
Editor's Note

In this edition of *NREEL Vista*, Nicholas Goldstein considers the potential liability oil and gas operators could incur from spills caused by the type of flash flooding that occurred in Colorado this past year, as well as the defenses available to operators from these flood-caused spills. Next, Matthew Landess raises the possibility that oil and gas leaseholders who have developed leases using vertical drilling techniques could be in violation of the implied covenant to reasonably develop the leases if further lease development is possible using newer horizontal drilling techniques. Finally, Sabrina Rodriguez Salvato summarizes the recent New Mexico Supreme Court decision in *Moongate Water Co. v. City of Las Cruces* and discusses the implications of *Moongate* for constitutional takings jurisprudence and stranded assets theory in utility regulation.

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Oil and Water: Lessons for New Mexico from the Colorado Floods

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The devastating flood that ripped through Colorado's Front Range in September 2013 was improbable, but not unprecedented. While the National Weather Service calculated that the probability of such an intense weeklong deluge occurring in any given year was less than 1/1,000,¹ Colorado's official State Climatologist warned that similar events have been recorded in the past and will recur in the future.² Early estimates indicate that the costs of repairing damage to some 500 hundred miles of roadway,³ 120 bridges,⁴ and nearly 20,000 homes will exceed \$2 billion.⁵ The region's thriving oil and gas industry did not escape this fate, and damage to wells, containment tanks, and other drilling equipment was actively discussed on traditional and social media as the flood waters raged.⁶

Although many of the fears expressed by pundits and residents with respect to water pollution from flood-induced oil spills were not fully realized,⁷ the Colorado Oil and Gas Association, an industry trade group, did acknowledge that, "thousands of wells [were] impacted" by flooding.⁸ According to state

regulators' most recent estimates, more than 43,000 gallons of oil and 26,000 gallons of produced water spilled during the flood.⁹ An analysis of potential avenues of liability and defenses for these spills is instructive for New Mexico practitioners, who are no strangers to oil and gas development or flash flooding.

The primary federal statutes regulating oil and gas spills are the Oil Pollution Act ("OPA"), the Comprehensive Environmental Response, Compensation and Remediation Act ("CERCLA") and the Clean Water Act ("CWA").¹⁰ OPA prohibits unpermitted releases of crude

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Damage from flash flooding in Colorado.

oil and its component chemicals into navigable waters.¹¹ CERCLA exempts crude oil but applies to releases of nearly all other hazardous chemicals including wastewater and process fluids.¹² Both statutes hold responsible parties strictly liable for damages resulting from discharges of these pollutants into surface waters.¹³

The CWA has also been interpreted as imposing strict liability for the unpermitted discharge of pollutants from point sources into navigable waters.¹⁴ In addition, the CWA regulates pollution from storm water runoff from industrial sites.¹⁵ While an exemption to this provision exists for “[a]ll field activities or operations associated with oil and gas exploration, production, processing, or treatment . . . facilities,” the CWA does prohibit unpermitted releases of storm water “contaminated by contact with . . . raw material, intermediate products, finished product, byproduct, or waste products located on the site of such operations.”¹⁶ Oil and gas producers may therefore be held liable for flood-related releases under any or all of these statutes.

In the event of flood-related spills like those reported in Colorado, however, industry actors may be able to raise “act of God” defenses under all three laws. OPA and CERCLA define this term as “an unanticipated grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character the effects of which could not have been prevented or avoided by the exercise of due care or foresight.”¹⁷ The CWA states more simply that an act of God is “an act occasioned

by an unanticipated grave natural disaster.”¹⁸ Under each statute, the act of God must be the sole cause of the release in order for this defense to apply.¹⁹

In contrast to less predictable or common disasters such as tornados, tidal waves, and earthquakes, floods do not fit neatly into “act of God” definitions. An assessment of a particular flood is necessarily case-specific, but federal courts have consistently held that “heavy rainfall [i]s not the kind of exceptional natural phenomenon to which the act of God exception applies.”²⁰ For instance, in *United States v. Stringfellow*,²¹ the court rejected the act

of God defense to a CERCLA claim involving contamination that resulted from unusually high levels of rainfall at a toxic waste disposal site in two prior years. The court stated that these above-average rain events “were foreseeable based on normal climatic conditions” and not sufficiently grave to constitute an act of God.²²

The defendant in *United States v. Alcan Aluminum Corp.* attempted to distinguish its case from *Stringfellow* on the basis that the discharge of hazardous wastes into the Susquehanna River from its Pennsylvania manufacturing facility was not the result of simple seasonal precipitation, but from an extreme weather event, Hurricane Gloria.²³ The defendant claimed that the storm was not anticipated to have such severe impacts so far north and inland. Again, the court rejected this argument, in effect holding that a storm’s meteorological classification as a hurricane does not automatically render it an act of God.²⁴

In certain situations, courts will forgo a lengthy assessment of the gravity and predictability of a weather event and instead engage in a more practicable analysis of whether the storm was the sole cause of the discharge in question.²⁵ In *Alcan Aluminum*, for example, the court found that the defendant’s unlawful disposal of waste in an abandoned mineshaft was a contributing cause of the release and barred application of the defense regardless of whether Hurricane Gloria was classified as an act of God.²⁶



Colorado National Guardsmen respond to floods in Boulder County, Colorado.

The court in *Apex Oil Company, Inc. v. United States* relied upon a similar conclusion.²⁷ There, the court found that the defendant had used an underpowered tugboat to haul a chain of barges containing oil sludge up the Mississippi River and proceeded in spite of awareness of extremely high volume flows and strong currents following heavy flooding. The court determined that this negligence was the proximate cause of the barges running aground and leaking and held that it negated the company's claim to an act of God defense.

Ultimately, the availability of the act of God defense may depend not only on the severity of a storm, but on the acts or omissions of the facility operator before, during, and after the flood. An operator must take appropriate precautions to prevent discharges or it may be held to have contributing to the release. The onus is on industry to avoid flood-related releases.

Adherence to state regulations and industry best practices can help prevent avoidable spills and ensure quick and effective responses to flood-related discharges. Certain regulations and drilling practices helped limit the volume of oil, gas, and process fluids released during the Colorado flood.²⁸ A review of these circumstances provides perspective on how New Mexico can assure similarly limited releases if disaster strikes here.

A distinction between spill reporting requirements in Colorado and New Mexico is of particular significance. A newly enacted Colorado statute imposes strict dis-

closure requirements for any spill of "oil or exploration and production waste" of one barrel or more within 24 hours.²⁹ This law may have helped Colorado regulators survey and respond to releases more quickly during the flood and subsequent recovery.

In contrast, New Mexico's spill reporting requirements are less stringent and more complex. Operators are not required to report spills of less than 5 barrels and need only report minor spills (those between 5 and 25 barrels) via written notice within 15 days.³⁰ Operators must, however, comply with a catch-all provision requiring "immediate

verbal notification" of any release that "may with reasonable probability be detrimental to water . . ."³¹ This condition requiring the exercise of judgment by industry actors as to whether a spill will adversely impact water resources may hinder New Mexico regulators' efforts to obtain a thorough and timely accounting of flood-related spills.

