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Sins of the Father

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SINS OF THE FATHER[†]

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I. INTRODUCTION

Are the sins of previous generations of energy development, such as with oil and gas, being visited on the newest forms of energy? That is the question this Article attempts to address. Specifically, this Article will focus on the problems created by the severance of the mineral estate from the surface and the related dominant (mineral)–servient (surface) estate doctrine ("dominant-servient estate doctrine").

Hydrofracturing or "fracking" for oil and natural gas has placed the problems of split estates in the spotlight more than they have been in generations. People have been shocked to find drill rigs in their backyards, school playgrounds, and parks. They have been even more appalled to learn that the law of mineral severance has evolved over time to hold that they, as surface owners, have little or no control over such choices by the holders of the mineral estate. The ensuing out-

† "[The Lord God] will by no means clear the guilty, visiting the iniquity of the fathers on the children and the children's children, to the third and fourth generation." *Exodus* 34:7.

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rage may ultimately change the current balances in severance law; fracking moratoriums, bans, and lawsuits have slowed fossil fuel development somewhat. However, the unintended casualty in this fray may be renewable energy.

Fossil fuel interests are entrenched and well-funded, so state legislators would have difficulty turning back the history of ownership rights in fossil fuels. However, in the furor against severance, legislators have found it easier to control unestablished renewable energy resources and to enact bans on their severance. While banning severance of wind may be good for many reasons, it becomes problematic if wind also is relegated to a servient estate position in relation to fossil fuel development. This additional handicap will make it more difficult for these new, fledgling energy sources to gain a toehold and survive in competitive energy markets.

This Article will first provide some general background about severance and the related doctrine of dominant–servient estates. Next, it will address oil and gas severance specifically. Third, it will track the parallels and distinctions between the history of wind severance and the oil and gas history set out in Section II. Finally, Section IV will address the problems with the current responses to wind severance.

II. Severance

The focus of this Article will be a comparison of wind rights against oil and gas rights. Currently, in most U.S. states, oil and gas rights are categorized as mineral interests that can be owned separately, or "severed," from ownership of the surface estate.[1] Consequently, we will

1. For examples of state treatment of oil and gas interests, *see, e.g.*, Ohio Oil Co. v. Indiana, 177 U.S. 190 (1900); Brown v. Humble Oil & Ref. Co., 83 S.W.2d 935 (Tex. 1935); Wright v. Carter Oil Co., 233 P. 835 (Okla. 1923); Bernstein v. Bush, 177 P.2d 913 (Cal. 1947); Alabama Dept. of Transp. v. Land Energy, Ltd., 886 So.2d 787 (Ala. 2004); Cranston v. Miller, 185 S.W.2d 920 (Ark. 1945); Gerrity Oil & Gas Corp. v. Magness, 946 P.2d 913 (Colo. 1997); Brooke v. Dellinger, 17 S.E.2d 178 (Ga. 1941); Brown v. Spillman, 155 U.S. 665 (1895); Patterson v. May, 29 N.W.2d 547 (Iowa 1947); Powell v. Prosser, 753 P.2d 310 (Kan. Ct. App. 1988); Lindsey v. Wilson, 332 S.W. 2d 641 (Ky. 1960); Rohner v. Austral Oil Exploration Co., 104 So.2d 253 (La. Ct. App. 1958); Goss v. C.A.N. Wildlife Trust, Inc., 852 A.2d 996 (Md. 2004); Krench v. State, 269 N.W. 131 (Mich. 1936); Hughes v. Thornton, 193 N.W. 723 (Minn. 1923); Sun Oil Co. v. Nunnery, 170 So. 2d 24 (Miss. 1964); Stokes v. Tutvet, 328 P.2d 1096 (Mont. 1958); Reed v. Williamson, 82 N.W.2d 18 (Neb. 1957); Toth v. Bieglow, 64 A.2d 62 (N.J. 1949); Amoco Prod. Co. v. Carter Farms Co., 703 P.2d 894 (N.M. 1985); Frye v. Arrington, 292 S.E.2d 772 (N.C. 1982); Feland v. Placid Oil Co., 171 N.W.2d 829 (N.D. 1969); Yaquina Bay Timber & Logging Co. v. Shiny Rock Mining Corp., 556 P.2d 672 (Or. 1976); Hamilton v. Foster, 116 A. 50 (Pa. 1922); Broadhurst v. Am. Colloid Co., 177 N.W.2d 261 (S.D. 1970); J.M. Huber Corp. v. Square Enters., Inc., 645 S.W.2d 410 (Tenn. Ct. App. 1982); Smith v. Linmar Energy Corp., 790 P.2d 1222 (Utah Ct. App. 1990); Holbrook v. Cont'l Oil Co., 278 P.2d 798 (Wyo. 1955). Louisiana follows the more common model for mineral rights worldwide: the minerals are owned by the state and severance is not allowed at all. Developers only receive a servitude or easement to access the minerals. Therefore, minerals in place remain the real property of the state, and individuals can only gain ownership of them as personal

start with a discussion of the origin of severance and the resulting legal consequences.

A. *Short History of Mineral Severance*

In the early days of mining, metals were considered wondrous, divine, and royal.[2] One of the original meanings of "royalty" was the right or prerogative of the sovereign to receive a percentage of the products or proceeds of mining projects within the realm.[3] Because of this, the precious minerals found on a person's land always belonged not to the individual, but to the ruler.[4] In many countries around the world, mineral rights remain the property of the sovereign and may only be leased, not owned, by those seeking to develop a resource.[5]

The Greeks were one of the first cultures to encourage private prospecting instead of purely state-based mining.[6] The government would grant leases to citizens to mine their tracts of land, then the lessees were required to pay a premium and a royalty to Athens in return.[7] The lessee then could keep the remainder of the extracted materials.[8] While the sovereign still owned the real property of the minerals in the ground, prospectors were able to acquire a personal property interest in the minerals themselves upon their extraction.[9]

The concept of granting a private property fee estate in minerals that is entirely separate from the surface is thought to have originated in the area that now encompasses modern Germany.[10] In this region, separate mining laws were established independent from the ordinary laws of property.[11] These new laws allowed subsurface estates to be owned separately from any estate in the soil or land itself.[12] The rationale for this new construct was that the exploitation of "subterranean deposits" was "carried on neither within the same boundaries

property once they have been extracted. Frost-Johnson Lumber Co. v. Salling, 91 So. 207 (La. 1920).

2. K.K. DuVivier, *Animal, Vegetable, Mineral-Wind? The Severed Wind Power Rights Conundrum*, 49 WASHBURN L.J. 69, 77 (2009).

3. *Id.* (citing BLACK'S LAW DICTIONARY 1445 (9th ed. 2009)).

4. *Id.*

5. Christopher S. Kulander, *Common Law Aspects of Shale Oil and Gas Development*, 49 IDAHO L. REV. 367, 369 (2013) (citing EUGENE KUNTZ, KUNTZ LAW OF OIL & GAS, § 2.1, 59 (2012)).

6. John C. Lacy, *Going with the Current: The Genesis of the Mineral Laws of the United States*, 41 ROCKY MTN. MIN. L. INST. 10, § 10.01(3)(a) (1995).

7. *Id.*

8. *Id.*

9. *Id.*

10. *Id.* § 10.02(1).

11. ROSSITER W. RAYMOND, RELATIONS OF GOVERNMENTS TO MINING, H.R. DOC. NO. 40-54, at 189 (1869).

12. *Id.*

nor by the same persons as agriculture," so separate and distinct property regimes could exist without conflict.[13]

In early England, precious metals and some non-precious metals generally belonged to the crown.[14] But aside from these metals, the fee owner of the land generally also held the mineral rights to that land.[15] When early English cases permitted severance of these rights, they noted that allowing a separate mineral estate was generally considered an "abrogation" of the common law right of absolute ownership by the surface owner.[16]

While the idea of "royalties" came to the United States early through the royal charters of the colonies reserving one-fifth of mined minerals to the crown,[17] the concept of severance and private ownership of minerals in place was purely by accident.[18] Gold was discovered near Coloma, California, in January of 1848.[19] The military governor of the area refused to assert any claim to the minerals on behalf of the United States, instead "declar[ing] the miners free from official control."[20] This went contrary to official policy, but was not done for any rebellious purposes—the miners simply outnumbered government soldiers 1,000 to one.[21]

In the decades after the California gold rush, the U.S. government decided it did not have the resources to collect royalties from miners.[22] However, the government did hope to reap financial benefits from selling patents to unsettled western territories that otherwise seemed unproductive.[23] The mechanism established in the 1872 Min-

13. "[T]he miners dig almost exclusively in mountains otherwise unproductive, and in valleys invested in gloom, they do either slight damage to the fields or none at all. Lastly, where woods and glades are cut down, they may be sown with grain after they have been cleared from the roots of shrubs and trees." GEORGIUS AGRICOLA, DE RE METALLICA 71 (1556) (Herbert Clark Hoover and Lou Henry Hoover trans., Dover Publications, Inc. N.Y. 1950).

14. H.R. DOC. NO. 40-54, at 206–07.

15. *Id.* at 207; *see also* John C. Lacy, *The Historic Origins of the U.S. Mining Laws and Proposals for Change*, 10 NAT. RESOURCES, ENERGY & ENV'T L. 13, 10–15 (1995) (describing how the British system evolved from both Celtic and Roman origins).

16. H.R. DOC. NO. 40-54, at 189.

17. Phillip Wm. Lear & Stephanie Barber-Renteria, *Split Estates and Severed Minerals: Rights of Access and Surface Use after the Divorce (and Other Leasehold Access-Related Problems)*, 50 ROCKY MTN. MIN. L. INST. 10, § 10.02(1)(b) (2004).

18. ANTHONY SCOTT, THE EVOLUTION OF RESOURCE PROPERTY RIGHTS 219 (2008) ("In 1848 miners discovered gold in California, which Mexico had only recently transferred into American possession. The successful prospectors found themselves in a legal vacuum regarding the right to their finds. . . .").

19. The discovery of gold came about two weeks before the U.S. government acquired the territory from Mexico under the Treaty of Guadalupe Hidalgo. GREGORY YALE, LEGAL TITLES TO MINING CLAIMS AND WATER RIGHTS, IN CALIFORNIA, UNDER THE MINING LAW OF CONGRESS, OF JULY, 1866 17 (1867).

20. *Id.*

21. Lacy, *supra* note 6, § 10.04(1).

22. H.R. DOC. NO. 40-54, at 216.

23. *Id*. at 218.

ing Law allowed prospectors to stake claims for mineral rights, and then combined the surface and mineral estates into one unified fee when a patent was granted.[24] Recognizing that this system allowed valuable minerals to be passed from the public domain with virtually no benefit to the government, Congress changed its strategy after 1900, severing and reserving to the government coal and other minerals in patents under the Stock Raising Homestead Act and other land disposal statutes.[25]

B. *Problems with Severance*

In British precedents, the custom of allowing severance was called "bounding," and the excuse for allowing this abrogation of prior law was (1) compensation directly to the surface owner and (2) "the benefit to the public" of having the mineral extracted. As one U.S. report from the mid-1800s explains:

> *Bounding is a direct interference with the common law rights of property*: it takes from the owner of the land, who is unable or unwilling at a particular moment to dig for tin under his waste land, the right to do so . . . and it vests in a stranger . . .; it empowers the stranger not only to extract the mineral from beneath the surface, but to enter on the surface, and cumber with machinery, buildings, and refuse stuff, which the operations below occasion, and all of this without the least regard to the convenience or interests of the owner. *The only things which make this reasonable are the render of the toll tin to the owner* [a kind of royalty-in-kind payment to the surface owner], *and the benefit to the public* secured thereby in the extraction of the mineral from the bowels of the earth. . . .[26]

One of the justifications for allowing this abrogation of the common law of England no longer exists in the United States. As noted above, U.S. government land grants severed the ownership of the minerals from ownership of the surface, so many U.S. surface owners do not receive any compensation in return for development of the minerals beneath their lands. In addition, many surface owners might argue that the surface areas being violated by mineral development are not "waste land."

