THE AFTERMATH OF TAKINGS

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INTRODUCTION

American society will face monumental challenges as we confront crumbling infrastructure, new technologies, and climate change adaptation. Eminent domain is a powerful tool that necessarily impacts local communities when used for infrastructure such as roads, mass transit, pipelines, the electrical grid, and border walls. We will likely need to rely on both public and private eminent domain to redevelop neighborhoods and make our communities more resilient to climate change by adapting land uses to rising sea levels, drought, wildfires, and severe weather events.

In late 2018, the United States government issued its most dire warning yet about the impact climate change will have on health, economics, environment, and infrastructure.[1] Thirteen federal agencies, with the National Oceanic and Atmospheric Administration (NOAA) serving as the administrative lead agency issued Volume II of the National Climate Assessment ("NCA4") in 2018, a major scientific report mandated by Congress every four years beginning in 1990.[2] Volume II—released as a companion to the first volume published in 2017[3]—draws

1. Coral Davenport & Kendra Pierre-Louis, *U.S. Climate Report Warns of Damaged Environment and Shrinking Economy*, N.Y. TIMES (Nov. 23, 2018), https://www.nytimes.com/2018/11/23/climate/us-climate-report.html [https://perma.cc/UTE2-FHZY].

2. U.S. GLOB. CHANGE RESEARCH PROGRAM (USGCRP), IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES: FOURTH NATIONAL CLIMATE ASSESSMENT ("NCA4"), VOLUME 2: REPORT-IN-BRIEF 1 (2018) [hereinafter NCA4 VOLUME 2].

3. The first volume of NCA4, the Climate Science Special Report (CSSR), USGCRP, CLIMATE SCIENCE SPECIAL REPORT: FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME 1 (2017), was published in 2017 and "provides a detailed analysis of how climate change is affecting the physical earth system across the United States and

upon "the foundational science described in Volume I" and "focuses on the human welfare, societal, and environmental elements of climate change" while emphasizing "observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways."[4] The report estimates that by the end of the century, the U.S. economy will shrink by ten percent due to a loss of "$141 billion from heat-related deaths, $118 billion from sea level rise and $32 billion from infrastructure damage . . . among others."[5]

The NCA4 identifies twelve Summary Findings that synthesize the material contained in the underlying report.[6] While some of these twelve findings specifically mention infrastructure, Summary Finding 10. Infrastructure states:

> Our Nation's aging and deteriorating infrastructure is further stressed by increases in heavy precipitation events, coastal flooding, heat, wildfires, and other extreme events, as well as changes to average precipitation and temperature. Without adaptation, climate change will continue to degrade infrastructure performance over the rest of the century, with the potential for cascading impacts that threaten our economy, national security, essential services, and health and well-being.[7]

Rather than rely on the steady succession of infrastructure developments we historically experienced—from canals to trains to highways and airways, or from pipelines to transmission lines to cyberspace—we must employ both public and private eminent domain to address our current infrastructure challenges simultaneously. The goal of this Article is to view our nation's history of dealing with the aftermath of eminent domain to develop an approach addressing the changing dynamics of infrastructure needs in a responsive and flexible model that also protects long-term property rights.

Part I presents a brief overview of federal and state takings clauses under the Fifth and Fourteenth Amendments, including the Supreme Court's most recent definition of "public use" in *Kelo v. City of New London*.[8] It also discusses the aftermath of this decision, exploring how different states have reacted to this broad definition and narrowed the

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provides the foundational physical science upon which much of the assessment of impacts in this report is based." NCA4 VOLUME 2, *supra* note 2, at 1.

4. NCA4 VOLUME 2, *supra* note 2, at 1 (describing how Volume II was influenced and preceded by Volume I, which analyzed how "climate change is affecting physical earth systems across the United States").

5. Davenport & Pierre-Louis, *supra* note 1.

6. NCA4 VOLUME 2, *supra* note 2, at 4.

7. *Id.* at 17.

8. 545 U.S. 469 (2005).

ability of state and local governments to use their eminent domain power for redevelopment projects.[9] In addition to challenges to public use claims and the legitimacy of a blight designation, Part I explores challenges to the eminent domain power based on a lack of statutory authority, "pretextual takings, lack of reasonable assurances of future public use, lack of necessity, violation of procedural due process, and improper delegation of power."[10]

Part II focuses on the delegation of eminent domain authority to private entities, authorizing them to act in the public's interest for infrastructure needs rather than redevelopment. As noted above, states have made legislative and constitutional amendments to define public use in the wake of *Kelo*. State judicial opinions in Delaware,[11] Ohio,[12] Michigan,[13] and Mississippi[14] have also strengthened the defense to condemnations by applying heightened scrutiny to government claims of public use.[15] However, these state reforms governed private entity redevelopment, not the private entity use of eminent domain to address infrastructure needs.

Part III explores our experience with the aftermath of private eminent domain including private redevelopment projects that fail to meet the benefits promised to communities and the process of decommissioning infrastructure, such as converting abandoned railroad lines to hiking

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9. *Infra* Section I.B.

10. Dana Berliner et al., *Challenging the Right-To-Take: A Whirlwind Tour of Cases and Issues*, SW019/SW020 A.L.I.-CLE 837 (2015). For a case discussing pretextual takings, see Goldstein v. Pataki, 516 F.3d 50 (2d Cir. 2008), refusing to read "*Kelo*'s reference to 'pretext' as demanding . . . a full judicial inquiry into the subjective motivation of every official who supported the Project, an exercise as fraught with conceptual and practical difficulties as with state-sovereignty and separation-of-power concerns." *Id.* at 63; *see also* Daniel B. Kelly, *Pretextual Takings: Of Private Developers, Local Governments, and Impermissible Favoritism*, 17 SUP. CT. ECON. REV. 173, 174, 176 (2009) (arguing that the test for identifying pretextual takings post-*Kelo* is problematic and unclear while proposing a new burden-shifting test).

11. Wilmington Parking Auth. v. Land with Improvements, 521 A.2d 227 (Del. 1986).

12. City of Norwood v. Horney, 853 N.E.2d 1115 (Ohio 2006).

13. Cty. of Wayne v. Hathcock, 684 N.W.2d 765 (Mich. 2004) (overruling Poletown Neighborhood Council v. City of Detroit, 304 N.W.2d 455, 459–60 (Mich. 1981) (per curiam), but not making it clear whether it overruled heightened scrutiny).

14. Miss. Power & Light Co. v. Conerly, 460 So. 2d 107, 111 (Miss. 1984) (implicitly applying heightened scrutiny).

15. *See* Berliner et al., *supra* note 10, at 3–4; *see also*, Marc Mihaly & Turner Smith, Kelo*'s Trail: A Survey of State and Federal Legislative and Judicial Activity Five Years Later*, 38 ECOLOGY L.Q. 703, 729 (2011) (concluding that after five years there is "little substantive limitation on states' eminent domain authority, thus permitting most states to condemn property in the context of economic development projects or to cure blight").

trails or removing dams to restore the original hydrology of our waterways. The Article also discusses the aftermath of decommissioning and abandoning infrastructure such as energy transport lines, wells and mines, power plants, and wind energy, even if eminent domain was not used to initially acquire the property supporting this infrastructure.

Part IV addresses some of the pernicious eminent domain issues we have experienced including racial and economic biases that have motivated some of the most destructive eminent domain actions, and environmental justice and adverse impact concerns. Finally, it reviews current and future potential infrastructure needs and proposes that future eminent domain actions for pipelines, drone air rights, mass transit, redevelopment projects, border walls, climate change adaptation, and other necessary infrastructure take the form of express easements or fee simple acquisitions. This Article ultimately concludes that express provisions should mandate that unused fee simple property and abandoned easements should return either to the previous owner, the surface owner, or to the public trust, depending upon state statutes.

I. FEDERAL AND STATE TAKINGS CLAUSES AND REDEVELOPMENT

A. The Kelo *Decision and the State Aftermath*

The Fifth Amendment's Takings Clause is enforceable against the states through the Fourteenth Amendment.[16] The Fifth Amendment provides "nor shall private property be taken for public use, without just compensation."[17] Most states have a similar takings clause in their constitutions[18] and "federal and state takings clauses are generally interpreted the same way . . . ."[19] For eminent domain actions, the two primary issues are whether the taking is for a public use and whether just compensation has been awarded.[20]

The eminent domain power is an aspect of sovereignty that allows federal or state governments to condemn private property for public

16. *E.g.*, Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 122 (1978) (noting that the Takings Clause can "of course" be applied to states through the Fourteenth Amendment).

17. U.S. CONST. amend. V.

18. Michael B. Kent, Jr., *Public Pension Reform and the Takings Clause*, 4 BELMONT L. REV. 1, 4 (2017).

19. Thomas Merrill, *Anticipatory Remedies for Takings*, 128 HARV. L. REV. 1630, 1631 (2015).

20. Kelo v. City of New London, 545 U.S. 469, 477 (2005); *see* Merrill, *supra* note 19, at 1637–39 (observing that the majority of eminent domain cases concern the level of compensation and that cases questioning whether a taking was for public use are rare).

use so long as they pay just compensation.[21] The State holds the right of eminent domain, which it may delegate by statute to counties, municipalities, or public service corporations.[22] There is a hierarchy among public entities, with the State at the top, as to when they may use eminent domain to condemn land for incompatible public uses.[23] The legislature may constitutionally delegate the eminent domain power to a private development corporation if a public purpose is advanced and the benefit is available to the public.[24]

The question as to whether the taking is for a public use is guided by the *Kelo v. City of New London* decision, which affirmed a broad reading of public use for the federal Constitution, but encouraged states to define the term more narrowly if they so desired.[25] In *Kelo*, the city of New London approved a private development plan to revitalize the city and proposed to assemble the land needed for the project through voluntary purchases and the use of eminent domain.[26] Nine of the condemnees, including Susette Kelo, challenged the city's action claiming that the taking would violate the "public use" restriction.[27] The Court held that, based on its precedential cases of *Berman v. Parker*[28] and *Hawaii Housing Authority v. Midkiff*,[29] "the City's proposed condemnations are for a 'public use' within the meaning of the Fifth Amendment to the Federal Constitution."[30]

In the years following the *Kelo* decision, at least forty-four states have either amended their constitutions or enacted legislation to address the "public use" concerns expressed by Justice O'Connor's dissent.[31]

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21. Merrill, *supra* note 19, at 1636–37.

22. JULIAN CONRAD JUERGENSMEYER ET AL., LAND USE PLANNING AND DEVELOPMENT REGULATION LAW § 16:8 (3d ed. 2020).

23. 26 AM. JUR. 2D *Eminent Domain* § 23 (2020).

24. JUERGENSMEYER ET AL., *supra* note 22, § 16:8.

25. *Kelo*, 545 U.S. at 489 (noting that "nothing in our opinion precludes any State from placing further restrictions on its exercise of the takings power").

26. *Id.* at 473–75.

27. *Id.* at 475.

28. 348 U.S. 26, 33 (1954) (upholding redevelopment plan that targeted a blighted area in Washington, D.C., even though not all of the properties condemned were blighted).

29. 467 U.S. 229, 241–42 (1984) (upholding Hawaii statute that transferred fee title from lessors and to lessees to reduce the concentration of land ownership).

30. *Kelo*, 545 U.S. at 489–90.

31. *See id.* at 501 (O'Connor, J., dissenting) (arguing that the Court "significantly expands the meaning of public use" by holding "that the sovereign may take private property currently put to ordinary private use, and give it over for new, ordinary private use, so long as the new use is predicted to generate some secondary benefit for the public—such as increased tax revenue, more jobs, maybe even esthetic pleasure"); *see*

These actions have varied, but mostly they focus on restricting the use of eminent domain for economic development and requiring a finding of blight.[32] For example, Virginia's legislature jumped into *Kelo* reform in 2006 by introducing several bills to define public use for eminent domain actions.[33] These efforts continued until Virginia Code § 1-219.1 was enacted in 2007 to comprehensively define public use, and Virginia voters approved an amendment to the state constitution in 2012.[34] Nevertheless, these actions did not "profoundly change eminent domain law in Virginia" because deciding what constitutes public use is "one for ultimate decision by the courts."[35]

The Virginia Supreme Court has long supported the right to private property as a fundamental right. The state constitutional amendment only helps to remind Virginia that its "just compensation clause has never been in the past and cannot be in the future construed to endorse the use of eminent domain for economic development purposes in the broad manner approved in the *Kelo* decision."[36]

B. Challenging Eminent Domain for Redevelopment

At the state level, challenging public use is a developing area of law in terms of whether an entity may use eminent domain for economic development or when negotiations for a lease or purchase fail.[37] In approximately forty states, it is illegal to use eminent domain for economic development.[38] Several cases have also held that using eminent domain to condemn property was not proper when "a government entity has been unhappy with lease or purchase negotiations and then uses

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also DAVID L. CALLIES, ROBERT H. FREILICH, & SHELLEY ROSS SAXER, LAND USE CASES AND MATERIALS 340 (7th ed. 2017).

32. *See* David L. Callies, Kelo v. City of New London*: Of Planning, Federalism and a Switch in Time*, 28 U. HAW. L. REV. 327, 344–45 (2006) (detailing eminent domain reform laws either proposed or enacted in Alabama, Texas, Delaware, Michigan, and Ohio following the *Kelo* Court's ruling).

33. *See* Mary Massaron Ross & Kristen Tolan, *Legislative Responses to* Kelo v. City of New London *and Subsequent Court Decisions—One Year Later*, 16 J. AFFORDABLE HOUS. & COMMUNITY DEV. L. 52, 68–69 (2006).

34. *See* Va. Code Ann. § 1-219.1 (1950) (amended 2007); *see also* James J. Knicely & Francis A. Cherry, Jr., *Eminent Domain Reform: The "Virginia Way"*, 45 REAL EST. L.J. 290, 298–99, 301 (2016).

35. Knicely & Cherry, *supra* note 34, at 367.

36. *Id.* at 369.

37. *See* Berliner et al., *supra* note 10.

38. *Id.* (discussing cases holding that economic development is not a public use).

eminent domain to get the deal it wanted."[39] Using eminent domain for redevelopment or blight removal continues to be an active and demanding area of litigation.

Prior to the *Kelo* case and subsequent state legislation narrowing the concept of public use, the Commonwealth Court of Pennsylvania, in a condemnation proceeding brought pursuant to the Urban Redevelopment Law (URL), held that the agreements entered into by the private developer and the redevelopment authority constituted an unlawful delegation of eminent domain powers.[40] The Pennsylvania court reviewed the various agreements, which required that the private developer provide written consent before the redevelopment authority could file a condemnation action and conferred upon the developer the power to determine when to initiate condemnation proceedings against the private property owners.[41] Although the URL granted the power of eminent domain to the redevelopment authority, it could not "impair its ability to exercise this power through contract or agreement" and "any agreement which purportedly transfers such power to a private individual must be deemed to be void and unenforceable."[42]

In *Reading Area Water Authority v. Schuylkill River Greenway Ass'n*,[43] the Supreme Court of Pennsylvania reviewed state legislation enacted in reaction to the *Kelo* decision, The Property Rights Protection Act (PRPA),[44] which prohibits the taking of private property "in order to use it for private enterprise."[45] The court addressed the issue of whether a municipal authority could condemn an easement over private property in order to install sewer drainage facilities that would allow a private developer to build a residential subdivision.[46] Although there was an exception in the legislation for takings by regulated public utilities, such as water and sewer companies, the municipal authority asserting condemnation power was not a public utility and thus the exception did not apply.[47] Therefore, the court held that the municipal

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39. *Id.* (discussing cases rejecting and upholding condemnations used for such purposes).

40. *In re* Condemnation of 110 Washington St., 767 A.2d 1154, 1160–61 (Pa. Commw. Ct. 2001).

41. *Id.* at 1156–57.

42. *Id.* at 1160.

43. 100 A.3d 572 (Pa. 2014).