With regard to industry practices, operators on the Front Range almost exclusively use containment tanks, not open pits, to store drilling wastewater³² even though Colorado law permits the use of pits.³³ Lined storage pits, which are both permitted³⁴ and commonly used³⁵ for the storage of drilling wastes in New Mexico, are prone to flood-related releases.³⁶ New Mexico regulations do contain setback requirements prohibiting the siting of open pits in close proximity to fresh water bodies and domestic wells or within any 100-year floodplain.³⁷ Though helpful, these precautions may be inadequate to prevent the contamination of water resources in the event of a flood as severe as the one that hit Colorado. The cost-effectiveness of closed-loop containment systems for drilling wastes is highly disputed,³⁸ but adoption of that technology may be the single most effective step New Mexico's drilling industry can take to avoid liability for flood-related releases.

Two other technologies helped prevent more widespread discharges in Colorado. First, earthen berms around some containment tanks had recently been replaced with corrugated steel fences. These structures remained

in place while many berms washed away.³⁹ Finally, the use of telemetry systems allowed some Colorado operators to shut-in wells remotely as the waters rose. This relieved the need for industry personnel to put themselves in harms way in order to secure those wells manually.⁴⁰

With good fortune, New Mexico will not soon experience flooding as severe as the September torrent that ravaged Colorado. Nonetheless, the oil and gas industry here will want to understand the potential environmental consequences of a major flood event. Effective planning and management can both help producers reduce their risk of liability exposure and protect the State's surface waters from spills.

Endnotes

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¹ National Weather Service, *Exceedance Probability Analysis for the Colorado Flood Event, 9-16 September 2013* 1 (Sept. 24, 2013), http://www.nws.noaa.gov/oh/hdsc/aep_storm_analysis/8_Colorado_2013.pdf.

² While this storm "rank[s] in the top ten extreme flooding events since Colorado statehood," similar "[f]loods have happened before and they will happen again." Press Release, Kate Jeracki, *Colorado Climate Center compiling final data on the Great September Storm of 2013*, COLO. STATE UNIV. (Sept. 13, 2013), *available at* <http://www.news.colostate.edu/Release/6991>.

³ Cathy Proctor, *CDOT Details Flood Damage to Colorado's Bridges*, DENV. BUS. J. (Oct. 22, 2013), http://www.bizjournals.com/denver/blog/earth_to_power/2013/10/cdot-details-flood-damage-to.html.

⁴ Amanda Paulson, *After the Flood: Colorado Making Tough Decisions About How to Rebuild*, CHRISTIAN SCIENCE MONITOR (Oct. 12, 2013), <http://www.csmonitor.com/USA/2013/1012/After-the-flood-Colorado-making-tough-decisions-about-how-to-rebuild>.

⁵ Egecat, *Colorado Floods Likely to Incur Economic Cost Greater than \$2 Billion*, (Sept. 19, 2013), <http://www.egecat.com/catwatch/colorado-floods-likely-to-incur-economic-cost-greater-than-2-billion-2013-09-19/>.

⁶ See, e.g., Matt Ferner, *Oil Spills In Flooded Colorado: 'We're Going To Have Dozens, If Not Hundreds, Of Toxic Sites'*, HUFFINGTON POST (Sept. 20, 2013), http://www.huffingtonpost.com/2013/09/20/colorado-oil-spill_n_3963369.html; Erica Meltzer, *Boulder County Activists Concerned About Flooded Oil, Gas Wells*, DAILY CAMERA (Sept. 15, 2013), http://www.dailycamera.com/news/boulder-flood/ci_24102154/boulder-county-activists-concerned-about-flooded-oil-gas; Bruce Finley, *Colorado Flooding: Evacuations, Broken Pipeline in Weld County*, DENV. POST (Sept. 14, 2013), http://www.denverpost.com/environment/ci_24095949/colorado-flood-evacuations-broken-oil-pipeline-weld-county.

⁷ Damage to hydraulic fracturing wells was far less severe than originally reported and the enormous volume of water rushing through local river systems was thought to have easily processed any pollutants that were released.

See Press Release, Mark Salley, Communications Director, Colorado Department of Public Health and Environment, *Water Sampling of Flood-affected Rivers and Streams Shows no Pollutants Associated with Oil and Gas Spills* (Oct. 8, 2013), *available at* <http://www.colorado.gov/cs/Satellite/CDPHE-Main/CBON/1251646839607>; Audrey Hudson, *Media Jumped on False Fracking Narrative in Flood Disaster*, COLO. OBSERVER (Sept. 27, 2013), <http://thecoloradoobserver.com/2013/09/media-jumped-on-false-fracking-narrative-in-flood-disaster/>; Christopher Helman, *Have Colorado's Floods Unleashed An Oil And Gas Disaster? Um, No.*, FORBES (Sept. 20, 2013), <http://www.forbes.com/sites/christopherhelman/2013/09/20/have-colorados-floods-unleashed-an-oil-and-gas-disaster-um-no/>.

⁸ Brooke Jarvis, *Flooding and Fracking in Colorado: Double Disaster*, ROLLING STONE (Sept. 19, 2013), <http://www.rollingstone.com/politics/news/flooding-and-fracking-in-colorado-double-disaster-20130919>.

⁹ Colorado Oil and Gas Conservation Commission, *COGCC 2013 Flood Response* 1 (Oct. 8, 2013), http://cogcc.state.co.us/Announcements/Hot_Topics/Flood2013/COGCC2013FloodResponse.pdf.

¹⁰ Oil Pollution Act, 33 U.S.C. §§ 2701 *et seq.* (1990); Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601 *et seq.* (1980); Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 *et seq.* (1972).

¹¹ 33 U.S.C. § 2702(a). "Oil" includes "petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil[.]" *Id.* at § 2701(23).

¹² 42 U.S.C. § 9601(14).

¹³ 33 U.S.C. § 2702(a); 42 U.S.C. § 9607(a).

¹⁴ 33 U.S.C. § 1311(a). See *U.S. v. Earth Sciences, Inc.*, 599 F.2d 368, 374 (10th Cir. 1979) (interpreting this

provision as “making the person responsible for the discharge of any pollutant strictly liable.”).

¹⁵ 33 U.S.C. § 1342(p)(2)(B).

¹⁶ 33 U.S.C. § 1342(l)(2).

¹⁷ 33 U.S.C. § 2701(1); 42 U.S.C. § 9601(1).

¹⁸ 33 U.S.C. § 1321(a)(12).

¹⁹ 33 U.S.C. § 2702(d)(1)(A); 42 U.S.C. § 9607(b)(1); 33 U.S.C. § 1321(f)(1).

²⁰ *United States v. Alcan Aluminum Corp.*, 892 F. Supp. 648, 658 (M.D. Pa. 1995), *aff'd*, 96 F.3d 1434 (3d Cir. 1996), *quoting United States v. Stringfellow*, 661 F. Supp. 1053, 1061 (C.D. Cal. 1987).

²¹ *United States v. Stringfellow*, 661 F. Supp. 1053, 1061 (C.D. Cal. 1987).

²² *Id.*

²³ *Alcan Aluminum*, 892 F. Supp. at 658.

²⁴ *See id.*

²⁵ *See Stringfellow*, 661 F. Supp. at 1061 (rejecting the act of God defense for release of pollutants from a toxic waste disposal facility during a flood event where heavy rains “were not the *sole* cause of the release.”) (emphasis in original).

