Get Out From Under My Land! Hydraulic Fracturing, Forced Pooling or Unitization, and the Role of the Dissenting Landowner

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ABSTRACT

This article addresses the legal circumstances arising when a state agency authorizes oil and gas production operations beneath a landowner's land against that landowner's wishes. One might assume that, if a landowner wants to preserve his or her land from oil and gas development, the landowner could simply refuse to allow drilling to occur beneath the land. However, neighbors may want to develop the oil and gas resources beneath their own land. To satisfy the neighbors' wishes, an oil and gas producer must assemble mineral production rights on or beneath enough contiguous land to satisfy state spacing and acreage requirements and industry best practices. This may require the producer to include the landowner's land in the contiguous parcel. In fact, the producer often cannot assemble an appropriately sized or shaped drilling unit to satisfy the state spacing and acreage requirements without including that landowner's land in the contiguous parcel.

The producer may offer the landowner payment in exchange for permission to add his or her land to the drilling unit. However, the landowner may still prefer that the land and its subterranean oil and gas resources remain undisturbed; the landowner may value no drilling more than he or she values the monetary incentive offered to him or her. Therein lies the dilemma. Without including the landowner's land in the contiguous parcel, neighbors cannot develop the oil and gas resources beneath their own land. By dissenting, a single landowner could veto his or her neighbors' efforts to develop underground oil and gas. And yet, including the "dissenting landowner's" land in a drilling unit against his or her will seems to violate traditional common law notions of property ownership.

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Is one landowner really able to veto his or her neighbors' prospects of developing oil and gas resources by refusing to add his or her own land to a producer's drilling unit? Although landowners generally control rights of access and rights of use on their land, legislation in many states allows a state agency to add land to a drilling unit without the owner's permission. These laws protect neighbors' development rights—called correlative rights—to develop resources, promoting the broader development of oil and gas resources. Therefore, the state agency can add land to a producer's drilling unit without the landowner's permission so that oil and gas producers can assemble legally sized and efficient drilling units, and neighbors can develop the oil and gas beneath their land.

This article explores the legal circumstances of the "dissenting landowner" a land (or mineral rights) owner who wants to bar oil and gas development from occurring beneath his or her land but whose land is forced into a drilling unit by a state agency as authorized by state mandatory pooling or forced unitization laws. It briefly explains the history and nature of the mandatory pooling and forced unitization laws that force dissenting landowners into drilling units against their will. It describes the tensions between the dissenting landowners' property rights and the neighboring landowners' correlative rights. It considers and describes the ways states use these laws to reduce the dissenting landowners' property rights, instead favoring the correlative rights of their neighbors. It illustrates these issues by focusing on Ohio's application of mandatory pooling and forced unitization. Finally, it considers the various statutory, regulatory, constitutional, and common law methods a dissenting landowner may employ to avoid drilling unit production (and thus allow the resource to remain underground) during the mandatory pooling or unitization process and following the forced pooling or mandatory unitization as a means of redress.

TABLE OF CONTENTS

ntro	ductic	on	635
I.	Bacl	kground	637
	A.	The Traditional Allocation of Property Rights: The Rule of Capture	637
	В.	Mandatory Pooling and Unitization: Definitions and Differences	640
		1. What is Mandatory Pooling?	641
		2. What is Forced Unitization?	642
	C.	Rights of the Majority Versus Rights of the Dissenting Landowner.	643
II.	The	Example of Ohio: Use of Mandatory Pooling and Unitization to	
	Prot	ect the Correlative Rights of the Majority	645
	A.	Mandatory Pooling Applied: The Example of Ohio	645
	В.	Forced Unitization Applied in Ohio	647
	C.	"Mandatory Pooling" Versus "Unitization" According to the Ohio	
		Oil and Gas Commission	649

	Dissenting Landowner's Possible Actions When Confronting Mandatory		
Po	olir	g or Forced Unitization	
A		The Legal Landscape for the Dissenting Landowner	
В	.]	Pre-Pooling: Preventing a Forced Pooling or Unitization Order	
		1. Servitudes	
		2. Restrictive Covenants and Equitable Servitudes	
		a. Effective Use of Restrictive Covenants and Equitable	
		Servitudes in Preventing Mandatory Pooling	
		b. Likely Ineffective Use of Real Covenants or Equitable	
		Servitudes in Preventing a Mandatory Pooling Order	
		3. Conservation Easements	
		a. Limitations to the Use of a Conservation Easement: The	
		Problem of the Split Estate	
		b. Whether a Conservation Easement Can Prevent Voluntary	
		Oil and Gas Pooling or Unitization	
		c. Conservation Easements May Prevent Mandatory Pooling	
		or Forced Unitization by the State	
C	.]	During a Mandatory Pooling or Forced Unitization Process	
		1. Challenging the Mandatory Pooling Order in Ohio	
		a. Failure to Satisfy the Conditions Required in An	
		Application for a Mandatory Pooling Order	
		i. Sufficient Size or Shape	
		ii. Applicant Did Not Attempt to Reach a Voluntary	
		Agreement with the Dissenting Landowner on a	
		Just and Equitable Basis	
		b. Challenging a Mandatory Pooling Order on its Merits	
D	. 7	The Landowner's Role Following Forced Pooling or Unitization	
		1. Statute-Based Means of Redress for the Dissenting Landowner	
		a. Administrative Appeal	
		b. Appealing to the County Court of Common Pleas	
		2. Common Law Means of Redress for the Dissenting Landowner	
		Following a Mandatory Pooling or Forced Unitization Order	
		a. Trespass	
		b. Nuisance	
		3. Constitutional Challenges to a Mandatory Pooling or Forced	
		Unitization Order	
		a. Evolution of U.S. Supreme Court Takings Cases Related to	
		Drilling	
		b. Recent Supreme Court Treatment of Conceptual Severance	
		c. Judicial Unwillingness to Find a Taking	
iclusi	ion .		

Introduction

This article addresses the legal rights and remedies of a landowner when the state allows oil and gas drilling to proceed beneath a landowner's land

against his or her wishes. If one owns land and wants to preserve it, free from oil and gas drilling, one might assume he or she could simply refuse to allow drilling to occur there—after all, the person who owns the land should be able to decide what's done beneath it. Surprisingly, this is not the case in most states.

Many states have mandatory pooling or forced unitization laws which allow a state agency to add land to a drilling unit¹ against the landowner's wishes.² Pursuant to these statutes, to satisfy state well-spacing and acreage requirements and industry best practices, a driller must assemble the right to drill on or beneath a prescribed amount of contiguous land. The driller may need to include another person's land in the assembled parcel to satisfy those requirements. The purposes of mandatory pooling and forced unitization statutes are to protect the neighbors' rights—called correlative rights³—to develop the resource, and to promote the broader development of oil and gas resources.⁴ Without including the dissenter's land, it may be difficult for the driller to assemble a parcel that is legally sized or shaped for drilling. Thus, by refusing to allow one's land to be included in the oil and gas development unit, the dissenter would effectively veto his or her neighbors' ability to develop the oil and gas beneath the land.

This article will explore the legal circumstances of the "dissenting landowner." A dissenting landowner is a landowner (or mineral rights owner) who does not wish to welcome oil and gas development beneath his or her land but is forced into a drilling unit through state-ordered, mandatory pooling or forced unitization.⁵ The dissenting landowner does *not* wish to enter into an oil and gas development or production lease and is not interested in economic gain from sign-on bonuses or royalty payments.

^{1.} A drilling unit is a minimum acreage requirement that must be secured by a driller before a well can be drilled. Ohio Rev. Code Ann. § 1509.01(G) (LexisNexis 2018).

^{2.} Thirty-nine states have extensive oil and gas laws that provide for some sort of compulsory pooling or unitization of an unwilling landowner's land. These include: Alaska, Idaho, Indiana, Iowa, Louisiana, North Carolina, Pennsylvania, Texas, Virginia, Tennessee, Illinois, Kentucky, New York, North Dakota, Vermont, Nevada, Arizona, Kansas, Oklahoma, Ohio, Alabama, Montana, Utah, Arkansas, California, Florida, Georgia, Michigan, Mississippi, Missouri, Nebraska, New Mexico, Oregon, South Carolina, Washington, West Virginia, Colorado, and Wyoming. See Frank Sylvester & Robert W. Malmsheimer, Oil and Gas Spacing and Forced Pooling Requirements: How States Balance Energy Development and Landowner Rights, 40 U. DAYTON L. REV. 47, 59–60 (2015).

^{3.} Ohio law defines correlative rights as "the reasonable opportunity to every person entitled thereto to recover and receive the oil and gas in and under the person's tract or tracts, or the equivalent thereof, without having to drill unnecessary wells or incur other unnecessary expense." § 1509.01(I).

^{4.} Correlative rights are "the reasonable opportunity to every person entitled thereto to recover and receive the oil and gas in and under his tract or tracts, or the equivalent thereof, without having to drill unnecessary wells or incur other unnecessary expense." *See* Johnson v. Kell, 626 N.E.2d 1002, 1005 (Ohio Ct. App. 1993).

^{5. &}quot;Dissenting landowner" is not a legal term, but rather a term the author coined to describe a landowner who objects to the development of the oil and gas resources beneath the land in a context where surrounding landowners prefer the resource be developed.

This article will explore the history and nature of the mandatory pooling and forced unitization laws that force dissenting landowners into drilling units. It will describe the tension between the dissenting landowner's property rights and the neighboring landowners' correlative rights. Using Ohio as an example, this article will describe how states use mandatory pooling and forced unitization laws to favor the correlative rights of consenting landowners over the property rights of dissenting landowners. Finally, it will consider various statutory, regulatory, common law, and constitutional methods of redress available to the dissenting landowner. It will consider these methods of redress during three periods of time: prior to being forced into a drilling unit, during the mandatory pooling or forced unitization process, and following the issuance of a mandatory pooling or forced unitization order.

I. BACKGROUND

States developed mandatory pooling and unitization statutes in response to the shortcomings of the traditional rules for allocating mineral estate rights between two or more competing landowners.⁷ This Part will discuss the use of the traditional rule of capture for allocating property rights to subsurface oil and gas. It will then elaborate on the rule's shortcomings and the resulting need for well-spacing and drilling unit size and shape requirements. Finally, this Part will describe the rise of mandatory pooling and forced unitization statutes and the consequent emergence of the dissenting landowner.

A. THE TRADITIONAL ALLOCATION OF PROPERTY RIGHTS: THE RULE OF CAPTURE

In property law, *ferae naturae* refers to "wild animals and other resources that do not respect human delineated property boundaries." Ownership status of *ferae naturae* is determined according to the rule of capture⁹ which states that the mere pursuit of a wild animal does not establish ownership. Rather, to acquire ownership of a wild animal, a person must capture it.¹⁰ Courts have also applied the rule

^{6.} See 83 AM. JUR. 2D Zoning and Planning § 1 (2015) (stating that the right to improve property is subject to the reasonable exercise of state or municipality enforcement of valid zoning and land use restrictions); see also 20 AM. JUR. 2D Covenants, Conditions, and Restrictions § 1 (2015) (stating that a covenant is an agreement compelling a landowner to do, or to refrain from doing, certain things with respect to real property); 58 AM. JUR. 2D Nuisances § 1 (2015) (stating that the law of nuisance seeks to restrict a landowner's right to use his or her land in a manner that substantially impairs the right of another to peacefully enjoy his or her property).

^{7.} See Kevin L. Colosimo & Daniel P. Craig, Compulsory Pooling and Unitization in the Marcellus Shale: Pennsylvania's Challenges and Opportunities, 83 PA. B. ASS'N Q. 47 (2012); see also Sharon O. Flanery & Ryan J. Morgan, Overview of Pooling and Unitization Affecting Appalachian Shale Development, 32 ENERGY & MIN. L. INST. § 13.04 (2011); Sylvester & Malmsheimer, supra note 2, at 47.

^{8.} Ferae naturae, BALLENTINE'S LAW DICTIONARY (3d ed. 1969).

^{9.} State v. Shaw, 65 N.E. 875 (Ohio 1902).

^{10.} See generally, Pierson v. Post, 3 Cai. 175 (N.Y. Sup. Ct. 1805).

of capture to establishing property rights in the oil and gas under one's land.¹¹ Like wild animals that do not respect property boundaries, freely flowing oil and gas also migrate across property lines. Due to the often-migratory nature of oil and gas, courts consider it a fugitive resource that one must capture—by removing it from the ground¹²—to establish property rights.¹³ In other words, whoever brings the oil and gas from an underground pool to the surface, thus capturing it, gains property rights to those resources.¹⁴

Although oil and gas trapped in shale rock does not migrate across property lines in the same way as oil and gas trapped in larger underground pools, the requirement of capture to establish ownership applies to shale oil and gas development as well.¹⁵ It is the "fugitive nature of hydrocarbons" that causes the rule of capture to attach to shale oil and gas.¹⁶ Therefore, it is immaterial that the driller unnaturally causes the shale to fracture in order to release the oil and gas.¹⁷

To capture and therefore gain ownership of underground oil and gas, land-owners had to drill a well on their own land. As a result, landowners over-drilled surface land in efforts to capture the underground resources and protect their ownership rights. In oil-rich areas, landscapes became covered with spindle wells, causing enormous damage to surface land, an unfortunate aesthetic, and reducing underground pressure. Because wells depend on underground pressure to release oil and gas resources to the surface, this resulted in inefficient production; producers were unable to extract the same yield on a per well basis, and more wells were required to accomplish the same level of production. At the same time, the rule of capture failed to protect a landowner's correlative right to realize the value of oil and gas.

^{11.} Lucas P. Baker, Forced Into Fracking: Mandatory Pooling In Ohio, 42 CAP. U. L. REV. 215, 218 (2014); see also Elliff v. Texon Drilling Co., 210 S.W.2d 558 (Tex. 1948).

^{12.} Kelly v. Ohio Oil Co., 49 N.E. 399 (Ohio 1897).

^{13.} Baker, *supra* note 11, at 219; Westmoreland & Cambria Nat. Gas Co. v. Dewitt, 18 A. 724, 725 (Pa. 1889) (explaining that "possession of the land. . . is not necessarily possession of the gas. If an adjoining, or even a distant, owner, drills beneath his own land, and taps your gas so that it comes into his well and under his control, it is no longer yours, but his").

^{14.} Bruce M. Kramer & Owen L. Anderson, *The Rule of Capture – an Oil and Gas Perspective*, 35 ENVTL. L. 899, 899 (2005).

^{15.} Jared B. Fish, *The Rise of Hydraulic Fracturing: A Behavioral Analysis of Landowner Decision-Making*, 19 BUFF. ENVTL. L.J. 219, 251 (explaining that in *Coastal Oil & Gas Corp. v. Garza Energy Tr.*, 268 S.W.3d 1 (Tex. 2008), the Texas Supreme Court held that the rule of capture governed property rights over the oil and gas recovered in a hydraulic fracturing operation, and that salt water injections into the well did not constitute a trespass).

^{16.} Garza, 268 S.W.3d at 12-13.

^{17.} Id.

^{18.} Id.

^{19.} Baker, *supra* note 11, at 219–20.

^{20.} See generally Sylvester & Malmsheimer, supra note 2, at 47–48.

^{21.} Baker, *supra* note 11, at 220.

^{22.} Id.

To relieve surface lands of the adverse effects of over-drilling and to promote more efficient drilling, state legislatures enacted rules both for adequate spacing between wells and for acreage requirements.²³ Spacing requirements would prevent over-drilling of the surface, while acreage requirements would ensure sufficient sub-surface space to allow drillers to take advantage of the natural underground pressure. These spacing and acreage requirements for drilling units now govern the size and location of legally permissible wells.

For example, state legislatures enacted laws mandating that "drilling units" ²⁴ be secured by a driller before a well can be drilled.²⁵ The land in a drilling unit must be contiguous.²⁶ Drilling unit provisions specify that a new well cannot be drilled within a certain distance of a pre-existing well.²⁷ Therefore, a driller must secure a minimum acreage of well-free land before a drilling permit can be issued to that driller. 28 For example, the Ohio Department of Natural Resources ("Ohio DNR") Division of Oil and Gas Resources Management ("DOGRM") promulgated Ohio Administrative Code 1501:9-01-04, which established drilling unit size, shape, and spacing rules. The distance required between wells and the drilling unit's required size depends on the depth of the planned oil and gas well.²⁹ A driller trying to access oil and gas at the Utica shale's greatest depths of 7,000 feet would need to establish a drilling unit of at least forty acres, 30 1,000 feet from an existing well capable of accessing the same pool,³¹ and set back at least 500 feet from any boundary of the drilling unit.³² However, a shallower well, such as one only 2,000 to 4,000 feet deep, may occur on a much smaller drilling unit of at least twenty acres, 33 600 feet from an existing well capable of accessing the same pool,³⁴ and set back at least 300 feet from the boundary of the drilling unit.35

The new size and shape requirements for drilling units do not come free from their own limitations. Forming a legally sized and shaped drilling unit often requires the cooperation of multiple landowners. If one landowner refuses to add his or her land to the drilling unit, this dissenting landowner frustrates the other landowners' abilities to develop the resources beneath their

^{23.} Colosimo & Craig, supra note 7, at 47, 53.

^{24.} See, e.g., Ohio Admin. Code § 1501:9-1-04 (2005); N.Y. Envtl. Conserv. L. § 23-0501 (McKinney 2008); W. VA. Code Ann. § 22C-9-7 (2012); 58 PA. Stat. Ann. § 3211(b) (West 2017).

^{25.} *Id*.

^{26.} Ohio Rev. Code Ann. § 1509.24 (LexisNexis 2018)

^{27.} Id.

^{28.} See id.

^{29.} See Ohio Admin. Code § 1501:9-1-04.

^{30.} See § 1501:9-1-04(C)(4).

^{31.} *Id*.

^{32.} Hobart King, *Utica Shale – The Natural Gas Giant Below the Marcellus*, GEOLOGY.COM, http://geology.com/articles/utica-shale/ (last visited Nov. 10, 2016).

^{33.} See Ohio Admin. Code § 1501:9-1-04(C)(3).

^{34.} Id.

^{35.} See § 1501:9-1-04.

respective properties. States across the country enacted legislation to address circumstances in which a single landowner, or a minority of landowners, declines to surrender a land or mineral rights interest that is critical to forming a legally sized or shaped drilling unit. The primary goal of these statutes was to promote development of the resource. They also protect the oil and gas development rights of the landowners who voluntarily sign development leases with producers.

Ohio, for example, created its own versions of the two widely-used statutory mechanisms to address the problem of the dissenting landowner: mandatory pooling and forced unitization.³⁶ Like similar laws in other states, Ohio's mandatory pooling and forced unitization laws protect the correlative rights of the landowners—assuming they represent the majority of development rights owners in the potential drilling unit—who wish to develop their underground mineral rights. If an oil and gas producer can obtain voluntary development leases from a majority of the mineral rights owners in a proposed unit,³⁷ the producer can apply for a mandatory pooling or forced unitization order from the Chief of the Ohio DNR, DOGRM. If the Chief of DOGRM approves the application, the dissenting owner's land or mineral rights interest will be mandatorily "pooled" or "unitized" by force—joined to the drilling unit—despite his or her opposition. While the dissenting landowner will still receive a royalty interest if oil or gas is produced, the landowner is deprived of several other economic benefits, discussed more fully below.³⁸

B. MANDATORY POOLING AND UNITIZATION: DEFINITIONS AND DIFFERENCES

The casual conversationalist understandably conflates or misuses the terms "mandatory pooling" and "forced unitization." Both terms protect the majority mineral rights owners' correlative rights and are grounded in the principle that inefficient drilling should be prevented through strategic development of mineral-rich areas where a majority of landowners have agreed to develop. However, despite their similar purposes, mandatory pooling and forced unitization are different concepts authorized by different code sections.³⁹

^{36.} See Ohio Rev. Code Ann. §§ 1509.27-1509.28 (LexisNexis 2018).

^{37. &}quot;Unit" is synonymous with "drilling unit." Kelly v. Ohio Oil Co., 49 N.E. 399 (Ohio 1897).

^{38.} Marie C. Baca, Forced Pooling: When Landowners Can't Say No to Drilling, PRO PUBLICA (May 18, 2011), http://www.propublica.org/article/forced-pooling-when-landowners-cant-say-no-to-drilling.