44. 26 PA. CONS. STAT. §§ 201–208 (2006).

45. *Schuylkill*, 100 A.3d at 582 (quoting 26 PA. CONS. STAT. § 204(a)).

46. *Id.* at 573.

47. *Id.* at 583–84; *see also* Mays v. Governor of Mich., No. 157335-7, 2020 WL 4360845, at *10 (Mich. July 29, 2020) (holding "that plaintiffs have sufficiently alleged

authority's condemnation of the drainage easement for the benefit of the private developer was in violation of PRPA.[48]

Challenges to blight removal have also dominated eminent domain litigation. Blight[49] challenges typically involve two kinds of issues. First, does the blight designation meet the legal interpretation of the blight factors?[50] Second, is it appropriate to apply the law to the blighted area or property based on the validity of blighting conditions?[51] For example, in *Gallenthin Realty Development, Inc. v. Borough of Paulsboro*,[52] the New Jersey Supreme Court interpreted its state constitution to reject the Borough of Paulsboro's condemnation of vacant land for economic development based on an assertion that a piece of land is "not fully productive."[53] The court stated that

> a municipality must establish a record that contains more than a bland recitation of applicable statutory criteria and a declaration that those criteria are met. Because a redevelopment designation carries serious implications for property owners, the net opinion of an expert is simply too slender a reed on which to rest that determination.[54]

Interpreting blight factors as related to public use requires that there is a legitimate determination of blight as the basis for using the eminent domain power. A litigant might also employ other factors in certain circumstances to challenge an eminent domain action targeting blight. These factors include

> the notion of governmental or developer created blight, the age (or continued validity) of the blight study, the particular municipality's lack of authority to condemn for blight, the argument that the blight has already been cured, gerrymandering of the supposedly blighted district, and whether the plan addresses the blight identified.[55]

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a claim of inverse condemnation to survive a motion for summary disposition" from damages caused by switching the city water source to the Flint River).

48. *Schuylkill*, 100 A.3d at 584; *cf.* Wymberley Sanitary Works v. Batliner, 904 N.E.2d 326, 334 (Ind. Ct. App. 2009) (noting that "[t]he mere fact that the sewer line extension will enhance the value of the subdivision to the developer does not alter the fact that there is a public benefit as well").

49. Condemnation Blight typically means "1. The reduction in value that the property targeted for condemnation suffers in anticipation of the taking. 2. The physical deterioration of property targeted for condemnation in anticipation of the taking." *Condemnation Blight*, BLACK'S LAW DICTIONARY (11th ed. 2019).

50. Berliner et al., *supra* note 10.

51. *Id.*

52. 924 A.2d 447 (N.J. 2007).

53. *Id.* at 449.

54. *Id.* at 465.

55. Berliner et al., *supra* note 10 (citing City of N. Kan. City v. K.C. Beaton Holding Co., 417 S.W.3d 825, 830–33 (Mo. Ct. App. 2014)).

Challenging the delegation of eminent domain requires consulting the relevant statutes, recognizing what may be restrictive state procedures for bringing such challenges, and building a fact-intensive record.[56]

Courts have continued to support delegating eminent domain power to entities performing a public purpose,[57] and have generally strictly construed the legislative language delegating eminent domain authority from state to local governments.[58] Legislators cannot delegate condemnation power for decisions that require sensitive policy decisions involving political questions such as whether or not the condemnation is necessary or proper.[59] Instead, proper delegation requires that the legislative body retain the authority to decide whether condemnation is required and provide meaningful guidelines for the authorized condemnation.

II. DELEGATING EMINENT DOMAIN POWER TO PRIVATE ACTORS FOR INFRASTRUCTURE NEEDS

A. Background

Beginning in the eighteenth and nineteenth centuries, federal and state governments delegated the power of eminent domain to private actors, including "turnpike, bridge, canal, and railroad companies," as well as to mill owners who could use eminent domain to "dam watercourses and flood neighboring land in order to power mills."[60] For example, federal law granted railroads the right to take private lands along the intended railway route and mill owners the right to erect mills that flooded neighboring riparian properties so long as they paid compensation.[61]

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56. *Id.*

57. *See* City & Cty. of Honolulu v. Sherman, 129 P.3d 542, 576 (Haw. 2006) (allowing the city's delegation of eminent domain to the Department of Community Services to file eminent domain actions for a lease-to-fee conversion of certain leased-fee interests); *see also* Gyrodyne Co. of America v. State Univ. of N.Y. at Stony Brook, 794 N.Y.S.2d 87, 88–89 (N.Y. App. Div. 2005) (holding that the university had "sufficient statutory jurisdiction and authorization" to acquire and develop property contiguous to the existing campus and that the university's Board of Trustees did not improperly delegate eminent domain power by authorizing the Chancellor to acquire title).

58. *See, e.g.*, City of Phoenix v. Harnish, 150 P.3d 245, 248–50 (Ariz. Ct. App. 2006) (strictly construing the legislative language against the condemnor to preclude city from using eminent domain to establish parks outside its municipal boundaries).

59. *See, e.g.*, Forest Pres. Dist. v. Brown Family Tr., 753 N.E.2d 1110, 1113, 1120 (Ill. App. Ct. 2001) (concluding that the challenged ordinance delegating eminent domain power to district staff was not improper because the ordinance did not give power to determine the political propriety of whether to condemn the property).

60. Abraham Bell, *Private Takings*, 76 U. CHI. L. REV. 517, 545 (2009).

61. *Id.* at 519.

States have historically delegated the eminent domain power to public utilities, including those that are private entities, and courts have historically upheld this authority as a public use.[62] While state law usually governs oil pipeline development and grants the power of eminent domain to these projects, when the pipeline crosses a border with a foreign country the federal executive branch must grant a permit after finding that the pipeline will "serve the national interest."[63] Private entities building power lines, highways, and other common carriers exercise eminent domain authority for public infrastructure without much objection.[64]

Granting a private taking power may be appropriate in situations where a private owner is preferable for justice or efficiency reasons and where there are strategic problems in the marketplace that "block the efficient or just transfer of property rights."[65] In such situations, private takings should be the method chosen to achieve the goals a public taking would bring about.[66]

However, despite the justice and efficiency rationales, there remains considerable opposition to private takings. Critics of private takings allege that private actors are less likely to serve in the public's interest and that the government is better suited to hold taken property because it is more likely to make decisions that benefit the public.[67] However, there are empirical studies showing that outsourcing to private providers is more efficient than public services, and the "current trend in public administration is toward privatization of public functions" including "hospitals, landfills, nursing homes, public transport, sewage,

62. Alexandra B. Klass, *Takings and Transmission*, 91 N.C. L. REV. 1079, 1105 (2013).

63. Ryan Harrigan, Comment, *TransCanada's Keystone XL Pipeline: Politics, Environmental Harm, & Eminent Domain Abuse*, 1 U. BALT. J. LAND & DEV. 207, 210 (2012) (quoting PAUL W. PARFOMAK ET AL., CONG. RESEARCH SERV., R41668, KEYSTONE XL PIPELINE PROJECT: KEY ISSUES 5 (2011)) (arguing that the Keystone XL Pipeline should not be constructed because "[t]he Framers of the Constitution did not intend for the eminent domain power to be exercised as it has been in the construction of Keystone XL").

64. Klass, *supra* note 62, at 1095–96.

65. *See* Bell, *supra* note 60, at 558–59 (proposing three keys to determine when and to whom the government should delegate the private taking power: 1) "likelihood of strategic barriers blocking efficient transfers"; 2) "some reliable mechanism for determining that the taking effectuates a transfer to a desirable owner" (just compensation is a basic requirement); and 3) "the pliability rule created by the private taking power should be superior to alternative pliability rules, or government mediation").

66. *Id.* at 585.

67. *Id.* at 575 (footnote omitted).

stadiums, fire protection, airports, water supply, and electric and gas utilities."[68]

State law gradually reduced the delegation of eminent domain power throughout the late nineteenth and early twentieth centuries, although "many states continue to permit railroads and utilities to undertake more limited private condemnations today."[69] A few states have even delegated power to miners, loggers, and transporters of water or irrigation.[70] The legislature may also grant the power to exercise eminent domain to private individuals and corporations that are under no obligation to serve the public.[71] For example, railroads are private corporations, but a state may give statutory authority to use eminent domain to acquire land or an easement to construct and operate a railway. Other public service corporations, such as telephone companies, electricity providers, and oil and gas companies, have received the power of eminent domain to secure rights-of-way.[72]

Private taking authority may be the most efficient and necessary pathway to increasing the use of renewable energy, by encouraging private companies entering the transmission market to undertake new transmission projects that increase renewable energy and maintain grid reliability.[73] These projects will most likely require using eminent domain, but if courts view them as not sufficiently public to authorize a private taking, it may be more difficult to "meet the nation's energy needs."[74]

There is a growing call for "democratizing" energy law such that citizen participation in "the field might better inject Americans'

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68. *Id.* at 576.

69. *Id.* at 545–46.

70. *Id.* at 546.

71. 26 AM. JUR. 2D *Eminent Domain* § 28.

72. *See* Shelley Ross Saxer, *Government Power Unleashed: Using Eminent Domain to Acquire a Public Utility or Other Ongoing Enterprise*, 38 IND. L. REV. 55, 82–85 (2005) (discussing state statutory and constitutional limitations on the eminent domain power). For purposes of brevity in this Article, oil and gas will be considered to be minerals, unless otherwise noted. *See* K.A.D., *Severance of Title or Rights to Oil and Gas in Place from Title to Surface*, 146 A.L.R. 880, at III.b (1943) (noting that "[i]t is well settled that oil and gas are 'minerals'" (citing 86 A.L.R. 983 (1933))).

73. *See* Klass, *supra* note 62, at 1115 (asserting that a lack of eminent domain authority will cause questions to be raised more frequently); Alexandra B. Klass, *Eminent Domain Law as Climate Policy*, 2020 WIS. L. REV. 49, 52 (2020) (advocating for the use of state eminent domain laws as a tool to promote clean energy projects).

74. *Id.* at 1114–15 (arguing for a broad interpretation of "the public" to include out-of-state electricity users as well as in-state users).

preferences and goals into decisions over energy policy."[75] We will need grid-wide changes to supply energy in the United States, yet unfortunately, the structure governing electric energy is a dense bureaucracy involving "federal, regional, state, and local oversight of for-profit, not-for-profit, and cooperatively owned ventures that manage the production, generation, transmission, transportation, and distribution of electricity."[76]

In the 1990s, the Federal Energy Regulatory Commission (FERC) fundamentally restructured its electricity regulations to allow wholesale markets rather than utilities to determine prices.[77] Not-for-profit "regional transmission organizations" (RTOs) or "independent system operators" (ISOs) manage these markets and participating utility transmission assets.[78] The federal government has "pushed" the eminent domain power to these private regional entities, which serve approximately two-thirds of U.S. customers, although some states have retained "full control over electricity generation, transmission, and distribution."[79]

As discussed briefly in Section I.B, state legislatures, state courts, and the public reacted quickly to the *Kelo* decision to narrow the scope of what constitutes a public use. However, states directed their efforts to restricting the economic development takings that the Court found to be constitutional in *Kelo*, rather than addressing other types of private takings for private gain, such as "takings by railroads, oil and gas companies, and coal companies to condemn private property for mineral

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75. Shelley Welton, *Grasping for Energy Democracy*, 116 MICH. L. REV. 581, 581 (2018).

76. *Id.* at 594.

77. *See* ELEC. ENERGY MKT. COMPETITION TASK FORCE, REPORT TO CONGRESS ON COMPETITION IN WHOLESALE AND RETAIL MARKETS FOR ELECTRIC ENERGY 3 (2007), https://www.ftc.gov/sites/default/files/documents/reports/electric-energy-market-competition-task-force-report-congress-competition-wholesale-and-retail/epact-final-rpt.pdf [https://perma.cc/PTX8-FCEV].

78. *Id.* at 3–4.

79. Welton, *supra* note 75, at 595–96 (noting that for purposes of energy democracy, this regulatory scheme is "complicated, multilayered, and immensely technical"); *see also* Emily Hammond & David B. Spence, *The Regulatory Contract in the Marketplace*, 69 VAND. L. REV. 141, 158 (2016) ("There are tradeoffs to be made among minimizing out-of-pocket cost to ratepayers, having a generation mix that is both reliable and flexible, and minimizing environmental externalities. Each of the major electricity generation source types—coal, natural gas, nuclear, hydro, wind, and solar—bring different strengths and weaknesses to the task of serving these three goals." (footnote omitted)).

access."[80] In particular, western states like Wyoming and Idaho encourage "takings by oil and gas companies to aid the efficient extraction of natural resources."[81] Perhaps, such natural resource development should not automatically constitute a "public use" and thus limit the authority of private entities to exercise eminent domain.[82]

B. Challenges to Eminent Domain Delegation

Federal and state governments have historically delegated the power of eminent domain to private actors and public utilities in circumstances where these entities provided public benefits. Property owners have successfully challenged the delegation of eminent domain when the taking does not serve a public use, the exercise does not strictly comply with statutory authority, requirements, procedures for delegation, or where there is a conflict regarding authority among governmental units. Although critics of private takings argue that the government will make decisions that are better for the overall public benefit, empirical studies show that private entities are able to provide public services more efficiently. In light of our need to increase the use of renewable energy and grid reliability, private taking authority may be the most efficient and necessary pathway to undertaking new transmission projects to achieve these goals. Future infrastructure development in many areas may best be accomplished by delegating the power of eminent domain to private actors.

The delegation of eminent domain power to private entities may be improper in light of the Fifth Amendment's command that taking private property requires a public use.[83] This section will discuss challenges to delegating eminent domain to private owners of oil and gas pipelines, electrical grids, mass transportation projects, and other nongovernmental entities. The need to reexamine federal and state statutory delegations to private entities has grown as our nation again faces the necessity to build or rebuild infrastructure for transportation,

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80. Alexandra B. Klass, *The Frontier of Eminent Domain*, 79 U. COLO. L. REV. 651, 673–75 (2008).

81. *Id.* at 675.

82. *Id.* at 700 (asserting that "it is time to consider the creation of a public forum at the state or local government level to weigh the needs of natural resource development interests against other economic, environmental, and social interests in making public use determinations").

83. *See* Kelly, *supra* note 10, at 174 (arguing that the *Kelo* opinion "arguably is *more* protective of property rights than O'Connor's dissent" in that the Court recognized "the possibility that a condemnation might violate the Public Use Clause of the Fifth Amendment if its purpose was pretextual").

the electrical grid, pipelines, and other major land assembly projects. As private property owners and communities increase their objections to the building of infrastructure required for new demands, such as transmitting renewable energy from remote locations to urban areas, questions as to whether these projects serve a "public use" will continue to arise.[84]

Recent state court decisions have restricted delegating eminent domain power to private entities unless the purpose strictly complies with the state statute. For example, in *Clarke County Reservoir Commission v. Robins Revocable Trust*,[85] the Iowa Supreme Court held that a public-private commission organized to locate, plan, and design a new reservoir for water supply, recreation, flood control, and erosion control did not have authority to exercise eminent domain to acquire private property.[86] The court utilized its "long-standing approach mandating strict compliance with statutory requirements in eminent domain proceedings."[87] It held that an entity created by a Joint Exercise of Governmental Powers agreement that included private members, not part of a state or local government in Iowa, did not have authority to exercise the power of eminent domain because a private entity lacks statutory authority "to exercise the power of eminent domain jointly through a 28E agreement."[88]

In the absence of statutory revisions to state or federal government delegations of the eminent domain power to private entities in areas other than private economic development, recent cases demonstrate that courts will strictly construe statutory authority to find that certain condemnations are not in compliance.[89] For example, in *Larson v. Sinclair Transportation Co.*,[90] the Colorado Supreme Court reviewed a challenge to a pipeline company's condemnation of easements over private land for purposes of running a second underground gasoline pipeline parallel to a prior pipeline for which it had owned an easement since 1963.[91] Viewing the issue as one of statutory interpretation, the

84. *See* Klass, *supra* note 62, at 1079, 1083–84 (noting "environmental and aesthetic objections" to new transmission lines to illustrate the public resistance to increased infrastructure development).