²⁶ *Alcan Aluminum*, 892 F. Supp. at 658 (“Two million gallons of hazardous wastes were not dumped into the borehole by an act of God, and were it not for the unlawful disposal of this hazardous waste Hurricane Gloria would not have flushed 100,000 gallons of this chemical soup into the Susquehanna River.”).

²⁷ *Apex Oil Company, Inc. v. United States*, 208 F. Supp. 2d 642, 645, 656-57 (E.D. La. 2002)

²⁸ A combined 50,000 gallons of oil and process fluids were spilled in Colorado, *supra* note 9. By comparison, the Exxon Valdez tanker crash spilled 10.8 million gallons of oil in 1989 and the Deepwater Horizon well blowout released 172 million gallons in 2010 according National Wildlife Federation estimates. National Wildlife Federation, *Compare the Exxon Valdez and BP Oil Spills*, <http://www.nwf.org/What-We-Do/Protect-Habitat/Gulf-Restoration/Oil-Spill/Effects-on-Wildlife/Compare-Exxon-Valdez-and-BP-Oil-Spills.aspx> (last visited Nov. 25, 2013).

²⁹ Colo. Rev. Stat. § 34-60-130 (2013); *see also* 2 COLO. CODE REGS. § 404-906 (2013).

³⁰ N.M. CODE R. §§ 19.15.29.7-.10 (2013).

³¹ *Id.* § 19.15.29.10.

³² Edward McAllister and Selam Gebrekidan, *In Flood-struck Colorado, Concerns About Fracking Spills*,

REUTERS (Sept. 18, 2013), <http://www.reuters.com/article/2013/09/18/us-usa-colorado-flooding-fracking-idUSBRE98H15820130918>.

³³ 2 COLO. CODE REGS. § 404-902 (2013).

³⁴ N.M. CODE R. § 19.15.17.8 (2013).

³⁵ *Regulators Repeal, Replace Pit Rule*, SANTA FE NEW MEXICAN (June 6, 2013), http://www.santafenewmexican.com/news/local_news/article_1a277249-326e-5b85-82ef-53b4004d5a78.html (“New Mexico has more than 80,000 pits, mostly in the southeastern and northwestern parts of the state.”)

³⁶ Separate 2011 floods caused a Hess Corporation and then Ryan Exploration storage pits in North Dakota to overflow and prompted both Hess and the State of North Dakota to begin requiring the use of closed-loop storage systems. *See* McAllister and Gebrekidan, *supra* note 32.

³⁷ N.M. CODE R. § 19.15.17.10.

³⁸ *See, e.g.*, OIL CONSERVATION COMMISSION, NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT, Order No. R-13506-D, ORDER OF THE COMMISSION AND STATEMENT OF REASONS FOR AMENDING NMAC TITLE 19, CHAPTER 15, PART 17 at 37, 40 (June 6, 2013), *available at* http://www.emnrd.state.nm.us/OCD/documents/r-13506-d_1_ho.pdf (summarizing expert testimony regarding expenses associated with closed-loop systems and concluding that former regulations requiring their use “increased the direct costs of drilling an oil or gas well, and may have negatively impacted the growth of the oil and gas industry in New Mexico”); Dorsey Rogers et al., *Closed-Loop Drilling System: A Viable and Alternative to Reserve Waste Pits*, 227 WORLD OIL No. 12 (Dec. 2006), *available at* <http://www.worldoil.com/December-2006-Closed-loop-drilling-system-A-viable-alternative-to-reserve-waste-pits.html> (citing a study of closed-loop systems in New Mexico that found significant cost savings as compared to the use of open pits); Oil and Gas Accountability Project, *Closed-Loop Drilling Systems: A Cost Effective Alternative to Pits* (2007), http://www.emnrd.state.nm.us/oed/documents/2007_0110OGAP.pdf (detailing cost savings resulting from the use of closed-loop systems in Texas, New Mexico, and Oklahoma cases studies).

³⁹ Mark Jaffe, *The Balance Sheet*, DENV. POST (Oct. 7, 2013, 10:14 AM), <http://blogs.denverpost.com/thebalancesheet/2013/10/07/oil-and-gas/11018/>.

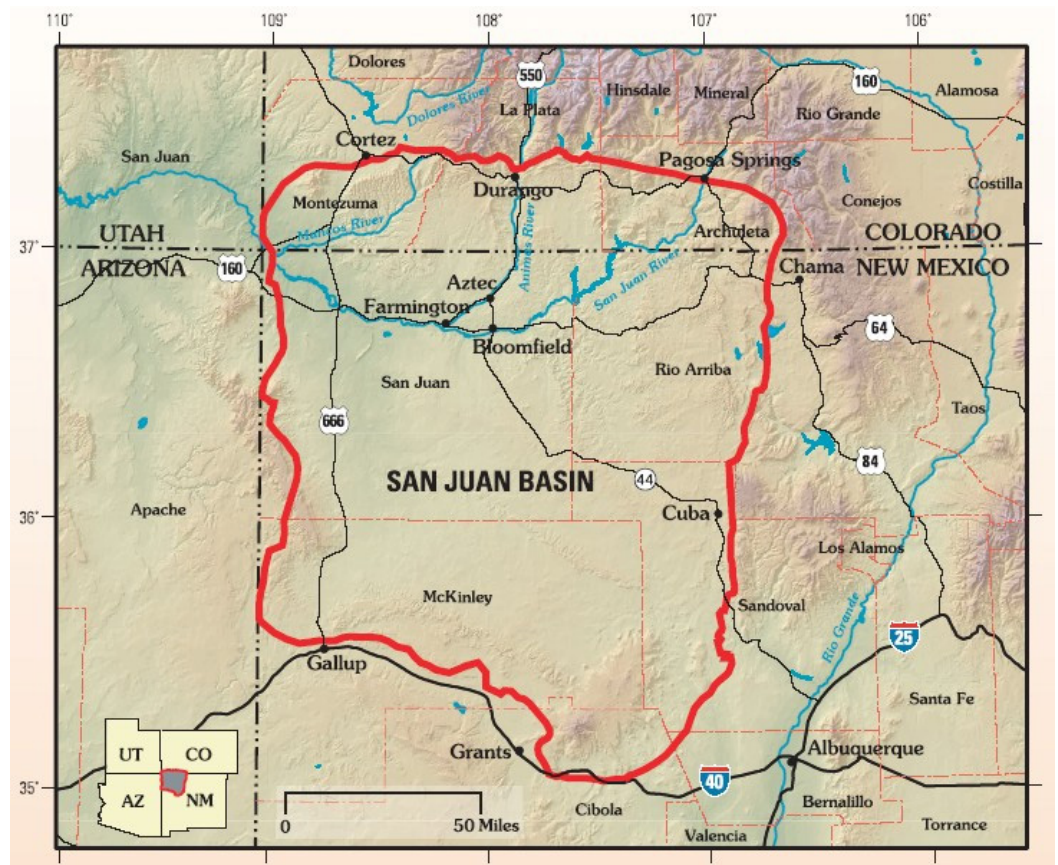
⁴⁰ *Id.*

The Duty to Hydraulic Fracture under the Implied Covenant for Reasonable Development in a New Mexico Oil and Gas Lease

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In oil and gas leases there are a number of obligations known as implied covenants. Implied covenants are unwritten promises that generally impose burdens on lessees and protect lessors.¹ Some commentators have said that implied covenants derive from the obligations of the operator to the lessor to behave as a reasonable prudent operator would in the same or similar circumstances.² Since 1889, the implied covenant of reasonable development has been identified as one of the most commonly recognized covenants.³ This covenant holds that once a lessee has begun production, an implied covenant arises that requires the lessee to engage in further reasonable development of the lease's known producing reservoirs.⁴ The idea behind this covenant is that the fundamental purpose of the oil and gas lease is dependent on the development and production of hydrocarbons,⁵ and the lessee shall drill as many wells as are reasonably necessary to develop the reservoir.⁶

A standard oil and gas lease imposes these implied obligations on the lessee. What an oil and gas lease may not specify is a detailed description of the specific strata or depths in which a lessee should operate. The assumption then is that any oil or gas within the leased property should be produced under the lease if it is economically feasible. This article addresses the potential implications for older leases where vertical wells may have been drilled to produce natural gas and oil.



