BUNDLED RIGHTS AND REASONABLE EXPECTATIONS: APPLYING THE LUCAS CATEGORICAL TAKING RULE TO SEVERED MINERAL PROPERTY INTERESTS

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"[O]ur 'takings' jurisprudence...has traditionally been guided by the understandings of our citizens regarding the content of, and the State's power over, the 'bundle of rights' that they acquire when they obtain title to property."

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^{1.} Lucas v. S. C. Coastal Council, 505 U.S. 1003, 1027–28 (1992).

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Introduction

The Supreme Court of the United States has recognized that the Takings Clause of the Constitution's Fifth Amendment affords a significant measure of protection to the expectations of owners of a fee simple interest in land.² When the government exercises the power of eminent domain, or otherwise by regulation enters land and actually occupies it, the Court applies a per se takings rule requiring that the owner of the occupied land be paid "just compensation." In *Lucas v. South Carolina Coastal Council*,⁴ the Court established a second categorical rule that applies to regulations that deprive an owner of "all economically beneficial use" of one's property. In *Lucas*, the Court held that the government must pay just compensation for such "total regulatory takings," except to the extent that "background principles of nuisance and property law" independently restrict the owner's intended use of the property. "Outside these two relatively narrow categories," the Court has said that "regulatory takings challenges are governed by the standards set forth in *Penn Central*."

- 4. Lucas, 505 U.S. at 1003.
- 5. Id. at 1019.
- 6. Id. at 1026-32.
- 7. Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 538 (2005).

^{2.} The Fifth Amendment to the Constitution provides in relevant part: "No person shall be... deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation." U.S. CONST. amend. V. The Fifth Amendment protects rights of citizens from federal government action; enactment of the Fourteenth Amendment to the Constitution extended the protection afforded by the Takings Clause to state action. The Takings Clause was first applied to the states through the Fourteenth Amendment in *Chi. Burlington & Quincy R.R. Co. v. Chicago*, 166 U.S. 226, 239 (1897). The Takings Clause was the first Bill of Rights provision to be found applicable to the states. *Id.* at 239; *see* Erwin Chemerinsky, CONSTITUTIONAL LAW PRINCIPLES AND POLICIES 640 (3d ed. 2006) (describing the Takings Clause and its purpose).

^{3.} See, e.g., Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 421 (1982) (holding a state law requiring landlords to permit cable companies to install cable facilities in apartment buildings amounted to a taking). Outside these two relatively narrow categories (and the special context of land-use exactions discussed below), regulatory takings challenges are governed by the standards set forth in Penn Central Transp. Co. v. New York City, 438 U.S. 104 (1978). See John D. Echeverria, Making Sense of Penn Central, 23 UCLA J. ENVTL. L. & POL'Y 171, 173 (2005) ("[T]he Court has given the Loretto per se rule a narrow interpretation [and] . . . the Lucas per se rule an even narrower reading").

So-called "regulatory takings" were first recognized in *Pennsylvania Coal Co. v Mahon*⁸ when "the Court recognized that government regulation of private property may, in some instances, be so onerous that its effect is tantamount to a direct appropriation or ouster, and that such 'regulatory takings' may be compensable under the Fifth Amendment." In what the Court itself has called "Justice Holmes' storied but cryptic formulation," *Mahon* held that "while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."

More recently, the Supreme Court has embraced a metaphor now firmly associated with its traditional takings jurisprudence—bundle of rights—that expresses the high level of expectation attendant citizen ownership of land held in fee simple absolute.¹¹ It is fair to say that the breadth of those expectations is directly proportional to the composition of a property owner's bundle of rights.¹² As mentioned above, *Lucas* deemed those expectations worthy of creating its new categorical or per se takings rule. The *Lucas* Court identified the historical source of its new rule as "the historical compact recorded in the Takings Clause that has become part of our constitutional culture."¹³

- 8. Pa. Coal Co. v. Mahon, 260 U.S. 393, 415 (1922).
- 9. Lingle, 544 U.S. at 537.
- 10. Id. at 537-38 (citing Mahon, 260 U.S. at 415).
- 11. See, e.g., Andrus v. Allard, 444 U.S. 51, 66–67 (1979) ("But the denial of one traditional property right does not always amount to a taking. At least where an owner possesses a full 'bundle' of property rights, the destruction of one 'strand' of the bundle is not a taking, because the aggregate must be viewed in its entirety."). Andrus based its conclusion that taking of less than a "full bundle" of property rights might not be compensable under the Fifth and Fourteenth Amendments by comparing its decisions in Penn Central Transp. Co. v. New York City, 438 U.S. 104, 130–31 (1978), and United States v. Twin City Power Co., 350 U.S. 222, 227–28 (1956), with Mahon, 260 U.S. at 413, and United States v. Va. Electric & Power Co., 365 U.S. 624 (1961).
- 12. The concept of property as a "bundle of rights" finds its roots in the late nineteenth and early twentieth century movement away from the absolutist view of property as a physical "thing" that could be owned or possessed. This evolution in conceptualization of property sought to accommodate both the new expanding "regulatory state" and the explosion of economic growth fueled by intangible wealth. See Craig Anthony Arnold, The Reconstitution of Private Property: Property As a Web of Interests, 26 HARV. ENVIL. L. REV. 281, 282 (2002) ("The bundle of rights concept of property replaced a physicalist, absolutist understanding of property. It rejected any contention that property is about things (objects) or people's relationships with things."); see generally Kenneth J. Vandevelde, The New Property of the Nineteenth Century: The Development of the Modern Concept of Property, 29 BUFF. L. REV. 325, 357–67 (1980) (discussing the conceptualization of new property); MORTON J. HORWITZ, THE TRANSFORMATION OF AMERICAN LAW, 1870-1960: THE CRISIS OF LEGAL ORTHODOXY 145–67 (1992); Thomas C. Grey, The Disintegration of Property in Property, in PROPERTY 69 (J. Roland Pennock & John W. Chapman eds. 1980). The concept of property as a "bundle of rights" is discussed in Part III.
- 13. Lucas v. S. C. Coastal Council, 505 U.S. 1003, 1027–28 (1992) ("We think the notion . . . that title is somehow held subject to the 'implied limitation' that the State may subsequently eliminate all economically valuable use is inconsistent with the historical compact recorded in the Takings Clause that has become part of our constitutional culture.").

It is axiomatic that ownership of land historically has held a unique and favored position in the hierarchy of individual rights protected by our Constitution. More than a century ago, the Supreme Court of the United States observed:

The requirement that the property shall not be taken for public use without just compensation is but "an affirmance of a great doctrine established by the common law for the protection of private property. It is founded in natural equity, and is laid down as a principle of universal law. Indeed, in a free government almost all other rights would become worthless if the government possessed an uncontrollable power over the private fortune of every citizen." ¹⁴

But, the right of citizens to organize into a government empowered by law to protect the public health and safety and advance the general welfare is also a deeply rooted societal value of our nation. Thus, the Court has also recognized:

When one becomes a member of society, he necessarily parts with some rights or privileges which, as an individual not affected by his relations to others, he might retain. "A body politic . . . is a social compact by which the whole people covenants with each citizen, and each citizen with the whole people, that all shall be governed by certain laws for the common good." This . . . authorize[s] the establishment of laws requiring each citizen to so conduct himself, and so use his own property, as not unnecessarily to injure another. . . . Under these powers the government regulates the conduct of its citizens one towards another, and the manner in which each shall use his own property, when such regulation becomes necessary for the public good. 15

Whether these competing values are best protected by *Lucas*'s categorical takings rule has been the subject of considerable debate since it was decreed almost two decades ago. ¹⁶ The following discussion focuses

^{14.} Chi. Burlington & Quincy R..R.. Co. v. Chicago, 166 U.S. 226, 236 (quoting 2 Joseph Story, Commentaries on the Constitution of the United States § 1790 (1891)).

^{15.} Munn v. Illinois, 94 U.S. 113, 124-25 (1876).

^{16.} See, e.g., Richard J. Lazarus, Putting the Correct "Spin" on Lucas, 45 STAN. L. REV. 1411, 1411–13 (1993) (discussing various viewpoints of the Lucas decision).

on a particular type of property ownership interest—the right to extract minerals like coal from land—and explores the extent to which the *Lucas* per se rule may impact the rights of owners of severed/segmented mineral interests.¹⁷ In this quest for understanding, it seems appropriate to ask whether the values inherent in ownership of less than fee simple interests in land give rise to the type of citizen expectations recognized by "the historical compact recorded in the Takings Clause that has become part of our constitutional culture." ¹⁸

This essay argues that the expectations of owners of less-than-fee interests in one mineral—coal—do not deserve the additional protection of *Lucas*'s categorical rule. I reach this conclusion based upon consideration of the historic limited expectations of severed coal interest ownership. I submit that *Penn Central*'s examination of a takings claimant's distinct investment-backed expectations should continue to be applied to claims of regulatory takings of coal property interests severed from fee simple estates in land.

Finally, I argue that restricting the application of *Lucas*'s per se rule to claims of government taking of the entire economic value of fee simple land ownership does not immunize government regulation nor allow it to "plunder" the rights of a coal interest owner. On the contrary, limiting application of the categorical takings rule to claims of fee simple owners of land does no more than allow courts to consider the claimants' investment-backed expectations when a total taking of coal interests is alleged. Under my interpretation of *Lucas*, courts would continue to apply the regulatory takings analysis synthesized in *Penn Central*—an analysis first expressed in *Mahon* that has evolved over three quarters-of-a-century of Supreme Court takings jurisprudence. On

^{17.} When a freehold estate in coal, oil and/or gas is separated from fee ownership of land, the mineral estate is said to be "severed." Severance occurs when a fee simple owner of land conveys one or more (or all) coal seams underlying her property; in the alternative, a fee owner may convey the surface land and reserve to herself the underlying mineral. See, e.g., Charles Q. Gage & John L. McLaugherty, The Coal Leasing Transaction, in 4 COAL LAW & REGULATION § 81.01 (Patrick C. McGinley & Donald H. Vish eds., 1983).

^{18.} Lucas, 505 U.S. at 1028.

^{19.} *Id.* at 1028 n.14. ("[A] regulation *specifically directed to land use* no more acquires immunity by plundering landowners generally than does a law specifically directed at religious practice acquire immunity by prohibiting all religions.") (emphasis in original).

^{20.} See Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1978) (identifying several factors of "particular significance"); see also Pa. Coal Co. v. Mahon, 260 U.S. 393, 414 (1922) (rejecting the claim that denying mineral rights owners the opportunity to extract such minerals was a valid exercise of police power).

I. THE SUPREME COURT'S MAHON-PENN CENTRAL TAKINGS ANALYSIS

Mahon first articulated vague contours of an essentially ad hoc regulatory takings inquiry:

As long recognized some values are enjoyed under an implied limitation and must yield to the police power. But obviously the implied limitation must have its limits, or the contract and due process clauses are gone. One fact for consideration in determining such limits is the extent of the diminution. When it reaches a certain magnitude, in most if not in all cases there must be an exercise of eminent domain and compensation to sustain the act. So the question depends upon the particular facts. The greatest weight is given to the judgment of the legislature but it always is open to interested parties to contend that the legislature has gone beyond its constitutional power.²¹

The property interest involved in *Mahon* was less than a fee simple interest in coal that had been severed from a fee simple interest in land.²² The coal company alleged that the state statute prohibiting mining under buildings to prevent subsidence damage effected an unconstitutional taking of private property without just compensation.²³ *Penn Central* synthesized the seminal regulatory takings principles of *Mahon* and the Court's post-*Mahon* regulatory takings cases in identifying the relevant considerations to be used by courts in determining whether a compensable regulatory taking has occurred. The Court stated:

[W]hether a particular restriction will be rendered invalid by the government's failure to pay for any losses proximately caused by it depends largely "upon the particular circumstances [in that] case." In engaging in these essentially ad hoc, factual inquiries, the Court's decisions have identified several factors that have particular significance. The economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations are, of course, relevant

^{21.} Mahon, 260 U.S. at 413.

^{22.} Id. at 412.

^{23.} *Id*.

considerations. So, too, is the character of the governmental action.²⁴

Unlike *Lucas*, *Penn Central* involved a claim of the taking of less than a full fee simple interest in land allegedly rendered valueless by government regulation.²⁵ The Penn Central Company asserted that a New York City historic landmarks preservation ordinance effected a taking because it barred the use of airspace above the company's Grand Central Station to construct a high-rise building.²⁶ The takings claim was based upon the theory that one hundred percent of the economic value of the airspace had been taken as a result of the historic preservation law, notwithstanding the fact that Penn Central owned the entire tract in fee simple.²⁷ The Court characterized the company's argument as follows:

They first observe that the airspace above the Terminal is a valuable property interest. . . . They urge that the Landmarks Law has deprived them of any gainful use of their "air rights" above the Terminal and that, irrespective of the value of the remainder of their parcel, the city has "taken" their right to this superjacent airspace, thus entitling them to "just compensation" measured by the fair market value of these air rights.²⁸

Thus, the *Penn Central* Court was called upon to identify the "property interest" against which Penn Central's alleged loss of property value was to

^{24.} Penn Central, 438 U.S. at 124 (citations omitted). Included among the post-Mahon cases synthesized by the Court in Penn Central are: Moore v. E. Cleveland, 431 U.S. 494, 495 (1977); City of Eastlake v. Forest City Enter., Inc., 426 U.S. 668, 672 (1976); YMCA v. United States, 395 U.S. 85, 93 (1969); Goldblatt v. Hempstead, 369 U.S. 590, 590 (1962); Griggs v. Allegheny County, 369 U.S. 84, 85 (1962); Armstrong v. United States, 364 U.S. 40, 43 (1960); United States v. Central Eureka Mining Co., 357 U.S. 155, 168 (1958); Atchison, Topeka & Sante Fe R.R. Co. v. Public Util. Comm'n, 346 U.S. 346, 347 (1953); United States v. Caltex, Inc., 344 U.S. 149, 151 (1952); United States v. Causby, 328 U.S. 256, 258 (1946); United States v. Willow River Power Co., 324 U.S. 499, 503 (1945); Demorest v. City Bank Co., 321 U.S. 36, 38 (1944); Miller v. Schoene, 276 U.S. 272, 279–80 (1928); Nectow v. City of Cambridge, 277 U.S. 183, 185 (1928); Gorieb v. Fox, 274 U.S. 603, 605 (1927); Euclid v. Ambler Realty Co., 272 U.S. 365, 367 (1926).

Pre-Mahon cases cited by the Court as informing its analysis are: Portsmouth Co. v. United States, 260 U.S. 327, 328 (1922); Walls v. Midland Carbon Co., 254 U.S. 300, 309 (1920); United States v. Cress, 243 U.S. 316, 328 (1917); Hadacheck v. Sebastian, 239 U.S. 394, 404 (1915); Reinman v. Little Rock, 237 U.S. 171, 173 (1915); Welch v. Swasey, 214 U.S. 91, 93 (1909); Mugler v. Kansas, 123 U.S. 623, 625 (1887).

^{25.} Penn Central, 438 U.S. at 130.

^{26.} Id.

^{27.} Id.

^{28.} Id. (citations omitted).

be measured—now often referred to by courts and scholars as the "denominator" issue.²⁹ The Court made short shrift of the company's argument:

[T]he submission that appellants may establish a "taking" simply by showing that they have been denied the ability to exploit a property interest that they heretofore had believed was available for development is quite simply untenable... "Taking" jurisprudence does not divide a single parcel into discrete segments and attempt to determine whether rights in a particular segment have been entirely abrogated.³⁰

A decade after *Penn Central*, in *Keystone Bituminous Coal Ass'n v. DeBenedictis*, the Court confronted a takings claim similar to that made by the coal company in *Mahon*.³¹ In *Keystone*, the Court once again was asked to determine whether a 1966 Pennsylvania law prohibiting the undermining of an occupied dwelling constituted a compensable taking.³² The Court described the scope and effect of the statute:

Id. at 481

32. Id. at 478–79.

^{29.} See generally Keith Woffinden, The Parcel As a Whole: A Presumptive Structural Approach for Determining When the Government Has Gone Too Far, 2008 B.Y.U. L. REV. 623 (2008) (discussing horizontal divisions of property and the Supreme Court's jurisprudence regarding the denominator problem); Timothy J. Dowling, Tahoe-Sierra's Effect on the Parcel-as-a-Whole Rule and Its Importance in Defending Against Regulatory Takings Challenges, in TAKING SIDES ON TAKINGS ISSUES: THE IMPACT OF Tahoe-Sierra, at 33. (Thomas E. Roberts ed., 2003) (discussing the parcel-as-a-whole rule). Lucas did not reach the denominator issue because the property interest involved was a fee simple and the Court found that the entire economic value of the land had been taken. However, the Court emphasized "uncertainty regarding the composition of the denominator in our 'deprivation' fraction has produced inconsistent pronouncements by the Court." Lucas v. S. C. Coastal Council, 505 U.S. 1003, 1016 n.7 (1992).