85. 862 N.W.2d 166 (Iowa 2015).

86. *Id.* at 168.

87. *Id.* at 172.

88. *Id.* at 176 (referring to a 28E entity under IOWA CODE § 28E.1).

89. *See generally* Dana Berliner, *Strict Construction in Eminent Domain Statutes*, 34 PRAC. REAL EST. LAW. 25 (2018).

90. 284 P.3d 42 (Colo. 2012) (en banc).

91. *Id.* at 43.

court narrowly construed the statute that delegated condemnation power to private pipeline companies and concluded that the legislature intended to confer eminent domain power for constructing electric power infrastructure, not for laying pipelines to transport petroleum.[92]

Similarly, the Massachusetts Supreme Court in *Providence & Worchester Railroad Co. v. Energy Facilities Siting Board*[93] strictly construed the eminent domain statute.[94] It determined the siting board had the "power to authorize an oil pipeline company to take land by eminent domain only for 'new' pipelines [and that] the board erred in claiming authority to exercise that power for the benefit of Mobil's existing pipeline, which is not 'new.'"[95] However, other state courts do sometimes uphold the use of eminent domain by private entities so long as the State has delegated this power and the appropriate authority has found that the acquisition is primarily for the benefit, use, or enjoyment of the public and is necessary for a public purpose.[96]

Statutory procedure violations may also engender a challenge to eminent domain. For example, some states require that before a public entity is entitled to exercise the right to condemn, it must make a good faith attempt to negotiate a purchase from the landowner.[97] In *Wagler v. West Boggs Sewer District, Inc.*,[98] the Indiana Supreme Court reviewed a non-profit corporation's efforts to condemn easements for sewer lines to provide sewage disposal service in rural counties.[99] West Boggs sent letters to landowners that did not donate their easements, offering to purchase their easements for a sum based upon an independent assessment of their values.[100] West Boggs brought condemnation

92. *Id.* at 45–46.
93. 899 N.E.2d 829 (Mass. 2009).
94. *Id.* at 835–38.
95. *Id.* at 838.
96. *See, e.g.*, Enbridge Energy (Ill.), L.L.C. v. Kuerth, 99 N.E.3d 210, 219 (Ill. App. Ct. 2018) (noting that Illinois may delegate eminent domain power "to railroads, pipeline companies, and other entities as long as the public is the primary intended beneficiary" and that the property owner has the burden to rebut presumptions of public use when "the Commission grants a certificate or makes a finding of public convenience and necessity for the acquisition of property for private ownership or control").
97. *See, e.g.*, Vill. of Memphis v. Frahm, 843 N.W.2d 608, 617 (Neb. 2014) (noting that a "public entity does not have the right to condemn without a good faith attempt to negotiate").
98. 898 N.E.2d 815 (Ind. 2008).
99. *Id.* at 816–17.
100. *Id.* at 817.

proceedings against those who either ignored or refused its offer to purchase.[101]

Property owners challenged the condemnation asserting that the West Boggs' offers to purchase were not in good faith as required by state statute.[102] The court reviewed the state requirements for filing a condemnation lawsuit and found the fact that West Boggs sought land donations before making the offers to purchase "did not undermine its ability to establish good faith as a matter of law when it was unable to secure all the easements by donation."[103] Because West Boggs hired an independent appraiser and used that appraisal in a uniform letter to property owners offering to purchase, the court held that as a matter of law, West Boggs met the requirement that it negotiate in good faith before using its condemnation authority.[104]

There are also conflicts regarding the authority that private actors and government officials possess to use eminent domain. For example, as we expand our transmission grid, conflict may arise among federal authority under FERC over the siting of interstate electric transmission lines and state jurisdiction over intrastate siting, local opposition to transmission line projects, and the use of eminent domain by government or private entities against landowners.[105] In addition, these conflicts among government units may result in condemnation of public property without the payment of just compensation as a superior government agency may acquire property from another governmental entity that already holds the property for the public use.[106]

III. THE AFTERMATH OF EMINENT DOMAIN

A. Redevelopment

Once the government or a private entity to which eminent domain power has been delegated condemns property for a public use, the condemnor holds title to the property and the condemnee loses all

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101. *Id.*
102. *Id.* at 819.
103. *Id.*
104. *Id.* at 820.
105. *See* Michael Diamond, Note, *'Energized' Negotiations: Mediating Disputes over the Siting of Interstate Electric Transmission Lines*, 26 OHIO ST. J. ON DISP. RESOL. 217, 219 (2011).
106. 4 HERBERT THORNDIKE TIFFANY, THE LAW OF REAL PROPERTY § 1252 (3d ed. 1975).

property rights.[107] There are exceptions, of course, depending upon the nature of the property interest condemned. For example, in the case of property taken for establishing railways, many of the property interests acquired were easements with the condemnee retaining the underlying estate in fee simple absolute, which would be free of encumbrance upon abandonment of the easement.[108] However, if the condemnor acquires a fee simple absolute in the property, the condemnee does not retain any interest in the condemned property unless there is a specific reversionary interest reserved at condemnation.[109]

Examples abound of property taken for a public use that ends up as surplus, unused when the proposed public project fails to happen, or abandoned for the particular use for which it was originally condemned.[110] For example, a state may take more property than it needs for a road or other infrastructure, a redevelopment project may fail because of changes in the economic picture, or infrastructure such as railroad tracks may be abandoned.[111] While the common law does not allow a condemnee to regain property in the event it is not employed for public use, several states have allowed a condemnee to reclaim property based on state statute or state constitutional provisions.[112]

State statutory provisions that allow a condemnee to reclaim property may limit that right to takings for particular purposes, such as for highways or schools. Some states have specific statutory provisions for highway or street takings that result in excess unused property.[113] Although the relief provided to condemnees may vary, if the condemnor has the right to sell or lease the excess, the condemnee may have the right of first refusal on current market terms or the right to reclaim the property after paying the full condemnation price plus any property improvement costs expended.[114] Arkansas allows a condemnee to recover land taken for a public school that becomes unused.[115] If the school closes within fifteen years of acquisition, the condemnee may recover unimproved land by paying the condemnation

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107. Lynda J. Oswald, *Can a Condemnee Regain Its Property if the Condemnor Abandons the Public Use?*, 39 URB. LAW. 671, 672 (2007).

108. *Id.* at 672–73.

109. *Id.* at 673.

110. *Id.* at 671.

111. *See id.* at 674.

112. *Id.*

113. *See id.* at 674–75 (discussing Rhode Island, Washington, Minnesota, North Carolina, and Arkansas).

114. *Id.* at 674–75.

115. *Id.* at 675.

price, or if the school closes more than fifteen years after acquisition, the condemnee may repurchase by paying the fair market value.[116]

Comprehensive reconveyance statutes were in effect in some states prior to the state eminent domain reforms that took place after the *Kelo* decision.[117] However, *Kelo* reforms in several additional states provided reconveyance rights to condemnees based on time limits for project completion for which the property was taken, time limits addressing abandonment, and time limits and condemnee repurchase rights if the unneeded condemned property is to be sold or transferred.[118]

Absent statutory provisions allowing condemnees to repurchase unused property when a proposed project fails to be completed, entire neighborhoods and communities have been destroyed without any eventual public benefit. In the early 1980s, the City of Detroit condemned the diverse community of Poletown—home to first and second generation Polish immigrants—to facilitate the expansion of a General Motors (GM) plant.[119] Some residents refused to sell and conducted a campaign to fight the condemnation that promised economic benefits in the form of local tax revenues and the creation of 6,000 jobs.[120] The resistance efforts eventually succumbed to defeat, most dramatically illustrated when Detroit police dragged protesters from a sit-in at one of the several Catholic churches in the neighborhood that were demolished to make way for the new plant.[121]

In the aftermath of this emotional upheaval, the close-knit community of 4,200 residents scattered into the suburbs, displaced by a GM plant complete with spacious surface parking, extensive landscaping, and only 3,000 employees.[122] Officially named the Detroit-Hamtramck Assembly Center, "neighbors, the media, and employees have always called the

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116. *Id.*

117. *See id.* at 675–77 (discussing state provisions in Texas, Kentucky, New York, New Hampshire, Rhode Island, and Montana).

118. *See id.* at 677–80 (discussing *Kelo* reforms in Louisiana, Florida, Alabama, Georgia, South Dakota, and Iowa).

119. Nathan Bu, Note, *Taking Stock: Exploring Alternative Compensation in Eminent Domain*, 49 COLUM. HUM. RTS. L. REV. 213, 225–27 (2018).

120. *Id.* at 226.

121. *Id.* at 226–27.

122. *See* Amy Crawford, *Can Poletown Come Back After a General Motors Shutdown?*, CITY LAB (Dec. 10, 2018, 3:57 PM), https://www.citylab.com/equity/2018/12/poletown-history-general-motors-hamtramck-shutdown/577678 [https://perma.cc/VZ9C-8ZWU] (noting that "Poletown had been a destination for Polish immigrants in the late 19th and early 20th century, but it was also home to African Americans and more recent immigrants from Albania, Yugoslavia, Yemen, and the Philippines" and that "[b]y all accounts everyone got along surprisingly well").

plant 'GM Poletown,' after the Detroit neighborhood—1,500 homes, 144 business, 16 churches—that was bulldozed to build it."[123] In 2018, GM announced that "GM Poletown," with 1,500 jobs, would be shut down even though "GM spent $121 million to renovate it less than five years ago."[124] At the time, city residents suggested that instead of repurposing the plant, the city should "[p]ut back the neighborhood [and r]e-grid the streets."[125] In other words, right the wrong by restoring the neighborhood.

The GM plant shutdown was delayed, but in late 2019 GM announced that it would start layoffs of 814 employees in February 2020 in order to retool the plant to build electric vehicles.[126] Workers will be offered the opportunity to take jobs at other plants while the plant is retooled. GM plans to invest $3 billion in the plant, create 2,225 new jobs, and begin building the electric vehicles in mid-2023.[127]

Obviously, the option no longer exists to restore Poletown. Or does it? Detroit could once again condemn the site of the former Poletown community to resurrect Poletown, reconnect Hamtramck with downtown Detroit, and take advantage of "a renaissance that is already spreading through some of Detroit's other old neighborhoods."[128] However, the city would need to weigh the benefits of such redevelopment against the cost to acquire the recently renovated GM plant and the associated loss of tax revenue and jobs. In addition, the city could face restrictions on any effort to use its condemnation power to promote economic development following the Michigan Supreme Court's 2004 decision in *County of Wayne v. Hathcock*,[129] which overruled its earlier decision in *Poletown Neighborhood Council v. City of Detroit*.[130] The *Hathcock* court did not accept the purpose of "alleviating unemployment and revitalizing the economic base of the community" as a permissible public use.[131]

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123. *Id.*
124. *Id.*
125. *Id.* (quotations omitted).
126. Kalea Hall, *GM Detroit Hamtramck Layoffs Start in February as Plant Retools*, DETROIT NEWS (Dec. 3, 2019, 7:08 PM), https://www.detroitnews.com/story/business/autos/general-motors/2019/12/03/gm-detroit-hamtramck-layoffs-starting-as-plant-retools/2601645001 [https://perma.cc/68D4-ETLS].
127. *Id.*
128. Crawford, *supra* note 122.
129. 684 N.W.2d 765, 787 (Mich. 2004).
130. 304 N.W.2d 455 (Mich. 1981) (per curiam), *overruled by* 684 N.W.2d 765 (Mich. 2004).
131. 684 N.W.2d at 787 (quotations omitted).

The 2005 U.S. Supreme Court decision in *Kelo v. City of New London* similarly rocked a local community and the nation when the Court upheld the taking of non-blighted private residential property for the purpose of aggregating land for private development anticipated to revitalize the City of New London and provide new job opportunities.[132] Even more distressing is the aftermath of the condemnation that destroyed a working-class neighborhood. Eminent domain expert Dana Berliner powerfully describes the aftermath ten years after the decision:

> No ten-year retrospective on the *Kelo* decision would be complete without noting its aftermath in New London. No building was ever constructed on the site of the condemned homes, or even in the project area more generally—just as the trial evidence had shown would be the case. The project site is now a field of weeds, a home for feral cats, and, occasionally, a dumping ground for storm debris. The original developer disappeared long ago, as have a string of subsequent developers, none of which have been able to finance the project. The only construction on the site has been some renovation of a building that New London obtained from the federal government. There has been no development at all on any property acquired by eminent domain or under threat of eminent domain. The most recent proposal also would build only on voluntarily-acquired property. Before condemnation, the area was a working-class neighborhood, where people knew their neighbors and where, in many cases, families had lived for generations. Now, it lies empty, as it has for the past nine years.[133]

Berliner also recounts many disconcerting stories of eminent domain prior to *Kelo*, including *Poletown*, taking homes in Texas for a shopping mall and forcing two residents to vacate at a time when "their spouses were in the hospital dying of cancer," condemning homes in Kansas for a racetrack, and others.[134]

When local governments condemn entire neighborhoods to assemble land for private development projects, the land is typically taken in fee simple absolute without a mechanism for returning the property to the original owners if the private entity promising jobs, tax revenue, and economic revitalization fails in its endeavors.[135] The ousted residents have lost their community, the municipality may be out millions of

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132. *See supra* notes 25–48 and accompanying text.

133. Dana Berliner, *Looking Back Ten Years After* Kelo, 125 YALE L.J. F. 82, 92–93 (2015) (footnotes omitted).

134. *Id.* at n.1.

135. Oswald, *supra* note 107, at 673.

dollars used to entice the private entity, and the potential aftermath of vacated property and lost jobs may haunt the local community for years.

This aftermath may also be applicable to situations where the local government—without needing to use its eminent domain power—offers incentives to corporations to build in their community, only to confront the impact of the corporation's later decision to close the plant or relocate outside of the community. However, the harms from plant closings are not as devastating as the harms that result from failed projects using eminent domain.[136] Instead, "the costs of eminent domain takings are greater even than those of major plant closings and are borne almost entirely by the residents who are dispossessed to make way for economic growth."[137]

In response to concerns about the potential for private entity abuse and failure after state or local governments use their eminent domain power to accomplish economic development by working with private actors, three categories of reforms have arisen to protect municipalities against their vulnerability in relying on private entities for a successful outcome.[138] First, some states enacted takings statutory reforms to require private recipients of public funds to remain in the community for a minimum period of time or repay tax benefits or other incentives, and allow governments to recover funds from failing companies.[139]

A second category of reform is based in corporate law and proposes that entities have "a fiduciary duty to a broad community of those with a stake in the corporation," including employees and host communities such that the corporation must mitigate the impacts of any plant closing.[140] The third category of reform is based on a "reliance interest

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136. David S. Yellin, Note, *Masters of Their Own Eminent Domain: The Case for a Reliance Interest Associated with Economic Development Takings*, 99 GEO. L.J. 651, 670–71 (2011).

137. *Id.* at 671.

138. *Id.* at 664.

139. *Id.* at 664–65 (noting that "because the apparent lack of political will to attach meaningful restrictions to takings makes legislative solutions infeasible" and "do little to prevent or to alleviate the broad economic harm that a private actor can wreak on a community"); *see also* Ivan C. Dale, Comment, *Economic Development Incentives, Accountability Legislation and a Double Negative Commerce Clause*, 46 ST. LOUIS U. L.J. 247, 266 (2002) (discussing "states and localities using accountability statutes and clawback provisions to recoup their investment when recipients fail to live up to their end of the bargain").