I. THE STRATA OF THE SAN JUAN BASIN, NEW MEXICO

The San Juan Basin, in the northwestern corner of New Mexico, has over ten distinct strata or formations extending to 8,500 feet below mean sea level.⁷ The Amoco Production Company penetrated the maximum known thickness of sedimentary rocks in the Basin when it drilled to a total depth of 14,503 feet, hitting Precambrian rocks at 14,288 feet.⁸ The Basin is currently producing low-volume gas from vertical wells in the Mancos Shale strata as well as oil from the Tocito Sandstone Lentil and fractured-Mancos Shale Reservoirs.⁹ All ten strata could be situated below any given parcel of leased land.¹⁰

The Mancos Shale in the southern flank of the San Juan Basin is a “tight” formation, which is defined as having

sufficient porosity¹¹ for the accumulation of hydrocarbons, but low permeability¹² so that oil and gas are unable to flow through the shale as compared to conventional formations.¹³ Horizontal drilling¹⁴ and hydraulic fracturing¹⁵ are the solutions to recover the hydrocarbons in this “tight oil” or “shale oil”¹⁶ formation. As Professor David Pierce of Washburn University has stated, “hydraulic fracturing is absolutely necessary to profitably develop oil and gas from shale rock formations and other “tight” formations.”¹⁷

So what does this mean for current producers/lessees in the San Juan basin who are using traditional drilling in conventional formations? Until recently it was unprofitable to develop a shale oil formation because the cost far outweighed any production. Now the increased effectiveness of horizontal drilling in a proven reservoir, coupled with increased production due to hydraulic fracturing often outweigh the higher cost associated with unconventional drilling.¹⁸

A significant distinction between conventional vertical drilling versus horizontal drilling and hydraulic fracturing is the difference between the initial production (flow) rate and the overall rate of decline in production as compared to traditional drilling,¹⁹ also known in total as ultimate recovery.²⁰ Hydraulic fractured wells typically decline hyperbolically, which is a steep initial decline into a continuously flattening curve, as opposed to traditional wells which decline exponentially or on a constant slope.²¹ This means a fractured well’s initial flow rate is high relative to a conventional well, but rapidly declines until leveling off at a much lower level.²² For the lessor this high flow rate is appealing because it provides a large and immediate revenue stream. This stream is equally important for the producer/lessee but for a different reason. The producer/lessee needs the fast cash to cover the high upfront development cost for a fractured well.²³ But this high initial flow rate does set up a long term profitability problem, because “it creates a financing risk for developers uncertain about future revenues.”²⁴

II. VIOLATION OF THE IMPLIED COVENANT TO REASONABLY DEVELOP

To prove that a lessee has violated the implied covenant to reasonably develop, the lessor must show, under a multi-prong test, that the lessee has not developed the leased land. Prongs of the test can include: (1) how long has it been since the lessee drilled the last producing well targeting the proven formation; and (2) would drilling an

additional well or wells targeting the proven formation be prudent and (3) profitable to the lessee?²⁵

The first prong addresses a reasonable diligence element. In *State ex rel. Shell Petroleum Corporation v. Worden*,²⁶ the New Mexico Supreme Court held that, “What constitutes reasonable diligence depends upon the specific facts of each case.” The second prong uses the reasonably prudent operator standard, which requires a lessee to act the same as a reasonably prudent operator would under the same or similar circumstances.²⁷ The reasonable operator is a hypothetical person operating under a reasonable lessee, actively engaged in oil and gas operations. The reasonable operator does what ought to be done, and does not do what ought not to be done. The standard is one of good faith and competence and is also a question of fact. The third prong requires the lessor to demonstrate that if the lessee had pursued development, the lessee would have recovered costs plus a reasonable profit.²⁸ This last prong requires a variety of evidence relevant to profitability.²⁹ Profitability evidence includes geological data, technological information from nearby wells, and a financial analysis of production prices.

Applying the multi-prong test is never a simple task, but in *Acre v. Spindletop Oil & Gas Co.*,³⁰ the United States District Court for Eastern Arkansas relied on the reasonable diligence test as well as the prudent operator test to demonstrate that the lessee did in fact breach the implied covenant to reasonably develop the lease. There, the lessee had developed one gas well on a 640 acre tract. Geologists had demonstrated that another formation under the leased land was also capable of producing marketable gas.³¹ Additionally, there were wells on nearby tracts which were producing gas from this formation. Because the lessee did not diligently pursue development in the manner of a reasonable prudent operator, the court found for the lessor.³²

In *Waseco Chemical and Supply Co. v. Bayou State Oil Corp.*,³³ the lessee was operating a well in an older field with declining production rates. Other operators in the area substantially increased production using a fireflood³⁴ operation. The Louisiana Court of Appeals held that because the lessee did not operate a fireflood operation the lessee breached the implied covenant of reasonable development.³⁵ Other courts have held that by failing to use a modern process which has proven successful on other leased properties in the vicinity or within the same formation, there is a breach of the implied covenant to reasonably develop.³⁶

The northeastern section of the Mancos Shale strata in the San Juan Basin is currently producing using horizontal drilling and hydraulic fracturing. To the South and West the formation is dotted with more conventional vertical wells. Many of these wells are producing from small hydrocarbon traps or discontinuous sandstones with faults that serve as pathways for local vertical migration of oil.³⁷ It can be argued that production on these lands might feasibly be increased using more modern techniques such as horizontal drilling and hydraulic fracturing of the deeper shale strata. Further, as more producers in the same area use horizontal drilling and hydraulic fracturing to tap unconventional shale, the more likely conventional wells could be found in violation of the implied covenant to reasonably develop using the reasonable prudent operator standard.

III. CONCLUSION

In the case of modern drilling and recovery techniques, horizontal drilling and hydraulic fracturing are now common in many places. In an area where a lessee is operating a vertical well in a conventional formation and other operators are producing from deeper formations with increased recovery via horizontal drilling and hydraulic fracturing, it can be argued that the lessee has breached the implied covenant to reasonably develop. As the number of horizontal and hydraulic fractured wells increase in the San Juan Basin, the issue of breaching an implied covenant to produce will become more prevalent in New Mexico.

Endnotes

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¹ *Stoddard v. Emery*, 128 Pa. 436, 18 A. 339 (1889) (dictum) (One of the earliest cases to recognize implied covenants); see also John S. Lowe, *Oil and Gas Law In a Nutshell*, 311 (5th ed., West 2009); Judith Matlock, *Payment of Gas Royalties in Affiliate Transactions*, 48th Annual Institute on Oil and Gas Law and Taxation, 9(1), 10 (SWLF 1997).

