

ARTICLE

BALANCING RIGHTS IN A NEW ENERGY ERA: WILL THE MINERAL ESTATE'S DOMINANCE CONTINUE?

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ABSTRACT

Popular and political discourse, proposed and enacted legislation, and promulgated policies seek to end the United States' dependence on fossil fuels, specifically oil and natural gas. Subsurface natural resources and respective property rights abound in the United States. The “dominant mineral estate doctrine” protects subsurface property rights and enables oil and natural gas success. The policies of the dominant mineral estate doctrine—encouraging the development of domestic oil and natural gas and protecting specific property rights—conflict with today's movement toward renewable energy and enhanced environmental protections. How society applies the doctrine and decides mineral estate property right disputes in the coming decades will be key to resolving energy and environmental issues.

In evaluating whether the mineral estate will remain dominant, the express and implied rights of energy, environment, economics, and sustainability that are impacted by oil and natural

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gas development must be assessed alongside the policies that promote the dominant mineral estate, including: resource development, conservation, investment expectations, conveyance validity, national security, and of course, protection of property rights. Will the mineral estate remain dominant, and if it does not, how will diminished or terminated property rights be treated? Understanding the dominant mineral estate doctrine is key to solving current and future battles over the development, consumption, and impact of the Earth's resources.

In this Article, Part I details the dominant mineral estate doctrine and the rights it protects and promotes; Part II analyzes the dominant mineral estate doctrine as modified by the accommodation doctrine and surface damage laws, along with the current policies and perspectives utilized in resolving conflicts; Part III assesses the express and implied rights that yield to the dominant mineral estate doctrine and questions whether the balancing of rights will alter the dominance of the mineral estate; and Part IV concludes with evaluating the future implications for changes in energy resource dominance when different dynamics, stakeholders, and perspectives are considered in private and public battles.

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I. INTRODUCTION

Communities and states throughout the United States are calling for energy to be fully provided by renewable resources.¹ While modifications and changes are underway to lessen the use of natural gas and oil, replacing *all* fossil fuels in the United States unquestionably requires technological development and very significant change, including change in the policies and laws that currently support fossil fuels over renewable resources.²

The “dominant mineral estate doctrine” is an essential body of property law and policy that has fueled oil and gas as preeminent resources.³ Drilling for onshore oil or gas resources necessitates access to the earth’s surface.⁴ In the instance that

1. See *100% Commitments in Cities, Counties, & States*, SIERRA CLUB, <https://www.sierraclub.org/ready-for-100/commitments> [<https://perma.cc/666B-9UKE>] (last visited Mar. 18, 2020); *Green New Deal—Full Language*, GREEN PARTY US, https://www.gp.org/gnd_full [<https://perma.cc/JXN9-SDCG>] (last visited Mar. 18, 2020) (“The centerpiece of the Green New Deal is a commitment to transition to 100% clean, renewable energy by 2030. The transition to clean energy is not only a visionary plan for a better world, it’s absolutely necessary to ensure we have a world at all.”).

2. Monika U. Ehrman, *A Call for Energy Realism: When Immanuel Kant Met the Keep It in the Ground Movement*, 2019 UTAH L. REV. 435, 459–69; see also Mark Z. Jacobson et al., *100% Clean and Renewable Wind, Water and Sunlight (WWS) All-Sector Energy Roadmaps for the 50 United States*, 8 ENERGY & ENVTL. SCI. 2093, 2094, 2115 (2015).

3. See Eugene O. Kuntz, *The Law Relating to Oil and Gas in Wyoming*, 3 WYO. L.J. 107, 111–13 (1949); *Fossil Fuels Still Dominate U.S. Energy Consumption Despite Recent Market Share Decline*, U.S. ENERGY INFO. ADMIN. (July 1, 2016), <https://www.eia.gov/todayinenergy/detail.php?id=26912> [<https://perma.cc/6AF8-ZQCV>].

4. See EXXON MOBIL CORP., UNCONVENTIONAL RESOURCES DEVELOPMENT—MANAGING THE RISKS 5–7 (2014), <https://corporate.exxonmobil.com/-/media/Global/Files/hydraulic-fracturing/Unconventional-Resources-Development-Risk-Management-Report.pdf> [<https://perma.cc/ETB4-9QG8>].

mineral interests are owned separately from the surface interests, the law has provided the mineral interest owner access to, and use of, the surface to acquire those interests.⁵ Resolution of the inevitable conflicts that arose out of surface access for mineral exploration and production led to the development of an extensive body of law and policy establishing the dominant mineral estate doctrine.⁶

While layered with practical explanations concerning implied property rights, the dominant mineral estate doctrine was a public policy choice seeking to develop the economic value of minerals, avoid waste, and secure domestic energy sources.⁷ Lawmakers and policymakers encouraged exploration and production of specific energy resources.⁸ When conflicts arose among property owners, the property rights of subsurface property owners were elevated.⁹ Declaring that mineral interests must be superior to surface interests was a decision of the greatest good for the greatest number of stakeholders at that time.¹⁰

With time, research, knowledge, and understanding, the history of fossil fuel development is replete with positive results, including economic growth, products that improve human existence, and greater energy resources for many all over the world.¹¹ Simultaneously, fossil fuel development and utilization have also had consequences on clean air and clean water, impaired vistas, been a nuisance to human existence, altered topography, and created long-term known and theorized impacts.¹²

5. Kuntz, *supra* note 3, at 112–13.

6. See Bret Wells, *The Dominant Mineral Estate in the Horizontal Well Context: Time to Extend Moser Horizontally*, 53 HOUS. L. REV. 193, 201, 207–09 (2015).

7. K.K. DuVivier, *Sins of the Father*, 1 TEX. A&M J. REAL PROP. L. 391, 396, 398–99 (2014); see also *Evanston Ins. Co. v. Legacy of Life, Inc.*, 370 S.W.3d 377, 382–83 (Tex. 2012) (“[P]roperty does not refer to a thing but rather to the rights between a person and a thing.”).

8. DuVivier, *supra* note 7, at 396–99.

9. *Id.*

10. See James Huffman & David Fleming, *Allocative and Energetic Implications of Land Use Planning*, 5 ENVTL. L. 477, 481–92 (1975). *But see* Louis F. Potter, *Free Land Is Necessary for a Green Revolution*, GREEN REVOLUTION, Mar. 1967, at 1.

11. See ALEX EPSTEIN, *THE MORAL CASE FOR FOSSIL FUELS* 177 (2014) [hereinafter EPSTEIN, *THE MORAL CASE FOR FOSSIL FUELS*]. Compare Jody Freeman, *A Critical Look at “The Moral Case for Fossil Fuels,”* 36 ENERGY L.J. 327, 339–42 (2015) (criticizing Epstein’s argument for continued use of fossil fuels), with Alex Epstein, *A Straw Man Attack on the Moral Case for Fossil Fuels*, 38 ENERGY L.J. 79, 90 (2017) [hereinafter Epstein, *A Straw Man Attack*] (defending the argument that fossil fuels have positive societal impacts that outweigh any negative impacts).

12. See Karl S. Coplan, *Fossil Fuel Abolition: Legal and Social Issues*, 41 COLUM. J. ENVTL. L. 223, 230–31 (2016); Melissa Denchak, *Fossil Fuels: The Dirty Facts*, NAT. RESOURCES DEF. COUNCIL (June 29, 2018), <https://www.nrdc.org/stories/fossil-fuels-dirty-facts> [<https://perma.cc/JY7N-KXAK>].

If fossil fuel usage is to be reduced and ultimately eliminated, the dominant mineral estate doctrine requires evaluation and reconsideration. Critically examining the public policy at the core of dominant mineral estate laws that strongly encourages oil and natural gas development and protects mineral estate property rights signals that a change may be on the horizon as energy and natural resource policies and laws evolve.

Given current and developing policies for energy, trends in energy usage, and the contours of the dominant mineral estate doctrine, will the mineral estate's dominance continue? Will common law amend the dominant mineral estate doctrine in line with public policy that recognizes the expanse of rights impacted by the development of oil and natural gas, the development of other resources, and the value of the interests impacted far beyond the severed surface estate? If the property rights protected by the mineral estate give way to other rights, how will the significant legal and financial consequences be resolved, including: stranded assets, asset evaluation, investment returns, mineral rights severance persistence, and takings occurrences?

Fully transitioning from fossil fuels to alternative energy sources will not be completely realized without resolving the issues created by the backbone of oil and natural gas's prevalence: the dominant mineral estate doctrine. Part I of this Article details the dominant mineral estate doctrine and the rights it protects and promotes. Part II analyzes the dominant mineral estate doctrine as modified by the accommodation doctrine and surface damage laws, along with the current policies and perspectives utilized in resolving conflicts. Part III assesses the express and implied rights that yield to the dominant mineral estate doctrine and questions whether the balancing of rights will alter the dominance of the mineral estate. And Part IV concludes with evaluating the future implications for changes in energy resource dominance when different dynamics, stakeholders, and perspectives are considered in private and public battles.

II. THE DOMINANT MINERAL ESTATE DOCTRINE

Fossil fuels' dominance in the United States follows a long history with numerous factors that gave rise to coal, oil, and natural gas as historically preferred energy choices.¹³ Abundant availability and the opportunity for successful business ventures

13. See *Fossil Fuels Have Made up at Least 80% of U.S. Fuel Mix Since 1900*, U.S. ENERGY INFO. ADMIN. (July 2, 2015), <https://www.eia.gov/todayinenergy/detail.php?id=21912> [<https://perma.cc/FH8Z-2GZE>].

were unmistakable.¹⁴ Over time, a multilayered, complex, and ever-evolving, policy-driven statutory and regulatory framework developed to address a dynamic energy industry.

That legal framework includes property laws created and expanded to settle disputes when ownership of the surface estate and ownership of the mineral estate are not held by the same party.¹⁵ Exercising the rights associated with different property interests often occurs in harmony. However, the dominant mineral estate doctrine was created when conflict arose between or among the property interests, and mineral development was at stake, to resolve the severed interest disagreement.¹⁶

A. *The Entire Bundle of Sticks*

Real property rights have long been described as a “bundle of sticks.”¹⁷ When one party owns all of the sticks in the bundle, that party is said to own the property in fee simple or fee simple absolute.¹⁸ One party does not always own all of the sticks.¹⁹ Those sticks may be parceled out into different interests, which may be restricted in time, use, development, transferability, and more.²⁰

In oil and gas, the fee or fee interest “often refers to the totality of all private rights in the land.”²¹ The fee owner “owns the surface, the airspace above the surface, and everything beneath the surface in fee simple absolute, an estate which is alienable,

14. *See id.*

15. *See* Chambers-Liberty Ctys. Navigation Dist. v. Banta, 453 S.W.2d 134, 136 (Tex. 1970) (“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.” (quoting *Cowan v. Hardeman*, 26 Tex. 217, 222 (1862))).

16. Alexandra B. Klass, *Tax Benefits, Property Rights, and Mandates: Considering the Future of Government Support for Renewable Energy*, 20 J. ENVTL. & SUSTAINABILITY L., Summer 2013, at 19, 45, 47–48.

17. *Lightning Oil Co. v. Anadarko E&P Onshore, LLC*, 520 S.W.3d 39, 48 (Tex. 2017); *see also* Monika U. Ehrman, *One Oil and Gas Right to Rule Them All*, 55 HOUS. L. REV. 1063, 1064 & n.1 (2018) (citing *United States v. Craft*, 535 U.S. 274, 278 (2002)) (“[A] ‘common idiom describes property as a ‘bundle of sticks’—a collection of individual rights which, in certain combinations, constitutes property. State law determines only which sticks are in a person’s bundle.”).

18. *See* JOHN S. LOWE ET AL., *CASES AND MATERIALS ON OIL AND GAS LAW* 112 (7th ed. 2018).

19. *See id.* at 112–13.

20. *See id.*; *Mineral & Surface Rights Relationships*, N.D. ST. U., <https://www.ag.ndsu.edu/ndoilandgaslaw/surface-mineralrights/mineralandsurfacereationship> [https://perma.cc/FTJ2-9XQ6] (last visited Feb. 17, 2020).

21. LOWE ET AL., *supra* note 18, at 112.

devisable, and inheritable.”²² In other words, the fee interest includes “ownership of both surface and mineral rights.”²³

Different “kinds of interests in oil, gas, and other minerals may be carved from the fee. . . . [T]hese interests may be created and conveyed or reserved as are other interests in real property.”²⁴ A split estate arises when the owner of a fee estate “convey[s] or reserve[s] the mineral interest separately from the remainder of the property.”²⁵

When a split estate has been created, disputes between the owners may arise concerning surface access, surface use, surface repair, ownership of resources near the surface, resources surrounding minerals, and more.²⁶ The dominant mineral estate doctrine applies when ownership of the surface estate is not in common ownership with the mineral estate and discord arises.²⁷

B. The Mineral Estate

Property ownership rights in the United States include ownership of minerals by both private and public parties.²⁸ The mineral estate, which may be referred to as the mineral interest or mineral rights, may be created by severing it from the fee interest, away from the entire bundle of sticks.²⁹

What minerals are included when evaluating a mineral estate is not always clear or consistent, but for purposes of the analysis in this Article, the mineral interest is primarily focused on oil and natural gas.³⁰ For example, Pennsylvania held that oil and gas

22. *Id.*

23. JOHN S. LOWE, OIL AND GAS LAW IN A NUTSHELL 41 (6th ed. 2014).

24. LOWE ET AL., *supra* note 18, at 112; *see also Split Estate*, EARTHWORKS, https://earthworks.org/issues/split_estate [<https://perma.cc/AQ9P-Z55D>] (last visited Feb. 26, 2020).

25. LOWE, *supra* note 23, at 44; *Scratching the Surface on Mineral Rights*, LAND TITLE GUARANTEE COMPANY (Mar. 2, 2018), <https://www.ltgc.com/articles/mineral-rights/> [<https://perma.cc/3623-VXFX>].

26. *See* *Lightning Oil Co. v. Anadarko E&P Onshore, LLC*, 520 S.W.3d 39, 48–49 (Tex. 2017).

27. *Hunt Oil Co. v. Kerbaugh*, 283 N.W.2d 131, 134–35 (N.D. 1979).

28. *W. Nuclear, Inc. v. Andrus*, 475 F. Supp. 654, 657 (D. Wyo. 1979); Wells, *supra* note 6, at 204–05. With respect to public lands, the court in *Andrus* wrote:

“Historically, the severance of the surface from the mineral estate can be traced to English Common Law by which the Crown retained the gold and silver from grants of the land. The Continental Congress in America followed suit by reserving a 1/3 interest in all gold, silver, lead and copper mined on the public lands opened to settlement under the Land Ordinance of 1785.”

Andrus, 475 F. Supp. at 657.

29. LOWE ET AL., *supra* note 18, at 112–13.

30. *See* *W. Va. Dep’t of Transp. v. Veach*, 799 S.E.2d 78, 97 (W. Va. 2017) (Ketchum, J., concurring) (“[S]hould a question arise in the future as to the meaning of the word

were not minerals,³¹ Indiana found that coal was not included in a reservation of “oil, gas, and other minerals,”³² bauxite was not a “mineral deposit” in Arkansas,³³ a “reservation of ‘minerals’ did not include marble” in Michigan,³⁴ and in Wyoming “a reservation of ‘oil, gas, and kindred minerals’ did not include uranium.”³⁵

Professor Eugene Kuntz offered the following to establish what the term “mineral” should entail; although modified with time and technology, it has been utilized since 1949:³⁶

When a general grant or reservation is made of all minerals without qualifying language, it should be reasonably assumed that the parties intended to sever the entire mineral estate from the surface estate, leaving the owner of each with definite incidents of ownership enjoyable in distinctly different manners. The manner of enjoyment of the mineral estate is through extraction of valuable substances, and the enjoyment of the surface is through retention of such substances as are necessary for the use of the surface, and these respective modes of enjoyment must be considered in arriving at the proper subject matter for each estate.