^{30.} The opinion observed that "[w]ere this the rule this Court would have erred not only in upholding laws restricting the development of air rights, but also in approving those prohibiting both the subjacent and the lateral development of particular parcels." *Penn Central*, 438 U.S. at 130 (citations omitted).

^{31.} Keystone Bituminous Coal Ass'n v. DeBenedicts, 480 U.S. 470, 473–74 (1987). *Keystone* rejected the coal company's assertion that the two cases involved essentially the same issues:

Petitioners assert that disposition of their takings claim calls for no more than a straightforward application of the Court's decision in *Pennsylvania Coal Co. v. Mahon*. Although there are some obvious similarities between the cases, we agree with the Court of Appeals and the District Court that the similarities are far less significant than the differences, and that *Pennsylvania Coal* does not control this case.

Pennsylvania's Subsidence Act authorizes the Pennsylvania Department of Environmental Resources (DER) to implement and enforce a comprehensive program to prevent or minimize subsidence and to regulate its Subsidence Section 4 of consequences. the Act... prohibits mining that causes subsidence damage to three categories of structures that were in place on April 27. 1966: public buildings and noncommercial buildings generally used by the public; dwellings used for human habitation; and cemeteries. Since 1966 the DER has applied a formula that generally requires 50% of the coal beneath structures protected by § 4 to be kept in place as a means of providing surface support.³³

As it had in *Penn Central*, the Court in *Keystone* considered the argument that the "denominator" in its takings analysis should be the coal placed off limits by the 1966 Pennsylvania subsidence law.³⁴ Relying substantially on *Penn Central* and *Andrus v. Allard*, the *Keystone* Court rejected the companies' claim that the twenty-seven million tons of coal required to be left in place to prevent subsidence constituted a separate segment of property for takings law purposes.³⁵ Although this amount of coal required to be left un-mined by the 1966 Pennsylvania law seems enormous, in fact it represented only a very small percentage—two

The parties have stipulated that enforcement of the DER's 50% rule will require petitioners to leave approximately 27 million tons of coal in place. Because they own that coal but cannot mine it, they contend that Pennsylvania has appropriated it for the public purposes described in the Subsidence Act.

Id. at 498.

35. *Id. Keystone* drew an analogy to land use regulations like setbacks or open space requirements that "place limits on the property owner's right to make profitable use of some segments of his property. A requirement that a building occupy no more than a specified percentage of the lot on which it is located could be characterized as a taking of the vacant area as readily as the requirement that coal pillars be left in place." *Id.* The Court observed that the petitioners' theory would lead one to "always argue that a setback ordinance requiring that no structure be built within a certain distance from the property line constitutes a taking because the footage represents a distinct segment of property for takings law purposes." *Id.* (citing Gorieb v. Fox, 274 U.S. 603, 608–09 (1927), which upheld the validity of a setback ordinance).

^{33.} Id. at 476-77 (citations omitted).

^{34.} *Id.* at 496–97. The Court characterized the coal companies' claim:

[P]etitioners have sought to narrowly define certain segments of their property and assert that, when so defined, the Subsidence Act denies them economically viable use [T]hey focus on the specific tons of coal that they must leave in the ground under the Subsidence Act, and argue that the Commonwealth has effectively appropriated this coal since it has no other useful purpose if not mined. *Id.* Moreover:

percent—of the total coal tonnage owned by the taking claimants.³⁶ "There is no basis for treating the less than 2% of petitioners' coal as a separate parcel of property," said the Court.³⁷ Turning to the *Mahon-Penn Central* emphasis on consideration of a taking claimant's economic expectations, the *Keystone* Court found it easy to distinguish *Mahon* and justify a contrary result:

[T]here is no record in this case to support a finding, similar to the one the Court made in *Pennsylvania Coal*, that the [1966] Subsidence Act makes it impossible for petitioners to profitably engage in their business, or that there has been undue interference with their investment-backed expectations.

. . . .

When the coal that must remain beneath the ground is viewed in the context of any reasonable unit of petitioners' coal mining operations and financial-backed expectations, it is plain that petitioners have not come close to satisfying their burden of proving that they have been denied the economically viable use of that property. The record indicates that only about 75% of petitioners' underground coal can be profitably mined in any event, and there is no showing that petitioners' reasonable "investment-backed expectations" have been materially affected by the additional duty to retain the small percentage that must be used to support the structures protected by [the Pennsylvania subsidence law].³⁸

In sum, *Mahon*'s ad hoc non-categorical takings analysis provided the core principles underlying seventy years of the Supreme Court's regulatory takings jurisprudence, including *Penn Central* and *Keystone*.³⁹ However,

^{36.} *Id.* at 496 ("Petitioners described the effect that the Subsidence Act had . . . on 13 mines that the various companies operate, and claimed that they have been required to leave a bit less than 27 million tons of coal in place to support § 4 areas. The total coal in those 13 mines amounts to over 1.46 billion tons.").

^{37.} Id. at 498.

^{38.} Id. at 485, 499 (citations omitted).

^{39.} While cases addressing severed mineral interest are few, some federal courts have addressed claims involving government regulations that significantly devalue, but do not wipeout the value of mineral interests. None of these cases, however, involve mineral interests severed from a fee simple estate in land. *See* Goldblatt v. Hempstead, 369 U.S. 590, 592 (1962) (analyzing whether the property's most beneficial use was deprived); Whitney Benefits, Inc. v. United States, 18 Cl. Ct. 394,

only five years after *Keystone* was decided, *Lucas* added a new twist to the Court's regulatory takings jurisprudence when it posited its new categorical or per se constitutional rule requiring compensation "when . . . a regulation . . . declares 'off-limits' all economically productive or beneficial uses of land "40

II. THE LUCAS PER SE TAKINGS RULE

A. South Carolina's Land Use Regulation and the Lucas Land

In 1986, real estate developer David Lucas purchased a fee simple interest in two residential lots on a South Carolina barrier island with the intention of building single-family homes on the lots like those constructed on immediately adjacent parcels.⁴¹ At the time of Lucas's purchase, his lots were not subject to the state's coastal zone building permit regulations.⁴² Two years later, in 1988, the South Carolina legislature enacted the Beachfront Management Act⁴³ (BMA), which had the effect of prohibiting Lucas from building any permanent habitable structures on his land.⁴⁴

417 (1989) (holding that a taking resulted from the enactment of the Surface Mining Control and Reclamation Act's prohibition of surface mining); Cane Tenn., Inc. v. United States and Wyatt v. United States, 60 Fed. Cl. 694 (2004) (Cane V); M & J Coal Co. v. United States, 47 F.3d 1148, 1150 (Fed. Cir. 1995) (holding a mining company's rights by deed does not allow endangerment of public health and safety); Cane Tenn., Inc. v. United States (Cane I), 44 Fed. Cl. 785, 793 (1999) (involving a complaint asserting a right to just compensation for a taking of mineral interests as a result of government regulatory action); Cane Tenn., Inc. v. United States (Cane II), 54 Fed. Cl. 100, 109 (2002); Cane Tenn., Inc. v. United States (Cane III), 57 Fed. Cl. 115, 122 (2003); Cane Tenn., Inc. v. United States (Cane IV), 62 Fed. Cl. 481, 482 (2003); Cane Tenn., Inc. v. United States (Cane V), 60 Fed. Cl. 694, 695 (2004) (Wyatt claims); Cane Tenn., Inc. v. United States (Cane VI), 62 Fed. Cl. 703, 704 (2004) (Wyatt claims); Cane Tenn., Inc. v. United States (Cane VII), 63 Fed. Cl. 715 (2005); Cane Tenn., Inc. v. United States (Cane VIII), 71 Fed. Cl. 432, 433 (2005), aff'd per curiam, 214 Fed. Appx. 978, (Fed. Cir. 2001). Earlier takings claims involving the same property are discussed in Wyatt v. United States, 271 F.3d 1090 (Fed. Cir. 2001), rev'g E. Minerals Int'l Inc. v. United States, 36 Fed. Cl. 541 (1996). But see State ex rel. R.T.G., Inc. v. Ohio, 780 N.E.2d 998 (2002) (stating that state environmental protection regulation prohibiting an owner of severed interest in coal from mining reserve are held compensable as a total taking under Lucas).

- 40. Lucas v. S. C. Coastal Council, 505 U.S. 1003, 1030 (1992).
- 41. Id. at 1006-07.
- 42. Id.
- 43. S. C. CODE ANN. § 48-39 (1987).
- 44. Justice Scalia's opinion for the Court in *Lucas* observed:

 The Beachfront Management Act brought Lucas's plans to an abrupt end. Under that 1988 legislation, the Council was directed to establish a "baseline" connecting the landward-most "point[s] of erosion . . . during the past forty years" in the region of the Isle of Palms that includes Lucas's lots. S.C. CODE ANN. §

Lucas filed suit in state court against the South Carolina Coastal Council, the state regulatory agency tasked with enforcing the BMA.⁴⁵ Lucas contended that the ban on construction deprived him of all economically viable use of his land, and thus constituted a "taking" under the Fifth and Fourteenth Amendments.⁴⁶ Lucas argued that "complete extinguishment" of the value of his land necessitated payment of "just compensation," notwithstanding the fact that the enactment may have substantially advanced an important and valid public interest.⁴⁷ The South Carolina trial court agreed with Lucas, holding that the ban rendered his parcels "valueless." Judgment was entered by the trial court in Lucas's favor in an amount exceeding \$1.2 million.⁴⁹

On appeal, the South Carolina Supreme Court reversed.⁵⁰ "It found dispositive what it described as Lucas's concession 'that the Beachfront

48-39-280(A)(2) (Supp. 1988). In action not challenged here, the Council fixed this baseline landward of Lucas's parcels. That was significant, for under the Act construction of occupable improvements was flatly prohibited seaward of a line drawn 20 feet landward of, and parallel to, the baseline. § 48-39-290(A). The Act provided no exceptions.

Lucas, 505 U.S. at 1008–09 (quoting Lucas v. S. C. Coastal Council (Lucas State Case), 404 S.E.2d 895, 896 (S.C 1991)). The Act permitted construction of non-habitable improvements including "wooden walkways no larger in width than six feet" and "small wooden decks no larger than one hundred forty-four square feet." S.C. CODE ANN. § 48-39-290 (1987).

- 45. Lucas, 505 U.S. at 1009.
- 46. Id.
- 47. Id.
- 48. The trial court found that "at the time Lucas purchased the two lots, both were zoned for single-family residential construction and . . . there were no restrictions imposed upon such use of the property by either the State of South Carolina, the County of Charleston, or the Town of the Isle of Palms." *Id.* The trial court also found the BMA permanently banned construction of houses on Lucas's lots, and that this prohibition "deprive[d] Lucas of any reasonable economic use of the lots . . . eliminated the unrestricted right of use, and render[ed] them valueless." *Id.*
- 49. *Id.* The state court held that Lucas's land had been "taken" by operation of the Act and ordered the Coastal Council to pay "just compensation" in the sum of \$1,232,387.50. *Id. Lucas* dissenters and many commentators questioned the trial court's finding that the value of Lucas's property had been wiped out. *See, e.g.*, Lazarus, *supra* note 16, at 1412. Professor Lazarus has observed:

The Supreme Court based its ruling for the landowner on the factual assumption that the challenged developmental restriction had deprived the landowner of the entire economic value of his property. But no member of the Court seemed to believe that this assumption was valid. Four Justices explicitly questioned its accuracy, and the majority opinion carefully avoided any intimation to the contrary.

Id. at 1412 (citations omitted).

50. Lucas State Case, 404 S.E.2d 895, 896 (S.C. 1991).

Management Act [was] properly and validly designed to preserve . . . South Carolina's beaches." "51

The state supreme court's refusal to recognize the legitimacy of Lucas's takings claim was based significantly upon a long-established holding that when a regulation is designed to prevent "harmful or noxious uses" of property akin to public nuisances, no compensation is due under the Takings Clause. 52

B. The Supreme Court's Holding in Lucas

Reduced to its essence, the holding of *Lucas* is that "when . . . a regulation that declares 'off-limits' all economically productive or beneficial uses of land goes beyond what the relevant background principles would dictate, compensation must be paid to sustain it." In assessing whether *Lucas*'s categorical taking rule should be applied to less-than-fee severed coal interests, the definition of the "land" referenced in the Court's holding is a crucial inquiry. *Lucas*, and indeed all of the Court's modern taking cases, requires the property alleged to have been taken to be specifically identified before a judicial assessment is made as to whether compensation is required. ⁵⁴

Fundamental principles of Supreme Court adjudication and Article III's case or controversy restriction on federal judicial power require the scope of the *Lucas* per se takings rule to necessarily be limited to the case actually decided by the Court. The property David Lucas claimed had been taken

^{51.} Lucas, 505 U.S. at 1009–10. The state supreme court emphasized that Lucas "admittedly fails to attack the validity of the Act, and therefore concedes the validity of the legislative declaration of its 'findings' and 'policy' embodied in [the BMA]." Lucas State Case, 404 S.E.2d at 896. The South Carolina court thus considered itself "in no position to question the legislative scheme or purpose." Id. at 896.

^{52.} Lucas State Case, 404 S.E.2d at 899 (citing Goldblatt v. Hempstead, 369 U.S. 590, 590 (1962) (prohibiting excavating below the water table in order to extract gravel); Miller v. Schoene, 276 U.S. 272, 277 (1928) (involving state action that destroyed diseased cedar trees of certain property owners to prevent the infection of apple orchards); Hadacheck v. Sebastian, 239 U.S. 394, 404 (1915) (prohibiting the manufacture of bricks near residents in Los Angeles); Mugler v. Kansas, 123 U.S. 623, 662 (1887) (prohibiting the manufacture and sale of intoxicating liquors).

^{53.} Lucas, 505 U.S at 1030. Lucas defined "relevant background principles" as "the restrictions that background principles of the State's law of property and nuisance . . . place upon land ownership" including the State's common law of private and public nuisance. *Id.* at 1029.

^{54.} See Suitum v. Tahoe Reg'l Planning Agency, 520 U.S. 725, 734 (1997) (quoting Pa. Coal Co. v. Mahon, 260 U.S. 393, 412 (1922) (describing that "only a regulation that goes too far' results in a taking under the Fifth Amendment"); MacDonald, Sommer & Frates v. County of Yolo, 477 U.S. 340, 348 (1986) ("A court cannot determine whether a regulation has gone 'too far' unless it knows how far the regulation goes."); Lucas, 505 U.S. at 1015, 1019 (noting that a regulation "goes too far" and results in a taking "at least in the extraordinary circumstance when no productive or economically beneficial use of land is permitted").

was a fee simple absolute interest in two lots—an interest that included all of the strands or sticks that comprise a fee simple owner's interest in real property. As explained below, a fee simple interest in land is fundamentally different than severed and segmented interests in coal underlying land. The *Lucas* Court holding applies only after a judicial determination has been made that an unencumbered fee simple interest in land has been rendered valueless by government regulation. 56

The question of whether the holding in *Lucas* specifically requires its categorical takings rule to be applied to severed and segmented mineral interests is easy to answer. The Court, in footnote seven, identifies "uncertainty" in the Court's regulatory takings jurisprudence as it relates to the denominator issue of how a court should identify "the property interest against which the loss of value is to be measured."⁵⁷ That "uncertainty" was not resolved in *Lucas* because David Lucas owned a fee simple interest in land:

[W]e avoid this difficulty in the present case, since the "interest in land" that Lucas has pleaded (a fee simple interest) is an estate with a rich tradition of protection at common law, and since the South Carolina Court of Common Pleas found that the Beachfront Management Act left each of Lucas' beachfront lots without economic value.⁵⁸

Thus, in the context of takings claims of less than a fee simple interest in land, *Lucas* explicitly left unresolved the denominator issue—the issue of how to identify "the property interest against which the loss of value is to

^{55.} See Lucas, 505 U.S. at 1017 n.7 ("[I]n the present case . . . the "interest in land" that Lucas has pleaded [is] a fee simple interest"). The Federal Circuit has described the characteristics of a fee simple estate: "(1) it is a present estate in land that is of indefinite duration; (2) it is freely alienable by deed inter vivos, by will post-mortem and involuntarily by execution or judicial sale; (3) it carries with it the right of possession; (4) the holder may make use of any portion of the freehold without being beholden to any person except to the extent that the sovereign has not limited such right of use. Cienega Gardens v. United States, 331 F.3d 1319, 1329 n.18 (Fed. Cir 2003) (citing 2 GEORGE LEFCOE & DAVID A. THOMAS; THOMPSON ON REAL PROPERTY § 17.02 (David A. Thomas ed., 2d ed. 2000)).

^{56.} Lucas, 505 U.S. at 1032-33.