140. Yellin, *supra* note 136, at 665–66 (expressing doubt that this expansion of fiduciary obligations will occur and noting that "there has not been a fundamental departure from the traditional, shareholder-focused structure of corporate law").

in property" under common law.[141] Reliance is viewed as an interest in the legal system that protects a vulnerable party against a stronger party.[142] In the context of economic development, "this right would prevent the owner as traditionally conceived from simply severing ties with the community, and would instead grant all affected parties rights upon the termination of the relationship or closing of the plant."[143]

The majority in the *Kelo* case declined to increase the judicial scrutiny over eminent domain decisions. Instead, it required only a rational basis review to determine whether or not the condemning entity was asserting a public use.[144] In addition, it refused to require a showing that expected public benefits are likely to accrue with "reasonable certainty."[145] Thus, it is unlikely that local communities will be able to proactively protect themselves against private projects that are not required to show a "reasonable certainty" that they will successfully provide the anticipated public benefits promised in exchange for heavy costs paid by the residents whose land is condemned.[146]

Instead, some have proposed that such reliance rights should be recognized in favor of a government that grants subsidies, tax benefits, and other incentives.[147] Granting a protected reliance right to communities using eminent domain for economic development is just one potential proposal to "provide an after-the-fact remedy for those takings from which a public benefit never accrues because of the bad faith of a corporate actor."[148] In *Kelo*, the rush to acquire the Fort Trumbull region of New London in order to clear the property and make it shovel-ready for economic redevelopment is inapposite to the concept of new urbanism, which would encourage the integration of non-blighted properties into a mixed use, historic community.[149] As the plaintiff for whom the case is known, Susette Kelo and her pink

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141. *Id.* at 666–67 (citing Joseph William Singer, *The Reliance Interest in Property*, 40 STAN. L. REV. 611 (1988), as the most compelling and comprehensive of the various proposals for a reliance role).

142. *Id.* at 667.

143. *Id.* at 667–68 (expressing concern that "to read such a broad property interest into the law wherever a municipality has come to rely on a large corporate entity would work no less a change in corporate law than would the recognition of new fiduciary duties").

144. 545 U.S. 469, 488 (2005).

145. *Id.* at 487–88.

146. *See* Yellin, *supra* note 136, at 670.

147. *Id.* at 676 (citing Dale, *supra* note 139, at 281).

148. *Id.* at 671–73 (proposing "a right, in the nature of an easement").

149. Dwight Merriam, *Time to Make Lemonade from the Lemons of the* Kelo *Case*, 48 CONN. L. REV. 1569, 1574–75 (2016).

house received most of the attention before and after the *Kelo* decision. However, eminent domain expert Dwight Merriam underscores the mistreatment of fellow plaintiffs, Wilhelmina Dery and her husband Charles, as well as their son, who lived next door. Merriam points out that Wilhelmina was born in the house condemned by the project and lived there with her husband after they married.[150] Their son was given the house next door as a wedding gift.[151] Nine months after the *Kelo* decision, Wilhelmina died in the same room in which she was born.[152]

As noted above, ten years after the decision the Fort Trumbull site is still undeveloped. Merriam questions why Wilhelmina and her husband could not have been given a life estate and were instead required to immediately give up their fee simple interest.[153] He argues for a more humane condemnation process that reduces the uncompensated suffering when property of significant personal value is taken and suggests integrating non-blighted buildings "as part of a mixed-use development instead of destroying it to make way for a monoculture of residential uses[.]"[154]

The reforms discussed above may reduce the vulnerabilities of local governments to redevelopment promises made by private entities in exchange for eminent domain land assembly. State statutes restricting the timing of projects, requiring more upfront proof of realistic benefits to be achieved, and allowing communities to "claw back" subsidies or incentives when the anticipated benefits do not transpire are just one approach available to empower local communities. Another mechanism for obtaining an after-the-fact remedy for redevelopment is to recognize a reliance interest in the relationship between the government and a private entity seeking land assembly through eminent domain. In addition, there should be more flexibility in redevelopment projects such that not all of the structures must be cleared, and consideration should be given to allow some property owners to retain a life estate rather than immediately losing their fee simple interest. Finally, Merriam proposes providing free legal services and/or a property rights ombudsman to empower property owners during redevelopment planning and negotiations.[155]

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150. *Id.* at 1575.
151. *Id.*
152. *Id.*
153. *Id.*
154. *Id.* at 1576–77.
155. *Id.* at 1577–78 (describing existing ombudsman programs in Utah, Missouri, and Virginia that have been helpful).

B. Decommissioning

The United States and other parts of the world will be forced to deal with the physical changes to our land caused by climate change, technological changes, and revitalization of our infrastructure. Public and private activities addressing these challenges will likely interfere with private property rights. Based on our experiences with some of the early infrastructure ventures such as railroads and hydrologic modifications like dams, we should examine the methodologies used to address this interference with private property rights for the benefit of the public as well as the future implications of these takings.

As summarized in the NCA4 Report-in-Brief, the immediate and future challenges to our infrastructure from climate change are immense:

> Climate change and extreme weather events are expected to increasingly disrupt our Nation's energy and transportation systems, threatening more frequent and longer-lasting power outages, fuel shortages, and service disruptions, with cascading impacts on other critical sectors. Infrastructure currently designed for historical climate conditions is more vulnerable to future weather extremes and climate change. The continued increase in the frequency and extent of high-tide flooding due to sea level rise threatens America's trillion-dollar coastal property market and public infrastructure, with cascading impacts to the larger economy. In Alaska, rising temperatures and erosion are causing damage to buildings and coastal infrastructure that will be costly to repair or replace, particularly in rural areas; these impacts are expected to grow without adaptation. Expected increases in the severity and frequency of heavy precipitation events will affect inland infrastructure in every region, including access to roads, the viability of bridges, and the safety of pipelines. Flooding from heavy rainfall, storm surge, and rising high tides is expected to compound existing issues with aging infrastructure in the Northeast. Increased drought risk will threaten oil and gas drilling and refining, as well as electricity generation from power plants that rely on surface water for cooling. Forward-looking infrastructure design, planning, and operational measures and standards can reduce exposure and vulnerability to the impacts of climate change and reduce energy use while providing additional near-term benefits, including reductions in greenhouse gas emissions.[156]

In addition to planning for the infrastructure improvements and additions required due to climate change identified above, other condemnations based on new circumstances and policy changes compel us to plan for the aftermath of these takings. For example, condemnations

156. NCA4 VOLUME 2, *supra* note 2, at 17.

for pipelines have generated litigation as the fracking boom in the mid-2000s created the need for additional fossil fuel infrastructure.[157] Installing a wall at the southern U.S. border will require that the government use eminent domain to obtain the necessary property from private landowners and Native American tribes.[158]

Government agencies must choose between flooding downstream property to protect upstream property or vice versa when super storms produce substantial quantities of floodwater, often in a short amount of time. Electric utilities whose power lines cause wildfires and resulting floods face the prospect of compensating private landowners.[159] Mass transportation efforts, such as the California Bullet Train, will require negotiation and condemnation of both private and public property.[160] Finally, new technologies, such as drones that may occupy private airspace or satellite communications that support networks such as the Global Positioning System (GPS), will challenge our concepts of public and private property.[161] Rather than focusing only on the validity of these takings before they occur, we need to plan how to structure them with an eye toward the future to ensure that condemned property is fairly and efficiently reallocated once our infrastructure needs change and the taken property no longer serves a public use.

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157. Ilya Somin, *The Growing Battle over the Use of Eminent Domain to Take Property for Pipelines*, WASH. POST (June 7, 2016, 2:45 PM), https://www.washingtonpost.com/news/volokh-conspiracy/wp/2016/06/07/the-growing-battle-over-the-use-of-eminent-domain-to-take-property-for-pipelines [https://perma.cc/KA9F-FVQ9].

158. John Burnett, *Acquiring Private Land Is Slowing Trump's Border Wall*, NPR (Dec. 20, 2019, 5:09 AM), https://www.npr.org/2019/12/20/789725311/acquiring-private-land-is-slowing-trumps-border-wall [https://perma.cc/4AMF-HGDC].

159. *See, e.g.*, Derek Hawkins, *PG&E Reaches $13.5 Billion Settlement with California Wildfire Victims*, WASH. POST (Dec. 6, 2019, 11:47 PM), https://www.washingtonpost.com/nation/2019/12/06/pge-reaches-billion-settlement-with-california-wildfire-victims [https://perma.cc/E79J-VG9K] (describing how one California utility company settled suits related to four different major wildfires allegedly caused by its equipment).

160. *See* Ralph Vartabedian, *Bullet-Train Land Acquisitions Are Moving so Slowly a Judge Hearing the Cases Calls It a 'Lifetime Job'*, L.A. TIMES (Nov. 20, 2018, 4:00 AM), https://www.latimes.com/local/california/la-me-bullet-judge-201801120-story.html (explaining how protracted eminent domain litigation has pushed the rail project 13 years behind schedule).

161. *See, e.g.*, ROGER D. LAUNIUS, NASA, HISTORICAL ANALOGS FOR THE STIMULATION OF SPACE COMMERCE 1, 3 (2014) (using railroad development, telecommunications, and public works, among other projects, as case studies to encourage the involvement of the federal government in public-private efforts to support space commerce).

1. Railroads

Beginning in the 1830s, the federal government granted property to railroads to establish railroad routes and corridors.[162] Early judicial decisions interpreted these grants as conveying fee simple interests, and in 1880 the U.S. Supreme Court held that a federal grant between 1862 and 1871 for a railroad right-of-way would be a fee simple absolute interest retained by the railroad, even after railroad services ended.[163] However, in 1903 the Court revised its interpretation and held that, rather than the grants being in fee simple absolute, they were a fee simple interest subject to an implied condition of reversion to the federal government on the cessation of railroad services.[164] The Court applied this same interpretation to grants under the General Railroad Right-of-Way Act of 1875[165] (1875 Act) in *Rio Grande Western Railway Co. v. Stringham*[166] such that upon termination of a railroad route, the land would return to the federal government for future beneficial public uses.[167]

Under the Transportation Act of 1920,[168] the Surface Transportation Board (STB) is responsible for "regulating the construction, operation, and abandonment of railroad lines in the United States" so that railroads wishing to discontinue or abandon a railroad line must seek approval from the STB.[169] In 1922, Congress passed legislation that returned abandoned rail lines to the federal government by viewing federal grants to the railroads as "either a fee simple absolute or a limited fee with an implied condition of reverter."[170] However, the Court changed its course in the *Great Northern Railway*[171] decision in 1942, when the government successfully argued that the parcels

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162. Danaya C. Wright, *A New Era of Lavish Land Grants: Taking Public Property for Private Use and* Brandt Revocable Trust v. United States, PROB. & PROP., Sept./Oct. 2014, at 30, 31–32.

163. *Id.* at 33 (citing R.R. Co. v. Baldwin, 103 U.S. 426 (1880)).

164. N. Pac. Ry. Co. v. Townsend, 190 U.S. 267, 271 (1903), *superseded by statute*, Act of Mar. 8, 1922, Pub. L. No. 67-163, 42 Stat. 414 (codified at 43 U.S.C. § 912 (2012)).

165. 43 U.S.C. §§ 933–939 (amended 1884, 1976).

166. 239 U.S. 44 (1915), *abrogated by* Marvin M. Brandt Revocable Tr. v. United States, 572 U.S. 93, 102–04 (2014).

167. *Id.* at 47.

168. Pub. L. No. 66–152, 41 Stat. 456 (current version at 49 U.S.C. §§ 1301–1326 (Supp. V 2018)).

169. Buford v. United States, 103 Fed. Cl. 522, 525 (2012) (citing Chi. & N.W. Transp. Co. v. Kalo Brick & Tile Co., 450 U.S. 311, 311–12 (1981); Caldwell v. United States, 391 F.3d 1226, 1228 (Fed. Cir. 2004)).

170. Wright, *supra* note 162, at 33 (citing 43 U.S.C. § 912).

171. Great N. Ry. Co. v. United States, 315 U.S. 262 (1942).

underlying railroad rights-of-way over public lands granted under the 1875 Act were owned by the government because the rights-of-way were mere easements.[172] The *Great Northern Railway* Court allowed the government to retain subsurface rights and enjoin the railroad from oil drilling beneath its right-of-way over public lands.[173]

Thereafter, it was generally recognized that rights of way granted to railroads before 1871 were in fee simple but would revert to the federal government upon abandonment. However, grants to railroads after 1875 conveyed only an easement that would terminate when a rail corridor was abandoned. Such an abandonment would leave the underlying land free of the easement encumbrance.[174] Of course, if the government still owned the underlying land, it could continue to put it to beneficial use for the public. However, in many cases the federal government had sold the underlying land to private landowners and extinguishing the right-of-way easement by abandonment would allow these private landowners to own the land outright.[175] The federal government attempted to address this problem by amending the National Trails System Act (NTSA)[176] in 1988, also known as the "Rails-to-Trails Act," to provide that any government grant for a railroad right-of-way conveyed after 1988 would revert to the government if abandoned, "even if the underlying land had been sold by the government into private ownership."[177]

As explained in an article discussing the 2014 *Marvin M. Brandt Revocable Trust v. United States*[178] decision,[179] extensive litigation has followed the 1983 amendment to the NTSA.[180] This Act authorized "railbanking" to permit recreational trail use of railroad corridors that

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172. *Id.* at 271; *see also* Marvin M. Brandt Revocable Tr. v. United States, 572 U.S. 93, 102–04 (2014).

173. *Great N. Ry. Co.*, 315 U.S. at 278.

174. Travis A. Beaton et al., *Staying on Track with Trains and Title Issues: Ownership and Use of American Railroad Rights-of-Way*, PROB. & PROP., Nov./Dec. 2019, at 18, 19–20.

175. *Id.* at 20.

176. Pub. L. No. 90-543, 82 Stat. 919 (1968), *amended by* National Trails System Improvements Act of 1988, Pub. L. No. 100-470, 102 Stat. 2281 (codified at 16 U.S.C. §§ 1241, 1248 (2018)).

177. Beaton et al., *supra* note 174, at 20.

178. 572 U.S. 95 (2014).

179. Shelley Ross Saxer, *"Rails-To-Trails": Potential Impact of* Marvin M. Brandt Revocable Trust v. United States, 48 LOY. L.A. L. REV. 345, 361–67 (2014).

180. National Trails System Act Amendments of 1983, Pub. L. No. 98-11, 97 Stat. 42 (codified at 16 U.S.C. § 1241 (2012)).

are in the process of abandonment in order to preserve the railroad right-of-way for future railroad use.[181]

> Adjoining landowners have claimed that they are entitled to the corridors when the railroad has abandoned its use of the easements. These litigants have argued that the government should use eminent domain to obtain these trail rights or be forced to pay damages for a Fifth Amendment taking based upon the NTSA, which provides that this temporary use "shall not be treated, for purposes of any law or rule of law, as an abandonment of the use of such rights-of-way for railroad purposes."[182] Although it is a federal statute that precludes treating the recreational uses as abandonment of the railroad right-of-way, the actual possession and conversion to recreational uses is performed by third parties, such as non-profit organizations and state or local government agencies. However, it has been the U.S. federal government (the "Government") that is required to pay just compensation when any taking is found.[183]

In order to determine whether the abandonment of a railroad corridor will return the underlying land to the federal government or to a private landowner, the railroad's property interest must be classified according to when the federal grant was conveyed.[184] If the right-of-way was granted before 1871, the railroad has a fee simple interest in the property no matter who owns the underlying land and upon abandonment the federal government retains full rights.[185] If the right-of-way was granted between 1871 and 1875, the text of the specific congressional act will determine the classification of rights.[186] If the federal government granted the right-of-way between 1875 and 1988, the railroad owns an easement, and upon abandonment of that easement, the unencumbered property will now be held by the underlying landowner, either a private owner or the federal government.[187] After 1988, any federal grants for a railroad right-of-way will revert to the government after abandonment, even if the underlying land has been sold to a private party.[188]

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181. 16 U.S.C. § 1247(d); *see also* Caldwell v. United States, 57 Fed. Cl. 193, 194 (2003) (explaining that railbanking is the process whereby "[t]he right-of-way is 'banked' until such future time as railroad service is restored").