Furthermore, both mining operations and surface uses have changed dramatically since the law of severance evolved. Many min-

24. Act of May 10, 1872, 30 U.S.C. § 22 (2010).

25. Stock-Raising Homestead Act of 1916, 43 U.S.C.A. § 299 (West 2007). The Stock-Raising Homestead Act granted a homesteader a patent to the surface estate, but reserved the right to the coal, oil, gas, and hardrock mineral rights to the United States. Matthew L. King, *Prospectors' Access to Stock-Raising Homestead Act Lands*, 20 COLO. LAW. 247, 247 (1991). *See also* Laura H. Burney, *A Pragmatic Approach to Decision Making in the Next Era of Oil and Gas Jurisprudence*, 16 J. ENERGY NAT. RESOURCES & ENVTL. L. 1, 59–60 (1996).

26. H.R. DOC. NO. 40-54, at 207, 210–11 (citing Rogers v. Brenton, 10 Q.B. 26) (emphasis added).

ing methods involve extensive use of the surface and sometimes permanent contamination, while the shift of our society from agricultural to urban means that more and more of the surface estate is employed for valuable and intense surface uses, for residences and industry purposes. Consequently, the myth of noninterference and simple coexistence has dissolved, and the law of split estates has recognized increased intensity in its long history of conflict between separate mineral and surface estate owners.[27] The current fracking debate carries on this long tradition.[28]

C. *Dominant-Servient Estate Doctrine*

As the demand for fossil fuels and minerals grew, severed mineral estates earned nearly uncontested dominance over surface estates.[29] Again, this shift toward mineral dominance evolved gradually over many years. "[F]rom the earliest days of the common law," a severed mineral estate obtained an implied right to interfere with the surface owner's activities.[30] Yet, in these early days, conflicts were seen as minimal because "the value of [an] estate lay . . . in the arable qualities of the surface,"[31] and the mining was to be on waste lands.[32]

During these early times, "the attention of the courts was fixed upon the surface," and "the owner of the land" was the party that the law recognized as having "the right of designating the reasonable location of the one right of way by necessity . . . ."[33] However, around the

27. *See generally* Bruce M. Kramer, *The Legal Framework for Analyzing Multiple Surface Use Issues*, *in* SEVERED MINERALS, SPLIT ESTATES, RIGHTS OF ACCESS, AND SURFACE USE IN MINERAL EXTRACTION OPERATIONS, Paper 2 (Rocky Mtn. Min. L. Found. 2005). *See also*, Donald N. Zillman, *The Common Law of Access and Surface Use in Oil, Gas and Mining*, *in* SEVERED MINERALS, SPLIT ESTATES, RIGHTS OF ACCESS, AND SURFACE USE IN MINERAL EXTRACTION OPERATIONS, Paper 1A (Rocky Mtn. Min. L. Found. 2005). Conflicts exist even when the U.S. government is both surface and mineral owner if separate agencies of the U.S. government manage the minerals and the surface and these agencies have different missions. Lear & Barber-Renteria, *supra* note 17, § 10.02(3)(a). *See also* Bureau of Land Management, Public Land Statistics (2012), http://www.blm.gov/public_land_statistics/pls12/pls2012-web.pdf.

28. *See* Matthew T. Milam, *Texas Surface Damage Litigation*, 61 ADVOCATE-ENVTL. LITIG. 40, 44 (2012); Barclay Nicholson & Kadian Blanson, *Tracking Fracking Case Law: Hydraulic Fracturing Litigation*, 26 NAT'L RESOURCES & ENV'T 25, 29 (2011–2012).

29. *See* Gerald J. Schissler & Joy E. Hansen, 6-200 American Law of Mining § 200.02[1][b] (2d ed. 2013). *But cf.* discussion of the accommodation doctrine *infra* Part II.D.

30. "It is a well established doctrine from the earliest days of the common law, that the right to the minerals thus reserved carries with it the right to enter, dig and carry them away, and all other such incidents thereto as are necessary to be used for getting and enjoying them." Cowan v. Hardeman, 26 Tex. 217, 222 (1862).

31. Chartiers Block Coal Co. v. Mellon, 25 A. 597, 598 (Pa. 1893).

32. *See* H.R. DOC. NO. 40-54, at 210 (citing Rogers v. Brenton, 10 Q.B. 26) (suggesting the mining would be conducted on "waste land").

33. *Chartiers Block Coal*, 25 A. at 598.

turn of the twentieth century, this balance shifted as the Pennsylvania Supreme Court noted:

> The comparatively recent development of the sciences of geology and mineralogy, and the multiplication of mechanical devices for penetrating the earth's crust, have greatly changed the uses and the values of lands. Tracks that were absolutely valueless, so far as the surface was concerned, have come to be worth many times as much per acre as the best farming lands in the commonwealth, because of the rich deposits of coal, or iron, or oil, or gas known to underlie them at various depths.[34]

Thus, minerals took on a "quasi public character" because they were "absolutely essential to our common comfort and prosperity."[35] Even with this new emphasis on minerals, the Pennsylvania court still attempted to "apply the law as to give each owner the right to enjoyment of his property or strata without impinging upon the right of other owners."[36]

About two decades later, the Circuit Court of Ohio recognized an oil and gas operator's right to the "reasonable use of the surface on which to place derricks and other necessary machinery for drilling its wells."[37] The court's rationale for recognizing the mineral estate's access interest was based on an analogy to a similar right to support held by the surface owner.[38] While this case may be the first to use the dominant-servient terminology, in doing so the court continued to seek balance by noting that "[t]hese various estates are *mutually* dominant and servient. . . ."[39]

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34. *Id.*

35. *Id.* at 599.

36. *Id.* at 598. This case actually involved the right of the surface owner to reach oil and gas below a coal seam when that surface owner had conveyed the right to coal beneath the surface to another without explicitly reserving a right of access to lower formations. *Id.* at 598–99.

37. Chartiers Oil Co. v. Curtiss, 34 Ohio C.C. (n.s.) 106, 112 (1911), *aff'd*, 106 N.E. 1053 (1913).

38. "We do not hesitate to enforce the servitude for support, whether subjacent or adjacent, or to regulate the extent and manner in which it shall be rendered and enjoyed. With equal propriety and with equal ease we may enforce the servitude for access and regulate the extent and manner in which it shall be rendered and enjoyed." *Id*. at 111 (citing *Chartiers Block Coal*, 25 A. 597).

39. *Chartiers Oil,* 34 Ohio C.C. at 111 (emphasis added). However, one of the first uses of the dominant estate and servient estate terminology may also have come in an 1839 case dealing with surface waters. Hebert v. Hudson, 13 La. 54 (1839) (stating that the servient estate had an obligation to remove an embankment so the dominant estate could use the natural flow of waters). The Court of Appeals of Kentucky used the same language 16 years after *Chartiers Oil*, without quoting that case. It said: "[T]he oil and gas constituted the dominant estate granted in the lease executed by plaintiff, and the easements or rights over the surface was a servient estate and granted as merely surface rights to be used by the grantee in the exercise of the right to take and transport the oil and gas when found . . . ." Ky. Pipe Line Co. v. Hatfield, 3 S.W.2d 654, 654 (Ky. 1927).

Thus, courts have long recognized that the right to develop the mineral estate includes an implied right to interfere with the surface owner's activities. As the balance in earlier cases shifted toward the mineral estate, the language moved away from focusing on the surface owner's needs and instead allowed as much use of the surface "as necessary" for accessing and extracting the minerals.[40] In addition, at the pinnacle of the "dominant-servient estate" doctrine's reign, the focus was "unidimensional,"[41] primarily on the needs of the mineral estate owner. By using industry standards as the yardstick for reasonableness, courts guaranteed oil and gas operators access and excused the operators from all or most compensation to surface owners for damages.[42]

The precedents supporting the dominant-servient estate doctrine are perhaps strongest in the context of oil and gas development. Once oil and gas achieved the status of a severed mineral, it also gained the advantage of becoming the dominant estate over the surface. As with hard minerals, severance created an implied reservation of an access right to extract the severed resources.[43] To ensure access to these precious resources, the courts determined that policy called for the mineral estate to be the dominant estate, with an implied appurtenant easement to use the surface estate.[44] As discussed above, this easement, or right of access, was absolute, restricted only by "reasonableness."[45] However, as courts interpreted reasonableness strictly from the mineral owner's point of view, anything that was common industry practice or determined "reasonably necessary" for extraction was permitted.[46]

The main rationale for the dominant-servient estate doctrine was the same as that for severance—that the public has a common interest in developing mineral resources for the benefit of society.[47] Denying access would deprive the public "of the hidden treasures which the

40. *Chartiers Block Coal*, 25 A. at 598; Schissler & Hansen, *supra* note 29, § 200.02[1][b] (citing a Texas case saying courts give deference to the mineral lessee's view of reasonableness).

41. *See* Kramer, *supra* note 27, 2-20 to 2-30. *See also,* Zillman, *supra* note 27, at 1-1.

42. *See, e.g.*, Moser v. U.S. Steel Corp., 676 S.W.2d 99, 103 (Tex. 1984); Gen. Crude Oil Co. v. Aiken, 344 S.W.2d 668, 669 (Tex. 1961). In *Chartiers Block Coal*, the court implied that by giving away his right to the minerals, the surface owner also gives away parts of his own rights unless he guarded those rights in the deed that severed the minerals. *Chartiers Block Coal*, 25 A. at 598.

43. Chartiers Oil Co. v. Curtiss, 34 Ohio C.C. (n.s.) 106 (1911), *aff'd*, 106 N.E. 1053 (1913).

44. *Chartiers Block Coal*, 25 A. at 599.

45. Burney, *supra* note 25, at 58 (citing Bruce Kramer*, Conflicts Between the Exploitation of Lignite and Oil and Gas: The Case for Reciprocal Accommodation*, 21 HOUS. L. REV. 49, 61 (1984)).

46. *Id.* (citing Kramer, *supra* note 45, at 61).

47. *See Moser*, 676 S.W.2d at 103; *Gen. Crude Oil Co.,* 344 S.W.2d at 669 (Tex. 1961); *Chartiers Block Coal*, 25 A. at 599.

great laboratory of nature has provided for man's use in the bowels of the earth. . . . To place them beyond the reach of the public would be a great public wrong."[48]

The appurtenant easement part of the severance rationale was that "a grant or reservation of minerals would be wholly worthless if the [mineral owner] could not enter upon the land . . . to explore for and extract the minerals granted or reserved."[49] In this way, many courts recognized a "business, as well as a legal, standpoint" for making the mineral estate dominant.[50]

In one form or another, the dominant-servient estate doctrine has been followed in Arkansas,[51] California,[52] Colorado,[53] Illinois,[54] Kansas,[55] Kentucky,[56] Louisiana,[57] Mississippi,[58] Montana,[59] New Mexico,[60] North Dakota,[61] Oklahoma,[62] Oregon,[63] Texas, and Wyoming.[64]

Application of the dominant-servient estate doctrine often means harsh results for surface owners who do not control the minerals underneath their own lands.[65] Reasonable use has generally been interpreted strictly from the mineral owner's point of view, defined by mineral industry practices.[66] Industry practices that did not require any accommodation or compensation have included: positioning a drill rig adjacent to a home, splattering the doors and windows of the home with slush and grease, and keeping the family awake with deaf-

48. *Chartiers Block Coal*, 25 A. at 599.

49. Harris v. Currie, 176 S.W.2d 302, 305 (Tex. 1943). *See also* Lear & Barber-Renteria, *supra* note 17, §10.02(3)(d) (citing Davison v. Reynolds, 103 S.E. 248, 250 (Ga. 1920) and *Harris*, 176 S.W.2d at 305); Rick D. Davis Jr., *Private Lands—Surface Access and Use*, *in* SEVERED MINERALS, SPLIT ESTATES, RIGHTS OF ACCESS, AND SURFACE USE IN MINERAL EXTRACTION OPERATIONS, Paper 9A (Rocky Mtn. Min. L. Found. 2005).