² Lowe, *supra* note 1, at 311.

³ *Stoddard*, 128 Pa. at 442; Patrick H. Martin, *Implied Covenants in Oil and Gas Leases -- Past, Present and Future*, 33 WASHBURN L.J. 640, 658-60 (1994) (In the absence of express language in the lease, there is an implication that the property should be developed reasonably.)

⁴ *Baker v. Collins*, 29 Ill. 2d 410, 412, 194 N.E.2d 353, 355 (Ill. S. Ct. 1963)(emphasis added)(“After the discov-

ery of oil and gas in paying quantities, the law, to accomplish the manifest intention of the parties, implies a duty on the part of the lessee to reasonably develop the premises.” The implied covenant does not apply until after oil or gas is found in paying quantities.)

⁵ *Davis v. Cramer*, 837 P.2d 218, 222 (Colo. Ct. App. 1992)(citing 5 E. Kuntz, *Oil & Gas* § 55.2(a) (D. Dunn ed. 1989)).

⁶ *McKnight v. Manufacturers Natural Gas Co.*, 23 A. 164, 166 (Pa. 1892); *Harris v. Ohio Oil Co.*, 48 N.E. 502, 505 (Ohio 1897); *Jennings v. Southern Carbon Co.*, 80 S.E. 368, 369 (W. Va. 1913).

⁷ James E. Fassett, *Oil and Gas Resources of the San Juan Basin, New Mexico and Colorado* 181-196, New Mexico Geological Society Guidebook, 61st Field Conference, Four Corners Country (2010).

⁸ *Id.* at 181.

⁹ *Id.* at 187 (“The highest percentage of true oil produced in the basin has come from the Tocito Sandstone Lentil and fractured-Mancos-Shale reservoirs. Together, these rocks have produced 204.3 (Million Barrels of Oil (“MBO”)) of the 283 MBO recovered from oil fields in the basin. This production is from more than 70 fields. The two largest fields, the Bisti and the Horseshoe Gallop, have produced 74.7 MBO”).

¹⁰ Ron Broadhead, *New Mexico Oil & Gas Production*, New Mexico Bureau of Geology and Mineral Resources (Presentation given to the New Mexico State Legislature House Energy and Natural Resources Committee on February 3, 2012).

¹¹ Norman J. Hyne, *Non-technical Guide to Petroleum Geology, Exploration, Drilling, and Production* 512, (2d ed. 2001). (Porosity refers to the spaces between the grains in the rock in which hydrocarbons may accumulate. The higher the porosity, generally the higher the potential for the presence of hydrocarbons).

¹² *Id.* at 510 (Permeability is a measure of the ability of hydrocarbons to flow through a rock).

¹³ *Shale Gas Background Note*, Department of Energy and Climate Change, retrieved December 17, 2013 at <http://www.hse.gov.uk/aboutus/meetings/hse-board/2013/250913/psepb1391-a.pdf>.

¹⁴ J. Daniel Arthur, Brian Bohm, P.G., Mark Layne, Ph.D., P.E., *Hydraulic Fracturing Considerations for Natural Gas Well of the Marcellus Shale* (ALL Consulting 2008); Casey A Greuber, *New Drilling Technologies, Particularly Hydraulic Fracturing, Likely To Be Utilized At Marcellus Shale Despite Environmental Issues*, Mercyhurst University Center for Intelligence Research, Analysis and Training, Institute for Intelligence Studies (2010) 1 (on file with

author) (“Horizontal drilling and horizontal wells have been common practice in the oil and natural gas industries since the 1970s, but the concept was first experimented with as early as 1929 . . . The process involves drilling vertically downward toward ‘a gas-bearing rock formation’ of some sort, like shale. Then, unique tools curve the well by drilling several thousand feet horizontally, deep within the rock formation.”)

¹⁵ Carl T. Montgomery & Michael B. Smith, *Hydraulic Fracturing: History of an Enduring Technology*, 26-41 (JPT 2010); Greuber *supra* note 14, at 2 (“Commercial fracking first began in 1948, but the process was not perfected until the early 1990s and its success at unconventional gas reserves was only recognized within the last decade.” “The process involves pumping a highly pressurized mix of water and silica sand, or some other proppant, down a well to create fractures in gas-bearing formations. The fluid also contains other compounds designed to enhance the effectiveness of the fracturing process which can be harmful to humans and wildlife, like friction reducers, biocides, surfactants, scale inhibitors and even hydrochloric acid.”)

¹⁶ Robin M. Mills, *The Myth of the Oil Crisis: Overcoming the Challenges of Depletion, Geopolitics, and Global Warming* 158-159 (Greenwood Publishing Group 2008). (Defining the term “tight oil”, and the absolute requirement of horizontal drilling and hydraulic fracturing to recover that type of oil).

¹⁷ David E. Pierce, *Developing a Common Law of Hydraulic Fracturing*, 72 U. PITT. L. REV. 685, 685 (2011).

¹⁸ Greuber *supra* note 14, at 1-2 (“The productivity of horizontal drilling is nearly 400 percent more than vertical drilling techniques and only costs 80 percent more overall.”).

¹⁹ Timothy Fitzgerald, *Frackonomics: Some Economics of Hydraulic Fracturing*, 63 CASE W. RES. L. REV. 1337, 1343-44 (2013).

²⁰ *Id.* at 1343 (“Ultimate recovery is the final measure of the value of a well. The geophysics of extraction cause production to decline over time, so the ultimate recovery is a function of initial flow. The initial production level affects the total recovery.”)

²¹ Henry D. Jacoby et al., *The Influence of Shale Gas on U.S. Energy and Environmental Policy*, 1 ECON. ENERGY & ENVTL. POL’Y 37, 40-41 (2012); *see also* William C. Lyons, Ph.D. & P.E., *Standard Handbook of Petroleum and Natural Gas Engineering: Vol. 2*, 994 (Gulf Prof’l Publ’g 1996).

²² Fitzgerald, *supra* note 19, at 1343.

²³ *Id.*

²⁴ *Id.*

²⁵ David E. Pierce, *Implied Covenant Law and Horizontal Development*, Special Institute on Horizontal Oil & Gas Development, Rocky Mountain Mineral Law Foundation (November 2012); *see also* John S. Lowe, *Oil and Gas Law In a Nutshell*, 311 (5th ed., West 2009).

²⁶ *State ex rel. Shell Petroleum Corp. v. Worden*, 44 N.M. 400, 103 P.2d 124, 127 (N.M. 1940) (citing *Shell Petroleum Corp. v. Shore*, 72 F.2d 193 (10th Cir. 1934); *see also* *Brimmer v. Union Oil Co.*, 81 F.2d 437 (10th Cir. 1936); *Jacob v. Stephenson*, 254 S.W. 1117 (Tex.Civ.App. 1923); Walter L. Summers, *The Law of Oil and Gas* vol. 2, § 398, (1959).

²⁷ Lowe, *supra* note 1, at 311.

²⁸ *Clifton v. Koontz*, 325 S.W. 2d 684, 693-694 (Tex. 1959).

²⁹ Lowe, *supra* note 1, at 317.

³⁰ *Acre v. Spindletop Oil & Gas Co.*, 2011 WL 902186 *1 (E.D. Ark. 2011).