182. 16 U.S.C. § 1247(d) (2012).

183. Saxer, *supra* note 179, at 347–48 (footnotes omitted).

184. *See* Beaton et al., *supra* note 174, at 20.

185. *Id.*

186. *Id.*

187. *Id.*

188. *Id.*

Classifying the property interest held by the railroad, the federal government, and a private landowner between 1875 and 1988 for purposes of determining whether the Rails-to-Trails Act constitutes a Fifth Amendment taking requires three main steps. These steps turn on how a court classifies the property interest.[189] First, a court must determine whether the interest is a fee simple or an easement.[190] Second, assuming the interest is an easement, the court must determine whether railbanking is "within the scope of the original easement."[191] Finally, a court must determine whether any actions of the railroad that owns the easement has effectively terminated the property interest.[192]

In addition to determining whether the Rails-to-Trails Act effects a taking when railroad rights-of-way are dedicated to trail and hiking use upon abandonment of the tracks, classifying the underlying land interests as either public or private will likely impact the development of a high-speed rail network. If existing railroad rights-of-way can be used for building a high-speed rail, developers seeking to build these new transportation options will not be faced with purchasing or condemning corridors from private landowners.[193] These title issues will be significant as infrastructure pressures require existing corridors be available for the efficient and cost-effective development of high-speed rail.[194]

2. Dams

Hydrological modifications of our nation's waterbodies likely began with the dual goals of storing water and controlling its distribution for irrigating crops and defending against unwanted water flows.[195] Small dams were constructed in the Northeast during the industrial revolution and the Flood Control Act of 1936[196] encouraged the U.S. Army Corps of Engineers to construct levee systems in the Midwest, South, and Southeast to manage development of the floodplains and wetlands.[197]

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189. Saxer, *supra* note 179, at 349–50 (footnotes omitted).

190. *Id.* at 349–50.

191. *See id.* at 350–52 (emphasis omitted) (noting that "a majority of courts have found, either through analysis of conveyances or through agreement or concession of the parties, that the type of interests originally acquired by the railroads were easements").

192. *Id.* at 350.

193. *See* Beaton et al., *supra* note 174, at 22–23 (describing how AMTRAK has constructed parallel tracks in current rights-of-way while it improves existing tracks).

194. *Id.*

195. *See* Michelle Ho et al., *The Future Role of Dams in the United States of America*, 53 WATER RESOURCES RES. 982, 982 (2017).

196. Pub. L. No. 74-738, 49 Stat. 1570 (codified as amended at 33 U.S.C. § 701 (2018)).

197. *See* Ho et al., *supra* note 195, at 984.

Following the enactment of the Reclamation Act in 1902,[198] the Bureau of Reclamation enabled the construction of major dams in the West for purposes of agricultural irrigation and hydroelectric energy production.[199]

The government-permitted dams were designed for a physical lifetime of fifty years, even though most of them have remained for longer than this expected timeframe.[200] Since 1998, up through the current report card issued by the American Society of Civil Engineers (ASCE) in 2017, the country's more than 91,000 dams have received a grade of "D" for safety.[201] This subsection will discuss the decommissioning of dams based upon adverse environmental impacts, increased maintenance and safety concerns, and climate change considerations.

Dams provide the opportunity to use hydroelectricity as an energy source and move away from fossil fuels that so heavily contribute to climate change.[202] However, dams have also destroyed ecosystems and contributed to the decline of migrating fish and water quality.[203] Dams in the U.S. are being removed at an accelerated rate since the mid-seventies.[204] From 1976 to 2014, 1,040 dams were removed with no plans to build more, while up until 1975, only forty-six dams had been removed.[205] The major reason for removing dams in the U.S. is their age and the need to comply with increasingly strict regulations when a dam is relicensed by the government.[206] However, the trend in dam removal that began in the 1970s arose at a time when the issue of climate change was not at the forefront of environmental concerns. By removing hydroelectric dams, other sources of energy such as fossil fuels will increase, but the call for renewable energy may lead to building new dams for green energy generation and storing water to confront prolonged droughts caused by climate change.[207]

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198. Pub. L. No. 57-161, 32 Stat. 388 (codified as amended at 43 U.S.C. §§ 371–616 (2012)).

199. Ho et al., *supra* note 195, at 984.

200. *Id.* at 984–85.

201. Jacques Leslie, *The Dam Truth: The 91,000 Dams in the US Earned a "D" for Safety*, MOTHER JONES (July 23, 2019), https://www.motherjones.com/environment/2019/07/the-dam-truth-the-91000-dams-in-the-us-earned-a-d-for-safety [https://perma.cc/6NQE-9ALW].

202. *See* Lizzie Wade, *The Death and Birth of the American Dam*, WIRED (May 19, 2016, 7:00 AM), https://www.wired.com/2016/05/death-birth-american-dam [https://perma.cc/Y78A-4ZUT].

203. *Id.* (arguing that while dams prevent dependence on fossil fuels, they are also so harmful to local ecosystems that their demolition is necessary).

204. *Id.*

205. *Id.*

206. *Id.*

207. *Id.*

In addition to providing hydropower as a source of clean energy, dams also function to deliver water storage, flood control, and recreation.[208] However, dam removal has been very effective in restoring rivers such that many have observed that "previously blocked fish habitat open up, fish survival and productivity increase, water quality improves, vegetation grows, and natural ecosystems return."[209] As the net total energy produced from hydroelectric dams declines, economic decisions will govern whether to remove a dam or try to update it in order to meet stricter environmental regulations at a cost that exceeds the value of the hydroelectric power generated.[210] Professor Dan Tarlock predicts that the value of hydroelectricity "will continue to be subordinated to aquatic ecosystem conservation"[211] and that public policy debate will balance "the benefits of the electric power . . . against its effects on the ecosystem."[212]

The dam relicensing process under the Federal Power Act (FPA)[213] is administered by FERC.[214] Since hydropower use depends on hydrologic conditions, recent fluctuations in hydrologic patterns—reduced precipitation, more frequent droughts, growing water usage, and climate change generally—have significantly altered "the dynamics

208. Catherine Danley, *Battle Royale: The Fight over Sea Lions, Salmon, and Hydroelectric Dams in the Columbia River*, 41 ENVIRONS ENVTL. L. & POL'Y J. 1, 6 (2017).

209. *Id.* at 35.

210. *Id.* at 37–38 (noting that "the net total energy production in the U.S. from hydroelectric dams dropped to seven percent in 2013 as 'other sources have been added to the nation's energy portfolio'" (quoting U.S. DEP'T OF ENERGY, HYDROPOWER VISION: A NEW CHAPTER FOR AMERICA'S 1ST RENEWABLE ELECTRICITY SOURCE 76 (July 26, 2016), https://www.energy.gov/eere/water/articles/hydropower-vision-new-chapter-america-s-1st-renewable-electricity-source [https://perma.cc/WF25-LY5G])); *see also* Adell L. Amos, *Dam Removal and Hydropower Production in the United States—Ushering in a New Era* (Oct. 5, 2013), *in* 29 J. ENVTL. L. & LITIG. 1, 16 (2014) (noting that "[i]f an applicant is applying for a license or a relicense and the amount to alter the project for fish ladders and the release of water for water quality flows or other requirements from these processes becomes too expensive the financial viability of the project from the private applicant's perspective changes").

211. *See* Dan Tarlock, *Hydro Law and the Future of Hydroelectric Power Generation in the United States*, 65 VAND. L. REV. 1723, 1766 (2012).

212. *Id.* at 1767 (quoting NAT'L RESEARCH COUNCIL, ELECTRICITY FROM RENEWABLE SOURCES: STATUS, PROSPECTS AND IMPEDIMENTS 99 (National Academies Press 2010)).

213. 16 U.S.C. § 797(e) (2018). The statute's references to Federal Power Commission (FPC) are now synonymous with the FERC. *See* Department of Energy Organization Act, 42 U.S.C. § 7172(a)(1)(A) (2012) (vesting the FPC function of issuing and renewing dam licenses and permits to FERC).

214. Amos, *supra* note 210, at 2 (explaining that early dam removals in the eastern United States were not within FERC's jurisdiction and were removed because they were no longer economically viable).

and justification" of some facilities.[215] Moreover, these large structures deteriorate over time, which generates maintenance and safety issues and impacts hydropower capacity.[216]

The FERC relicensing process provides an opportunity to evaluate whether a dam should be retrofitted to produce "an ecologically responsible amount of hydropower," or whether it should be removed and the ecosystem restored.[217] The FPA provides a regulatory framework for making difficult decisions about dams and the need to finance maintenance, safety, and environmental upgrades or to seek removal with its attendant costs to FPA licensees and the public.[218] Dams and their spillways that present safety risks due to structural deterioration or aged design should also be addressed.[219]

In 2018, the Department of Civil and Environmental Engineering at Stanford University in conjunction with the National Performance of Dams Program (NPDP) published "a compilation of data summaries on dam failures and the life safety consequences from the flooding caused by failures that have occurred in the United States."[220] The report noted that while there is an average of ten dam failures a year, as measured between 1848 to 2017, more than ninety-six percent of the time "the flooding that occurs when a dam is breached does not

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215. *Id.* at 4–5.

216. *Id.* at 5.

217. *Id.* at 26–27.

218. *Id.* at 28; *see also* Christopher Scoones, *Let the River Run: Strategies to Remove Obsolete Dams and Defeat Resulting Fifth Amendment Taking Claims*, 2 SEATTLE J. ENVTL. L. 1, 22 (2012) (noting that "FERC is free to condition the issuance of a hydropower license on protecting or restoring environmental values, even if the cost of meeting these conditions makes the project economically unviable and forces it to shut down").

219. *See* Scoones, *supra* note 218, at 4 (noting that, as of 2020, eighty percent of our dams are more than fifty years old). For example, California's Oroville Dam is the tallest dam in the United States and deterioration of its spillways in 2017 caused thousands of residents to be evacuated. *See* Samantha Schmidt et al., *188,000 Evacuated as California's Massive Oroville Dam Threatens Catastrophic Floods*, WASH. POST (Feb. 13, 2017, 4:13 PM), https://www.washingtonpost.com/news/morning-mix/wp/2017/02/13/not-a-drill-thousands-evacuated-in-calif-as-oroville-dam-threatens-to-flood [https://perma.cc/4NUJ-6XYX]; *see also* Martin W. McCann, Jr., *The Oroville Incident—An Opportunity for Dam Safety*, INT'L WATER POWER & DAM CONSTRUCTION (July 12, 2017), https://www.waterpowermagazine.com/features/featurethe-oroville-incident-an-opportunity-for-dam-safety-5868893 [https://perma.cc/8HB5-F2YC].

220. NAT'L PERFORMANCE OF DAMS PROGRAM, DEP'T CIV. & ENVTL. ENGINEERING, STANFORD U., DAM FAILURES IN THE U.S. 1 (2018), http://npdp.stanford.edu/sites/default/files/reports/npdp_dam_failure_summary_compilation_v1_2018.pdf [https://perma.cc/TSG2-P8ML] (footnote omitted).

result in life-safety consequences or significant property damage."[221] However, the less than four percent of dam failures that cause fatalities have been catastrophic in nature, resulting in the death of 3,495 people.[222]

The effects of climate change, such as alterations in temperatures and precipitation schedules, will "positively and negatively" affect water flow and reservoir levels across the globe.[223] These changes will inevitably impact hydroelectric power as different demands—energy generation, instream flows for endangered species, flood protection, and consumptive water use—vie for priority in an environment of shifting water availability.[224] The importance of hydro power as a renewable energy source cannot be underestimated; however, it is likely that in the future it will "fluctuate between marginal increases in capacity, primarily from little hydro, and the continued imposition of operating constraints and the removal of old dams."[225]

In order to build the dams initially, licensees were entitled to use eminent domain under federal statute to condemn the land to be flooded.[226] Because the State holds the title to land under navigable waters, the State retains this right to the submerged original riverbed as well as to any private or state land that is flooded by the federal dam construction.[227] Once the dam is removed and the submerged land reappears, the State retains title to the previously flooded land as well as the original riverbed—"title to newly exposed lands . . . does not transfer away from the state to the previously riparian owner."[228]

When dams are decommissioned and removed, the aftermath of such actions may arguably constitute a taking of the dam owner's

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221. *Id.* at 1. The largest dam disaster occurred in 1889 when the South Fork Dam failed killing 2,209 people in Johnstown, Pennsylvania. *Id.* The 1928 failure of the St. Francis Dam in California resulted in the loss of 450 lives. *Id.* Thus, 90% of the fatalities occurred before 1960. The data compiled shows that "[f]ailures can occur during any stage of a dam's operation" with "approximately 12% of failures occur[ring] during initial reservoir filling or during the first 10 years of operation" and "[o]ver 10% of dam failures occur[ring] when dams are 100 years or older." *Id.* at 6–7. A compilation of dam failure facts and analysis will be updated and expanded, and future updates are available on the NPDP website at Stanford.

222. *Id.* at 1, 7.

223. Tarlock, *supra* note 211, at 1738.

224. *Id.* at 1741–43.

225. *Id.* at 1766–67.

226. Scoones, *supra* note 218, at 50 (citing 16 U.S.C. § 814 (2018)).

227. *Id.* at 50–52.

228. *Id.* at 53.

property under the Fifth Amendment or under state takings law.[229] However, denial of a dam relicensing by FERC will likely not be considered a taking as license renewal is an expectation, not a property right.[230] In addition, if the physical dam structure is located on a navigable waterway, a taking claim by dam owners will be precluded by the federal navigation servitude under the Commerce Clause.[231] It is unlikely that a dam owner will "prevail on any taking claims for economic loss of the project's surrounding lands" as judged by the three-factor partial regulatory takings inquiry[232] from *Penn Central Transportation Co. v. New York City*.[233] Finally, a takings claim for a loss of water rights will not be successful as the dam owner's water rights before the decommissioning are based on state laws or water rights and are not affected by FERC's license denial.[234]

Dam owners may not be able to assert a successful takings claim, but what about other private property owners that are impacted by a decommissioning and removal? Potential takings claims may arise from owners of riparian property who own usufructuary rights such as:

> the right to the flow of the stream, the right to make a reasonable use of the waterbody, the right of access to the waterbody, the right to fish, the right to wharf out, the right to prevent erosion of the

229. *See* Michael A. Swiger et al., *Paying for Change: Can the FERC Force Dam Decommissioning at Relicensing?*, 17 ENERGY L.J. 163, 174 (1996) (discussing whether decommissioning at license renewal might be a regulatory taking).

230. *See* A. Dan Tarlock, *Takings, Water Rights, and Climate Change*, 36 VERMONT L. REV. 731, 746 (2012) (noting that "grazing-right cases confirm that denial of a federal permit-which is a license, not a property right-that prohibits use of a water right is not a taking because there is no deprivation of the water right because it may be transferred to other users" (citing Colvin Cattle Co. v. United States, 468 F.3d 803, 807–08 (Fed. Cir. 2006); Sacramento Grazing Ass'n v. United States, 96 Fed. Cl. 175, 189 (2010); Walker v. United States, 79 Fed. Cl. 685, 706 (2008); Walker v. United States, 162 P.3d 882, 888–92, 895 (N.M. 2007))); *see also* Katharine Costenbader, Comment, *Damning Dams: Bearing the Cost of Restoring America's Rivers*, 6 GEO. MASON L. REV. 635, 639, 662–63 (1998) (noting that the hydropower industry has argued that FERC dam decommissioning at relicensing is a regulatory taking, but concluding that "decommissioning does not require compensation for the value of the project works, the project lands, or the value of the water use rights").

231. *See* Scoones, *supra* note 218, at 29–30.