^{39.} See Ohio Rev. Code Ann. § 1509.26 (LexisNexis 2018) (stating that "owners of adjoining tracts may agree to pool the tracts to form a drilling unit"); § 1509.27; Johnson v. Kell, 626 N.E.2d 1002, 1005 (Ohio Ct. App. 1993) (stating that "[m]andatory pooling is authorized under R.C. 1509.27 where, after an unsuccessful attempt to voluntarily pool on a just and equitable basis, forced pooling is necessary to protect correlative rights").

1. What is Mandatory Pooling?

Pooling is the joining of small tracts of land for the purpose of meeting a state's regulatory requirements. 40 Mandatory pooling, then, is the requirement that pooling happen with respect to a given parcel. Mandatory pooling laws arose in response to well-spacing requirements 41 and give individual landowners, or mineral rights owners, the ability to meet the state's minimum acreage requirements for a drilling unit by forcing their neighbors to consolidate land. 42 Mandatory pooling statutes protect the right of the majority of landowners to develop the underground resource because, with the inclusion of the dissenter's land, the majority is able to satisfy the state's spacing requirements. Without mandatory pooling, the majority of landowners would be prevented from using their land as they please. Thus, mandatory pooling protects the rights of the larger group to develop the resource at the expense of the smaller dissenting group's property rights.

"Pooling" is usually voluntary, not mandatory. ⁴³ Landowners create voluntary pooling agreements through a pooling clause in a lease agreement between the mineral rights owner and the drilling company—often called the producer. ⁴⁴ The pooling clause authorizes the producer to combine the lessor's land with neighboring lands to form a drilling unit. In return, the lessor receives a royalty interest payable as a proportion of the proceeds from the entire unit as measured by the amount of property the landowner owns in the unit. ⁴⁵

When a mineral rights owner or landowner refuses to sign a lease agreement, the landowner is refusing to authorize the producer's use of that land to help form a drilling unit. Without the dissenter's land or mineral rights, it might be impossible to form a legally sized or shaped drilling unit. Mandatory pooling statutes apply when a landowner, or producer, cannot meet the acreage or spacing requirement alone but has the agreement of most of his or her neighbors to include their land in the pool to meet the statutory requirements. A developer, or a group of landowners, may petition the Ohio DNR for a mandatory pooling order when he or she is unable to meet the acreage requirement alone but has the consent of a majority of neighboring landowners to add their land to the unit. The landowner who refuses to join the drilling unit voluntarily could find his or her land joined to the drilling unit by a mandatory pooling order from the Ohio DNR.

Mandatory pooling statutes are an exception to the general rule that landowners decide who may enter their land and how to use the land. Without a parcel

^{40.} Id.

^{41.} Baker, supra note 11, at 215, 221–22.

^{42.} Colosimo & Craig, *supra* note 7, at 47, 51–52.

^{43.} See § 1509.26.

^{44.} KRISTA WEIDNER, A LANDOWNER'S GUIDE TO LEASING LAND IN PENNSYLVANIA 19 (2013), available at https://extension.psu.edu/natural-gas-exploration-a-landowners-guide-to-leasing-in-pennsylvania.

^{45.} *Id*.

^{46.} Ohio Rev. Code Ann. § 1509.27.

^{47.} See §§ 1509.27-1509.28.

that meets the statutory requirements however, the landowners who had hoped to develop their mineral resources and had entered into pooling agreements would be deprived of the ability to develop the resource. A single dissenting landowner would effectively hold hostage the oil and gas development opportunity of his or her neighbors. This would mean lost economic opportunity for the landowners who hope to produce oil or gas. It would also mean a valuable resource lays undeveloped and outside the state's economy. By enacting and applying mandatory pooling laws, states opted to protect the correlative rights of the developing landowners over the property rights of the dissenting landowner.

2. What is Forced Unitization?

Unlike mandatory pooling, unitization is not concerned with meeting regulatory demands or requirements.⁴⁸ Instead, unitization is the large-scale consolidation of mineral or leasehold interests covering all or part of a common source or supply.⁴⁹ Unitization laws encourage economically efficient development of mineral resources by identifying large areas of land above natural resource formations and ensuring that the natural resource formation is drained efficiently.

The primary function of unit operation is to maximize production by efficiently draining the reservoir through the use of the best engineering techniques economically feasible. Like pooling, unitization can occur in either a voluntary or forced manner. However, unitization differs from pooling because it does not concern the state's minimum acreage requirement or well-spacing requirements. Rather, it attempts to make oil and gas production efficient by allowing the consolidation of mineral rights for an area of land above underground reservoirs of resources. A "unit area" can be huge and may encompass several "pooled units." The goal of unitization is to create an area large enough and of the best shape to serve the best-practice needs of the driller, often due to the type of drilling equipment being used. Like mandatory pooling, forced unitization prevents dissenting mineral rights owners within the unit area from preventing the efficient production of the underground formation.

^{48.} Colosimo & Craig, supra note 7, at 51–52.

^{49.} Id.

^{50.} Id.

^{51.} Id.

^{52.} Id.

^{53.} *Id*.

^{54.} *Id*.

^{55.} *Id*.

^{56.} *Id*.

Efficient development of shale plays⁵⁷ is expensive⁵⁸ and often requires the developer to secure development rights to significant acreage. This was not possible when developers were limited to drilling and fracturing vertical wells. Vertical wells could not cover large horizontal areas underground, instead requiring many more wells on the surface, which was not possible due to spacing and acreage requirements. However, when horizontal drilling was coupled with hydraulic fracturing, larger-scale development of shale fields became possible.⁵⁹ Although hydraulic fracturing still requires developers to obtain mineral rights to large tracts of land, developers no longer need surface rights to most of the land; instead, they need the right to access it from below. To provide developers access to the below-ground space, mineral rights leases can be joined together to form a larger, sufficiently-sized unit, sometimes against a mineral rights holder's wishes.

Applicants for unitization—usually the driller or production company—must show that the development of the oil or gas is not economically viable without the unitization designation. To receive a unitization designation, the developer or driller must show that having control over the mineral rights of a very large area of land is "reasonably necessary to increase substantially the ultimate recovery of oil and the value of the estimated additional recovery of the oil or gas exceeds the estimated additional cost." The unitization applicant seeks to develop a large underground pool as a single unit, thus making its equipment operation more efficient and minimizing surface disturbance to the area above the pool. This usually occurs with large parcels of land and large underground pools for which the developer may need to drill long distances horizontally beneath the ground.

C. RIGHTS OF THE MAJORITY VERSUS RIGHTS OF THE DISSENTING LANDOWNER

The basic common law property rights described in the proverbial bundle of rights include the right to use, exclude, and control the disposition of one's property. These rights provide the core of the American conception of what it means to own property. They are widely recognized in the United States and are demonstrated each time a landowner posts a "No Trespassing" sign. The concepts of

^{57.} A shale play is a "shale formation[] containing significant accumulations of natural gas and which share[s other] similar...geographic properties." What is Shale Gas?, GEOLOGY.COM, https://geology.com/energy/shale-gas (last visited Oct. 7, 2018).

^{58.} Sylvester & Malmsheimer, supra note 2, at 47–49.

^{59.} Id.

^{60.} Ohio Rev. Code Ann. § 1509.28.

^{61.} *Id.*; see also BRUCE M. KRAMER & PATRICK H. MARTIN, THE LAW OF POOLING AND UNITIZATION § 1.02 (3d ed. 2008). Consideration: The fact that shale gas does not "move," or migrate as described above, suggests that unitization, not pooling, would be the better method to measure drilling units. Perhaps there would be less surface disruption if the cubic feet of subsurface natural gas was used to measure how much land should be in a unit—instead of considering how many wells can be drilled based on the surface area.

^{62.} Id.

mandatory pooling and forced unitization directly contradict these basic property rights because they enable drilling beneath a landowner's land against that landowner's wishes, obviating the landowner's right to exclude non-owners and to use the land as he or she chooses.

Under traditional common law, a landowner controls the right to use, or *not* use, property in any legal and reasonable way.⁶³ However, problems arise when an oil or gas producer cannot obtain voluntary leases from every contiguous land or mineral rights owner within the proposed drilling unit or pool to form a suitably sized and shaped drilling unit. For instance, if a legally-sized drilling unit encompasses the mineral interests of sixty separate landowners and only one landowner refuses to consent to his or her land's inclusion, whose rights should prevail? This tension between the correlative rights of the fifty-nine consenting landowners and the property rights of the sole dissenting landowner illustrates the tension between correlative rights and traditional property rights.

Because subsurface rights are not as clear as surface rights, questions often arise regarding the scope of a property owner's interest in the subsurface. Historically, courts used the maxim "cujus est solum ejus est usque ad coelum et ad inferos"—a man's property extends from the heavens to the core of the earth—to describe the extent of property ownership, but this interpretation is long outdated. In 1936, the U.S. Supreme Court refused to apply this doctrine to the air used by airplanes flying above the plaintiff's property. Similarly, the Ohio Supreme Court rejected a landowner's claim for subsurface trespass, holding that a landowner's "subsurface ownership rights are limited." In rejecting the landowner's argument, the court explained that the landowner's "subsurface property rights are not absolute and in these circumstances are contingent upon interference with the reasonable and foreseeable use of the properties."

Like the property rights in the "bundle of sticks," correlative rights, or the right to develop the resources beneath one's land, also are central to the American conception of what it means to own property. The rationale behind correlative rights is that landowners have the right to develop and cultivate their own land without being held hostage to the exerted property rights of dissenting landowners.

^{63.} However, a landowner's property rights are not absolute. There are a number of ways a landowner's property rights may be limited. Under the common law, a landowner's rights are limited by concepts such as the doctrine of nuisance, or through the placement of servitudes. Property rights may also be restricted through statutory mechanisms, such as zoning.

^{64.} Restatement (First) of Torts § 159 (1934); Owen L. Anderson, Lord Coke, the Restatement, and Modern Subsurface Trespass Law, 6 Tex. J. Oil Gas & Energy L. 203, 204 (2011).

^{65.} Hinman v. Pac. Air Lines Transp. Corp., 84 F.2d 755, 758 (9th Cir. 1936).

^{66.} Chance v. BP Chemicals, Inc., 670 N.E.2d 985, 992 (Ohio 1996); *see also* Coastal Oil & Gas Corp v. Garza Energy Tr., 268 S.W.3d 1 (Tex. 2008) (recognizing the same limitations of the "*cujus*" doctrine when the alleged trespass took place far beneath one's property).

^{67.} Chance, 670 N.E.2d at 993.

II. THE EXAMPLE OF OHIO: USE OF MANDATORY POOLING AND UNITIZATION TO PROTECT THE CORRELATIVE RIGHTS OF THE MAJORITY

The doctrine of correlative rights protects a property owner's ability to extract gas and oil. Today, Ohio's mandatory pooling and forced unitization laws portray a clear preference for these correlative rights over traditional property rights. In Ohio, unitization applications and orders substantially outnumber mandatory pooling applications and orders. ⁶⁸ This Part will describe the processes for both mandatory pooling and forced unitization in Ohio as an example of concepts that are broadly applicable to dissenting landowners in the United States.

A. MANDATORY POOLING APPLIED: THE EXAMPLE OF OHIO

To obtain a drilling permit in Ohio, an applicant must first propose a drilling unit that meets the regulatory acreage and spacing requirements established by the Ohio DNR.⁶⁹ If the applicant's tract of land does not meet the minimum acreage requirements and the applicant is unable to meet them through voluntary pooling arrangements provided in Section 1509.26 of the Ohio Revised Code,⁷⁰ he or she may apply for a mandatory pooling order.⁷¹ An applicant can apply for a mandatory pooling order only if: the tract of land is of insufficient size or shape to comply with the requirements for drilling a well, the tract owner is also the mineral rights owner, and the tract owner is unable to form a drilling unit by voluntary lease agreement on a just and equitable basis.⁷² The application must contain information that is "reasonably required" by DOGRM and a separate permit pursuant to Section 1509.05 of the Ohio Revised Code.⁷³

The DOGRM Chief must notify all landowners within the proposed unit of the filing of the mandatory pooling application and of the landowners' right to a hearing.⁷⁴ After an applicant submits a pooling application, the Ohio DNR conducts a hearing to weigh the costs and benefits of pooling. The Ohio DNR has significant discretion in determining whether a mandatory pooling order is "necessary to

^{68.} See Telephone Interview with Steve Opritza, Ohio Department of Natural Resources Division of Oil and Gas Resources Management (January 18, 2018) (explaining that the Division has received 206 unitization applications since November 2011, compared to a mere twenty-seven pooling applications since 2011) (notes on file with author).

^{69.} OHIO REV. CODE ANN. § 1509.24; see also OHIO ADMIN. CODE § 1501:9-1-04 (2005) (stating the rules regarding acreage requirements and spacing of wells, which are determined by the depth of the wells).

^{70. § 1509.26 (}stating that owners of adjoining tracts may agree to pool the tracts to form a drilling unit that conforms to the minimum acreage and distance requirements of the division of oil and gas resources management).

^{71. § 1509.27.}

^{72. §§ 1509.27-1509.28.}

^{73.} *Id.* This permit permits the holder to drill a new well, drill an existing well deeper, reopen a well, or convert a well to any use other than its original purpose, or plug back a well.

^{74.} *Id*.

protect correlative rights and to provide effective development, use, and conservation of oil and gas."⁷⁵

Following the hearing, the Chief may approve the application if he or she is "satisfied that the application is in proper form and that mandatory pooling is necessary to protect correlative rights and provide effective development, use, and conservation of oil and gas." An order must describe to whom the order is issued, the boundaries of the drilling unit and production site, the pro rata portion of production to the owner of each pooled tract, and other specific details regarding the driller's proposed plan. If the order is granted, "any person adversely affected" by the order may appeal to the Ohio Oil and Gas Commission to vacate or modify it. A landowner has several statutory recourses for appealing Ohio DNR's order to pool his or her land, described in Part IV.

Ohio law provides strong incentives for landowners to lease their mineral rights voluntarily to gas and oil companies. The first incentive is the signing bonus the landowner receives for voluntarily leasing his or her minerals. The pooling of land through a mandatory pooling order, rather than voluntarily, does not provide the landowner with a signing bonus, yet the land will be treated as if it were under lease.⁸⁰

The second, and perhaps strongest, incentive is the statutory terms and conditions to which a "non-participating landowner"—one who has not joined a drilling unit voluntarily—is subject when his or her land is pooled by order. The statute provides that if a producer drills a well that benefits a non-participating landowner, the producer is entitled to receive from the non-participating landowner a share of the producer's costs for drilling, equipping, and operating the well, including a "penalty" which could amount to 200 percent of these aforementioned costs. Under this statutory scheme, the Ohio DNR Chief may also subject the non-participating and now mandatorily pooled landowner to any terms and conditions that he deems "reasonable and just." This method is characterized as a "risk-penalty approach."

To illustrate the risk-penalty approach, assume a landowner ("L") refuses to enter into a pooling unit voluntarily with a driller ("D"). As a result, the DOGRM Chief issues a mandatory pooling order against L, forcing L's land into a drilling unit. L now has two options. Under option one, L can agree to enter voluntarily into the pooling unit, notwithstanding the Chief's mandatory pooling order.⁸⁴ L

^{75. § 1509.27.}

^{76.} Id.

^{77.} Id.

^{78.} OHIO REV. CODE ANN. § 1509.36 (LexisNexis 2018).

⁷⁹ Id

^{80. § 1509.27;} see also Baker, supra note 11, at 215, 227.

^{81. § 1509.27}

^{82.} Id.

^{83.} Baker, *supra* note 11, at 215, 227.

^{84.} Id.

must pay her reasonable portion of the costs and expenses associated with the drilling activity. L is then considered to have a working interest in the operation and shares in the risks associated with the drilling operations. 85 Under option two, L can refuse to enter voluntarily into the drilling unit.⁸⁶ In this case, the Chief will apply the risk-penalty approach.⁸⁷ Under the mandatory pooling order, L's land will be incorporated into the drilling unit against L's wishes.⁸⁸ L will forego a signing bonus but will not be required to contribute her portion of the reasonable costs and expenses right away. Only if the well is successful will L be required to contribute her portion of reasonable costs and expenses.⁸⁹ These costs will be taken from L's proportionate share of the royalties to which she is entitled as part of the drilling unit. 90 Because she did not share in the drilling operation's upfront risks, the Chief can add an additional "risk-penalty" to the total costs and expenses for which L is responsible, not to exceed 200 percent of L's share of the costs and expenses. Therefore, under option two, if the well is successful, L will not realize any profit from her land's participation in the drilling unit until the well has produced enough oil and gas to cover her proportionate share of the costs and expenses as well as any risk-penalty assessed against her by the Chief.⁹¹

Third, in addition to the explicit economic detriments accruing to the non-participating landowner, Ohio's mandatory pooling statute deprives these landowners of the opportunity to negotiate the terms and conditions that will apply to their property and to how it will be used. Phe dissenting landowner may appeal this order to the Oil and Gas Commission, and then, if necessary, to the Franklin County Common Pleas Court. However, in most cases, the fate of the application is decided in the initial Ohio DNR review process. The Chief of DOGRM has substantial discretion in determining the fate of a dissenting landowner's property.

B. FORCED UNITIZATION APPLIED IN OHIO

Like mandatory pooling, forced unitization adds previously uncommitted landowners to a drilling unit when an applicant meets certain statutory requirements. Ohio's unitization statute requires that sixty-five percent of a drilling unit be voluntarily leased in order to submit an application to add unleased land to the

^{85.} Id.

^{86.} Id.

^{87.} Id.

^{88.} *Id*.

^{89.} Id.

^{90.} Id.

^{91.} Id.; see also Ohio Rev. Code Ann. § 1509.27.

^{92.} Baker, supra note 11, at 215, 232.

^{93.} See Ohio Rev. Code Ann. §§ 1509.36–1509.37 (LexisNexis 2018).

^{94.} See Mandatory Pooling, ODNR DIV. OF OIL & GAS RES., http://oilandgas.ohiodnr.gov/regulatory-sections/legal/mandatory-pooling (last visited Feb. 14, 2018).

^{95. § 1509.28.}

Ohio DNR.⁹⁶ Ohio law does not draw a distinction in its unitization statute between secondary recovery operation and primary operation.⁹⁷ Procedurally, the application, notice, and hearing requirements are similar to Ohio's mandatory pooling statute.⁹⁸

Ohio's system for unit operation of a pool includes prerequisites for submitting a unitization application to DOGRM.⁹⁹ In particular, only DOGRM's Chief or the owners of at least sixty-five percent of a proposed unit may submit an application to hold a hearing "to consider the need for the operation as a unit of an entire pool or part thereof." The application must be accompanied by a non-refundable \$10,000 fee and any additional information the Chief may request. ¹⁰¹

After the application is submitted, the Chief will issue the order if he finds that "such operation is reasonably necessary to increase substantially the ultimate recovery of oil and gas and the value of the estimated additional recovery exceeds the estimated additional cost incident to conducting the operation." An approved order must describe: to whom the order is issued, the boundaries of the drilling unit and production site, an allocation of the oil and gas produced based on the proportionate share of each unitized tract, and any additional provisions deemed appropriate for unit operations and the protection of correlative rights. An order will not become effective without the written approval of sixty-five percent of the working interest owners—the producers—as well as sixty-five percent of the royalty interest owners. 104

As with the mandatory pooling requirements, a landowner has several statutory recourses for appealing the Chief's decision to issue a unitization order, which will be discussed below.

Ohio's DOGRM receives far fewer unitization applications than it does mandatory pooling applications. Since 2012, the DOGRM Chief has issued only ten unitization orders pursuant to Section 1509.28 of the Ohio Revised Code. The issued orders suggest several observations about the manner in which Ohio's unitization law is used. First, oil and gas producers seem not to be abusing the process to avoid seeking voluntary leases with landowners. In all but one of the orders issued since 2012, producers obtained voluntary leases on approximately

^{96.} Id.

^{97.} *Id.*; see Bruce M. Kramer, *Unitization: A Partial Solution to the Issues Raised by Horizontal Well Development in Shale Plays*, 68 ARK. L. REV. 295, 311 (2015) (discussing the evolution of compulsory unitization statutes and Louisiana's limited unitization statute, which only applied to secondary recovery projects that recycled gas in order to prevent waste and the drilling of unnecessary wells).