³¹ *Id.* at *3.

³² *Id.* at *4.

³³ *Waseco Chemical and Supply Co. v. Bayou State Oil Corp.*, 371 So. 2d 305 (La. App. 2nd Cir. 1979).

³⁴ Norman J. Hyne, *Nontechnical Guide to Petroleum Geology, Exploration, Drilling, and Production*, 479 (2nd ed. 2001). (“Fireflood” is an enhanced oil recovery process in which the subsurface oil is set afire. The heat makes the oil more fluid and the gas generated by the fire drives the oil to producing wells as air is pumped down injection wells.”).

³⁵ *Waseco Chemical and Supply Co.*, 371 So. 2d at 312-13.

³⁶ *Wadkins v. Wilson Oil Co.*, 199 La. 656, 661, 6 So. 2d 720, 722 (La. 1942) (Where the court found that “the drilling of new wells to a greater depth in the chalk rock formation with fresh water and acidizing them when they are brought in...[has] been so successful and profitable to the major companies, that they have engaged in extensive drilling...[and] that some of the wells paid for themselves within four months.” Here the operator did not engage in acidizing and the court affirmed judgment of the cancellation of their lease); *Williams v. Humble Oil & Ref. Co.*, 290 F. Supp. 408 (E.D. La. 1968) *aff’d* in part, remanded in part, 432 F.2d 165 (5th Cir. 1970) (Mineral lessee’s implied obligations should be interpreted in light of technological methods that are presently economically feasible and in use.); *see also* Howard R. Williams & Charles J. Meyers, *Oil and Gas Law* vol. 6, §861.3, 429 (1980).

³⁷ Fassett, *supra* note 7, at 190.

Moongate Water Co. v. City of Las Cruces: A Novel Application of Stranded Assets Theory

Sabrina Rodriguez Salvato*

In *Moongate*,¹ the New Mexico Supreme Court put municipalities with populations of less than 200,000² on notice that, if they choose to compete with a public utility in possession of a certificate of public convenience and necessity (CCN), they may be liable in an inverse condemnation action³ for the utility's lost investment costs, even if the municipality is not subject to the authority of the Public Regulation Commission (PRC).⁴ These lost investment costs could be calculated using "stranded assets" or "stranded costs."⁵

The terms are synonymous.⁶ This article will refer to this concept simply as stranded assets theory, or to the loss as stranded assets. *Moongate* raises the question of whether stranded assets will remain purely a product of regulation, with judicial oversight, or whether the judiciary is signaling a willingness to find "just compensation"⁷ through an independent application of stranded assets theory.

First, I summarize *Moongate's* procedural history. Second, I attempt to place the facts of *Moongate* in the context of constitutional takings jurisprudence and explain how those facts do not neatly fit within that framework. Finally, I conclude that judicially created stranded assets theory may be unnecessary because "investment in . . . compromised" tangible assets made "worthless"⁸ through competition with a municipality arguably are losses that a utility could recover under existing constitutional takings precedent. Because "stranded assets" is a term of art, defined through the regulatory process, I propose that the court should limit its role to enforcing the collection of stranded assets only as ex-



pressly permitted by statute or regulation, regardless of whether a municipality is subject to regulation. Other non-tangible property losses, not otherwise recognized as stranded assets, should be compensable only under existing takings jurisprudence.

I. *MOONGATE v. LAS CRUCES*

Moongate, a public utility, applied for and received a CCN from the PRC⁹ in 1983, which was extended in 1984.¹⁰ The CCN permitted Moongate to provide water service to an undeveloped area outside of Las Cruces city limits.¹¹ Later, Las Cruces annexed part of the certified area and contracted with the developers to provide water to three undeveloped tracts of land, prompting this litigation.¹²

Moongate sued Las Cruces seeking an injunction, declaratory judgment, and compensation for Las Cruces' alleged regulatory taking, i.e., inverse condemnation, of Moongate's "alleged exclusive right to serve" water customers in the annexed area.¹³ Las Cruces filed a motion for summary judgment on all counts.¹⁴ Moongate responded with a cross-motion for summary judgment

on the inverse condemnation and regulatory takings claims.¹⁵ Finding that the CCN granted an exclusive service right, the district court granted Moongate's motion. However, despite prevailing on its summary judgment motion, Moongate was unable to prove damages in a five-day bench trial.¹⁶

Moongate appealed the ruling on damages, and Las Cruces appealed the finding of an exclusive right to serve.¹⁷ The Court of Appeals overturned the district court on the issue of exclusivity and held that the CCN did not grant Moongate exclusive service rights against Las Cruces' water utility.¹⁸ The Supreme Court affirmed the holding of the Court of Appeals, finding no compensable taking based on the issuance of a CCN by the PRC to a public utility when there is no "proof of tangible loss."¹⁹

The distinction between the holdings of the two appellate Courts is found in the Supreme Court's dicta. The Supreme Court posits that if "Moongate had proven that Las Cruces' actions rendered tangible assets worthless, Moongate could have legitimately argued that its investment in those assets was compromised, and therefore it was entitled to compensation under a *stranded assets theory*."²⁰

II. TAKINGS, STRANDED ASSETS, AND MUNICIPALIZATION

To understand the potential implications of this dictum, it is important to understand how stranded assets theory relates to takings jurisprudence under the state and federal constitutions.

A. The Facts of *Moongate* Do Not Fit Neatly into Takings Precedent.

Under Article II, Section 20 of the New Mexico Constitution and the Fifth Amendment to the United States Constitution, the government cannot take private property for public use without just compensation. New Mexico courts look to federal precedent to determine if a taking has occurred under Article II, Section 20 of the New Mexico Constitution.²¹ Federal takings precedent divides takings jurisprudence into three categories.²² A taking occurs when (1) government causes a physical invasion of a property owner's property, (2) government regulations limit the property owner's rights to such an extent that it is the functional equivalent of a physical taking because the regulation deprives the property owner of "all economically beneficial use[e]," or (3) the regulation leaves some economically beneficial use but

is nevertheless still compensable. The first two are per se takings.²³ The third type will only be held to be a per se taking if the regulation goes "too far."²⁴

To analyze whether this third type of regulatory taking is compensable, courts look to the nature of the regulation by evaluating three factors in an effort to determine if government action has gone too far. These factors are (1) the "character of the government action," (2) the "economic impact of the regulation to the claimant," and (3) the "extent to which the regulation has interfered with distinct investment-backed expectations."²⁵ In New Mexico, a regulatory taking is compensable through an inverse condemnation action.²⁶

Commentators have suggested,²⁷ and it was argued in *Moongate*,²⁸ that the granting of a CCN creates a valuable property right. Moongate claimed that the loss of this right constituted a regulatory taking. However, Las Cruces did not pass a regulation resulting in a loss of property interest. Las Cruces directly competed with Moongate through annexation. Thus, the regulatory taking three-part test is not a perfect mechanism in this case to determine if Las Cruces' action caused Moongate to suffer a compensable loss.