232. *Id.* at 31–32.

233. 438 U.S. 104, 124 (1978) (enumerating the partial regulatory takings test that examines the economic impact on the claimant, "the extent to which the regulation has interfered with distinct investment-backed expectations . . . [and] the character of the governmental action").

234. *See* Scoones, *supra* note 218, at 37.

> banks, the right to purity of the water, and the right to claim title to the beds of nonnavigable lakes and streams.[235]

However, these natural riparian rights may differ from the riparian rights that apply to artificially created waterbodies, such as lakes created by dams or reservoirs.[236]

Property owners whose downstream lands are flooded by dam removal may claim a physical taking, similar to claims made by downstream landowners when water is released from reservoirs or dams to prevent damage to the structure or to prevent flooding in other neighborhoods.[237] The *In re Downstream Addicks & Barker (Texas) Flood-Control Reservoirs*[238] case involved downstream landowners whose private property in Harris County was flooded by Hurricane Harvey in 2017, an event determined to be a 2000-year to a greater than 5000-year flood.[239] The storm overwhelmed the capacity of two dams built by the federal government in the 1940s to protect residents against flood damages.[240]

In response to the downstream residents' claims, the court held that "under both federal and state law, plaintiffs lack the requisite property interest in perfect flood control in the face of an Act of God, and thus cannot succeed on their takings claims."[241] The Court of Federal Claims found that "a 'natural phenomenon'—or Act of God—cannot trigger takings liability" because "the government cannot be held liable under the Fifth Amendment for property damages caused by events

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235. *Id.* at 47.

236. *Id.* at 47–50 (observing that a riparian (either artificial or natural) landowner's loss of contact with the water after a dam has been removed will not likely be considered a taking so long as they retain access to the water) (citing Walton Cty. v. Stop the Beach Renourishment, Inc., 998 So. 2d 1102, 1114 (Fla. 2008), *aff'd sub nom.* Stop the Beach Renourishment, Inc. v. Fla. Dep't of Envtl. Prot., 560 U.S. 702, 729–33 (2010)).

237. *Id.* at 54–55 (noting that "[w]here, however, intermittent flooding naturally occurred prior to the installation of an artificial structure, courts are less likely to find a physical taking" (discussing Leeth v. United States, 22 Cl. Ct. 467, 485–88 (1991), and Laughlin v. United States, 22 Cl. Ct. 85, 102 (1990))); *see* Alford v. United States, 961 F.3d 1380, 1382, 1386 (Fed. Cir. 2020) (finding that the government was not liable for flooding a lake to protect a levee which damaged the plaintiffs property because "[t]he damage to the plaintiffs' properties from a levee breach would have exceeded the damage caused by raising the lake water levels"). *But see* Ark. Game & Fish Comm'n v. United States, 568 U.S. 23, 34 (2012) (holding that "government-induced flooding of limited duration may be compensable").

238. 147 Fed. Cl. 566 (2020).

239. *Id.* at 572–73.

240. *Id.* at 570.

241. *Id.* at 576.

outside of the government's control."[242] Nevertheless, in situations where the government controls the licensing of dams and reservoirs and determines that removal is necessary, the decommissioning that causes downstream flooding is within the government's control.

The U.S. Supreme Court decision in *Arkansas Game & Fish Commission v. United States*,[243] may provide better guidance as to whether downstream flooding from dam removal should be subject to takings liability. In *Arkansas Game*, the U.S. Army Corps of Engineers (the "Corps") authorized water releases to benefit farmers from the Clearwater Dam, built by the Corps in 1948, but such releases ultimately interfered with the tree-growing season in an area managed by the Commission.[244] This interference destroyed timber in the area, resulted in "costly reclamation measures," and "constituted a taking of property that entitled the Commission to compensation."[245]

The Court previously recognized that "government-induced flooding can constitute a taking" and that "seasonally recurring flooding could constitute a taking."[246] Therefore, the Court in *Arkansas Game* found that "[b]ecause government-induced flooding can constitute a taking of property, and because a taking need not be permanent to be compensable, our precedent indicates that government-induced flooding of limited duration may be compensable."[247] Thus, it remains unclear as to whether government action to flood downstream properties will be subject to a takings claim. Such government action may occur when there is an extraordinary storm event, when the government releases water to favor one landowner over another, or when the government decommissions a dam in light of environmental impacts, public safety, or climate change.

3. Wells and mines

Wells and mines may not require the use of eminent domain when they are initially dug by private landowners or private companies; however, water wells, mines, and oil and gas wells that are no longer active are subject to decommissioning and capping as necessary for public health and safety. The existence and closing down of deserted

242. *Id.* at 583.
243. 568 U.S. 23 (2012).
244. *Id.* at 27–28.
245. *Id.* at 23.
246. *Id.* at 32 (discussing Pumpelly v. Green Bay Co., 80 U.S. (13 Wall.) 166 (1872) and United States v. Cress, 243 U.S. 316, 328–29 (1917)).
247. *Id.* at 34 (declining to create a "blanket temporary-flooding exception to our Takings Clause jurisprudence").

mines and wells will affect surface landowners, and the nature of the operation and regulatory laws will govern subsurface ownership.[248]

Wells dug for water may be subject to decommissioning or abandonment when community water supplies replace individual wells and cisterns. These wells need to be properly sealed to prevent future groundwater contamination and safety threats to children, animals, and even adults.[249] Similarly, the owners or lessees of oil and gas wells are subject to duties and liabilities when wells are abandoned or taken out of production.[250] States were concerned about the environmental effects of plugging wells long before they were concerned about climate change issues; the first oil and gas regulations were plugging statutes dating back to the late-1800s.[251]

Until abandoned mines were subject to regulation after the environment movement in the 1970s, most mining operations left behind waste, shafts, chemicals, and equipment upon ceasing and abandoning production.[252] Heavy-metal pollution from these sites contaminates stormwater runoff, groundwater, and ambient air, posing significant health issues for nearby communities and adversely impacting water quality, fish, endangered species, and entire ecosystems.[253] Remediation of abandoned mines is costly, with estimates between $32.7 and $71.5 billion dollars for mines located in the United

248. *See* W.E. Shipley, *Grant, Reservation, or Exception as Creating Separate and Independent Legal Estate in Solid Minerals or as Passing Only Incorporeal Privilege or License*, 66 A.L.R.2D 978, § 3 (1959) (noting that "[c]onveyances of rights or interests in minerals in place have frequently been construed as creating in the grantee a separate and independent estate in the land, as against the contention that there passed only a right or privilege of lesser dignity, such as an easement, profit, or license").

249. Thomson Reuters, *50 State Regulatory Surveys: Environmental Laws: Health and Safety, Abandoned Wells*, 0070 REGSURVEYS 1 (Apr. 2020); *see also* Sarah Wilson and Johny Fernandez, *Trapped Man Rescued from Well in DeLand, Says He Went in 'Just to Say that He Did'*, WFTV9 ABC (Nov. 2, 2018, 9:32 PM), https://www.wftv.com/news/local/trapped-man-rescued-from-well-in-deland-says-he-went-in-just-to-say-that-he-did/863576481 [https://perma.cc/BD4P-XVP2] ("When you come across an open shaft of any kind that goes down into the well, stay away from it. We need to get it marked, and sealed up somehow, and get a barrier around it so we can try to prevent people from going down in these things.").

250. Douglas Hale Gross, *Duty and Liability as to Plugging Oil or Gas Well Abandoned or Taken out of Production*, 50 A.L.R.3d 240, at I. § 2[a] (1973).

251. *Id.*

252. Rhett B. Larson, *Orphaned Pollution*, 45 ARIZ. ST. L.J. 991, 997 (2013).

253. *Id.* at 997–98.

States.[254] So while remediation is in the public interest, there has been little progress to address these orphaned mines.[255]

Offshore oil wells and their platforms present international challenges as many of them have been plugged temporarily after abandonment and may be leaking and creating adverse environmental impacts.[256] Although decommissioning regulations are well-established, similar to those involving onshore oil and gas wells, the process is expensive and may prohibit entry into the market, result in companies facing bankruptcy, and create the possibility that taxpayers may end up paying for the process.[257] Government regulators will need to monitor temporarily plugged wells to assure that they are not harming the environment and develop strategies to address the permanent decommissioning of wells and platforms in the future.[258]

Onshore oil and gas wells present similar difficulties. The current situation in Los Angeles, California, illustrates the profound challenges created by abandoned oil and gas wells, especially when they are located in urban areas. Southern California was home to rich oil fields as evidenced by the La Brea Tar Pits, now a tourist spot, where oil oozed to the surface.[259] The discovery of oil brought oil-drilling companies to Los Angeles to capture the fossil fuel and drain the sites, leaving "nearly 1,000 wells across the city, in rich and poor neighborhoods, deserted by their owners and left to the state to clean."[260] While Los Angeles has regulatory powers that may exceed the state's powers, it has not "provided adequate oversight of the industry," and city officials have failed to ensure the proper closing down and plugging of old wells.[261] Instead, residents near these wells have suffered from toxic fumes, and inspectors have found that many of these sites are leaking

254. *Id.* at 1031.

255. *Id.* at 1031–32 (proposing regulatory reform and incentives to encourage Corporate Social Responsibility (CSR) from the mining industry).

256. *See* Evan J. Atkinson, Note, *Growing Concerns over Decommissioning and Temporarily Plugging Offshore Rigs off the Coast of the United States and the United Kingdom*, 47 TEX. ENVTL. L.J. 179, 180 (2017) (noting the environmental hazards and international character of decommissioning offshore wells).

257. *Id.* at 180–81.

258. *Id.*

259. *La Brea Tar Pits History*, LA BREA TAR PITS & MUSEUM, https://tarpits.org/la-brea-tar-pits-history [https://perma.cc/54BP-HSA2].

260. Mark Olalde & Ryan Menezes, *Deserted Oil Wells Haunt Los Angeles with Toxic Fumes and Enormous Cleanup Costs*, L.A. TIMES (Mar. 5, 2020, 5:54 PM), https://www.latimes.com/environment/story/2020-03-05/deserted-oil-wells-los-angeles-toxic-fumes-cleanup-costs.

261. *Id.*

into aquifers, spewing methane into residential areas, and causing a risk of blowouts or explosions.[262]

Los Angeles requires drillers to post bonds to provide funds for future cleanup, but the bond requirements have remained the same since the 1940s, and the cost for decommissioning just one urban well exceeds $100,000.[263] In addition, construction projects located near uncapped wells can result in surface oil spills.[264] Area residents contend that the city should not allow new development on property with uncapped wells until they properly clean them up.[265] Unfortunately, the State does not have the billions of dollars in funds available to address the 2,425 deserted and unplugged oil and gas wells located in California.[266] Instead, cities such as Los Angeles are approving development projects before addressing the "explosive, costly legacy" of decommissioning wells.[267]

When onshore wells or mines are initially dug, the drilling or mining company will typically lease or acquire the subsurface rights from the property owner. Once a well or mine is decommissioned or abandoned, the nature of the original transaction determines whether the company retains subsurface rights or if they return to the surface owner.[268] The initial conveyance will either create a fee interest in the resources under the surface or "an incorporeal hereditament giving the right to mine and remove the minerals but no right in them until mined."[269]

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262. *Id.* (noting that an explosion in 1985 near the La Brea Tar Pits "reflects the dangers of a city underlain by about 5,200 historical oil and gas wells and miles of associated pipelines").

263. *Id.* (describing the $1.2 million cost to plug two wells in Echo Park after residents complained of leaking gas).

264. *Id.*

265. *Id.*

266. *See* Ryan Menezes, *Cleanup of Orphaned Oil Wells Could Cost California $500 Million, New Report Says*, LA TIMES, (Jan. 24, 2020 3:46 PM) https://www.latimes.com/california/story/2020-01-24/cleanup-of-california-oil-and-gas-wells-could-cost-500-million-new-report-says (describing the State's liability for abandoned wells and explaining that thousands more pose additional liability concerns).

267. *Id.*; *see also* Celeste M. Hammond, *Fracking: The Unconventional Energy Response to Climate Change: Implications for the Real Estate Industry*, 49 J. MARSHALL L. REV. 449, 493–94 (2015) (discussing the inadequacy of assurance bonds to pay for contamination cleanup of wells and the cost of plugging).

268. *See* Shipley, *supra* note 248, at I. § 2 (explaining that the deed or contract will determine "whether an instrument purporting to pass or retain an interest in minerals creates such an independent fee or some lesser right" but that generally "the courts have shown some tendency to favor a construction, at least in the case of a grant, which finds an actual conveyance of the mineral estate, unless the deed spells out a more limited interest").

269. *Id.* at II. § 4[a] (citing Miller v. State, 183 A. 17, 19 (Conn. 1936)).

Similarly, the majority of jurisdictions recognize the right of the surface landowner to sever their estate from the subsurface oil and gas rights, in spite of oil's and gas's ability to escape.[270] A minority of jurisdictions view oil and gas "in the nature of animals ferae naturae or of waters percolating through the earth" and only award ownership once the oil or gas is actually possessed.[271] In most jurisdictions, the principles that apply to mineral estate severance and ownership also apply to oil and gas subsurface rights.[272]

The recent resurgence of fracking natural gas has raised questions as to the real estate rights required in order to develop the shale industry.[273] As discussed briefly above, oil and gas rights are generally included under the mineral classification in a majority of jurisdictions. However, "[s]hale gas presents possible reconsideration of traditional legal principles applied to subsurface minerals."[274] Conflicts between the mineral right owners or their lessees and the surface owners may arise when surface owners find out that the mineral rights were severed from the surface decades ago when fracking operations began.[275]

Under the common law, as found in Texas and other states, a mineral lessee has the dominant estate, the lessee may use the surface as reasonably necessary to "explore, develop, and transport minerals," including oil and gas.[276] These rights to use the surface are not unlimited unless a deed or lease expressly provides unconstrained access.[277] In addition, "[t]he deed in which the minerals and surface are severed or the lease granted to a lessee may also provide express parameters for

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270. H.J., *Severance of Title or Rights to Oil and Gas in Place from Title to Surface*, 29 A.L.R. 586, at II.a (1924); *see also* Gray-Mellon Oil Co. v. Fairchild, 292 S.W. 743, 745 (1927) (noting the majority rule allows a landowner to sever the estate in the surface from the underlying mineral interests where the land has oil and gas beneath the surface).

271. H.J., *supra* note 270, at II.b.

272. *Id.* at III.a. (stating "[t]he owner of land may by a grant or conveyance of the oil or gas underlying the surface transfer to another a right to, or an estate in, such minerals").

273. *See* Hammond, *supra* note 267, at 472 (explaining the importance of acquiring real estate interests to entering the fracking industry).

274. *Id.* at 475.

275. *See* Peter Vermillion & Gaye White, *The Mineral Owner's Right to Use the Surface: The Basics and Recent Texas Cases*, 2 TEX. J. OIL, GAS, & ENERGY L. 213, 213 (2007) (highlighting the tension between the rights of mineral interests owners and the rights of mineral interests lessees).

276. *Id.*

277. *Id.*

the lessee's rights to use the surface and obligations to pay damages, which may trump any implied or common law rights."[278]

Fracking operations are subject to abandonment "when wells dry up or oil and gas prices drop up [sic], or the fracking company becomes unable to afford the cost of the leased land and files for bankruptcy."[279] As with oil and gas wells, the costs associated with the abandonment of fracking projects will likely be borne by the states, and if the states do not have available funds to cover these costs, landowners may not have a remedy.[280] The common law provides that the owner of a fee interest in severed subsurface rights does not lose the interest based upon nonuse or abandonment, but the owner of an easement to the subsurface resources may lose the right based upon abandonment.[281]

Dormant mineral interest statutes enacted by more than twenty states[282] provide that "title to the mineral estate may forfeit to the surface owner upon the mineral owner's failure to use or develop the property within a specified period."[283] Mineral owners have challenged these statutes as unconstitutional, but as discussed below, the U.S. Supreme Court upheld the constitutionality of an Indiana statute in 1982.