50. *Chartiers Block Coal*, 25 A. at 599.

51. *E.g.*, Cranston v. Miller, 185 S.W.2d 920 (Ark. 1945).

52. *E.g.*, Callahan v. Martin, 34 P.2d 788 (Cal. 1935).

53. *E.g.*, Gerrity Oil & Gas Corp. v. Magness, 946 P.2d 913, 927 n.8 (Colo. 1997).

54. *E.g.*, *In re* Payment of Taxes, 537 N.E.2d 358 (Ill. App. Ct. 1989).

55. *E.g.*, Powell v. Prosser, 753 P.2d 310 (Kan. Ct. App. 1988).

56. *E.g.*, Lindsey v. Wilson, 332 S.W.2d 641 (Ky. 1960).

57. *E.g.*, Rohner v. Austral Oil Exploration Co., 104 So. 2d 253 (La. Ct. App. 1958).

58. *E.g.*, Sun Oil Co. v. Nunnery, 170 So. 2d 24 (Miss. 1964).

59. *E.g.*, Stokes v. Tutvet, 328 P.2d 1096 (Mont. 1958).

60. *E.g.*, Amoco Prod. Co. v. Carter Farms Co., 703 P.2d 894 (N.M. 1985), *abrogated by* McNeill v. Burlington Res. Oil & Gas Co., 182 P.3d 121(2008).

61. *E.g.*, Feland v. Placid Oil Co., 171 N.W.2d 829 (N.D. 1969).

62. *E.g.*, Wellsville Oil Co. v. Carver, 242 P.2d 151 (Okla. 1952).

63. *E.g.*, Yaquina Bay Timber & Logging Co. v. Shiny Rock Mining Corp., 556 P.2d 672 (Or. 1976).

64. *E.g.*, Holbrook v. Cont'l Oil Co., 278 P.2d 798 (Wyo. 1955).

65. David E. Jackson, *Surface Use: The Dominant Estate, Reasonable Use and Due Regard, in* 24TH ANNUAL ADVANCED OIL, GAS AND ENERGY RESOURCES LAW COURSE ch. 13, 2 (State Bar of Tex. 2006).

66. *See* Kramer, *supra* note 45, at 61.

ening, all night drilling.[67] Similarly, an oil company had no obligation to fence their operations "to prevent [the landowner's] cattle from entering upon the land near the well and drinking oil on the ground."[68] In supporting this result, the court stated:

> The petitioner [oil company] was lawfully in possession of the premises and being the owner of the dominant estate had the legal right to use so much of the leased premises as were reasonably necessary in its operation to the exclusion of respondent [the landowner], the owner of the servient estate.[69]

Furthermore, an oil company had no obligation to restore the surface of the land to its pre-drilling condition unless there was an express provision in the oil and gas lease requiring it to do so.[70]

III. Oil and Gas Severance

Many credit "Colonel" Edwin Drake's 1859 discovery of oil through drilling in Titusville, Pennsylvania, as marking the birth of the oil and gas industry in the United States.[71] Yet, there is evidence of oil well drilling in Washington County, Ohio, as early as 1833.[72]

Currently, there is little debate that U.S. law almost universally treats oil and gas as a mineral that can be owned through a separate, severed estate.[73] This was not the case for the early decades of oil and gas development. This Section will outline four phases in the tumultuous evolution of the status of oil and gas rights from: (1) the Era of Definition; to (2) the Era of Scientific Awareness; through (3) the Era of Conservation; to (4) today's Environmental Era.[74]

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67. *See* Grimes v. Goodman Drilling Co., 216 S.W. 202 (Tex. Civ. App.—Fort Worth 1919, writ dism'd). *See also* Burney, *supra* note 25, at 58–59.

68. Warren Petrol. Corp. v. Martin, 271 S.W.2d 410, 412 (Tex. 1954).

69. *Id.* at 413.

70. Warren Petrol. Corp. v. Monzingo, 304 S.W.2d 362, 363 (Tex. 1957).

71. Daniel Yergin, The Prize: The Epic Quest for Oil, Money and Power 10–11 (1991). This source provides an excellent history of the oil and gas industry. *See also* Edgar Wesley Owne, Trek of the Oil Finders: A History of Exploration for Petroleum (1975).

72. Eugene O. Kuntz, 1 A Treatise on the Law of Oil and Gas 7–8 (1987) (citing to Am. J. Sci. 21–26 (July 1833)).

73. Throughout this Article, it is important to note that oil and gas law is a subset of property law that varies state to state. This Article will deal only with broad trends in these constructs for purposes of comparison with wind rights, and it is beyond the scope of this Article to provide details about each state's cases or statutes. Furthermore, sometimes the decisions of a state are contrary to the theory the state purports to follow. Ronald W. Polston, *Mineral Ownership Theory: Doctrine in Disarray*, 70 N.D.L. Rev. 541, 553 (1994).

74. Burney, *supra* note 25, at 55–56 (citing Robert E. Sullivan, *A Survey of Oil and Gas Law in Montana as it Relates to the Oil and Gas Lease*, 16 Mont. L. Rev. 1, 16 (1955)). Sullivan defined three eras: The Era of Definition, the Era of Scientific Awareness and the Era of Conservation. The fourth era mentioned by Burney and used in this paper is the Environmental Era, coined by Burney from a work of James M. Colosky, *The Implied Covenant for Diligent and Prudent Operation in an Environmental Era,* 39 Rocky Mtn. Min. L. Inst. 15, § 15-2, 15-3 (1993).

A. *The Era of Definition*

The decades between the discovery of oil in 1859, or 1833 depending on how one calculates, and the turn of the century is called the "Era of Definition" in terms of oil and gas jurisprudence.[75] During this time, it was still relatively uncertain as to what oil and gas *were*, much less how they should be regulated.[76] As a result, during this period, courts were mostly trying to determine the nature of oil and gas to determine how best to analogize it.

Some of the earliest cases held that oil and gas was like percolating groundwater and could not be owned beneath the ground. As one case noted:

> *Oil is a fluid, like water, it is not the subject of property* except while in actual occupancy. A grant of water has long been considered not to be a grant of anything for which an ejectment will lie. It is not a grant of the soil upon which the water rests. . . . The nature of the subject has more to do with the rights that are given over it, and to us it appears that a *right to take all the oil that may be found in a tract of land cannot be a corporeal right.*[77]

Alternatively, some courts applied the *ad coelum* doctrine to oil and gas. Under *ad coelum*, landowners have rights in everything under their land to the center of the earth.[78] So, using *ad coelum*, a surface owner could claim property rights in oil and gas in a manner similar to other energy minerals such as coal. However, this model did not work well because coal is a mineral in place, and oil and gas behave differently.

During the Era of Definition, courts and property owners did not have the scientific information to understand the deposition characteristics of oil and gas. It was thought at the time that oil and gas flowed beneath the surface in rivers, moving slowly in something akin to streambeds underneath vast surfaces.[79] As a constantly moving mineral, neither the analogy to coal nor the application of the *ad coelum* doctrine worked.

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75. Sullivan, *supra* note 74, at 16.

76. Bruce M. Kramer & Owen L. Anderson, *The Rule of Capture—An Oil and Gas Perspective*, 35 ENVT'L L. 899, 903–05 (2005).

77. Dark v. Johnston, 55 Pa. 164, 168 (1840) (emphasis added).

78. *Cujus est solum eius est usque ad coelum et ad inferos*. Translated, it means "for whoever owns the soil, it is theirs up to Heaven and down to Hell." Thus, the ad coelum doctrine covers ownership not only in the land below, but also above, so it could apply to wind rights as well.

79. Polston, *supra* note 73, at 551. Another popular belief was that oil was abundant and inexhaustible, "capable of supporting an infinite number of wells and opportunities for investment." As a result, developers wanted law to develop that would allow individuals an absolute right to drill without being liable to neighbors. Thomas A. Mitchell, *The Future of Oil and Gas Conservation Jurisprudence: Past as Prologue,* 49 WASHBURN L.J. 379, 381 (2010).

So as another alternative, courts chose to compare oil and gas to wild animals, or animals *ferae naturae*. Animals *ferae naturae* cannot be owned by an individual while in a state of nature, but are instead owned by the state.[80] The animals then become the property of the first person to "reduce them to possession."[81] Like wild animals and unlike other minerals, oil and gas have "the power and the tendency to escape without the volition of the owner."[82] As such, oil and gas rights seemed best classified as "minerals *ferae naturae*" that would be treated just like wild animals[83]—owned by the state until reduced to possession by an individual.

B. *The Era of Scientific Awareness*

Sometime early in the twentieth century, new science about the nature of oil and gas helped clear up some misconceptions.[84] People realized that oil and gas do not actually flow in streams underground. However, given the right conditions, they could migrate and be trapped under pressure in airtight formations and remain fixed in these places until a low pressure point was introduced into the formation.[85] Once this realization came about, courts recognized some of the problems with the minerals *ferae naturae* legal model that assumed oil and gas moved freely between properties.[86] Therefore, they needed another legal theory that would apply to oil and gas severance and possession. This period of re-exploring the status of oil and gas property rights lasted about three decades from 1900 until the mid-1930s and was known as the "Era of Scientific Awareness."[87]

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80. Polston, *supra* note 73, at 552.

81. *Id.*

82. Westmoreland & Cambria Natural Gas Co. v. De Witt, 18 A. 724, 725 (Pa. 1889). *See also* Hamilton v. Foster, 116 A. 50, 52 (Pa. 1922).

83. *Westmoreland*, 18 A. at 725. *See also* A. W. Walker, Jr., *Property Rights in Oil and Gas and Their Effect upon Police Regulation of Production*, 16 TEX. L. REV. 370, 370–71 (1938) ("as late as 1921, one of the Texas courts indulge in the fanciful statement that oil and gas are supposed to percolate restlessly about under the surface of the earth, even as the birds fly from field to field and the beast roam from forest to forest").

84. *See* Polston, *supra* note 73, at 552.

85. *Id*. *See also* Eliff v. Texon Drilling Co., 210 S.W.2d 558 (Tex. 1948).

86. *See, e.g.*, Ohio Oil Co. v. Indiana, 177 U.S. 190, 208–11 (1900). In *Ohio Oil*, the Supreme Court recognized that if oil and gas were minerals *ferae naturae*, lawmakers could prevent everyone from seeking to reduce the minerals to possession in order to protect the minerals from undue destruction and allow the public to enjoy the minerals. *Id.* at 209–10. "No devastating of private property under such a condition can be conceived, because the public are the owners, and the enacting by the state of a law as to the public ownership is but the discharge of the governmental trust resting in the state as to the property of that character." *Id*. at 209. But by depriving the oil and gas producers of their right to possession of the minerals below, they would be wrongfully taking private property. *Id*.

87. Sullivan, *supra* note 74, at 16. The time period from approximately the turn of the 20th century until about 1980 has also been called "the Great Era." RICHARD C. MAXWELL, OIL AND GAS LAW AT THE END OF ITS GREAT ERA, NATURAL RE-

With the rejection of the minerals *ferae naturae* theory,[88] several courts reverted to the *ad coelum*, or unified fee theory. These courts held that oil and gas were part of the surface-owner's entire estate.[89] Therefore, a conveyance of oil and gas rights while they remained in place was consequently a conveyance of an interest in realty.[90] While the unified fee model was simple for lawmakers, it still created problems as a construct for the ownership of oil and gas.[91]

Like hard minerals such as gold, oil and gas can stay in place for long geologic periods if they are not disturbed. However, pumping oil and gas out of a well creates a point of low pressure.[92] In trying to obtain the resources below a particular tract of land, this low pressure point could cause the oil and gas from an adjoining tract to migrate over and also be captured.[93] Therefore, an *ad coelum* mineral-in-place regime fails to completely address the ownership issues raised in extracting oil and gas.