Applying this intention, the [mineral] severance should be construed to sever from the surface all substances presently valuable in themselves, apart from the soil, whether their presence is known or not, and all substances which become valuable through development of the arts and sciences, and that nothing presently or prospectively valuable as extracted

‘mineral’ in a writing, courts should look to the general intent of the parties. When a deed, will or other conveyance includes a general grant or reservation of all minerals without clear qualifying language, a court should reasonably assume that the parties to the writing intended to sever the entire mineral estate from the surface estate.”); *see also* Joshua P. Fershee & S. Alex Shay, *Horizontal Drilling, Vertical Problems: Property Law Challenges from the Marcellus Shale Boom*, 49 J. MARSHALL L. REV. 413, 441–43 (2015) (explaining distinctions between mineral and royalty rights); RICHARD L. MERRILL, OWNERSHIP OF MINERAL RIGHTS UNDER TEXAS LAW 19 (citing *Benge v. Scharbauer*, 259 S.W.2d 166, 167–68 (Tex. 1953)), <https://www.fabiomerrill.com/Oil-Gas-and-Minerals/Ownership-of-Mineral-Rights-Under-Texas-Law.pdf> [<https://perma.cc/Q8RE-FX2X>] (last visited Mar. 21, 2020) (explaining that mineral rights may be divided into many different components).

31. *Butler v. Charles Powers Estate ex rel. Warren*, 65 A.3d 885, 896 (Pa. 2013) (reaffirming the “Dunham Rule” and holding that mineral rights do not include oil or natural gas without express inclusion in the private deed); *Veach*, 799 S.E.2d at 94 (Ketchum, J., concurring) (citing *Dunham v. Kirkpatrick*, 101 Pa. 36, 43 (1882) (holding that the phrase “all minerals” does not include petroleum oil)).

32. *Veach*, 799 S.E.2d at 94 (Ketchum, J., concurring) (citing *Besing v. Ohio Valley Coal Co. of Ky.*, 293 N.E.2d 510, 512 (Ind. Ct. App. 1973)).

33. *Id.* (citing *Carson v. Mo. Pac. R. Co.*, 209 S.W.2d 97, 99 (Ark. 1948)).

34. *Id.* (citing *Deer Lake Co. v. Mich. Land & Iron Co.*, 50 N.W. 807, 809 (Mich. 1891)).

35. *Id.* (citing *Dawson v. Meike*, 508 P.2d 15, 18 (Wyo. 1973)).

36. Kuntz, *supra* note 3, at 112–13; *see also* *Lightning Oil Co. v. Anadarko E&P Onshore, LLC*, 520 S.W.3d 39, 48 (Tex. 2017).

substances would be intended to be excluded from the mineral estate.³⁷

The “manner of enjoyment” approach by Professor Kuntz not only details the notion of what a mineral entails today and in the future but also bolsters the implied rights of mineral estate ownership. The notion of enjoying mineral rights underlies the policy of the dominant mineral estate doctrine.³⁸

Creation of the mineral estate may occur in a number of ways, including as a matter of law, private severance and estate distribution.³⁹ This severance may vary in what is included and how it is structured.⁴⁰ The split estate could be conditional, temporary, or even permanent.⁴¹

Professor John Lowe identifies several “incidents” or implied rights found in common law that are created with a mineral estate.⁴² How the implied rights are described varies, but include: “the right to use the surface”; “the right to incur costs and to retain profits (the right to develop)”; “the right to alienate”; and “the right to retain lease benefits.”⁴³

Common law sets forth that the right to use the surface allows for the “right to go onto the surface of the land to extract the minerals, as well as those incidental rights reasonably necessary for the extraction.”⁴⁴ This right includes “the right to use as much

37. *Veach*, 799 S.E.2d at 96–97 (quoting Kuntz, *supra* note 3, at 112–13).

38. *Id.*; Stephen R. Brown, *Montana*, 1 TEX. A&M L. REV. (SURV. ON OIL & GAS) 167, 169 (2014) (citing *Pinnacle Gas Res., Inc. v. Diamond Cross Props., LLC*, 201 P.3d 160, 166 (Mont. 2009)).

39. *LOWE*, *supra* note 23, at 44–45 (noting that under Louisiana law, oil and gas rights may not be severed from surface rights, but a mineral servitude may be imposed to give the servitude holder “the right to search for, develop, and produce oil and gas.”).

40. *LOWE ET AL.*, *supra* note 18, at 112; *see also, e.g.*, *Taylor v. Coal-Mac, Inc.*, 864 S.W.2d 302, 304–05 (Ky. Ct. App. 1993).

41. *See* *LOWE ET AL.*, *supra* note 18, at 112.

42. *Id.* at 113.

43. *Id.*; *see also* *Lightning Oil Co. v. Anadarko E&P Onshore, LLC*, 520 S.W.3d 39, 49 (Tex. 2017) (“When the owner of a fee simple estate severs the mineral estate by a conveyance, five rights are conveyed to the transferee or grantee: ‘(1) the right to develop, (2) the right to lease, (3) the right to receive bonus payments, (4) the right to receive delay rentals, and (5) the right to receive royalty payments.’” (quoting *Hysaw v. Dawkins*, 483 S.W.3d 1, 9 (Tex. 2016))).

44. *Merriman v. XTO Energy, Inc.*, 407 S.W.3d 244, 248–49 (Tex. 2013). For a discussion of federal severed estates detailing the rights and duties of the dominant estate, including access, societal obligations, and environmental compliance, *see* Dennis C. Stickley, *Comparative Law of Severed Estates*, U. WYO. (Nov. 6, 2009), http://www.uwyo.edu/law/centers/rural-law-center/conferences%20and%20presentations/dominant-estate/docs/stickley_comparative_law_of_severed_estates.pdf [https://perma.cc/RC8Q-SDK5].

of the surface as is reasonably necessary to extract and produce the minerals.”⁴⁵

The right to use the surface, often called an implied easement, is the link between the mineral estate’s required surface access to “explore for, develop, and produce the minerals” and the opportunity to attain the full rights held by a mineral estate owner.⁴⁶ Surface access and use are often identified as logically necessary to the “enjoyment” of the minerals that Professor Kuntz identified.⁴⁷ Courts have held that if the mineral owner “has only one method for developing and producing the minerals, that method may be used regardless of whether it precludes or substantially impairs an existing use of the servient surface estate.”⁴⁸ This tenet of the dominant mineral estate doctrine alone is significant in considering the future resolution of competing rights and the implications of potentially stranded onshore, domestic resources.⁴⁹

C. *The Dominant Mineral Estate*

When the two estates are not in common ownership and issues arise over the need to access the surface for the benefit of the mineral estate, the mineral estate is designated as the dominant estate in an effort to fully realize the mineral estate’s value.⁵⁰ Placing the mineral estate in a position to benefit from the surface estate was the result of policy choices focused on natural resource development, economic interests, conservation, international affairs, and of course, property interests.⁵¹ The

45. *Merriman*, 407 S.W.3d at 249; see also *Chambers-Liberty Ctys. Navigation Dist. v. Banta*, 453 S.W.2d 134, 136 (Tex. 1970) (citing *Cowan v. Hardeman*, 26 Tex. 217, 222 (1862)).

46. LOWE ET AL., *supra* note 18, at 113.

47. Kuntz, *supra* note 3, at 113.

48. *Merriman*, 407 S.W.3d at 249 (citing *Tarrant Cty. Water Control & Improvement Dist. No. One v. Haupt, Inc.*, 854 S.W.2d 909, 911 (Tex. 1993)).

49. *But see* Jude Clemente, ‘Stranded Asset’ Argument Against Coal, Oil and Natural Gas Isn’t Real, FORBES (Mar. 2, 2018, 9:00 AM), <https://www.forbes.com/sites/judeclemente/2018/03/02/stranded-asset-argument-against-coal-oil-and-natural-gas-isnt-real/#4bea7ad0613e> [https://perma.cc/DDP2-923M].

50. Shannon L. Ferrell, *The Oklahoma Surface Damage Act: Basics for the ‘Non-Oil-and-Gas’ Practitioner*, 80 OKLA. B.J. 1049, 1049 (2009) (citing *Davis Oil Co. v. Cloud*, 766 P.2d 1347, 1349–50 (Okla. 1986)).

51. *Chartiers Block Coal Co. v. Mellon*, 25 A. 597, 599 (Pa. 1893); see also *Steel v. St. Louis Smelting & Ref. Co.*, 106 U.S. 447, 449 (1882); Gary C. Bryner, *Coalbed Methane Development: The Costs and Benefits of an Emerging Energy Resource*, 43 NAT. RESOURCES J. 519, 528–29, 533, 541, 543 (2003); LoValerie Mullins, *The Equity Illusion of Surface Ownership in Coalbed Methane Gas; the Rise of Mutual Simultaneous Rights in Mineral Law and the Resulting Need for Dispute Resolution in Split Estate Relations*, 16 MO. ENVTL.

decision to establish the mineral estate as dominant significantly contributed to the body of law that followed, which placed a premium on oil and natural gas development over other uses of natural resources.⁵²

1. *Competing Property Rights and Giving Conveyances Meaning.* The dominant mineral estate provides resolution to the conflicts that arise between or amongst competing property rights. From a practical perspective, the law holds that:

A conveyance of a mineral estate implicitly carries with it the right of ingress, egress and reasonable surface use, otherwise the mineral conveyance can be rendered wholly worthless by a surface owner who denies access. Conversely, a surface estate cannot be made worthless through the mineral owner's actions, and the surface owner is entitled to damages caused by production operations, damages that vary depending upon whether the mineral owner's acts were negligent or intentional. [Following] Professor Kuntz, the mineral owner can make reasonable use of the surface for exploration and extraction, but must compensate the surface owner for any damage caused to the surface estate.⁵³

The law recognizes duties between mineral owners and surface owners flowing from their property ownership.⁵⁴

The mineral owner owes a duty of subjacent support to the surface, while the surface owner must provide reasonable access to remove minerals. "The surface estate is burdened with the right of access, and the mineral estate is burdened with the right of the surface owner to insist that the surface be left intact and that it not be rendered valueless for the

L. & POL'Y REV. 109, 142–43 (2009).

52. Klass, *supra* note 16, at 55.

53. W. Va. Dep't of Transp. v. Veach, 799 S.E.2d 78, 97 (W. Va. 2017) (Ketchum, J., concurring); *see also* Town of Moorcroft v. Lang, 779 P.2d 1180, 1185 (Wyo. 1989) ("After severance, the mineral estate enjoys an existence separate and apart from the surface estate. The severance creates two separate estates both of which are mutually dominant and servient. Each is a freehold estate separate and independent of the other." (citing Ohio Oil Co. v. Wyo. Agency, 179 P.2d 773, 778 (Wyo. 1947))).

54. *See Veach*, 799 S.E.2d at 97; DuVivier, *supra* note 7, at 397 n.39, 411–12 (comparing oil and gas rights to wind rights and recognizing *Hebert v. Hudson*, 13 La. 54 (1839), as one of the first cases to utilize the dominant and servient estate terminology); Fershee & Shay, *supra* note 30, at 422–23 (first citing 1 EUGENE KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS § 3.2 (rev. ed., Matthew Bender 2015) (1987); and then citing Kinney-Coastal Oil Co. v. Kieffer, 277 U.S. 488, 504 (1928)); Stickley, *supra* note 44 (detailing the rights and duties of the dominant estate, including "[a]ccess," "[s]ocietal [o]bligations," and "[e]nvironmental [c]ompliance").

purposes for which it is adapted, by depletion of sub-surface or surface substances.”⁵⁵

As demonstrated in Part III, common law and legislation have established limits to the duties that surface owners owe to mineral rights owners. Given the fundamental, practical notion of the need for access to the surface to acquire the minerals and to give full meaning to a conveyance, it is in the constraints and considerations of the resolution-of-rights conflicts that we find whispers of other rights that may be considered in the future, beyond severed estates and the possible ending of the mineral estate dominance.⁵⁶

2. *Natural Resource Development Policy.* Law and policy resolving conflicting property rights entail not only the practical considerations of the necessity of surface access and validity of conveyances, but also policies that promote natural resource development, domestic economic interests, and international affairs in energy.⁵⁷ In the late 1800s, courts shifted away from the historical practice of balancing property interests when the value of minerals as energy became clear with technological advancements.⁵⁸ During this period, mineral ownership was elevated.⁵⁹

Cases recognized that “minerals took on a ‘quasi public character’ because they were ‘absolutely essential to our common comfort and prosperity.’”⁶⁰ In *Chartiers Block Coal Co. v. Mellon*, the court held:

To place [coal, oil, gas, and iron] beyond the reach of the public would be a great public wrong. Abounding, as our state does, with these mineral treasures, so essential to our common prosperity, the question we are considering becomes of a *quasi* public character. It is not to be treated as a mere contest between A. and B. over a little corner of earth.⁶¹

55. *Veach*, 799 S.E.2d at 97 (quoting Kuntz, *supra* note 3, at 113).

56. *Merriman v. XTO Energy, Inc.*, 407 S.W.3d 244, 249 (Tex. 2013) (citing *Tarrant Cty. Water Control & Improvement Dist. No. One v. Haupt*, 854 S.W.2d 909, 911–12 (Tex. 1993)).

57. See *Natural Gas Explained: Natural Gas Imports and Exports*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/energyexplained/index.php?page=natural_gas_imports [<https://perma.cc/WDX4-XBVU>] (last updated Apr. 30, 2019); *Oil: Crude and Petroleum Products Explained*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/energyexplained/index.php?page=oil_imports [<https://perma.cc/3EED-NXR5>] (last updated May 29, 2019).

58. *DuVivier*, *supra* note 7, at 396–97.

59. *Id.* at 397.

60. *Id.* (quoting *Chartiers Block Coal v. Mellon*, 25 A. 597, 598–99 (Pa. 1893)).

61. *Chartiers*, 25 A. at 599; see also *Steel v. St. Louis Smelting & Ref. Co.*, 106 U.S.

Kuntz moved this forward as he wrote that, not only did mineral estate dominance resolve the practical aspects of giving access to the surface and meaning to severance conveyances, but also that it promoted other policies:

A supporting policy to be considered is that orderly production of oil, gas, or other valuable substances should be encouraged and favored wherever possible to contribute to the wealth and well-being of society in general and the community in particular. As petroleum and petroleum products grow in importance as military supplies, a consideration of national security should also be included in the policy favoring production.⁶²

The mission was clear: “If there is to be maximum and efficient use of the land and full development of mineral resources, private interests cannot always be compatible. . . . [Oil’s] development from a mineral into energy to serve man is of utmost importance.”⁶³ With natural resource development, states could help promote and ensure the resources necessary to power a population growing in its dependence on energy needs and could provide stability in land titles that would encourage investment in development of those resources.⁶⁴

In evaluating current natural resources in the United States, the policies promoting the development of oil and natural gas, and technological advancements, one finds that the policies were successful in many ways.⁶⁵ In fact, the “[U.S. Energy Information Administration (EIA)] projects that, for the first time since the

447, 449–50 (1882) (“It is the policy of the [United States] to encourage the development of its mineral resources.”); Mullins, *supra* note 51, at 142–43 (discussing how the *Steel* and *Chartiers* cases show that the rule of mineral estate dominance grew out of public policy); Bryner, *supra* note 51, at 541–42 (discussing a history of laws that reserved mineral rights for the federal government in order to incentivize development of the western United States).

62. Kuntz, *supra* note 3, at 114.

63. Herbert C. Manning, *Mineral Rights Versus Surface Rights*, 2 NAT. RESOURCES LAW. 329, 346 (1969); *see also* Nicholas R. House, Note, *Conflicting Property Rights Between Conservation Easements and Oil and Gas Leases in Ohio: Why Current Law Could Benefit Conservation Efforts*, 55 WM. & MARY L. REV. 1587, 1599 (2014) (“Ohio’s common law favors development of mineral interests because extraction of minerals has been and continues to be considered a public good supported by strong public policy. Because public policy favors extraction, mineral estates are dominant estates, and surface estates are servient estates.”).

64. Kuntz, *supra* note 3, at 114; *EIA Projects 28% Increase in World Energy Use by 2040*, U.S. ENERGY INFO. ADMIN. (Sept. 14, 2017), <https://www.eia.gov/todayinenergy/detail.php?id=32912> [<https://perma.cc/3V3M-FV6B>] (“The U.S. Energy Information Administration’s latest *International Energy Outlook 2017* (IEO2017) projects that world energy consumption will grow by 28% between 2015 and 2040.”).