^{98. § 1509.28.}

^{99.} Id.

^{100.} Id.

^{101.} Id.

^{102.} *Id*.

^{103.} *Id*.

^{104.} *Id*.

^{105.} Id.

^{106.} Opritza Interview, supra note 68.

ninety percent of the proposed drilling unit, far exceeding the statutory requirement of sixty-five percent. ¹⁰⁷ The caveat though, is the statutory-based incentives, discussed above, which heavily induce a landowner to lease voluntarily rather than by the Chief's order. Still, the most dramatic unitization proposed to unitize only thirteen percent of the unit area. ¹⁰⁸ The tendency of producers to far exceed the statutory minimum of voluntary leasees suggests either that the incentives are extremely persuasive to landowners or that producers prefer to obtain voluntary leases rather than to use the legal mechanism of forced unitization. Alternatively, this trend suggests that the Ohio DNR prefers a producer to extend his or her leasing efforts beyond the statutory minimum. Regardless of which is true, oil and gas producers are not commonly or easily using the unitization process to circumvent having to obtain voluntary leases with landowners.

In several instances, the applicant did not obtain voluntary leases before making the unitization request to the Chief. Instead, the applicant obtained "volunteers" after submitting the application but before the Ohio DOGRM issued the order. Producers can continue their efforts to obtain voluntary leases even after submitting the unitization application. One could therefore attribute the producers' success in recruiting volunteers to landowners "seeing the writing on the wall" and preferring to submit "voluntarily" to the unit by signing a lease rather than fighting the agency and potentially suffering the adverse statutory consequences of being a non-participating landowner. ¹⁰⁹ Alternatively, producers may be more inclined to offer lucrative leases at this stage to avoid a forced unitization proceeding, thus enticing more "voluntary" participation. Regardless, producers continue their leasing efforts even after they have submitted unitization applications.

C. "MANDATORY POOLING" VERSUS "UNITIZATION" ACCORDING TO THE OHIO OIL AND GAS COMMISSION

The difference between the applicability of mandatory pooling and forced unitization has perplexed readers of the Ohio statute. The statute thinly defines mandatory pooling and forced unitization. In some states, the relevant statutes more clearly define the circumstances in which the applicant should request mandatory pooling rather than forced unitization. For example, North Dakota, like Ohio, has separate pooling and unitization statutes. However, North Dakota explains the functional difference between the two concepts. North Dakota law states that pooling should be used when "there are separately owned interests in

^{107.} Ohio Rev. Code Ann. § 1509.28.

^{108.} Ohio Dep't of Nat. Res. Mgmt, Order No. 2014-71 (March 26, 2014).

^{109.} See Ohio Rev. Code Ann. § 1509.27; see also infra Part.II.B.

^{110.} See §§ 1509.27-1509.28.

^{111.} See N.D. CENT. CODE § 38-08-08 (2017) (defining and setting forth the criteria for compelled pooling); cf. § 38-08-09.4 (2017) (defining and setting forth the criteria for compelled unitization).

^{112.} See §§ 38-08-07-09 (2017); cf. Ohio Rev. Code Ann. § 1509.24.

all or a part of [a] spacing unit," and pooling is necessary to form a legal spacing unit.¹¹³ However, unitization should be used when parties wish to combine their separate operations for the purpose of optimizing "repressuring or pressure maintenance operations, cycling or recycling operations,...or any other method of operation." North Dakota's statutes draw a clear distinction between the concepts and explain when each should apply.

Some states have clarified the distinction by simply adopting one over the other. In Ohio, however, the difference is not defined but rather "understood." Both the mandatory pooling and forced unitization statutes allow an oil and gas producer to ask the DOGRM Chief for an order to include land in a drilling area even when the landowner objects. But when should the applicant use one section of the law rather than the other?

In September 2015, the Ohio Oil and Gas Commission ("the Commission") ruled on a forced unitization case that highlights the lack of statutory clarity in Ohio's oil and gas statute regarding when the forced unitization section, rather than the mandatory pooling section, applies. In *Teeter Revocable Trust v. Division of Oil and Gas Resources Management*, R.E. Gas Development, LLC ("Rex"), sought to drill four horizontal wells.¹¹⁶ Rex had secured control of eighty-eight percent of the necessary land for the drilling unit. However, due to its size and shape, the unit required two additional tracts—one owned by Teeter and another owned by a separate landowner.¹¹⁷ Teeter declined all offers to voluntarily unitize, and Rex requested the Chief to issue a unitization order to force inclusion of Teeter's farm in the proposed drilling unit.¹¹⁸ The Chief obliged, issuing the order under the terms of Ohio's forced unitization statute.¹¹⁹

Ohio law requires sixty-five percent of the unit's mineral leases to be entered into voluntarily for the Chief to issue a unitization order with respect to the rest of the necessary land. However, if the applicant seeks a mandatory pooling order, the applicant needs to control ninety percent of the needed land. Rex sought and received a unitization order with eighty-eight percent control of the required leases for the unit—well beyond the sixty-five percent required for forced unitization in Ohio. However, if Rex had proceeded under the mandatory pooling

^{113. § 38-08-08.}

^{114. § 38-08-09.}

^{115.} See Colo. Rev. Stat. \$ 34-60-116 (2018); Tex. Nat. Res. Code Ann. \$ 102.011 (West 2017); Mich. Comp. Laws Ann. \$ 324.61703 (West 2018).

^{116.} Teeter Revocable Tr. v. Div. of Oil & Gas Res. Mgmt., Appeal No. 895, at 2 (Ohio Oil and Gas Comm'n Sept. 15, 2015).

^{117.} Id.

^{118.} Id. at 6, 7.

^{119.} Id. at 8.

^{120.} Ohio Rev. Code Ann. § 1509.28.

^{121.} Teeter, Appeal No. 895, at 12; see also § 1509.27.

^{122.} Teeter, Appeal No. 895, at 12.

statute, the company would have failed to satisfy the ninety percent normally required under Ohio's mandatory pooling statute. 123

The Commission considered the question "[u]nder which statute should the applicant, Rex, be proceeding—mandatory pooling, or unitization." To make its case before the Commission, Rex brought in an expert who explained that unitization concerns efficiency and industry best practices, whereas pooling concerns joining sufficient land to meet the statutory size and shape requirements for permitting. However, this distinction does not appear anywhere in Ohio's statute.

Faced with this lack of statutory clarity, the Commission relied on common practice. ¹²⁹ It said that, "in [its] experience," the pooling statute was used when a single well failed to meet spacing requirements. ¹³⁰ Because the proposed unit included four wells, the Commission reasoned the pooling statute should not apply. ¹³¹ The Commission wrote that unitization requests target geological formations, like the Utica/Point Pleasant formations for which Rex planned multiple horizontal wells. ¹³² The Commission noted, unlike unitization statutes in other states, the Ohio statute says nothing about unitization being limited to secondary production operations. Teeter appealed the Commission's decision to the Franklin County Court of Common Pleas. However, Teeter failed to properly perfect his appeal under Section 1509.37 of the Revised Code, ¹³³ and his appeal was dismissed only two months after it had been filed.

Pooling and unitization both refer to the gathering together of land associated with oil and gas production. Although some states are clear in their statutes about when pooling applies and when unitization applies, some are not. Ohio, for example, is not clear in the statutory language, but is clear in application: Pooling is used for smaller projects when spacing and boundaries are an issue, and unitization is applied when a producer is trying to assemble the rights to efficiently drain an underground basin using industry best practices.

III. DISSENTING LANDOWNER'S POSSIBLE ACTIONS WHEN CONFRONTING MANDATORY POOLING OR FORCED UNITIZATION

The expressed preference for correlative rights over individual property rights within states' mandatory pooling and forced unitization laws requires the

^{123.} Id.

^{124.} Id.

^{125.} Id. at 13.

^{126.} Id. at 14.

^{127.} Id.

^{128.} Id.

^{129.} Id.

^{130.} *Id*.

^{131.} Id. at 14-15.

^{132.} Id. at 15.

^{133.} See Findings, Conclusions and Order of the Commission, Teeter Revocable Tr. v. Div. of Oil & Gas Res. Mgmt., Appeal No. 895, at 14 (Sept. 17, 2015).

dissenting landowners to explore creative ways to protect their property rights. This Part reviews the legal landscape in which a dissenting landowner must operate, exploring the options available to dissenting landowners at three distinct time periods: pre-mandatory pooling or forced unitization, during the mandatory pooling or forced unitization process, and post-mandatory pooling or forced unitization.

A. THE LEGAL LANDSCAPE FOR THE DISSENTING LANDOWNER

The oil and gas industry enjoys significant concessions with regard to the applicability of federal and state regulation. Oil and gas producers using the hydraulic fracturing process benefit from numerous exemptions from major federal environmental statutes. 134 For example, in 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), which allowed the Environmental Protection Agency ("EPA") to hold potentially responsible parties liable for the costs of cleaning up a hazardous waste site. 135 However, CERCLA explicitly exempts crude oil, natural gas, natural gas liquids, liquefied natural gas, and mixtures of natural gas and synthetic gas from the definition of a hazardous substance. 136 Spills and releases of petroleum, crude oil, and natural gas are immune from federal regulation under CERCLA.¹³⁷ Furthermore, in 1988, the Resource Conservation and Recovery Act, which requires the EPA to determine criteria for identifying hazardous wastes, was rendered toothless when the EPA determined that regulation of oil field wastes was unnecessary because existing state and federal regulations were adequate and the economic impact to the petroleum industry would be great.¹³⁸ More recently, the 2005 Energy Policy Act exempted many hydraulic fracturing-related activities, including injecting waste fluids underground and discharging fluids near navigable waters, from having to obtain permits. 139

Given the federal government's hands-off approach to the regulation of hydraulic fracturing, states have enacted their own regulatory frameworks. 140 States regulate hydraulic fracturing activities in a number of ways, including the regulation of the location and spacing of wells, drilling methods, oil and gas waste

^{134.} William J. Brady & James P. Crannell, *Hydraulic Fracturing Regulation in the United States: The Laissez-Faire Approach of the Federal Government and Varying State Regulations*, 14 VT. J. ENVTL. L. 39, 43 (2012) (stating that the oil and gas industry "enjoys exemptions from several major federal environmental statutes, including: the Safe Drinking Water Act; the Resource Conservation and Recovery Act; the Emergency Planning and Community Right-To-Know Act; the Clean Water Act; the Clean Air Act; the Comprehensive Environmental Response, Compensation, and Liability Act; and the National Environmental Policy Act").

^{135.} Id. at 51.

^{136.} See 42 U.S.C. § 9601(14) (LexisNexis 2018).

^{137.} Brady & Crannell, *supra* note 134, at 51–52.

^{138.} Id. at 46-47.

^{139.} See Renee L. Kosnik, The Oil and Gas Industry's Exclusion and Exemptions to Major Environmental Statutes, at 8 (2007), https://www.earthworksaction.org/publications/the_oil_and_gas_industrys_exclusions_and_exemptions_to_major_environmental_/.

^{140.} See Brady & Crannell, supra note 134, at 53.

disposal, and site restoration. All of these issues concern how and where shale oil and gas will be developed.¹⁴¹ Most states administer and enforce these regulations through permitting and inspection requirements, which preempt local regulation.¹⁴² However, these state regulatory systems often provide inadequate protection and recourse for citizens adversely affected by oil or gas production because many lack "citizen enforcement provisions,"¹⁴³ which provide individuals with the statutory right to challenge companies that fail to comply with the regulations.¹⁴⁴ Additionally, this lack of citizen enforcement provisions leaves private parties without much statutory recourse.

Federal environmental statutes largely do not protect against harm derived from oil and gas production, and state statutes tend to preempt local regulation of oil and gas-related activities. Because the legal system, particularly environmental statutes, has excised protections that would curtail or control the oil and gas industry, landowners need to be creative and vigilant to protect their land. Landowners must learn to use administrative processes and the common law to their best advantage.

B. PRE-POOLING: PREVENTING A FORCED POOLING OR UNITIZATION ORDER

This section considers the dissenting landowner's circumstances "pre-pooling" before the landowner's land becomes the subject of a mandatory pooling or forced unitization application. This section will discuss the various preventative measures a landowner may take to prevent his or her land from being forced into a drilling unit or pool and their varying degrees of likelihood of success. The measures seek to prevent oil and gas activities from occurring under the dissenting landowner's property so the property may avoid forced inclusion in a pool or unit. They also focus on preventing the extraction of hydrocarbons altogether through private land use planning tools, such as deed restrictions and conservation easements. Strategies considered include servitudes broadly, restrictive covenants in particular, and conservation easements. Easements, real covenants, and equitable servitudes allow landowners to allocate benefits and burdens among one other. Of the three, conservation easements likely will be the most successful in preventing the Ohio DOGRM from forcing a landowner's land into a drilling unit or pool. However, to be effective, the conservation easement must be carefully drafted.

^{141.} Id.

^{142.} *Id*.

^{143.} Earthworks' Oil and Gas Accountability Project, *Breaking All the Rules: The Crisis in Oil & Gas Regulatory Enforcement*, at 14 (2012), https://earthworks.org/cms/assets/uploads/archive/files/publications/FINAL-US-enforcement-sm.pdf; *see also* Kaoru Suzuki, *The Role of Nuisance in the Developing Common Law of Hydraulic Fracturing*, 41 B.C. ENVTL. AFF. L. REV. 265, 277 (2014).

^{144.} Earthworks' Oil and Gas Accountability Project, supra note 143, at 89.

1. Servitudes

The common law of servitudes provides landowners with opportunities to control the use of their property not only in the present but also into the future. Although servitudes provide an effective means for allocating risks and externalities, they can also restrict the use and alienability of real property. For this reason, courts sometimes disfavor servitudes. Despite this disfavor, when constructed clearly, courts honor servitudes and the landowner's right to place restrictions upon his or her property by subsequent possessors.

Landowners might create or enforce servitudes to prevent the development of oil and gas operations, avoiding mandatory pooling and forced unitization. For example, landowners recently sued a drilling company and neighboring landowners for violating a restrictive covenant covering all of the properties within the community association. ¹⁴⁷ In the complaint, the plaintiff, Kempen, argued that neighboring parcels could not be forced into the drilling unit because the properties were subject to restrictive covenants prohibiting the land from being used for anything other than single-family residences and from any activity that would constitute a nuisance. ¹⁴⁸ Although the case is currently pending on Kempen's motion for summary judgment, ¹⁴⁹ it presents a good question of whether landowners may use servitudes proactively to protect their land against a mandatory pooling or forced unitization order.

2. Restrictive Covenants and Equitable Servitudes

Restrictive covenants and equitable servitudes are private agreements entered into by a seller and a purchaser during the conveyance of a property interest. ¹⁵⁰ These agreements limit the permissible uses of the property. ¹⁵¹ Restrictive covenants and equitable servitudes are similar, differing most importantly in the

^{145.} Driscoll v. Austintown Assoc., 328 N.E.2d 395, 404 (Ohio 1975) (quoting Loblaw, Inc. v. Warren Plaza Inc., 127 N.E.2d 754 (Ohio 1955)) ("Our legal system does not favor restrictions on the use of property . . . [and therefore,] '[t]he general rule . . . is that such agreements are strictly construed against limitations . . . and that all doubts should be resolved against a possible construction thereof which would increase the restriction upon the use of such real estate."").

^{146.} See Marinelli v. Prete, No. E-09-022, 2010 WL 2025374, at ¶ 33 (Ohio Ct. App. May 21, 2010).

^{147.} Verified Complaint for Declaratory Judgment Injunctive Relief, Damages and Attorney's Fees, Kempen v. Bass Energy, Inc., No. CV-13-807931, 2013 WL 2422687 (Ohio C.P. Cuyahoga Cty. May 23, 2013).

^{148.} Id.

^{149.} See generally Verified Complaint for Declaratory Judgment, Injunctive Relief, Damages and Attorneys' Fees, Kempen v. Bass Energy, Inc., No. CV-13-807931 (Ohio C.P. Cuyahoga Cty. May 23, 2013).

^{150.} See Canton v. State, 766 N.E.2d 963, 969 (Ohio 2002); see also Orwell Nat. Gas Co., Inc. v. Fredon Corp., 30 N.E.3d 977, 981–82 (Ohio 2015).

^{151.} See id.

remedy sought for their breach.¹⁵² Restrictive covenants and equitable servitudes are effective in preventing efforts to pool a property voluntarily.¹⁵³ However, it is not yet clear that courts will honor such agreements against a mandatory pooling order issued by the state, such as Ohio's DOGRM. This section will analyze the effectiveness of carefully constructed restrictive covenants in preventing voluntary inclusion of land in drilling units. It will then describe the potential difficulties in their use to prevent involuntary inclusion and argue that the intent to prohibit drilling must be explicit for a court to enforce a land use restriction against drilling.

a. Effective Use of Restrictive Covenants and Equitable Servitudes in Preventing Mandatory Pooling

Although it mistakenly referred to the agreement as a restrictive covenant, an Ohio court held that an equitable servitude is an effective tool in preventing voluntary pooling efforts between drilling companies and private citizens. ¹⁵⁴ The use of an equitable servitude for this purpose is not unlimited, however. Courts traditionally disfavor restrictive covenants and equitable servitudes because they can limit the alienability of property. As a result, courts narrowly interpret the covenant or servitude to reduce its limiting power. Therefore, if a restrictive agreement is to be effective as a preventative measure against the voluntary pooling of land for oil and gas operations, it must be drafted in a targeted way and use clear, restrictive language.

In *Devendorf v. Akbar Petroleum Corporation*, David and Joan Devendorf sought a court order enjoining several neighbors and Akbar Petroleum, an oil and gas drilling company, from voluntarily forming a drilling unit.¹⁵⁵ The land on which Akbar Petroleum planned to drill was not subject to use restrictions.¹⁵⁶ Rather, the surrounding properties, which were necessary to satisfy state minimum acreage requirements, were subject to the restrictions of an equitable servitude.¹⁵⁷ The agreement explicitly stated that the surrounding lands could only be used "for private residence and agricultural purposes and that no commercial or industrial business shall be conducted thereon."¹⁵⁸ Akbar Petroleum, and the neighbors who wished to unitize the dissenter's land, argued that the "mere

^{152.} See id.; see also City of Perrysburg v. Koenig, No. WD-95-011, 1995 WL 803592, at *3 (Ohio Ct. App. Dec. 8, 1995) ("The only difference in the elements necessary to form an equitable servitude from those required to form a covenant running with the land is that an equitable servitude requires no horizontal privity.").

^{153.} See Devendorf v. Akbar Petroleum Corp., 577 N.E.2d 707, 708-10 (Ohio Ct. App. 1989).

^{154.} *Id.* at 710 (explaining that because the remedy sought was equitable—an injunction—rather than monetary, the plaintiffs were seeking to enforce the agreement as an equitable servitude not as a restrictive covenant).

^{155.} Id. at 708.

^{156.} Id.

^{157.} Id.

^{158.} Id.

unitization of said property for the purpose of meeting the minimum acreage requirement is not a violation of any restrictive covenant" when no drilling operations would occur on the land subject to the restriction. However, the court disagreed and held that the equitable servitude prohibited the landowners from voluntarily forming a drilling unit. The court held that "[t]he language of the restriction is broad and is intended to exclude every use not pertaining to residential purposes." This interpretation allowed the court to expand the meaning of "commercial use" to properties where no drilling activities were occurring, but where the owners were profiting from the operation as a unit.

Conversely, in a subsequent Ohio case, *Ormbsy v. Transcontinental Oil and Gas Corporation*, the Ninth District Court of Appeals denied the plaintiff's request for an injunction to prevent her neighbors from entering into an oil and gas lease. ¹⁶² Upon review of the equitable servitude, both the trial and appellate courts found that the agreement did not prevent the use of the land for oil and gas purposes. In reaching this conclusion, the appellate court focused on the language of the agreement, which stated "[t]he land is to be used *primarily* for residential and farming purposes." ¹⁶³ The court distinguished this from language used in other equitable servitudes, which used "only" or "solely" instead of "primarily," and held that the servitude would not be violated so long as the oil and gas operations were incidental to the property's primary use, which must remain residential or agricultural. ¹⁶⁴

Landowners may deploy private land use restrictions, like restrictive covenants and equitable servitudes, to prevent neighbors from voluntarily including land in a drilling unit. To be effective, however, the restrictive agreements must be carefully drafted, stating an explicit intent to prevent not only oil and gas production on the surface of the restricted parcel but also its inclusion in a drilling unit.

b. Likely Ineffective Use of Real Covenants or Equitable Servitudes in Preventing a Mandatory Pooling Order

While restrictive covenants or equitable servitudes may be effective tools for preventing neighboring landowners from *voluntarily* joining oil and gas development units, they are likely not effective for preventing an order for mandatory pooling or forced unitization. Ohio courts have held restrictive covenants invalid when they conflict with public policy. Ohio courts have explained that a restrictive covenant is contrary to public policy when it violates a statute; is

^{159.} Id. at 709.