Because of the migratory nature of oil and gas, the "rule of capture" was introduced.[94] It was meant to alter the *ad coelum* theory so that mineral owners would have not only the right to extract the minerals under their own tracts of land, but also have the legal right to extract "all of the oil and gas [from adjacent properties] that will [also] flow out of the well on one's land."[95]

Under the rule of capture, ownership of any given quantity of oil or gas may be obtained by the one producing a well; similarly, ownership of any given quantity of oil or gas may be lost by a neighboring mineral owner.[96] The rule of capture allowed this "invasion" of adjacent

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SOURCES POLICY AND LAW, TRENDS AND DIRECTIONS 94, 96 (Lawrence J Macdonnel & Sarah F. Bates, eds. 1993). "The great Era of oil and gas jurisprudence arose quickly, as sudden supplies and emerging markets for oil and gas caused disputes among property owners. Courts were challenged to provide answers to questions about the relative rights and liabilities incident to the production of these coveted resources. The common law provided few direct answers. To fill the void, judges trained in the shadow of Langdell strictly followed the dictates of legal formalism and invoke the logical tool of analogy." Burney, *supra* note 25, at 9.

88. *See, e.g.*, *Ohio Oil Co.*, 177 U.S. at 209; Lone Star Gas Co. v. Murchison, 353 S.W.2d 870, 878 (Tex. Civ. App.—Dallas 1962, writ ref'd n.r.e.).

89. Texas Co. v. Daugherty, 176 S.W. 717, 721 (Tex. 1915).

90. *Id*. at 720.

91. *See* Polston, *supra* note 73, at 552.

92. *Id.*

93. *Id.*

94. Westmoreland & Cambria Natural Gas Co. v. De Witt, 18 A. 724, 725 (Pa. 1889). Mitchell believes that the change in scientific thought has little to do with the rule of capture, instead stating that in the thirty years between the discovery of oil in Pennsylvania and the first articulation of the rule of capture, the business of oil leasing, subleasing, and investment led to the rule of capture in practice. This established practice was then adopted by the courts in *Westmoreland & Cambira Natural Gas Co. v. De Witt*. Mitchell, *supra* note 79, at 381.

95. Brown v. Humble Oil & Ref. Co., 83 S.W.2d 935, 940 (Tex. 1935); Polston, *supra* note 73, at 552.

96. Eliff v. Texon Drilling Co., 210 S.W.2d 558, 561–62 (Tex. 1948).

owners' space if the minerals could be obtained through the well-owner's well and this "invasion" was limited only by the possibility that the adjacent landowners had the right to exercise the same right of capture, drilling their own wells and capturing as many minerals as *they* could.[97]

Application of the rule of capture made the right to sever minerals from the land much easier than the minerals *ferae naturae* model did. Under the rule of capture, owners of the fee in land with oil or gas beneath it also had property ownership rights in that oil and gas. Such owners were then able to sever the estate in the surface from that in the oil and gas beneath it.[98] This severance created two separate estates, held by separate titles.[99]

Some states did not adopt the unified fee doctrine, instead continuing to classify oil and gas as minerals *ferae naturae*.[100] Regardless of the theory, courts applied the rule of capture to resolve the ownership issue.[101]

C. *The Era of Conservation*

The rule of capture resulted in extensive waste of oil.[102] Once the mistakes of the early twentieth century had been made, courts and legislatures attempted to rectify them.[103] This era was partially initiated with the formation of the Interstate Oil Compact Commission (now the Interstate Oil and Gas Compact Commission or ("IOGCC")) in 1935.[104] Because of its focus on eliminating waste,

97. Alan J. Alexander, *The Texas Wind Estate: Wind as a Natural Resource and a Severable Property Interest*, 44 U. MICH. J.L. REFORM 429, 434 (2011); DuVivier, *supra* note 2, at 90. *See also* Brown, 83 S.W.2d. 935; R.R. Comm'n v. Manziel, 361 S.W.2d 560, 568–69 (Tex. 1962).

98. DuVivier, *supra* note 2, at 90. *See, e.g.*, Luman v. Davis, 196 Pac. 1078 (Kan. 1921); Hoskins v. N. Lee Oil & Gas Co., 240 S.W. 377 (Ky. 1922); Weaver v. Richards, 120 N.W. 818 (Mich. 1909); Buck v. Walker, 132 N.W. 205 (Minn. 1911); Chartiers Oil Co. v. Curtiss, 34 Ohio C.C. 106 (1911), *aff'd*, 106 N.E. 1053 (1913); Barker v. Campbell-Ratcliff Land Co., 167 P. 468 (Okla. 1917); Hamilton v. Foster, 116 A. 50 (Pa. 1922); Murray v. Allred, 43 S.W. 355 (Tenn. 1897); Hynson v. Gulf Prod. Co., 232 S.W. 873 (Tex. Civ. App.—Texarkana 1921, writ ref'd); Ramage v. S. Penn Oil Co., 118 S.E. 162 (W. Va. 1923); Texas Co. v. Daugherty, 176 S.W. 717 (Tex. 1915).

99. Renfro v. Hanon, 130 N.E. 740, 741 (Ill. 1921).

100. *See, e.g.*, Brown v. Spillman 155 U.S. 665 (1895); Walls v. Midland Carbon Co., 254 U.S. 300 (1920).

101. Kramer & Anderson, *supra* note 76, at 906. To reconcile conflicting concepts, some courts determined that minerals *ferae naturae* are part of the land while they are in the land, so owners of the surface estate have ownership interests that they can sell. H.J., *Severance of title or rights to oil and gas in place from title to surface*, 29 A.L.R. 586 (1924). A minority of jurisdictions continued to classify oil and gas as minerals *ferae naturae* without finding the need to allow severance. *See, e.g.*, Walls v. Midland Carbon Co., 254 U.S. 300 (1920).

102. Alexander, *supra* note 97, at 434–35.

103. DuVivier, *supra* note 2, at 91.

104. U.S. DEP'T OF ENERGY, STATE OIL AND NATURAL GAS REGULATIONS DESIGNED TO PROTECT WATER RESOURCES 13 (May 2009), [hereinafter STATE OIL],

this era between the mid-1930s and 1960 came to be known as the "Era of Conservation."[105]

The "pell-mell development" of oil and gas because of the rule of capture resulted in "[waste of] large amounts of petroleum both above and below ground."[106] Above ground, overproduction meant that all the oil produced could not be transported or sold.[107] Consequently, much was physically wasted, some standing in pools at the surface and leaching back into the ground.[108]

Below ground, an oil and gas reservoir is best recovered by maintaining controlled and steady pressures.[109] Instead, the rule of capture incentivized developers to place production wells that straddled both sides of a boundary line, each attempting to capture the resource beneath the neighboring property.[110] Pumping out a reservoir from different low pressure points can mix the oil and salt water and prevents effective and complete recovery of the resource.[111] As an example from Spindletop, "[r]apid and uncontrolled production depleted the field's pressure so quickly that by 1903, the field was in decline and within ten years, Spindletop was a virtual ghost town."[112] Perhaps most shocking is that the field could no longer be developed even though "[l]ess than five percent of the field's oil was produced."[113]

In addition to physical waste, the rule of capture also resulted in economic waste of oil.[114] From the period of 1947 to 1952, "$100 million a year was expended for the drilling of unnecessary wells."[115] Overproduction also led to a saturation of the market and artificially low prices.[116] As an example, oil in the Seminole field in Oklahoma

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http://energyindepth.org/wp-content/uploads/2009/03/oil-and-gas-regulation-report-final-with-cover-5-27-20091.pdf.

105. Burney, *supra* note 25, at 55.

106. FRED BOSSELMAN ET AL., ENERGY, ECONOMICS AND THE ENVIRONMENT: CASES AND MATERIALS 259 (3d ed. 2010).

107. Alexander, *supra* note 97, at 435.

108. Champlin Ref. Co. v. Corp. Comm'n, 286 U.S. 210, 233 (1932) ("In Oklahoma, prior to the passage of the Act, large quantities of oil produced in excess of transportation facilities or demand therefor were stored in surface tanks, and by reason of seepage, rain, fire and evaporation enormous waste occurred."). *See also* BOSSELMAN ET AL., *supra* note 106, at 302.

109. *Champlin Ref. Co.*, 286 U.S. at 228 ("Uncontrolled flow of flush or semiflush wells for any considerable period exhausts an excessive amount of pressure, wastefully uses the gas, and greatly lessens ultimate recovery.").

110. Alexander, *supra* note 97, at 434.

111. JACQUELINE LANG WEAVER, UNITIZATION OF OIL AND GAS FIELDS IN TEXAS: A STUDY OF LEGISLATIVE, ADMINISTRATIVE, AND JUDICIAL POLICIES 20–29 (1986). *See also* FRED BOSSELMAN ET AL., ENERGY, ECONOMICS AND THE ENVIRONMENT 292–95, 298–99 (2d ed. 2006).

112. BOSSELMAN ET AL., *supra* note 106, at 254.

113. *Id.*

114. Alexander, *supra* note 97, at 435.

115. Robert E. Hardwicke, *Oil Well Spacing Regulations and Protection of Property Rights in Texas,* 31 TEX. L. REV. 99, 111 (1952).

116. Alexander, *supra* note 97, at 435.

and East Texas dropped from "three dollars a barrel in 1920 to as low as ten cents a barrel in the early 1930s."[117] At one point in Spindletop, Texas, one could buy an entire barrel of oil for less than one would pay for a cup of water.[118]

States responded to this waste through legislation—including well-spacing rules, conservation statutes, and orders from regulatory agencies, such as the Texas Railroad Commission.[119] While a few states enacted statutes before 1900,[120] most states did not feel the need to address conservation until the 1930s to 1950s.[121] One of the first remedies employed was "prorationing" orders that enforced proportional taking from each well and lease in a unit and restricted well production to below a field's Maximum Efficient Rate of Recovery ("MER").[122] The U.S. Supreme Court upheld some of the first of the prorationing orders on the basis that they prevented waste in a manner that protected correlative rights between different owners.[123]

Although the Court found that the commission's orders were not "for the purpose of controlling the price of crude oil or its products, or of eliminating . . . any producer or refiner from competition . . .," commentators have noted that enforcement of these statutes was "effective in raising the price of oil."[124] As an example, in August of 1931, the governor of Texas declared martial law to shut down every well in the East Texas field when the price dropped below ten cents per barrel. Opposition to market-demand prorationing quieted when the price rebounded as military officers running the prorationing office reopened the wells at a fraction of their previous production rate.[125]

With all of the waste created by the rule of capture, several states felt the need for stronger regulations. As a result, Oklahoma, Texas, Colorado, Illinois, New Mexico, and Kansas formed the Interstate Oil

117. BOSSELMAN ET AL., *supra* note 106, at 261.

118. *Id*. at 254 ("A glut of oil dropped the price to as little as three cents a barrel, while a cup of water cost five cents.").

119. *Id*. at 261.

120. Walter L. Summers, *The Modern Theory and Practical Application of Statutes for the Conservation of Oil and Gas*, 13 TUL. L. REV. 1, 1 n.1 (1938) (Pennsylvania enacted the first conservation statute requiring the plugging of holes and casing of wells in 1878. New York followed suit in 1879, Ohio in 1883, and West Virginia in 1891.). *Id.*

121. STATE OIL, *supra* note 104, at 10–14. Some states, such as Oklahoma, California, and Texas enacted regulation programs earlier, but these early conservations statutes often created organizations that lacked specific authority to promulgate regulations or were general statutes that tended to leave enforcement in local or county control. *Id.* at 13.

122. *See generally* Champlin Ref. Co. v. Corp. Comm'n, 286 U.S. 210, 226–27 (1932). *See also* BOSSELMAN ET AL., *supra* note 106, at 260–62.

123. *Champlin Ref. Co.*, 286 U.S. at 230; BOSSELMAN ET AL., *supra* note 106, at 263.

124. BOSSELMAN ET AL., *supra* note 106, at 263–66.

125. *Id*. at 266; James H. Keahey, *The Texas Mineral Interest Pooling Act: End of an Era*, 4 NAT. RES. L. 359, 360–61 (1971).