65. *See* EPSTEIN, *THE MORAL CASE FOR FOSSIL FUELS*, *supra* note 11, at 11.

1950s, the United States will export more energy than it imports by 2020 as increases in crude oil, natural gas, and natural gas plant liquids production outpace growth in U.S. energy consumption.”⁶⁶

The challenge to the past and present successes of natural gas and oil is the expanding discourse and knowledge concerning the cost of those accomplishments, raising questions about the continued dominance of oil and natural gas beyond split-estate disputes.⁶⁷ How to evaluate the environmental impact and effects on other rights beyond split-estate issues in the context of the dominant mineral estate doctrine, and the recognition that undeveloped mineral rights represent property rights with significant value, is complex.⁶⁸

3. *Dominance.* The dominant mineral estate doctrine is grounded in court rulings and treatises replete with references that dominance does not mean dominant in the standard sense of the word of “superior,” but that it simply is a dominant estate in the law of servitudes.⁶⁹ “[D]ominant’ in the law of servitudes means only benefitted, not superior. . . . [The dominant estate] is benefitted by an implied right to the reasonable use of the surface.”⁷⁰ Professor Kuntz wrote that the mineral estate was

66. *The United States Is Expected to Export More Energy Than It Imports by 2020*, U.S. ENERGY INFO. ADMIN. (Jan. 29, 2019), <https://www.eia.gov/todayinenergy/detail.php?id=38152> [<https://perma.cc/A5XT-TRUM>].

67. *See Greenhouse Gas Emissions and Atmospheric Concentrations Have Increased Over the Past 150 Years*, U.S. ENERGY INFO. ADMIN. (July 20, 2018), https://www.eia.gov/energyexplained/index.php?page=environment_how_ghg_affect_climate [<https://perma.cc/6QAU-NJXK>] (“In 2017, fossil fuels were the source of about 81% of U.S. primary energy consumption and about 93% of total U.S. carbon dioxide emissions from human activity.”); *U.S. Energy-Related CO₂ Emissions Expected to Rise Slightly in 2018, Remain Flat in 2019*, U.S. ENERGY INFO. ADMIN. (Feb. 8, 2018), <https://www.eia.gov/todayinenergy/detail.php?id=34872> [<https://perma.cc/2LV8-2PRR>]. *But see EIA Expects U.S. Energy-Related CO₂ Emissions to Fall in 2019*, U.S. ENERGY INFO. ADMIN. (July 15, 2019) [hereinafter U.S. ENERGY INFO. ADMIN., *CO₂ Emissions to Fall in 2019*], <https://www.eia.gov/todayinenergy/detail.php?id=40094> [<https://perma.cc/M3PP-RYQU>].

68. *See Ehrman, supra* note 2, at 440, 465 n.214 (examining “the rise of the Keep it in the Ground Movement” and analyzing “the risks and harms that would naturally follow its evolution and fulfillment,” including how prohibiting oil and gas production would result in “the value of the mineral property most certainly declin[ing] or . . . easily [being] dismissed”); *see also Climate Solutions*, UNION CONCERNED SCIENTISTS, <https://www.ucsusa.org/climate/solutions> (last visited Apr. 17, 2020) (discussing the harms of climate change and the policy options to slow its effects).

69. *See* L. Mark Walker, Note, *Oil and Gas: Surface Damages, Operators, and the Oil and Gas Attorney*, 36 OKLA. L. REV. 414, 416 (1983) (citing *Wellsville Oil Co. v. Carver*, 242 P.2d 151, 154 (Okla. 1952)).

70. *Coyote Lake Ranch, LLC v. City of Lubbock*, 498 S.W.3d 53, 60, 64 (Tex. 2016) (citing RESTATEMENT (THIRD) OF PROP.: SERVITUDES § 1.1(1) (AM. LAW. INST. 1998)); *see also* David E. Pierce, *Sustaining the Unsustainable: Oil and Gas Development in the 21st*

dominant because of its benefit, the implied rights of surface use, and that correspondingly, the surface estate was burdened.⁷¹ “In the law of servitudes, the mineral estate is called ‘dominant’ and the surface estate ‘servient’, not because the mineral estate is in some sense superior, but because it receives the benefit of the implied right of use of the surface estate.”⁷²

While the burden-benefit terminology is utilized when the dominant mineral estate is applied and discussed in cases, the quasi-public interest of developing natural resources “made clear that the mineral estate was truly dominant and that the courts were not to weigh the relative competing interests of the surface owner and the mineral interest owner.”⁷³ Surface owners have often found themselves with significant loss prior to the accommodation doctrine and surface damage acts, discussed in Part III, and even with those laws in place, have not always been made whole following energy development.⁷⁴

The dominant mineral estate’s implied surface rights are tempered by courts holding that the use of the surface is to be limited to “reasonable use.”⁷⁵ However, in evaluating the dominant mineral estate doctrine and its longevity, the consequences of allowing one set of property rights to persist as a benefitted estate over a burdened estate reveal that there is a sense in the policies

Century, 23 KAN. J.L. & PUB. POL’Y 362, 364 n.9 (2014) (“[T]he owner of the oil and gas rights has the right to ‘make reasonable use of the surface in connection with exploring for and exploiting the mineral deposits.’” (quoting 1 EUGENE KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS § 3.2, at 90 (1987))).

71. 1 KUNTZ, *supra* note 70, § 3.2(a), at 90; *see also* Fershee & Shay, *supra* note 30, at 418 (explaining how, in the horizontal drilling context, surface owners have “limited opportunities to object” to the mineral owner’s use of the implied easement provided for in the dominant estate).

72. *Coyote Lake Ranch*, 498 S.W.3d at 60; *see also* *Lightning Oil Co. v. Anadarko E&P Onshore, LLC*, 520 S.W.3d 39, 52 (Tex. 2017); *Merriman v. XTO Energy, Inc.*, 407 S.W.3d 244, 249 (Tex. 2013); *Acker v. Guinn*, 464 S.W.2d 348, 352 (Tex. 1971).

73. *Wells*, *supra* note 6, at 206, 208 (citing *Getty Oil Co. v. Jones*, 470 S.W.2d 618, 621 (Tex. 1971)); *see also* *Key Operating & Equip., Inc. v. Hegar*, 403 S.W.3d 318, 332 (Tex. App.—Houston [1st Dist.] 2013), *rev’d*, 435 S.W.3d 794 (Tex. 2014); *Humble Oil & Ref. Co. v. West*, 508 S.W.2d 812, 815–16 (Tex. 1974).

74. *DuVivier*, *supra* note 7, at 399–400 (citing *Grimes v. Goodman Drilling Co.*, 216 S.W. 202 (Tex. App.—Fort Worth 1919, writ *dism’d w.o.j.*)) (“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 deafening, all night drilling.”).

75. Kevin J. Lynch, *A Fracking Mess: Just Compensation for Regulatory Takings of Oil and Gas Property Rights*, 43 COLUM. J. ENVTL. L. 335, 356 (2018) (citing *Gerrity Oil & Gas Corp. v. Magness*, 946 P.2d 913, 926 (Colo. 1997)); G. Alan Perkins, *Rights and Conflicts Among Surface Owners, Mineral Owners, and Lessees in Arkansas: Comparing Sticks in the Bundle*, 68 ARK. L. REV. 381, 392 (2015).

promoted and common law rulings that the mineral estate was, and is, superior.⁷⁶

The courts in Texas previously held “a corollary of the mineral owner’s right to use the surface to extract his minerals is the rule that the mineral owner is held liable to the surface owner only for negligently inflicted damage to the surface estate.”⁷⁷ Even when the accommodation doctrine was created to consider existing surface use that may conflict with mineral development, the courts were clear that this was “not a balancing type test weighing the harm or inconvenience to the owner of one type of interest against the benefit to the other.”⁷⁸

The dominant mineral estate exists to resolve conflicts arising between or among surface or mineral estate owners. However, as energy is a global issue, conflicts among mineral estate owners and others far beyond surface owners have arisen over the impact that exercising property rights of the mineral estate may have on the rights of others with respect to the environment and human existence.⁷⁹

76. See DuVivier, *supra* note 7, at 392–400; Courtney R. Potter, *The Accommodation Doctrine Revisited: Implications in Law and in Policy*, 46 ST. MARY’S L.J. 75, 78–79, 102–04 (2014); Robert J. Burnett, *The Accommodation Doctrine: Balancing the Interests of the Surface Owner and the Mineral Owner*, HOUS. HARBAUGH, <https://www.hh-law.com/Article/s/Oil-and-Gas-Articles/The-Accommodation-Doctrine-Balancing-the-Interests-of-the-Surface-Owner-and-the-Mineral-Owner.shtml> [<https://perma.cc/4NUR-MCH5>] (last visited Mar. 1, 2020) (discussing *Belden & Blake Corp. v. Pa. Dep’t of Conservation & Nat. Res.*, 969 A.2d 528 (Pa. 2009)); Richard Gore et al., *Oil and Gas Issues in Real Property*, 82 OKLA. B.J. 639, 639 (2011); Stacia S. Ryder & Peter M. Hall, *This Land Is Your Land, Maybe: A Historical Institutional Analysis for Contextualizing Split Estate Conflicts in U.S. Unconventional Oil and Gas Development*, 63 LAND USE POL’Y 149, 150–51 (2017); Klass, *supra* note 16, at 26, 47–49 (delineating the property rights advantages given to oil and gas, including the rule of capture, split-estate laws, and eminent domain, and how the dominant estate, in particular, “gave the mineral interest owner significant power over the surface owner, which resulted in decades of damage to crops, livestock, vegetation, and other environmental resources”); 1 PATRICK H. MARTIN & BRUCE M. KRAMER, WILLIAMS & MEYERS, OIL & GAS LAW §§ 217, 218.8 (2019 ed. 1981).

77. *Moser v. U.S. Steel Corp.*, 676 S.W.2d 99, 103 (Tex. 1984) (first citing *Gen. Crude Oil v. Aiken Co.*, 344 S.W.2d 668 (Tex. 1961); and then citing *Stradley v. Magnolia Petroleum Co.*, 155 S.W.2d 649 (Tex. App.—Amarillo 1941, writ ref’d)). The court later clarified:

We hold the limitation of the dominant mineral owner’s liability to negligently inflicted damages does not control in a case such as this, in a general conveyance of “other minerals.” When dealing with the rights of a mineral owner who has taken title by a grant or reservation of an unnamed substance such as this, liability of the mineral owner must include compensation to the surface owner for surface destruction.

Id.

78. *Hunt Oil Co. v. Kerbaugh*, 283 N.W.2d 131, 137 (N.D. 1979); see also *infra* Part III.

79. See, e.g., *Snyder v. Ohio Dep’t of Nat. Res.*, 18 N.E.3d 416, 420–21 (Ohio 2014);

Critically examining the public policy at the core of dominant mineral estate laws, which strongly encourages oil and natural gas development and protects mineral estate property rights while balancing other rights, signals that a change may be on the horizon as energy and natural resource policies and laws evolve. Will the dominant mineral estate doctrine be amended through the common law when analysis reflects a shift in public policy that recognizes the expanse of rights impacted by the development of oil and natural gas, the development of other resources, and increases in the perceived value of the interests impacted far beyond the severed surface estate? If the rights to life and liberty are impaired, will property rights yield?

III. MODIFYING THE DOMINANT MINERAL ESTATE DOCTRINE

The impact of the dominant mineral estate doctrine is significant, and it has been a successful tool in accomplishing the policies it promotes.⁸⁰ While often framed in steadfast language weighing in favor of the mineral estate, the dominant mineral estate doctrine includes the requirement that the mineral estate must operate with “due regard” for the surface estate.⁸¹ Nonetheless, over the decades, courts and legislatures have recognized the uneven result of the doctrine’s application.⁸² Accordingly, the accommodation doctrine and surface use and surface damage acts were developed in some jurisdictions to avoid or mitigate inequitable results. The accommodation doctrine cases and the surface damage acts demonstrate a shift away from a more stringent mineral-estate, surface-estate benefit-burden analysis to a property rights balancing approach—arguably still weighted in favor of mineral interests—where prior decisions had held balancing was not the appropriate test.⁸³

Andrew Boslett et al., *Valuation of the External Costs of Unconventional Oil and Gas Development: The Critical Importance of Mineral Rights Ownership*, 6 J. ASS’N ENVTL. & RESOURCE ECONOMISTS 531, 549 (2019); Heidi Gorovitz Robertson, *Get out from Under My Land! Hydraulic Fracturing, Forced Pooling or Unitization, and the Role of the Dissenting Landowner*, 30 GEO. ENVTL. L. REV. 633, 641–42 (2018); Meredith A. Wegener, *Drilling Down: New York, Hydraulic Fracturing, and the Dormant Commerce Clause*, 28 BYU J. PUB. L. 351, 358–59 (2014).

80. See *The United States Is Expected to Export More Energy Than It Imports by 2020*, U.S. ENERGY INFO. ADMIN. (Jan. 29, 2019), <https://www.eia.gov/todayinenergy/detail.php?id=38152> [<https://perma.cc/4N2M-RWLC>]; U.S. ENERGY INFO. ADMIN., *CO2 Emissions to Fall in 2019*, *supra* note 67.

81. Perkins, *supra* note 75, at 400.

82. Ferrell, *supra* note 50, at 1050.

83. *Hunt Oil Co.*, 283 N.W.2d at 137; see also Wells, *supra* note 6, at 215, 218, 242 (proposing a change to the dominant mineral estate doctrine to better address horizontal drilling technology).

A. *The Accommodation Doctrine*

As detailed in Part II, historically, a mineral owner generally had expansive rights “to use the surface in any manner reasonably necessary for extraction of the minerals.”⁸⁴ These rights limited the mineral owner’s liability “to the surface owner for damage to crops, damage to tangible improvements, or negligent activity.”⁸⁵ Other damages to the surface were not compensable.⁸⁶

The “reasonably necessary” language is often framed with the language that a mineral rights owner is to exercise those rights with “due regard” for the rights of the surface owner.⁸⁷ This “due regard” consideration gave rise to the accommodation doctrine, which is sometimes referred to as the doctrine of alternative uses or “alternative means.”⁸⁸

1. *Getty Oil Co. v. Jones*. The accommodation doctrine was first established in *Getty Oil Co. v. Jones*.⁸⁹ In *Getty*, the surface owner, Jones, “sued for an injunction to restrain Getty Oil Company, . . . an oil and gas lessee, from using . . . pumping units that prevent[ed]” Jones’s use “of an automatic irrigation sprinkler system.”⁹⁰ Given that Getty Oil had alternatives, including burying “the pumpjacks or [using] smaller hydraulic pumps that would not obstruct the irrigation systems,” Jones asserted that the court should require Getty Oil to choose one of those options.⁹¹ Relying upon its position as the dominant estate owner, Getty Oil responded that it could choose where and how to locate its pumpjacks.⁹² Two other lessees had made accommodations by utilizing shorter pumping units or placing pumping units in

84. Burnett, *supra* note 76 (quoting *Dewey v. Great Lakes Coal Co.*, 84 A. 913 (Pa. 1912)) (“When the soil belongs to one person and the mine to another, the right to work the mine carries with it the use of so much of the surface as is strictly necessary and reasonable.”); *see also* *Tarrant Cty. Water Control & Improvement Dist. No. One v. Haupt, Inc.*, 854 S.W.2d 909, 911 (Tex. 1993).

85. Burnett, *supra* note 76 (citing *Holbrook v. Cont’l Oil Co.*, 278 P.2d 798 (Wyo. 1955)).

86. *Id.*

87. Brandy R. Manning & Daniel B. Mathis, *The Accommodation Doctrine in Texas (and Elsewhere)*, ENERGY LITIG., Winter 2014, at 2, 2–3.

88. *Id.*; *Gen. Crude Oil Co. v. Aiken*, 344 S.W.2d 668, 669 (Tex. 1961); *Brown v. Lundell*, 344 S.W.2d 863, 866 (Tex. 1961); Douglas R. Hafer et al., *A Practical Guide to Operator/Surface-Owner Disputes and the Current State of the Accommodation Doctrine*, 17 TEX. WESLEYAN L. REV. 47, 58 (2010).

89. *Getty Oil Co. v. Jones*, 470 S.W.2d 618, 621, 623 (Tex. 1971).

90. *Id.* at 619.

