

The Burgeoning Property Rights & Environmental Justice Issues Concerning North Carolina's Hydraulic Fracturing Laws

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Introduction

With House Bill 820 in 2012, the Clean Energy and Economic Security Act, North Carolina announced its intent to allow hydraulic fracturing (commonly referred to as “fracking”) in the state.¹ North Carolina follows in the footsteps of surrounding states that have legalized hydraulic fracturing, hoping to find a new, reliable, and profitable energy source. While this statute was passed almost two years ago, the mechanisms set in motion are beginning to come to fruition, as commissions set out to assess the State’s shale sources report, regulatory committees meet, and the State begins to decide the actual implementation of fracking.² The burgeoning fracking regulatory body raises numerous issues for the state, all of which are important when considering North Carolina’s fracking future.

The questions hinted at above cover a wide range: public safety, environmental harm, and perhaps surprisingly, property rights. The spotlight on hydraulic fracturing is often aimed towards water quality impacts, fracturing fluid health hazards, and environmental degradation near wellheads.³ However, one issue that has not gained the same attention, but is nonetheless important, is the laws that could govern fracking and

¹ Holly Bannerman, *Fracking, Eminent Domain, and the Need for Legal Reform in North Carolina: The Gap Left by the Clean Energy and Economic Security Act*, 14 N.C. J.L. & TECH ON. 35, 35–36 (2012).

² Memorandum from the Mining and Energy Commission on the Compulsory Pooling Study Group Project (Sept. 16, 2013), *available at* <http://www.ncleg.net/documentsites/committees/BCCI-6576/1%20-%20Oct.%201,%202013/Energy%20Commission/1%20-%20Oct%201%202013/Materials%20for%20Website/Final%20Report%20of%20the%20Compulsory%20Pooling%20Study%20Group.pdf>.

³ Robert B. Jackson et al., *Research and Policy Recommendations for Hydraulic Fracturing and Shale-Gas Extraction*, CENTER ON GLOBAL CHANGE 3 (2011), *available at* <https://nicholas.duke.edu/cgc/HydraulicFracturingWhitepaper2011.pdf>.

personal property. North Carolina's current property laws, particularly involving eminent domain and trespass, could drastically change with the inception of fracking legislation.⁴ Under these issues, there is an important subsection concerning environmental justice. Specifically, how oil and gas companies can abuse eminent domain and takings to gain property rights from low-income families and communities for nearby shale deposits. If these communities are not protected, by the State then those populations are left to the discretion of energy companies for leasing information and fighting takings claims.⁵

Hydraulic Fracturing: Process and Location in North Carolina

In comparison to other energy sources and mining processes, hydraulic fracturing is relatively new, appearing first in a Kanas oilfield in 1947.⁶ Hydraulic fracturing quickly gained popularity when oil and gas companies realized that the process allowed previously unreachable sources of shale gas to be excavated.⁷ Today, the U.S. Energy Information Administration estimates that there is 2,119 trillion cubic feet of recoverable gas underneath the surface of the United States.⁸ Of this enormous number, sixty percent is considered "unconventional," because it is stored in low permeability formations including shale, coal beds, and tight sands.⁹ Hydraulic fracturing is the process through which companies can reach the low permeability formations for production.¹⁰

⁴ Bannerman, *supra* note 1, at 36.

⁵ Elizabeth Burleson, *Cooperative Federalism and Hydraulic Fracturing: A Human Right to a Clean Environment*, 22 CORNELL J.L. & PUB. POL'Y 289, 304 (2012).

⁶ Travis Zeik, Note, *Hydraulic Fracturing Goes to Court: How Texas Jurisprudence on Subsurface Trespass will Influence West Virginia Oil and Gas Law*, 112 W. VA. L. REV. 599, 601 (2010).

⁷ Jackson, *supra* note 3, at 1–2.

⁸ *Id.* at 10.

⁹ Jackson, *supra* note 3, at 10.

¹⁰ Zeik, *supra* note 6, at 600.