Compact Commission ("IOCC") in 1935.[126] The IOCC then helped create a framework to promote the conservation of oil resources through stricter regulations.[127] The goal was to prevent waste while protecting landowners' and royalty owners' rights.[128] In order to further these goals, the IOCC developed a set of model regulations for the states to use as a pattern for their own regulatory frameworks.[129] Due to the onset of World War II, however, the IOCC did not come out with its actual Model Regulation Statutes until 1949,[130] after which most states followed suit and passed statutes establishing regulatory agencies.[131]

Some of the key provisions in conservation statutes were regulations that controlled the spacing, drilling and construction of extraction wells; created specifications for permitting; prevented both physical and economic waste; regulated the handling of waste fluids; reserved the right to limit production from particular wells; and mandated pooling and unitization.[132] Pooling[133] and unitization[134] effectively substituted the competitive rule of capture with cooperative development.[135] While no notable rules or limitations on severance were passed along with conservation statutes, the general decrease in waste through conservation regulations was the useful trademark of this era.

D. *The Environmental Era*

The late 1960s ushered in an era of environmental awareness.[136] In the oil and gas context, the Environmental Era, which some commentators say continues today,[137] began focusing not only on oil and gas

126. STATE OIL, *supra* note 104, at 14.
127. *Id.*
128. *Id.* at 11.
129. *Id.* at 13.
130. John F. Welborn, *Environmental Regulation of Oil and Gas Operations by State Conservation Agencies*, 38 ROCKY MTN. MIN. L. INST. 14, § 14.02(1) (1992).
131. STATE OIL, *supra* note 104, at 14; Angela Neese, *The Battle Between the Colorado Oil and Gas Conservation Commission and Local Governments: A Call for a New and Comprehensive Approach*, 76 U. COLO. L. REV. 561, 575 (2005).
132. STATE OIL, *supra* note 104, at 17.
133. Pooling is the combining of small tracts of land into an acreage that is sufficiently large to both secure a well permit and meet the spacing rules of a respective conservation commission. It prevents excessive drilling while still guaranteeing that each mineral owner receives an appropriate share of royalties. WEAVER, *supra* note 111, at 7.
134. *Id.* Unitization, on the other hand, combines many spacing units into a fieldwide unit for the coordinated operation of several tracts on a reservoir, usually to conduct secondary recovery operations.
135. For in-depth analysis of pooling and unitization, *see generally id.* For a summary of different types of pooling and unitization, see Nancy Saint-Paul, 4 SUMMERS OIL AND GAS § 54.2 *Methods of Pooling and unitizing oil and gas production* (3d ed. 2013).
136. *See, e.g.*, Nat'l Envtl. Policy Act of 1969 and subsequent legislation.
137. Burney, *supra* note 25, at 56.

waste, but on the impact of oil and gas development on the environment. This era also tempered some of the adverse effects that severance has had over the rights of surface owners.

The Environmental Era saw the proliferation of statutes that regulated oil and gas's impacts on the surface and the environment.[138] Surface damage statutes give mineral owners the right to use the surface, but hold them strictly liable for any damages to the surface that an oil and gas operation caused.[139] State statutes that provide for surface damages enumerate the specific types of damages for which the mineral owners may be liable.[140]

Dormant mineral statutes were another innovation. Under dormant mineral statutes, ownership of the mineral estate reverts to the surface owner if the severed mineral interest is unused or undeveloped for a designated period of time.[141] While surface damage statutes give surface owners some monetary compensation for the use of their lands, dormant mineral statutes ensure that valuable minerals will be developed or returned to the surface owners.[142]

In addition, new statutes helped define the rights of surface and mineral owners.[143] For example, notice statutes require a mineral owner to provide notice to the surface owner before going onto the surface owner's land.[144]

The key common law doctrine that came about in the Environmental Era is the accommodation doctrine,[145] which requires mineral estate owners to exercise "due regard" for the rights of surface owners.[146] The Texas case of *Getty Oil Co. v. Jones* is credited with establishing this doctrine in 1971.[147] The rule the *Getty Oil* court outlined was that "where there is an existing use by the surface owner

138. Lear & Barber-Renteria, *supra* note 17, § 10.02(5)(b).

139. Burney, *supra* note 25, at 72; Lear & Barber-Renteria, *supra* note 17, § 10.02(5)(b)(i).

140. Lear & Barber-Renteria, *supra* note 17, § 10.02(5)(b)(i). *See, e.g.*, N.D. Cent. Code §§ 38-11.1-01 to -10 (2004 & Supp. 2013); S.D. Codified Laws §§ 45-5A-1 to -8 (2004 & Supp. 2013); Mont. Code Ann. §§ 82-10-501 to -508 (2013); Tenn. Code Ann. §§ 60-1-601 to -608 (2013); W.Va. Code Ann. §§ 22-7-1 to -7 (LexisNexis 2009 & Supp. 2013).

141. Lear & Barber-Renteria, *supra* note 17, § 10.02(5)(b)(ii).

142. *Id.*

143. *Id.* § 10.02(5)(b).

144. *Id.* § 10.02(5)(b)(i).

145. Burney, *supra* note 25, at 60.

146. *Id.*

147. Getty Oil Co. v. Jones, 470 S.W.2d 618, 621 (Tex. 1971). In *Getty Oil*, the surface owner had a rotating irrigation system that extended seven feet above the surface. The mineral owner then attempted to install two oil pumping units that were taller than the irrigation system, making the surface owner's system useless. The mineral owner claimed that it held the dominant estate and use of the tall pumping units was within the mineral owner's right. The court responded by redefining the scope of a mineral owner's surface easement. It stated that "where there is an existing use by the surface owner which would otherwise be precluded or impaired, and where under the established practices in the industry there are alternatives available to the lessee

which would otherwise be precluded or impaired, and where under the established practices in the industry there are alternatives available to the lessee whereby the minerals can be recovered, the rules of reasonable usage of the surface may require the adoption of an alternative by the lessee."[148]

These Environmental Era reforms have helped shift the impacts of severance from a unidimensional focus on the needs of the mineral estate owner to a more "multidimensional" approach.[149] Yet, the accommodation doctrine does not restrict mineral development altogether.[150] While many may see these developments as steps forward because they create more balance between the right of the mineral owner to extract its minerals against the disruption to the surface owner's existing uses of the surface,[151] they do not change the basic dominant-servient estate dynamic in significant ways. For example, under the accommodation doctrine, the surface owner may not stop development by the mineral owner, only request some accommodation for existing surface uses. In addition, the surface owner still retains the burden of proof.[152]

IV. Wind Severance

This Section will look first at a brief history of wind power. Next, it will compare wind energy rights with the above evolution of oil and gas rights.

A. *Background*

Wind is one of the oldest forms of energy that humans have captured. Egyptians harnessed the wind to sail boats as far back as 3100 B.C.E., and both the Chinese and Persians used windmills to pump water as early as 200 B.C.E.[153] The first windmill for electricity pro-

whereby the minerals can be recovered, the rules of reasonable usage of the surface may require the adoption of an alternative by the lessee." *Id*. at 620–21.

148. *Id.* at 622. Model Surface Use and Mineral Dev. Accommodation Act, 14 U.L.A. 100 (1995) (clarifying accommodation doctrine criteria and suggesting model legislation in 1990).

149. *See* Kramer, *supra* note 27, at 2-20 to 2-30. *See also* Zillman, *supra* note 27, at 1-1. *See, e.g.*, Texas Genco, LP v. Valence Operating Co., 187 S.W.3d 118, 123–25 (Tex. App.—Waco 2006, pet. denied). Will Russ, *Inheriting the Wind: A Brief Guide to Resolving Split Estate Issues when Developing Renewable Projects*, *in* Rocky Mtn. Min. L. Found. Special Inst. on Renewable Elec. Energy Law, Dev. & Inv., 5 Min. L. Series 5-8 (2013).

150. *Getty Oil*, 470 S.W.2d at 622.

151. Russ, *supra* note 149, at 5-8.

152. *Id.*; Douglas R. Hafer, Daniel B. Mathis & Logan W. Simmons, *A Practical Guide to Operator/Surface-Owner Disputes and the Current State of the Accommodation Doctrine*, 17 Tex. Wesleyan L. Rev. 47, 58–59 (2010).

153. Ernest E. Smith, Steve K. DeWolf, Roderick E. Wetsel & Becky H. Diffen, Texas Wind Law § 1.01, at 1-1 (LexisNexis 2013).

duction was built in Scotland in 1887,[154] and Charles F. Brush of Cleveland, Ohio, designed and constructed a 12 kilowatt wind turbine for the production of electricity in the U.S. in 1888.[155]

Despite these early beginnings, wind was not widely used once the Industrial Revolution and new advances in technology required the day-and-night-any-weather delivery of energy that fossil fuels, which were cheap and abundant at this time, could provide.[156] The 1970 oil embargos changed that.[157] The fear of being cut off from petroleum sources caused both the United States and Europe to begin again to explore the use of wind power as an alternative for electricity production.[158]

The first commercially viable wind farms for producing electricity in the United States were established in the 1980s, but these farms had a slow start.[159] It was not until states began passing Renewable Portfolio Standards ("RPS") in the mid-1990s that U.S. wind capacity truly expanded.[160] In 1998, the United States had approximately 2,000 megawatts ("MW")[161] of installed wind capacity; by the end of the third quarter of 2013, that number had grown to 60,078 MW[162] with an additional 2,327 MW more under construction.[163]

Currently, all but thirteen states have RPS goals or mandates to encourage utilities to use renewable energy sources,[164] and most of these RPSs include wind as a qualifying resource to meet those mandates. By the year 2030, 20% of U.S. electrical energy needs could be supplied by wind power. The United States has abundant wind

154. *Id.*

155. *Id.* at 1-2.

156. K.K. DuVivier & Roderick E. Wetsel, *Jousting at Windmills: When Wind Power Development Collides with Oil, Gas, and Mineral Development*, 55 ROCKY MTN. MIN. L. INST. 9-1, 9-5 (2009).

157. SMITH ET AL., *supra* note 153, § 1.01.

158. *Id.*

159. Alexander, *supra* note 97, at 436.

160. David Hurlbut, *A Look Behind the Texas Renewable Portfolio Standard: A Case Study*, 48 NAT. RESOURCES J. 129, 129 (2008).

161. U.S. DEP'T OF ENERGY, 20% WIND ENERGY BY 2030: INCREASING WIND ENERGY'S CONTRIBUTION TO U.S. ELECTRICITY SUPPLY 5, fig ES-2 (Dec. 2008), http://www1.eere.energy.gov/wind/pdfs/42864.pdf.

162. *U.S. Wind Industry Third Quarter Market Report 4*, AM. WIND ENERGY ASS'N, (Oct. 31, 2013), http://awea.files.cms-plus.com/AWEA%203Q%20Wind%20Energy%20Industry%20Market%20Report%20Executive%20Summary.pdf [hereinafter AWEA, *Third Quarter*]; *see also Wind Energy Facts at a Glance*, AM. WIND ENERGY ASS'N http://www.awea.org/Resources/Content.aspx?ItemNumber=5059&navItemNumber=742 (last visited Jan. 24, 2014) (reporting 60,007 MW as the amount at the end of 2012. This number is from the thirty-nine states plus Puerto Rico that have installed capacity.).

163. AWEA, *Third Quarter*, *supra* note 162, at 7.

164. *Most States Have Renewable Portfolio Standards*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/todayinenergy/detail.cfm?id=4850 (last visited Jan. 28, 2014); Rob Wile, *Here's How much Your State Cares About Climate Change [Map]*, BUSINESS INSIDER (Sept. 6, 2013), http://www.businessinsider.com/map-of-renewable-portfolio-standards-2013-9.

reserves,[165] and wind is "the fastest growing source of new power generation."[166]

The current leader in wind energy is Texas, with 12,214 MW of installed wind capacity and 7,690 wind turbines.[167] In 2012, 7.4% of Texas's electricity was provided by wind.[168] Second to Texas is California, which led the world in wind energy development throughout most of the 1980s and 1990s.[169] California is currently ranked second in the U.S. for installed wind capacity (5,544 MW) and has the most wind turbines in the nation (11,753 turbines).[170] Wind is an increasingly popular option as an energy source due to its renewable nature and the strong potential that the United States has to develop wind energy facilities.