^{160.} Id.

^{161.} *Id.* at 710.

^{162.} Ormsby v. Transcon. Oil & Gas, Inc., No. 18063, 1997 WL 600619, at *3 (Ohio Ct. App. Sept. 17, 1997).

^{163.} *Id.* at *2–3 (emphasis added).

^{164.} Id.

^{165.} Dixon v. Van Sweringen Co., 166 N.E. 887, 889 (Ohio 1929).

contrary to a judicial decision; is against the public health, morals, safety, or welfare; or is in some way injurious to the public good. A court may view a restrictive covenant that prevents a landowner from developing oil and gas interests as in conflict with the policy of the State of Ohio, which is to protect the correlative rights of landowners who wish to develop their oil and gas interests. In general, Chapter 1509 of the Ohio Revised Code supports this policy. The Chapter was enacted in 1965 with the purpose of striking a balance between "further[ing] the public's interest in conservation and to protect the property rights of operators and landowners." The resulting legislation allowing the DOGRM Chief to issue orders for mandatory pooling and forced unitization of land for drilling purposes furthers Ohio's policy of providing "effective development, use, and conservation of oil and gas." Because it appears to be Ohio's policy to ensure the effective use and development of oil and gas deposits throughout the state, an Ohio court would likely invalidate a restrictive covenant attempting to limit such development.

3. Conservation Easements

This section will consider the use of conservation easements to protect a dissenting landowner's land from becoming subject to a mandatory pooling or forced unitization order. A conservation easement is a contractual agreement in which a landowner "grants an enforceable, nonpossessory property interest to the easement holder," which is usually a conservation organization. The easement holder receives the right to enforce prohibitions against future development on the property. The easement holder receives the right to enforce prohibitions against future development on the property.

Today, in Ohio, there are an estimated 46,000 acres of land protected by some form of a conservation easement. ¹⁷³ The question here is whether a landowner

^{166.} *Id.* (holding that the restrictive covenant, which reserved for Van Sweringen the right to re-enter the property for the purpose of developing public improvements, did not violate public policy because the terms of the covenant were consistent with the statutory code governing public improvements).

^{167.} See Laura Johnston, Ohio Laws Governing Gas Drilling Among Most Lenient in Nation, Experts Say, CLEV. PLAIN DEALER (July 05, 2009), http://blog.cleveland.com/metro/2009/07/ohio_laws_governing_gas_drilli.html.

^{168.} Baker, *supra* note 11, at 222; *see also* OHIO REV. CODE ANN. § 1509.27 (LexisNexis 2018) (stating that "the chief, if satisfied . . . that mandatory pooling is necessary to protect correlative rights and to provide effective development, use, and conservation of oil and gas, shall issue a drilling permit and a mandatory pooling order complying with the requirements for drilling a well").

^{169.} Baker, *supra* note 11, at 221 (quoting J. Richard Emens & John S. Lowe, *Ohio Oil and Gas Conservation Law-The First Ten Years* (1965-1975), 37 Оню St. L.J. 31, 31–32 (1976)).

^{170.} Ohio Rev. Code Ann. § 1509.27.

^{171.} Nicholas R. House, Conflicting Property Rights Between Conservation Easements and Oil and Gas Leases in Ohio: Why Current Law Could Benefit Conservation Efforts, 55 Wm. & Mary L. Rev. 1587, 1592 (2014); see also James Boyd et al., The Law and Economics of Habitat Conservation: Lessons from an Analysis of Easement Acquisitions, 19 Stan. Envil. L.J. 209, 212 (2000).

^{172.} House, *supra* note 171, at 1591–92.

^{173.} State of Ohio and All Easements, NAT'L CONSERVATION EASEMENT DATABASE, http://conservationeasement.us/reports/easements (last visited Apr. 24, 2015) (data on file with author). This

can use a conservation easement to protect land against drilling in general and, in particular, against government ordered inclusion in a drilling unit. One piece of this question is whether a government-ordered inclusion in a drilling unit terminates the applicability of a conservation easement.

a. Limitations to the Use of a Conservation Easement: The Problem of the Split Estate

Whether a landowner may employ a conservation easement to prevent horizontal drilling largely depends on whether the property is a split estate. A split estate exists when a property's mineral estate¹⁷⁴ is severed, or divided from the surface estate, and the surface and mineral estates are owned by different parties.¹⁷⁵ Horizontal drilling should not occur when a conservation easement is placed on a property with an un-severed mineral estate or a mineral estate owned in fee interest¹⁷⁶ because the conservation easement encumbers the entire fee, surface and mineral estates alike. In contrast, placing a conservation easement on a split estate does not guarantee that horizontal drilling will not occur because neither the surface estate owner nor the easement holder can control the subsurface mineral estate's fate.¹⁷⁷

Split estates are problematic for creating effective conservation easements for several reasons. First, the mineral estate owner is not a party to the easement and is therefore not bound by its terms. Furthermore, Ohio's common law favors development of the mineral estate, the dominant estate, over development of the surface estate, the servient estate.¹⁷⁸ Thus, the mineral estate owner may choose

figure excludes the estimated 62,373 acres of farmland subject to agricultural easements. This paper, however, does not focus on agricultural easements which are treated differently under Ohio law.

^{174.} Mineral rights may be conveyed apart from the surface rights and may separately be the subject of ownership and disposition. Each attribute of a mineral estate is an independent property right, may be severed into a separate interest, and may be separately conveyed or reserved by the owner. When the mineral and surface estates are severed, the mineral estate is the dominant estate and the surface owner possesses the subservient estate absent express provisions to the contrary. MATTHEW W. WARNOCK, *Ownership of Mineral Rights*, BALDWIN'S OH. PRAC. REAL EST. § 47:1 (West Dec. 2017).

^{175.} KENDOR P. JONES ET AL., LANDMAN'S LEGAL HANDBOOK 181–82 (Rocky Mt. Min. L. Found., 5th ed. 2013).

^{176.} House, *supra* note 171, at 1603–04 (observing that once a conservation easement is placed on a property with an unsevered mineral estate, "the conservation organization will know that oil and gas development will not occur on the property" unless the easement is violated).

^{177.} Cf. Ross H. Pifer, The Marcellus Shale Natural Gas Rush: The Impact of Drilling on Surface Owner Rights, AGRIC. LAW RES. & REFERENCE CTR. 2 (Jan. 18, 2011), https://pennstatelaw.psu.edu/_file/aglaw/Natural_Gas/The_Marcellus_Shale_Natural_Gas_Rush-The_Impact_of_Drilling_on_Surface_Owner_Rights.pdf.

^{178.} Snyder v. Dep't Nat. Res., 985 N.E.2d 168, 172 (Ohio Ct. App. 2012), rev'd sub nom. Snyder v. Dep't Nat. Res., 18 N.E.3d 416 (Ohio 2014) (stating that a mineral estate carries with it the right to use as much of the surface as may be "reasonably necessary to reach and remove the minerals"); see also House, supra note 171, at 1599 (explaining that Ohio favors the traditional rule that a mineral estate's interests override the conflicting interests of the surface estate because the surface estate is servient to the dominant mineral estate).

to develop his mineral interests.¹⁷⁹ The surface and easement holders would be powerless to stop the mineral estate owner from agreeing to an oil and gas lease.¹⁸⁰

Second, the mineral estate owner benefits from implied rights to the use of the surface, including the ability to access the surface as is "reasonably necessary for 'exploring, drilling, producing, transporting, and marketing' the product." The mineral estate owner can even engage in activities that are harmful to the surface, "such as destroying crops, disposing of wastes, and using both surface and subsurface water." The mineral estate owner is only required to compensate the surface estate owner for unreasonable surface use, negligence, or breach of contract. As a result, the mineral estate owner "does not need permission from the surface owner to use the land surface for oil and gas development." Finally, the mineral estate owner retains these implied rights even if the surface estate is protected by a conservation easement because a conservation easement "cannot bind a mineral owner who was not a party to the [agreement]." This creates the potential for extensive natural gas drilling on conserved properties when the estates are split.

Surface estate owners may be able to unite the split estate and then use conservation easements to prevent horizontal drilling. Both the Ohio Dormant Minerals Act and the Marketable Title Act provide mechanisms for unifying a split estate. Additionally, the surface and mineral estate owners could reach a

^{179.} Id.

^{180.} Cf. Paige Anderson, Note, Reasonable Accommodation: Split Estates, Conservation Easements, and Drilling In The Marcellus Shale, 31 VA. ENVIL. L.J. 136, 139 (2013).

^{181.} *Id.* at 145 (internal citation omitted); *see* Chartiers Oil Co. v. Curtiss, 24 Ohio Cir. Dec. 106, 109 (Ohio C.C. 1911) (stating that the conveyance of the surface reserved to the grantor a right of access to the estate below by an implied reservation . . . [; t]he conveyance . . . carried with it by an implied grant, if not in express terms, a right of access to such oil and gas); *see also* House, *supra* note 171, at 1598.

^{182.} Anderson, *supra* note 180, at 145.

^{183.} Id. at 145-46.

^{184.} JOHN S. LOWE, OIL AND GAS LAW IN A NUTSHELL 43 (Thompson West 2009).

^{185.} Michael T. Fulks, *Drilling and Deductions: Making the Section 170(H) Conservation Easement Work in the Shale Boom Era*, 116 W. VA. L. REV. 1053, 1061 (2014) ("The subsurface owner's right to drill reasonably is protected by state property law and cannot be restricted by a contract made between two other parties.").

^{186.} Anderson, *supra* note 180, at 139.

^{187.} Cf. id.

^{188.} See also RICHARD A. YOSS, DO YOU HAVE SEVERED OIL AND GAS INTERESTS ON YOUR PROPERTY? (2014)), https://www.ohiobar.org/ForPublic/Resources/LawYouCanUse/Pages/Do-You-Have-Severed-Oil-and-Gas-Interests-on-Your-Property.aspx. ODMA is a specialized section of the Ohio Marketable Title Act, Ohio Rev. Code Ann. § 5301.47-56, which is explored in Part II.C.b. See Ohio Rev. Code Ann. § 5301.56(E)(1), (H), (B)(3) (LexisNexis 2018); see also Yoss, supra note 188 ("Several recent court decisions have held...that it is sufficient to use only the original 1989 version of the Dormant Minerals Act, which does not require the giving of notice if there is a 20-year period between March 22, 1969 and June 30, 2006 when no savings event has occurred. An example of a savings event would be the recording of a claim to preserve that interest or a title transaction, where that interest was the subject of that transaction."); Pollock v. Mooney, 2014 WL 4976073, at *2 (Ohio Ct.

mutually beneficial agreement to unify the estates through negotiation and private law ordering.¹⁸⁹ Once the estate is unified, the conservation easement could be a viable tool for landowners to prevent drilling beneath their land.

b. Whether a Conservation Easement Can Prevent Voluntary Oil and Gas Pooling or Unitization

Ohio courts likely would hold that a conservation easement prohibiting mineral extraction below the surface can effectively prevent voluntary unitization or pooling by the landowner. However, this tool likely would not protect the dissenting landowner from being compelled into a drilling unit. This section will first address a conservation easement's effect on potential voluntary inclusion in a drilling unit.

Whether an estate is split—with the surface and subsurface mineral rights owned by different parties—or unified—with the surface and subsurface mineral rights owned by the same party—can have significant implications for the effectiveness of a conservation easement in preventing oil and gas activity on or under the surface estate. However, for ease of analysis, the following sections assume the properties in question are unified estates. This assumption allows the discussion to reach the root of the question: whether a conservation easement could prevent voluntary or compelled pooling or unitization. Again, the purpose of considering this possibility is to determine whether a dissenting landowner could use a conservation easement to prevent the land's voluntary inclusion in a drilling unit.

One commentator observed, "unlike Pennsylvania and West Virginia, the law of oil and gas in Ohio is largely undeveloped except for a few cases discussing the nature of the lessee's interest in oil and gas leases and some discussion of implied covenants." Pennsylvania courts, however, have held that conservation easements can prohibit natural gas drilling and specifically, horizontal drilling. Pennsylvania and Ohio share similar conservation easement enabling statutes and

App. Sept. 30, 2014) (citing Collins v. Moran, No. 02 CA 218, 2004 WL 549479, at *3 (Ohio Ct. App. Mar. 17, 2004)).

^{189.} House, *supra* note 171, at 1604; *see* Fulks, *supra* note 185, at 1062 ("An oil and gas company that purchases mineral rights with the express intent of developing them should be expected to assert its property interests to the full extent of state law."); SCOTT HOWARD & MATT MCDONOUGH, MINERAL RIGHTS AND LAND CONSERVATION IN THE MIDWEST: ONLINE TRAINING (Mar. 20, 2008) (on file with author); *see also* Anderson, *supra* note 180, at 147 ("the accommodation doctrine, first articulated by the [Texas] Supreme Court in *Getty Oil* [Co.] v. *Jones*[,] [470 S.W.2d 618 (Tex. 1971)] has made inroads into the traditional common law distribution of rights, which strongly favored the mineral owner, and has provided some additional protections for surface owners").

^{190.} George A. Bibikos & Jeffrey C. King, *A Primer on Oil and Gas Law in the Marcellus Shale States*, 4 Tex. J. Oil Gas & Energy L. 155, 189 (2009).

^{191.} See Ray v. W. Pa. Conservancy, No. 1799 WDA 2011, 2013 WL 11279650 (Pa. Super. Ct. Feb. 21, 2013); Stockport Mt. Corp. LLC v. Norcross Wildlife Found., Inc., No. 3:11cv514, 2014 WL 131604 (M.D. Pa. Aug. 27, 2014); see also infra Part IV.

their courts have interpreted conservation easements analogously.¹⁹² Ohio and Pennsylvania's conservation easement statutes are substantially similar and based on the Uniform Conservation Easement Act ("UCEA").¹⁹³ In Ohio, conservation easements may be granted to the Ohio DNR, park districts, conservancy districts, soil and water conservation districts, water and sewer districts, counties, cities, townships, and municipal corporations. Pennsylvania's enabling statute defines conservation easements similarly to Ohio's and also allows governmental bodies and charitable organizations to hold conservation easements. This suggests that an Ohio court might rule favorably when faced with deciding whether a conservation easement may prohibit horizontal drilling beneath a landowner's property.

Pennsylvania's enabling statute reads: "Any general rule of construction to the contrary notwithstanding, conservation or preservation easements shall be liberally construed in favor of the grants contained therein to effect the purposes of those easements and the policy and purpose of this act." Ohio's enabling statute lacks this explicit encouragement to courts to interpret conservation easements in favor of their proffered purposes. Pennsylvania's enabling statute states: "This act shall be applied and construed to effectuate its general purpose to make uniform the laws with respect to the subject of this act among states enacting similar laws." While Ohio's enabling statute lacks this provision, this section of Pennsylvania's enabling statute suggests that Pennsylvania courts will look to the decisions of other UCEA-based states, including Ohio, when interpreting conservation easements.

Despite these differences, when interpreting conservation easements, Pennsylvania courts adhere to the same interpretative model that Ohio courts use. ¹⁹⁴ In *Zagrans v. Elek*, the Ohio Court of Appeals for the Ninth District explained that "[w]hen an easement is set forth in a written agreement, it is subject to the rules of contract law." ¹⁹⁵ Similarly, in *Ray v. Western Pennsylvania Conservancy*, the Superior Court of Pennsylvania employed the same analysis as

^{192.} Zagrans v. Elek, No. 08CA009472, 2009 WL 1743203, at *5 (Ohio Ct. App. June 22, 2009); *Ray*, 2013 WL 11279650.

^{193.} See Ohio Rev. Code Ann. §§ 5301.67–5301.70 (LexisNexis 2018); see also 32 Pa. Stat. & Cons. Stat. Ann. §§ 5051–5059 (West 2018).

^{194.} The following are the only published Ohio cases which mention conservation easements or Ohio's conservation easement enabling statute, OHIO REV. CODE ANN. §§ 5301.67–70: Rzepka v. City of Solon, 904 N.E.2d 870 (Ohio 2009) (addressing local elections); Wetland Pres. Ltd v. Corlett, 975 N. E.2d 1033 (Ohio Ct. App. 2012) (addressing taxation and wetlands); Massasauga Rattlesnake Ranch, Inc. v. Hartford Twp. Bd., Nos. 2011–T–0060, 2001–T–0061, 2012 WL 1020293 (Ohio Ct. App. Mar. 26, 2012) (addressing zoning variances); Schabel v. Troyan, Nos. 2010–G–2953, 2010–G–2954, 2011 WL 2112531 (Ohio Ct. App. May 20, 2011) (addressing zoning); *Zagrans*, 2009 WL 1743203; Lightle v. City of Washington Court House, No. CA2006-08-033, 2007 WL 1248171 (Ohio Ct. App. Apr. 30, 2007) (addressing wetlands); Stickney v. Tullis-Vermillion, 847 N.E.2d 29 (Ohio Ct. App. 2006) (addressing property valuation for taxation purposes); HAP Enters. v. Cuy. Cty. Bd. of Rev., Nos. 58678, 58679, 1991 WL 95079 (Ohio Ct. App. May 30, 1991) (addressing property valuation for taxation purposes).

^{195.} Zagrans, 2009 WL 1743203, at *3.

the Ohio court in *Zagrans*, explaining that "easement provisions are interpreted under the same rules of construction as contracts." ¹⁹⁶ Therefore, in both Ohio and Pennsylvania, courts will look to the language of a contract when attempting to determine the parties' intent, and when the language of the contract is unambiguous, courts will enforce the express language of the contract. ¹⁹⁷

Ray v. Western Pennsylvania Conservancy and Stockport Mountain Corporation LLC v. Norcross Wildlife Foundation, Inc. further reveal how Pennsylvania courts interpret conservation easements in the context of natural gas drilling. 198 These Pennsylvania decisions, combined with the similarity between Ohio and Pennsylvania conservation easement laws, suggest that an Ohio court may allow conservation easements to prevent voluntary pooling when faced with the issue of whether conservation easements can prohibit horizontal drilling.

In *Ray*, the plaintiff sought to pool his land voluntarily into a horizontal drilling operation. However, his land, a unified estate, was encumbered by a conservation easement placed on the land by the prior owner. Ray argued the drilling operation would not violate the conservation easement because drilling would only occur horizontally underground and would not impact the surface of the land subject to the conservation easement. The conservation easement holder, Western Pennsylvania Conservancy ("WPAC"), disagreed, arguing that the easement's language should be interpreted broadly so as to forbid all drilling activities, including subsurface horizontal drilling. Ray sought a declaratory judgment rejecting WPAC's interpretation. ²⁰¹

The trial court agreed with WPAC's interpretation, which was affirmed by the Superior Court of Pennsylvania. The Superior Court focused less on the drilling language of the easement and more on the easement's prohibition on the removal of any minerals, regardless of the means used. The Superior Court held that the "restriction at issue" was "clear and unambiguous" and not limited to surface drilling; "[r]ather, [the easement's] restriction encompasses all removal of gas from the Real Estate. The effect of the *Ray* court's decision is that a conservation easement prohibiting mineral extraction in general means that a well cannot be drilled—even horizontally, deep below the surface.

^{196.} Ray, 2013 WL 11279650, at *3.

^{197.} Compare Zagrans, 2009 WL 1743203 with id. at *2.

^{198.} See Stockport Mt. Corp. LLC v. Norcross Wildlife Found., Inc., No. 3:11cv514, 2014 WL 131604 (M.D. Pa. Aug. 27, 2014); Ray, 2013 WL 11279650, at *3.

^{199.} Id.

^{200.} Id. at *8.

^{201.} Ray, 2013 WL 11279650, at *1 (Paragraph 2C of the easement prohibited "quarrying, excavation, drilling or other removal of coal, clay, oil, gas . . . including but not limited to, extraction or removal of any such minerals by surface mining methods, from the Real Estate.").