Throughout the United States, fracking is also used to stimulate almost ninety percent of wellheads already in use.¹¹

The fracking process was adapted from traditionally drilled wells mined for oil, beginning back in the eighteenth century.¹² Instead of drilling vertically for the entirety of the extraction process, hydraulic fracturing also involves horizontal drilling to reach difficult extraction areas.¹³ Generally, shale deposits are found under impermeable rock sources, which cannot migrate to the surface, but horizontal drilling makes regular extraction accessible.¹⁴ When vertical drilling is paired with hydraulic fracturing, the process allows the gas to migrate closer to the surface for easier extraction.¹⁵ First, vertical drilling is used to get within range of the shale pocket, and secondly horizontal drilling is used to reach the gas.¹⁶ Fracturing fluid is then pushed into the space created by the drill with enough pressure to fracture the surrounding rock, allowing the gas to migrate upwards.¹⁷ Hydraulic fracturing fluid is composed mainly of water, almost ninety-ninety percent, but also includes sand and other unknown chemicals.¹⁸ The hydraulic fracturing process is controversial because of the chemicals and high quantity of water used throughout the process.¹⁹ Specifically, fracturing fluid contaminates water with the various chemicals associated throughout the process, like formaldehyde and methane, just to name a few, which have been linked to human health issues when the

¹¹ Jackson, *supra* note 3, at 2.

¹² Levi Rodgers, *Subsurface Trespass by Hydraulic Fracturing: Escaping Coastal v. Garaza's Disparate Jurisprudence Through Equitable Compromise*, 45 TEX. TECH. L. REV. ON. 99, 104–5 (2012).

¹³ Jackson, *supra* note 3, at 2.

¹⁴ Sarah K. Adair et al., *Considering Shale Gas Extraction in North Carolina: Lessons from other States*, 22 DUKE ENVTL. L. & POL'Y F. 257, 261 (2012).

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ Jackson, *supra* note 3, at 2–3.

¹⁹ *Id.*

water is drank or used.²⁰ The sand remains underground keeping the fissures open for gas migration and, depending on the site, eight to fifteen percent of the remaining fluid will return to the surface.²¹

Shale gas deposits are located in the “Triassic strata” of the Deep River and Deep River Basin, specifically in Lee and Sanford County.²² North Carolina’s shale formations were created in freshwater environments rather than marine environments, which is typical of the rest of the United States’ shale sources.²³ For oil and gas companies these atypical environments means an unknown response to hydraulic fracturing fluids, because each source of shale requires a different combination of chemicals.²⁴ Currently, North Carolina’s natural gas production is small compared to surrounding states, but this could change if the state chooses to aggressively pursue mining.²⁵

Current North Carolina Property & Energy Statutes

Soon, North Carolina statutes will begin to interplay with fracking legislation, which will particularly effect laws concerning mining and energy sources. The old laws were not written to consider fracking and the issues that emerge from such a process, so the interaction of each law will be problematic for the State.²⁶ One branch of affected statutes regards property, specifically trespass and eminent domain. Property is “any right title, or interest in land, including leases and options to buy or sell,” and includes “rights to access, rights-of-way, easements, water rights, air rights, and other privileges or

²⁰ *Id.* at 3.

²¹ Adair, *supra* note 14, at 262.

²² *Id.* at 264.

²³ *Id.* at 263.

²⁴ *Id.*

²⁵ *Id.* at 263–4.