91. *Coyote Lake Ranch, LLC v. City of Lubbock*, 498 S.W.3d 53, 61 (Tex. 2016) (citing *Getty*, 470 S.W.2d at 621).

92. *Id.*

concrete cellars to avoid interference with the irrigation system.⁹³ While recognizing the dominance of the mineral estate, the court in *Getty* held that:

[W]here 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 whereby the minerals can be recovered, the rules of reasonable usage of the surface may require the adoption of an alternative by the lessee.⁹⁴

Under the accommodation doctrine, as established by the court in *Getty*, “reasonableness involves considering both the surface owner’s and the mineral lessee’s needs, although the surface owner has the burden of proving the ‘unreasonableness of the lessee’s surface use in this light.’”⁹⁵ Unlike the language found in traditional dominant mineral estate doctrine cases, “[t]he reasonableness inquiry established by *Getty* is different from that of the common law because it takes into consideration the surface owner’s uses.”⁹⁶ As found in *Getty*, “the court noted that the irrigation system was ‘most advantageous’ to Jones: ‘perhaps the only reasonable means of developing the surface for agricultural purposes.’”⁹⁷ Additionally, “subsurface hydraulic pumps provided a reasonable alternative by which *Getty* could still extract the oil; the fact that these pumps would cost more did not render them an unreasonable alternative.”⁹⁸

Getty laid the foundation for greater consideration of the surface estate. The court created specific parameters to guide the prior “due regard” and “reasonable use” ideas where there was an existing use by the surface owner that would be precluded or impaired by development of the mineral estate.⁹⁹ The surface owner is still limited in preventing mineral development, and the mineral estate still retains an advantage, given that established industry practices have to exist to recover the minerals in order to obligate the mineral estate to avoid precluding or impairing the existing surface use.¹⁰⁰

93. *Getty*, 470 S.W.2d at 620.

94. *Id.* at 622.

95. Paige Anderson, Note, *Reasonable Accommodation: Split Estates, Conservation Easements, and Drilling in the Marcellus Shale*, 31 VA. ENVTL. L.J. 136, 147 (2013) (quoting *Getty*, 470 S.W.2d at 627).

96. *Id.* (citing *Getty*, 470 S.W.2d at 627).

97. *Id.* (citing *Getty*, 470 S.W.2d at 622).

98. *Id.*

99. *Getty*, 470 S.W.2d at 622.

100. *See id.*; *Mineral Rights + Michigan Landowner Rights*, MINING ACTION GROUP,

2. *Getty Outside of Texas*. Following the court's ruling in *Getty*, other states, including Arkansas, Colorado, Kentucky, Louisiana, Mississippi, New Mexico, North Dakota, Utah, and Wyoming, adopted the accommodation doctrine and the analysis found in *Getty*:¹⁰¹

The reasonableness of a surface use by the lessee is to be determined by a consideration of the circumstances of both and, as stated, the surface owner is under the burden of establishing the unreasonableness of the lessee's surface use in this light. The reasonableness of the method and manner of using the dominant mineral estate may be measured by what are usual, customary and reasonable practices in the industry under like circumstances of time, place and servient estate uses. What may be a reasonable use of the surface by the mineral lessee on a bald prairie used only for grazing by the servient surface owner could be unreasonable within an existing residential area of the City of Houston, or on the campus of the University of Texas, or in the middle of an irrigated farm. What we have said is that in determining the issue of whether a particular manner of use in the dominant estate is reasonable or unreasonable, we cannot ignore the condition of the surface itself and the uses then being made by the servient surface owner. If the manner of use selected by the dominant mineral lessee is the only reasonable, usual and customary method that is available for developing and producing the minerals on the particular land then the owner of the servient estate must yield. However, if there are other usual, customary and reasonable methods practiced in the industry on similar lands put to similar uses which would not interfere with the existing uses being made by the servient surface owner, it could be unreasonable for the lessee to employ an interfering method or manner of use. These conditions involve questions to be resolved by the trier of the facts.¹⁰²

<http://savethewildup.org/about/michigan-landowner-rights/> [https://perma.cc/T9C4-5JJ8] (last visited Feb. 17, 2020).

101. Anderson, *supra* note 95, at 148 (citing Christopher M. Alspach, Note, *Surface Use by the Mineral Owner: How Much Accommodation Is Required Under Current Oil and Gas Law?*, 55 OKLA. L. REV. 89, 92 (2002)); Burnett, *supra* note 76; Martin P. Averill, *States Differ on Surface Rights*, AM. B. ASS'N (Summer 2008), https://apps.americanbar.org/litigation/committees/energy/docs/1208_surface_rights.pdf [http://web.archive.org/web/20111222060054/https://apps.americanbar.org/litigation/committees/energy/docs/1208_surface_rights.pdf] (detailing jurisdictions utilizing the accommodation doctrine, or surface damage laws, or both).

102. Hunt Oil Co. v. Kerbaugh, 283 N.W.2d 131, 136–37 (N.D. 1979) (quoting *Getty*, 470 S.W.2d at 627–28).

While results in accommodation doctrine cases are not always consistent given the highly factually specific determinations, what the courts have clarified in their application of the accommodation doctrine is that “while the rights accruing from the dominant estate are well established, they are not absolute.”¹⁰³ The mineral estate “is required to exercise [its] rights with due regard for the rights of the surface owner,” and the mineral rights holder is “subject to the rules of reasonable usage with respect to an existing use of the surface.”¹⁰⁴ When the surface and mineral estates’ uses are combined “with the public policy of developing resources and promoting productive agricultural use[,] . . . accommodation between the rights of the dominant and servient estates” is required.¹⁰⁵

B. Accommodation Doctrine Today

The accommodation doctrine remains a key component in evaluating conflicting property rights in the context of mineral-estate versus surface-estate usage. As energy policy changes and other rights advance, beyond the underlying rights advanced by both the accommodation doctrine and the dominant mineral estate doctrine, questions arise as to how these disputes will be resolved. In the language of the cases, one finds a discussion of rights that is still buttressed with the original idea that the surface estate owner must yield to the mineral estate if the method sought to develop the minerals is “the only reasonable, usual and customary method that is available.”¹⁰⁶

In *Merriman v. XTO Energy, Inc.*, the Supreme Court of Texas revisited the accommodation doctrine and clarified what a surface owner must prove against a mineral rights holder in order to prevail under the accommodation doctrine.¹⁰⁷ Relying on *Haupt*, the court in *Merriman* reiterated that “[i]f the mineral owner has reasonable alternative uses of the surface, one of which permits the surface owner to continue to use the surface in the manner intended . . . and one of which would preclude that use by the

103. *Humble Oil & Ref. Co. v. West*, 508 S.W.2d 812, 815 (Tex. 1974); *see also* Wells, *supra* note 6, at 225–28 (evaluating accommodation doctrine cases and their varied results).

104. *Humble*, 508 S.W.2d at 815–16.

105. *Id.* at 816.

106. *Hunt Oil Co.*, 283 N.W.2d at 136–37 (citing *Getty*, 470 S.W.2d at 627–28).

107. Louis-Alexis Bret et al., *Recent Developments in Texas, United States, and International Energy Law*, 9 TEX. J. OIL GAS & ENERGY L. 165, 181 (2013); Manning & Mathis, *supra* note 87 (discussing *Merriman v. XTO Energy, Inc.*, 407 S.W.3d 244, 249 (Tex. 2013)).

surface owner, the mineral owner *must* use the alternative that allows continued use of the surface by the surface owner.”¹⁰⁸

Merriman provided further clarification as to the burden of proof required of the surface owner in order to prevail under the accommodation doctrine.¹⁰⁹ In order to prevail, a surface owner must prove both that the existing use is completely precluded or substantially impaired by the mineral development, and that the existing use cannot continue through any “reasonable alternative method[s].”¹¹⁰ “If the surface owner carries that burden, he must further prove that, given the particular circumstances, there are alternative reasonable, customary, and industry-accepted methods available to the lessee which will allow recovery of the minerals and also allow the surface owner to continue the existing use.”¹¹¹

In applying the test to the surface owner in *Merriman*, the court held that the question should have been “whether [the surface owner] could produce evidence he had no alternatives for his then-existing cattle operation[—]he still had not produced any evidence showing he had no reasonable method to conduct the sorting, working, and loading activities somewhere else on the land.”¹¹²

The court emphasized that “[e]vidence that the mineral lessee’s operations result in inconvenience and some unquantified amount of additional expense to the surface owner does not rise to the level of evidence that the surface owner has no reasonable alternative method to maintain the existing use.” Thus, the surface owner “did not produce evidence sufficient to raise a material fact issue as to part of the initial element on which he had the burden of proof: that he had no reasonable alternative means of maintaining his cattle operations on the 40-acre tract.”¹¹³

While the surface owner was unsuccessful in *Merriman*, the court was definitive in both the burden of proof that the surface

108. *Merriman*, 407 S.W.3d at 249 (alteration in original) (quoting Tarrant Cty. Water Control Dist. No. One v. Haupt, Inc., 854 S.W.2d 909, 911–12 (Tex. 1993)).

109. Manning & Mathis, *supra* note 87.

110. *Id.* (discussing *Merriman*, 407 S.W.3d at 249).

111. *Merriman*, 407 S.W.3d at 249 (citing *Haupt*, 854 S.W.2d at 911–12).

112. Harrison v. Rosetta Res. Operating, LP, 564 S.W.3d 68, 73 (Tex. App.—El Paso 2018, no pet.) (citing *Merriman*, 407 S.W.3d at 250–51); *see also, e.g.*, Charles Sartain, *Texas Accommodation Doctrine Claim Repudiated*, GRAY REED: ENERGY & L. (Aug. 28, 2018), <https://www.energyandthelaw.com/2018/08/28/texas-accommodation-doctrine-claim-repudiated/> [<https://perma.cc/324M-2X7E>] (discussing the application of the accommodation doctrine in *Harrison*).

113. *Harrison*, 564 S.W.3d at 73 (alteration in original) (citation omitted) (quoting *Merriman*, 407 S.W.3d at 252).

owner carried and in the mineral owner's required use of alternatives that allowed continued surface use if that burden was met. The rights at issue were evaluated with respect to both the need for ranching enterprise and natural resource development. Encapsulated in mineral- versus surface-estate rights, both represent rights beyond property and the continued acknowledgement that the uses of the property by each estate is owed "due regard."

1. *Coyote Lake Ranch*. Relying upon the accommodation doctrine precedent, in 2016 the Supreme Court of Texas had the opportunity to determine if the accommodation doctrine applied to the groundwater estate. In *Coyote Lake Ranch*, the City of Lubbock (the City) received groundwater rights from Coyote Lake Ranch, providing the City with ingress and egress rights over the property and allowing the City to drill water wells and install power lines to power the wells.¹¹⁴ "In 2012, the City proposed plans to increase water extraction efforts on the ranch and began taking action to prepare additional drill sites."¹¹⁵ Coyote Lake Ranch applied for a temporary injunction enjoining the City, arguing that "the proposed drill sites would remove vegetation for cattle on the ranch and the proposed power lines would allow hawks to roost and prey on the Lesser Prairie Chicken, threatening its survival."¹¹⁶ The Supreme Court of Texas held that, just as the accommodation doctrine applies to a severed mineral estate, it also applies to a severed groundwater estate.¹¹⁷ As to the application of the accommodation doctrine to the parties in *Coyote Lake Ranch*, the court remanded the case to the trial court to apply the accommodation doctrine's elements.¹¹⁸

While the court in *Coyote Lake Ranch* was determining water rights that were not in conflict with the mineral estate, the court's language is insightful with respect to how future accommodation doctrine disputes may be resolved. Relying upon the Restatement

114. *VirTex Operating Co. v. Bauerle*, No. 04-16-00549-CV, 2017 WL 5162546, at *6 (Tex. App.—San Antonio 2017, pet. denied) (mem. op.) (citing *Coyote Lake Ranch, LLC v. City of Lubbock*, 498 S.W.3d 53, 56–57 (Tex. 2016)).

115. *Id.* (citing *Coyote Lake Ranch*, 498 S.W.3d at 57).

116. *Id.* (citing *Coyote Lake Ranch*, 498 S.W.3d at 57–58).

117. *Id.* at *7 (citing *Coyote Lake Ranch*, 498 S.W.3d at 64). *But see* Elizabeth A. Reichenberger, Note, *Another Attempt to Mix Oil, Gas, and Water: An Analysis of the Texas Supreme Court's Decision to Apply the Accommodation Doctrine to Groundwater*, 57 WASHBURN L.J. 367, 387, 390–92 (2018) (delineating the distinctions between water and oil and gas and why the rule of capture and the accommodation doctrine need not apply to groundwater).

118. *VirTex*, 2017 WL 5162546, at *7 (citing *Coyote Lake Ranch*, 498 S.W.3d at 65).

(Third) of Property and similar language found in prior accommodation doctrine cases, as other cases have before, the court recognized that:

“[D]ominant” in the law of servitudes means only benefitted, not superior. Though we have not used the word to describe a severed groundwater estate, the estate is dominant for the same reason a mineral estate is; it is benefitted by an implied right to the reasonable use of the surface. The surface estate is not servient because it is lesser or inferior but because it must allow the exercise of that implied right.¹¹⁹

A servitude is a legal device that creates a right or an obligation that runs with land or an interest in land. (a) Running with land means that the right or obligation passes automatically to successive owners or occupiers of the land or the interest in land with which the right or obligation runs. (b) A right that runs with land is called a “benefit” and the interest in land with which it runs may be called the “benefitted” or “dominant” estate. (c) An obligation that runs with land is called a “burden” and the interest in land with which it runs may be called the “burdened” or “servient” estate.¹²⁰

The *Coyote Lake Ranch* opinion utilizes the ideas of benefit/dominant and burden/servient estates and the implied rights that need to be protected for each estate in resolving the issues at hand—the value of the groundwater estate.¹²¹ In so doing, the court pulls together the language of past accommodation doctrine cases that make clear that the dominant mineral estate doctrine and the accommodation doctrine work together in an effort of fairness to best resolve the implied property rights that are in conflict: “conciliation of conflicts and accommodation of both estates,” “fairness to both parties,” and “due regard for each other’s rights.”¹²²

119. *Coyote Lake Ranch*, 498 S.W.3d at 64 (citing RESTATEMENT (THIRD) OF PROP.: SERVITUDES § 1.1(1) (AM. LAW INST. 2000)).

120. *Id.* at 60 n.21 (quoting RESTATEMENT (THIRD) OF PROP.: SERVITUDES § 1.1(1)).

121. *Id.* at 64.

122. *Id.* at 62–63 (quoting *Sun Oil Co. v. Whitaker*, 483 S.W.2d 808, 817 (Tex. 1972); and then quoting *Merriman v. XTO Energy, Inc.*, 407 S.W.3d 244, 250 (Tex. 2013)); see also Justin Hodge & Graham Taylor, *Groundwater Law: A Look at the Ancient Rule of Capture and the Modern Accommodation Doctrine*, 80 TEX. B.J. 761, 761 (2017); Hilary Soileau, *For Texas, Now Is the Time to Force Groundwater Owners to Accommodate*, 1 OIL & GAS NAT. RESOURCES & ENERGY J. 465, 468 (2016) (discussing how the Supreme Court of Texas was reviewing the accommodation doctrine as it was applied to severed groundwater estates in *Coyote Lake Ranch*); Emily Rogers & Holly Heinrich, *Developments, Coyote Lake Ranch, LLC v. City of Lubbock: Texas Supreme Court Applies Oil & Gas Accommodation Doctrine to Groundwater*, 47 TEX. ENVTL. L.J. 103, 107–08 (2017); Lamont A. Jefferson, *Supreme*

When stepping back with the lens of the modern-day energy development discourse, one cannot help but wonder, will the mineral estate always be dominant? The policy of promoting the dominant estate is still in place, but when reading the *Coyote Lake Ranch* case and others, the continued reliance upon the idea of implied rights and the courts' desire to protect those implied rights are prominent.¹²³ This leads to the question of whether the implied rights that run with the mineral estate will continue to be dominant in light of all the other implied rights that exist.¹²⁴ Expanding this in the future, when determining the implied rights that are given dominance, will the implied rights of not only the surface owner to run cattle, grow wheat, protect wildlife species, preserve hiking trails, and more also include the implied rights of nonsurface owners impacted by oil and natural gas exploration and production?