^{202.} Id. at *1, 2.

^{203.} Id. at *9.

^{204.} Id.

Pennsylvania courts have held similarly regarding surface drilling. In *Stockport Mountain*, a Pennsylvania court again held that a conservation easement prohibited surface natural gas drilling.²⁰⁵ In this case, the driller sued for a declaratory judgment "that the conservation easement does not prohibit natural gas drilling."²⁰⁶ The driller argued that the original parties to the easement did not intend for it to prohibit natural gas drilling.²⁰⁷ The United States District Court for the Middle District of Pennsylvania held that the easement prohibited surface natural gas drilling.²⁰⁸ The court explained that Pennsylvania's conservation easement enabling statute "instructs courts interpreting conservation easements to construe the terms of those easements liberally" and "in favor of the grants therein."²⁰⁹ The court held that "the words constituting the conservation easement are susceptible to only one reasonable interpretation . . . that surface natural gas drilling on the property is prohibited."²¹⁰

Pennsylvania decisions have held that, with sufficiently explicit language, conservation easements are effective tools to prevent subsurface oil and gas production through horizontal drilling and the use of surface land for oil and gas production. Because Ohio and Pennsylvania statutes are similar, a dissenting landowner in Ohio may succeed in preventing oil and gas production on or beneath the land by transferring to an eligible institution a conservation easement prohibiting oil and gas development on or beneath the land.

c. Conservation Easements May Prevent Mandatory Pooling or Forced Unitization by the State

Although it appears that a conservation easement may be an effective tool for preventing *voluntary* pooling, it is still unclear whether a conservation easement would protect land against a *mandatory* pooling or forced unitization order by the state agency. This section's goal is to determine whether a state mandatory pooling or forced unitization order could terminate a conservation easement, thereby freeing the land from the restrictions therein.

One way a conservation easement can be terminated is through the government's action of eminent domain, a taking under the Fifth Amendment of the U.S. Constitution.²¹¹ However, courts consistently have held that applications of mandatory pooling and forced unitization statutes do not constitute

^{205.} Stockport Mt. Corp. LLC v. Norcross Wildlife Found., Inc., No. 3:11cv514, 2014 WL 131604, at *4 (M.D. Pa. Aug. 27, 2014).

^{206.} Id. at *21.

^{207.} Id. at *24.

^{208.} Id. at *27.

^{209.} Id. at *30-31.

^{210.} Id. at *31.

^{211.} JANET DIEHL & THOMAS S. BARRETT, THE CONSERVATION EASEMENT HANDBOOK 131 (The Land Trust Alliance 5th prtg. 1988); see U.S. CONST., amend. V.

takings.²¹² Courts have even justified mandatory pooling and forced unitization statutes as supporting valid exercises of the state's police power²¹³ in ensuring natural resources are not wasted.²¹⁴ Therefore, a state may restrict a property owner's rights if it furthers the public's interest in the efficient extraction of oil and gas.²¹⁵ As a result, courts have not found that actions taken under mandatory pooling and forced unitization statutes constitute regulatory takings; instead, courts find they merely place a qualification on the landowner's property interest.²¹⁶

Following this logic, it seems a mandatory pooling order may not have the strength to terminate a conservation easement because it does not amount to a taking. However, a court's refusal to disable a conservation easement solely on the ground that a mandatory pooling order is not a taking, and therefore is not strong enough to terminate the conservation easement, may frustrate the purpose of the court's underlying policy. When faced with the question of whether an agency may use a mandatory pooling order to terminate a conservation easement, the court may find that it *is* a taking and is sufficiently strong to extinguish the conservation easement because finding otherwise runs contrary to other court's previously stated positions that these orders do not amount to takings. However, there is no case law to support this hypothesis. It is equally plausible that the conservation easement has the strength to withstand a mandatory pooling or forced unitization order on its own. If so, it would be an effective tool for preventing the mandatory pooling or forced unitization of one's land.

If constructed appropriately, a conservation easement may proactively prevent the DOGRM Chief from compelling the pooling or unitization of privately-owned land for oil and gas drilling. However, proper construction of the conservation easement is critical; a landowner should draft the language to minimize, or eliminate, ambiguity regarding the status and manner of all oil and gas production and ensure the surface and mineral estates are unified.²¹⁸ The language of the

^{212.} Patterson v. Stanolind Oil & Gas Co., 77 P.2d 83, 87–88 (Okla. 1938); Palmer Oil Corp. v. Phillips Petroleum Co., 231 P.2d 997, 1003 (Okla. 1951); *see also* Michael Pappas, Note, *Energy Versus Property*, 41 FLA. ST. U. L. REV. 435, 473 (2014).

^{213.} Pappas, *supra* note 212, at 473.

^{214.} Id.

^{215.} Id.

^{216.} Id.

^{217.} See id.

^{218.} A number of federal agencies hold conservation easements. According to the National Conservation Easement Database, federal agencies hold 25,064 easements in the United States. In Ohio alone, federal agencies hold 446 conservation easements. Most of these are held by the U.S. Natural Resources Conservation Service, a division of the United States Department of Agriculture, under the Wetlands Reserve Program. However, other federal agencies hold conservation easements, such as the U.S. Fish and Wildlife Service and the U.S. National Park Service. See NATIONAL CONSERVATION EASEMENT DATABASE, http://www.conservationeasement.us/resources/ (last visited Feb. 17, 2017). Unfortunately, the Wetlands Reserve Program is no longer active. However, the U.S. Natural Resources Conservation Service has one operating conservation easement program; the Healthy Forests Reserve Program.

easement must reflect the grantor's intent to prevent the development of oil and gas resources on or beneath the land because courts prefer to defer to the unambiguous language of the instrument.²¹⁹ Additionally, ensuring that the surface and mineral estates are unified will prevent any owner of the mineral estate from frustrating the purpose of the conservation easement by exercising his or her dominant right to develop the minerals below.

C. DURING A MANDATORY POOLING OR FORCED UNITIZATION PROCESS

This section addresses the options and opportunities available to a dissenting landowner during the pooling or unitization process. "During the pooling process" refers to the period after an applicant has submitted a mandatory pooling or forced unitization application to the agency but before the agency has issued an order to include the dissenter's land in a pool or unit. This section analyzes the ways in which the landowner may challenge the application or the resulting order. More specifically, it assesses the dissenting landowner's rights under Ohio's regulatory process to challenge an applicant's request for a mandatory pooling or forced unitization order.

1. Challenging the Mandatory Pooling Order in Ohio

The circumstances of the dissenting landowner during the period when his or her land is being forced into a drilling unit vary widely from state to state due to variations in each state's regulatory regime. Therefore, this section focuses on Ohio's regulatory system to illustrate the legal potential for the dissenting landowner during the period of time that his or her land is made subject to a mandatory pooling or forced unitization order from the state.

There are two ways a dissenting landowner might challenge the mandatory pooling application under Section 1509.27 of the Ohio Revised Code. First, the dissenting landowner could show that the applicant failed to satisfy the conditions required prior to filing an application. Second, the dissenting landowner could attack the merits of the application, arguing that the order would be inappropriate because the applicant failed to demonstrate that mandatory pooling is necessary to protect correlative rights and to provide the effective development, use, and conservation of oil and gas.

However, a landowner's property must meet a number of requirements before it will be accepted into the program, such as "enhance or measurably increase the recovery of threatened or endangered species, improve biological diversity or increase carbon storage." *See* NATURAL RESOURCES CONSERVATION SERVICE, https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/easements/forests/?cid=nrcs143_008387 (last visited Feb. 17, 2017).

^{219.} Zagrans v. Elek, No. 08CA009472, 2009 WL 1743203, at *5 (Ohio Ct. App. June 22, 2009).

a. Failure to Satisfy the Conditions Required in An Application for a Mandatory Pooling Order

Before an applicant may submit an application requesting a mandatory pooling order from Ohio's DOGRM, the applicant must satisfy two conditions. First, the applicant must show that the "tract or tracts are of insufficient size or shape to meet the requirements for drilling a proposed well thereon as provided in § 1509.24 or 1509.25 of the Revised Code."²²⁰ Second, the applicant must show that he "has been unable to form a drilling unit under [a voluntary agreement], on a just and equitable basis."²²¹ These conditions give the dissenting landowner two potential points to challenge when disputing whether the applicant has satisfied the required conditions. The dissenting landowner could argue that the pooled tracts are already of a sufficient size or shape to meet the requirements of a drilling unit, and therefore, their land does not need be pooled.²²² Additionally, the dissenting landowner could argue the applicant did not attempt to reach a voluntary agreement on a just and equitable basis.²²³

i. Sufficient Size or Shape

One important reason dissenting landowners find themselves in the position of having their land forced into drilling units against their wishes is that the state has placed size and shape requirements on drilling units. To apply successfully for a mandatory pooling order under Section 1509.27, the applicant's compiled tract must be of an insufficient size or shape to allow for drilling, as provided by Sections 1509.24 or 1509.25.²²⁴

The dissenting landowner must look to Sections 1509.24 and 1509.25 to argue that the applicant's tract is already of a sufficient size to satisfy the drilling unit requirements such that the Chief should deny the application. ²²⁵ A dissenting

^{220.} Id.

^{221.} Id.

^{222.} Id.

^{223.} *Id.*; see also Johnson v. Kell, 626 N.E.2d 1002, 1004 (Ohio Ct. App. 1993) (finding that applicant had not adequately attempted to reach a voluntary agreement with the dissenting landowner on a "just and equitable basis").

^{224.} Ohio Rev. Code Ann. § 1509.27.

^{225.} Section 1509.24 vests the DOGRM Chief with the authority, upon the approval of the Technical Advisory Council ("TAC"), to "adopt, amend, or rescind rules relative to minimum acreage requirements for drilling units and minimum distances from which a new well may be drilled . . . from boundaries of tracts, drilling units, and other wells." From this authority, the Chief promulgated Ohio Administrative Code 1501:9-01-04, which establishes drilling unit and spacing rules. The size of the drilling unit depends on the depth of the planned oil and gas well. Section 1509.25, on the other hand, vests the Chief with the power to adopt special drilling unit requirements for a particular pool, which may vary from the requirements established under Section 1509.24. For the Chief to adopt a special drilling unit under Section 1509.25, the Chief, with the written approval of the TAC, must find that "the pool can be defined with reasonable certainty, that the pool is in the initial state of development, and that the establishment of such different requirements . . . is reasonably necessary to protect correlative rights or to provide effective development, use, or conservation of oil and gas." Note: There is no evidence that

landowner might alternatively argue that, although the applicant's tract is of an insufficient size to meet the drilling unit requirements, the Chief should adopt special drilling unit requirements so the applicant does not need to pool the dissenting landowner's land. To persuade the DOGRM Chief to adopt special unit requirements, the dissenting landowner must prove: (1) the pool can be defined with reasonable certainty, (2) the pool is in the initial state of development, and (3) the establishment of the special drilling unit requirements are reasonably necessary to protect correlative rights or to provide effective development, use, or conservation of oil and gas.²²⁶

A dissenting landowner arguing that the Chief should adopt special drilling unit requirements rather than granting a mandatory pooling order must not only convince the Chief that this is a preferable course of action but must also persuade the Technical Advisory Council ("TAC"). 227 This could be a significant barrier to the dissenting landowner's battle to defend his or her land. There is no evidence that this path has been taken by a dissenting landowner. As mentioned above, to convince the Chief and the TAC that they should create special drilling unit requirements and deny the pooling application requires that the dissenting landowner prove the three required elements for establishing a special drilling unit. The first two, (1) the pool can be defined with reasonable certainty and (2) the pool is in the initial state of development, require that the dissenter have information that likely only the oil and gas developer can access. The third, that the establishment of special drilling unit requirements are reasonably necessary to protect correlative rights or to provide effective development, use, or conservation of oil and gas places an extraordinary burden of proof on the dissenter. This effectively asks the dissenter to argue in support of drilling rights for neighboring landowners.

It is unclear how the dissenter would ever prove that the compelled pooling would not protect the correlative rights of those impacted or provide for effective development, use, and conservation of oil and gas and that the Chief and TAC should employ a special drilling unit instead.

ii. Applicant Did Not Attempt to Reach a Voluntary Agreement with the Dissenting Landowner on a Just and Equitable Basis

The second condition required for applying for a mandatory pooling order requires the applicant to have attempted to reach a voluntary agreement with the dissenting landowner on a just and equitable basis.²²⁸ When assessing whether

a dissenting landowner has ever argued that the mandatory pooling order is unnecessary because the applicant's tract is already of a sufficient size to meet the drilling unit requirements under Section 1509.24. If the compiled land was already of sufficient size and shape, the applicant would not have gone through the time and costs of requesting a mandatory pooling order.

^{226.} Ohio Rev. Code Ann. § 1509.25 (LexisNexis 2018).

^{227.} Id.

^{228. § 1509.27.}

the applicant attempted to enter into a voluntary pooling agreement on a just and equitable basis, the court must find that the applicant extended a reasonable offer to the dissenting landowner and gave the dissenting landowner the opportunity to do the same.²²⁹

In *Johnson v. Kell*, the court found that the mandatory pooling order applicant, Kleese, had not attempted to enter into a voluntary pooling agreement with the dissenting landowner, Johnson, on a just and equitable basis because Kleese's offers were unreasonable.²³⁰ Johnson owned a thirteen-acre parcel of land with an existing well.²³¹ Johnson had purchased this land for the purpose of developing his oil and gas rights.²³² Kleese, interested in drilling a well of his own, needed to pool 1.4 acres of Johnson's land to establish a drilling unit of sufficient size and shape under Ohio law.²³³ Kleese extended only two offers to pool Johnson's land before applying for a mandatory pooling order.²³⁴ Additionally, Kleese's offers sought to pool only the 1.4 acres necessary to complete his own drilling unit.²³⁵

If either of the offers had been accepted, it would have had several adverse impacts on Johnson. First, it would have significantly limited Johnson's royalty interest in Kleese's well.²³⁶ Second, underground pressure and flow from Kleese's new well would have effected Johnson's existing well, making it less productive.²³⁷ Third, pooling Johnson's 1.4 acres would have restricted Johnson from using his remaining 11.6 acres for future oil and gas development because Johnson would have trouble satisfying the size and shape requirements of a separate drilling unit under Ohio law.²³⁸ The Ohio Oil and Gas Board of Review (the "Oil and Gas Board") found Kleese's offers unreasonable because they did not adequately address Johnson's interests and frustrated the very purpose for which Johnson had purchased the land.²³⁹ The appellate court affirmed the reasoning of the Oil and Gas Board, holding that Kleese had not offered to pool Johnson's land on a just and equitable basis. The court reversed and remanded the judgment of the trial court.²⁴⁰

Similarly, in *Simmers v. City of North Royalton*, the court agreed with the Oil and Gas Board that Cutter Oil, the applicant for a mandatory pooling order, had not used all reasonable efforts to enter into a voluntary pooling agreement.²⁴¹ The

^{229.} See Simmers v. City of N. Royalton, 65 N.E.3d 257, at ¶ 39 (Ohio Ct. App. 2016); see also Johnson v. Kell, 626 N.E.2d 1002 (Ohio Ct. App. 1993).

^{230.} Johnson, 626 N.E.2d at 1005.

^{231.} Id. at 1003.

^{232.} Id. at 1004.

^{233.} Id.

^{234.} Id.

^{235.} Id.

^{236.} Id.

^{237.} Id.

^{238.} Id. at 1005.

^{239.} Id. at 1004.

^{240.} Id. at 1005.

^{241.} Simmers v. City of N. Royalton, 65 N.E.3d 257, at ¶ 32 (Ohio Ct. App. 2016).

court explained that "[t]he meaning of a 'just and equitable basis' was... whether such owner-applicant has used all reasonable efforts to enter into a voluntary pooling agreement." Further, "all reasonable efforts' contemplates both a reasonable offer and sufficient efforts to advise the other owner or owners of the same." The court found that Cutter Oil had applied for a mandatory pooling order before the city had had sufficient opportunity to complete its deliberations, consider the offer, and propose a reasonable alternative. Therefore, Cutter Oil did not use all reasonable efforts to reach a voluntary pooling agreement. 244

Johnson and Simmers show that a party cannot apply for a mandatory pooling order without first making a good faith effort to reach a voluntary agreement with the dissenting landowner. Additionally, the applicant must give the landowner the opportunity to consider the offer carefully. This condition provides the dissenting landowner with an opportunity to challenge the validity of the application without having to dispute the merits of the application for mandatory pooling. Both Johnson and Simmers provide examples in which the dissenting landowner overcame a mandatory pooling order on the grounds that the Chief should not have rendered a decision on the application because the applicant was not eligible for an order when it failed to seek the voluntary pooling of the land on a just and equitable basis.

b. Challenging a Mandatory Pooling Order on its Merits

If the applicant has satisfied the two conditions for seeking a mandatory pooling order, the dissenting landowner's next option is to confront the application on its merits. To make a successful case for a mandatory pooling order, the applicant must prove that "mandatory pooling is necessary to protect correlative rights and to provide effective development, use, and conservation of oil and gas." Therefore, if the dissenting landowner can demonstrate that the mandatory pooling order would not protect correlative rights or provide for effective development, use, and conservation of oil and gas, then the DOGRM Chief must deny the application for mandatory pooling. ²⁴⁶

However, the practical reality is that it is extremely difficult for the dissenting landowner to obtain the information necessary to prove his or her case against the mandatory pooling order. Furthermore, the driller has many advantages throughout the process, including favorable standards of review and access to information and evidence that is often held internally by the drilling company.

^{242.} *Id.* at ¶ 32 (quoting Jerry Moore, Inc. v. State of Ohio, Ohio Oil & Gas Bd. of Rev., Appeal No. 1 (July 1, 1966)).

^{243.} Id.

^{244.} Id.

^{245.} Ohio Rev. Code Ann. § 1509.27.

^{246.} Id.

Correlative rights are "the reasonable opportunity to every person entitled thereto to recover and receive the oil and gas in and under his tract or tracts, or the equivalent thereof, without having to drill unnecessary wells or incur other unnecessary expense."²⁴⁷ Courts have taken a broad interpretation of the concept of correlative rights, holding that it includes not only the "reasonable opportunity to recover the oil and gas under [the] land," but also the reasonable opportunity to protect the landowner's greater interest in his or her property.²⁴⁸

In Johnson, the court upheld this broad interpretation, holding that the order for mandatory pooling did not protect correlative rights because pooling Johnson's 1.4 acres frustrated Johnson's very purpose for purchasing the thirteenacre tract: his ability to develop the oil and gas resources beneath it.²⁴⁹ Kleese argued that Johnson's "correlative rights [were] satisfied by virtue of the fact that he would be compensated with royalty payments at the standard industry rate."²⁵⁰ However, the court disagreed.²⁵¹ Johnson had purchased the thirteen acres at a premium in anticipation of developing his oil and gas rights.²⁵² The forced pooling of Johnson's 1.4 acres would severely restrict the development of his remaining 11.6 acres, while only compensating him with royalties associated with the 1.4 acres. 253 Therefore, although Johnson's particular interest in this case was to develop the oil and gas under his land, the court focused on a much broader principle, which is that the correlative rights of a landowner include not only the landowner's right to develop his or her oil and gas interests, but also the landowner's reasonable interest in utilizing his or her property as intended.²⁵⁴ The *Johnson* court explained that "[t]he chief must find that mandatory pooling is necessary to protect every participating landowner's correlative rights . . . [and] [t]he impact on the unwilling participant who would be forced to pool must be taken into account."255

The *Simmers* court followed the *Johnson* court's interpretation of correlative rights, emphasizing that "Johnson stands for the proposition that the impact of oil and gas development must be considered against the backdrop of surrounding property[,] even land not directly forced into the mandatory pool." The *Simmers* court found that the mandatory pooling order did not protect correlative rights because North Royalton had legitimate safety concerns regarding the

^{247.} Johnson v. Kell, 626 N.E.2d 1002, 1005 (Ohio Ct. App. 1993).

^{248.} See generally Simmers, 65 N.E.3d at ¶ 53–56; see also Johnson, 626 N.E.2d at 1005.

^{249.} Johnson, 626 N.E.2d at 1005.

^{250.} Id.

^{251.} Id.

^{252.} *Id*.