The New Mexico Supreme Court rejected Moongate's argument that the potential opportunity to provide water service, standing alone, constitutes a compensable regulatory taking.²⁹ Nevertheless, the Court concluded that Moongate could have made a viable takings claim if it had proven that it had established infrastructure and was already serving customers in the certified area.³⁰

B. Stranded Assets are the Result of Deregulation of a Utility Market, Which Did Not Occur in *Moongate*.

Moongate opened the door to a complicated issue by suggesting that, "[i]f Moongate had proved that it had invested in production capacity to serve the area,"³¹ compensation might be justified under "a stranded assets theory."³² This proposed application of stranded assets theory does not comport with traditional stranded assets theory, which is rooted in the administrative ratemaking and regulatory powers of government and typically comes into play only after the deregulation of a utility market. Examples of stranded assets can be found in the deregulation of the electric and natural gas industries.³³

Stranded assets have very technical, industry-specific definitions.³⁴ They can be broadly understood as “costs that . . . utilities currently are permitted to recover through their rates but whose recovery may be impeded or prevented by the advent of competition in the industry.”³⁵ Stranded costs are reflected on a utility’s financial statement and may include “assets used for electricity generation, power and fuel purchasing expenditures required under long-term contracts, ‘regulatory assets’ consisting of expenses whose recovery has been deferred to keep rates temporarily from rising, outlays required of the utilities by regulators to meet a number of social goals such as subsidies to low-income users, and incentives for supply of energy from renewable sources.”³⁶ Regulations typically have imposed such expenses on monopoly utility markets. However, when competition is introduced into a former monopoly market, the new utility companies are not burdened with such expenses.³⁷ Therefore, regulators may require the stranded assets to be collected from all customers in an area, regardless of their utility provider, and passed on to the former monopoly utility.

In *Moongate*, the New Mexico Supreme Court similarly “defined stranded assets or stranded costs ‘as those costs that . . . utilities currently are permitted to recover through their rates but whose recovery may be impeded or prevented by the advent of competition in the industry.’”³⁸ The Court cited *Sandel*³⁹ and *City of Corpus Christi*⁴⁰ in support of this proposition. Both cases deal with legislative and regulatory authority in the electricity market and discuss the parameters of a regulatory agency’s authority to regulate as defined by statute. *Sandel* and *Corpus Christi* show that the application of stranded assets theory is inextricably linked to the regulatory process.

In *Sandel*, which contains the first mention of stranded assets in New Mexico case law, the Court held that the PRC lacked the statutory authority to unilaterally deregulate the electric utilities market.⁴¹ *Sandel* also provides a brief history of the federal deregulation of the utility market. After Congress expanded the authority of the Federal Energy Regulation Commission (FERC) to infuse competition into electric transmission service sector, FERC issued its Open Access Rules in 1996.⁴² The open access rules define stranded assets at the wholesale market level.⁴³ Retail level deregulation also could result in stranded assets, but federal regulation leaves the calculation of such costs to state regulators.⁴⁴

The *Corpus Christi* case arose after the State of Texas deregulated the retail electric utility market and defined stranded assets in legislation.⁴⁵ The city and a privately owned utility company challenged the government’s regulatory authority to enforce the collection of stranded assets from their rate payers in order to compensate the older utility for costs incurred while it had a monopoly. The Texas Supreme Court upheld both the constitutionality of stranded assets and the power of the regulatory body to oversee their collection.⁴⁶

Notwithstanding the absence of statutorily defined stranded assets in New Mexico,⁴⁷ stranded assets might still be created through the ratemaking authority of the PRC.⁴⁸ A CCN, while it can merely signal entrance into a monopoly utility market, may also merge with the separate regulatory ratemaking function.⁴⁹ The New Mexico Public Utility Act mandates ratemaking when requested by a public utility in its CCN application.⁵⁰ Therefore, it is conceivable that any public utility, upon requesting ratemaking, could incur the sort of expenses that could lead to stranded assets.

In any event, *Moongate* did not involve the type of utility deregulation typically at issue when stranded assets theory comes into play. Las Cruces’ annexation of territory within *Moongate*’s certified area did not constitute deregulation because the market was always open to competition with the city. Thus, the risk of competition from Las Cruces was present at the time that *Moongate* obtained the CCN. Absent classic deregulation or regulatory taking, *Moongate* represented a unique legal issue, namely, how to identify and compensate a taking resulting from direct competition with an unregulated Municipality.

C. Municipal Competition with a Public Utility is “Municipalization.”

As discussed above, municipal competition with a regulated industry as occurred in *Moongate* cannot precisely be categorized either as a regulatory taking or as a deregulation of a utilities market that would give rise to stranded assets. Instead, the situation in *Moongate* is properly viewed as an example of “municipalization.” Similar to the concept of “nationalization,” when a municipality takes customers from or assumes ownership or operation of an investor owned utility, it can be referred to as “municipalization.”⁵¹ Municipalization can result from a city’s use of its eminent domain power.⁵² As was the situation after the deregulation of the elec-

tricity market, municipalization can also occur when a municipality uses its “franchise⁵³ power . . . to shop for suppliers” of utilities.⁵⁴ More generally, municipalization occurs when the borders of a CCN are disrespected.⁵⁵ This was the situation presented in *Moongate* when Las Cruces, through its annexation power, confiscated a portion of Moongate’s CCN.

The concept of municipalization can hardly be said to be regulation at all. Yes, like regulation, municipalization is the result of governmental activity in the market place, but it does not fit neatly into the classic examples of zoning changes⁵⁶ or market restrictions.⁵⁷ Direct competition with a public utility does not manipulate the market through rules and regulations. Rather, the municipality asserts itself through its size and purchasing power, or it dominates the market through direct ownership.

Moreover, municipal competition with a public utility in possession of a CCN cannot accurately be described as a “regulation” because, as *Moongate* states, a public utility with a CCN is only protected from competition from other regulated utilities.⁵⁸ Because the Public Utilities Act⁵⁹ exempts municipalities from regulation, there is no undoing of a regulation, i.e., deregulation. But no separate body of case law has developed to address the specific issue of municipalization, so the existing takings framework will have to be employed to evaluate a compensable loss.

III. CONCLUSION

Recognition of stranded assets through regulation is in tension with judicial recognition of just compensation. The New Mexico Supreme Court has recognized the complete dissimilarity between ratemaking concepts and judicially determined just compensation.⁶⁰ Recognition of the viability of stranded assets theory in *Moongate* threatens to blur this distinction and may not actually be necessary.

The Supreme Court held that a compensable regulatory taking has occurred when a CCN holder “can prove that it had established infrastructure and was already serving customers in the area interfered with by the municipality.”⁶¹ Established infrastructure within a certified area would be compensable as a per se physical taking under existing precedent. The provision of service to existing customers is a non-tangible property right but can be calculated through actual, not theoretical, lost revenues.

Non-tangible property rights are cognizable losses under existing takings precedent.⁶² Because customers exist within the certified area, interference with these non-tangible property rights likely constitutes a per se taking.

Established infrastructure, outside of the certified area, made valueless by municipal annexation arguably could be compensated under stranded assets theory. The most direct route to such an application of stranded assets theory would be for regulators to identify the stranded assets and for the courts to uphold their collection, regardless of whether the new municipal utility was subject to the jurisdiction of the PRC. The second, and much more difficult question, is whether courts should recognize such losses through their power to award just compensation for government takings. In the absence of a statutory or regulatory scheme defining them, stranded assets are an abstract concept, difficult to calculate in a judicial forum. Therefore, the courts should limit themselves to existing precedent when awarding just compensation for regulatory takings. The “distinct investment-backed expectations”⁶³ prong of existing regulatory takings precedent could adequately describe this type of loss.