2. VirTex Operating Co. Given the policies promoting resource development, conservation, and surface access for mineral estate development, the surface owner is not often successful when the accommodation doctrine is applied.¹²⁵ However, in a recent application of the accommodation doctrine in Texas, the scales tipped in favor of the surface estate owner. In the end, the mineral estate yielded to the surface estate, in the sense

Court of Texas Update, ADVOCATE, Summer 2017, at 5, 69.

123. See Ryan Gaddis, Note, *Coyote Lake Ranch, LLC v. City of Lubbock: The Accommodation Doctrine Expanded*, 38 ENERGY L.J. 455, 469 (2017) (“[T]his case may be persuasive to further the extension of the accommodation doctrine to other estates and between new interests in the future.”); see also Michael P. Vargo, *Why the Accommodation Doctrine Should Not Apply to Groundwater Owners Under Coyote Lake Ranch, LLC v. City of Lubbock*, 6 HLRE 167, 177 (2016) (“Broadening the accommodation doctrine may also entail additional determinations of the circumstances in which other resource owners must defer to the surface estate, a task which may be best left to the Texas Legislature.”).

124. See Brent Doré, Note, *Teaching an Old Dog a New Trick: Examining the Intersection of the Accommodation Doctrine and Groundwater Rights Through the Lens of City of Lubbock v. Coyote Lake Ranch, LLC*, 3 TEX. A&M L. REV. 853, 876 n.196 (2016) (“[T]o differentiate between groundwater and oil and gas in terms of importance to modern life would be difficult. Drinking water is essential for life, but fuel for heat and power, at least in this society, is also indispensable.” (quoting *Edwards Aquifer Auth. v. Day*, 369 S.W.3d 814, 831 (Tex. 2012))).

125. See Aimee Hess, *Overhead Power Lines and Helicopters: Texas Surface Owner Wins Accommodation Case*, TEX. OIL & GAS ATT'Y BLOG (Dec. 15, 2017) (citing *Merriman*, 407 S.W.3d at 249), <https://www.texasoilandgasattorneyblog.com/overhead-power-lines-helicopters-texas-surface-owner-wins-accommodation-case/> [<https://perma.cc/2G76-3GN6>] (“It is difficult for the owner of a surface estate to win an accommodation doctrine case. The Texas Supreme Court has stated that, if there is only one method by which the oil, gas, or minerals can be extracted, then the owner of the mineral estate has an absolute right to use that method regardless of whether that method precludes or substantially impairs the surface estate owner’s existing use of the surface.”); Recent Case Decisions, 3 OIL & GAS NAT. RESOURCES & ENERGY J. 1215, 1228–29 (2018).

that the mineral estate had to pursue arguably more expensive means to enjoy the minerals and could not interfere with the existing surface use of helicopters and hunting.¹²⁶ While the pendulum in accommodation cases swings, victories for surface rights owners provide insight into the considerations and balancing courts engage in when deciding dominant mineral estate cases.¹²⁷

In *VirTex Operating Co. v. Bauerle*, a dispute arose “between the Bauerles and VirTex concerning the installation of overhead power lines across the Bauerles’ ranch property—known as the Todos Santos Ranch—in Dilley, Texas.”¹²⁸ “The Bauerles primarily use[d] the ranch property to run a commercial hunting business and a cattle operation . . . [h]owever, the main source of income for the ranch stem[med] from the hunting leases.”¹²⁹ “The Bauerles lease[d] the ranch and its facilities to hunters on a yearly basis.”¹³⁰ “Under the . . . leases, hunters use[d] helicopters several times . . . [per] year on the ranch for . . . brush and predator control, game surveys, and deer captures.”¹³¹

In its decision, the Texas Court of Appeals applied the accommodation doctrine and held that the Bauerles (1) “produced legally and factually sufficient evidence for the jury to find that their existing use of the surface and adjacent airspace would be substantially impaired by the installation of the proposed overhead power lines”; (2) “unlike *Merriman*, . . . establishe[d] through testimony] why the inconvenience and expense of the proposed alternative methods was so great that it rendered those methods unreasonable”; and (3) “produced evidence that other reasonable, customary, and industry-accepted methods existed by which VirTex could power the wells.”¹³² “These alternatives included burying power lines as opposed to installing overhead

126. Hess, *supra* note 125; Recent Case Decisions, *supra* note 125, at 1228–29.

127. See, e.g., *Valence Operating Co. v. Tex. Genco, LP*, 255 S.W.3d 210, 218–21 (Tex. App.—Waco 2008, no pet.) (affirming the lower court’s decision to grant Texas Genco, LP a permanent injunction under the accommodation doctrine to prevent Valence Operating Co. from drilling within Texas Genco’s ash-disposal landfill); ERNEST E. SMITH ET AL., WIND LAW § 3.02(2)(c) (2019) (relying in part on *VirTex* and *Merriman* to assert that a “wind company’s finalized, multi-lease development plan may be difficult to set aside if proposed oil and gas operations interfere . . . as long as the wind company can prove that no reasonable alternative turbine-siting scheme exists”).

128. *VirTex Operating Co. v. Bauerle*, No. 04-16-00549-CV, 2017 WL 5162546, at *1 (Tex. App.—San Antonio 2017, pet. denied) (mem. op.).

129. *Id.*

130. *Id.*

131. *Id.*

132. *Id.* at *7–8, *10.

power lines [or] fueling pump jacks by natural gas as opposed to electricity.”¹³³

The dominant mineral estate doctrine initially provided that “[a]s a general rule, [t]he mineral owner, as owner of the dominant estate, ha[d] the right to make any use of the surface which is necessarily and reasonably incident to the removal of the minerals.”¹³⁴ Building on layers of decades of legislative and common law developments, the mineral estate’s “right to make any use” in *VirTex* has been limited by the accommodation doctrine and a “prohibition against negligent or excessive use of the surface while extracting minerals.”¹³⁵ The increased expense for natural resource development that the mineral estate was facing in *VirTex* demonstrates that the general rule providing significant dominance to the mineral estate is lessening. In fact, it is arguable that other rights, duties, and obligations that are implied throughout society may make the mineral estate servient to the rights of life and liberty and in some instances, property. While different than the accommodation doctrine found in the common law, surface damage and surface use laws provide legislative insight into the limitations that curtail the rights of the mineral estate as the dominant estate.

C. *Surface Damage Acts*

As discussed in Part II, conveying a mineral interest includes reasonable use of the surface to enable enjoyment of the estate.¹³⁶ The implied right includes ingress and egress across the surface and use of the surface as is reasonably necessary for exploring and developing the mineral estate.¹³⁷ Should damage occur to the surface, statutory law historically provided limited to no recourse for harm oil and gas development activities might cause surface owners.¹³⁸ This changed when the state of North Dakota passed

133. *Id.* at *9–10.

134. Paul D. Newton, Recent Development, *Texas Reexamines the Meaning of ‘Minerals’*: *Moser v. United States Steel Corp.*, 19 TULSA L.J. 448, 456 (1984) (quoting *Moser v. U.S. Steel Corp.*, 676 S.W.2d 99, 103 (1984)).

135. Newton, *supra* note 134, at 456; *Oil & Gas Exploration and Surface Ownership*, RAILROAD COMMISSION TEX., <https://www.rrc.state.tx.us/about-us/resource-center/faqs/oil-gas-exploration-and-surface-ownership/> [<https://perma.cc/PJ2H-BHYS>] (last updated July 18, 2016, 10:59 AM).

136. Walker, *supra* note 69, at 415.

137. *Id.* (first citing *Melton v. Sneed*, 109 P.2d 509, 512 (Okla. 1940); then citing *Davon Drilling Co. v. Ginder*, 467 P.2d 470, 472 (Okla. 1970); then citing *Rich v. Doneghey*, 177 P. 86, 89–90 (Okla. 1918); and then citing *Sanders v. Davis*, 192 P. 694, 697 (Okla. 1920)).

138. Andrew M. Miller, *A Journey Through Mineral Estate Dominance, the Accommodation Doctrine, and Beyond: Why Texas Is Ready to Take the Next Step with a*

the Oil and Gas Production Damage Compensation Act in 1978, creating a model for other jurisdictions to follow in protecting surface owners' rights.¹³⁹

As important as the policies are that created the dominant mineral estate doctrine and the subsequent accommodation doctrine, so are the policies underlying surface use and damage acts. North Dakota sought to "safeguard the public welfare," "balanc[e] . . . competing interests between surface owners and mineral developers," and provide "protection to surface owners and other persons from the undesirable effects of development of minerals."¹⁴⁰ North Dakota's statute requires oil and gas developers to compensate surface owners for damages caused by drilling operations.¹⁴¹

Following North Dakota, many states have passed surface damage or surface use legislation.¹⁴² The states' laws vary with respect to what activities trigger the statutes, procedural requirements, and what damages are recoverable under those specific statutes.¹⁴³ State legislatures are advancing policies that seek to provide some balance between the dominant mineral estate and the servient surface estate.¹⁴⁴ Surface owner advocates may assert that more is needed, but the existence of surface-owner-rights laws, in and of themselves, have provided an open door for policy considerations and laws that advance and protect other

Surface Damage Act, 40 HOUS. L. REV. 461, 471 (2003).

139. *Id.*; N.D. CENT. CODE §§ 38-11.1-01 to 38-11.1-10 (2019).

140. Miller, *supra* note 138, at 471.

141. *Id.* at 471-72; *see also* Cont'l Res., Inc. v. Reems, No. 1-15-CV-76, 2016 WL 5376179, at *6 (D.N.D. Sept. 26, 2016) ("[I]ts principal purpose was to correct the perceived inequity of the mineral developer not being required to pay for use of the surface by requiring that compensation be paid in accordance with the chapter.").

142. Kendor P. Jones et al., *Split Estates and Surface Access Issues*, in LANDMAN'S LEGAL HANDBOOK 181, 185-86 (5th ed. 2013); Averill, *supra* note 101 (detailing jurisdictions utilizing the accommodation doctrine and/or surface damage or use laws, including: 765 ILL. COMP. STAT. 530 / 1-7 (2020); IND. CODE ANN. § 32-23-7-6 (2020); KY. REV. STAT. ANN. § 353.595 (2020); MONT. CODE ANN. §§ 82-10-501 to -511 (2019); N.M. STAT. ANN. §§ 70-12-1 to -10 (2020); N.D. CENT. CODE §§ 38-11.1-01 to -10 (2019); OKLA. STAT. tit. 52, §§ 318.2 to -.9 (2018); W. VA. CODE §§ 22-7-1 to -8 (2019); WYO. STAT. ANN. §§ 30-5-402 to -410 (2019)); ALASKA ADMIN. CODE tit. 11, § 83.158 (2020); ALASKA STAT. § 38-05-130 (2020); UTAH CODE ANN. §§ 40-6-2, -5, -20, -21; S.D. CODIFIED LAWS §§ 45-5A-1 to -11. *But see* Brown, *supra* note 38, at 169 (citing Burlington Res. Oil & Gas Co. v. Lang & Sons, Inc., 259 P.3d 766, 771 (Mont. 2011)) (noting that Montana placed limitations on damages under its Surface Damages Act).

143. *See, e.g.*, Turley v. Flag-Redfern Oil Co., 782 P.2d 130, 134, 136 (Okla. 1989). *See generally* Averill, *supra* note 101 (showing the differences between the states that have adopted the accommodation doctrine).

144. *See* Miller, *supra* note 138, at 484; Davis Oil Co. v. Cloud, 766 P.2d 1347, 1351 (Okla. 1986).

rights in the context of production and development of mineral rights.¹⁴⁵

Balancing the rights of the present and future is complex.¹⁴⁶ The coexistence of oil and gas development with the environment and its inhabitants is at times difficult.¹⁴⁷ Energy needs are significant but so are the rights impacted by oil and natural gas development.¹⁴⁸ Current and future use of property and a greater recognition of rights beyond the mineral estate's surface will be considered whether a state has a surface damage act, recognizes the accommodation doctrine, or none of the above. The rights to life and liberty are arguably secured by energy, which depends on express and implied property rights.¹⁴⁹

Building upon the examination of the dominant mineral estate doctrine, the doctrine's modifications by the surface use and surface damage laws, and the accommodation doctrine, Part IV examines express and implied rights impacted by the mineral estate's dominance and Part V scrutinizes how one might begin to resolve these disputes.

IV. EXPRESS AND IMPLIED RIGHTS IMPACTED BY DOMINANT MINERAL ESTATE

The United States significantly relies upon oil and natural gas for many important pieces of our daily lives, including transportation, power generation, and everyday consumer products like plastic.¹⁵⁰ Certainly, oil and gas development overlays extensively with the environment and its inhabitants,

145. See *Equalizing the Imbalance Between Mineral and Surface Owners: The Case for Surface Owner Protection Legislation*, EARTHWORKS, https://earthworks.org/issues/surface_owner_protection_legislation/ [<https://perma.cc/8F6B-6NW5>] (last visited Apr. 17, 2020) (arguing for enhanced surface owner protections).

146. See Jeffrey M. Gaba, *Environmental Ethics and Our Moral Relationship to Future Generations: Future Rights and Present Virtue*, 24 COLUM. J. ENVTL. L. 249, 252 (1999) (“[O]ur concern for the future is an expression of our best virtue.”).

147. Jean Feriancek, *Surface Damage Acts*, NAT. RESOURCES & ENV'T, Winter 2006, at 58, 60.

148. *Id.* at 58.

149. See Ehrman, *supra* note 2, at 438; Epstein, *A Straw Man Attack*, *supra* note 11, at 90. *But see* Coplan, *supra* note 12, at 230–31.

150. See *How Much Oil is Used to Make Plastic?*, U.S. ENERGY INFO. ADMIN., <https://www.eia.gov/tools/faqs/faq.php?id=34&t=6> [<https://perma.cc/3NMR-7X9Y>] (last updated June 4, 2019); *How Much Coal, Natural Gas, or Petroleum is Used to Generate a Kilowatthour of Electricity?*, U.S. ENERGY INFO. ADMIN., <https://www.eia.gov/tools/faqs/faq.php?id=667&t=3> [<https://perma.cc/57Q2-XSKQ>] (last updated Mar. 8, 2019); *How Many Gallons of Gasoline and Diesel Fuel Are Made from One Barrel of Oil?*, U.S. ENERGY INFO. ADMIN., <https://www.eia.gov/tools/faqs/faq.php?id=327&t=10> [<https://perma.cc/U5HR-HJEU>] (last updated May 23, 2018).

and at times impacts express and implied rights, but it is also presently necessary. As calls to move away from fossil fuels and supporting policies are implemented as law, often in the name of environmental protection,¹⁵¹ the dominance of the mineral estate—in all senses of the term dominant—and its impact may wane.

In evaluating whether the dominant mineral estate will remain dominant over the surface estate, what express and implied rights of life, liberty, and property presently yield or are diminished must be assessed. In turn, the policies that promote and sustain the dominance of the mineral estate—resource development, conservation, investment expectations, energy needs, conveyance validity, availability of reasonable development alternatives, and of course, protection of property rights—must also be reconsidered.¹⁵²

The mineral estate's dominance in the burden-benefit property law concept made it dominant in its role affecting rights beyond the surface estate and in its role growing a segment of the energy industry to a dominating level that now faces great opposition.¹⁵³ With great industry challenges and calls for change, the rights impacted are weighed and balanced in the context of dominant estate considerations. Determinations will be made in the coming years whether policies promoting the benefits of oil and natural gas resource development still prevail. The viewpoints on the dominance of oil and gas and its impact fall on a long spectrum ranging from positive to negative, and have progressed over time.¹⁵⁴ The conflicts and resolutions that occur between the mineral estate and the surface estate are a part of, but also exemplify and represent, the greater clash among express and implied rights and mineral estate development.

151. Sarah Ravani, *Berkeley Becomes First U.S. City to Ban Natural Gas in New Homes*, S.F. CHRON. (July 21, 2019), <https://www.sfchronicle.com/bayarea/article/Berkeley-becomes-first-U-S-city-to-ban-natural-14102242.php> [<https://perma.cc/S88K-WCHV>].