^{253.} Id.

^{254.} Id.

^{255.} Id.

^{256.} Simmers v. City of N. Royalton, 65 N.E.3d 257, at ¶ 39 (Ohio Ct. App. 2016).

impact of the drilling operation on the city's surrounding property²⁵⁷ that were not addressed by the mandatory pooling order. In doing so, the *Simmers* court reinforced the proposition that correlative rights are more than just the landowner's reasonable opportunity to recover the oil and gas from beneath the property. Rather, correlative rights include the landowner's greater interests in their property, and a mandatory pooling order is not warranted unless the order can accommodate the dissenting landowner's greater interest in their land, whether grounded in financial gain or safety.

D. THE LANDOWNER'S ROLE FOLLOWING FORCED POOLING OR UNITIZATION

During "post-pooling"—the period after the agency has ordered the dissenter's land to be included in a pool or unit despite the landowner's objections—options for redress range from traditional common law actions in tort for trespass and nuisance to constitutional challenges based on takings and due process rights. In the example of Ohio, challenging a mandatory pooling order that has already been issued by DOGRM is difficult for the dissenting landowner, in part because Ohio has effectively authorized the activity.

However, at this stage, the landowner does have some options, although the law is less certain. In some jurisdictions, dissenting landowners have sued alleging trespass—stemming from the producer's unwanted physical intrusion on the land—, nuisance—stemming from the drilling operations' interference with the quiet enjoyment of landowners' property—, and various constitutional challenges, such as "takings without compensation" and violations of landowner's due process rights. Although other states have varying constitutional provisions, common law interpretations, and regulatory mechanisms, Ohio case law is sparse in this area. Therefore, this section focuses on Ohio's historical treatment of common law doctrines, coupled with other states' interpretation of similar issues, to predict how Ohio courts will come out on a given issue.

1. Statute-Based Means of Redress for the Dissenting Landowner

This section discusses whether the dissenting landowner has any statute-based means of action under the mandatory pooling section of the Ohio Revised Code to challenge the DOGRM Chief's mandatory pooling order to compel the landowner to participate in a drilling unit. Chapter 1509 of the Ohio Revised Code provides dissenting landowners with an appeals process when they have been

^{257.} Simmers, 2016 WL 2866405; see also Heidi Gorovitz Robertson, Ohio Cities May Have a New Way to Control Oil and Gas Drilling Within Their Borders, CRAIN'S CLEVELAND (Sept. 11, 2015, 10:04 AM), http://www.crainscleveland.com/article/20150911/BLOGS05/150919963/ohio-cities-may-have-a-new-way-to-control-oil-and-gas-drilling.

^{258.} See, e.g., Roth v. Cabot Oil & Gas Corp., 919 F. Supp. 2d 476 (M.D. Pa. 2013) (nuisance); Berish v. Sw. Energy Prod. Co., 763 F. Supp. 2d 702 (M.D. Pa. 2010) (nuisance); Chance v. BP Chemicals, Inc., 670 N.E.2d 985 (Ohio 1996) (trespass); Anderson v. Corp. Comm'n, 327 P.2d 699, 701 (Okla. 1957) (taking).

adversely affected by a mandatory pooling order by the DOGRM Chief. Section 1509.36 states that "[a]ny person adversely affected by an order by the [DOGRM] Chief ... may appeal to the Oil and Gas Commission for an order vacating or modifying the order." Section 1509.37 further permits "[a]ny party adversely affected by an order of the Oil and Gas Commission [to] appeal to the Court of Common Pleas of Franklin County." Therefore, Chapter 1509 provides two levels of appeal: the first level is an administrative appeal within the Ohio Department of Natural Resources, and the second is a judicial appeal to the Ohio court system. Each is distinct in the standard of review applied and the degree of evidence required.

a. Administrative Appeal

The dissenting landowner may look to the administrative process for relief when his or her property has become subject to a mandatory pooling order. This section evaluates the dissenter's options under Ohio's administrative process for mandatory pooling.

When a party has been "adversely affected" by a mandatory pooling order issued by the DOGRM Chief, the first means of redress is to appeal the order to the Ohio Oil and Gas Commission ("Commission"),²⁶¹ a five member commission appointed by the governor.²⁶² The Commission recently held that landowners whose land has been involuntarily added to a drilling unit are considered adversely affected by the order.²⁶³ Under Section 1509.36, the Commission's standard of review is whether the DOGRM Chief's order was lawful and reasonable.²⁶⁴ The Chief has acted lawfully and reasonably when he finds that all the conditions to securing a mandatory pooling order have been met and that the evidence establishes that the mandatory pooling order is necessary to protect correlative rights and provide for the effective development, use, and conservation of oil and gas. Upon completion of the hearing, if the Commission finds that the

^{259.} Ohio Rev. Code Ann. § 1509.36.

^{260. § 1509.37.}

^{261. § 1509.36.}

^{262. § 1509.35.} The governor must appoint to the Commission one of each of the following: (1) a representative of the public, (2) a representative of independent petroleum operators, (3) a representative of a major petroleum company, (4) a representative who is learned and experienced in oil and gas law, and (5) a representative who is learned and experienced in geology or petroleum engineering. See id.

^{263.} See Order of the Commission Dismissing Appeal for Lack of Statutory Authority to Act, Wehr v. Div. of Oil & Gas Res. Mgmt., Appeal N. 912 (June 15, 2017) (holding that, although the landowner's ability to appeal a unitization order must meet the regulatory requirements, the Ohio Department of Natural Resources is also required to meet its duty to timely provide notice of its order to the landowner).

^{264.} *Id.*; see also Simmers v. City of N. Royalton, 65 N.E.3d 257, at ¶ 25 (Ohio Ct. App. 2016) (holding that "the chief had to determine if certain procedural formalities were met, whether mandatory pooling was necessary to protect correlative rights and to provide effective development, use, and conservation of oil and gas... The commission [has] to determine whether the chief acted lawfully and reasonably in approving [the applicant's] application for mandatory pooling.").

order appealed from was lawful and reasonable, it will affirm the Chief's decision. ²⁶⁵

In *Johnson*, the court stated that "the [Commission] found that the Chief's order was unlawful and unreasonable because Kleese had not established a condition required prior to the filing of his application for mandatory pooling. Specifically, Kleese had not established that he tried to pool voluntarily on a just and equitable basis." ²⁶⁶ The *Johnson* court affirmed the Commission's order, holding "[t]he [Commission], therefore, properly found the Chief's order unlawful and unreasonable because there was no valid factual finding that the prerequisite condition was met or that appellant's correlative rights would be protected." ²⁶⁷

In *Simmers*, the Commission found the Chief's order unlawful and unreasonable because "the chief acted unreasonably in limiting his consideration of whether Cutter Oil was unable to secure a voluntary lease with the city of North Royalton 'on a just and equitable basis' to the financial aspects of Cutter Oil's offer to lease."²⁶⁸ In affirming the Commission's view, the appellate court held that "it was reasonable for the commission to conclude that focusing solely on economic factors was too narrow of a view given the overall purposes of the mandatory pooling statutes."²⁶⁹

Additionally, the Commission may admit new evidence and make new factual determinations by conducting de novo hearings.²⁷⁰ Section 1509.36 allows for the Commission to hear witness testimony and review evidence such as books, records, and papers.²⁷¹ In *Johnson*, the court stated that "the board is given wide latitude in admitting new evidence and, therefore, in making new factual determinations."²⁷² In exercising its ability to make new factual findings, the Commission was able to find that Kleese's offers did not adequately compensate Johnson for offsetting his existing well and limiting Johnson's ability to develop his remaining 11.6 acres.²⁷³ Then *Simmers*, relying on *Johnson*,²⁷⁴ held that the Commission was warranted in considering new evidence of North Royalton's safety concerns for the proposed well.²⁷⁵ The Commission's ability to admit new evidence during the administrative appeal is the principal characteristic that distinguishes the administrative appeal from the judicial appeal. The dissenting landowner should take some comfort in the power of this body to evaluate

^{265. § 1509.36.}

^{266.} Johnson v. Kell, 626 N.E.2d 1002, 1005 (Ohio Ct. App. 1993).

^{267.} Id. at 1006.

^{268.} *Simmers*, 65 N.E.3d at ¶ 13–16.

^{269.} Id. at ¶ 40.

^{270.} Johnson, 626 N.E.2d at 1005.

^{271.} Ohio Rev. Code Ann. § 1509.36.

^{272.} Johnson, 626 N.E.2d at 1005.

^{273.} Id.

^{274.} Simmers, 65 N.E.3d at ¶ 40.

^{275.} Id.

mandatory pooling orders in the face of new evidence and to hold the DOGRM Chief accountable for following the rules set forth for mandatory pooling.

b. Appealing to the County Court of Common Pleas

In addition to the opportunity to challenge a mandatory pooling order in front of the Commission, a dissenting landowner has a second level of appeal before the Franklin County Court of Common Pleas ("the court of common pleas"). Chapter 1509 allows a party to appeal an adverse order from the Commission to this trial court.²⁷⁶

However, although Chapter 1509 provides a party with an appeal through the judicial system, the court's review of the case is more restrictive than that of the Commission under section 1509.36. This is because the hearing of the appeal by the court is confined to the record as certified to it by the Commission.²⁷⁷ In fact, the court may only consider new evidence if "the additional evidence is newly discovered and could not with reasonable diligence have been ascertained prior to the hearing before the commission."²⁷⁸ Therefore, unlike the Commission, the court cannot review new evidence unless the party attempting to bring the evidence can prove that it could not reasonably have been discovered earlier.

In *Simmers*, the Ohio Tenth District Court of Appeals affirmed the decision of the court of common pleas, which held that it was proper for the Commission to consider North Royalton's safety concerns when reviewing whether a mandatory pooling order was lawful and reasonable.²⁷⁹ The court of appeals noted that, although the Ohio Revised Code prohibits the court of common pleas from making new factual findings, it does permit the Commission to make new findings, including considering North Royalton's safety concerns, when reviewing a decision by the DOGRM Chief.²⁸⁰

In *Johnson*, the court of common pleas overturned the Commission's ruling, finding it unlawful and unreasonable, and reinstated the DOGRM Chief's mandatory pooling order.²⁸¹ The court of common pleas found the Commission's order unlawful and unreasonable because "the chief's order was supported by valid factual evidence that all of the statutory requirements for an R.C. 1509.27 mandatory pooling were met."²⁸² Again, the court of common pleas was unable to make any new factual findings. It was permitted to review only the existing administrative record, where it found evidence to prove each element required for a mandatory pooling order. This differs from the review by the Commission, which was able

^{276.} Ohio Rev. Code Ann. § 1509.37.

^{277.} Id.

^{278.} Id.

^{279.} Simmers, 65 N.E.3d at ¶ 45.

^{280.} Id.

^{281.} Johnson v. Kell, 626 N.E.2d 1002, 1003 (Ohio Ct. App. 1993).

^{282.} Id.

to make new factual findings and uncover information about the damage being caused to Johnson's existing well and remaining property.

So, what does the manner and standard of review at each level of appeal under Chapter 1509 mean for the dissenting landowner? First, the Ohio Revised Code provides for a lengthy and multileveled means of appeal for a dissenting landowner that has been adversely affected by a mandatory pooling order. Second, the dissenting landowner may introduce new evidence during the administrative appeals process. This allows the dissenting landowner to continue to challenge the applicant's mandatory pooling application on its merits. Chapter 1509's appeals process provides a mechanism for the dissenting landowner to continue to challenge an adverse order, including by arguing that the applicant failed to satisfy the conditions required for bringing an order, or the order does not protect correlative rights or provide effective development, use, and conservation of oil and gas. The limitation is that once the dissenting landowner reaches the judicial appeals process, he or she is limited to the evidence on the record, unless the landowner can show that the evidence was not discoverable through reasonable diligence prior to the hearing before the commission.

2. Common Law Means of Redress for the Dissenting Landowner Following a Mandatory Pooling or Forced Unitization Order

Once a dissenting landowner has failed to prevent his or her land from falling subject to a mandatory pooling or forced unitization order, the dissenter may wish to seek redress. This section addresses whether a dissenting landowner might find redress in the common law for harm that was caused when his or her land was included in a drilling unit against his or her will. In particular, this section considers the potential for actions in trespass and nuisance.

a. Trespass

Landowners—dissenting or otherwise—who hope for redress in tort law to punish or compensate for subsurface invasion of their land will face a substantial obstacle. Although drilling activity on the surface is likely easy to prove, subsurface activity, such as horizontal drilling deep beneath the surface, presents a different circumstance; it is likely challenging to prove when and where the physical invasion necessary to prove a trespass claim occurred.

In Ohio, as in most states, the elements of a traditional common law trespass claim are: possession by plaintiff at the time of the alleged trespass; unauthorized physical entry by defendant; and damage to the plaintiff which was the proximate

^{283.} See Ohio Rev. Code Ann. §§ 1509.36–1509.37.

^{284. § 1509.36.}

^{285. § 1509.37.}

result of the trespass.²⁸⁶ With respect to drilling, a trespass may be fairly obvious with regard to a surface disruption; one could easily see an intruding surface well. However, a subsurface trespass would be considerably more difficult to show—particularly the occurrence of an unauthorized entry and that such entry caused damage. It might be impossible to show, for example, that invading fracking injectate deep beneath the surface interfered with a landowner's reasonable use of the surface.

Prosser and Keeton refer to subsurface trespass as a "dog in the manger law" or a bad law and suggest that a remedy should only be available if there is damage to the surface or some other interference with a reasonable use of the subsurface. Case law provides some indication as to how courts will treat subsurface invasions of land, but many questions remain unanswered. Currently, the leading case, heard by the Texas Supreme Court, sidestepped the trespass issue by holding that the rule of capture precludes a trespass where the only damage asserted is loss of hydrocarbons. While the Ohio Supreme Court has not yet dealt with the issue of subsurface trespass and its relation to hydraulic fracturing specifically, it has confronted a similar subsurface trespass cause of action that may shed light on the issue.

In *Chance v. BP Chemicals, Inc.*, the plaintiff sued for both trespass and nuisance alleging that chemical waste "injectate" had laterally migrated from a neighbor's property to the plaintiff's property beneath the surface.²⁸⁹ The Ohio Supreme Court recognized ownership rights to the subsurface, explaining that a property owner's subsurface rights include the right to exclude underground invasions that actually interfere with one's reasonable and foreseeable use of the subsurface.²⁹⁰ However, it also found that to be entitled to damages, the plaintiff must show "some type of physical damages or interference with the use" that proximately resulted from the leakage of the injectate wells.²⁹¹ The court rejected the landowner's trespass claim because the "evidence of trespass was simply too speculative."²⁹² In so concluding, the court stated that scientific uncertainty regarding the precise location of the leaked injectate, coupled with the unusual and novel nature of the alleged invasion of property, prevented the plaintiff from succeeding on a subsurface trespass claim.²⁹³ Thus, in *Chance*, the Ohio

^{286.} *See also* Chance v. BP Chemicals, Inc., 670 N.E.2d 985, 991 (Ohio 1996); *see generally* Kohl v. Hannaford, 1875 WL 5430, at *3 (Ohio Super. Ct. Oct. 1875).

^{287.} W. PAGE KEETON ET AL., PROSSER AND KEETON ON TORTS 82 (5th ed., West Group 1984) (stating that because the surface owner had no practical access to the caves, either now or in the future, the decision is "dog-in-the-manger law, and can only be characterized as a very bad one").

^{288.} Coastal Oil & Gas Corp. v. Garza Energy Tr., 268 S.W.3d 1, 12–13 (Tex. 2008).

^{289.} Chance, 670 N.E.2d at 985.

^{290.} Id.

^{291.} Id. at 993.

^{292.} Id.

^{293.} Id.

Supreme Court endorsed the "reasonable use of the subsurface" requirement.²⁹⁴ Scientific uncertainty in determining "physical intrusions" or "actual damages" may present the biggest hurdle for plaintiffs alleging subsurface trespass in Ohio. Absent surface disruption, landowners alleging subsurface trespass will find it difficult to prove when and where the necessary physical invasion occurred and with which reasonable use the injectate interfered.²⁹⁵

Given Ohio's scarcity of case law concerning hydraulic fracturing, it may help to look to the state's Appalachian neighbors to see how they have confronted similar issues. In Stone v. Chesapeake Appalachia, LLC., the U.S. District Court for the Northern District of West Virginia considered whether a trespass occurred when the defendant, Chesapeake Appalachia, LLC, engaged in hydraulic fracturing (via a horizontal well-bore) under the plaintiffs' land in violation of a lease agreement.²⁹⁶ The plaintiffs owned property that encompassed a 217.77 acre tract of land.²⁹⁷ In 2001, one plaintiff, Stone, was the sole owner of the entire tract.²⁹⁸ Stone executed a five-year mineral rights lease with Phillips Production Company.²⁹⁹ However, before the expiration of the five-year lease, Stone agreed to a five-year extension. Phillips Production Company assigned its rights under the lease to Chesapeake Appalachia.³⁰⁰ The lease included a unitization provision purporting to grant the right to pool and unitize certain shale formations to join the adjacent lands with other leases or estates to facilitate production.³⁰¹ In particular, the provision applied this unitization right to the Onondaga and Oriskany shale formations, and any formations that lie beneath them. 302 Because the Marcellus formation lies above, not beneath, these specified formations, the court confirmed that the unitization provision did not apply to Marcellus shale development.303

In 2010, Chesapeake unsuccessfully attempted to modify the unitization provision to include the Marcellus shale formation.³⁰⁴ Stone did not agree to the proposed modification.³⁰⁵ Chesapeake drilled a vertical well on neighboring property

^{294.} Id. at 992.

^{295.} See also Baker v. Chevron U.S.A. Inc., Nos. 11-4369, 12-3995, 2013 U.S. App. LEXIS 16219, at *41 (6th Cir. Aug. 2, 2013) (holding that plaintiffs, who alleged subsurface trespass when oil spills and leaks produced a hydrocarbon plume under several properties, failed to demonstrate that the plume interfered with their use of the subsurface).

^{296.} Stone v. Chesapeake Appalachia, LLC, No. 5:12-CV-102, 2013 WL 2097397, at *1 (N.D.W. Va. Apr. 10, 2013), *vacated*, 2013 WL 7863861 (N.D.W. Va. July 30, 2013).

^{297.} Id.

^{298.} Id.

^{299.} Id.

^{300.} Id.

^{301.} *Id*.

^{302.} Id.

^{303.} Id.

^{304.} *Id*.

^{305.} Id.

approximately 200 feet from the property line with the plaintiffs.³⁰⁶ The horizontal aspect of the well-bore extended to "within tens of feet from the property line," but evidence suggested that hydrocarbons migrated to the well from under the plaintiff's property.³⁰⁷ Therefore, the well extracted oil and gas from the Marcellus shale formation located beneath the plaintiff's property without her permission.³⁰⁸ Stone filed suit, claiming that a trespass occurred through hydraulic fracturing beneath her property; defendant Chesapeake argued that the trespass claim was barred by the rule of capture.³⁰⁹

The *Stone* court first addressed whether the rule of capture applies to oil and gas extracted by hydraulic fracturing when the oil or gas is being drawn from beneath a neighbor's land. Before its analysis, the court emphasized the fundamental utility of hydraulic fracturing: to make possible the extraction of oil and gas that is trapped in tiny reservoirs within the rock. This trapped oil and gas does not flow freely, like the oil and gas to which the rule of capture was originally applied. When combined with horizontal drilling, hydraulic fracturing makes it possible to extract oil and gas that was previously unattainable. Stone contended that West Virginia law does not recognize the common law rule of capture as governing property rights to underground resources, such as oil and gas, when they are extracted through the use of hydraulic fracturing.

Conversely, Chesapeake primarily relied on two cases to demonstrate that the rule of capture was alive and well in West Virginia, even with respect to oil and gas derived from hydraulic fracturing, and that its application barred a trespass claim. First, in *Trent v. Energy Development Corporation*, a federal appeals court held that "the law of capture allows a landowner to use artificial means of stimulating production even though the effect is to increase the drainage from the land of another." The *Trent* court recognized that hydraulic fracturing presented a unique problem because extraction requires an unnatural enhancement of the flow of gas by increasing "the strata's permeability and, as a consequence, the flow of gas into the well." However, the majority in *Trent* sidestepped the issue by stating that, within the rule of capture, a landowner can use artificial means to stimulate production even though these artificial actions will increase the flow of the resource from beneath one party's land to its production through a

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306. Id.
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^{307.} Id.