^{57.} Lucas, 505 U.S. at 1016 n.7. The text in the opinion referenced by footnote 7 states "the Fifth Amendment is violated when land-use regulation . . . 'denies an owner economically viable use of his land.'" Id. at 1016. (citing Agins v. Tiburon, 447 U.S. 255, 260 (1980)). The footnote to this statement begins with a caveat: "Regrettably, the rhetorical force of our 'deprivation of all economically feasible use' rule is greater than its precision, since the rule does not make clear the 'property interest' against which the loss of value is to be measured." Id. at 1016 n.7.

^{58.} Id. at 1017.

be measured."⁵⁹ Therefore, one cannot argue that *Lucas*'s holding must be applied in the event that a takings claimant alleges a total taking of a severed/segmented mineral interest. *Lucas*'s new "categorical" or per se takings rule is narrowly limited to the "relatively rare," indeed, "extraordinary circumstance" when a government regulatory initiative eliminates all economic value in a fee simple estate in land.⁶⁰ The efficacy of extending the per se takings rule to total takings of severed interests in coal is discussed below.

C. The Mahon-Penn Central Analysis After Lucas

In *Lucas*, the Court focused on the first *Penn Central* factor—the economic impact of the regulation on the claimant.⁶¹ An important consequence of application of the *Lucas* categorical takings rule is that where a "total taking" is found, the second component—the character of the governmental action involved—is specifically eliminated.⁶²

The third factor, examination of the takings claimant's distinct investment-backed expectations, has been held by the Federal Circuit to be jettisoned by *Lucas*. ⁶³ Once a court has determined that the economic impact of a regulation has effected a total taking of a claimant's fee simple interest in land, the Federal Circuit has held that judicial inquiry into the claimant's investment-backed expectations is proscribed by *Lucas*. ⁶⁴ As so

^{59.} Id. at 1016 n.7.

^{60.} It is worthy of note that, while the *Lucas* Court identified a categorical takings rule applicable in any case where regulation totally devalues a particular piece of land held in fee simple, the Court did not find David Lucas had suffered a compensable taking of his two lots. Rather, the Court remanded the case to the South Carolina court with the admonition that "South Carolina must identify background principles of nuisance and property law that prohibit the uses he now intends in the circumstances in which the property is presently found." *Id.* at 1031. "Only on this showing," said the Court, "can the State fairly claim that, in proscribing all such beneficial uses, the Beachfront Management Act is taking nothing." *Id.* at 1031–32.

^{61.} *Id.* at 1019 n.8.

^{62.} Good v. United States, 189 F.3d 1355, 1361 (Fed. Cir. 1999) (barring courts *per se* from balancing "the importance of the public interest advanced by the regulation against the regulation's imposition on private property rights," i.e., the character of the governmental action).

^{63.} See, e.g., Palm Beach Isles Assocs. v. U.S., 208 F.3d 1374, 1381 (Fed. Cir. 2000) ("Since there is a categorical taking of the 50.7 acres, the issue is of [the takings claimant's] investment-backed expectations . . . analysis is not applicable.").

^{64.} See Fla. Rock Indus. v. United States, 18 F.3d 1560, 1564–65 (1994) ("The recent Supreme Court decision in Lucas v. South Carolina Coastal Council teaches that the economic impact factor alone may be determinative; in some circumstances, no balancing of factors is required. If a regulation categorically prohibits all economically beneficial use of land-destroying its economic value for private ownership-the regulation has an effect equivalent to a permanent physical occupation. There is, without more, a compensable taking.") (citation omitted); see also Palm Beach Isles Assocs., 208 F.3d at 1381

interpreted, *Lucas* makes it considerably more difficult for a public body to resist a takings compensation claim and raises the specter of a vast increase in the number of cases where compensation will be required, notwithstanding the dubious nature of a claimant's economic expectations.

If accepted, such an interpretation of *Lucas* would cause takings analysis to significantly depart from the long extant case-by-case ad hoc *Mahon-Penn Central* takings analysis. Thus, when a court concludes that a regulation leaves no value in the claimant's land owned in fee simple, *Lucas* narrowly restricts judicial inquiry to a determination of whether the government regulation at issue is based upon "restrictions that background principles of the State's law of property and nuisance already place upon land ownership"—restrictions on uses that inhered in the title of the property when it was acquired by the takings claimant.⁶⁵

It is arguable, however, that *Lucas* did not intend to and should not eliminate from judicial consideration the "distinct investment backed expectations" component of the *Penn Central* takings test, at least where the property claimed to have been taken as a result of government regulation is a coal or other mineral interest severed from fee ownership of land.⁶⁶

D. Lucas Dictum

Writing for the *Lucas* majority, Justice Scalia alluded to "numerous occasions" on which the Court had previously said that "the Fifth Amendment is violated when land-use regulation . . . 'denies an owner economically viable use of his land." Following this observation, Justice Scalia inserted into the opinion what Professor David Callies has termed

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^{(&}quot;Since there is a categorical taking of the 50.7 acres, the issue of [the takings claimant's] investment-backed expectations . . . analysis is not applicable.").

^{65.} Lucas, 505 U.S. at 1030. The Lucas "total taking inquiry" also entails "analysis of, among other things, the degree of harm to public lands and resources, or adjacent private property, posed by the claimant's proposed activities . . . and their suitability to the locality in question . . . and the relative ease with which the alleged harm could be avoided through measures taken by the claimant and the government (or adjacent private land owners)" Id. at 1030–31 (citations omitted).

^{66.} See generally Kristine Tardiff, Expectations: The Final Lucas Frontier, 11th Annual CLE Conference on Litigating Regulatory Takings and Other Challenges To Land Use and Environmental Regulation (Stanford, CA., November 6-7, 2008) (noting the "lingering confusion" resulting from the Lucas decision); see Good, 189 F.3d at 1361 ("[T]he Supreme Court in Lucas did not mean to eliminate the requirement for [reasonable investment-backed expectations] to establish a taking.").

^{67.} Lucas, 505 U.S. at 1019 (quoting Agins v. Tiburon, 447 U.S. 255, 260 (1980)).

"the infamous footnote 7."68 Footnote seven is almost entirely dictum. 69 It begins:

Regrettably, the rhetorical force of our "deprivation of all economically feasible use" rule is greater than its precision, since the rule does not make clear the "property interest" against which the loss of value is to be measured. . . . Unsurprisingly, this uncertainty regarding the composition of the denominator in our "deprivation" fraction has produced inconsistent pronouncements by the Court. ⁷⁰

Thus, the footnote identifies "uncertainty" in the Court's regulatory takings jurisprudence as it relates to how a court should identify the denominator—"the property interest against which the loss of value is to be measured."⁷¹ The answer to this "difficult question," the Court opines:

[M]ay lie in how the owner's reasonable expectations have been shaped by the State's law of property—*i.e.*, whether and to what degree the State's law has accorded legal recognition and protection to the particular interest in land

^{68.} DAVID L. CALLIES, *After* Lucas *and* Dolan: *An Introductory Essay*, *in* Takings Land Development Conditions and Regulatory Takings After *Dolan* and *Lucas* 15 (David L. Callies ed., 1996).

^{69.} *Id.* Although there is considerable debate in the academy regarding the appropriate definition of "dictum" as distinguished from "holding," the most common and widely accepted understanding defines "holding" as "[a] court's determination of a matter of law pivotal to its decision; a principle drawn from such a decision" and "obiter dictum" as "[a] judicial comment made while delivering a judicial opinion, but one that is unnecessary to the decision in the case and therefore not precedential." Black's Law Dictionary 749, 1102 (8th ed. 2004). *See generally* Michael Abramowicz & Maxwell Stearns, *Defining Dicta*, 57 Stan. L. Rev. 953, 966 (2005) (discussing how to identify dicta); Michael C. Dorf, *Dicta and Article III*, 142 U. Pa. L. Rev. 1997, 1998 (1994) (discussing Article III's role in "determining how federal courts ought to distinguish between the holdings and dicta of past cases"); Henry Paul Monaghan, *Stare Decisis and Constitutional Adjudication*, 88 COLUM. L. Rev. 723, 765 n.236 (1988) (noting that distinctions between holding and dicta should not be dispensed with).

^{70.} Lucas, 505 U.S. at 1016–17 n.7. Footnote 7 also included the observation that "[w]hen, for example, a regulation requires a developer to leave 90% of a rural tract in its natural state, it is unclear whether we would analyze the situation as one in which the owner has been deprived of all economically beneficial use of the burdened portion of the tract, or as one in which the owner has suffered a mere diminution in value of the tract as a whole." Id. Understood literally, this comment applies only to a fee simple estate in land that, of course, was the subject of the case presented by the facts in Lucas.

^{71.} Id. at 1016 n.7.

with respect to which the takings claimant alleges a diminution in (or elimination of) value.⁷²

That the statements in footnote seven are dictum is not subject to dispute.⁷³ The note ends with the Court's disclaimer that it "avoids the difficulty in the present case" because the "interest in land" involved was a fee simple.⁷⁴ Commentators have recognized footnote seven as dictum, observing that "Justice Scalia's ruminations...might well be seen as judicial encouragement to litigants to revisit the denominator issue in future regulatory takings cases."⁷⁵ Importantly, "[w]ith the exception of the Scalia dictum in *Lucas*, the Court has uniformly taken the view that the denominator in regulatory cases should be viewed expansively...."⁷⁶

Thus, while this *Lucas* dictum may have been intended to encourage application of the majority's new categorical rule in future cases where less than a fee simple interest in land is the basis for a takings claim, the holding in *Lucas* does not require this result. At least as far as severed/segmented mineral interests are concerned, *Lucas* clearly does not require application of its per se rule.⁷⁷ Notwithstanding this fact, lower courts may respond to Justice Scalia's "encouragement to revisit the denominator issue" in cases involving severed coal and other mineral interests. As discussed below,

72. Id. at 1017 n.7. Justice Blackmun's dissent, however, cautions:

As the Court admits, whether the owner has been deprived of all economic value of his property will depend on how "property" is defined. The "composition of the denominator in our 'deprivation' fraction . . . is the dispositive inquiry." Yet there is no "objective" way to define what that denominator should be. "We have long understood that any land-use regulation can be characterized as the 'total' deprivation of an aptly defined entitlement Alternatively, the same regulation can always be characterized as a mere 'partial' withdrawal from full, unencumbered ownership of the landholding affected by the regulation"

Lucas, 505 U.S. at 1054 (quoting Frank I. Michelman, Takings, 1987, 88 COLUM. L. REV. 1600, 1614 (1988)); Frank Michelman, Property, Utility, and Fairness, Comments on the Ethical Foundations of "Just Compensation" Law, 80 HARV. L. REV. 1165, 1192–93 (1967); Joseph Sax, Takings and the Police Power, 74 YALE L.J. 36, 60 (1964).

- 73. See Monaghan, supra note 69, at 765 n.236 ("I do not think we can—or should—dispense with some distinctions between holding and dicta. . . . Some distinctions along this line seems to be particularly necessary with respect to sprawling, undisciplined, heavily footnoted opinions issued by the Supreme Court. Closely analogous is recognition that important holdings are not made in passing in footnotes.") (citation omitted).
 - 74. Lucas, 505 U.S. at 1017 n.7.
 - 75. R. MELTZ ET AL., THE TAKINGS ISSUE 146 (1999).
 - 76. Id.

^{77.} Justice Stevens's dissent in *Lucas* recognizes that the dictum of footnote 7 of the Court's opinion "suggests that a regulation may effect a total taking of any real property interest" notwithstanding that "[i]n past decisions, we have stated that a regulation effects a taking if it 'denies an owner economically viable use of his land'... indicating that this 'total takings' test did not apply to other estates." (citation omitted). *Lucas*, 505 U.S. at 1066.

there are cogent reasons to question the application of the per se rule to claims of takings of severed/segmented coal and other mineral real property interests.

III. TAKINGS AND BUNDLED RIGHTS

A. Property and the Rights and Duties of Property Owners

As mentioned above, the "bundle of rights" term used by the Court in its regulatory takings cases is rooted in the evolution of a legal concept of property that arose in the late nineteenth and early twentieth centuries. Property as a bundle of rights is much more than a mere metaphor. One commentator has observed that "the metaphor of property as a bundle of rights dominates contemporary property law." It is generally conceded that the doctrine's parameters were shaped to a significant degree by Wesley Hohfeld's analysis of rights and A.M. Honoré's description of the incidents of ownership. The concept of bundled rights of property has been the target of growing criticism over the last two decades but it remains the dominant theory of property embraced by judges and law teachers. But the concept of property embraced by judges and law teachers.

^{78.} See, e.g., Wesley Newcomb Hohfeld, Fundamental Legal Conceptions As Applied in Judicial Reasoning, 26 YALE L.J. 710, 714 (1917) (discussing property duties and rights); see also A.M. Honoré, Ownership, in OXFORD ESSAYS IN JURISPRUDENCE 107, 112–24 (A.G. Guest ed., 1961) (discussing the standard incidents of ownership).

^{79.} Craig Anthony (Tony) Arnold, *The Reconstitution of Property: Property As a Web of Interest*, 26 HARV. ENVTL. L. REV. 281, 284 (2002). *See, e.g.*, Joseph William Singer, *The Ownership Society and Takings of Property: Castles, Investments, and Just Obligations*, 30 HARV. ENVTL. L. REV. 309, 313–14 (2006) (discussing the "lord in a castle," "investor in a market economy," and "citizenship" models of property); *see generally* J.E. Penner, *The "Bundle of Rights" Picture of Property*, 43 UCLA L. REV. 711, 715 (1996) (discussing the history and current understanding of property as a "bundle of rights"). The "bundle of rights" conceptualization of property competes with other important property ownership models.

^{80.} See generally Gregory S. Alexander, Commodity and Propriety: Competing Visions of Property in American Legal Thought, 1776-1970, at 319-323 (1997) (discussing Hohfeld's reconceptualization to property law); JAMES W. ELY, JR., THE GUARDIAN OF EVERY OTHER RIGHT: A CONSTITUTIONAL HISTORY OF PROPERTY RIGHTS 3–9 (3d ed. 2008) (discussing American views on property and economic rights); Penner, *supra* note 79, at 715 (discussing current understandings of property as a "bundle of rights").

^{81.} Compare ERIC T. FREYFOGLE, ON PRIVATE PROPERTY: FINDING COMMON GROUND ON THE OWNERSHIP OF LAND 13–14 (2007) (asserting that inherently conditional allocation of possessory and use rights of property is the only currently viable model) with Robert C. Ellickson, Property in Land, 102 YALE L.J. 1315, 1364 (1993) (arguing that the bundle of sticks model is comparatively constant and stabilizes ownership of non-fungible resources like land providing an essential support mechanism for democratic constitutionalism). See, e.g., Denise R. Johnson, Reflections on the Bundle of Rights, 32 VT. L. REV. 247, 247 (2007) ("In recent years, an academic debate has raged about whether the bundle of rights is a correct or useful way of thinking about property rights. Whatever its faults or inadequacies,

Considerable disagreement exists among scholars concerning the specific content of the property "bundle." The metaphor's image is a bundle of sticks or strands in which each stick in the bundle represents a different right associated with property. Scholars are unable to agree about the specific rights the property bundle contains. Such rights have been said to include the right to exclude others; the right to possess; the right to use; and the right to transfer, dispose or alienate, receive income, to manage, be secure, and maintain quiet enjoyment.

More generally, for the student of property law and the legal practitioner seeking to understand the essence of the property protected by the Fifth Amendment's stark exhortation—"nor shall private property be taken for public use without just compensation"—the task is daunting indeed. The myriad perspectives, models, paradigms, and theories of property law scholars juxtaposed with the Supreme Court's periodic *ex*

the bundle of rights is the dominant legal paradigm for the courts and the theory of property that is taught to American law students.").

- 82. One commentator lists the various rights identified by Honoré with the caveat that "[t]he list... provides general definitions... subject to variations, qualifications, and limitations on scope that come from common law rules, statutes, or private agreements that the owner has entered:
 - 1. The right to possess—the right to "exclusive physical control of the thing owned. Where the thing cannot be possessed physically" because it is intangible, "possession may be understood metaphorically or simply as the right to exclude others from the use or other benefits of the thing."
 - 2. The right to use—the right "to personal enjoyment and use of the thing as distinct from" the right to manage and the right to the income.
 - 3. The right to manage—the right "to decide how and by whom a thing shall be used."
 - 4. The right to the income—the right "to the benefits derived from foregoing personal use of a thing and allowing others to use it."
 - 5. The right to capital—"the power to alienate the thing," meaning to sell or give it away, "and to consume, waste, modify, or destroy it."
 - 6. The right to security—"immunity from expropriation," that is, the land cannot be taken from the right-holder.
 - 7. The power of transmissibility— "the power to devise or bequeath the thing," meaning to give it to somebody else after your death.
 - 8. The absence of term—"the indeterminate length of one's ownership rights," that is, that ownership is not for a term of years, but forever.
 - 9. The prohibition of harmful use—a person's duty to refrain "from using the thing in certain ways harmful to others."
 - 10. Liability to execution—liability for having "the thing taken away for repayment of a debt."
 - 11. Residuary character—"the existence of rules governing the reversion of lapsed ownership rights"; for example, who is entitled to the property if the taxes are not paid, or if some other obligation of ownership is not exercised.