²⁶ Bannerman, *supra* note 1, at 38.

appurtenance in or to the possession, use, and enjoyment of land.”²⁷ The “owner” of land is a person who has “interest or estate in the property.”²⁸

Current laws on eminent domain are found in Chapter 40 of the state’s General Statutes. Eminent domain is “acquir[ed] by gift, purchase, or exercise of power of eminent domain or to construct, reconstruct, improve, maintain, better, extend, and operate . . . upon determination . . . [eminent domain] is necessary and in the public interest.”²⁹ Under this statute, the entities that may authorize eminent domain for “public use or benefit” include: private condemnor, local public condemnor, or other public condemnors.³⁰ Private condemnors include corporations, private persons, school committees, franchised motor vehicles, or any railroad company.³¹ Public condemnors are the “the governing bod[ies] or each municipality or county,” which include any boards, committees, or public entities in a community.³² Under the statute these bodies are considered commissions, and have “all power necessary or appropriate to carry out and effectuate the purposes and provisions of this Article”³³ Any public or private property deemed necessary for public use can be appropriated through the powers outlined in Section 160A-512.³⁴ The powers enumerated allow commissions to take land for numerous reasons, including “for its own use,” which could become an issue for property owners with shale deposits.³⁵

²⁷ N. C. GEN. STAT. § 40A-2(7) (2006).

²⁸ *Id.* at § 40A-2(5).

²⁹ *Id.* at § 40A-1 (a).

³⁰ *Id.* at § 40A-1(a).

³¹ *Id.* at § 40A-3(a) (1).

³² *Id.* at § 40A-3(b).

³³ N. C. GEN. STAT. § 160A-512(6) (2006).

³⁴ *Id.*

³⁵ N.C. GEN. STAT. § 159-83(a)(1) (2006).

The definition of the bodies allowed to partake in eminent domain is broad, and what projects constitute an allowance of eminent domain is even broader. The wide-ranging definitions within this statute are a potential source of concern if hydraulic fracturing falls within the boundaries of an accepted eminent domain.³⁶ Additionally, private and public bodies have an almost unlimited range from which to choose an eminent domain claim.³⁷ Under North Carolina’s eminent domain statute pipelines for the transportation of “petroleum products, coal, gas, limestone, or minerals,” is already allowed.³⁸ Moreover, if public interest or proven public worth can be established, eminent domain can be enacted.³⁹

One caveat to eminent domain is the concept of a “blighted parcel.”⁴⁰ Under Section 2.1 of the statute, a blighted parcel:

“[S]hall mean a parcel on which there is a predominance of buildings or improvements (or which is predominantly residential in character), and which, by reason of dilapidation, deterioration, age or obsolescence, . . . or the existence of conditions which endanger life or prosperity . . . the power of eminent domain shall be exercised under the provisions of this Article”⁴¹

If a commission determines a property or area is blighted, than the parties interested in those areas may take protests to a court of their choice, but proving an area is not blighted under such broad terms is difficult.⁴²

For the property or structure to be formally considered blighted, it must first be assessed and affirmed by the planning commission.⁴³ The statute differentiates little

³⁶ Bannerman, *supra* note 1, at 45.

³⁷ N.C. GEN. STAT. § 40A (2006).

³⁸ *Id.* at § 40A-3(a)(1).

³⁹ *Id.* at § 40A- 3(a)(1-5).

⁴⁰ N.C. GEN. STAT. § 160A-503(2a) (2006).

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.* at § 160A-512(6).

between a “blighted parcel” and a “blighted area,” giving each the same definition.⁴⁴ However, a “blighted area” is one where “at least two thirds of the number of buildings within the area are of the character described in these subdivisions and substantially contribute to the conditions making such area a blighted area.”⁴⁵

Trespass is to “willfully and wantonly damage, injure, or destroy any real property whatsoever, either of a public or private nature”⁴⁶ Any damage or destruction of another’s property falls under a criminal trespass, from the most minute to most severe.⁴⁷ Land rights fall under trespass, but more interestingly so do subsurface territory rights, where shale deposits are located.⁴⁸ In the statute there is no mention of oil or gas rights found upon others properties, or any protection mentioned for the owners of that property, which could become problematic for a landowner wishing to sue for subsurface trespass caused by mining.⁴⁹

Senate Bill 820 cited several findings and proposals, as well as a course of action that the state would take in moving forward with hydraulic fracturing production and extraction.⁵⁰ Key was the finding by the Department of Environment and Natural Resources (DENR) that fracking for natural gas can be done safely, but that no company should be authorized to drill until a modern regulatory program could be established.⁵¹

To go forward with discovery, the bill proposes several courses of action to implement hydraulic fracturing in the state.⁵² The statute renames the Mining

⁴⁴ *Id.* at § 160A-503(2a).