Endnotes

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¹ *Moongate Water Co. v. City of Las Cruces*, 2013-NMSC-018, 302 P.3d 405.

² This includes all municipalities in New Mexico except Albuquerque.

³ NMSA 1978, § 42A-1-29; *Id.* ¶ 18.

⁴ *Id.* ¶¶ 1, 22.

⁵ *Id.* ¶ 22.

⁶ *Id.*

⁷ N.M. Const. art. II, § 29; NMSA 1978, § 42A-1-29.

⁸ *Moongate*, 2013-NMSC-018, ¶ 22.

⁹ The PRC was created in 1996 through voter approved constitutional amendment. The amendment replaced the Public Utility Commission (PUC).

¹⁰ *Moongate*, 2013-NMSC-018, ¶ 2.

¹¹ Las Cruces is a home rule municipality with a population smaller than 200,000. *See id.* ¶¶ 2, 8.

¹² *Id.* ¶ 2.

¹³ *Id.*

¹⁴ *Id.* ¶ 3.

¹⁵ *Id.*

¹⁶ See *id.*; Answer Brief of Respondent City of Las Cruces at 10, 2013-NMSC-018 (No. 33,182).

¹⁷ *Id.* ¶ 4.

¹⁸ *Moongate Water Co. v. City of Las Cruces*, 2012-NMCA-003, ¶ 2, 269 P.3d 1.

¹⁹ *Moongate*, 2013-NMSC-018, ¶ 1.

²⁰ *Moongate*, 2013-NMSC-018, ¶ 22 (emphasis added).

²¹ *Id.* ¶ 17.

²² *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 125 S. Ct. 2074, 2076, 161 L. Ed. 2d 876 (2005).

²³ *Id.*

²⁴ *Penn. Coal Co. v. Mahon*, 260 U.S. 393, 415, 43 S. Ct. 158, 160, 67 L. Ed. 322 (1922) (“The general rule at least is that while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking.”).

²⁵ *Kaiser Aetna v. United States*, 444 U.S. 164, 175 (1979) (citing *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978)).

²⁶ *Moongate*, 2013-NMSC-018, ¶ 18.

²⁷ Robert A. Swartwout, *Current Utility Regulatory Practice from a Historical Perspective*, 32 NAT. RESOURCES J. 289, 331-32 (1992) (“[S]hould a city take any of a utility’s certified territory, it should not be able to do so without compensating the utility for the value of any affected land, property, plant, equipment, rights and lost earnings associated with the territory lost. Even when it is as yet undeveloped, such territory represents to the certified utility future earnings when it is developed and the utility exercises its CCN right to provide utility service to the area.”).

²⁸ *Moongate*, 2013-NMSC-018, ¶ 19 (“Essentially, *Moongate* asks us to require compensation for the fair market value of the lost potential opportunity to serve.”).

²⁹ *Id.* ¶ 21.

³⁰ *Id.* ¶ 16.

³¹ *Id.* ¶ 21.

³² *Id.*

³³ See *infra* note 34.

³⁴ See *City of Corpus Christi v. Pub. Util. Comm’n of Tex.*, 51 S.W.3d 231, 237 (Tex. 2001), for the precise definition under chapter 39 of the Texas Public Utility Regulatory Act (PURA); see also www.ferc.gov/industries/gas/gen-info/cost-of-service-manual.doc.

³⁵ *State ex rel. Sandel v. N.M. Pub. Util. Comm’n*, 1999-

NMSC-019, ¶ 7, 127 N.M. 272, 980 P.2d 55. (citing William J. Baumol & J. Gregory Sidak, *Stranded Costs*, 18 HARV. J. L. & PUB. POL’Y 835, 835 (1995)).

³⁶ Baumol & Sidak, *supra* note 35.

³⁷ *Id.*

³⁸ *Moongate*, 2013-NMSC-018, ¶ 22 (quoting *Sandel*, 1999-NMSC-019, ¶ 7).

³⁹ *Sandel*, 1999-NMSC-019, ¶ 7.

⁴⁰ *City of Corpus Christi*, 51 S.W.3d at 238.

⁴¹ *Sandel*, 1999-NMSC-019, ¶ 1.

⁴² *Id.* ¶ 7.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *City of Corpus Christi*, 51 S.W.3d at 237.

⁴⁶ *Id.*

⁴⁷ New Mexico does not currently have any statutes or regulations permitting the recovery of stranded assets. *But see* NMSA 1978, §§ 62-3a-1 to -23 (repealed 2003).

⁴⁸ NMSA 1978, § 62-6-4.2.

⁴⁹ Swartwout, *supra* note 27, at 323-25.

⁵⁰ NMSA 1978, § 62-9-1(B).

⁵¹ *Id.*

⁵² See *United Water N.M., Inc. v. N.M. Pub. Util. Comm’n*, 1996-NMSC-007, 121 N.M. 272, 279, 910 P.2d 906, 913.

⁵³ “When referring to government grants (other than patents, trademarks, and copyrights), the term ‘franchise’ is often used to connote more substantial rights, whereas the term ‘license’ connotes lesser rights. Thus, the rights necessary for public utility companies to carry on their operations are generally designated as franchise rights.” BLACK’S LAW DICTIONARY (9th ed. 2009), franchise.

⁵⁴ Swartwout, *supra* note 27, at 329.

⁵⁵ *Id.*

⁵⁶ See *Agins v. City of Tiburon*, 447 U.S. 225 (1980) (open space zoning); *Lucas v. S.C. Coastal Council*, 505 U.S. 1003 (1992) (costal zoning).

⁵⁷ See *Lingle*, 544 U.S. 528 (market restrictions and price setting).

⁵⁸ *Moongate*, 2013-NMSC-018, ¶ 21.

⁵⁹ NMSA 1978, § 62-1-1 to -6-28 (2003).

⁶⁰ *United Water N.M., Inc.*, 1996-NMSC-007.

⁶¹ *Moongate*, 2013-NMSC-018, ¶ 16.

⁶² *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1003 (1984).

⁶³ See *supra* note 25.



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Correction Notice

The Article "Regulating Hydraulic Fracturing: New Mexico and National Trends," in the Summer 2013 *Vista* Newsletter incorrectly implied in footnote 29 that the New Mexico Oil and Gas Association was the regulatory body requiring disclosure of chemicals used in hydraulic fracturing, rather than the Oil Conservation Commission. The article also inaccurately described the oil and gas industry in general, rather than the practice of hydraulic fracturing in particular, as "largely unregulated." For questions, please contact Section Chair Kim Bannerman at kim.bannerman@state.nm.us or 505-827-4004.

The Board of the Natural Resources, Energy, and Environmental Law Section apologizes for these errors. The NREEL Board attempts to publish informative and accurate articles that represent the divergent views of our Section members. The views expressed in the articles in the *Vista* Newsletter represent the individual perspective of the authors. The NREEL Board encourages all Section members to contribute to the *Vista* Newsletter as authors or editors.

Editor's Note

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tact me at sruscavagebarz@wildearthguardians.org. I am deeply grateful to NREEL Board Members Adrian Oglesby and Sally Paez for their editorial support. The views expressed in these articles are those of the authors alone and not the views of the NREEL Section or the editors.

Thank you for your support,
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