface trespass. In 2008, in *Coastal Oil & Gas Corp. v. Garza Energy Trust*, the Supreme Court of Texas held that the traditional rule of capture precluded a recovery for the plaintiff's only claim of injury for subsurface trespass, that because of a hydraulic fracturing operation on neighboring property drainage had occurred with respect to the plaintiff's minerals.⁴⁹ The Court's limited holding was that "damages for drainage by hydraulic fracturing are precluded by the rule of capture."⁵⁰ The Court noted that the plaintiff did not "claim that the hydraulic fracturing operation damaged his wells or the Vicksburg T formation beneath his property."⁵¹ This ruling, the Court held, made it unnecessary to decide the "broader issue" of whether subsurface fracking can give rise to an action for trespass.⁵²

While a handful of these lawsuits like *Garza* have been dismissed or settled, most remain unresolved. Courts are just beginning to work through issues such as the factual sufficiency of plaintiffs' claims. For example, in *Harris v. Devon Energy Production Co.*, plaintiffs alleged in their complaint that the defendant's drilling and fracking operations caused the plaintiffs' groundwater to become polluted with gray sediment.⁵³ The plaintiffs generally alleged in their complaint that groundwater testing revealed the presence of hazardous substances, some of which are contained in bentonite mud used during well drilling. In January 2012, the court dismissed all claims against Devon Energy on the basis that recent testing of the plaintiffs' groundwater wells showed no contamination present at levels that are toxic for human consumption.

More recently, in May 2012, a district court in Colorado dismissed with prejudice a toxic tort action, *Strudley v. Antero Resources Corp.*, involving personal injury and property damage claims arising from well development activities.⁵⁴ The case was brought by a group of plaintiffs who alleged that the defendant drilling companies had tortiously caused certain "health injuries." According to the plaintiffs, these injuries resulted from the plaintiffs' exposure to air and water contaminated by the defendants' drilling activities. The court, cognizant of the burden associated with defending a toxic tort action, required the plaintiffs to make a prima facie showing of exposure and causation at the outset of the case. After reviewing the facts produced

Pierce, "Developing a Common Law of Hydraulic Fracturing," 72 U. PITT. L. REV. 685 (Summer, 2011); Terry D. Ragsdale, "Hydraulic Fracturing: The Stealthy Subsurface Trespass," 28 U. TULSA L.J. 311 (Spring, 1993).

⁴⁸ Margaret Anne Hill, Mary Ann Mullaney, and Heather L. Demirjian, *Shale Development and Fracking Litigation Trends*, THE LEGAL INTELLIGENCER, July 31, 2012.

⁴⁹ *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1, 12-13 (Tex. 2008).

⁵⁰ *Id.* at 17.

⁵¹ *Id.* at 13.

⁵² *Id.* at 11-12.

⁵³ *Harris v. Devon Energy Production Co.*, E.D. TX Docket No. 4:2010-cv-00708-MHS-ALM.

⁵⁴ See *Strudley v. Antero Resources Corp.*, No. 2011 CV 2218 (Denver Dist. Ct. 2011).

by the plaintiffs, the court concluded that the plaintiffs had failed to set forth evidence to support their claim that they had been exposed to the chemicals emitted during defendants' drilling activities, or that their injuries had been caused by that exposure.

Challenges to Statutes and Regulations

In California, a few cases have just been filed.⁵⁵ In one case, several environmental groups sued DOGGR, the state regulator, for an alleged pattern and practice of failing to comply with the California Environmental Quality Act ("CEQA") when issuing drilling permits statewide.⁵⁶

It is possible that, as a result of the increased chemical disclosure requirements states are adopting, as well as the EPA's focused studies on the effects of fracking on groundwater, plaintiffs may, in the future, have less difficulty pleading facts sufficient to support their claims. Until that time, the filing of complaints alleging harm from fracking may remain at current levels as plaintiffs struggle to satisfy courts that require plaintiffs to comply with the *Iqbal* standard.

A somewhat related topic regarding regulations and lawsuits under them are the proliferation of local regulations and preemption challenges based on state regulation. Recently, many local governments have adopted ordinances to prohibit or regulate oil and gas development generally or hydraulic fracturing specifically. Such prohibitions and restrictions can prohibit oil and gas companies from completing wells that the state oil and gas commission has permitted or impose requirements and restrictions that conflict with those imposed by the state. This can raise issues of preemption or supersession under state law, that is, whether the state oil and gas program prevents local governments from precluding or regulating such activity. Two oil and gas preemption cases are currently pending in Colorado.⁵⁷

Discussion Points:

- Should there be citizen standing to bring trespass and nuisance actions?
- Should fracking be subject to a higher standard of care than other oil and gas production methods?
- How will regulations and common law actions work together, and how might they be packaged in state legislatures as a political compromise (i.e., less regulation in exchange for more common law actionability and standing, or vice versa)?

⁵⁵ *Center for Biological Diversity v. California Department of Conservation*, No: RG12652054 (Alameda County Superior Court) (Oct. 16, 2012); *Sierra Club v. California Department of Conservation*, No: S-1500-CV-277171 (Kern County Superior Court) (July 13, 2012).

⁵⁶ *Center for Biological Diversity v. California Department of Conservation*, No: RG12652054 (Alameda County Superior Court) (Oct. 16, 2012).

⁵⁷ *SG Interests I, Ltd. v. Board of County Commissioners of Gunnison County*, No. 2011CV127 (Gunnison Co. Dist. Ct. filed June 2, 2011); *COGCC v. City of Longmont*, No. 12CV702 (Boulder Co. Dist. Ct. filed July 30, 2012).