⁴⁵ *Id.*

⁴⁶ N. C. GEN. STAT. § 14-127 (1987).

⁴⁷ *Id.* at § 14-128.

⁴⁸ Zeik, *supra* note 6, at 601.

⁴⁹ N. C. GEN. STAT. § 14-129 (1987).

⁵⁰ S. 820, Gen. Assemb., Sess. 2011-2012 (N.C. 2012).

⁵¹ *Id.* at 820-2.

⁵² *Id.*

Commission, to the Mining and Energy Commission (MEC), and commands it to “develop a modern regulatory program for the management of oil and gas exploration and development . . .including horizontal drilling and hydraulic fracturing”⁵³ The bill charges MEC to commit a comprehensive study of North Carolina’s oil and gas reserves, how to mine, what environmental issues and dangers could emerge, and what regulations should be implemented to monitor and manage oil and gas exploration activities in the state.⁵⁴ MEC will be in charge of all the oil and gas resources in the state, along with all the mining techniques for extrapolation.⁵⁵ This commission will also regulate all spacing, drilling, and maintaining of drilled wells.⁵⁶

Problems with Property Rights and Hydraulic Fracturing

With the impending implementation of hydraulic fracturing in the state, two concerns emerge in North Carolina involving eminent domain and trespass. Regarding eminent domain, the language of the current statute is broad enough to justify almost any parcel of land for a taking as long as it can be construed for public benefit or a “blighter property.”⁵⁷ There is also the potential issue of environmental justice claims arising out eminent domain being used against poor homeowners and communities.⁵⁸ Communities outside city ordinance and unfamiliar with fracking regulatory rules could suffer at the hands of oil and gas companies bent on profit.⁵⁹ The concept of blighted property or area could also be used against poor communities, if commissions are allowed to deem those areas as blighted than the can be taken. Fracking is an issue for trespass laws, because of

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.* at II.b.

⁵⁷ Bannerman, *supra* note 1, at 46.

⁵⁸ Burleson, *supra* note 5, at 299.

⁵⁹ *Id.* at 301.

the nature of shale gas deposits, and the concept of subsurface ownership.⁶⁰ Specifically, subsurface trespass will be difficult to regulate and enforce due to the unseen variables.

Eminent Domain, Property Owners, & Environmental Justice

Issues with North Carolina's Eminent Domain law could arise for landowners who have subsurface shale deposits and refuse to lease the mineral rights to an oil or gas company.⁶¹ These leases are optional and at the discretion of the landowner, however refusing to enter into such an agreement does not assure the shale deposits would remain untouched.⁶² Takings arise under eminent domain as well, and as long as a property owner is properly compensated, land can be taken for almost any public or private use.⁶³ Finally, all of these issues should be considered within the sphere of environmental justice, so that poorer communities in North Carolina are protected from takings and trespass.

Before entering into the eminent domain issue, compulsory pooling is important to understand. The Oil and Gas Conservation Act of North Carolina has allowed compulsory pooling since 1945.⁶⁴ The purpose of pooling is to conserve oil and gas while also protecting the correlative rights of the landowners, by avoiding wasteful drilling practices and right of capture.⁶⁵ Small tracts of land are combined for mining, allowing for the subsurface reservoir of shale to be mined beneath every landowner who is within the pool.⁶⁶ The process is meant to maximize production and efficiency in draining the

⁶⁰ Kevin L. Colosimo et al., *Compulsory Pooling and Unitization in the Marcellus Shale: Pennsylvania's Challenges and Opportunities*, 83 PA. B.A. Q. 47, 48–9 (2012).

⁶¹ Bannerman, *supra* note 1, at 38–9.

⁶² Colosimo, *supra* note 60, at 49.