Johnson, supra note 81, at 253.

83. See, e.g., Arnold, supra note 79, at 284–85 nn.19–20 (citing various commentators). 84. *Id.*

cathedra regulatory takings pronouncements promises to drown the student and the most accomplished advocate in confusing and conflicting verbiage. I do not intend to enter this theoretical mire in this essay. Rather, my purpose is narrowly limited to discussing the Supreme Court's extant regulatory takings jurisprudence and how it may be rationally applied to severed coal interests, given the narrow holding of *Lucas*'s per se "total takings" rule.

My goal, however narrowly crafted, is fraught with complexity if Professor Colburn's perspective on the Court's property law jurisprudence bears credence—and I, for one, believe it does. 85 Professor Colburn asserts that much of the current critical scholarly thinking about property and property rights "is virtually unrecognizable in the present Court's rights jurisprudence, especially its constitutional property opinions."86 Colburn finds the Court "[i]ntent on deriving supposed logical necessities from the Constitution's text or structure or, barring that, logical necessities from its own analogies extending and distinguishing precedents, the Court has at turns epitomized what can go wrong with practical reasoning."87 suggests, with considerable logic, that Penn Central was an attempt to "reengineer" the structural underpinnings of our understanding of property and the rights and duties attendant property so as to recognize that "[a]llocations of property rights are under constant revision in society—much like our intuitions on what things count as property."88 "Penn Central and its related precedents," Colburn rightly asserts, "normalized this provisionalist model of property."89

Professor Colburn's critique of *Penn Central* and the Court's subsequent regulatory takings cases may seem hyperbolic to some, but for the practitioner and the law student groping for threads of understanding to assist in sorting out the Court's regulatory takings jurisprudence, it is perhaps deservedly so. In any event, Professor Colburn's critique is worth repeating below at length, as it, in my view, captures the context in which this essay attempts to provide at least a glimmer of insight into an issue heretofore unresolved by the Court:

The bold structural (re-)engineering of *Penn Central*, with its announcement of a broadly applicable test unhinged

^{85.} Jamison E. Colburn, Splitting the Atom of Property: Rights Experimentalism As Obligation to Future Generations, 77 Geo. WASH. L. REV. 1411, 1452–60 (2009).

^{86.} Id. at 1457.

^{87.} Id. (citations omitted).

^{88.} Id.

^{89.} *Id*.

from every source of authority but the Court itself, is later embarrassed by the opportunistic minimalism of Nollan, Dolan, and a dozen others that must be reconciled in heaps of dicta like the opinion in *Lingle*. The Court almost never speaks with both the modesty and precision its unique position demands, even though the one necessary outcome of its constitutional rights precedents is the preemption of other legal actors' (present) reasoning to one degree or another. Compared to virtually any other legal agent, the Supreme Court speaks with unmatched scope and force. . . . This puts the Court in a uniquely vulnerable position in terms of errors and error costs because the only justification for exerting authority, ultimately, must be epistemic and courts' usual epistemic position is relatively weak. Yet the Court couches its opinions in archaisms, metaphor and simile, sarcasm, casuistry, and other forms of argumentative communication that are uninformative, excessively manipulable, and too often blatantly selfcontradictory.90

It is in this context that I attempt below to synthesize the Court's regulatory takings cases regarding less-than-fee interests in land. In doing so, my goal is to come to grips with the Court's reliance on concepts of "bundled property rights" and "reasonable investment-backed expectations" in order to determine where exactly severed mineral interests fit into the takings puzzle.⁹¹

B. The "Bundle of Rights" and Severed Mineral Interests

Logically, the Court's prior cases would inform the determination of how severed mineral property interests fit into its current regulatory takings jurisprudence. In *Lucas*'s footnote seven, however, the Court stated, "[r]egrettably, the rhetorical force of our 'deprivation of all economically feasible use' rule is greater than its precision, since the rule does not make clear the 'property interest' against which the loss of value is to be measured." The *Lucas* Court then cavalierly dismissed *Mahon* and *Keystone*—the only cases it has decided that appear directly on point. Referring to those cases, the Court said, "uncertainty regarding the

^{90.} Id. at 1458–59.

^{91.} See Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1978) (discussing investment-backed expectations); Andrus v. Allard, 444 U.S. 51, 65–66 (1979) (discussing the "bundle of rights").

^{92.} Lucas v. S. C. Coastal Council, 505 U.S. 1003, 1016 n.7 (1992).

composition of the denominator in our 'deprivation' fraction has produced inconsistent pronouncements by the Court." According to the *Lucas* majority, the earlier law "restricting subsurface extraction of coal [was] held to effect a taking" and the later "nearly identical law held not to effect a taking." I submit that, carefully examined, *Mahon* and *Keystone* do, in fact, offer guidance that can assist in identifying the proper denominator, as well as informing decisions adjudicating taking claims of severed mineral interests.

As the doctrinal touchstone of this essay, *Lucas* is as good a point to start as any in unraveling the "inconsistent pronouncements" of the Court relating to the "denominator issue." As discussed previously, David Lucas owned his two South Carolina beachfront lots in fee simple. With a nod in footnote seven to the "difficult [denominator] problem" of determining "the property interest against which the loss of value is to be measured," the Court declared, "we avoid this difficulty in the present case, since the 'interest in land' that Lucas has pleaded (a fee simple interest) is an estate with a rich tradition of protection at common law." The *Lucas* holding does not resolve the severed mineral property issue, notwithstanding that a possible outcome is suggested in dictum. *Lucas*, then, provides the impetus for examining the issue, but we must look elsewhere for enlightenment.

C. Pennsylvania Coal Co. v. Mahon

Pennsylvania Coal Co. v. Mahon dealt directly with the issue of severed mineral interests alleged to have been destroyed by the 1921 Pennsylvania coal mine subsidence law. The Court found the state law prohibiting mining under occupied dwellings resulted in a taking of Pennsylvania Coal Company's property—property that included only a reserved coal seam and attendant mining rights. Mahon opined that the 1921 Pennsylvania statute

^{93.} Id. at 1017 n.7.

^{94.} *Id*.

^{95.} Id.

^{96.} *Id.* The *dictum* of "infamous" *Lucas* footnote 7 has had some resonance. In one lower court decision, the *Lucas per se* rule was applied to mineral interests comprising less than a fee simple estate in land. *See* Cane Tenn., Inc. v. United States (*Cane V*), 60 Fed. Cl. 694, 705–06 (2004) (applying *Lucas* to mineral interests). See Tardiff, *supra* note 66, at 12–18, for a thorough exposition of these complex consolidated cases that spawned a combined total of eight separate opinions from the Court of Claims and the Federal Circuit.

^{97.} Pa. Coal Co. v. Mahon, 260 U.S. 393, 412 (1922).

^{98.} *Id.* at 414. Some commentators have challenged the assertion that *Pa. Coal v. Mahon* was a case involving the just compensation clause, arguing that Justice Holmes' opinion for the Court was actually grounded in a version of the later discredited substantive due process doctrine of *Lochner v. New York*, 198 U.S. 45 (1905), and its progeny. *See, e.g.*, Robert Brauneis, *The Foundation of Our*

(the "Kohler Act") made "it commercially impracticable to mine certain coal" and that it had "very nearly the same effect for constitutional purposes as appropriating or destroying it." Based on the unique facts involved, *Mahon* found (in the parlance of *Lucas*) that the entire interest or bundle of rights in the coal property had been totally taken. The unique facts alleged by the coal company caused the Court to expedite and quickly

'Regulatory Takings' Jurisprudence: The Myth and Meaning of Justice Holmes's Opinion in Pennsylvania Coal Co. v. Mahon, 106 YALE L.J. 613, 668 (1996) (discussing Justice Holmes's unquestionable acceptance of "a version of the fundamental rights theory of the Due Process Clause"). Professor Brauneis suggests the meaning of Mahon has been obscured over time and identifies three "myths" that persist about the case:

Justice Holmes and the 1922 Supreme Court shared three key points of understanding about *Mahon*, all of which have since been lost. First, Holmes and the 1922 Court understood *Mahon* to be a Due Process and Contract Clause case, not a Takings Clause case. Second, rather than viewing *Mahon* as a seminal case, they understood the decision as one among many that incrementally established the limits of the police power. Although *Mahon* was part of a trend toward accepting that the constitutionality of nontrespassory regulations could turn on the provision of compensation, it was not the first case to so hold. Third, both Holmes and the Court recognized and accepted *Mahon*'s use of a historical method that looked to traditional legal principles and categories, and that considered both the purpose and effect of legislation important to the constitutional inquiry.

Id. at 666; see also Patrick C. McGinley, Regulatory "Takings": The Remarkable Resurrection of Economic Substantive Due Process Analysis in Constitutional Law, 17 Envtl. L. Reptr. (Envtl. Law Inst.) 10369 (Sept. 1987) (discussing the misreading of Mahon and the aftermath of the misreading).

99. *Mahon*, 260 U.S. at 414. Subsequently, in *Keystone*, the Court emphasized that the portion of the *Mahon* opinion that observed the 1921 Pennsylvania law "had very nearly the same effect for constitutional purposes as appropriating or destroying it"—was actually an *advisory opinion*:

[U]ncharacteristically—Justice Holmes provided the parties with an advisory opinion discussing 'the general validity of the Act.' In the advisory portion of the Court's opinion, Justice Holmes rested on two propositions, both critical to the Court's decision. First, because it served only private interests, not health or safety, the Kohler Act could not be "sustained as an exercise of the police power." Second, the statute made it "commercially impracticable" to mine "certain coal" in the areas affected by the Kohler Act.

Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 484 (1987) (footnotes and citations omitted) (quoting *Mahon*, 260 U.S. at 414).

But the case has been treated as one in which the general validity of the act should be discussed. The Attorney General of the State, the City of Scranton, and the representatives of other extensive interests were allowed to take part in the argument below and have submitted their contentions here. It seems, therefore, to be our duty to go farther in the statement of our opinion, in order that it may be known at once, and that further suits should not be brought in vain.

Id. at 484 n.12.

100. Mahon, 260 U.S. at 414-15.

decide the coal company's appeal.¹⁰¹ The company asserted "that the impact of the statute was so severe that 'a serious shortage of domestic fuel is threatened."¹⁰² The company paraded "horribles," explaining in its appeal papers that "until the Court ruled, 'no anthracite coal which is likely to cause surface subsidence can be mined,' and that strikes were threatened throughout the anthracite coal fields."¹⁰³

Mahon emphasized, however, that "the question depends upon the particular facts" and "this is a question of degree—and therefore cannot be disposed of by general propositions." Nevertheless, the *Mahon* Court found the 1921 Pennsylvania law effected a compensable taking. The Court reasoned that because the law extinguished all economic value of the company's severed coal estate and because "private persons or communities" bore "the risk of acquiring only surface rights," "the fact that their risk ha[d] become a danger [did not] warrant[] the giving to them [of] greater rights than they bought." "105

D. Keystone Bituminous Coal Ass'n v. DeBenedictis

Sixty-five years after *Mahon* and a decade after *Penn Central*, the Court returned to the issue of takings in the context of a claim of taking of severed mineral interests in *Keystone Bituminous Coal Association v. DeBenedictis*. The *Keystone* Court confronted a takings claim remarkably similar to that made by the coal company in *Mahon*. The Supreme Court was again asked to determine whether a Pennsylvania law prohibiting a coal company from undermining an occupied dwelling constituted a compensable taking. **Italian their similarities.** The 1966 Pennsylvania mine subsidence prevention law furthered broad and important public interests, the Court said, while the 1921 Kohler Act "involve[d] a balancing of the private economic interests of coal companies

^{101.} *Keystone*, 480 U.S. at 483 n.11 ("The urgency with which the case was treated is evidenced by the fact that the Court issued its decision less than a month after oral argument; a little over a year after the test case had been commenced.").

^{102.} Id. at 482.

^{103.} Id. at 482-83.

^{104.} Mahon, 260 U.S. at 413, 416.

^{105.} Mahon, 260 U.S. at 416.

^{106.} Keystone, 480 U.S. at 474.

^{107.} Id. at 478-79.

^{108.} *Id.* at 481 ("Although there are some obvious similarities between the cases, we agree with the Court of Appeals and the District Court that the similarities are far less significant than the differences, and that *Pennsylvania Coal* does not control this case.").

against the private interests of the surface owners." The *Keystone* Court, relying on *Penn Central*, identified two grounds for distinguishing *Mahon* and justifying a contrary result:

The holdings and assumptions of the Court in [Mahon] provide obvious and necessary reasons for distinguishing [Mahon] from the case before us today. The two factors that the Court considered relevant, have become integral parts of our takings analysis. We have held that land use regulation can effect a taking if it "does not substantially advance legitimate state interests, . . . or denies an owner economically viable use of his land." Application of these tests to petitioners' challenge demonstrates that they have not satisfied their burden of showing that the Subsidence Act constitutes a taking. First, unlike the Kohler Act, the character of the governmental action involved here leans heavily against finding a taking; the Commonwealth of Pennsylvania has acted to arrest what it perceives to be a significant threat to the common welfare. Second, there is no record in this case to support a finding, similar to the one the Court made in [Mahon], that the Subsidence Act makes it impossible for petitioners to profitably engage in their business, or that there has been undue interference with their investment-backed expectations. 110

The first of these two factors relied upon by *Keystone*—whether land use regulation substantially advances legitimate state interests—has been eliminated from the Court's current takings jurisprudence by its ruling in *Lingle v. Chevron U.S.A.*, *Inc.*¹¹¹ *Lingle* held:

Although a number of our takings precedents have recited the "substantially advances" formula . . . this is our first opportunity to consider its validity as a freestanding takings test. We conclude that this formula prescribes an inquiry in the nature of a due process, not a takings, test, and that it has no proper place in our takings jurisprudence. 112

However, *Lingle* also confirmed the continuing relevance of *Penn Central*'s focus on property owners' "investment-backed expectations" as a central

^{109.} Id. at 485.

^{110.} Id. at 484-85 (internal citations omitted).

^{111.} Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 540 (2005).

^{112.} *Id*.

component of regulatory takings jurisprudence in the great majority of cases that do not involve government physical occupation of land nor a "total taking" caused by regulation. Thus, the *Keystone* analysis of the coal owners' investment-backed expectations should continue to be recognized as an important factor to consider in determining whether a severed mineral interest effects an unconstitutional uncompensated taking.

Keystone directly addressed both the denominator and the taking claimant's investment-backed expectations issues.¹¹⁴ The Court refused to view *Mahon* as declaring a taking any time a regulation renders part of a severed coal interest un-mineable: "We do not consider Justice Holmes' statement that the Kohler Act made mining of 'certain coal' commercially impracticable as requiring us to focus on the individual pillars of coal that must be left in place."¹¹⁵

Rather, the *Keystone* majority saw Justice Holmes's statement to be "best understood as referring to the Pennsylvania Coal Company's assertion that it could not undertake profitable anthracite coal mining in light of the Kohler Act." The extent to which the law was alleged to have interfered with Pennsylvania Coal Company's investment-backed expectations was extraordinary. The coal company claimed that the Kohler Act made it "unable to operate six large collieries in the city of Scranton, employing more than five thousand men." ¹¹⁶ Judge Adams's opinion for the Third Circuit below explained:

At first blush, this language seems to suggest that the Court would have found a taking no matter how little of the

The company explained that until the Court ruled, "no anthracite coal which is likely to cause surface subsidence can be mined," and that strikes were threatened throughout the anthracite coal fields. In its argument in this Court, the company contended that the Kohler Act was not a bona fide exercise of the police power, but in reality was nothing more than "robbery under the forms of law" because its purpose was "not to protect the lives or safety of the public generally but merely to augment the property rights of a favored few."

Id. at 482–83 (footnote omitted).

[T]he company also argued that the Subsidence Act made it commercially impracticable to mine the very coal that had to be left in place. Although they could have constructed pillars for support in place of the coal, the cost of the artificial pillars would have far exceeded the value of the coal.

Id. at 499 n.26.

^{113.} Id. at 539-40.

^{114.} Keystone, 480 U.S. at 493-98.

^{115.} Id. at 498.