152. Klass, *supra* note 16, at 45 (“[O]ne of the primary goals of property law is to provide certainty in ownership so that property owners will be willing to invest capital and labor in order to increase the value of their property, including energy resources, without fear that the allocation of rights in those resources will suddenly change.”).

153. See *100% Commitments in Cities, Counties, & States*, *supra* note 1; *Green New Deal—Full Language*, *supra* note 1 (demonstrating opposition to the oil and gas energy industry by proposing a plan to transition to clean, renewable energy sources).

154. See Hannah Grover, *The State Is Drafting New Methane Regulations, but Some Fear That Will Devastate an Industry*, FARMINGTON DAILY TIMES (July 30, 2019, 3:57 PM), <https://www.daily-times.com/story/news/local/2019/07/30/community-members-weigh-future-new-mexico-methane-regulations/1867681001/> [<https://perma.cc/L7HZ-A2DA>] (reflecting the wide range of perspectives regarding the importance of oil and gas activities generally in New Mexico in connection with proposed methane regulations).

A. *Surface Estate Rights*

The servient surface estate is a tangible representation of the collection of rights that are weighed against the mineral estate resources. Among core property right expectations are the right to exclude and the right to use and enjoy the property.¹⁵⁵ The mineral estate's implied right to reasonable use of the surface, even when tempered by the accommodation doctrine or surface damage acts is extensive and limits a surface estate owner's rights to exclude and at times, enjoy.¹⁵⁶ The "reasonable use" permitted by the dominant mineral estate doctrine, subject to conveyance exceptions, includes the rights to use groundwater, use surface roads, dispose of saltwater, construct production facilities, construct storage facilities, construct pipelines, construct roads, and engage in seismic activities.¹⁵⁷

When considering that the property rights of the surface estate include far more than the "paper-thin crust of soil seen with the naked eye" and the reasonable use permitted under the dominant mineral estate, the potential for conflict is wide-ranging.¹⁵⁸ The surface estate includes:

the exposed area of land, improvements on the land, and any part of the underground actually used by a surface owner as an adjunct to surface use (for example, medium for the roots of growing plants, groundwater, water wells, roads, basements, or construction footings)[;] . . . dirt deep enough to grow a tree, or a bush, or a bushel of beans[;] . . . space deep enough to plant a telephone pole, to run irrigation lines, geothermal loops, water wells, and water, sewer, and gas lines[;] . . . enough depth to the surface to install a septic

155. See Michael Pappas, *Energy Versus Property*, 41 FLA. ST. U. L. REV. 435, 449, 457 (2014) (asserting that aggressive efforts to promote distributed generation and microgrid development may face objections over the property invasion experienced or the limitation of the use and enjoyment of the property).

156. See Hazel Armenta Straub, Note, *Diminishing Property Rights*, 69 W. VA. L. REV. 170, 185 (1967) ("Property rights are not absolute and a limited encroachment upon them seems to be necessary in order to exist in today's world. . . . Although this evolution has been slow in the past, the rapid development of the world today has brought about an increased tempo in diminishing property rights.")

157. See Celia C. Flowers & Melanie S. Reyes, *We Have to Drill This Well Somewhere – A Survey of Surface Issues Across the Nation*, https://flowersdavis.com/wp-content/uploads/2017/01/2015-09_We-have-to-Drill-this-Well-Somewhere-by-Celia-C.-Flowers.pdf [https://perma.cc/L6H5-PJR3] (last visited Feb. 17, 2020); Todd Blasdel, *Seismic Operator and Surface Owner Rights Under Oklahoma's Seismic Exploration Regulation Act*, 84 OKLA. B.J. 2340, 2341 (2013).

158. W. Va. Dep't of Transp. v. Veach, 799 S.E.2d 78, 93 (W. Va. 2017); see also Acker v. Guinn, 464 S.W.2d 348, 351–53 (Tex. 1971) (recognizing iron ore as belonging to the surface estate because mining for the iron ore would destroy the surface).

tank and accompanying leach fields[;] . . . enough depth for a building's foundation, which depending on the building style could include a basement or a parking garage[;] . . . [and] based upon soil type, allows for a foundation reaching from just below the frost line or all the way down to solid bedrock.¹⁵⁹

The implied rights that potentially must yield, if not limited by the contours of the accommodation doctrine or surface use laws, are broad. As new energy resources grow in scale and use, policy may shift to promote alternative energy sources and other rights of the surface estate over the resources of the mineral estate.¹⁶⁰ Although the courts, while sorting property rights, have discouraged weighing those rights against one another, is the time for change upon us?¹⁶¹

Turning to agriculture as a specific example of surface use and all the rights it embodies, including food provision and economic development, common law may presently require “agricultural uses to yield to drilling activity” or “imped[e] agricultural production,” and in so doing, “incapacitate another massive contributor to [the] economy.”¹⁶² However, when viewed in a rapidly changing energy resource environment, does a policy that favors fossil fuel over agricultural development persist when it was founded on the idea that “[t]o place [coal, oil, gas, and iron] beyond the reach of the public would be a great public wrong . . . [and that these resources are] mineral treasures . . . essential to our common prosperity”?¹⁶³ Other resources are available and growing in scale, making public need different, and the equation of rights different too.

159. *Veach*, 799 S.E.2d at 93.

160. *See* Valence Operating Co. v. Tex. Genco, LP, 255 S.W.3d 210, 216, 218 (Tex. App.—Waco 2008, no pet.).

161. *See* Louis-Alexis Bret et al., *Recent Developments in Texas, United States, and International Energy Law*, 9 TEX. J. OIL GAS & ENERGY L. 165, 188 (2013) (noting the unanswered “question of how much cost the surface owner must incur, even if he has an alternative method of continuing the existing surface use, before such alternative is no longer reasonable”).

162. Potter, *supra* note 76, at 98 (citing Harper Estes & Douglas Prieto, *Contracts as Fences: Representing the Agricultural Producer in an Oil and Gas Environment*, 73 TEX. B.J. 378, 378 (2010)).

163. *Chartiers Block Coal Co. v. Mellon*, 25 A. 597, 599 (Pa. 1893); *see also* *Steel v. St. Louis Smelting & Ref. Co.*, 106 U.S. 447, 449 (1882); Bryner, *supra* note 51, at 528; Mullins, *supra* note 51, at 142.

B. Wind and Solar Rights

Core purposes of the dominant mineral estate doctrine included that “orderly production of oil, gas, or other valuable substances should be encouraged and favored wherever possible,” and a “consideration of national security should also be included in the policy favoring production.”¹⁶⁴ It is in the advent of wind and solar energy that we find a significant overlap in the foundational policies of the dominant mineral estate doctrine when considering alternative surface uses that also encourage energy development, security, stability, and natural resource utilization. As Alexandra Klass wrote:

While the split estate laws have provided significant certainty to energy developers for over a century, the costs associated with that certainty have been borne primarily by surface owners and the environment. By contrast, to date, there are very limited, if any property rights benefits granted to renewable energy developers who may wish to develop wind or solar resources against the wishes of landowners with competing surface interests.¹⁶⁵

Significant scholarship has analyzed the issues concerning wind, solar, and mineral estate conflict, whether the solar and wind interests should be severable, whether a solar or wind interest should be dominant, and the multitude of current and anticipated issues in these multilayered energy industry encounters.¹⁶⁶ Scrutinizing the wind and solar law scholarship

164. Kuntz, *supra* note 3, at 114.

165. Klass, *supra* note 16, at 48.

166. See Alexandra B. Klass, *Property Rights on the New Frontier: Climate Change, Natural Resource Development, and Renewable Energy*, 38 *ECOLOGY L.Q.* 63, 63–64, 81 (2011) (“[A]n approach that integrates resource access into state and local permitting and land use planning frameworks may better meet development and environmental protection goals without creating new entrenched and potentially problematic property rights in natural resources. Moreover, because solar development and wind development on private lands present different concerns with regard to size, scale, and environmental impact, this Article suggests that solar development be structured based on private solar easement transactions within a hospitable local zoning framework while wind development be based on a statewide siting and permitting structure with less local government involvement.”); K.K. Duvivier & Roderick E. Wetsel, *Jousting at Windmills: When Wind Power Development Collides with Oil, Gas, and Mineral Development*, in *ROCKY MOUNTAIN MINERAL LAW FOUND., PROCEEDINGS OF THE 55TH ANNUAL ROCKY MOUNTAIN MINERAL LAW INSTITUTE* 9-1, 9-2, 9-11 to -12 (2009); David R. Green, *Earth and Wind Industries Playing with Fire: The Concurrent Rights of Wind Farm Operators, Oil and Gas Developers, and Landowners in Kansas*, 61 *U. KAN. L. REV.* 1089, 1095–96, 1116–17 (2013) (presenting the argument for Kansas adopting a modified version of the accommodation doctrine to resolve disputes involving wind development); Chantel James, *Windustry and the Accommodation Doctrine: Should Oklahoma Follow in the Steps of the Lone Star State?*, 67 *OKLA. L. REV.* 901, 928–29 (2015) (arguing for the adoption of the accommodation doctrine

through the lens of the dominant mineral estate doctrine and its underlying policies raises the question: Will the continued dominance of the mineral estate in the face of growing renewables decline?¹⁶⁷

The express and implied rights potentially impaired in solar and wind energy development include competition for surface area, transmission lines from the wind farm, road usage, construction limitations to avoid sun blocking, and effects of exploration operations on the wind or solar farm.¹⁶⁸ When wind and solar are inapposite with mineral interests for energy development, the final “party negatively affected is the general

in Oklahoma to help wind, oil, and natural gas “industries to work in harmony, rather than seeking judicial remedies through litigation—something both expensive and time-consuming”); Gerald Korngold, *Conservation Easements and the Development of New Energies: Fracking, Wind Turbines, and Solar Collection*, 3 LSU J. ENERGY L. & RESOURCES 101, 117–18 (2014); Alan J. Alexander, Note, *The Texas Wind Estate: Wind as a Natural Resource and a Severable Property Interest*, 44 U. MICH. J.L. REFORM 429, 465 (2011) (“[T]he underlying policy goal of maximizing the state’s energy resources is the same with wind as it is with oil and gas.”); Kayla J. Cawood, Note, *The Potential for Production: Regulating Oklahoma’s Wind Estate and Encouraging Sustainable Wind Energy Development*, 41 OKLA. CITY U. L. REV. 201, 224–26 (2016) (examining the rights belonging to the landowner, wind-rights owner, and mineral estate owner); Becky H. Diffen, Note & Comment, *Energy from Above and Below: Who Wins When a Wind Farm and Oil & Gas Operations Conflict?*, 3 TEX. J. OIL GAS & ENERGY L. 240, 242–43 (2008); Maggie Griffin, *Is the Mineral Estate Dominant to the Aerial Estate?*, TEX. J. OIL GAS & ENERGY L. (Jan. 29, 2014), <http://tjogel.org/is-the-mineral-estate-dominant-to-the-aerial-estate/> [<https://perma.cc/T3QT-MQGY>]; Robert Montgomery, Water to Wind: The Path Texas Groundwater Law Provides to Sever the Wind Estate and Prioritize Mutually Dominant Estates 5–6, 8 (Feb. 1, 2019) (unpublished manuscript), <https://ssrn.com/abstract=3327532> [<https://perma.cc/3DAM-LEZX>] (arguing for Texas to treat wind rights like mineral and groundwater rights); Jeff L. Todd, *Wind Law and Negotiations from a Landowner’s Perspective*, MCAFEE & TAFT (Sept. 3, 2010), <https://www.mcafeetaft.com/wind-law-and-negotiations-from-a-landowners-perspective/> [<https://perma.cc/EM2E-E46L>].

167. *EIA Forecasts Renewables Will Be Fastest Growing Source of Electricity Generation*, U.S. ENERGY INFO. ADMIN. (Jan. 18, 2019), <https://www.eia.gov/todayinenergy/detail.php?id=38053> [<https://perma.cc/ZV6J-74F5>].

168. *Surface Wind Farms Vs. Mineral Leases: Who Wins?*, TEX. J. OIL GAS & ENERGY L. (Nov. 3, 2015), <http://tjogel.org/surface-wind-farms-vs-mineral-leases-who-wins/> [<https://perma.cc/U3LY-TTVQ>] (first citing Diffen, *supra* note 166, at 243; and then citing SMITH ET AL., *supra* note 127, § 2.05[4][a]); see also Tiffany Dowell, *Key Solar Lease Considerations for Landowners*, TEX. A&M AGRILIFE EXTENSION (May 31, 2016), <https://agrillife.org/texasaglaw/2016/05/31/key-solar-lease-considerations-landowners/> [<https://perma.cc/8W69-7C8A>]; DAVID SEWELL & BRENT STAHL, MINERAL ISSUES’ IMPACT ON SOLAR ENERGY DEVELOPMENT IN TEXAS AND OTHER STATES 7–8 (2013), https://utcle.org/ecourses/OC5401/get-asset-file/asset_id/28641 [<https://perma.cc/H322-X4V7>]; Will Russ, *Inheriting the Wind: A Brief Guide to Resolving Split Estate Issues When Developing Renewable Projects*, in ROCKY MOUNTAIN MINERAL LAW FOUND., RENEWABLE ELECTRIC ENERGY LAW, DEVELOPMENT, AND INVESTMENT 5-1, 5-10 to -11 (2013) (providing suggestions for resolution to wind and oil and gas, given that the law provides “only limited protection to renewable project developers hoping to construct their projects on lands affected where the mineral and surface estates have been split”).

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public.”¹⁶⁹ Lawmakers have the opportunity to assure that one source of energy is not “excluded or demoted solely for the benefit of another.”¹⁷⁰ Natural resources can and should be used “to produce energy that benefits everyone.”¹⁷¹

In consideration of these energy industry intersections, analysis of the policies supporting all energy development, including the resources of the mineral estate, indicate that the mineral estate’s dominance, in the sense of superiority and in its past common law success, may yield in the future to other rights of life, liberty, and property. Resolution of these disputes may of course be determined privately with agreements that consider the implied rights and covenants necessary to ensure solar and wind energy development, but how will the common law and legislative resolutions provide stability and advance the policies of resource development with the common law history weighted in favor of the mineral estate and the mineral estate property rights?¹⁷²

Like oil and natural gas, wind and solar energy production require the exercise of property rights.¹⁷³ Wind and solar are

169. Jared Berg, Note, *Ending the Game of Chicken: Proposed Solutions to Keep Texas Wind Developers and Mineral Lessees from Ruffling Each Other’s Feathers*, 11 TEX. J. OIL GAS & ENERGY L. 143, 172–73 (2016). *But see* Hannah Wiseman, *Urban Energy*, 40 FORDHAM URB. L.J. 1793, 1806–07 (2013) (“Oklahoma has gone so far as to provide that ‘the lessee of a wind or solar energy agreement or the wind energy developer shall not unreasonably interfere with the mineral owner’s right to make reasonable use of the surface estate,’” (quoting OKLA. STAT. ANN. tit. 52, § 803 (West 2013))).

170. Berg, *supra* note 169, at 173.

171. *Id.*

172. *See* SMITH ET AL., *supra* note 127, § 3.02[2][b]; Alison Gardner et al., *Mineral Issues’ Impact on Solar Energy Development in Texas*, 6 TEX. J. OIL GAS & ENERGY L. 241, 249–50 (2010); Ernest E. Smith et al., *Everything Under the Sun: A Guide to Siting Solar in the Lone Star State*, 12 TEX. J. OIL GAS & ENERGY L. 41, 91 (2017) (“[I]t is advisable for developers to complete a preliminary title review and obtain any necessary surface waivers and surface-use-accommodation agreements prior to committing any significant investments in time or money. Likewise, wind-energy development presents many of the same risks. In particular, the lack of statutory or common law guidance in Texas regarding wind energy creates additional risk.”); Ernest Smith, *Wind Energy: Siting Controversies and Rights in Wind*, 1 ENVTL. & ENERGY L. & POL’Y J. 281, 307–09 (2007).