⁶³ Alexandra B. Klass, *Takings and Transmission*, 91 N.C. L. REV. 1079, 1089 (2013).

⁶⁴ 2012 N.C. Sess. Law 143.

⁶⁵ *Id.*

⁶⁶ *Id.*

reservoir.⁶⁷ There are two organizational structures available for companies who want to combine properties for drilling purposes, pooling and unitization.⁶⁸ One distinction is that pooling means all landowners' reservoirs are combined and operated as a single entity, while unitization refers to the combination of multiple, separately operated wells to achieve maximum production.⁶⁹ The problem with compulsory pooling arises when one landowner refuses to lease their mineral interests to the oil or gas company.⁷⁰ The options left to a state at that time are to either: (1) let that tract owner participate on a "free ride;" (2) impose risk-penalties for the non-participants; (3) give the non-participant options; or (4) allow the authorized administration agency to determine what to do with the non-participant.⁷¹ The last option is where eminent domain could become problematic for the non-participating landowner.

Compulsory pooling also has an environmental justice angle, because people of lower socioeconomic statuses may agree more readily to leasing land for quick cash without considering the implications of leasing land for mining.⁷² Furthermore, people from lower socioeconomic backgrounds generally have less negotiating power with policymaking agencies or energy companies, so their concerns and problems about fracking would go unheard.⁷³ When poor political influence is coupled with low voting numbers, this segment's voice on public policy and law often goes unheard.⁷⁴

⁶⁷ Colosimo, *supra* note 60, at 51 (Pooling typically deals with one drilling company attempting to gain control of several landowners mineral interests).

⁶⁸ *Id.*

⁶⁹ *Id.* at 50–1.

⁷⁰ *Id.* at 52.

⁷¹ *Id.* at 52

⁷² Burleson, *supra* note 5, at 301.

⁷³ *Id.*

⁷⁴ *Id.* at 304.

When viewing North Carolina’s eminent domain laws, it is clear the terms are vague concerning private gas producers’ ability to condemn land.⁷⁵ North Carolina dictates how far private enterprises can assume the power of a taking under the Fifth Amendment.⁷⁶ The current statute legitimizes any property condemned under a taking, as long as it is not “arbitrary and capricious or an abuse of discretion.”⁷⁷ This occurs because there is no state statute defining takings in the state, and North Carolina is the only state to have such a provision in its constitution.⁷⁸ This differs from the traditional standards that eminent domain be reserved for only “bona fide” public use, such as highway construction. Already North Carolina identifies the construction of pipelines pursuant under eminent domain, so will that extend to hydraulic fracturing?⁷⁹ The courts decide the question of “public use,” while the legislature decides the extent of legal takings.⁸⁰ Therefore, “public use” is left up to the discretion of any court hearing such a case, and with no policy set down from the legislature the decisions could be varied across the state.

So far, state courts have consistently found pipelines to be for public use, but it is not a forgone inference that the court will also extend this to fracking.⁸¹ The current test, “definite use,” is used to determine the public use of the property.⁸² This is the test courts have previously applied for pipeline construction, and in *Town of Midland v. Morris*,⁸³ it

⁷⁵ Bannerman, *supra* note 1, at 46.

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.* at 38.

⁸⁰ *Id.* at 46.

⁸¹ *Id.*

⁸² Bannerman, *supra* note 1, at 46.

⁸³ 209 N.C. App. 208, 704 S.E.2d 392 (2011).

was applied to the availability of natural gas, and considered a public use and benefit.⁸⁴ If availability alone is enough for eminent domain, then any subsurface property with shale deposits could be taken for public use.⁸⁵ This could have serious implications for property owner unwilling to join compulsory pooling and unitization.⁸⁶ Under the present principle, refusing to join a unit does not end the property owner's struggle to keep oil and gas companies off the land. It is possible under the current laws to pull a landowner into a pool by taking his subsurface property because it was deemed a public use and benefit.⁸⁷