In 1982, the U.S. Supreme Court in *Texaco, Inc. v. Short*[284] upheld the constitutionality of an Indiana statute "providing that a severed mineral interest that is not used for a period of 20 years automatically lapses and reverts to the current surface owner of the property."[285] Parties claiming ownership of mineral interests alleged that the Dormant Mineral Interests Act[286] violated their due process rights because they did not receive notice of the lapse in their rights, and the statute constituted a taking without just compensation under the Fourteenth Amendment.[287]

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278. *Id.* at 216, 219 (noting that the continued development of the Barnett Shale will inevitably lead to more surface use conflicts where lessees will have to "balance[e] being cooperative while at the same time not appearing to waive their rights or creating unreasonably expectations or demands for damages by surface owners. Nevertheless, more accommodation upfront, whether legally required or not, will probably result in less expensive litigation down the road").

279. Hammond, *supra* note 267, at 493.

280. *Id.* at 493–94.

281. 53A AM. JUR. 2D *Mines and Minerals* § 160 (2020).

282. Terrell Fenner, Comment, *A Problem Lurking Just Below the Surface: The Need in Texas for Dormant Mineral Legislation*, 2 TEX. A&M L. REV. 501, 513 (2015).

283. 53A AM. JUR.2D *Mines and Minerals*, *supra* note 282.

284. 454 U.S. 516 (1982).

285. *Id.* at 518 (1982).

286. IND. CODE ANN. § 32-23-10-1 (West 2020).

287. *Texaco*, 454 U.S. at 522–23.

The Court found that under the Due Process Clause the plaintiffs are "presumed to have had knowledge of the terms of the Dormant Mineral Interests Act" and know specifically that unless they filed a claim, any unused mineral rights would expire.[288] Therefore, the State need not notify a plaintiff that a statute of limitations is about to run.[289] The Court also determined that there is no "taking" requiring compensation when "[i]t is the owner's failure to make any use of the property—and not the action of the State—that causes the lapse of the property right."[290]

The Dormant Minerals Act[291] in Ohio illustrates the typical operation of legislation that changes the common law rule precluding the abandonment of fee ownership of subsurface property rights. In *Corban v. Chesapeake Exploration, L.L.C.*,[292] the Ohio Supreme Court clarified two areas of Ohio law at the request of the federal district court with jurisdiction over the dispute based on diversity.[293] First, the court determined that the 2006 version of the Dormant Mineral Act, rather than the 1989 version, "should be applied to a quiet title action filed after 2006 that asserts that the rights to minerals vested in the surface owner as a result of abandonment prior to 2006."[294] Thus, the procedures enacted in 2006 "govern the manner by which mineral rights are deemed abandoned and vested in the surface holder and apply equally to claims that the mineral interests were abandoned prior to June 30, 2006."[295] Second, "the payment of a delay rental during the primary term of an oil and gas lease"[296] was not a title transaction or a saving event that affected title to any land interest and it was outside the record chain of title because the subsurface property owner did not file or record the event with the county recorder.[297] Therefore, under the Dormant Mineral Act, the subsurface rights were "deemed abandoned and merged with the surface estate."[298]

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288. *Id.* at 533.
289. *Id.* at 536.
290. *Id.* at 530.
291. OHIO REV. CODE ANN. § 5301.56 (2020).
292. Corban v. Chesapeake Expl., L.L.C., 76 N.E.3d 1089 (Ohio 2016).
293. *Id.* at 1093.
294. *Id.* at 1093 (finding that "as of June 30, 2006, any surface holder seeking to claim dormant mineral rights and merge them with the surface estate is required to follow the statutory notice and recording procedures enacted in 2006").
295. *Id.* at 1098.
296. *Id.* at 1092.
297. *Id.* at 1099.
298. *Id.* at 1100.

Dormant Mineral Rights state statutes provide one way to deal with ownership rights following the decommissioning or abandonment of subsurface rights. As discussed above, the U.S. Supreme Court has upheld such a statute as constitutional against claims of due process and takings violations. These statutes might serve as a model for one approach to determining property ownership after abandoning or removing infrastructure.

4. Energy transport—Pipelines & power-lines

Sweeping changes in the supply of energy in the United States have been driven by the development of renewable energy sources, such as wind and solar power, and the fracking explosion that dramatically increased our supply of natural gas and oil.[299] Transporting energy resources such as oil and natural gas traditionally requires pipeline infrastructure that is frequently interstate in character.[300] With the lowering of costs for wind and solar power, our electrical transport system will require greater infrastructure investment to distribute these resources across the country.[301] Although customers will eventually pay the cost of these needed improvements, private investors must be willing to improve or build new energy transport systems.[302]

Federal and state governments have historically delegated the eminent domain power to private companies providing energy to the public.[303] New energy transport projects will require private companies to use eminent domain to support "a massive build-out in energy transport infrastructure" and avoid individual landowner "hold out."[304] However, property rights advocates and environmental groups have opposed the use of eminent domain for energy projects, and such opposition threatens to derail desperately needed infrastructure.[305]

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299. *See* James W. Coleman, *Pipelines & Power-Lines: Building the Energy Transport Future*, 80 OHIO ST. L.J. 263, 264 (2019) (asserting the United States is in the middle of three energy revolutions).

300. *See id.* at 265 (noting that while oil is easier and cheaper to transport than natural gas, "even an interstate oil pipeline costs billions of dollars").

301. *Id.*

302. *Id.* at 266–67.

303. James W. Coleman & Alexandra B. Klass, *Energy and Eminent Domain*, 104 MINN. L. REV. 659, 661–62 (2019).

304. *Id.* at 662.

305. *See id.* at 663–64 ("[S]uggest[ing] ways for policymakers, advocates, and others to reconsider the role of *Kelo*-style arguments in the context of energy transport projects and enact reforms that will allow the construction of critical energy projects in a manner that more fully embraces impacted communities and can provide additional procedural rights and compensation for landowners.").

Property rights advocates will likely oppose eminent domain action to build oil and gas pipelines as well as electric transmission power-lines for renewable energy sources.[306] Alternatively, states and environmental groups may wish to draw a distinction between these energy transport projects in order to utilize cleaner energy sources by "transport[ing] wind energy from the Great Plains to population centers and hydropower from Canada to the United States."[307]

Policies that have driven investment in new energy infrastructure include "state clean energy standards, tax credits, federal air pollution regulation, and state or local 'decarbonization' plans, all of which incentivize construction not only of new utility-scale wind and solar facilities, but also the transmission lines necessary to bring their power to market."[308] Because the energy markets rely on private investments to provide public energy services, "'energy policy' is the accumulated set of individual statutes and regulations that periodically change the way the energy supply system balances three fundamental goals: affordability, reliability, and environmental performance."[309] Recent trends in the energy markets have demanded fast-tracked investment in new infrastructure through the restructuring of gas and electric utilities for competition and building the necessary transmission infrastructure to accommodate renewable energy resources and bring low priced energy into high priced areas.[310]

a. Pipeline takings

Investment in new infrastructure to address recent trends in the energy markets will necessarily impact property owners who may be faced with eminent domain actions brought by private energy companies. Oil pipelines are governed by state law, while natural gas pipelines are

306. *Id.* at 665; *see also* Amanda Minor, *From New London to New Directions in Eminent Domain Law:* Kelo *and the Future Exercise of Eminent Domain by the Federal Government*, 22 GEO. MASON U. CIV. RTS. L.J. 177, 216–17 (2012) (concluding that "Congress should ensure that agencies responsible for smart grid development know when they can condemn land and all the procedures they must follow to do so, and the agencies should in turn educate the public about how construction of the grid could affect their property rights").

307. Coleman & Klass, *supra* note 303, at 665 (proposing changes to eminent domain policies to "promote increased fairness and accountability in eminent domain actions for all energy projects").

308. David B. Spence, *Regulation and the New Politics of (Energy) Market Entry*, 95 NOTRE DAME L. REV. 327, 337–38 (2019) (footnotes omitted).

309. *Id.* at 334.

310. *Id.* at 336–37.

regulated by the federal government under the Natural Gas Act (NGA).[311] The power of eminent domain is "a power inherent in every sovereign state" and does not require a specific grant by the United States Constitution, state constitutions, or statutes.[312] However, delegating the eminent domain power requires statutory action to authorize a governmental agency or other government entity to take property on behalf of the sovereign or to allow "private entities, such as utility companies, to take property in their own name and on their own behalf."[313]

Exercising eminent domain is "an extraordinary power"; thus courts must strictly construe statutes conferring the power of eminent domain "in the light of the objectives and the purposes sought to be attained by its enactment."[314] Congressional or state delegations of eminent domain power to a private entity only vest those powers specifically delegated by statute.[315] The government may grant eminent domain authority to private individuals and corporations, such as railroads, telephone companies, and other public service corporations, but it must do so through legislative action only.[316]

A condemnation action satisfies constitutional due process "when the condemnor tenders into the registry of the court, or stands ready to deposit in cash, the specific sums allowed the parties on the condemnation and offers to comply with any orders that the court may make relating to the condemnation."[317] Under some federal and state law statutes, "quick-take" provisions allow the condemnor "to take possession of property before there has been a full-trial condemnation proceeding to judgment."[318] However, quick-take provisions that allow the compensation determination to take place before the property

311. 15 U.S.C. § 717 (2018); James W. Ely, Jr., *The Controversy over Energy Takings: A Tale of Pipelines and Eminent Domain*, 5 BRIGHAM-KANNER PROP. RTS. J. (forthcoming 2020) (manuscript at 8).

312. 26 AM. JUR. 2D *Eminent Domain* § 3 (2020).

313. Jeremy P. Hopkins & Elisabeth M. Hopkins, *Separation of Powers: A Forgotten Protection in the Context of Eminent Domain and the Natural Gas Act*, 16 REGENT U. L. REV. 371, 379 (2003–2004).

314. 26 AM. JUR. 2D *Eminent Domain* § 24 (2020).

315. Hopkins & Hopkins, *supra* note 313, at 380–81; s*ee also* United States Forest Serv. v. Cowpasture River Pres. Ass'n, 140 S. Ct. 1837, 1850 (2020) (holding that the National Forest Service's right-of-way agreement with the National Park Service to establish the Appalachian Trail "did not transform the land over which the Trail passes into land within the National Park System" and therefore the Forest Service retained jurisdiction to issue a permit for a natural gas pipeline underneath the Trail).

316. 26 AM. JUR. 2D *Eminent Domain* § 28 (2020).

317. *Id.* § 219.

318. *Id.* § 220.

owner has received notice and the opportunity to be heard may violate constitutional due process requirements.[319]

Congress may delegate to a private condemnor the power to exercise a quick-take under federal law, but only if it has specifically granted such power by statute. Consequently, unlike the federal government which possesses the sovereign's full powers of eminent domain, a private gas company's "'only authority to condemn property is grounded in § 717f(h)' of the Natural Gas Act."[320]

The federal government has not delegated the quick-take power to private companies regulated under the NGA. Instead, federal courts have granted these private companies injunctive relief to gain immediate possession of condemned property.[321] This injunctive relief under Civil Rule 65 allows the companies immediate access to property for pre-construction activities such as surveying, staking, and tree clearing, as well as for construction actions to install compressor stations and the main pipeline.[322]

In light of this injunctive strategy, as well as concern regarding the public benefit and the amount of compensation paid, litigation continues to determine whether natural gas companies can circumvent the lack of the quick-take power under the NGA by obtaining injunctive relief from the federal courts. On November 8, 2004, the Supreme Court denied certiorari to hear the Fourth Circuit case, *East Tennessee Natural Gas Co. v. Sage*.[323] In doing so, the Court cleared the way for pipeline companies to use preliminary injunctions as a means to gain immediate possession of private property through their eminent domain power under the NGA. Every circuit—six in total—since the *Sage* ruling

> has held that "a preliminary injunction granting immediate access [to condemned property] is permissible so long as the pipeline

319. *Id.*

320. Hopkins & Hopkins, *supra* note 313, at 380–81 (quoting N. Border Pipeline Co. v. 127.79 Acres of Land, 520 F. Supp. 170, 172 (D.N.D. 1981)); *see also Cowpasture*, 140 S. Ct. at 1850 (the decision to assign the National Park service the management over the Appalachian Trail "did not transform the land . . . into land within the National Park System," thereby permitting the Forest Service to retain jurisdiction and issue a permit for a natural gas pipeline).

321. *See, e.g.*, Nexus Gas Transmission, L.L.C. v. City of Green, 757 F. App'x 489, 497 (6th Cir. 2018); Transcon. Gas Pipe Line Co. v. 6.04 Acres, 910 F.3d 1130, 1174 (11th Cir. 2018); Transcon. Gas Pipe Line Co. v. Permanent Easements for 2.14 Acres, 907 F.3d 725, 741 (3rd Cir. 2018); E. Tenn. Natural Gas Co. v. Sage, 361 F.3d 808, 831 (4th Cir. 2004), *reh'g en banc denied*, 369 F.3d 357 (2004), *cert. denied*, 543 U.S. 978 (2004).

322. *See* cases cited *supra* note 321.

323. 361 F.3d 808 (4th Cir. 2004), *reh'g en banc denied*, 369 F.3d 357 (2004), *cert. denied*, 543 U.S. 978 (2004).

> company's right to condemn has been finally determined, such as through the grant of a motion for summary judgment and all other requirements for issuance of a preliminary injunction have been met."[324]

As the United States and other nations have shifted from relying on oil to using natural gas, gas pipeline projects regulated by FERC have increased.[325] The NGA allows pipeline companies to acquire eminent domain authority by obtaining a certificate of public convenience and necessity in state or federal court.[326] The substantive right to condemn requires that the company show (1) it has obtained a certification, (2) it could not obtain the property by contract or agree with the property owner on the amount of compensation, and (3) that the use of the easement is necessary.[327] The typical exercise of eminent domain power does not allow the condemnor to take title or possession of property until a trial court determines the just compensation owed and the condemnor pays this amount into court.[328] However, as discussed briefly above, quick-take provisions may be used by the federal government to take possession of property before a trial court has adjudicated a condemnation proceeding.

State oversight of oil pipelines has been minimal and landowners challenging private eminent domain actions to construct pipelines have argued that condemnations for pipelines that have "no on or off ramps in the state" do not satisfy the "public service" requirement under the Fifth and Fourteenth Amendments.[329] However, other state

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324. Arthur Schmalz, *2 Circuits Clear up NGA Questions for Pipeline Cos.*, LAW360 (Jan. 2, 2019, 12:59 PM), https://www.law360.com/articles/1113420 (alteration in original) (quoting Transcon. Gas Pipe Line Co. v. 6.04 Acres, 910 F.3d 1130, 1152 (11th Cir. 2018)).

325. Scott Nyquist & Susan Lund, Opinion, *Shale Revolution: Opportunity to Jump-Start Economic Growth*, FORBES (Nov. 29, 2014, 1:40 PM), https://www.forbes.com/sites/realspin/2014/11/19/the-shale-revolution-is-an-opportunity-to-jump-start-economic-growth-in-u-s/#3cfe110e16a2 [https://perma.cc/X7DW-VDV8].

326. 15 U.S.C. § 717f(h) (2018).

327. *See id.* Recently, the Supreme Court of Oklahoma held that prior easement agreements with a landowner did not "surrender, alienate, contract away, or waive" a FERC interstate natural gas pipeline company "right of eminent domain." Nat. Gas Pipeline Co. of Am. v. Foster OK Res. LP, 465 P.3d 1206, 1210 (Okla. 2020); *see also* Allegheny Def. Project v. FERC, 964 F.3d 1, 11, 18–19 (D.C. Cir. 2020) (holding the FERC lacks the authority "to issue tolling orders for the sole purposes of preventing rehearing from being deemed denied by its inaction and the statutory right to judicial review attaching" under the National Gas Act).