173. J. Brent Marshall, *From Land or from Air: Why a Unified Energy Resource Scheme is Necessary When the Answer is Both*, 8 ENVTL. & EARTH L.J. 24, 26, 45 (2018) (“Whether priority is focused on preventing CO₂ emissions by increasing renewable resources, or ensuring that the free market allows each party to have equal footing, the current legal regime does not work. . . . A comprehensive solution will need to protect land owners, wind developers, solar developers, and mineral developers. Accomplishing this, while still making the best use of resources, will be the true challenge.”); Klass, *supra* note 166, at 79–80 (“[S]olar and wind resources, like water, coal, oil, and gas, derive from nature and, when subject to human effort and technology, can be channeled to produce electricity and other forms of energy. Moreover, solar and wind, like traditional forms of energy, require access to the resource. Solar and wind developers regularly acquire wind easements and solar easements from private parties to ensure they will continue to have unfettered access to those resources without the risk of neighbors blocking that access by erecting

experiencing growth as industries that compete with oil and natural gas on multiple levels.¹⁷⁴ With the policies encouraging wind and solar energy advancements similar to the dominant mineral estate doctrine policy, will this lead to diminishing mineral estate dominance and elevation of other resources and the rights they encompass?

C. *Climate Change Rights*

The policies encouraging domestic energy overlap and at times conflict with the policies seeking to lessen the impact that human existence has on the environment through fossil fuel use, including enhancing climate change.¹⁷⁵ Given that life is a fundamental right, how will individual mineral estate property rights be protected by the dominant mineral estate doctrine if mineral development is challenged on the basis of carbon emissions and a cause of climate change? As more is learned and understood about climate change and carbon emissions, will this weaken the mineral estate property rights presently protected?

When considering the rights that coexist and are evaluated in split-estate and even off-estate concerns, how does climate change become part of the evaluation in these conflict resolutions? For example, wind and solar energy are both industries that assert that these resources protect life through development of domestic energy and do not have the same fossil fuel footprint as oil or natural gas.¹⁷⁶ The mineral estate may have dominance over the surface and may impede wind and solar development, but how will reducing emissions and battling climate change weigh in to a court's future decisions?¹⁷⁷

buildings or growing vegetation in the case of solar or by constructing upwind turbines in the case of wind.”).

174. *EIA Forecasts Renewables Will Be Fastest Growing Source of Electricity Generation*, *supra* note 167.

175. See Celeste M. Hammond, *Fracking: The Unconventional Energy Response to Climate Change: Implications for the Real Estate Industry*, 49 J. MARSHALL L. REV. 449, 465–66 (2015).

176. See K.K. DuVivier, *Animal, Vegetable, Mineral—Wind? The Severed Wind Power Rights Conundrum*, 49 WASHBURN L.J. 69, 70–71, 85 (2009) (citing Ronald H. Rosenberg, *Diversifying America's Energy Future: The Future of Renewable Wind Power*, 26 VA. ENVTL. L.J. 505, 524 (2008)); *Promoting Renewable Energy and Energy Efficiency for Clean Air, Curbing Climate Change and Cost Savings*, WESTERN RESOURCE ADVOCATES, <https://westernresourceadvocates.org/clean-energy/renewable-energy/> [<https://perma.cc/TC9K-TEK3>] (last visited Feb. 20, 2020).

177. See Alexandra B. Klass & Elizabeth J. Wilson, *Climate Change, Carbon Sequestration, and Property Rights*, 2010 U. ILL. L. REV. 363 (2010) (explaining that even efforts to battle climate change have encountered property issues and offering a regulatory framework that could address the property rights impacted by carbon sequestration).

How are the impacts of climate change calculated into the foundational policies promoting domestic energy and domestic energy's positive results?¹⁷⁸ What would a court's analysis look like if a rancher like the one in *Merriman* or a farmer like the one in *Getty* also asserted that mineral estate development would impact the surface estate's right to be free of the effects of climate change and that the surface estate should thus be accommodated or compensated under a surface damage law?

It was recently written that similar situations like this “could arise in the case of climate change when the government's protective action invades a protected property right. There is certainly no freestanding protected public right to contribute to the adverse effects of climate change.”¹⁷⁹ Furthermore, “protection of one individual's right to environmental protection might come at the expense of another individual's constitutionally protected right to enjoy their property.”¹⁸⁰

Does the balancing of rights that the courts have steered away from in the past become a part of the analysis? If so, how do the positive benefits of energy development become part of the balancing?¹⁸¹

D. *Environmental Rights*

The positive and negative environmental impacts of oil and natural gas extend beyond climate change.¹⁸² Environmental

178. See Huffman & Fleming, *supra* note 10, at 494 (“[T]wo factors make the market an inadequate resource allocator under certain circumstances, and under such circumstances governmental allocation should be preferred over market allocation. (1) When the transaction costs of eliminating externalities exceed the value of those externalities, governmental allocation which eliminates the externalities should be used if the costs of governmental allocation do not exceed the costs of the externalities to be eliminated. (2) If the rights of future generations are prejudiced by market allocation, government should intervene to protect those interests, but should allow market allocation to operate within the established limits unless further government intervention is consistent with the first principle. These two principles of allocation should govern society's approach to land use planning.”).

179. Hope M. Babcock, *The Federal Government Has an Implied Moral Constitutional Duty to Protect Individuals from Harm Due to Climate Change: Throwing Spaghetti Against the Wall to See What Sticks*, 45 *ECOLOGY L.Q.* 735, 773 (2018); Lynch, *supra* note 75, at 412.

180. Babcock, *supra* note 179, at 778.

181. See U.S. ENERGY INFO. ADMIN., *CO2 Emissions to Fall in 2019*, *supra* note 67.

182. Pierce, *supra* note 70, at 364 n.12 (“The most notable positive community impacts include development-related revenue for landowners and oil companies, the demand for goods, services, and employees, and payment of taxes.” (citing KAN. INDEP. OIL & GAS ASS'N, KANSAS OIL & GAS INDUSTRY, STRATEGIC ANALYSIS 5 (2012), <https://www.kioga.org/communications/reports/past-years-1/2012/Ks%20Oil%20-%20Gas%20Industry%20Strategic%20Analysis%20%282012%29.pdf/view> [<https://perma.cc/EF6J-5SZV>])); *id.* (“Common negative impacts directly associated with development are the added traffic, congestion,

impacts may include air and water quality and usage, increased noise, unpleasant odor, and impaired enjoyment of vistas.¹⁸³ Similar to whether climate change becomes a part of resolving estate conflicts, the question follows, will additional environmental concerns become part of the equation and evaluation as the policies promoting the dominant mineral estate shift?¹⁸⁴

Turning to oil, “oil is used to make the petroleum products we use to fuel airplanes, cars, and trucks; to heat homes; and to make products such as medicines and plastics. Although petroleum products make life easier, finding, producing, and moving crude oil may have negative effects on the environment.”¹⁸⁵ Oil may cause environmental and safety issues, including spills, water usage, vegetation and land disturbance, and abandoned wells that must be remediated.¹⁸⁶

On the positive side, “[n]atural gas has many qualities that make it an efficient, relatively clean burning, and economical energy source. However, the production and use of natural gas have some environmental and safety issues to consider”:¹⁸⁷ natural gas leaks, methane emissions, vegetation and soil disturbance, wildlife and water resource disruption, clearing for pipelines, water usage, air pollution, noise pollution, aesthetic loss of vistas, flaring, and induced seismicity from wastewater disposal wells used in conjunction with natural gas development.¹⁸⁸

“The clean burning properties of natural gas have contributed to increased natural gas use for electricity generation and as a

and demand for public services.” (citing Mike Lee, *Oil Boom: Bakken Truck Traffic has N.D. Counties Scrambling To Fix Roads*, ENERGYWIRE (Oct. 9, 2013), <http://www.eenews.net/stories/1059988537> [<https://perma.cc/26MG-9TJ7>]).

183. See EPA, AN ASSESSMENT OF THE ENVIRONMENTAL IMPLICATIONS OF OIL AND GAS PRODUCTION: A REGIONAL CASE STUDY 2-7 to 2-18 (2008), <https://archive.epa.gov/sectors/web/pdf/oil-gas-report.pdf> [<https://perma.cc/9WN5-G9ZM>].

184. Lynch, *supra* note 75, at 348 (describing the impact that mineral development has on public health, and encroachment on urban living, and how this is leading to increased regulation on the energy industry and may lead to takings claims); see also Jayni Foley Hein & Caroline Cecot, *Mineral Royalties: Historical Uses and Justifications*, 28 DUKE ENVTL. L. & POL'Y F. 1, 28–29 (2017) (proposing raising federal royalties to compensate for negative externalities).

185. *Oil and the Environment*, U.S. ENERGY INFO. ADMIN., <https://www.eia.gov/EnergyExplained/oil-and-petroleum-products/oil-and-the-environment.php> [<https://perma.cc/C7F6-VD8D>] (last updated July 12, 2019).

186. *Id.*

187. *Natural Gas and the Environment*, U.S. ENERGY INFO. ADMIN., <https://www.eia.gov/energyexplained/natural-gas/> [<https://perma.cc/H2MH-YJZU>] (last updated Sept. 23, 2019).

188. See *id.*; Lynch, *supra* note 75, at 414.

transportation fuel for fleet vehicles in the United States.”¹⁸⁹ Despite the potential for environmental issues, “[n]atural gas is a relatively clean burning fossil fuel.”¹⁹⁰

Whether continued development of oil and natural gas domestically and internationally should persist on a much broader scale will be a debate to continue for years to come, and it is beyond the scope of this Article. The questions at hand are: Will this greater debate about the environmental impact of the mineral estate resources become a fundamental piece of the policy underlying the dominant mineral estate doctrine? What rights will be weighed against the impacted property rights?¹⁹¹ In other words, what if the hunters in *VirTex* or even the ranchers in *Coyote Lake Ranch* (if in a dispute with the mineral estate) raised issues of noise, odor, clean air, impaired vistas, or clean water in future estate disputes? Would the property rights, express and implied, found in the mineral estate continue to persist given that domestic energy development still has a quasi-public character, conveyances must have meaning, and surface access denial would result in the denial of an owner realizing the rights contained in mineral estate ownership?¹⁹²

E. Mineral Estate’s Neighbors’ Rights

With the advent of horizontal drilling, the mineral estate’s implied right of surface access may require less surface access collectively for a series of closely located wells.¹⁹³ While less surface may be utilized to access the mineral estate, the burdened surface may be on a *different* split estate.¹⁹⁴ The rights of the

189. *Natural Gas and the Environment*, *supra* note 187.

190. *Id.*

191. Damien Short et al., *Extreme Energy, ‘Fracking’ and Human Rights: A New Field for Human Rights Impact Assessments?*, 19 INT’L J. HUM. RTS. 697, 705 (2015) (“[T]here are at least ten areas of concern that would provide key ‘indicator’ data for such assessments due to their inherent connection with the fracking process and its social and political context. These areas are: water, air, land, health, freedom of peaceful assembly, freedom of expression, liberty and security of the person, right to a fair trial, right to respect for the private and family life, and anthropogenic climate change.”).

192. *See Steel v. St. Louis Smelting & Ref. Co.*, 106 U.S. 447, 449–50 (1882); *Chartiers Block Coal Co. v. Mellon*, 25 A. 597, 599 (Pa. 1893); Bryner, *supra* note 51, at 520, 533–35, 554; Mullins, *supra* note 51, at 111, 149–50, 173, 189.

193. EXXON MOBIL CORP., *supra* note 4, at 8 (“The development of unconventional resources also can bring substantial reductions in operational surface footprint. Industry’s ability to drill multiple wells from a single well pad (more than two dozen wells in some cases) and the technique of drilling long horizontal wells to access the shale or tight sand resource, combine to enable unconventional resources development with fewer surface impacts compared to conventional drilling.”).

194. *See generally* H. Philip Whitworth & D. Davin McGinnis, *Square Pegs, Round*

mineral estate's neighbors is an additional consideration when evaluating the policies of the dominant mineral estate and whether it will continue.¹⁹⁵

Recently, the West Virginia Supreme Court upheld a finding that EQT trespassed to the extent it used the plaintiffs' surface lands to conduct operations under neighboring mineral estates and upheld a jury award of \$190,000 in damages for the plaintiffs.¹⁹⁶ The court held:

[A] mineral owner or lessee has an implied right to use the surface of a tract in any way reasonable and necessary to the development of minerals underlying the tract. However, a mineral owner or lessee does not have the right to use the surface to benefit mining or drilling operations on other lands, in the absence of an express agreement with the surface owner permitting those operations.¹⁹⁷

The mineral estate's implied right of reasonable use of the surface is limited in off-estate drilling, absent an express agreement.¹⁹⁸ In considering the current and future parameters of the dominant mineral estate doctrine, the court's specific recognition in *EQT* that the rights of the mineral owner "must be balanced against the rights of the surface owner" is insightful.¹⁹⁹

Holes: The Application and Evolution of Traditional Legal and Regulatory Concepts for Horizontal Wells, 7 TEX. J. OIL GAS & ENERGY L. 177, 200–03 (2012).

195. Lynch, *supra* note 75, at 356 (citing 1 PATRICK H. MARTIN & BRUCE M. KRAMER, WILLIAMS & MEYERS, OIL & GAS LAW § 217 (2016)).

196. *EQT Prod. Co. v. Crowder*, 828 S.E.2d 800, 802–03, 811 (W. Va. 2019).

197. *Id.* at 810.

198. *Id.* at 808–09 (first citing Donald N. Zillman & J. Russell Tyler, Jr., *The Common Law of Access and Surface Use in Mining*, 1 J. MIN. L. & POL'Y 267, 288 (1986); then citing *Roberts Ranch Co. v. Exxon Corp.*, 43 F. Supp. 2d 1252, 1257 (W.D. Okla. 1997); then citing *Farragut v. Massey*, 612 So. 2d 325, 328 (Miss. 1992); then citing *Delhi Gas Pipeline Corp. v. Dixon*, 737 S.W.2d 96, 97–98 (Tex. App.—Eastland 1987, writ denied); then citing *TDC Eng'g, Inc. v. Dunlap*, 686 S.W.2d 346, 348 (Tex. App.—Eastland 1985, writ ref'd n.r.e.); then citing *Robinson v. Robbins Petrol. Corp.*, 501 S.W.2d 865, 868 (Tex. 1973); then citing *Tutwiler v. Etheredge*, 231 So. 2d 93, 94–95 (Ala. 1970); then citing *Groves v. Terrace Mining Co.*, 340 S.W.2d 708, 711 (Mo. 1960); then citing *Ross Coal Co. v. Cole*, 249 F.2d 600, 605 (4th Cir. 1957); then citing *Wise v. Tabor*, 206 P.2d 970, 972 (Okla. 1949); then citing *Bourdieu v. Seaboard Oil Corp. of Del.*, 100 P.2d 528, 534 (Cal. Ct. App. 1940); then citing *Schmidt v. Schmidt*, 1 N.E.2d 419, 425 (Ill. App. Ct. 1936); then citing *Pure Oil Co. v. Chisholm*, 75 P.2d 464, 464 (Okla. 1936); then citing *Moore v. Lackey Mining Co.*, 284 S.W. 415, 417 (Ky. 1926); then citing *Franz Corp. v. Fifer*, 295 F. 106, 107–08 (9th Cir. 1924); and then citing *Dietz v. Mission Transfer Co.*, 25 P. 423, 425 (Cal. 1890)).