North Carolina's definition of a "blighted property" is also a concern, because this is another statute that provides a loophole for companies to commit takings.⁸⁸ Although the definition of blighted property is no worse than many other states, it is still vague and ambiguous enough that oil and gas companies could abuse.⁸⁹ Under the current statute, a property does not have to be dangerous, ill kept, or un-used—a property can be determined blighted if it "substantially impairs the sound growth of the community."⁹⁰ If person's lot is deemed "blighted" there is no legal means of defense against an oil or gas company, especially if it backed by pro-fracking community.⁹¹

Environmental justice concerns begin when takings are committed unfairly against poorer communities.⁹² Poorer communities are usually characterized with deserted homes and lots, dilapidated buildings, and other issues, which under current

⁸⁴ Bannerman, *supra* note 1, at 58.

⁸⁵ *Id.* at 57.

⁸⁶ Colosimo, *supra* note 60, at 55–59.

⁸⁷ Bannerman, *supra* note 1, at 46.

⁸⁸ *Id.* at 64.

⁸⁹ *Id.* at 61.

⁹⁰ N. C. GEN. STAT. § 160A-503(2a) (2006).

⁹¹ Bannerman, *supra* note 1, at 46.

⁹² Burleson, *supra* note 5, at 295.

State law could be used to “take” that land as a “blighted property.”⁹³ Additionally many poorer communities have run-down sewer and water lines, which could be “public hazards” under eminent domain.⁹⁴ There is a history in other states of environmental injustice occurring alongside fracking, so North Carolina should take every precaution to mitigate this possibility.⁹⁵ This is another consideration North Carolina should address before allowing widespread fracking in the state, in order to protect property owners from companies who can circumvent proper procedure by apply the vague terms of the eminent domain statute.

Trespass: The Right of Capture in North Carolina

While North Carolina may already have trespass statutes, this will not prohibit legal problems under fracking laws. Traditionally for trespass issues, courts have followed the *ad coelom* doctrine, that property owners own everything above and below their land, to the sky and to the core.⁹⁶ There are several issues that arise when considering trespass and fracking, including the rights of compulsory pooling and the right of capture with shale deposits.⁹⁷ The former occurs when drilling enters a non-participating owner’s subsurface land to achieve compulsory pooling. In the latter, the definition of rule of capture is difficult to outline from the fluidity of shale deposits.⁹⁸

MEC has completed the compulsory pooling study dictated by House Bill 820, and the results promote the activity if ninety percent of the landowners in the area agree

⁹³ N. C. GEN. STAT. § 160A-503(2a) (2006).

⁹⁴ *Id.*

⁹⁵ Burlison, *supra* note 5, at 301.

⁹⁶ David E. Pierce, *Developing a Common Law of Hydraulic Fracturing*, 72 U. PITT. L. REV. 685, 691 (2011).

⁹⁷ *Id.* at 687–88.

⁹⁸ R. Marcus Cady II, Note, *Drilling into the Issues: A Critical Analysis of Urban Drilling’s Legal, Environmental, and Regulatory Implications*, 16 TEX. WESLEYAN L. REV. 127, 132 (2009).

to sign leases.⁹⁹ Concerns arise for the ten percent of landowners who do not want to lease their subsurface property, as well as to what happens when that underground area becomes critical to the fracking process. The question for the state becomes, should the pooling order allow horizontal wells to physically pass through the subsurface territory of un-leased land?¹⁰⁰ The typical pooling order only considers the disturbance created by a vertical well to property, and not to the subsurface area that is horizontally drilled.¹⁰¹ While a well operator may technically not drill through subsurface land when the landowner has not given consent, if this does occur there is a high probability that the landowner would never know unless something went wrong in the mining process.¹⁰² The very fact that subsurface property cannot be seen makes litigating trespass difficult.¹⁰³ What actions could landowners with fracking chemicals beneath their property take when they had no leasing agreement with a mining company?¹⁰⁴ Would this matter fall under trespass, or a more general tort law?¹⁰⁵

These questions suggest a loophole that could emerge in pooling where those who choose not to lease land may still have mining beneath their property. MEC's proposal implies that taking land may be the outcome in North Carolina's compulsory pooling if companies are not required to lease 100% of the land.¹⁰⁶ These are the types of questions that will emerge because no party involved can control where the shale wanders underground. Therefore, if a landowner does not sign a lease, they could be left to the

⁹⁹ 2012 N.C. Sess. Law 143.