^{116.} *Id. Keystone* recited the dire picture that the coal company had painted in seeking expedited review of the constitutionality of the Kohler Act from the Pennsylvania Supreme Court's decision upholding the law: "The company promptly appealed to this Court, asserting that the impact of the statute was so severe that 'a serious shortage of domestic fuel is threatened." *Id.* at 482.

defendants' coal was rendered unmineable—that because "certain" coal was no longer accessible, there had been a taking of that coal. However, when one reads the sentence in context, it becomes clear that the Court's concern was with whether the defendants' "right to mine coal . . . [could] be exercised *with profit*." Thus, the Court's holding in *Mahon* must be assumed to have been based on its understanding that the Kohler Act rendered the business of mining coal unprofitable. 117

Importantly, *Keystone*'s analysis of the claim of a total taking effected by the 1966 state mine subsidence law included consideration of the mineral interest owner's reasonable investment-backed expectations. ¹¹⁸ *Keystone* rejected the coal company's argument that the "denominator" in its takings analysis should have been the coal required to be left in place by the 1966 law:

When the coal that must remain beneath the ground is viewed in the context of any reasonable unit of petitioners' coal mining operations and financial-backed expectations, it is plain that petitioners have not come close to satisfying their burden of proving that they have been denied the economically viable use of that property. The record indicates that only about 75% of petitioners' underground coal can be profitably mined in any event, and there is no showing that petitioners' reasonable "investment-backed expectations" have been materially affected by the additional duty to retain the small percentage that must be used to support the structures protected by [the 1966 Act]. 119

In addition, in *Keystone* "[t]he complaint allege[d] that Pennsylvania recognize[d] three separate estates in land: [t]he mineral estate; the surface estate; and the 'support estate.'" *Keystone* rejected the claim that the 1966 law constituted a taking, assuming *arguendo* that it entirely destroyed the value of the coal company's unique "support estate" in land. The Court explained that the support estate had first been recognized in the latter part of the nineteenth century and that the transfers of severed property interests in coal from fee estates were accomplished by broad form

^{117.} Id. at 499 (citation omitted).

^{118.} Id.

^{119.} Id.

^{120.} Id. at 478.

^{121.} Id. at 479.

deeds containing sweeping waivers of liability for damages caused by mining. 122

Keystone looked directly at the takings claimant's investment-backed expectations in determining whether the "total taking" of the support estate in land effected a "regulatory taking" under the Fifth and Fourteenth Amendments. [123] "[I]n practical terms," said the Court, "the support estate has value only insofar as it protects or enhances the value of the estate with which it is associated."124 The value of the support estate under Pennsylvania law constituted "merely a part of the entire bundle of rights possessed by the owner of either the coal or the surface." 125 Keystone explained that "[b]ecause petitioners retain the right to mine virtually all the coal in their mineral estates, the burden the Act places on the support estate does not constitute a taking." I do not suggest that a "total taking" of a severed mineral estate cannot constitute a taking for just compensation purposes. The point is simply that when a taking claimant alleges a total taking of a mineral estate or other mineral property interest rather than a fee simple interest in land, Keystone stands for the proposition that the claimants' investment-backed expectations are a relevant subject of inquiry.

In my view, the argument that *Lucas*'s holding excludes judicial consideration of a "total taking" claimant's investment-backed expectations seriously conflicts with the holding of *Keystone*. Moreover, the dictum in *Lucas*'s infamous footnote seven identifying *Mahon* and *Keystone* as "inconsistent pronouncements" "regarding the composition of the denominator in our 'deprivation' fraction" rings hollow given *Keystone*'s careful analysis distinguishing its facts and holding from that of *Mahon*. ¹²⁷ The force of *Lucas*'s bald dictum on this point seems grounded only upon *ipse dixit*.

^{122.} Id. at 478.

^{123.} Id. at 485.

^{124.} Id. at 501.

^{125.} Id.

^{126.} Id.

^{127.} The Court invited comparison of *Mahon*, which it characterized as involving a law restricting subsurface extraction of coal held to effect a taking, with *Keystone*, a case *Lucas* described as a "nearly identical law held not to effect a taking." Lucas v. S. C. Coastal Council, 505 U.S. 1003, 1016 (1992).

IV. KEYSTONE: SEVERED COAL PROPERTY INTERESTS AND INVESTMENT-BACKED EXPECTATIONS

A. The Contract Clause and Liability Waivers in Keystone

Before the Fourteenth Amendment was added to the Constitution, Article I, Section 10 "provided the primary constitutional check on state legislative power." The first sentence of that provision provides:

No State shall enter into any Treaty, Alliance, or Confederation; grant Letters of Marque and Reprisal; coin Money; emit Bills of Credit; make any Thing but gold or silver Coin a Tender in Payment of Debts; pass any Bill of Attainder, ex post facto Law, or Law impairing the Obligation of Contracts, or grant any Title of Nobility. 129

In *Keystone*, the coal company claimants relied heavily on *Mahon* in arguing that section four of the 1966 subsidence law violated the Contract Clause by not allowing them to hold surface owners to the coal severance deed contractual agreements waiver of the coal estate owner's liability for surface subsidence damage. The *Keystone* Court explained that "the

Protection of surface structures against damage from cave-in, collapse, or subsidence.

In order to guard the health, safety and general welfare of the public, no owner, operator, lessor, lessee, or general manager, superintendent or other person in charge of or having supervision over any bituminous coal mine shall mine bituminous coal so as to cause damage as a result of the caving-in, collapse or subsidence of the following surface structures in place on April 27, 1966, overlying or in the proximity of the mine:

- (1) Any public building or any noncommercial structure customarily used by the public, including but not being limited to churches, schools, hospitals, and municipal utilities or municipal public service operations.
 - (2) Any dwelling used for human habitation; and
- (3) Any cemetery or public burial ground; unless the current owner of the structure consents and the resulting damage is fully repaired or compensated.

Id. at 476 n.6. Responding to enactment in 1977 of the Federal Surface Mining Control and Reclamation Act ("SMCRA"), 30 U.S.C. § 1201 (2006), and to regulations promulgated by the

^{128.} Keystone, 480 U.S. at 502.

^{129.} U.S. CONST. art. I, § 10.

^{130.} *Keystone*, 480 U.S. at 502. Section 6 of the Subsidence Act, authorized the state's Department of Environmental Resources ("DER") to revoke a mining permit if coal removal caused damage to a structure or area protected by § 4 of the Act and the operator had not within six months either repaired the damage, satisfied any claim arising there from, or deposited a sum equal to the reasonable cost of repair with the state department of environmental resources as security. *Id.* at 477. Section 4 of the 1966 law provided:

prohibition against impairing the obligation of contracts is not to be read literally" and that "its primary focus was upon legislation that was designed to repudiate or adjust pre-existing debtor-creditor relationships that obligors were unable to satisfy." **Ist Keystone** noted with approval Justice Potter Stewart's statement that "it is to be accepted as a commonplace that the Contract Clause does not operate to obliterate the police power of the States." **Ist Contract Clause does not operate to obliterate the police power of the States." **Ist Contract Clause does not operate to obliterate the police power of the States.

In assessing the validity of the coal company's Contract Clause claim in *Keystone*, the Court began by "identifying the precise contractual right that ha[d] been impaired and the nature of the statutory impairment." The coal company claimed that it had "obtained damages waivers for a large percentage of the land surface protected by the Subsidence Act, but that the Act removes the surface owners' contractual obligations to waive damages." The Court acknowledged that the 1966 law substantially impaired a contractual relationship and thus proceeded to analyze the justifications asserted for the impairment. *Keystone* held that the 1966 Subsidence Act "plainly survives scrutiny under our standards for evaluating impairments of private contracts." ¹³⁵

Secretary of the Interior in 1979, 44 Fed. Reg. 14902 (Mar. 13, 1979), Pennsylvania amended these regulations extending statutory protection to additional classes of buildings and surface features including such structures as churches, schools, hospitals, courthouses, and government offices—public buildings and non-commercial buildings customarily used by the public after April 27, 1966, the date of enactment of the subsidence law; perennial streams and impoundments of water with the storage volume of 20 acre feet; aquifers which serve as a significant source of water supply to any public water system; and coal refuse disposal areas. *Id.* at 476–77 n.6.

- 131. Id. at 502, 503.
- 132. *Id.* at 503 (quoting Allied Structural Steel Co. v. Spannaus, 438 U.S. 234, 241 (1978) (citations omitted); *see also* Manigault v. Springs, 199 U.S. 473, 480 (1905) ("This power, which in its various ramifications is known as the police power, is an exercise of the sovereign right of the Government to protect the lives, health, morals, comfort and general welfare of the people, and is paramount to any rights under contracts between individuals.").
 - 133. Keystone, 480 U.S. at 504.
- 134. *Id. Keystone* emphasized that the record did not indicate the percentage of petitioners' acquired support estate that was restricted under the 1966 Pennsylvania subsidence law; the record was also devoid of evidence that would allow a determination of how substantial a part of the support estate were the waivers of liability. "These inquiries," *Keystone* states, "are both essential to determine the 'severity of the impairment,' which in turn affects 'the level of scrutiny to which the legislation will be subjected." *Id.* at 504 n.31 (quoting Energy Reserves Group, Inc. v. Kan. Power & Light Co., 459 U.S. 400, 411 (1983)). Nonetheless, the Court indicated that "[w]hile these dearths in the record might be critical in some cases, they are not essential to our discussion here because the Subsidence Act withstands scrutiny even if it is assumed that it constitutes a total impairment." *Id.*
 - 135. *Id.* at 506. The Court further explained its holding:

 The Commonwealth has determined that in order to deter mining practices that could have severe effects on the surface, it is not enough to set out guidelines and impose restrictions, but that imposition of liability is necessary. By requiring the

This brief background on the coal company's Contract Clause argument and the Court's decision rejecting it is only tangentially relevant to analyzing severed mineral interest takings claims in light of *Lucas*. What I find significant about the Court's treatment of the Contract Clause in *Keystone* is what it says about the nature of the investment-backed expectations of owners of severed mineral interests as compared to the expectations of owners of land in fee. I submit that the coal interest claimed to have been taken in *Keystone* was quite unlike the interest of David Lucas or, indeed, most owners of a fee simple estate in land, and is not deserving of protection afforded the latter by *Lucas*'s per se rule. An analysis of the history of severed coal interests confirms the significant distinction between the economic expectations of owners of land in fee simple and owners of severed coal interests.

B. The Evolution of Property Law in the Coalfields

Until the rise of the Industrial Age in the mid-nineteenth century, land was owned in fee simple and was widely recognized by courts and the public as extending from the center of the earth to the heavens.¹³⁷ The

coal companies either to repair the damage or to give the surface owner funds to repair the damage, the Commonwealth accomplishes both deterrence and restoration of the environment to its previous condition. We refuse to second-guess the Commonwealth's determinations that these are the most appropriate ways of dealing with the problem. We conclude, therefore, that the impairment of petitioners' right to enforce the damages waivers is amply justified by the public purposes served by the Subsidence Act.

Id.

136. See id. at 493-97 (distinguishing Keystone from Mahon).

137. Bryan C. Banks, *High Above the Environmental Decimation and Economic Domination of Eastern Kentucky, King Coal Remains Firmly Seated on Its Gilded Throne*, 13 BUFF. ENVIL. L.J. 125, 129–30 (2006). The author explains:

There are two maxims of property law that prevented horizontal severance from being recognized as a legal doctrine at early common law. The first maxim is cujus est solum, ejus est usque ad coelum et ad inferos "to whomsoever the soil belongs, he owns also to the sky and to the depths." Following this maxim, the rights to all subterranean minerals should belong solely to the owner of surface. The landowner could draw a vertical line around his property and control the property rights within from the heavens above to the depths below. The second maxim is that land transfers could only occur through the ritual of "livery of seisin," or delivery of possession. Following this maxim, land only changed hands after the parties traveled to the land being conveyed, walked the metes and bounds, and the transferor symbolically handed the transferee a clump of soil or a tree branch taken from the land. Requiring the parties to grasp some physical manifestation of the land being transferred theoretically precluded the horizontal severance of undiscovered subsurface mineral lands from the surface estate. To

history of those regions reveals that, before the value of fossil fuels was recognized more than a century ago, individual tracts of private land were owned exclusively in fee simple absolute. This perspective on the scope of real property ownership changed dramatically as the demand for fossil fuels grew exponentially at the beginning of the nation's industrialization in the latter part of the nineteenth century. The enormous potential economic value of coal reserves was recognized by powerful, well-financed interests who sought to acquire and exploit them. 140

At least in Appalachia and in the Midwest, coal and the right of extraction was not acquired by purchase of a fee simple interest in land and underlying minerals.¹⁴¹ To the contrary, it was the usual and standard procedure for those seeking to purchase coal and other mineral reserves to

transfer subsurface mineral rights, the parties would have had to meet the elements of seisin. The minerals would first have to be discovered by opening a mine. Then, the mine could be transferred through seisin.

Id. (citations omitted).

138. See Ronald W. Polston, Mineral Ownership Theory: Doctrine in Disarray, 70 N.D. L. REV. 541 (1994) (explaining that the long established concept of fee simple ownership of land was altered to accommodate the development of coal, oil, and gas).

The theory upon which mineral ownership is based was created to serve the coal industry as it developed early last century and was subsequently modified to serve the oil industry. Its purpose was to give the coal industry, and later the oil industry, a more substantial ownership interest in the land, with respect to developmental rights, than the industries would have received under the existing and developing legal institutions at the time the first coal cases were decided. The legal system, at the time the theory was developed, characterized the fee simple interest in land as corporeal, and the servitudes as incorporeal. It seemed fairly clear that the interest in the coal, whether acquired by a deed of the coal itself, or by the exclusive right to mine it, would have been classified as incorporeal under that system. The courts rejected that approach, however, and labeled the interest in the coal as corporeal. Furthermore, the courts conceived of that corporeal interest as a tract of land which lay beneath the surface and included everything except a thin layer of soil, which was of sufficient depth to permit the residual owner, who they labeled the "surface owner," to cultivate or build upon.

Id. at 541 (citing Caldwell v. Fulton, 31 Pa. 475, 481 (1858)).

139. See Patrick C. McGinley, Climate Change and Coal: Exploring the Dark Side, in CLIMATE CHANGE: A READER, 419, 424–25 (William H. Rodgers, Jr. et al. eds., 2010).

140. Banks, *supra* note 137, at 132–33. Professor Banks explains:

As the Civil War ended and America's Industrial Revolution began, the natural resources abundant throughout Appalachia became increasingly important and irresistible. "In financial and industrial circles occasional talk was heard that railroads should be built into the region and its great wealth of raw materials made available to the nation's rapidly swelling industrial complex."

Id. (quoting Harry M. Caudill, Night Comes to the Cumberlands: A Biography of a Depressed Area 61 (1963)).

141. Banks, supra note 137, at 133.

limit their acquisition to only the underlying coal (and/or oil and natural gas). To accomplish this, purchasers of mineral interests prepared contracts of conveyance—deeds or leases—that carved a property interest in the mineral from a fee simple interest in the land. Typically, the owner of the surface retained (or reserved) the land along with all other minerals not described in the granting clause of the contract of conveyance.

In 1898, the Supreme Court of the United States weighed in on the issue of severed mineral rights in *Del Monte Mining & Milling Co. v. Last Chance Mining & Milling Co.*, a decision enabling the segmentation of mineral interests from fee interests in land. *Del Monte Mining & Milling Co.* held that horizontal severance of minerals could be accomplished under a theory of contract law and that surface owners had an unquestioned right to convey interests in minerals beneath the surface while keeping title to the surface. 145

C. The Broad Form Deed

The process of obtaining coal ownership and mining rights from rural, largely unschooled Appalachian landowners was problematic:

Northern industrialists sent a wave of land agents into Kentucky with instructions to obtain the mineral rights from the unsophisticated and illiterate mountaineers. The parties to these agreements were hardly equal. The mountaineers thought they received the better deal. After all, they had traded a meaningless right to unattainable, potentially non-existent minerals, to an outsider for an

^{142.} See generally Wendy B. Davis, Out of the Black Hole: Reclaiming the Crown of King Coal, 51 Am. U. L. REV. 905, 908–16 (2002) (describing an example of the pervasive use of mineral severance deeds to acquire ownership of coal and the right to mine as it was experienced in Southeastern Kentucky where, by 1910, nearly eight-five percent of the mineral rights in the area had been acquired by out-of-state entities).

^{143.} See Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 478 ("Beginning well over 100 years ago, landowners began severing title to underground coal and the right of surface support while retaining or conveying away ownership of the surface estate."); see also Banks, supra note 137, at 132–33 (describing northern industrialists' purchase of mineral rights from mountaineers, leaving landowners with normal rights to "the surfaces and total responsibility for property taxes").

^{144.} See e.g., 4 PATRICK C. MCGINLEY & DONALD H. VISH, COAL LAW & REGULATION, Chapter 81, \S 81.01 [1] (1987) (noting that a "granting clause" transfers an estate in land and describes the nature of the estate and the geographical area included in the conveyance).