^{308.} Cf. id.

^{309.} *Id.* at *2.

^{310.} Id. at *2-8.

^{311.} Id. at *4 (internal citation omitted).

^{312.} Cf. id.

^{313.} Id.

^{314.} Cf. id. at *2.

^{315.} Id.

^{316.} Trent v. Energy Dev. Corp., 902 F.2d 1143, 1147 n. 8 (4th Cir. 1990).

^{317.} Id.

well on another party's land.³¹⁸ Although the court neglected to provide a definitive standard, hydraulic fracturing seems to be a qualifying "artificial means of stimulating production." Thus, without explicitly stating the proposition, the *Trent* court suggested that, "short of committing a trespass," extraction of minerals through hydraulic fracturing is still governed by the rule of capture.³¹⁹ The court also stated that a theoretical trespass cause of action may exist, but it would belong to the landowner, rather than the lessee development company.³²⁰

Second, Chesapeake urged the court to adopt the rule set out by the Texas Supreme Court in *Coastal Oil & Gas Corporation v. Garza Energy Trust*, which held that trespass damages for the drainage of hydrocarbons were precluded by the rule of capture. ³²¹ In *Garza*, the Texas Supreme Court laid out four justifications for holding that trespass claims were barred by the rule of capture:

- 1. The law already affords the owner full recourse. The landowner can drill a well of his own, on his own property, to offset the drainage from beneath his property. If there is already a lease, the landowner can sue the lessee for violation of the implied covenant in the lease to protect against drainage. In addition, he may offer to pool, and if the offer is rejected, apply to the Texas Railroad Commission for forced pooling.
- 2. Allowing recovery for the value of the oil and gas drained by hydraulic fracturing usurps to the courts the lawful and preferable authority of the Railroad Commission to regulate oil and gas production.
- 3. [D]etermining the value of oil and gas drained by hydraulic fracturing is the kind of issue the litigation process is least equipped to handle. One difficulty is that the material facts are hidden below miles of rock, making it difficult to ascertain what might have happened. Such difficulty in proof is one of the justifications for the rule of capture. But there is an even greater difficulty with litigating recovery for drainage resulting from fracking, and it is that trial judges and juries cannot take into account social policies, industry operations, and the greater good which are all tremendously important in deciding whether fracking should or should not be against the law.
- 4. No one in the oil and gas industry appears to want or need a change in the application of the rule of capture to hydraulic fracturing operations.³²²

The *Stone* court rejected these justifications. Instead, the court quoted primarily from the *Garza* dissent, which pointed out that the rule of capture was created to deal with "the fugitive nature" of hydrocarbons. ³²³ The *Garza* dissent stated that,

^{318.} Id.

^{319.} Id.

^{320.} Id.

^{321.} Stone v. Chesapeake Appalachia, LLC, No. 5:12-CV-102, 2013 WL 2097397, at *4 (N.D.W. Va. Apr. 10, 2013), *vacated*, 2013 WL 7863861 (N.D.W. Va. July 30, 2013).

^{322.} Id. at *5.

^{323.} Id. at *6.

with respect to hydrocarbons captured through hydraulic fracturing, "the gas at issue did not migrate to Coastal's well because of naturally occurring pressure changes in the reservoir."³²⁴ The dissent believed the court was extending the rule of capture beyond natural migration, and the *Stone* court agreed.³²⁵

Thus, the *Stone* court stated that the application of the *Garza* rule would allow companies to force small landowners to lease their land or to take the landowners' resources without providing compensation, and "this court simply cannot believe that our West Virginia Supreme Court would permit such a result." The *Stone* court held that an unapproved extraction of minerals from under a neighbor's land via hydraulic fracturing "is not protected by the 'rule of capture', but rather constitutes an actionable trespass." 327

Although the *Stone* court rejected the notion that the rule of capture applies to oil and gas extracted via hydraulic fracturing so as to bar a trespass cause of action, 328 this does not mean the *Stone* court was dispositive on the subsurface trespass issue. The *Stone* opinion was later vacated as part of a settlement between the parties that rendered the opinion non-binding. Furthermore, the order was limited to Chesapeake's motion for summary judgment, which means that it was not dispositive of the legal issues presented. This leaves more questions than answers as to whether a landowner has a trespass cause of action when oil and gas are drained from beneath his or her land without his or her permission through hydraulic fracturing. Despite its limitations, *Stone v. Chesapeake Appalachia* remains the leading case involving subsurface trespass in West Virginia. But the miniscule sample size of other cases involving subsurface trespass makes it naïve to believe the issue is settled.

At least one legal scholar, Owen Anderson, believes that a cause of action for subsurface trespass should be narrow in scope and recovery should be permitted only upon proof of actual and substantial damages. Anderson further argues that injunctive relief should only be granted if the harm to the landowner "clearly outweighs the utility of the subsurface invasion." Anderson's basis for this argument is that most subsurface invasions meet important societal needs, which must be economically efficient if they are to succeed. Anderson argues that a strict application of trespass law to the subsurface, particularly the landowner's right to enjoin a continuing trespass, would often render a business enterprise

^{324.} Id.

^{325.} Id.

^{326.} Id.

^{327.} Id. at *8.

^{328.} Id.

^{329.} Stone v. Chesapeake Appalachia, LLC, No. 5:12-CV-102, 2013 WL 7863861 (N.D.W. Va. July 30, 2013).

^{330.} Owen L. Anderson, Subsurface "Trespass": A Man's Subsurface Is Not His Castle, 49 WASHBURN L.J. 247, 282 (2010).

^{331.} Id. at 249, 282.

^{332.} Id. at 281.

economically unviable.³³³ Anderson analogizes a landowner's subsurface rights to his or her airspace rights, which are not absolute and only actionable if the plaintiff can demonstrate actual damages.³³⁴ This relationship was acknowledged by both the Texas and Ohio Supreme Courts in *Garza* and *Chance* respectively, each discussed above.³³⁵

Anderson's theory was fully embraced by the Texas Supreme Court in *Railroad Commission of Texas v. Maziel*, in which the Court held that a trespass does not occur when injected secondary recovery salt water moves across lease lines.³³⁶ In *Maziel*, the plaintiff alleged that the defendant's injection of salt water encroached on his subsurface rights, constituting a trespass.³³⁷ However, the court rejected this argument, explaining that:

Certainly, it is relevant to consider and weigh the interests of society and the oil and gas industry as a whole against the interests of the individual operator who is damaged; and if the authorized activities in an adjoining secondary recovery unit are found to be based on some substantial, justifying occasion, then this court should sustain their validity.³³⁸

The court reasoned that the defendant's actions were necessary to protect the correlative rights of those involved in the drilling unit and that such rights trumped the individual landowner's interest.³³⁹

b. Nuisance

Historically, the nuisance doctrine has provided plaintiffs with a flexible tool for challenging a variety of environmental issues when regulation was nonexistent or inadequate.³⁴⁰ Although the common law concerning hydraulic fracturing ("fracking") is not well-developed, common law actions involving fracking raise

^{333.} Id. at 281-82.

^{334.} *Id.* at 254–55 (citing United States v. Causby, 328 U.S. 256 (1946) (recognizing that airplanes may freely navigate airspace unless the flights are so low and constant as to make it impossible for the true owner to reside upon or farm the land)); Hinman v. Pac. Air Lines Transp. Corp., 84 F.2d 755, 758–59 (9th Cir. 1936) (holding that the use of airspace is not unlawful without proof of actual injury).

^{335.} See Chance v. BP Chemicals, Inc., 670 N.E.2d 985, 992 (Ohio 1996) (explaining that just as a property owner must accept some limitations on the ownership rights extending above the surface of the property, there are also limitations on property owners' subsurface rights); see also Coastal Oil & Gas Corp. v. Garza Energy Tr., 268 S.W.3d 1, 11 (Tex. 2008) (explaining that an invasion of airspace is only actionable if the invasion has interfered with the landowner's actual or potential use and occupation of the land).

^{336.} R.R. Comm'n of Tex. v. Manziel, 361 S.W.2d 560, 568-69 (Tex. 1962).

^{337.} Id. at 566.

^{338.} Id. at 568.

^{339.} See id. at 572.

^{340.} See G. Nelson Smith, III, Nuisance and Trespass Claims in Environmental Litigation: Legislative Inaction and Common Law Confusion, 36 Santa Clara L. Rev. 39, 42 (1995); see also James A. Sevinsky, Public Nuisance: A Common-Law Remedy Among the Statutes, 5 Nat. Res. & Env't 29, 30 (1990).

private nuisance issues.341

A "nuisance" is an unreasonable interference with one's use and enjoyment of his or her land.³⁴² Most states distinguish private nuisances from public nuisances.³⁴³ A disgruntled dissenting landowner is unlikely to bring a successful public nuisance claim because the State of Ohio approves hydraulic fracturing wells by issuing permits through the DOGRM.³⁴⁴ Therefore, the more likely common law tort claim for the dissenting landowner is a private nuisance claim.

A private nuisance is a tort against the landowner's right to use and enjoy his or her land. A claim must be grounded on the individual's interest in the land. To recover damages under a private nuisance theory, a plaintiff must show: (1a) intentional and unreasonable interference with private interest in land or (1b) unintentional, but actionable interference due to negligence, recklessness, or by engaging in abnormally dangerous activity; (2) causation; and (3) substantial or significant harm. 346

^{341.} See Suzuki, supra note 143, at 293–94; cf. O'Leary v. Moyer's Landfill, Inc., 523 F. Supp. 642, 657–58 (E.D. Pa. 1981). Examples of typical hydraulic fracturing-related nuisance actions allege pollution emanating from a gas well, lingering noxious odors, and excessive noise and dust coupled with release of "fracking fluids" near one's property. These examples are not limited to surface activities, but most analysts agree that plaintiffs will have less difficulty surviving motions to dismiss and motions for summary judgment if their claims focus on surface, rather than sub-surface activities. This is because it is easier to meet the evidentiary burden of proving "interference/disruption," with a "reasonable use of the land," and "harm" when the activity takes place in plain sight. When the alleged nuisance occurs a mile underground, these elements are difficult to prove, even with expert testimony and scientific evidence.

^{342.} O'Neil v. Atwell, 598 N.E.2d 110, 113 (Ohio Ct. App. 1991) (internal citation omitted).

^{343.} In Ohio, a "public nuisance" is defined as an unreasonable interference with a right common to the general public. *See* Brown v. Cty. Comm'rs, 622 N.E.2d 1153, 1158–59 (Ohio Ct. App. 1993) (citing Restatement (Second) of Torts § 821B (Am. Law Inst. 1979)). A public nuisance affects the public at large or such of them as may come in contact with it, by injuriously affecting the safety, health of the public, or working some substantial annoyance, inconvenience, or injury to the public. *See* Crown Prop. Dev., Inc. v. Omega Oil Co., N.E.2d 1343, 1350 (Ohio Ct. App. 1996). A "private nuisance" is an act that wrongfully interferes with another's interest, use, or enjoyment of land; it can also be anything that obstructs the reasonable and comfortable use of property. Private nuisance covers the invasion of the private interest in the use and enjoyment of land. Unlike a public nuisance, a private nuisance threatens only one or a few persons. The law of private nuisance is a law of degree which generally turns on the factual question of whether the use to which property is put is a reasonable use under the circumstances and whether there is an appreciable, substantial, tangible injury resulting in actual, material, and physical discomfort. *See e.g.*, Brackett v. Moler Raceway Park, LLC, 960 N.E.2d 484, 488 (Ohio Ct. App. 2011); Davis v. Widman, 922 N.E.2d 272, 282 (Ohio Ct. App. 2009); Rautsaw v. Clark, 488 N. E.2d 243, 245 (Ohio Ct. App. 1985).

^{344.} See Ohio Rev. Code Ann. § 1509.05 (LexisNexis 2011) ("No person shall drill a new well, drill an existing well any deeper, reopen a well... without having a permit to do so issued by the chief of the division of oil and gas resources management."); see also Hager v. Waste Techs. Indus., 2002-Ohio-3466, ¶ 74 (Ohio Ct. App. 2002) (stating that a public nuisance cannot exist where actor has a permit or license form the state to operate).

^{345.} Brackett v. Moler Raceway Park, LLC, 960 N.E.2d 484, 488 (Ohio Ct. App. 2011) (defining a private nuisance).

^{346.} Id.

With respect to private nuisance claims arising from fracking activity, each element presents its own distinct issues. With regard to the first element, because oil and gas production activities are approved by the State of Ohio via permits, courts are hesitant to find that a state-approved practice will constitute an "interference" if the well is functioning properly. Thus, plaintiffs must present evidence to show that a well is not functioning properly or has otherwise interfered with some private interest in their land. Second, while some courts have implied that the standard of proof for determining causation might be relaxed in fracking cases, scientific research and data analysis are likely necessary to establish a causal link between the plaintiff's alleged interference and the defendant's tortious conduct.

Finally, and perhaps most importantly for potential nuisance claims, courts recognize the significant harm element to mean more than "slight inconvenience or petty annoyance." But because nuisance law recognizes a wide variety of interests, the harm does not have to be as tangible. For example, trespass law requires harm resulting from a physical invasion of one's property, whereas nuisance law simply requires harm to the plaintiff's use or enjoyment of his or her property, which can arise in numerous forms. This means a plaintiff could bring a nuisance claim alleging an "assault on their senses" or emotional harm including "fear, apprehension, or loss of peace of mind" resulting from the fracking operations. Because of the myriad interests that nuisance law protects, common law nuisance actions may provide a flexible, albeit difficult, alternative for a landowner when his or her ability to use and enjoy his or her property has been negatively affected by fracking activities beneath his or her land.

In Ohio, common law nuisance refers to an unreasonable interference with the use and enjoyment of one's property. It covers a broad spectrum of interests, including "personal legal rights and privileges generally." The Ohio Supreme

^{347.} See Davis, 922 N.E.2d at 282 (explaining that an absolute nuisance will not be found where one has been given permission or authority to operate or erect the alleged nuisance, or one has complied with applicable statutes and regulations, but a qualified nuisance may be found if the lawfully permitted facility is "negligently maintained" in a manner that breaches the operator's duty of care); see also Little Hocking Water Ass'n, Inc. v. E.I. du Pont Nemours & Co., 91 F. Supp. 3d 940, 971 (S.D. Ohio 2015) (explaining that in Ohio, a facility that "operates under the sanction of law cannot be a common-law public nuisance" because "conduct which is fully authorized by statute or administrative regulation is not an actionable tort[,]" and holding that defendant's waste disposal practices at its water treatment facility did not constitute a public nuisance).

^{348.} Suzuki, supra note 143, at 279-80.

^{349.} Id. at 288.

^{350.} Id. at 288-89.

^{351.} Id. at 279-80.

^{352.} Id.

^{353.} Id. at 281.

^{354.} See id. at 288.

^{355.} Banford v. Aldrich Chem. Co., 932 N.E.2d 313, 317 (Ohio 2010) (internal citation and quotation marks omitted).

Court recognizes private nuisance as anything that by its continuous use or existence works annoyance, harm, inconvenience, or damage to another landowner in the enjoyment of his property; activity which results in unreasonable interference with the use and enjoyment of another's property.³⁵⁶ A nuisance action must involve a real, material, and substantial injury. Damages commonly include diminution in property value, costs of repairs, loss of use of the property, or compensation for annoyance, discomfort, and inconvenience.³⁵⁷

Ohio courts divide private nuisances into two categories: absolute nuisance (nuisance per se) and qualified nuisance (nuisance dependent on negligence). Absolute nuisance refers to an act that is either intentional or abnormally dangerous due to the particular hazards involved. Ohio courts have not considered whether fracking constitutes an abnormally dangerous activity. However, it is unlikely they would do so because no U.S. court to date has held that it constitutes an "abnormally dangerous activity."

Two cases in Pennsylvania, however, survived motions to dismiss after the plaintiffs alleged strict liability based on the "ultra-hazardous" nature of fracking.³⁶¹ Both cases involved allegations of groundwater contamination due to the presence of fracking fluids. In both, the court denied the defendant gas production company's motions to dismiss on the grounds that "the determination of whether or not an activity is abnormally dangerous is fact-intensive," and therefore, it is more appropriate to wait until after discovery before making the determination.³⁶² This shows that some courts are not willing to state affirmatively that fracking is not "abnormally dangerous."

In contrast, a qualified nuisance is premised on negligence.³⁶³ A qualified nuisance is a lawful act performed so carelessly or negligently that it creates an unreasonable risk of harm, resulting in injury to another.³⁶⁴ A qualified nuisance claim may involve the negligent maintenance of a condition that creates a risk of harm which leads to injury.³⁶⁵

In Amore v. Ohio Turnpike Commission, the court held that a highway addition, which brought travel lanes sixty-five feet closer to Amore's home, constituted an absolute nuisance, rather than a qualified nuisance, because the

^{356.} See Taylor v. City of Cincinnati, 55 N.E.2d 724, 730–31 (Ohio 1944); see also Kramer v. Angel's Path, L.L.C., 882 N.E.2d 46, 52 (Ohio Ct. App. 2007).

^{357.} Banford, 932 N.E.2d at 317.

^{358.} Kramer, 882 N.E.2d at 52.

^{359.} *Id.* (internal citations omitted).

^{360.} See Phillips Petroleum Co. v. Vandergriff, 122 P.2d 1020, 1021 (Okla. 1942) (demonstrating that oil and gas wells are not "nuisances per se"); see also McGregor v. Camden, 34 S.E. 936, 937 (W. Va. 1899) (same).

^{361.} See Roth v. Cabot Oil & Gas Corp., 919 F. Supp. 2d 476, 485 (M.D. Pa. 2013); see also Berish v. Sw. Energy Prod. Co., 763 F. Supp. 2d 702, 703 (M.D. Pa. 2010).

^{362.} Id.

^{363.} *Id.* at 53 (internal citation omitted).

^{364.} Id. (internal citations omitted).

^{365.} Id. at 732-33 (internal citations omitted).

construction performed was intentional, rather than negligent or deficient in some manner.³⁶⁶ The placement of the new lanes resulted in increased traffic noise and increased visibility of the highway.³⁶⁷ In this context, "intentional" does not mean that the commission intentionally produced the nuisance (excessive noise), simply that they intentionally initiated the act that gave rise to the nuisance—building the highway.

This distinction is important because of the uncertainty regarding the applicability of nuisance actions to hydraulic fracturing. For example, if an oil or gas production company constructs a well pad directly in front of a plaintiff's home, the construction and operation of which results in substantial noise and an obstructed view of his or her lake, the plaintiff would need to allege an "absolute nuisance." In contrast, if an oil or gas production company constructs a faulty well pad that leaks fluid and contaminates plaintiff's groundwater, the plaintiff would need to bring a claim alleging a "qualified nuisance." Although the case law is sparse, the rapid pace of shale development in Ohio may lead to an increase in the number of nuisance claims.

Dissenting landowners will have difficulty succeeding in a nuisance action against an oil and gas company when their claim concerns the location and operation of the well. For instance, in Natale v. Everflow Eastern, Inc., the Eleventh District Court of Appeals in Ohio held that the plaintiff, Natale, could not rely on the alleged violation of a local ordinance to support his claim for qualified nuisance.³⁶⁸ In this case, the plaintiff landowner brought suit against an oil and gas producer who had built an injection well and gas storage tanks on his next-door neighbor's property.³⁶⁹ Natale claimed that the offensive smell, sight, and noise emanating from the well and tanks deprived him of the enjoyment and use of his property. 370 Further, Natale alleged that Everflow was liable for a qualified nuisance based on negligence per se because Everflow violated a Warren City ordinance, which provided that "no person shall operate any oil or gas well in the city in such a manner as to be injurious, noxious, offensive, or dangerous to the health, safety, welfare, or property of others."³⁷¹ However, the court rejected this argument, explaining that not every violation of a provision of law constitutes negligence per se.³⁷² Instead, Everflow's liability would be determined by applying the test of due care as exercised by a reasonably prudent person under the circumstances.373

^{366.} See Amore v. Ohio Turnpike Comm'n, 955 N.E.2d 410, 415–16 (Ohio Ct. App. 2011) (internal citation omitted).

^{367.} Cf. id.