B. *The Era of Definition*

It is perhaps unsurprising that wind power is in the same phase of jurisprudence as oil and gas was in its first thirty years—with courts simply struggling to create a legal definition for each of these new resources.[171] As with the early days of oil and gas, there is now little concurrence in how wind rights should be categorized,[172] not helped by the fact that very few courts have dealt with this issue.[173] What is a bit surprising, however, is that many of the same analogies for the ownership status of oil and gas are also being used for wind power.

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165. TRIEU MAI, ET AL., RENEWABLE ELECTRICITY FUTURES STUDY: EXECUTIVE SUMMARY 9, 12 (2012), http://www.nrel.gov/docs/fy13osti/52409-ES.pdf. NREL's study provides a scenario for up to 80% of US electricity generation from renewable sources by 2050, 50% of which would be a combination of wind and solar power. *Id.* at 2.

166. JEFFREY LOGAN & STAN MARK KAPLAN, CONG. RESEARCH SERV., RL34546, WIND POWER IN THE UNITED STATES: TECHNOLOGY, ECONOMIC, AND POLICY ISSUES, at Summary pg. 3 (June 20, 2008). *See also 20% Wind Energy by 2030: Increasing Wing Energy's Contribution to U.S. Electricity Supply,* U.S. DEP'T OF ENERGY (2008), http://www.nrel.gov/docs/fy08osti/41869.pdf.

167. *State Wind Energy Statistics: Texas*, AM. WIND ENERGY ASS'N, http://www.awea.org/Resources/state.aspx?ItemNumber=5183 (last visited Jan. 28, 2014).

168. *Id.*

169. *State Wind Energy Statistics: California*, AM. WIND ENERGY ASS'N, http://www.awea.org/Resources/state.aspx?ItemNumber=5232 (last visited Jan. 28, 2014).

170. *Id*. (The next top states in installed wind capacity are Iowa with 5,133 MW, Illinois with 3,568 MW, Oregon with 3,153 MW, Oklahoma with 3,134 MW, Minnesota with 2,987 MW, Washington with 2, 808 MW, Kansas with 2,713 MW, and Colorado with 2,301 MW); *Wind Energy Facts at a Glance,* AM. WIND ENERGY ASS'N, http://www.awea.org/Resources/Content.aspx?ItemNumber=5059&navItemNumber=742 (last visited Jan. 28, 2014).

171. *See, e.g*, Terry E. Hogwood, *Against the Wind*, 26 STATE BAR OF TEX.: OIL, GAS, & ENERGY RES. L. SEC. 6, 6–15 (Dec. 2004); Alexander, *supra* note 97, at 431–32; Ronald H. Rosenberg, *Diversifying America's Energy Future: the Future of Renewable Wind Power*, 26 VA. ENVTL. L.J. 505, 532 (2008).

172. Russ, *supra* note 149, at 5-5.

173. Contra Costa Water Dist. v. Vaquero Farms, Inc., 68 Cal. Rptr. 2d 272, 278 (Ct. App. 1997). As a result of its position, California is one of the few states whose courts have even considered the severance of wind rights. *See infra* Part III.B–C.

Texas seemed to recognize a right to wind access as early as 1904.[174] Although the court did not expressly state that there was such a right, it found that a plaintiff could properly allow evidence to support his claim for damages resulting from the construction of an embankment that blocked wind flows to the plaintiff's windmill.[175] Moreover, under traditional theories of property law, including the *ad coelum* doctrine, the owner of the surface estate has a property right in the wind flowing over and above his or her property.[176] However, it has been proposed that the *ad coelum* doctrine only establishes the right to develop the space above one's property in building the windmill and does not include a right in the wind itself.[177]

As in the early days of oil and gas jurisprudence, wind has been compared to animals *ferae naturae*. Wind may have even more similarities to wild animals than oil and gas: neither are confined to any one area, and their specific location and movements are not easily predictable.[178] If this theory were adopted, essentially naming wind as a mineral *ferae naturae*, wind would be the property of the state until reduced to possession at the time it generated electricity in turning the blades of a turbine.[179] Essentially, a wind right would not be a corporeal right, and only an easement in gross[180] or profit à prendre[181] in the mineral rights could be conveyed, not title.[182]

Wind has been compared to oil and gas itself, ownable in fee simple absolute, but subject to the rule of capture.[183] In fact, the first case to address the property status of modern wind power rights did analogize wind to oil and gas.[184] The *Contra Costa Water District v. Vaquero Farms*[185] court agreed with the Water District in that "the right to generate electricity from windmills harnessing the wind, and the right to sell the power so generated, is no different, either in law or com-

174. *See generally* Choctaw, Okla. & Tex. R.R. Co. v. True, 80 S.W. 120 (Tex. Civ. App.—Fort Worth 1904, no writ).

175. *Id*. at 121.

176. TEX. HOUSE OF REPRESENTATIVES HOUSE RESEARCH ORG., CAPTURING THE WIND: THE CHALLENGES OF A NEW ENERGY SOURCE IN TEXAS, NO. 80-9, at 17 (July 8, 2008), *available at* http://www.hro.house.state.tx.us/focus/Wind80-9.pdf (citing Alexander, *supra* note 97, at 444).

177. Alexander, *supra* note 97, at 444–45.

178. *Id.* at 446.

179. *See* State v. Bartee, 894 S.W.2d 34, 41 (Tex. App.—San Antonio 1994, no pet.). *See also* Alexander, *supra* note 97, at 447; SMITH ET AL., *supra* note 153, § 4.01.

180. An easement in gross is not attached to a neighboring piece of land like an easement appurtenant, but instead runs with a person.

181. This would be similar to a hunting lease.

182. SMITH ET AL., *supra* note 153, § 4.02.

183. Coastal Oil & Gas Corp. v. Garza Energy Trust, 268 S.W.3d 1, 13 (Tex. 2008); Texas Co. v. Daugherty, 176 S.W. 717, 719–20 (Tex. 1915). SMITH ET AL., *supra* note 153, § 4.02.

184. Contra Costa Water Dist. v. Vaquero Farms, Inc., 68 Cal. Rptr. 2d 272, 290 (Ct. App. 1997); DuVivier, *supra* note 2, at 87.

185. *Contra Costa*, 68 Cal. Rptr. 2d at 272.

mon sense, from the right to pump and sell subsurface oil, or subsurface natural gas by means of wells and pumps."[186]

Water has also been put forth as an alternative for understanding ownership rights in wind.[187] This construct, however, creates problems as to whether one should use the law of groundwater or surface water; then if surface water is used, whether the doctrine of riparianism or prior appropriation applies. One commentator prefers groundwater law, as it establishes a fee simple absolute in the groundwater and also utilizes the rule of capture,[188] but includes a limitation that an owner can "capture and reduce the water to possession unless done with the purpose of maliciously injuring his neighbor or wasting the water."[189] This could prevent malicious or wasteful uses.

Although flowing surface water may be a more apt analogy for wind than subterranean water, there is currently no uniform water regulation between states.[190] The only similarity between states is that flowing water is state water until the state grants the right to extract and use the water.[191] Despite these differences, the only other U.S. case that has dealt with the ownership status of wind rights, *Romero v. Bernell*,[192] chose to analogize wind to water and apply the principle of prior appropriation to it.[193] The *Romero* court stated that "[w]hile New Mexico has no relevant statutory or case law on the subject, it does not appear minerals in the ground are the appropriate commod-

186. *Id.* at 278.

187. *See*, *e.g.*, Thaddeus Baria, *Up the Creek with a Paddle: Water Doctrine as a Basis for Small Wind Energy*, 59 DEPAUL L. REV. 141 (2009).

188. *See* Alexander, *supra* note 97.

189. *Id.* at 448 (citing Sipriano v. Great Spring Waters of Am., Inc., 1 S.W.3d 75, 75–77 (Tex. 1999)).

190. *See*, *e.g.*, A. DAN TARLOCK, LAW OF WATER RIGHTS AND RESOURCES § 3:7 (Thomson Reuters 2013) ("A proprietor of lands on banks of a river has naturally an equal right to use of the water which flows in the stream adjacent to his lands, as it was want to run, without diminution or alteration . . . . He has no property in the water itself, but a simple usufruct while it passes along."); *Id.* § 5:8 (Colorado and its arid neighbors rejected the dual system of the Pacific Coast states, thus rejecting common law riparian rights with the rationale that the federal government silently acquiesced in rejecting them and after 1866 gave congressional consent to state control.); *see also* State v. Colo. Water Conservation Dist., 671 P.2d 1294 (Colo. 1983) *writ denied sub. nom.* Young v. Southwestern Colo. Water Conservation Dist., 466 U.S. 944 (1984); TARLOCK, *supra* § 4:6 (Some states follow the "English" or Absolute Ownership Rule of capture limiting use to owners of land overlying the groundwater.); *Id.* at 6:5 (New Mexico and other states follow the American or Reasonable Use Rule.); *see also* N.M. Const. art. XVI § 3; WATERS AND WATER RIGHTS 8-31 (Robert E. Beck & Amy K. Kelly eds., 1991 ed.).

191. SMITH ET AL., *supra* note 153, § 4.01.

192. Romero v. Bernell, 603 F. Supp. 2d 1333 (D.N.M. 2009) (court allowed partition of property saying wind rights are not comparable to mineral right but instead inchoate until vested by being reduced possession when harvested to generate energy).

193. There was a case in Kansas that had the option of dealing with wind rights, but the court decided the case on a different issue. *See, e.g.*, Zimmerman v. Bd. of Cnty. Comm'rs of Wabanasee Cnty., 264 P.3d 989 (Kan. 2011).

ity to create a legal paradigm to analyze wind power. . . . Wind is never embedded in the real estate; rather, it is more like water or wild animals which traverse the surface and which do not belong to the fee owner until reduced to possession."[194] *Romero* then went on to say that the right to harvest wind and the right to appropriate water were similar, because the right in both vests when the resource is employed for a useful or beneficial purpose, but not before.[195]

C. *Era of Scientific Awareness, Conservation, and Environment*

Oil and gas has had more than 150 years to reach its current legal status. Using the history above, oil and gas had the advantage of a slow evolution moving first through efforts to define its essential nature and then moving on to defining a construct—the rule of capture—to facilitate its development, regardless of the ownership definitions. As the above history of oil and gas shows, oil and gas achieved a reign of dominance, that still remains today, before the rights were reined in somewhat by conservation and environmental concerns.

The haphazard and destructive components of the oil and gas evolution process have incentivized current lawmakers to jump in to proactively rein in wind rights before they also can obtain a status of dominance comparable to oil and gas. While some of this may be warranted by the conservation and environmental concerns that oil and gas development have created, the collapsing of three generations of oil and gas development into one for wind may also be curtailing development of the wind resource, which is much more benign to the environment than its legally-privileged fossil fuel predecessors.

For example, wind power is arguably still struggling through an "Era of Scientific Awareness." Because so little is known about the way wind reacts in turbines, it is still the subject of numerous scientific studies.[196]

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194. *Romero*, 603 F. Supp. 2d at 1335.