^{145.} Del Monte Mining & Milling Co. v. Last Chance Mining & Milling Co., 171 U.S. 55, 60 (1898) ("[T]he possible fact of a separation between the ownership of the surface and the ownership of mines beneath that surface, growing out of contract, in no manner abridged the general proposition that the owner of the surface owned all beneath.").

outrageous sum of money. In reality, the agents had taken advantage of a superior bargaining position to swindle the residents out of their property rights. Many agents escaped with a stack of broad form deeds. Those deeds left only a nominal title to the surface and total responsibility for property taxes with the landowner. To add insult to injury, the court held those deeds conveyed the rights to excavate and remove all subsurface minerals and permitted the subsurface owner to use the surface as necessary for either removal or storage of those minerals.¹⁴⁶

The coal at issue in *Keystone* was acquired through this process.¹⁴⁷ The facts recited in the Court's opinion provide a snapshot of the enormous, long-lasting impact of the use of broad form deeds and leases to sever mineral interests from a fee simple estate in land:

It is stipulated that approximately 90% of the coal that is or will be mined by petitioners in western Pennsylvania was

146. Banks, supra note 137, at 132-33 (citations omitted); see RONALD D ELLER, MINERS, MILLHANDS, AND MOUNTAINEERS: INDUSTRIALIZATION OF THE APPALACHIAN SOUTH, 1880-1930, at 44-45 (1982) (describing the exploitation of mountains for their minerals); HARRY M. CAUDILL, THEIRS BE THE POWER: THE MOGULS OF EASTERN KENTUCKY (1983); BARBARA RASMUSSEN, ABSENTEE LANDOWNING AND EXPLOITATION IN WEST VIRGINIA, 1760-1920, at 2 (discussing the exploitation of coal and timber resources in nineteenth century West Virginia); Davis, supra note 142, at 908-16 (describing the history of life in the Appalachian coal fields). One of the most egregious judicial interpretations of the broad form coal deed was that of the Kentucky courts. In Kentucky, the broad form deed was interpreted for many decades as allowing the destruction of the surface of land by strip mining although strip mining was clearly not contemplated by the parties to turn-of-the-twentiethcentury coal severance deeds. See Martin v. Ky. Oak Mining Co., 429 S.W.2d 395, 397 (Ky. 1968), overruled by Akers v. Baldwin, 736 S.W.2d 294 (Ky. 1987) (describing that "[w]hether or not the parties actually contemplated or envisioned strip or auger mining is not important"). Every other Appalachian coal-producing state supreme court reached a contrary conclusion. It was not until 1988 that the Kentucky legislature enacted what became known in that state as the "Broad Form Deed Amendment" that altered Kentucky's Constitution to prevent the exploitation of surface owners and the despoliation of surface lands and waters occasioned by coal strip mining. 1988 Ky. Acts page no. 300, 301. The amendment required:

In any instrument...purporting to sever the surface and mineral estates ... which fails to state or describe in express or specific the method of extraction to be employed ... in the absence of clear and convincing evidence to the contrary ... the intention of the parties ... was that the coal be extracted only by the method ... commonly in use in Kentucky in the area affected at the time the instrument was executed

Id. at 301; Banks, *supra* note 137, at 158 n.205 (describing the constitutional amendment as protecting landowners "by a reversion to the general assumption held by the early mountaineers"). Specifically, "if the method of coal extraction was not explicitly stated in the language of the deed, then the only extraction methods permitted are those that were known at the time and were in the specific area covered by the deed." *Id.* at 158.

147. Keystone, 480 U.S. at 478.

severed from the surface in the period between 1890 and 1920. When acquiring or retaining the mineral estate, petitioners or their predecessors typically acquired or retained certain additional rights that would enable them to extract and remove the coal. Thus, they acquired the right to deposit wastes, to provide for drainage and ventilation, and to erect facilities such as tipples, roads, or railroads, on the surface. Additionally, they typically acquired a waiver of any claims for damages that might result from the removal of the coal.¹⁴⁸

Importantly for this discussion of takings principles, coal severance deeds almost universally contained such broad waivers of liability and exculpatory clauses in favor of the person or entity purchasing the mineral.¹⁴⁹ The breadth of these waivers could be and generally was

^{148.} *Id*.

^{149.} Id. One of the most egregious judicial interpretations of the broad form coal deed was that of the Kentucky courts. In Kentucky, the broad form deed was interpreted for many decades as allowing the destruction of the surface of land by strip mining although strip mining was clearly not contemplated by the parties to turn-of-the-twentieth-century coal severance deeds. See Martin, 429 S.W.2d at 397 overruled by Akers, 736 S.W.2d at 294 (overruling "any cases which hold that the mineral owner can use and damage the surface without the payment of damages"). Every other Appalachian coalproducing state supreme court reached a contrary conclusion. See Franklin v. Callicoat, 119 N.E.2d 688, 693 (Ohio 1954) (summarizing authority that the rule in Ohio is "that the owner of the surface has a right to subjacent support of the surface unless the reservation of the minerals contained in the deed expressly provided to the contrary."); E. Ohio Gas Co. v. James Bros. Coal Co., 85 N.E.2d 816, 817 (Ohio C.P Tuscarawas County 1948); Williams v. Hay, 14 A. 379, 382 (Pa. 1888); Livingston v. Moingona Coal Company, 49 Iowa 369 (1878); Catron v. S. Butte Mining Co., 181 F. 941, 943 (9th Cir. 1910) (describing that the grant of the surface "does not permit the destruction of the surface"); Oresta v. Romano Bros., 73 S.E.2d 622, 627 (W. Va. 1952) (stating that the intent of the deed was to allow coal mining and removal in the usual method and that strip mining was not included among such usual methods); W. Va-Pittsburgh Coal Co. v. Strong, 42 S.E.2d 46, 47 (W. Va. Cir. Ct. 1947) (discussing the owner's assertion of the right to strip mine); Rochez Bros., Inc. v. Duricka, 97 A.2d 825, 825 (Pa. 1953) (holding that the right to remove coal could not be effectuated using strip mining methods); Chesapeake & Ohio R.R. Co. v. Bailey Prod. Corp., 163 F. Supp. 666, 671 (S.D. W. Va. 1958); Campbell v. Campbell, 199 S.W.2d 931, 933 (Tenn. Ct. App. 1946) (describing that "a reasonable support must be left for the surface" where there is a general grant or reservation of minerals); United States v. Polino, 131 F. Supp. 772, 777 (N.D. W. Va. 1955) ("This Court must conclude that both parties to the deed which contained the mineral reservation knew that the United States was acquiring these lands for forestry purposes and that such lands would be of little or no use for such purposes if the surface, the timber and other growth could be totally removed and destroyed."); Wilkes-Barre Twp. Sch. Dist. v. Corgan, 170 A.2d 97, 98 (Pa. 1961) (holding defendant liable for 150 foot hole resulting in deep excavation); Rocky Mountain Fuel Co. v. Heflin, 366 P.2d 577, 580 (Colo. 1961) (discussing mineral owners' rights pursuant to surface rights); Benton v. United States Manganese Corp., 313 S.W.2d 839, 843 (1958) (holding that the owner of surface rights is entitled to damages when the owner of a mineral estate performs excavation resulting in complete destruction of surface). It was not until 1988 that the Kentucky Legislature enacted what became known in that state as the "Broad Form Deed Amendment."

extraordinary. 150 Coalfield state courts have held that these standard broad form coal deeds and leases run with the land. 151

D. Investment-Backed Expectations and the Broad Form Deed

The seemingly perpetual life of these liability waivers, coupled with judicial enforceability against those not party to the original contract, has had a continuing effect that has reverberated for more than a century. ¹⁵² A majority of coal reserves in Appalachia and the Midwest are now owned as interests in land long ago severed from fee simple estates. ¹⁵³

The Court in *Keystone* was confronted with the issue of the "value" of these broad form deed waivers of liability as it analyzed the coal company's Contract Clause claim. As indicated above, the company's argument was that the 1966 subsidence law violated the Contract Clause by abrogating the liability waivers in deeds conveying various tracts of coal to the company's predecessors in interest:

Most of these waivers were obtained over 70 years ago as part of the support estate which was itself obtained or retained as an incident to the acquisition or retention of the right to mine large quantities of underground coal. No question of enforcement of such a waiver against the original covenantor is presented; rather, petitioners claim a

1988 Ky. Acts Ch. 117 §1. The measure altered Kentucky's Constitution. See *supra* note 146, regarding Kentucky's "Broad Form Deed Amendment."

^{150.} See, e.g., Johnson v. Junior Pocahontas Coal Co., 234 S.E.2d 309, 313 (W. Va. 1977). The waiver or exculpatory clauses in *Johnson* are typical of the over-reaching by coal company drafters of severance deeds. See *infra* at notes 38–39, for the language of the exculpatory clause in *Johnson*. Such waivers continue today to be inserted into coal severance deeds.

^{151.} See, e.g., Kormuth v. U.S. Steel Co., 108 A.2d 907, 909 (Sup. Ct. Pa. 1954) (announcing that the deed granted a right of way to remove coal belonging to the grantee, "its successors and assigns, or which may hereafter be acquired"); Scranton v. Phillips, 94 Pa. 15, 22 (1880) (recognizing the retention of a full property interest, the dominion over all the coal, and the ability to transfer such interest to heirs and assigns). For an extensive discussion of the history and impact of these broad form deeds and related issues, see generally, Banks, supra note 137, at 133–49, discussing the history and impacts of broad form deeds and related issues. Keystone suggested that these waivers of liability might be subject in the future to annulment by state courts. Keystone, 480 U.S. at 505 n.32 ("That the Pennsylvania courts might have had, or may in the future have, a valid basis for refusing to enforce these perpetual covenants against subsequent owners of the surface rights is not necessarily a sufficient reason for concluding that the legislative impairment of the contracts is permissible.").

^{152.} Banks, supra note 137, at 132-33.

^{153.} *Id.* at 133; *see* Watson v. Kenlick Coal Co., 422 U.S. 1012 (1975) (Douglas, J., dissenting from denial of certiorari) (proclaiming "rape of Appalachia for its precious coal has been a dark and dismal chapter in our Nation's history").

right to enforce the waivers against subsequent owners of the surface. This claim is apparently supported by Pennsylvania precedent holding that these waivers run with the land.¹⁵⁴

Justice Stevens, writing for the *Keystone* majority, identified the heart of the coal company's Contract Clause claim: "[I]t is the petitioners' position that, because they contracted with some previous owners of property generations ago, they have a constitutionally protected legal right to conduct their mining operations in a way that would make a shambles of all those buildings and cemeteries." That said, the Court then observed that "the Commonwealth has a strong public interest in preventing this type of harm, the environmental effect of which transcends any private agreement between contracting parties." ¹⁵⁶

Clearly, when interests in coal were severed from fee simple estates in land a century or more ago, the expectations of those investing in such property were not at all comparable to the expectations of those purchasing the land in fee simple. Even in those early years when coal mining methodologies were just beginning to be developed, the coal buyers surely knew of the significant adverse externalities accompanying the mining of coal—including externalities that significantly affected the rights of the coal grantor, her neighbors, and the public.¹⁵⁷ Were it otherwise, there would have been no need to incorporate such extensive exculpatory clauses (waivers of liability) in coal deeds and leases. Consider, for example, the language of the exculpatory clause examined by the West Virginia Court in *Johnson v. Junior Pocahontas Coal Co.*¹⁵⁸ The clause included, *inter alia*:

[T]he right to mine, produce, remove and carry away all and the entire amount and body of the coal, in and from and adjacent to the described real estate, without liability for damage and injury to and destruction of the surface or to anything now or hereafter therein and thereon, including but not limited to buildings, structures and improvements, growing things, pipes, lines and ways, wells, springs and water courses.

^{154.} Keystone, 480 U.S. at 505 n.32 (citations omitted).

^{155.} Id. at 504-05.

^{156.} Id. at 505.

^{157.} See generally Banks, supra note 137, at 132–48 (describing the uneven bargaining power northern industrialists used to obtain mineral rights and the damage that coal has caused in Kentucky).

^{158.} Johnson v. Junior Pocahontas Coal Co., 234 S.E.2d 309, 313 (W. Va. 1977).

[T]he right to construct, maintain, use and operate, adjacent to and within the vicinity of the described and conveyed real estate, coal tipples, loading facilities, preparation and cleaning plants and facilities, coke and by-product structures and facilities, gob and refuse dumps and piles, whether burning or not, pumps and drains and all other mining plant, appurtenances and operations, without liability for damage or injury to and destruction of said real estate and anything now or hereafter therein and thereon, including but not limited to buildings, structures and improvements, trees and other growing things and property, arising out of or resulting from, including without limitation, noise, vibration, smoke, dust, fumes, noxious gases, air pollution, stream pollution, water stagnation, erosion, deposits of waste, silt, coal dust and other substances, discharge of mine waters through natural or artificial courses and channels, and diversion of waters and streams. 159

Obviously, the expectation of the coal buyer who drafted this language of conveyance envisioned multiple harmful externalities that, absent the waiver, would create legal liability under the common law of property, contract, and tort. But for the exculpatory clause, liability for damages caused by such externalities could have made it uneconomical to mine the purchased coal or have triggered injunctive relief that would substantially curtail the ability to mine the coal economically.

E. Additional Judicial Rationale for Enhancing Property Rights of Severed Coal Interest Ownership

The overt embrace of the economic interests of mineral extractive industries over the interests of land owners and the public by nineteenth century state courts is remarkable. Recognition of the viability and enforceability of liability waivers of broad form coal conveyances was accompanied by judicial re-working of long-established tenets of tort law. Disregarding settled investment-backed expectations of fee land owners and the public, courts modified existing law in order to accommodate the vast expansion of mineral extraction activities fueling the Industrial Revolution. Indeed, the state courts of the time, in their rush to

^{159.} Id

^{160.} See, e.g., Pa. Coal Co. v. Sanderson, 6 A. 453, 464–65 (Pa. 1886) (subordinating domestic plaintiff's tort claims to business defendant's mining interests using cost benefit analysis).

accommodate and promote the new fossil fuel industries, could be viewed as often ignoring what *Lucas* referred to as "the historical compact recorded in the Takings Clause that has become part of our constitutional culture." ¹⁶¹

Not only did those state courts place their imprimatur on broad form deed/lease waivers of liability, but they also held that such contractual provisions run with the land and are to be enforceable against subsequent successors in interest—although contractual exculpatory clauses in most circumstances are generally viewed with disfavor. 162 The concept of contractual waivers of liability being held enforceable against those not party to the original contract is exceptional—so much so that Keystone remarked on the possibility that such provisions in coal severance deeds might be invalidated in the future by state courts. 163 notwithstanding coal severance deed or lease language, state courts further modified existing property, contract, and tort law to allow coal miners to escape liability for serious mining-related damages impacting neighboring property owners and the public at large. Justice William O. Douglas, in the twilight of his long tenure on the Court, had occasion to recognize the role state courts played in limiting the investment-backed expectations of Appalachian land owners vis-à-vis coal companies:

With the advance of [coal mining] technology . . . the stakes increased; each successive innovation was visited upon the mountaineers with the approval of the courts, which found . . . new and unforeseen [mining] techniques to fall within the scope of the aged and yellowing deeds. Judicial decisions gave virtually untrammeled powers to the coal companies, so long as they acted without malice. . . . 164

^{161.} Lucas v. S. C. Coastal Council, 505 U.S. 1003, 1028 (1992).

^{162.} Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 505 n.32 (1987); see, e.g., RESTATEMENT (SECOND) OF CONTRACTS § 195 (1) (1981) ("A term exempting a party from tort liability for harm caused intentionally or recklessly is unenforceable on grounds of public policy."); K. A. Dreschsler, Annotation, *Validity of Contractual Provision by One Other than Carrier or Employer for Exemption from Liability, or Indemnification, for Consequences of Own Negligence*, 175 A.L.R. 8, 16 (1948) ("The first leading principle is that contractual exemption from liability for negligence is rarely allowed to stand where the contracting parties are not on roughly equal bargaining terms.").

^{163.} *Keystone*, 480 U.S. at 505 n.32. ("That the Pennsylvania courts . . . may in the future have . . . a valid basis for refusing to enforce these perpetual covenants against subsequent owners of the surface rights is not necessarily a sufficient reason for concluding that the legislative impairment of the contracts is permissible.").