^{368.} See Natale v. Everflow E., Inc., 959 N.E.2d 602, 608 (Ohio Ct. App. 2011).

^{369.} Id. at 605.

^{370.} Id.

^{371.} Id. at 609.

^{372.} Id.

^{373.} Id.

Further, the court did not believe that Natale presented evidence demonstrating that he was unreasonably deprived of the use and enjoyment of his land, aside from occasional sleep disturbance and an odor of oil which is "no different from any oil-well operation."³⁷⁴ Without evidence of a defect, Everflow's routine operation of the well did not create an unreasonable risk of harm nor did it produce a significant injury.³⁷⁵ Thus, Natale could not maintain a qualified nuisance claim based on negligence.³⁷⁶

The Natale case suggests that Ohio landowners, dissenting or otherwise, will have difficulty succeeding in a nuisance action against an oil and gas company when their claim concerns the location and operation of the well. Because the Ohio DOGRM has exclusive regulatory authority over the wells' location and operation, landowners cannot rely on local ordinances or on common law nuisance claims based on those ordinances to protect them.³⁷⁷ The *Natale* court did suggest that a qualified nuisance action might be available with proof that a well does not meet the normal limits required by the Ohio Revised Code, Ohio Administrative Code, and regulations prescribed by the Ohio DNR.³⁷⁸ However, this level of evidentiary proof is difficult for a landowner to obtain.³⁷⁹ Expert testimony is expensive, especially when viewed through the lens of a typical nuisance claim in which no surface property has been disturbed. If Ohio courts continue to follow *Natale*, a typical nuisance claim involving a foul smell or annoying sound likely will not survive summary judgment without some evidence that the well is not operating within the limits of Ohio's regulatory system.

Although nuisance has not usually been a successful avenue for redress by dissenting landowners, it may be useful in some limited circumstances. For example, in *Butts v. Southwestern Energy Production Co.*, the plaintiff alleged private nuisance due to "excessive noise and light" and "water contamination" due to defendant's oil and gas production operations. ³⁸⁰ The plaintiffs' complaint alleged that they had been unable to enjoy their home since 2009 (when drilling commenced) due to the defendant's drilling of a hydraulically fractured well. ³⁸¹ A federal judge denied the defendant's motion for summary judgment because the significance of the invasion caused by "excessive noise and light" was an

^{374.} Id. at 610.

^{375.} See id. at 612.

^{376.} See id.

^{377.} Heidi Gorovitz Robertson, When States' Legislation and Constitutions Collide with Angry Locals: Shale Oil and Gas Development and Its Many Masters, 41 Wm. & MARY ENVTL. L. & POL'Y REV. 55, 63, 76 (2016).

^{378.} Id. at 76.

^{379.} Natale, 959 N.E.2d at 610.

^{380.} Butts v. Sw. Energy Prod. Co., No. 3:12·CV·1330, 2014 WL 3953155, at *3–4 (M.D. Pa. Aug. 12, 2014).

^{381.} Cf. id. at *4.

issue for the jury to decide.³⁸² Here, the plaintiff's lay testimony was sufficient to survive the defendant's attempt to have the case dismissed through summary judgment, despite the absence of an objective standard, such as decibel levels or acoustic analysis.³⁸³ Landowners may at least take comfort in the knowledge that their own testimony regarding the extent of harm to their ability to use their property may be sufficient for a court to allow their complaint to stand.

In *Roth v. Cabot Oil & Gas Corporation*,³⁸⁴ a case brought in federal court in Pennsylvania, the plaintiff, Roth, alleged private nuisance when the defendant, Cabot Oil & Gas, allowed gas wells to "exist and operate in a dangerous and hazardous condition," causing discharge of chemicals into groundwater supply.³⁸⁵ The court concluded that the plaintiff's complaint contained sufficient facts to survive a motion to dismiss because the plaintiff produced evidence to demonstrate that the defendant's alleged actions were either intentional and unreasonable or unintentional and negligent.³⁸⁶ Here, the plaintiff's evidence of the alleged negligent conduct, including changes in water quality before and after drilling and a description of defective casings,³⁸⁷ was sufficient to survive a motion for dismissal.

In *Hiser v. XTO Energy Inc.*, the plaintiff, Hiser, filed suit against the defendant, XTO Energy, seeking damages for harm to her home allegedly caused by seismic vibrations from the defendant's nearby drilling operations. The court denied the defendant's motion for summary judgment, finding that Hiser had provided sufficient circumstantial evidence in the form of lay testimony (from a general engineer) to meet the pleading burden on a nuisance claim. 389

The trespass and nuisance landscape for hydraulic fracturing remains largely undeveloped.³⁹⁰ Based on prior nuisance cases, only landowners who can prove that an operator sent large quantities of pollution to the surface and that this pollution harmed their property, have a strong chance of success in a nuisance claim.³⁹¹ But even to the extent that there are glimmers of possibility within the area of nuisance, the cases thus far have dealt only with potential nuisance affecting the surface, not the subsurface of a landowner's land. Landowners overlying hydraulically fractured wells, as well as neighboring mineral and surface owners alleging nuisance or trespass from subsurface pollution or fractures, may face

^{382.} Id.

^{383.} *Id.* at *3–4.

^{384.} Roth v. Cabot Oil & Gas Corp., 919 F. Supp. 2d 476, 490 (M.D. Pa. 2013).

^{385.} Id.

^{386.} Id.

^{387.} Id. at 483.

^{388.} Hiser v. XTO Energy Inc., 2012 WL 3542009, at *1 (E.D. Ark. Aug. 14, 2012).

^{389.} Id.

^{390.} Cf. Hannah Wiseman, Beyond Coastal Oil v. Garza: Nuisance and Trespass in Hydraulic Fracturing Litigation, 57 The Advocate 8, 11 (2011).

^{391.} Id.

greater difficulty in establishing a claim for nuisance.³⁹² A dissenting landowner, for whom the well-head is not on the surface of his or her land and the well-bore is located a mile or so beneath his or her land, may have even more difficulty showing that a hydraulically fractured well, far beneath the surface, has substantially interfered with his or her use and enjoyment of the land.

3. Constitutional Challenges to a Mandatory Pooling or Forced Unitization Order

When presented with the idea that the government could include a landowner's land in a drilling unit against that landowner's wishes, the most obvious constitutional challenge may be the Fifth Amendment to the U.S. Constitution. People likely assume a taking has occurred by exercise of eminent domain or by a regulatory taking for which a public purpose must be identified and just compensation paid. This section addresses briefly some of the obvious constitutional challenges a landowner might consider following the mandatory pooling or forced unitization of his or her land.

Property professors are well-known for characterizing property ownership as a collection of rights depicted by a "bundle of sticks." This illustration is rooted in the idea that property ownership includes a collection of rights associated with the property: the right to use, the right to exclude, and the right to control its disposition. Each constitutes a separate stick in the collective bundle. A "taking" is compensable under the Fifth Amendment if property is taken for public use. ³⁹³ But, what amount and which "sticks" must be taken to constitute a compensable taking, particularly in the world of oil and gas production?

If a mandatory pooling or unitization order caused the taking of just one complete stick—such as the right to exclude non-owners from one's land or the right to control the use of one's land—might that count as a taking of property for which just compensation would be due? Under the circumstances of a dissenting landowner, the landowner can still use his or her land for most purposes because the oil and gas production takes place so far beneath the landowner's land that it is usually completely undetectable on the surface.³⁹⁴ Assuming the landowner can still use the surface for anything he or she chooses, what has been taken?

Perhaps the right to control the disposition of one's property—a standard stick in the property rights bundle—has been taken. Although a landowner can decide, within reason and within legal limits, how the property will be used, compulsory pooling or unitization arguably takes away at least part of this right. However, the landowner might still be able to decide to use the surface of the land for a house, a campsite, or a bird sanctuary. But, in the event of a mandatory pooling or compulsory unitization order, the dissenting landowner can no longer decide to bar

^{392.} Id.

^{393.} U.S. CONST. amend. V.

^{394.} See Pa. Coal Co. v. Mahon, 260 U.S. 393 (1922).

drilling from occurring beneath it. This view that property rights in the bundle may be severed and an individual stick may be taken has been called "conceptual severance."³⁹⁵ It allows the splitting, or severing, of property rights into smaller pieces which may be taken under the Fifth Amendment. For example, if a person retains ownership and use of the property but can no longer use it in a specific, desired way, is the taking of the right to use the property as the person chooses sufficient to constitute a taking under the Fifth Amendment?

The landowner's right to exclude is also a right in the proverbial bundle of sticks. Mandatory pooling and forced unitization of the dissenting landowner's land does not take away the right to exclude non-owners from the surface. However, it does prevent the landowner from barring a non-owner from drilling under the land, far beneath the surface. Has the whole right to exclude been taken by virtue of pooling or unitization? Maybe not. But if you believe the landowner has rights that extend far beneath the surface, then the right to exclude non-owners deep underground has been taken.

Applying the idea of conceptual severance, the taking of any individual "stick" would constitute a taking of property under the Fifth Amendment. The government would be required to compensate individuals whose property rights were adversely affected by governmental regulations. Suffice to say, courts have not fully embraced the conceptual severance theory of property, and many feel that courts have done little to clarify a position regarding conceptual severance and takings law.³⁹⁶

a. Evolution of U.S. Supreme Court Takings Cases Related to Drilling

Before the seminal *Pennsylvania Coal* case, courts generally construed a "taking" as the outright physical occupation of the whole (land) unit of property by the government.³⁹⁷ However, in *Pennsylvania Coal*, the U.S. Supreme Court recognized that when a governmental action interferes with a property owner's use and this interference results in economic harm to the owner, this interference constituted a taking of property if the regulation "goes too far." While the meaning of "too far" has been subject to vigorous debate, the *Pennsylvania Coal* decision recognized that a governmental action can constitute a taking when it interferes with enough of the whole property to become objectionable. The question of "how far" is a matter of degree.³⁹⁹

^{395.} Margaret Jane Radin, *The Liberal Conception of Property: Cross Currents in the Jurisprudence of Takings*, 88 COLUMBIA L. REV. 1667, 1676 (1988) (describing the emergence of conceptual severance).

^{396.} Courtney C. Tedrowe, *Conceptual Severance and Takings in the Federal Circuit*, 85 CORNELL L. REV. 586, 595–96 (2000).

^{397.} Id. at 596.

^{398.} Pa. Coal Co. v. Mahon, 260 U.S. 393 (1922).

^{399.} Id.

How does this relate to the bundle of sticks? The Court recognized that when one, or several, of the "sticks" are interfered with, this could constitute a taking in certain circumstances. 400 Thus, the Court took one step toward embracing conceptual severance and abandoning the traditional physical occupation standard when property rights are viewed in context of the Takings Clause.

Subsequent courts took differing approaches in applying *Pennsylvania Coal*. For instance, in 1978, the *Penn Central* Court found that a city law prohibiting a company from adding an office building on top of an historical landmark did not constitute a taking. ⁴⁰¹ The Court based its decision on a multi-factor, ad hoc test. In 1987, the *Keystone* Court found that a state law prohibiting a coal company from mining its support estate—the rights it had to the subsurface minerals—did not constitute a taking because of the relatively small economic value of the support estate compared to the whole estate. ⁴⁰² In 1992, the *Lucas* Court found that a state law prohibiting a landowner from developing his coastal property did constitute a taking because the regulation "denied all economically beneficial or productive use of land." ⁴⁰³ However, the *Lucas* ruling did not shed much light on conceptual severance because the issue involved an extreme case of devaluation of the entire estate, rather than a distinct portion of it. However, Justice Scalia's dicta in the case implied that the Court might apply conceptual severance in the future. ⁴⁰⁴

b. Recent Supreme Court Treatment of Conceptual Severance

Overall, with regard to the current state of takings law, the Supreme Court regards total destruction of economic or productive use of property as a taking which requires compensation. However, when the situation is ambiguous (partial destruction of a single "stick"), courts seem to apply the ad-hoc *Penn Central* balancing test, evaluating: the economic impact of the regulation on the owner; the extent to which regulation interfered with reasonable investment-backed expectations; and the character of the government action involved. However, when the supreme Court regards to taking supreme Court reg

In 2002, the Court addressed a conceptual severance argument in *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency.* Here, a state regulation imposed a thirty-two-month moratorium on development within the Lake Tahoe basin. A group of real estate owners alleged that, like in *Lucas*, the regulatory actions constituted a per se taking of their property without

^{400.} Cf. id.

^{401.} Penn Cent. Transp. Co. v. City of N.Y., 438 U.S. 104, 138 (1978).

^{402.} Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 485 (1987).

^{403.} Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1030 (1992).

^{404.} Id.

^{405.} Id. at 1030-31.

^{406.} See Courtney C. Tedrowe, Conceptual Severance and Takings in the Federal Circuit, 85 CORNELL L. REV. 586, 598 (2000); see also Pa. Coal Co. v. Mahon, 260 U.S. 393 (1922).

^{407.} Tahoe-Sierra Pres, Council, Inc. v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 306 (2002).

compensation during the thirty-two-month period. The Court rejected the conceptual severance argument "because it ignores *Penn Central*'s admonition that in regulatory takings cases we must focus on 'the parcel as a whole." It reasoned that when any property right ("stick") is taken, it is taken in its entirety; thus, the relevant question is whether the property is partially or entirely taken. Unless there was a taking of the whole property, the *Penn Central* framework applies. This case-specific factual analysis is not the determinative rule-like scheme Professor Radin's conceptual severance theory promotes. How the Supreme Court will treat the conceptual severance theory in circumstances like those of the dissenting landowner is unclear at best; the Court prefers to focus on the regulation's effect on the cumulative bundle of sticks, rather than on each individual stick or property right.

c. Judicial Unwillingness to Find a Taking

Courts have not struck down mandatory pooling and forced unitization statutes as unconstitutional under the Takings Clause. Rather, courts across the country have repeatedly upheld mandatory pooling and forced unitization statutes as a valid exercise of the state's police power.

For example, in Anderson v. Corporation Commission of Oklahoma, the Supreme Court of Oklahoma upheld the state's pooling and unitization statutes against a constitutional challenge. 408 In Anderson, the plaintiff's property was forced into a single drilling unit by the Corporation Commission of Oklahoma, the governmental body responsible for issuing pooling and unitization orders. As with many pooling and unitization statutes, the law dictated the plaintiff's compensation if he chose to "participate" in the drilling unit. The plaintiff challenged the validity of the statute, alleging that it amounted to an unconstitutional taking of his property. The court rejected this argument, holding that the order "was a proper exercise of the police power in furtherance of conservation of natural resources," and that "the order herein and the statute authorizing it were not invasions of the rights of [the plaintiff], as guaranteed by the State and Federal Constitutions."⁴⁰⁹ In reaching this conclusion, the court explained that "'[a] state has constitutional power to regulate production of oil and gas so as to prevent waste and to secure equitable apportionment among landholders of the migratory gas and oil underlying their land, fairly distributing among them the costs of production and of the apportionment." 410

Similarly, in *Superior Oil Co. v. Foote*, the Supreme Court of Mississippi held that Mississippi's compulsory pooling statute was within the police power of the state to prevent waste, to conserve natural resources, and to protect correlative

^{408.} Anderson v. Corp. Comm'n, 327 P.2d 699, 702 (Okla. 1957).

^{409.} Id. at 703.

^{410.} Id. (quoting Hunter Co. v. McHugh, 320 U.S. 222, 227 (1943)).

rights of the owners in a common source of supply. 411 This case arose out of an order by the Mississippi Oil and Gas Board that pooled four individual landowners' properties into a single drilling unit established by the Superior Oil Company. The landowners opposed the order, challenging the constitutional basis of the statute authorizing the Board's pooling order. However, the court rejected the landowners' challenge, holding that the law was a proper exercise of the state's police power, explaining that "[t]he police power of the state includes not only regulations to promote public health, good morals, and good order, but also the right to regulate and to promote development of industry and utilization of natural resources in order to add to the wealth and prosperity of the state."412 The court further explained that "courts have consistently held that the state may enact regulatory laws for and prescribe methods of extracting oil and gas for the purposes of conservation, the efficient utilization of reservoir energy, and the protection of the correlative rights of all owners in a common source of supply."⁴¹³ Based upon this reasoning, the court concluded "the Board power to require pooling, is within the police power of the state and is constitutionally valid."414

CONCLUSION

Most people would not expect that a landowner does not have control to decide whether oil and gas production will take place beneath his or her land. This article explains some of the reasons for the surprising truth that a landowner's refusal to allow his or her land to be included in a drilling unit can be overruled by order of a state agency.

The state agency can force a landowner's land into a drilling unit. By forcing the land's inclusion in a drilling unit, the state agency prevents the dissenting landowner from effectively vetoing his or her neighbors' efforts to develop oil and gas resources when the neighbors cannot assemble an appropriately sized and shaped drilling parcel without the dissenter's land. This is a state-sanctioned preference for the neighbors' correlative rights (to develop the underground resource) over the dissenting landowner's property right (to control how his or her land is used).

This article explored the dissenting landowner's opportunities to reduce the likelihood that his or her land will be forced into a drilling unit or pool by state order. For example, provided the land is owned as a unified estate, the dissenting landowner may create a conservation easement and vest control of his or her lands to an organization that would not allow a subsequent owner of the land to join a drilling unit voluntarily. Although this may help prevent voluntary

^{411.} Superior Oil Co. v. Foote, 59 So. 2d 85, 93 (Miss. 1952), error overruled, 59 So. 2d 844 (Miss. 1952).

^{412.} Id. (internal citations omitted).

^{413.} Id.

^{414.} Id. at 97.

inclusion of the land in a drilling unit, it is unlikely to protect a dissenting landowner against state ordered inclusion because a conservation easement could be terminated by a state eminent domain action.

The landowner may also challenge the land's inclusion in a drilling unit by participating in the administrative process during the period when the state agency is working to add land to a drilling unit or pool against the landowner's wishes. The procedural rules make it difficult for a landowner to succeed largely due to an imbalance in access to information and to an administrative process that favors developers. The dissenting landowner could challenge the necessity of the order, alleging that the size and shape of the parcel is already sufficient without the dissenter's land, or that the developer failed to attempt to reach a voluntary agreement on a just and equitable basis. The landowner can force the developer to address legitimate safety concerns. He or she can also force the state agency to follow its own rules regarding notice to the landowner of state action that are potentially adverse to the landowner's interests.

In terms of post-inclusion opportunities for redress, the dissenting landowner may attempt to bring common law claims for trespass or nuisance, though both are unlikely to succeed. Trespass is difficult to prove if it occurs close to a mile beneath the surface, and even if proved, damages would be minimal without actual harm to the surface. Nuisance would be similarly difficult. The imposition on the landowner's use and enjoyment of the property would arguably be small when it occurs deep beneath the surface. The imposition would also be mainly an interference with more ephemeral rights—like the right to decide how the property is use—than with its actual use and enjoyment. Even if these tools provide some limited remedy or redress, they do not assist the dissenting landowner in preventing the involuntary adding of the land to a drilling unit by the state.

Finally, the dissenter will not find relief in the Constitution's Fifth Amendment takings provision. Although it may seem like a taking of, at least, the landowner's right to decide how the land is used, courts often hold otherwise. To date, courts have held that the state's ordered inclusion of a dissenter's land in a drilling unit or pool does not constitute a taking; instead, it is an exercise of the state's police power and a legitimate protection of correlative rights and conservation of resources.

The statutes and regulations on pooling and unitization set up systems and processes that create incentives for landowners to join pools or units voluntarily. The laws include financial disincentives for their refusal. These incentives (or disincentives) confuse the data on voluntary inclusion because they push landowners towards voluntarily joining the drilling unit and create an illusion that a given project has more support than is real.

What can dissenters do? They can use the processes provided to them—challenging pooling or unitization orders on necessity, safety, and process. They can also attempt to prevent pooling by investigating conservation easements, and they can push the common law and constitutional law envelopes to seek redress

after the fact on the grounds that important core property rights have been violated. Perhaps most importantly, they can push legislators and agency-based regulators to improve the processes for and grounds on which to challenge pooling and unitization orders.

Finally, people are generally unaware that a government agency can order land to be included in a drilling project against the landowner's wishes. Dissenting landowners can and should change that. They can speak out, making their circumstances more widely known and understood. They might even find support for increasing their involvement in decision-making processes that effect their property rights.