195. *Id.*

196. *See, e.g.,* Anna Fitch, Joseph B. Olson, & Julie K. Lundquist, *Representation of wind farms in climate models,* 26 J. CLIMATE 6439 (2013); Daniel T. Kaffine, Brannin J. McBee, & Jozef Lieskovsky, *Emissions savings from wind power generation in Texas*, 34(1) THE ENERGY J. 155 (2013); Matthew L. Aitken, Michael E. Rhodes, & Julie. K. Lundquist, *Performance of a wind-profiling lidar in the region of wind turbine rotor disks*, 29 J. ATMOSPHERIC & OCEANIC TECH., 347 (2012); Somnath Baidya Roy & Justin J. Traiteur, *Impacts of wind farms on surface air temperatures*, 107 PROCEEDINGS OF THE NAT'L ACAD. OF SCI. 17899 (2010), *available at* http://www.pnas.org/cgi/doi/10.1073/pnas.1000493107; US DOE 2010, *New Wind Resource Maps and Wind Potential Estimates for the United States*, http://www.windpoweringamerica.gov/filter_detail.asp?itemid=2542; US DOE 2008, *USDOE Workshop Report: Research Needs for Wind Resource Characterization*, NREL REPORT NO. TP-500-43521 at 116 (2008), *available at* http://www.nrel.gov/ce/wrc_workshop/main.cfm; US DOE 2008, *20% Wind Energy by 2030*, http://www1.eere.energy.gov/windandhydro/wind_2030.html; Somnath Baidya Roy, Stephen W. Pacala, & Robert L. Walko, *Can wind farms*

Similarly, wind energy appears to be susceptible to the same potential for physical and economic waste as oil and gas. Inefficient siting of wind farms could waste wind by preventing farms and turbines from harnessing the energy of the wind.[197] A lack of regulation of wind could lead to economic waste such as local market saturation or physical waste through transmission constraints, production variability, and inefficient storage.[198] Once the appropriate scientific information is available, wind might benefit from unitization-like statutes similar to those enacted during oil and gas's "Era of Conservation."

In addition, as we are still in "the Environmental Era," wind power has faced heightened scrutiny on the environmental front. A couple of examples include greater regulation of wind at the local level,[199] longer permitting time required for renewable energy projects by federal regulators,[200] and the heightened bird study standards for wind

affect local meteorology?, 109 J. GEOPHYSICAL RESEARCH D19101 (2004); David W. Keith, et al., *The influence of large-scale wind power on global climate*, 101 PROCEEDINGS OF THE NAT'L ACAD. OF SCI. USA 16115 (2004); *Evaluation of the Weather Research and Forecasting (WRF) model on forecasting low-level jets: Implications for wind energy*, WIND ENERGY.

197. Troy A. Rule, *Wind Rights Under Property Law: Answers Still Blowing in the Wind*, 26 PROB. & PROP. 56, 57 (2012); Alexander, *supra* note 97, at 438; Kimberly E. Diamond & Ellen J. Crivella, *Wind Turbine Wakes, Wake Effect Impacts, and Wind Leases: Using Solar Access Law as the Model for Capitalizing on Wind Rights during the Evolution of Wind Policy Standards*, 22 DUKE ENVTL L. & POL'Y F. 195 (2011), *available at* http://scholarship.law.duke.edu/delpf/vol22/iss1/4; Lauren Donovan, *Two Energy Projects Competing for the Wind*, BISMARK TRIBUNE (Feb. 22, 2008), *available at* http://bismarcktribune.com/news/local/two-energy-projects-competing-for-the-wind/article_4bd1f0d6-6616-512b-970f-b4301800f774.html.

198. Alexander, *supra* note 97, at 439.

199. As an example, thirteen of the fifteen counties in Colorado that have wind turbines have setback requirements. In contrast, only eleven of the forty-seven counties with oil and gas wells have setback requirements for those. Wyoming is even more dramatic: twenty-three counties have oil and gas wells and only one county has a setback requirement for such wells; in contrast eight of the twelve Wyoming counties with wind farms have setback requirements for turbines.

200. Neal McAliley, *Federal Environmental Permitting of Renewable Energy Projects*, EL DAILY AND ENERGY MANAGER TODAY (Aug. 2, 2011), http://www.environmentalleader.com/2011/08/02/federal-environmental-permitting-of-renewable-energy-projects ("[R]enewable energy projects can take longer to permit than conventional projects. Conventional projects may have more environmental impacts, but the nature of those impacts is better understood by agencies and there usually is a long track record of similar projects that agency staff can use as regulatory precedents. Renewable energy projects, on the other hand, often involve new technologies with more uncertain or newer types of impacts, and are proposed for locations where there is less understanding of the existing environment . . . . Agency staff also may lack examples of earlier-approved projects, which they can use as permit templates [or] may not have sorted out which agencies are responsible for what type of projects. All of these factors mean that renewable energy projects perversely may take longer to permit because they involve new technologies that do not involve undesirable, but well-understood, negative effects. The more cutting edge a technology, and the more unusual location where it will be located, the more challenging the project may appear to agency regulators.").

energy projects specifically.[201]

V. Problems with Wind Severance and Current Responses

This Section will address first, the problems created by wind severance; second, the response of legislative bans on this type of severance; and finally, the apparent negative repercussions of these bans.

A. *The Problems with Wind Severance*

Absent a specific ban on wind severance, there appears to be a presumption that a severable fee estate in wind might be the appropriate common law default for its categorization. The *Contra Costa* case, discussed above, came to the conclusion that wind was severable because it was a property right that could be bought and sold.[202] The case involved eminent domain proceedings in which the water district condemned ranch acreage upon which wind turbines had been erected or were planned.[203] In the condemnation proceedings, the water district, unwilling to pay the extra costs for wind rights, stipulated that the landowner retained its rights for wind energy and the transmission of wind power on the acreage in question.[204] The landowner argued that the severance was invalid because there was no existing precedent for severing the wind rights from the remainder of the land ownership.[205]

Not all interests in property that can be bought or sold qualify as severable estates. For example, a lease is property capable of being bought and sold, but leases are not generally considered severable interests.[206] However, the *Contra Costa* court's rationale rested on defining the wind right as being comparable to an oil and gas right. Once the right had been defined in this way, it then followed that wind severance was permissible because the severance of oil and gas was permissible.[207]

The issue of the validity of a severance of wind rights remains unresolved in most states.[208] Although no other court in the country has similarly categorized wind rights as comparable to oil and gas rights,

201. *See, e.g.,* Eagle Permits: Changes in the Regulations Governing Eagle Permitting, 77 Fed. Reg. 22,267 (Apr. 13, 2012) (to be codified at 50 C.F.R. 13 and 22) (requiring additional compensatory mitigation over the duration of a permit to mitigate the level of authorized take below the originally authorized take levels).

202. Contra Costa Water Dist. v. Vaquero Farms, Inc., 68 Cal. Rptr. 2d 272 (Ct. App. 1997).

203. *Id.* at 274.

204. *Id.* at 282.

205. *Id.* at 278.

206. A lease is more often considered a contractual right. Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 Colum. L. Rev. 773, 776 (2001). However, the line between contract and property rights is often blurred. *Id*. at 777. Note that easements also do not generally qualify as estates that can be granted in fee title. Smith et al., *supra* note 153, § 4.02.

207. *Contra Costa*, 68 Cal. Rptr. 2d at 278.

208. Smith et al., *supra* note 153, § 4.02.

many landowners have severed those rights from the surface presumably basing this form of ownership on similar assumptions to those in the *Contra Costa* case paralleling wind with oil and gas development.[209] Thus, the grant of wind rights in some states such as Texas, which is the nation's wind leader, typically are written as if those rights were severable.[210] Without clear authority on the topic, the question of whether or not a court will enforce these property rights creates legal uncertainty.[211] As a result, some project developers appear to have stopped working with landowners who have severed wind rights.[212] Thus, one of the problems of wind severance is the legal title uncertainty that could potentially leave acres of valuable wind lands undeveloped.

Wind severance also has the potential to cause significant problems on the ground. Many of these problems are similar to those for the extraction of minerals or other fossil fuels—problems interpreting the implied easement of access and potential conflicts with surface owners who do not want development. Severance exacerbates the conflicts between surface owners and those who wish to develop resources because surface owners must suffer the intrusion on their daily lives and livelihoods without any financial benefit. The owner of the severed mineral or wind estate, not the surface owner, receives royalties. Wind farms have the potential for even more acute conflicts because of the extensive and long-term surface use required for development.[213] When surface owners do not control the severed interests, they generally have little or no say in the development of the project and no bargaining power to seek accommodation.[214]

Furthermore, severance of wind can cause conflicts between competing severed interests. The potential that each of the severed estates are entitled to dominance over the surface through the concept

209. DuVivier & Wetsel, *supra* note 156, at 9-13, 9-26. *See also* Ernest Smith, *Wind Energy: Sitting Controversies and Rights in Wind*, 1 ENVTL. & ENERGY L. & POL'Y J. 281, 302 (2007).

210. Smith, *supra* note 210, at 303–307. Severance can occur through a deed in which the rights to the wind are either granted or reserved or through a will that devises wind rights apart from other incidents of ownership. SMITH ET AL., *supra* note 153, § 4.02.

211. Smith, *supra* note 210, at 303. *See also* Michael J. Stephan, Note, *Wind Severance*, 40 TEX. ENVTL. L.J. 73 (2009–2010); Lisa Chavarria, *The Severance of Wind Rights in Texas* 1 (2008), http://sbaustinlaw.com/library-papers/Chavarria-The_Severance_of_Wind_Rights%20(Final).pdf.

212. DuVivier & Wetsel, *supra* note 156, at 9-21 n.131 (quoting Mark Safty of Holland & Hart). *See also* Blaire D. Parker, *Capturing the Wind: the Challenges of a New Energy Source in Texas*, H. RESEARCH ORG. TEX. H.R., FOCUS REP. NO. 80-9 (2008). "Attorneys advise their clients against severance of wind rights from surface rights, and any statute regulating this may have unintended consequences for existing leases, previous severance is, and future wind energy development in the state." *Id.* at 18.

213. DuVivier & Wetsel, *supra* note 156, at 9-9, 9-11.

214. Ernest E. Smith & Becky H. Diffen, *Winds of Change: The Creation of Wind Law*, 5 TEX. J. OIL GAS & ENERGY L. 165, 179–182 (2010).

of the implied access of the easement could create confusion about the order of development of multiple resources.[215] These sets of complications could hurt not just wind energy development but also mineral development.[216]

As a result, some commentators, including the Author here, have argued in the past for a ban on wind severance to simplify the situation and to protect all parties' interests.[217] The rationale was to keep the surface owners involved in receiving royalties and allowing them to act as mediators between mineral and wind right developers.[218] In addition, the non-severance solution also appeared to offer an opportunity "to encourage the best development of our country's wind resources."[219]

B. *Legislation Banning Wind Severance*

Without waiting for courts to thrash out the status of wind rights, several state legislatures have jumped in to ban wind severance.

In 1996, South Dakota became the first state to enact such a ban.[220] At the same time that the *Contra Costa* case was working its way through the courts in California, the South Dakota legislature passed a law banning the severance of the wind right from the surface estate.[221]

South Dakota's ban on severance, section 43-13-19, does allow for a lease of the right to produce wind power.[222] However, the lease is limited to a period of fifty years. In addition, if no wind power production occurs on the land within five years after the beginning of the lease, the lease is also void.[223] South Dakota's statute has become something of a model for similar legislation banning severance, and the preference for lease rights over severance appears to have become the norm in severance-banning statutes.[224]

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215. *Id.* at 9-13.

216. Smith & Diffen, *supra* note 214.

217. DuVivier, *supra* note 2, at 98. *See also* Alexander, *supra* note 97, at 455–56.

218. DuVivier, *supra* note 2, at 97.

219. *Id.*

220. South Dakota banned severance to protect landowners from speculators who were buying up wind rights at $1 per acre before farmers or ranchers recognized their potential value. Telephone interview with Steve Wigman, analyst for the Public Utilities Commission, who claims to have written the legislation for South Dakota legislator Paul Simons (Sept. 2, 2008).

221. 1996 S.D. Laws ch. 260 (S.B. 95).

222. S.D. CODIFIED LAWS § 43-13-19 (2013) ("No interest in any resource located on a tract of land and associated with the production or potential production of energy from wind power on the tract of land may be severed from the surface estate . . . except that such rights may be leased for a period not to exceed fifty years. Any such lease is void if no development of the potential to produce energy from wind power has occurred on the land within five years after the lease began.").

223. *Id.*

224. South Dakota has also created a provision allowing for wind easements. S.D. Codified Laws § 43-13-17 (2013). "Any property owner may grant a wind easement in

Nearly ten years passed before another state followed South Dakota's lead to ban wind severance. In 2005, North Dakota enacted section 17-04-04 which banned severance of the wind right from the surface estate.[225] As with South Dakota, North Dakota limited the time available on wind easements and leases, as well as including the requirement that development occur within five years.[226]

Little else happened with severance legislation for a few years, but a chorus of commentators weighed in during this period.[227] This new awareness raised by commentators, and some litigation about wind severance,[228] seems to have spurred the next wave of legislation.