^{164.} Watson v Kenlick Coal Co., 422 U.S. 1012, 1015 (1975) (Douglas, J., dissenting from denial of writ of certiorari). Justice Douglas's dissenting statement quoted extensively from the works of coalfield lawyer, activist and historian Harry Caudill:

An excellent example of the judicial decisions referenced by Justice Douglas is a late nineteenth-century case, *Pennsylvania Coal Co. v. Sanderson*.¹⁶⁵ In that case, the state court rejected claims of damages to the riparian rights of land owners through whose property ran a stream heavily polluted by a company's coal mining operations.¹⁶⁶ The water pollution and many other adverse impacts of coal mining were and are fully predictable, but fact-based predictability was of no consequence to the *Sanderson* court.¹⁶⁷ The court consciously chose to favor coal property owners' interests over those of a family who lived near a coal mine:

The plaintiff's grievance is for a mere personal inconvenience; and we are of opinion that mere private personal inconveniences, arising in this way and under such circumstances, must yield to the necessities of a great public industry, which, although in the hands of a private corporation, subserves a great public interest. To encourage the development of the great natural resources of a country trifling inconveniences to particular persons must sometimes give way to the necessities of a great community . . . in the operation of mining in the ordinary

With impunity [the companies] could kill the fish in the streams, render the water in the farmer's well unpotable and, by corrupting the stream from which his livestock drank, compel him to get rid of his milk cows and other beasts. They were authorized to pile mining refuse wherever they desired, even if the chosen sites destroyed the homes of farmers and bestowed no substantial advantage on the corporations. The companies which held "longform" mineral deeds were empowered to withdraw subjacent supports, thereby causing the surface to subside and fracture. They could build roads wherever they desired, even through lawns and fertile vegetable gardens. They could sluice poisonous water from the pits onto crop lands. With impunity they could hurl out from their washeries clouds of coal grit which settled on fields of corn, alfalfa and clover and rendered them worthless as fodder. Fumes from burning slate dumps peeled paint from houses, but the companies were absolved from damages The companies, which had bought their coal rights at prices ranging from fifty cents to a few dollars per acre, were, in effect, left free to do as they saw fit, restrained only by the shallow consciences of their officials.

Id. at 1015-16 (quoting HARRY M. CAUDILL, NIGHT COMES TO THE CUMBERLANDS 306-07 (1963)).

^{165.} Pa. Coal Co. v. Sanderson, 6 A. 453, 459 (Pa. 1886).

^{166.} *Id*

^{167.} In fact, absent broad form deed/lease liability waivers and judicial sanctioning of the externalization of harms attendant coal mining, such conduct would surely meet the general definition of civil intent. *See* RESTATEMENT (SECOND) OF TORTS § 8A Intentional Harms to Persons Land, and Chattels (2009) ("The word 'intent' is used throughout the Restatement of this Subject to denote that the actor desires to cause consequences of his act, or that he believes that the consequences are substantially certain to result from it.").

and usual manner, [a coal company] may, upon [its] own lands, lead the water which percolates into [its] mine into the streams which form the natural drainage of the basin in which the coal is situate, although the quantity as well as the quality of the water in the stream may thereby be affected.¹⁶⁸

The court recognized the consequences of limiting the liability of the coal company for such an adverse externality: "if the responsibility of the operator of a mine is extended to injuries of the character complained of, the consequences must be that mining cannot be conducted except by the general consent of all parties affected." Avoiding this result, the court held that no liability for such damages as water pollution resulting from coal mining could attach because:

The defendants, being the owners of the land, had a right to mine the coal. It may be stated, as a general proposition, that every man has the right to the natural use and enjoyment of his own property; and if, while lawfully in such use and enjoyment, without negligence or malice on his part, an unavoidable loss occurs to his neighbor, it is *damnum absque injuria*; for the rightful use of one's own land may cause damage to another, without any legal wrong. Mining in the ordinary and usual form is the natural user of coal lands. They are, for the most part, unfit for any other use.¹⁷⁰

Other coalfield court decisions like *Sanderson* allowed the broad externalization of the costs of pollution and other negative coal mining externalities onto landowners, communities, and the public as a whole.¹⁷¹

It is important, then, to understand that the investment-backed interests of severed coal property owners were enhanced enormously by early state court decisions that modified then-existing property law. Without such judicial decisions, the reasonable investment-backed interests of the Sandersons and others like them who lived near and above coal mines would have been protected. In this day and age, to deem coal mining "the

^{168.} Sanderson, 6 A. at 459.

^{169.} Id. at 456.

^{170.} Id. at 457.

^{171.} See, e.g., Robertson v. Youghiogheny River Coal Co., 172 Pa. 566, 571 (Pa. 1896) (articulating that injuries resulting from the grant of a mineral estate do not create a cause of action for the surface owner); Hindson v. Markle, 171 Pa. 138, 144 (Pa. 1895) (discussing whether defendant would be liable for coal mining refuse entering plaintiff's land after a flood).

natural use" of "coal lands" seems bizarre. *Sanderson*'s observation that coal lands are otherwise "unfit for any other use" is certainly at odds with reality and modern science. It is understandable only by reference to a judicial policy decision to favor the interests of one type of property over another.¹⁷²

V. PUTTING THE INVESTMENT-BACKED EXPECTATIONS OF FEE LAND AND SEVERED COAL PROPERTY OWNERS IN PERSPECTIVE

A. Application of Lucas's Categorical Rule to Claims of Takings of Severed Coal Property Interests

At the beginning of this essay I identified its focus as the extent to which the *Lucas* per se rule may impact the rights of owners of severed/segmented mineral interests. Some commentators have accurately observed that because "[f]ew if any regulations have such a drastic effect" on property value that they destroy all economic value of real property "*Lucas* has been converted to a precedent of largely symbolic significance." Notwithstanding the general accuracy of this observation, *Lucas*'s categorical rule still has vitality with regard to claims of takings of severed mineral interests.

For example, the significance of the *Lucas* per se rule in *Cane Tennessee, Inc. v. United States* and *Wyatt v. United States* was far from "symbolic." In fact, the rule was outcome determinative of a claim of taking of less than a fee simple interest in coal. The regulatory action triggering the takings claims that was asserted in the case arose as a result of regulatory action taken by a federal agency pursuant to the Federal

^{172.} See Heather Fisher Lindsay, 10 J. LAND USE & ENVTL. L. 371, 396 (1995) ("This factual judgment could not have been correct. Perhaps the underlying statement was that the land could not have been used profitably by the coal company in any other way.").

^{173.} Echeverria, supra note 3.

^{174.} Decisions in these consolidated cases Cane Tenn., Inc. v. United States (Cane I), 44 Fed. Cl. 785 (1999); Cane Tenn., Inc. v. United States (Cane II), 54 Fed. Cl. 100 (2002); Cane Tenn., Inc. v. United States (Cane III), 57 Fed. Cl. 115 (2003); Cane Tenn., Inc. v. United States (Cane IV), 62 Fed. Cl. 481 (2003); Cane Tenn., Inc. v. United States (Cane V), 60 Fed. Cl. 694 (2004); Cane Tenn., Inc. v. United States (Cane VII), 63 Fed. Cl. 715 (2005); Cane Tenn., Inc. v. United States (Cane VIII), 71 Fed. Cl. 432 (2005), aff'd per curiam, 214 Fed. Appx. 978, (Fed. Cir. 2001) and further background facts may be found in decisions involving earlier takings claims involving the same property. See Wyatt v. United States, 271 F.3d 1090 (Fed. Cir. 2001), rev'd E. Minerals Int'l Inc. v. United States, 36 Fed. Cl. 541 (1996). See also Tardiff, supra note 66, at 12–17, for a detailed description of this complex litigation and an explanation of the courts' decisions.

Surface Mining Control and Reclamation Act of 1977.¹⁷⁵ This complex consolidated case involved takings claims brought by a number of separate owners of fee as well as severed mineral interests (coal, oil, and gas) in thousands of acres of land in eastern Tennessee.¹⁷⁶ The case was litigated and ultimately resolved in a series of decisions of the Court of Claims and the Court of Appeals for the Federal Circuit.¹⁷⁷ The result ultimately reached by these courts is illustrative both of the continued viability of *Lucas* in cases where a taking of severed mineral interests is involved and of the confusion and complications attendant application of the *Lucas* per se takings rule to such interests. Curiously, when all was said and done after almost a decade of takings litigation, only one set of claimants was found to be the victims of a regulatory taking of their less-than-fee-simple interest in coal.¹⁷⁸ The takings claims of all but one of the parties to the litigation were

175. 30 U.S.C. § 1201 (1977). The Federal Surface Mining Control and Reclamation Act of 1977 ("SMCRA") contains provisions allowing OSM, pursuant to citizen petition or on its own motion, to designate lands incapable of reclamation as unsuitable for all or some types of coal mining. 30 U.S.C. §§ 522(a), 1272(a) (1977). In the *Cane-Wyatt* cases, a taking of the plaintiffs' real property interests was alleged after OSM designated certain lands as unsuitable for coal mining, those lands including coal, oil and gas owned by the plaintiffs. The specific regulatory takings claims of the various parties were based on allegations that permitting delays, and later, a Department of the Interior Office of Surface Mining ("OSM") decision designating much of the tract conveyed to Cane as unsuitable for all types of coal mining affected a taking of both Cane's fee interests in the land and the Wyatt Trust and Wyatt children's 3.5% non-participating royalty interest. *See supra* note 174.

176. The essential facts relating to the property interests owned by the taking claimants are thoroughly explained in Tardiff, supra note 66, at 12-17, and can be summarized as follows: the ownership interests in fee simple of the huge 10,000 acre tract were purchased in 1953 by Wilson W. Wyatt, Sr. and his wife. In 1979 Mr. and Mrs. Wyatt sold their fee interest to Cane, reserving a 3.5% non-participating royalty interest in the gross sales price of all coal mined by the grantee and its successors in interest. When the Wyatt's sold their interests to Cane, they divided their royalty interest in half and conveyed one half to the Wyatt Trust for the benefit of their three children. In 1991, the Wyatt parents conveyed their retained 3.5% coal royalty interest in the subject property directly to their three children in equal, undivided 1/3 shares. The original tracts from which mineral interests were later sold or severed by the Wyatt children's parents included 9400 acres of surface land and 8400 acres of minerals. Tardiff, supra note 66, at 13 n.9. The total purchase price for all of these lands and mineral rights was \$87,000. The takings claimants in the consolidated cases included Cane Company Ltd. (subsequently "Cane Tennessee, Inc.") that purchased a fee simple interest in the land and minerals; Eastern Minerals International, Inc, Cane's coal lessee; the Wyatt trust established by their Wyatt parents for their children; and the three Wyatt children to whom their parents conveyed a non-participating royalty interest in the coal underlying a several thousand acre tract. *Id.* at 13–15.

177. Id. at 12-17.

178. Cane VIII, 71 Fed. Cl. at 464 (quoting Cienega Gardens v. United States, 331 F.3d 1319, 1341 (Fed. Cir. 2003)). The court used a variety of analytical techniques to arrive at the conclusion that the interests of Cane and the Wyatt trust did not suffer a total taking of their interests. Cane did not suffer a total taking because it owned a fee interest and still could exploit its surface development rights; the court then analyzed the Cane taking claim using the Penn Central doctrine and found that when Cane purchased its fee interest in the tract it could have expected the SMCRA might have interfered with coal mining operations—including the designation of lands as unsuitable provision of 30 U.S.C. § 1270(a). Moreover, the court also found that OSM's designation "did not constitute a sufficiently

rejected as failing to meet the requirements of the *Mahon-Penn Central* takings analysis. 179

Although the nature of the Wyatt children's interest was far removed from the lots David Lucas owned in fee simple, the court found that the shares of the 3.5% royalty interest in the coal underlying a portion of the huge tracts involved were taken as a result of the Office of Surface Mining's (OSM) unsuitability designation. 180 The trial court found the "relevant parcel" or "denominator" to be the coal royalty interest conveyed to the children by their parents in 1991. Applying the *Lucas* per se rule to the total taking of the royalty interest, the court found the children's economic loss to be a compensable taking. 182 The court rejected the government's argument that *Lucas* does not prevent judicial consideration of a taking claimant's reasonable investment-backed expectations when less than fee simple is the focus of the claim. 183 The trial court observed that the Federal Circuit had previously rejected the government's position that investment-backed expectations may be considered in the assessment of categorical taking claims under Lucas. 184 Thus, the strange result was clearly the product of judicial application of the Lucas per se rule to the children's royalty interest. 185

Such an outcome, I submit, has little to do with *Lucas*'s "historical compact" rationale underpinning the per se rule applied to "total taking" of a fee simple interest in land. As explained above, that compact was one that evolved from the bundle of rights attendant fee simple ownership of land. *Keystone* informs our understanding of the true nature of the property interest acquired through the use of broad form deeds and liability waivers

^{&#}x27;serious financial loss' to constitute a taking[.]" The Wyatt Trusts taking claim fared no better than Cane. The court found "the relevant parcel" (or "denominator") to be the fee simple interest in approximately more than 2,000 acres of land transferred to the trusts in 1973 and 1974. After SMCRA was enacted the trusts sold their fee simple estates in most of these lands to Cane for a million dollars and retained only the coal royalty interest. Because the court determined the fee simple estate acquired by the trust in 1973 and 1974 was the relevant parcel determination, it found the 1979 million dollar sale to Cane was value derived by the trust from the relevant parcel and therefore the trust had not suffered a total taking triggering the *per se Lucas* analysis or a compensable taking under *Penn Central*.

^{179.} See Cane V, 60 Fed. Cl. at 703-06; Cane VIII, 71 Fed. Cl. at 464 (quoting Cienega Gardens, 331 F.3d at 1341.

^{180.} Cane V, 60 Fed. Cl. at 705-06.

^{181.} Id. at 702-03.

^{182.} Id.

^{183.} Cane VI, 62 Fed. Cl. at 711-16.

^{184.} See id. at 716 (citing Palm Beach Isles Assocs. v. United States, 208 F.3d 1374 (Fed. Cir., 2000). Moreover, because the court applied the *Lucas per se* rule, it did not consider the character of the government's action as it would have been required to do under *Penn Central*. *Id*.

^{185.} Cane VIII, 71 Fed. Cl. 432, 464.

that created the vast majority of severed coal interests.¹⁸⁶ Rather than eschew consideration of the investment-backed expectations of severed coal interests, such expectations should lie at the center of the analysis of claims that regulation of such interests effects a "total taking" mandating payment of compensation. Were it not for the enforceability of broad form waivers of liability in old coal severance deeds, coal companies would either have to buy surface land overlying coal mines or avoid the destructive effects of mining.

In my view, "the historical compact recorded in the Takings Clause that has become part of our constitutional culture" should not be viewed as extending to the reasonable investment-backed expectations of coal interests severed from a fee estate in land. The application of the *Lucas* per se rule to a non-executory royalty interest in coal property in the *Cane* cases is revealing. The notion that it is appropriate to extend the rule to property interests that have been sliced and diced from the pre-severance fee interest can find little support in logic or in the professed rationale of *Lucas*, notwithstanding the dictum of the infamous footnote seven.

The extension of the *Lucas* categorical rule to a fractional and speculative interest in royalties due to be paid, if, and only if, severed coal can be mined at a profit, renders the "bundle of rights" concept of property virtually unrecognizable. Application of *Lucas* to the Wyatt children's fractional royalty interest illustrates in effect that the interest is the equivalent of the full bundle of rights of a fee simple owner of land—a problematic perspective at best.

A close examination of the Court's opinion in *Lucas* provides insight into the rationale for its categorical rule. Lucas explains that the rule applied to a "total taking" or "wipeout" of fee simple interests in land as being in accord with its long-established principles of takings jurisprudence. That jurisprudence, the Court maintained, "has traditionally been guided by the understandings of our citizens regarding the content of, and the State's power over, the 'bundle of rights' that they acquire when they obtain title to property. This statement is not unreasonable when referring to fee simple ownership of a parcel of land that, in most circumstances, can be used for a multitude of purposes. The

^{186.} Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 478 (1987).

^{187.} Lucas v. S. C. Coastal Council, 505 U.S. 104, 1028 (1992).

^{188.} See Lucas, 505 U.S. at 1027 (explaining that just compensation for a "regulation that deprives land of all economically beneficial use" accords with the Court's takings jurisprudence, which has "traditionally been guided by the understandings of . . . citizens regarding the content of, and the States' power over, the 'bundle of rights' that acquire when they obtain title to property").

^{189.} Id.

^{190.} Id.

human imagination provides the only limit to ways fee simple land may be utilized by its owner—as long as the fee owner complies with the ancient common law maxim *sic utere tuo ut alienum non laedas*, or "so use your own as not to injure another's property."¹⁹¹ Even when Euclidean zoning limits the use of fee simple land to a single "use"—residential, industrial, commercial, or recreational—the "bundle" of fee ownership rights is complete. ¹⁹²

However, when the property owned is a severed coal interest or a more ephemeral interest such as the fractional royalty interest at issue in *Cane-Wyatt*, the bundle of rights metaphor seems an inappropriate way to describe the owner's rights. While there are exceptions, as a general rule, one who owns a possessory interest in coal has, at most, the "right" to sell the coal in place if she can find a buyer; to use the surface to access the reserve; to extract the fuel from the land; and to transport it to market for sale. 193

For owners of non-possessory or non-executory interests in minerals such as the property interest "owned" by the Wyatt children, their "bundle of rights" is sparse indeed. Their rights are narrowly limited to entitlement to a small percentage of the sale price of a mineral extracted from the land and carried to market—such owners do not even possess the right to walk freely upon the land from whence the mineral may be mined. Such ownership "right" is illusory unless and until the mineral is actually mined. Such ownership "right" is illusory unless and until the mineral is actually mined.