199. *EQT*, 828 S.E.2d at 807 n.13 (citing *Faith United Methodist Church & Cemetery of Terra Alta v. Morgan*, 745 S.E.2d 461, 478 (W. Va. 2013)); *see also* Tara Righetti, *Contracting for Sustainable Surface Management*, 71 ARK. L. REV. 367, 370–71 (2018) ("Courts have limited the uses permitted under the implied easement to those that are reasonably necessary to the extraction of the underlying minerals . . . and are not for the benefit of extra-lateral parcels."); Bruce M. Kramer, *Horizontal Drilling and Trespass: A Challenge to the Norms of Property and Tort Law*, 25 COLO. NAT. RESOURCES ENERGY &

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In the balancing-and-weighing-rights language (previously rejected at common law), the rights of neighbors to the mineral estate are considered and provide a look into the future.²⁰⁰

Take, for example, the following question: How are adjacent landowners protected in the instance that operators engage in flaring?²⁰¹ The adjacent mineral owners may have a case for

ENVTL. L. REV. 291, 326 (2014) (“[W]hile a mineral lessee may have the right to use the surface itself or to convey the implied easement to another party, it cannot do so where the surface . . . is being used to support mineral extraction activities off of [the leasehold]. That off-tract use would clearly be an excessive use of the implied easement.”); Bruce M. Kramer, *The Legal Framework for Analyzing Multiple Surface Use Issues*, 44 ROCKY MOUNTAIN MIN. L. FOUND. J. 273, 317 (2007) (“[T]he overwhelming majority of cases support the general proposition that in the absence of express language to the contrary the mineral owner can only use the surface for activities directly related to its mineral or leasehold estate.”); J.E. Pool, Comment, *Use of the Surface Fee by the Mineral Operator*, 32 MISS. L.J. 104, 112–13 (1960) (“The use of the surface by the mineral operator is limited to use for the production of the minerals under the surface and does not, in the absence of special agreement such as a pooling provision in the lease, extend to production from beneath other land. This means that the operator may not drill directionally from his lessor’s land into deposits in which the lessor has no interest and from the development of which the lessor derives no benefit.”); Thomas Newlon Chambers, Case Comment, *Adverse Possession—Acquisition of Title to Minerals Subsequent to Severance*, 53 W. VA. L. REV. 72, 88 (1950) (“In the absence of an express agreement a coal lessee cannot use the *surface* owned by his grantor or lessor in producing, cleaning, marketing, or in any way handling coal produced on the lands of another. Mining privileges and rights contained in a lease or deed relate to coal to be produced from the land covered by the instrument and none other.”). *But see* Lori A. Dawkins et al., *Surface Use in the Age of Horizontal Drilling: Will Horizontal Wells Be Considered a “Reasonably Necessary” Use of the Surface?*, 88 N.D. L. REV. 595, 608 (2012) (acknowledging that “some courts have recognized that the implied easement of sur[face] use generally does not extend to support activities benefiting off-leasehold properties,” and advocating that “when either voluntary or compulsory pooling or unitization occurs,” courts should not limit “the use of the surface to the mineral tract directly beneath that surface” because to do so would frustrate “progress” and the “discovery and production” of natural gas).

200. Mayeta Clark, *CBS/ProPublica Documentary: ‘Powerless: The High Cost of Cheap Gas,’* STATEIMPACT PA. (July 26, 2019, 7:54 AM), <https://stateimpact.npr.org/pennsylvania/2019/07/26/cbs-propublica-documentary-powerless-the-high-cost-of-cheap-gas/> [<https://perma.cc/Y4Z5-HC7B>]; *Powerless: The High Cost of Cheap Gas*, CBS NEWS VIDEOS (July 11, 2019), <https://www.cbsnews.com/video/powerless-the-high-cost-of-cheap-gas/> [<https://perma.cc/Q6ZE-UYCP>] (“When the U.S. declared the discovery of natural gas reserves large enough to propel the country to energy independence, property owners in West Virginia could never have imagined how that discovery might affect them. CBSN Originals and ProPublica traveled to West Virginia’s ‘gas patch’ to meet landowners Beth Crowder and David Wentz, a once-married couple who found themselves in the crosshairs of Big Gas and joined forces to fight back.”); *see also* Jason A. Newman & Cornelius M. Sweers, *Get off My Lease: Predicting How Texas Courts Will Resolve Off-Lease Drilling Disputes Under Lightning Oil v. Anadarko*, 13 TEX. J. OIL GAS & ENERGY L. 103, 104, 113 (2018) (considering how Texas courts may resolve hypothetical off-lease drilling disputes given current law and policy, and recognizing that “when applying accommodation doctrine principles in nontraditional situations, Texas courts tend to balance competing interests in favor of the approach that prevents waste and promotes reasonable mineral development”); Wells, *supra* note 6, at 207–08.

201. Bret Wells, *Please Give Us One More Oil Boom—I Promise Not to Screw It Up This Time: The Broken Promise of Casinghead Gas Flaring in the Eagle Ford Shale*, 9 TEX.

drainage for the flaring activities,²⁰² but given the potential environmental impact, do the surface owner and off-estate surface owner have claims for nuisance?²⁰³ Would a preemptive action to prohibit flaring in the first instance by the surface estate or adjacent surface estate suffice to inhibit development of the mineral estate?²⁰⁴

Evaluating how rights are weighed in the context of minerals also requires specific recognition of the policies that promote and continue the dominant mineral estate: property rights, resource development, conservation, conveyance validity, investment return expectations, national security, and energy resource needs.²⁰⁵ How will the off-estate owners be considered in the dominant mineral estate doctrine policies of efficient resource development, resource utilization, property right protection, conveyance certainty, and national security when *balanced* against the issues created by activities like flaring and off-estate drilling access?²⁰⁶

Given the rights of life, liberty, and property that may yield to the mineral estate in its development and use as an energy resource, whether the dominant mineral estate will remain dominant over the surface estate is a significant question presently upon society.

V. FUTURE OF THE DOMINANT MINERAL ESTATE

Application of the dominant mineral estate doctrine provides resolution to competing property rights when a mineral estate is severed from the surface estate.²⁰⁷ The surface estate is burdened

J. OIL GAS & ENERGY L. 319, 334–48 (2014).

202. See *Elliff v. Texon Drilling Co.*, 210 S.W.2d 558, 559–60, 563 (Tex. 1948); see also *Wells*, *supra* note 201, at 344–47.

203. See *Coastal Oil & Gas Corp. v. Garza Energy Tr.*, 268 S.W.3d 1, 35–37 (Tex. 2008).

204. See *Wells*, *supra* note 201, at 345–47.

205. See *Klass*, *supra* note 16, at 45 (“[O]ne of the primary goals of property law is to provide certainty in ownership so that property owners will be willing to invest capital and labor in order to increase the value of their property, including energy resources, without fear that the allocation of rights in those resources will suddenly change.”).

206. *Lightning Oil Co. v. Anadarko E&P Onshore, LLC*, 520 S.W.3d 39, 52–53 (Tex. 2017); *Newman & Sweers*, *supra* note 200, at 104, 113–16; *Smith et al.*, *supra* note 172, at 78; *D. Duggan Baker V*, Comment, *Operating Blindly?: Recalibrating Lightning v. Anadarko’s Impact on the Use of MWD/LWD in Off-Lease Drilling*, 56 HOUS. L. REV. 841, 842–43 (2018); *Cody Schlegel*, Note, *When Can Lightning Strike: An Analysis of Lightning Oil v. Anadarko’s Effects on Off-Lease Horizontal Drilling*, 39 ENERGY L.J. 563, 576–80 (2018); see also *Rebecca Elliott*, *Texas Showdown Flares up over Natural-Gas Waste*, WALL ST. J. (July 17, 2019, 7:00 AM), <https://www.wsj.com/articles/texas-showdown-flares-up-over-natural-gas-waste-11563361201>.

207. *Coyote Lake Ranch, LLC v. City of Lubbock*, 498 S.W.3d 53, 64 (Tex. 2016) (citing

by the mineral estate's benefit of reasonable surface use to access minerals.²⁰⁸

The dominant mineral estate is based upon promoting policies including natural resource development, conservation, national security, conveyance validity, and investment backed expectations.²⁰⁹ Through these laws and policies, natural gas and oil have become dominant not only as the benefitted estate over the burdened estate but also as prevailing domestic energy resources.²¹⁰ As the call for greater renewable energy resource utilization grows, awareness of the impact of fossil fuels heightens, and the demand for the end of fossil fuel usage increases, will a change in the underlying policies of the dominant mineral estate lessen the mineral estate's dominance?²¹¹

A. *Property Rights*

Regardless of whether a jurisdiction recognizes the accommodation doctrine, has a surface damage act, or has not squarely addressed these issues, the mineral estate is property that represents rights.²¹² Yet, these property rights are dependent upon the rights of others.²¹³ If policy change provides for true balancing of rights, will courts find that the mineral estate should yield to other rights?²¹⁴

A fundamental aspect of the dominant mineral estate doctrine is significant common law precedent that if there is only one means of access to the minerals, then that access must be

RESTATEMENT (THIRD) OF PROP.: SERVITUDES § 1.1(1) (AM. LAW INST. 1998)).

208. *Id.* (citing RESTATEMENT (THIRD) OF PROP.: SERVITUDES § 1.1(1) (1998)).

209. *See* Manning, *supra* note 63, at 329–30, 346 (“If there is to be maximum and efficient use of the land and full development of mineral resources, private interests cannot always be compatible . . .”); *see also* Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1978) (“A ‘taking’ may more readily be found when the interference with property can be characterized as a physical invasion by government . . . than when interference arises from some public program adjusting the benefits and burdens of economic life to promote the common good.”).

210. Klass, *supra* note 16, at 22–23 (delineating the property rights advantages given to oil and gas that provided advantages, including the rule of capture, split-estate laws, and eminent domain).

211. *See 100% Commitments in Cities, Counties, & States, supra* note 1; *Green New Deal—Full Language, supra* note 1.

212. *But see* Lynch, *supra* note 75, at 352 (explaining that some states use a “[n]onownership model[]” of mineral ownership that reduces rights, sometimes to zero).

213. *Getty Oil Co. v. Jones*, 470 S.W.2d 618, 621 (Tex. 1971).

214. Wiseman, *supra* note 169, at 1794 (“[A]ll levels of government must carefully examine the unevenly distributed impacts of energy and ensure that those who bear the brunt of energy-related development have a meaningful say in the bargaining process that balances producers’ and others’ costs and benefits of energy development.”).

provided.²¹⁵ However, this bedrock of the dominant mineral estate doctrine is arguably dependent upon the policies that favor the mineral estate, including promoting the need for energy resources, the assurance of the strength of conveyances, and the avoidance of waste.²¹⁶ In the future, as these public policy priorities shift, the common law may shift and result in a mineral estate owner being denied the opportunity to completely develop resources and fully enjoy the property rights therein.²¹⁷

The inevitable “evolution of energy sources, in all forms,” requires adapting “to our energy reality, which includes the continued use and reliance on crude oil and natural gas, with a gradual shift to low carbon and zero carbon sources.”²¹⁸ Significant in such a progression to this determination is the potential property right loss by the mineral estate. What happens to the loss of these investments, inheritances or other conveyances?

“[I]f oil and gas production were prohibited [or reduced] the value of the mineral property most certainly declines or is easily dismissed.”²¹⁹ “If people are uncertain as to the extent of their property rights they will be disinclined to invest in development of that property.”²²⁰ “The speculative potential of vast economic gain is what attracts most mineral operators and if they are asked to give this up in whole or piecemeal,” what protections may they be offered for “undue risk taking”?²²¹ The solution may lie in a more precise definition of the property rights, or may require a different

215. See *Merriman v. XTO Energy, Inc.*, 407 S.W.3d 244, 249 (Tex. 2013) (citing *Tarrant Cty. Water Control & Improvement Dist. No. One v. Haupt, Inc.*, 854 S.W.2d 909, 911–12 (Tex. 1993)) (“[I]f the mineral owner has reasonable alternative uses of the surface, one of which permits the surface owner to continue to use the surface in the manner intended . . . and one of which would preclude that use by the surface owner, the mineral owner *must* use the alternative that allows continued use of the surface by the surface owner.”); see also *DuVivier*, *supra* note 7, at 395–96, 398–99.

216. See *Manning*, *supra* note 63, at 329–33.

217. See Michael J. Mazzone, *Changing Times Bring Conflict with Surface Owners*, AM. OIL & GAS REP. (Dec. 2011), <https://www.aogr.com/web-exclusives/exclusive-story/changing-times-bring-conflict-with-surface-owners> [<https://perma.cc/2GL8-2LMV>].

218. Ehrman, *supra* note 2, at 480 (proposing solutions for the ongoing fossil fuel debate, as specifically articulated by the Keep in the Ground Movement, including “energy conservation, efficiency, and a government-led or private environmental governance tax effort,” in an effort to avoid “increased geopolitical risk and energy poverty”); see also Meghan O’Sullivan et al., *The Geopolitics of Renewable Energy* 3–10 (HKS Faculty Research Working Paper Series, No. RWP17-027, 2017) <https://www.hks.harvard.edu/publications/geopolitics-renewable-energy> [<https://perma.cc/NU2B-GQNC>].

219. Ehrman, *supra* note 2, at 465 n.214.

220. Huffman & Fleming, *supra* note 10, at 493.

221. Manning, *supra* note 63, at 346.

system of allocation if property rights cannot be adequately defined.²²²

If the opportunity for even speculative economic gain is lost or layered with greater uncertainty, the policies advanced by the dominant mineral estate doctrine diminish.²²³ In the balance of other rights, does the mineral estate dominance persist?

B. Public and Private Change

The dominant mineral estate doctrine arises in the context of resolving disputes on an individual, case-by-case basis. The policies underlying the dominant mineral estate doctrine are also being evaluated much more broadly in communities and states across America that are addressing mineral estate development through ordinances, regulations, and legislation.²²⁴

Like individual cases, larger-scale policy changes still significantly impact mineral estate property rights.²²⁵ While beyond the scope of this Article but worth noting, prohibition of the exercise of property rights found in the mineral estate may give rise to a takings claim and may cause ripple effects throughout the local or even global community.²²⁶

The issues raised in legislative determinations of competing rights, including resolving whether a taking has occurred and how to compensate for a taking, are useful in determining the questions that will arise with respect to diminishing property rights through private litigation.²²⁷ How would a mineral estate owner be

222. See *id.* at 333–37, 345–46.

223. See Lynch, *supra* note 75, at 364.

224. See Fershee & Shay, *supra* note 30, at 447 (“Communities, landowners, interest groups, companies, and governments would be well served to work together to seek balance and compromise in development-heavy regions. Although courts are well-equipped to handle individual cases, large-scale policy is better developed at the community level (state and local) than through the adversarial system.”); *100% Commitments in Cities, Counties, & States*, *supra* note 1; *Green New Deal—Full Language*, *supra* note 1; see also, e.g., Stephanie A. Malin et al., *Environmental Justice and Natural Resource Extraction: Intersections of Power, Equity and Access*, 5 ENVTL. SOC. 109, 109–13 (2019).

225. See Susan Abram, *How These Neighbors Took on the Oil Company in Their Backyard and Won*, HUFFPOST: IMPACT (July 27, 2019, 5:45 AM), https://www.huffpost.com/entry/oil-drill-site-protest-california_n_5d3911a0e4b004b6adbab9c6 [<https://perma.cc/AEH5-BR76>]; John Aguilar, *Mineral Owners Assert Property Rights in Colorado’s Oil and Gas Fight*, DENVER POST (Mar. 5, 2016, 1:08 PM), <https://www.denverpost.com/2016/03/05/mineral-owners-assert-property-rights-in-colorados-oil-and-gas-fight/> [<https://perma.cc/356F-CXD9>]; Bruce Finley, *Colorado Proposes New Controls on Oil and Gas Industry in Effort to Combat Air Pollution*, DENVER POST (July 29, 2019, 8:19 PM), <https://www.denverpost.com/2019/07/29/colorado-oil-gas-emissions/> [<https://perma.cc/WGY9-66MZ>]; Grover, *supra* note 154.

226. Lynch, *supra* note 75, at 338–40 (citing Kevin J. Lynch, *Regulation of Fracking Is Not a Taking of Private Property*, 84 U. CIN. L. REV. 39, 42 (2016)).

227. See *id.* at 339–42.

compensated for the loss? How will the loss of tax revenues, employment, individual income, domestic energy resources, and other losses attributable to a diminished mineral estate be accounted for? The present and future complexities are significant.

VI. CONCLUSION

The dominant mineral estate doctrine secured the abundant subsurface property rights of the mineral estate and promoted the success of oil and natural gas. The underlying policies, including promoting energy production, natural resource development, national security, conveyance validity, and property right protection, are now in conflict with emerging energy and environmental policies and laws.

How will life, liberty, and property be evaluated in the complex context of energy development? Will the mineral estate remain dominant in both the sense of being a benefitted estate and as a cornerstone of the prevalence of oil and natural gas as energy resources? Should the dominant mineral estate doctrine be altered, how will diminished or terminated property rights be regarded?

Understanding the dominant mineral estate doctrine is critical to answering current and future disputes over the development, consumption, and impact of the earth's resources. How society settles the conflicts that arise with mineral estate property rights and applies the dominant mineral estate doctrine in the coming decades will be key to resolving energy resource, environmental, economic, and sustainability issues.