In 2010, a Colorado legislator proposed a bill that would have *allowed* landowners to sever wind rights from the surface estate.[229] This bill did not make it out of committee. However, just two years later, Colorado shifted in the other direction and passed a non-severance

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the same manner and with the same effect as a conveyance of an interest in real property. . . . Any such easement runs with the land or lands benefited or burdened and terminates upon the conditions stated in the easement, except that the term of any such easement may not exceed fifty years. Any such easement is void if no development of the potential to produce energy from wind power associated with the easement has occurred within five years after the effective date of the easement." The "runs with the land" language re-enforces that severance does not extend to these easements.

225. 2005 N.D. Laws 1573; N.D. Cent. Code § 17-04-04 (2013) ("Except for a wind easement created under § 17-04-03 and as otherwise provided in this section, an interest in a resource located on a tract of land and associated with the production of energy for wind power on the tract of land may not be severed from the surface estate. However, nothing in this section may be construed to prohibit or limit the right of a seller to retain any payments associated with an existing wind energy project.").

226. The North Dakota statute included a provision that the ban only applied prospectively. Several of the subsequent statutes also included a similar quote grandfather "provision to avoid potential" takings. North Dakota did include a provision that this ban only applied proactively. This began a potentially unfortunate trend in enacting these statutes—any wind estates that were severed before 2005 (or the passing of the relevant statute in other states) remained severed afterward. While no cases have come forth about issues created from this, it does seem to legitimize the hesitation of developers in recognizing severed wind estates.

227. *E.g.*, DuVivier, *supra* note 2, at 89 ("The lessons learned from oil development demonstrate that [the law of ownership rights to oil] should serve as a cautionary tale rather than as a model for efficient and equitable wind production."). *See also* DuVivier & Wetsel, *supra* note 156; Kathleen D. Kapla & Craig Trummel, *Severing Wind Rights Raises Legal Issues*, N. AM. WIND POWER (Oct. 2010), http://kaplalaw.com/NAW1010_WindRightsArticle.pdf; Nathaniel C. Giddings & Laurie A. Ristino, *Proposal: A Uniform Act for Wind Rights*, ENERGY COMMS. NEWSLETTER 8:2, 1 (Mar. 1, 2011), http://www.americanbar.org/content/dam/aba/publications/nr_newsletters/energy/201103_energy.authcheckdam.pdf; Roderick E. Wetsel & H. Alan Carmichael, *Currrent Issues In Texas Wind Energy Law*, STATE BAR OF TEX. AGRIC. LAW (2009); Lisa Chavarria, *Wind Power: Prospective Issues*, 68 TEX. B.J. 832 (2005); Smith, *supra* note 210; Stephan, *supra* note 210; Chavarria, *supra* note 212.

228. Romero v. Bernell, 603 F. Supp. 2d 1333 (D.N.M. 2009); Zimmerman v. Bd. of Cnty. Comm'rs of Wabanasee Cnty., 264 P.3d 989 (Kan. 2011) (This case was first filed in 2005.).

229. RUSS, *supra* note 149, at 5-6; H.R. DOC. NO. 10-1158, 67th Gen. Assem. 2d Reg. Sess. (Colo. 2010).

statute in 2012.[230] This Colorado statute was similar to the South Dakota statute but also explicitly stated that the wind energy was an interest in real property that belonged to the surface estate owner.[231]

In 2011, Montana, Wyoming, and Kansas all passed non-severance statutes.[232] All three of these looked very similar to South Dakota and North Dakota's statutes. Nebraska, which had already used legislation to declare wind a property right in 2009,[233] also passed a non-severance statute in 2012.[234] Nebraska's statute is unique in that it not only bans wind severance but also severance of solar energy rights.[235]

C. *Repercussions of Severance Bans*

The Author of this Article was one of the first to write about the problems of wind severance[236] and to encourage a statutory ban on the practice.[237] However, it appears success in passing these statutory bans, while solving some problems, may have created unintended negative consequences.

Some are making the assumption that non-severed wind rights should revert to the status of the surface estate and therefore be automatically subservient to severed oil and gas or other minerals.[238] A report to the Wyoming legislature went further to encourage express language in the wind severance ban statute to establish mineral estate dominance:

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230. COLO. REV. STAT. § 38-30.7-103 (2013).

231. *Id.* § 38-30.7-101.

232. MONT. CODE. ANN. § 70-17-404(1) (2013); 2011 Mont. Laws 977; WYO. STAT. ANN. § 34-27-103(b) (West 2013); 2011 Wyo. Sess. Laws 17; KAN. STAT. ANN. § 58-2272(b) (West 2011); 2011 Kan. Sess. Laws 692.

233. 2009 Neb. Laws 997.

234. 2012 Neb. Laws 497.

235. NEB. REV. STAT § 76-3004 (2013) ("No interest in any wind or solar resource located on a tract of land and associated with the production or potential production of wind or solar energy on the tract of land may be severed from the surface estate.").

236. DuVivier & Wetsel, *supra* note 156; DuVivier, *supra* note 2, at 71.

237. The Author testified about wind energy and severance before the Colorado House Committee on Agriculture, Livestock, and Natural Resources on Jan. 30, 2012. The Committee was considering HB 12-1105, legislation that addressed Wind Energy Property Rights. After Professor DuVivier's testimony, the Committee voted unanimously in favor of the bill. The Author testified in favor of the non-severance bill that passed before a committee of the Colorado General Assembly. *See also* Peter Blake, *Lawmakers seek to harness the wind—legally speaking—and tie it to the land*, COLO. NEWS AGENCY COVERING THE CAPITOL (Feb. 2, 2012), http://www.coloradonewsagency.com/2012/02/02/lawmakers-seek-to-harness-the-wind%E2%80%94legally-speaking%E2%80%94and-tie-it-to-the-land/; Interview by Ryan Warner with Professor K.K. DuVivier, Univ. of Denver Sturm Coll. of Law (Feb. 2, 2012).

238. *See, e.g.*, John Hickenlooper, Colo. Governor, Debate at the University of Denver Sturm College of Law: Who Should Regulate Hydraulic Fracturing in Colorado? (Apr. 1, 2013), http://mediaserv.law.du.edu/flashvideo/specialevents/Hydraulic-Fracturing-in-Colo-Debate/Hydraulic-Fracturing-in-Colorado-Debate-4-1-13.htm (stating that oil and gas rights had priority because they were severed estates and that renewable resources did not have similar development rights because of their non-severable status).

> Similar to pore space legislation, a legislative declaration of the estate dominance could reduce future litigation and create some certainty for wind developers. A declaration of mineral estate dominance would establish a baseline hierarchy of estates while shifting the burden on wind developers to conduct prudent operations in order to avoid conflicts. Additionally, a declaration of who is vested with the rights of ownership to wind would further reduce future conflicts.[239]

Yet, none of the rationales used by the judges who were responsible for the creation of mineral severance or the dominant-servient estate doctrine throughout the evolution of those concepts support subjugating wind to fossil fuels.

As noted above, the primary rationale for allowing "bounding" or mineral severance was the benefit to the public of allowing development of a valuable common resource.[240] This rationale applies equally for wind energy development as it does for other mineral or fossil fuel rights. In fact, in the context of climate change, an argument could be made that development of renewable energy resources should be a higher public priority than fossil fuel development.

Early cases only justified severance's "interference with the common law rights of property" because the surface owner was to receive some compensation (in "toll tin").[241] While current-day severance frequently takes the surface owner out of the equation for consultation and royalties, nonsevered wind rights allow the best result—development of a public resource without abrogation of the common law and with the involvement of, and rewards for, the surface owner.

Second, the rationale judges have used for developing the dominant-servient estate doctrine also supports an enhanced status for wind. The role of wind power in addressing U.S. energy needs attests to its "quasi public character . . . absolutely essential to our common comfort and prosperity."[242] To place wind development beyond the reach of the public would be "a great public wrong."[243]

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239. Benjamin A. Kinney & Brian J. Marvel, *Defining Wind Rights in Wyoming: A Practical Solution, in* Memo from Mary Byrnes, Associate Director of Energy Outreach, University of Wyoming—School of Energy Resources to Senator Jim Anderson, Chairman of the Task Force on Wind Energy of the Wyoming Legislature, *Submission of University of Wyoming- College of Law, Wind Energy Legal Research Reports,* at 30 (Oct. 11, 2009), *available at* http://legisweb.state.wy.us/WindEnergy/44.pdf. In the subsequent Wyoming statute, the legislature adopted the memo's adoption by stating that "[n]othing in this act shall be construed to change the common law as of Apr. 1, 2011 as it relates to the rights belonging to, or the dominance of, the mineral estate." WYO. STAT. ANN. § 34-27-104 (2014).

240. *See supra* text accompanying note 26.

241. *See supra* text accompanying note 26.

242. Chartiers Block Coal Co. v. Mellon, 25 A. 597, 599 (Pa. 1983); *see also supra* text accompanying note 35.

243. *Chartiers Block Coal*, 25 A. at 599; *see also supra* text accompanying note 48.

Furthermore, some of the statutes that banned wind severance, nonetheless, recognized "a nonseverable wind energy right in real property."[244] This property right, whether held by the surface owner or a wind developer, also requires access for development or the right "would be wholly worthless. . . ."[245] Therefore, there is a business, as well as a legal, basis for distinguishing wind development rights from traditional servient surface rights.

In addition, there are policy arguments against giving conventional severed rights legal dominance over wind rights. In the absence of clear authority on the dominance of one estate over another, oil and gas operators have been urged to work with wind operators to negotiate accommodation or surface use agreements.[246] Even in this climate of uncertainty, traditional oil and mineral estate owners have been less willing to work with other interests based simply upon the assumption that their rights have a higher priority. If this hierarchy is formalized and traditional interests are given uncontested dominance, the incentives to negotiate are further decreased, exacerbating the situation to the detriment of wind development.

Some might argue that oil and gas is more valuable, therefore justifying its dominant status over wind.[247] However, as the *Chartiers Block Coal* court noted, the relative value of various estates may shift over time.[248] Instead of legally entrenching fossil fuels as dominant, and therefore the winners with renewable resources as the losers, a more logical approach would be to allow both the wind and the fossil fuel estates equal dignity under the law and to let the market decide how the parties choose to work things out.

VI. Conclusion

If the sins of severance from oil and gas were a basis for urging legislators not to create similar landowner-developer relationships in the context of wind, it is problematic if these sins are the cause for additional impediments to wind development. This conclusion however, is not a necessary result. The same rationales for development of oil and gas apply to wind, so they should be used not only to encourage its development but also to make it an estate of equal dignity to fossil fuels regardless of its severance status.

244. *See, e.g.*, Colo. H.B. 12-1105, *available at* http://www.leg.state.co.us/CLICS/CLICS2012A/csl.nsf/fsbillcont3/DD27838CF592266487257981007F166B?Open&file=1105_enr.pdf.

245. Harris v. Currie, 176 S.W.2d 302, 305 (Tex. 1943); *see also supra* text accompanying note 49.

246. *See*, *e.g.*, DuVivier & Wetsel, *supra* note 156, at 9-22 to 9-23.

247. Currently, royalty returns for landowners for oil and gas wells is generally exponentially higher than for wind energy royalties. *See*, *e.g.*, DuVivier & Wetsel, *supra* note 156, at 9-29 n.166.

248. *Chartiers Block Coal*, 25 A. at 599; *see also supra* text accompanying note 34.

Courts created the law of severance and the dominant–servient estate doctrine in the context of the needs of their times. Our times require new, as well as old, forms of energy. Fossil fuels have been rewarded for their sins with enhanced legal status. Instead of imposing penance for these past sins on the next generation of renewable energy resources, the goal should be a system that equally encourages the development of all forms of energy consistent with the values of our Environmental Era.