¹⁰⁰ Colosimo, *supra* note 60, at 59.

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ Troy A. Rule, *Property Rights and Modern Energy*, 20 GEO. MASON L. REV. 803, 806 (2013).

¹⁰⁴ *Id.* at 826–7.

¹⁰⁵ Victor B. Flatt, *Paving the Legal Path for Carbon Sequestration from Coal*, 19 DUKE ENVTL. L. & POL'Y F. 211, 220 (2009) (suggesting liability schemes the answer the problem of trespassing, as long as “[P]ublic health and private property rights will be protected and that any harms will be compensated.”

¹⁰⁶ 2012 N.C. Sess. Law 143.

discretion of a major oil or gas company for compensation. This problem will leave some landowners seemingly out of luck, either choosing to lease or risk dealing with trespass issues, which would be hard to determine and even harder to litigate under current laws.¹⁰⁷

Rule of Capture is intimately involved with compulsory pooling and the standards of the owners within a pool.¹⁰⁸ Traditionally “rule of capture” was defined as “a mineral owner acquir[ing] title to the hydrocarbons produced from wells of his land, regardless of whether part of the oil or gas migrated from beneath the land of another.”¹⁰⁹ This rule has been inefficient regarding minerals because it forced people to extract oil as quickly as possible so they could reap the financial benefits before their neighbors. When extraction was done this quickly the pressure of the oil fields dramatically dropped, ironically causing less oil to be mined.¹¹⁰

Rule of capture also has implications for compulsory pooling. For landowners in a pool, rule of capture dictates they cannot sue others in the pool if shale deposits under their land migrate to another’s from drilling. For landowners outside a pool, rule of capture leaves them remediless against neighbors and companies whose mining operations cause the shale deposits under their land to travel.¹¹¹ The latter would be particularly hard to determine because of the preexisting migratory nature of shale deposits, which coupled with unseen drilling could leave landowners unsure whether

¹⁰⁷ Bannerman, *supra* note 1, at 45–6.

¹⁰⁸ Zeik, *supra* note 6, at 604.

¹⁰⁹ Rodgers, *supra* note 12, at 109.

¹¹⁰ *Id.*

¹¹¹ Zeik, *supra* note 6, at 601.

their mineral rights had been violated.¹¹² Therefore, rule of capture is an issue that North Carolina should address prior to commencing drilling in the state so that all landowners are allowed to determine what to do with the shale beneath their land.

Conclusion

North Carolina stands at a crossroads of energy development. Policies guarding State citizens should not be swept aside to pursue new energy sources. Rather, the state needs to assert a primary right of all citizens, the right to own and protect land, so everyone has equal protection under the law.¹¹³ Current statutes on trespass and eminent domain should be readdressed, to prevent companies from seeking loopholes through the law.¹¹⁴ Poorer communities should also be protected against unlawful takings under the law, so that North Carolina does not have more environmental justice issues. Fracking has too many health and environmental risks to allow poor communities to stand unprotected against energy companies bent on profit.¹¹⁵ The State has numerous issues to consider before allowing fracking, which should be addressed so everyone has a fair chance of education and choice.

¹¹² Rodgers, *supra* note 12, at 110–12 (Regarding rule of capture two theories have emerged as states have dealt with the issues that arise from the principle: the doctrine of correlative rights and the exclusive right to take theory).

¹¹³ Adair, *supra* note 14, at 300.

¹¹⁴ Colosimo, *supra* note 60, at 65.

¹¹⁵ Burleson, *supra* note 5, at 340.