^{191.} Keystone, 480 U.S. at 485.

^{192. &}quot;Euclidean zoning" is the term generally descriptive of zoning by land use districts advanced by the first Model Zoning Enabling Act whose constitutionality was established in *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 379 (1926).

^{193.} Similarly, ownership of a severed interest in oil or gas allows the owner to access the overlying surface to drill for and extract liquid or gaseous fuel. Whether oil or gas will be recovered in marketable quality and quantity is generally a matter of some speculation, conveyances of oil and gas rights usually contain a "dry hole" provision. The oil or gas interest owners' rights are correlative to the rights of the owner of the surface and to the rights of owners of other minerals, interests and encumbrances of the land. Because many states recognize the "rule of capture," one acquiring the right to drill and produce oil and natural gas may lose her total investment if prior drilling by the owner of similar rights on adjacent lands drains the reserves under her land first. *Keystone*, 480 U.S. at 478–93; *Superior Oil Co. v. Stanolind Oil & Gas Co.*, 240 S.W.2d 281, 282–83 (1951).

^{194.} Lee Jones, Jr., *Non-Participating Royalty*, 26 TEX. L. REV. 569, 569 (1948) (describing non-participating royalty owners as having "no present or prospective possessory interest in the land").

^{195.} It is true that such a non-executory interest in minerals such as a royalty interest in coal may have considerable value in place. But that value is often speculative. The myriad practical, economic, geologic, and technical challenges that frequent the "coalfields" are daunting. Indeed, it is fair to say that government regulation may often be the least of the obstacles limiting the expectations of those investing in modern mineral extractive industries. See generally id. (analyzing cases of non-participating royalty interests).

Moreover, the royalty interest derived from the sale of coal much more closely resembles the type of personal property interest that *Lucas* concedes may be totally taken by legitimate government regulation. Just as the owner of personal property that is the subject of "commercial dealings" is subject to "the State's traditionally high degree of control" over commercial dealings, the owner of a fractional non-executory coal royalty interest or an interest in coal otherwise severed from land owned in fee "ought to be aware of the possibility that new regulation might even render his property economically worthless at least if the property's only economically productive use is sale or manufacture for sale." 196

B. Severed Coal Owners' Shrinking Bundle of Rights and Diminished Expectations

Most forms of mineral extraction are fraught with possibilities of injury to adjacent land and land owners, as well as interference with rights of the public. Today, investing in coal severed from a fee simple interest in land is problematic. The speculative nature of the investment-backed expectations of a severed coal interest owner differs greatly from the expectations of a fee land owner. The difference lies primarily in the nature of the rights bundled with each form of property. Today, the scope of the rights acquired via old broad form deeds has shrunk dramatically; the deeds no longer limit the liability of coal mining operators as they did a century or even three decades ago. ¹⁹⁷ No longer can a coal operator/owner expect to externalize the costs of mining to overlying surface owners, neighbors, and the public

^{196.} Lucas, 505 U.S. at 1027–28; see Eduardo Moisès Peñalver, Is Land Special? The Unjustified Preference for Landownership in Regulatory Takings Law, 31 ECOLOGY L.Q. 227, 239 (2004). Throughout his opinion, Justice Scalia studiously avoided generic references to regulation of "property," and instead repeatedly and narrowly referred to "land-use regulations" that deprive a "land owner" of all economically beneficial uses of "land." Professor Peñalver questions the distinction drawn in Lucas between real and personal property. I find much of his critique persuasive but the distinction is one a majority of the Court has drawn and thus, I rely on it, notwithstanding Professor Peñalver's view that "the Court's favoritism toward land is an unprincipled one" and that the modern Court's entire regulatory takings project is called into question by "the dubious basis of the distinction" Id. at 233.

^{197.} See generally M. SQUILLACE, THE STRIP MINING HANDBOOK: A COALFIELD CITIZENS' GUIDE TO FIGHT BACK AGAINST THE RAVAGES OF STRIP MINING AND UNDERGROUND MINING (1990) (describing the lack of liability coal mining operators once had); see Federal Surface Mining Control Act and Reclamation Act ("SMCRA"), 30 U.S.C. § 1265 (1977) (requiring increased liability for coal operators).

in the extraordinary way envisioned by the nineteenth century drafters of such deeds. 198

A fresh examination of *Pennsylvania Coal v. Sanderson* reveals the extraordinary diminution of the bundle of rights and attendant investment-backed expectations of severed coal interest owners. *Sanderson* allowed coal operators to ignore the environmental and economic harm they visited on neighboring landowners and the public when they discharged polluted water into streams.¹⁹⁹ Both tort and statutory law reject *Sanderson*'s conclusion that water pollution is "a mere personal," "private," or "trifling inconvenience" that "must yield to the necessities of a great public industry."²⁰⁰ The Clean Water Act and the Surface Mining Control Act and Reclamation Act (SMCRA) prohibit such pollution by coal companies.²⁰¹

SMCRA requires that coal companies compensate owners of surface land and dwellings if they are damaged by coal-mining-induced subsidence. Airborne dust from coal tipples and coal preparation plants may not contaminate the air above neighboring properties or communities, since both the Clean Air Act and SMCRA proscribe such pollution. Coal

[Prior to federal regulation imposed by the SMCRA] coal mining has disturbed almost two million acres of land; only half of that has been reclaimed even to minimum standards. More than 264,000 acres of cropland, 35,000 acres of pasture, and 127,800 acres of forest have been lost. In a 1977 report, Congress estimated the cost of rehabilitating these ravaged lands at nearly \$10 billion. . . . [M]ore than 11,000 miles of streams have been polluted by sediment or acid from surface and underground mining combined. Some 29,000 acres of reservoirs and impoundments have been seriously damaged by strip mining. Strip mining has created at least 3000 miles of landslides and left some 34,500 miles of highwalls. [By 1977] two-thirds of the land that had been mined for coal had been left unreclaimed.

Professor Squillace lamented: "Grossly underregulated coal mining in the 1960's and 1970's spawned one of the greatest abuses of the environment in the history of the United States. The statistics of strip mine abuse numb the mind and overwhelm the spirit." SQUILLACE, *supra* note 197, at 10–12; *see generally* Patrick C. McGinley, *From Pick and Shovel to Mountaintop Removal in the Appalachian Coalfields*, 34 ENVTL. L. 21, 24 (2004) (concluding that "regulatory failures and corporate plans to maximize profits by eliminating coalfield communities have combined to continue the historic deprivation of environmental, economic, and social justice long experienced by coalfield citizens").

^{198.} Those enormous costs were externalized onto citizens and communities throughout the nation's coalfields in furtherance of the bundle of rights largely acquired through broad form deeds. Professor Mark Squillace has described those costs attributable to unregulated mining under the carte blanche authority that was afforded the "great public industry" for a century:

^{199.} Pa. Coal Co. v. Sanderson, 6 A. 453, 456 (Pa. 1886).

^{200.} Id. at 459.

^{201.} Federal Surface Mining Control and Reclamation Act ("SMCRA"), 30 U.S.C. § 1265 (1977); Federal Water Pollution Prevention and Control Act ("Clean Water Act"), 33 U.S.C. § 1257 (1972).

^{202. 30} U.S.C. § 1309a (1977).

^{203.} Id. § 1271(a)(2).

strip mines can no longer leave land un-reclaimed nor cause soil erosion and stream sedimentation that results in downstream flooding and destroys stream ecology.²⁰⁴ Externalizing such costs of coal mining is prohibited by SMCRA; common law tort actions and statutory citizen suits may also be brought to bear to force abatement of such activities.²⁰⁵

Clearly, coal mining operations no longer enjoy the broad immunities from liability for externalized damages that were afforded by broad form deeds and by courts that exalted the "necessities of a great public industry" over the investment-backed expectations of citizens harmed by mining activities. The exercise of the bundle of rights possessed by severed coal interest owners today is significantly inhibited by statutory and common law so as to greatly reduce investment-backed expectations of coal ownership.

The future value of coal reserves, and thus the expectation of severed coal ownership, is growing more speculative by the day.²⁰⁶ As global concerns about climate change grow, public and private initiatives to reduce greenhouse gases increasingly include proposals for reducing reliance on coal-fired electric power generation.²⁰⁷ Coal now profitably mined by the controversial "mountaintop removal" strip mining (MTR) method may be rendered un-mineable if government agencies respond to growing national criticism of the externalities created by MTR.²⁰⁸ Moreover, additional magnified problems and concomitant lowered investment expectations accompany modern American coal mining methodologies. The excesses of these mining methods were at first tolerated by the public and government regulators.²⁰⁹ Today, coal operators are pressured more and more to internalize the costs of environmental and other harms that their activities create.²¹⁰

^{204.} Id. § 1202.

^{205.} McGinley, supra note 198, at 103 n.462.

^{206.} See, e.g., Mikael Höök & Kjell Aleklett, Historical Trends in American Coal Production and a Possible Future Outlook, 78 INT'L J. COAL GEOLOGY 201 (2009) (discussing the many variables complicating the prediction of future coal production).

^{207.} See National Resources Defense Council, Coal Is Dirty and Dangerous (Jan. 15, 2009), http://www.nrdc.org/energy/coalnotclean.asp ("The better solution [rather than coal] is to repower America by investing in clean energy.").

^{208.} Large-scale "mountaintop removal" mining methods involve blasting apart thousands of acres Appalachian mountain ridges with explosives; coal then is scooped up by twenty-story tall "draglines." The dragline booms may extend 300 feet or more and their buckets are big enough to hold five Jeep Cherokees or more at a time. An enormous amount of rock and debris—the remains of what were high mountain ridges—are shoved into valleys burying headwater streams creating "valley fills." See McGinley, supra note 198, at 57, 62, 62 n.208.

^{209.} McGinley, supra note 198, at 30-54.

^{210.} Today, coal is extracted using advanced technology, unthinkable when coal and the right to mine it were severed from fee simple ownership, often a century ago. New technologies used in

All of these factors must be seen as lowering the expectations of the return on investment that will accrue from ownership of severed interests in coal.²¹¹

CONCLUSION

It is obvious that there are dramatic differences between the expectations of owners of a fee simple interest in land and the expectations of owners of severed and often fragmented mineral interests. The question that has not been resolved two decades after *Lucas* was the one the infamous footnote seven left unanswered: "the rule does not make clear the 'property interest' against which the loss of value is to be measured." It is submitted that *Lucas* itself points the way:

The answer to this difficult question may lie in how the owner's reasonable expectations have been shaped by the State's law of property—*i.e.*, whether and to what degree the State's law has accorded legal recognition and protection to the particular interest in land with respect to which the takings claimant alleges a diminution in (or elimination of) value.²¹³

This statement, however, begs the question. State property law, like the Fifth Amendment's Takings Clause, applies to all forms of property. The question then is not whether state law has accorded legal recognition to property interests severed from fee simple ownership, for "property" is *a fortiori* that which property law governs. The question, as *Lucas* frames it, is whether the expectations of owners of property that contain meager indicia of the rights bundled in fee simple land ownership should be afforded the heightened protection of the *Lucas* categorical takings rule.

As explained and emphasized above, *Lucas* makes clear that with regard to some property—personal property—the owners' expectations are

underground, "longwall mines" cut vast swaths under the earth—often 1000 feet wide and a mile or more long—through thick coal seams. In the western coalfields of Montana and Wyoming, huge chunks of land in the western coalfields are gouged from underneath fragile soils leaving deep depressions and impacting underground aquifers that have supplied life supporting water for millennia. *See* McGinley, *supra* note 198, at 54–56.

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^{211.} See generally McGinley, supra note 139, at 434–38.

^{212.} Lucas, 505 U.S. at 1016 n.7.

^{213.} Id.

so low that they reasonably may expect an exercise of the police power to render their property economically worthless:

And in the case of personal property, by reason of the State's traditionally high degree of control over commercial dealings, [the owner] ought to be aware of the possibility that new regulation might even render his property economically worthless (at least if the property's only economically productive use is sale or manufacture for sale).²¹⁴

I submit that severed and fragmented mineral property interests are much more like private property interests that are not entitled to the same level of protection that *Lucas* affords fee simple ownership of land. According to the *Lucas* Court, the "historic compact" that fee simple land owners have relied on to protect their interests from government confiscation is not one that gives rise to the same expectations in owners of personal property where "the property's only economically productive use is sale or manufacture for sale." Consider then, the striking similarity between severed mineral owners' property expectations and those of personal property owners who are on notice that they may lose all economic value as a result of government regulation. Is not the essence of mineral property transactions commercial dealings? Are not coal, oil, gas, and other minerals comparable to personal property in so far as their only economically productive use is sale or manufacture for sale?

In his concurring opinion in *Lucas*, Justice Kennedy observed that "[p]roperty is bought and sold, investments are made, subject to the State's power to regulate." "Where a taking is alleged from regulations which deprive the property of all value" he emphasized, "the test must be whether the deprivation is contrary to reasonable, investment-backed expectations." Emphasizing this point and connecting it to *Penn Central*'s analysis, Justice Kennedy remarked that "the finding of no value must be considered under the Takings Clause by reference to the owner's reasonable, investment-backed expectations." ²¹⁸

^{214.} Id. at 1027–28 (citing Andrus v. Allard, 444 U.S. 51, 66–67 (1979)).

^{215.} Id. (emphasis added).

^{216.} Id. at 1034 (Kennedy, J., concurring).

^{217.} Id.

^{218.} *Id.* (citing Kaiser Aetna v. United States, 444 U.S. 164, 175 (1979)); Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1978); *see* W.B. Worthen Co. v. Kavanaugh, 295 U.S. 56 (1935).

Justice Kennedy's observation has considerable merit given the rising cost of pervasive safety and environmental regulation, climate change concerns, and the fluctuating and speculative value of severed coal interests. Moreover, the ability to sever coal interests by slicing them, into smaller and smaller segments, provides the opportunity to "game" the system and allows manipulation of less than fee simple estates in land to facilitate takings claims. As Justice Stevens's dissent in *Lucas* predicted, "developers and investors may market specialized estates to take advantage of the Court's new rule." The smaller the estate," Justice Stevens emphasized, "the more likely that a regulatory change will effect a total taking." Such an approach has no connection whatsoever to the "historical compact" linked to fee simple ownership in land.

The explicit distinction made between ownership of fee land and ownership of personal property identified in *Lucas* is important in determining how claims of takings of severed coal property interests should be analyzed. Because severed mineral interests have all the characteristics of personal property to which the *Lucas* categorical taking rule does not apply, the shrunken bundle of property rights inherent in severed coal property interests similarly should disqualify such interests from the per se protection offered by the *Lucas* categorical rule.

The *Lucas* "total takings" rule applied to fee simple interests in land should not bar consideration of the investment-backed expectations of severed coal property claimants. Justice Kennedy suggested such claims should be analyzed using the factors set forth in the *Penn Central* takings equation: "[T]he finding of no value must be considered under the Takings Clause by reference to the owner's reasonable, investment-backed expectations." The consequence would not be catastrophic for owners of

^{219.} McGinley, supra note 198, at 53 n.166.

^{220.} See Echeverria, supra note 3, at 174. ("[T]he per se Lucas rule is potentially subject to artful manipulation by clever investors who can structure land acquisitions in order to manufacture apparent regulatory wipeouts and create potential claims under that precedent.").

^{221.} Lucas, 505 U.S. at 1065–66 (Stevens, J., dissenting). Justice Stevens provided a hypothetical example of such gamesmanship:

[[]A]n investor may, for example, purchase the right to build a multifamily home on a specific lot, with the result that a zoning regulation that allows only single-family homes would render the investor's property interest "valueless." In short, the categorical rule will likely have one of two effects: Either courts will alter the definition of the "denominator" in the takings "fraction," rendering the Court's categorical rule meaningless, or investors will manipulate the relevant property interests, giving the Court's rule sweeping effect. To my mind, neither of these results is desirable or appropriate, and both are distortions of our takings jurisprudence.

severed mineral property. The fairness of such an approach is confirmed by those cases finding a taking of coal property using the *Penn Central* takings calculus. For example, in *Whitney Benefits v. United States*, the court awarded tens of millions of dollars of compensation for lost use of coal property occasioned by a SMCRA regulatory prohibition.²²³ Courts would simply apply the regulatory takings analysis that has long been extant since *Pennsylvania Coal v. Mahon*.

223. Whitney Benefits, Inc. v. United States, 18 Cl. Ct. 394, 396 (1989) (applying the *Penn Central* taking analysis, the court found that SMCRA regulation effected a taking; entitling plaintiff coal owners to just compensation in the amount of \$60,296,000.00 plus pre-judgment interest).