328. Hopkins & Hopkins, *supra* note 313, at 385 (internal citations omitted).

329. Ely, *supra* note 311, at 14 (discussing how in *Bluegrass Pipeline Co. v. Kentuckians United to Restrain Eminent Domain, Inc.*, 478 S.W.3d 386 (Ky. Ct. App. 2015), the Kentucky court concluded that the pipeline company could not use eminent domain

and federal courts have given significance to the importance of the interstate energy market to find that a proposed pipeline was "necessary and for a public use."[330] In addition, some states have responded to the debate by enacting statutes "governing siting approval and the exercise of eminent domain."[331]

b. Decommissioning pipelines

In addition to improving and building new transport infrastructure, private companies and regulators must consider mechanisms required to revamp or decommission interstate pipelines and power-lines when energy resources and needs change over time. FERC must authorize an interstate pipeline action "to construct, acquire, modify, replace, or abandon natural gas facilities."[332] FERC also reviews interstate applications for "a blanket construction/abandonment certificate from FERC . . . that authorizes the pipeline to construct less complex facility projects without an extensive advance review process at FERC."[333] If a project does not meet the requirements for the blanket construction/abandonment certificate, FERC requires the pipeline to apply for a project-specific certificate.[334]

When the certificate is requested for abandonment, the applicant must include "any relevant contracts, flow diagrams showing the impact on the pipeline company's capabilities after the abandonment, impact on customers served by the facilities to be abandoned, effect on

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to acquire private property in Kentucky because the energy product transported did not benefit Kentucky was not "in public service").

330. *Id.* at 15 (quoting OHIO REV. CODE. ANN. § 163.021(A) (West 2019)) (discussing Sunoco Pipeline, L.P. v. Teter, 63 N.E.3d 160 (Ohio Ct. App. 2016)); Enbridge Energy (Ill.) L.L.C. v. Kuerth, 99 N.E.3d 210, 218 (Ill. App. Ct. 2018) (holding that pipelines are in the public interest and that "[o]il, natural gas, and other energy sources are essential to modern American life"); TC & C Real Estate Holdings, Inc. v. ETC Katy Pipeline, Ltd., No. 10-16-00134-CV, 2017 WL 7048923, at *2, *8 (Tex. Ct. App. Dec. 20, 2017) (upholding pipeline easement to transmit natural gas as a "public use"); Atl. Coast Pipeline, L.L.C. v. Avery, 92 Va. Cir. 387, 389 (2016) (finding *Bluegrass Pipeline* inapplicable as based on Kentucky law).

331. Ely, *supra* note 311, at 14–17 (discussing Nebraska's response to the Keystone XL pipeline declaring that such construction is in the public interest and Kentucky's law declaring "that the transportation of natural gas through pipelines was a 'public use'").

332. Fredric J. George, *How Does an Interstate Pipeline Obtain FERC Authorization to Construct, Acquire, Modify Replace or Abandon Natural Gas Facilities?*, *in* 31 E. MIN. L. FOUND. § 11.08 (Energy & Mineral L. Inst. ed., 2010).

333. *Id.* § 11.08[1].

334. *Id.* § 11.08[2].

existing tariffs, accounting entries and location of the facilities to be abandoned."[335]

FERC's rulings regarding abandonment applications illustrate some of the factors that impact FERC's decision-making.[336] For example, FERC approved the abandonment of onshore and offshore natural gas pipeline facilities that were underutilized "because gas production in the offshore areas has been declining" and crude oil producers currently using the pipeline to transport "limited quantities of casing head gas, have readily available transportation alternatives."[337] However, FERC denied the abandonment of Gulf South Pipeline Co. LP (Gulf South) pipelines in three states by sale to intrastate affiliates.[338] Gulf South argued that changes in the interstate pipeline market have led to increased competition from other pipelines, and the shale gas revolution "reduced overall deliveries on its system and the value of its transportation between pipelines."[339] By selling to intrastate affiliates, Gulf South asserted that its pipeline assets will be able to compete in their respective state markets.[340]

FERC's criteria for reviewing abandonment applications is fact-intensive, and it will consider "the needs of the two natural gas systems and the public markets they serve, the environmental effects of its decision, the economic effect on the pipelines and their customers, and the level of assurance of continued service to customers dependent on

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335. *Id.*

336. *See, e.g.*, Tenn. Gas Pipeline Co., 162 FERC ¶ 61143 (Feb. 20, 2018) (denying stay of abandonment by sale approval for 964 miles of pipeline); Tenn. Gas Pipeline Co., Order Approving Abandonment, 160 FERC ¶ 61144 (Sept. 29, 2017) (authorizing Tennessee Gas Pipeline Co. to abandon by sale to its affiliate 964 miles of natural gas pipeline facilities in six states and construct facilities to allow transportation service to existing customers after the sale); N. Nat. Gas Co., 149 FERC ¶ 62,126 (Nov. 25, 2014) (Dir. McGehee) (FERC approved removal of four pipeline bridges in Iowa); Trunkline Gas Co., 145 FERC ¶ 61,108 (Nov. 7, 2013) (approving abandonment by sale after weighing benefits and detriments of underutilization of pipelines and Trunkline's demonstration "that its post-abandonment system will still be able to maintain flexibility and reliability for its existing customers"); Panhandle E. Pipe Line Co., 141 FERC ¶ 61,119 (Nov. 15, 2012) (FERC granted Panhandle's request for abandonment authorization).

337. *FERC Approves Abandonment of Cameron System Underutilized Natural Gas Pipeline Facilities Offshore Louisiana Have No Firm Shippers*, 35 NAT. GAS TRANSP. INFO. SERV. NEWSL. (Thompson Info. Serv.), Sept. 2019, at 13.

338. *FERC Rejects Gulf South's Proposed Facility Sale Pipeline Fails to Support Assertion that Public Convenience or Necessity Permits Abandonments*, 30 NAT. GAS TRANSP. INFO. SERV. NEWSL. (Thompson Info. Serv.), Mar. 2014, at 2.

339. *Id.* at 1.

340. *Id.* at 2.

the subject facilities."[341] Gulf South's abandonment application was subject to NGA section 7(b), which "allows an interstate pipeline company to abandon jurisdictional facilities or services only if the abandonment is permitted by the 'present or future public convenience or necessity.'" Gulf South failed to show that the public convenience or necessity allowed the requested abandonments.[342]

Private electric companies have also been delegated the power of eminent domain to acquire the right to build electric transmission lines.[343] Power lines have typically generated more opposition than pipelines and state law governs the exercise of eminent domain for both oil pipelines and electric transmission lines.[344] The existing intrastate and interstate transmission grid needs to be upgraded to transport renewable electricity and to maintain the safety, resilience, and sustainability of this vital utility.[345] Regulatory jurisdiction over the electrical grid is split between states and the federal government; however, "only states can authorize companies to build new power lines and use eminent domain."[346]

Opponents of new transmission lines argue that the taking is for a private use because it does not benefit in-state citizens.[347] Even though historically companies and governments "could agree that grid reliability and expanding electricity service were public uses,"[348] unprecedented booms in energy production compel legislatures to "ensure that eminent domain laws governing energy transport projects reflect

341. *Id.*
342. *Id.*
343. Mont.-Dakota Utils. Co. v. Parkshill Farms, L.L.C., 905 N.W.2d 334 (S.D. 2017); *see also* Shelley Ross Saxer, *Paying for Disasters*, 68 KAN. L. REV. 413, 421–22 (2020) (discussing state or federal delegation of eminent domain power to private entities); Coleman & Klass, *supra* note 303, at 704 (noting that "[i]n virtually all states, legislation clearly allows investor-owned utilities and other electricity providers to exercise eminent domain authority by designating such projects as a 'public use' or otherwise granting eminent domain authority once the transmission line company obtains any required siting permits or certificates").
344. *See* Ely, *supra* note 311, at 25 n.124 (noting that "transmission lines remain extremely unpopular") (quoting Alexandra B. Klass & Jim Rossi, *Revitalizing Dormant Commerce Clause Review for Interstate Coordination*, 100 MINN. L. REV. 129, 151 (2015))).
345. *See id.* at 25–26; *see also* Saxer, *supra* note 343, at 441–45, 485–87 (discussing liability of electric utility companies for wildfire damages and calling for infrastructure improvements such as burying power lines).
346. Coleman & Klass, *supra* note 303, at 694–96.
347. *Id.* at 704.
348. *Id.* at 715.

evolving policies governing energy transition as well as landowner compensation and procedural rights."[349]

5. Nuclear power plants decommissioning

The Nuclear Regulatory Commission (NRC) has the authority to license, regulate operations, and decommission nuclear power plants under the Atomic Energy Act provisions while "ensuring their 'adequate safety'" as follows:[350]

> The licensing process is thorough, strict, and resource-intensive; it comprises site selection, design, and construction and operating phases. Applicants must perform environmental reviews as required by the National Environmental Policy Act ("NEPA") and various generic rules NRC has issued over the years. Applicants must either be regulated public utilities or satisfy stringent financial qualifications to engage in the proposed activities, and at the beginning of operations they must provide "reasonable assurances" that funds will be available for the plant's eventual decommissioning—which typically involves creating a trust fund. In addition, operators must obtain the maximum amount of liability insurance that can be purchased on the market. Finally, operators must pay for waste management, typically storing it onsite.[351]

Unlike the state regulation of the closings of oil and gas plants and renewable power projects that may or may not require upfront payment of decommissioning costs, the operators of nuclear power plants must pay decommissioning costs in advance of closings that may not occur for decades.[352] With the closing of many aging nuclear plants, the NRC issued new decommissioning regulations in 2017 to reduce unnecessary regulatory burdens on the licensee "based in large part on the reduction in radiological risk compared to operating reactors."[353] Regulatory efforts such as these may help ease the burden for decommissioning nuclear plants since "nuclear regulation requires owners of nuclear power plants to internalize more of their externalities than other sources of generation."[354]

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349. *Id.* at 739.

350. Emily Hammond & David B. Spence, *The Regulatory Contract in the Marketplace*, 69 VAND. L. REV. 141, 175 (2016) (quoting 42 U.S.C. §§ 2131, 2232 (2012)).

351. *Id.* at 175–76 (footnotes omitted).

352. *Id.* at 178.

353. Jacqueline Toth, *NRC Steps Closer to Proposal Updating Decommissioning Regulations*, CONG. Q. INC. ROLL CALL (Nov. 28, 2017) (discussing Federal Register notice for a Nov. 20 regulatory basis document (NRC-2015-0070)).

354. Hammond & Spence, *supra* note 350, at 177; *see also* McManus, *infra* note 355, at 560 (recommending that the NRC promulgate "a new set of regulations specific to

There are three authorized methods of decommissioning a nuclear plant.[355] The first method "involves immediate dismantlement and decontamination of the plant soon after the licensee permanently ceases power operations."[356] However, the plant's equipment and structures will likely be highly radioactive after the plant officially ceases operation, leading to safety concerns surrounding the disposal of waste and personnel contact with the radioactive components.[357]

The second, and most popular, method "is where the 'nuclear facility is maintained and monitored in a condition that allows the radioactivity to decay; afterwards, the plant is dismantled and the property decontaminated,'" which may take five to thirty years.[358] The third method requires "that the licensee encases the radioactive components in 'structurally sound material,' like concrete and rebar."[359] However, this third method has not been used because licensees seek to avoid long term liability and the public desires to quickly regain the valuable coastline property on which most nuclear power plants are located.[360]

States and local authorities have challenged NRC regulation under the police power because of concerns over the health and safety of their residents.[361] In addition, "most nuclear power plants reside on a coastline or waterway, [and] the state has a substantial interest in keeping that waterway clean and safe for its people."[362] The public should not have to pay for a nuclear plant's clean up if the decommissioning costs were not properly estimated.[363] Licensees should have to bear the costs of closure to assure "that all nuclear plants will relatively return to the

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decommissioning power reactors that simply make sense to the decommissioning plant instead of the current program power-generating nuclear plant regulations that are inappropriately applied to permanently shut down nuclear plants being dismantled").

355. Joseph D. McManus, *Lights out: Decommissioning the American Nuclear Plant*, 36 J. NAT'L ASS'N ADMIN. L. JUD. 519, 528 (2016).

356. *Id.*

357. *Id.* at 528–29.

358. *Id.* (quoting *Backgrounder on Decommissioning Nuclear Plants*, U.S. NUCLEAR REG. COMM'N, http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/decommissioning.html [https://perma.cc/5KHU-QR6G]).

359. *Id.* at 530 (quoting *Backgrounder on Decommissioning Nuclear Plants*, *supra* note 358).

360. *Id.* (citing Lisa Song, *Decommissioning a Nuclear Plant Can Cost $ 1 Billion and Take Decades*, INSIDE CLIMATE NEWS (June 13, 2011), http://insideclimatenews.org/news/20110613/decommissioning-nuclear-plant-can-cost-1-billion-and-take-decades [https://perma.cc/DW38-ZXJC]).

361. *Id.* at 551.

362. *Id.*

363. *Id.* at 554.

state they once were: an open field where the land can someday again be utilized for some other useful activity."[364]

If the licensee "wants to immediately sell the land to developers after decommissioning because the land is prime real estate with a terrific ocean view, the land is subject to more rigorous standards up front for 'free release.'"[365] However, a lesser standard applies when the licensee uses the land for its utility, industrial operations, or "restricted release."[366] Individual members of the public may be interested in nuclear plant activities in their area and "have a concrete stake in wanting a satisfactory cleanup of the land and safe decommissioning of the plant."[367]

In conclusion, the NRC has the power to license, regulate operations, and decommission nuclear power plants while ensuring safety. Nuclear regulation requires the owners of nuclear power plants to internalize many of the externalities of their operation, including the costs of dismantling and decontaminating a decommissioned plant. State and local governments have challenged NRC regulation under their police power to assure the health and safety of their residents. In situations where decommissioning costs are not properly estimated and licensees are unable to cover these costs, the public should not have to bear these costs.

6. Gas and coal plants

Approximately one third of the nation's coal-generating plants are being decommissioned based on market conditions and environmental considerations.[368] There are four phases of the decommissioning process including project planning, site characterization and contractor selection, project execution, and project closeout.[369] A plant scheduled to close may need to continue operations for a set time period to ensure that the supplier maintains electric service reliability during the transition.[370] In addition, decommissioning will likely require environmental remediation of solid and hazardous wastes present on the site under both the Resource

364. *Id.* at 563.
365. *Id.* at 551.
366. *Id.*
367. *Id.* at 554.
368. Emily Fisher, Joanne Hopkins, Lola Infante, and Karen Obenshain, *Decommissioning Coal Power Plants*, GPSOLO, May/June 2016, at 38, 39.
369. *Id.* at 40.
370. *Id.*

Conservation and Recovery Act (RCRA)[371] and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).[372]

The three common methods of decommission include "dismantling the facility," "attaching cables to the structure to pull it down," and "us[ing] explosives to take the legs out from under the structure in a controlled fall . . . [which is] the fastest, cheapest, and safest demolition option."[373] Alternatively, some plant owners have converted the plant to natural gas based upon the "costs of construction and the time it takes to permit new pipelines."[374]

7. Wind energy decommissioning

With the proliferation of wind farms across the country, some are concerned that the wind industry's dependence on federal and state subsidies will not address what happens when the wind turbines are no longer cost effective and must be abandoned, creating "visual blight . . . in perpetuity."[375] The modern wind turbine has a useful life of approximately twenty years and many jurisdictions have no requirements in regards to decommissioning these facilities.[376] Historically, some of America's earliest wind farms were abandoned in Hawaii and California without any security for decommissioning financial requirements.[377]

Landowners will want restoration of the land that was originally converted for development of wind energy, which includes "turbine pads, support structures, and road segments."[378] Some have estimated the cost to decommission a wind turbine to be approximately $200,000 per turbine, although the salvage value of the scrapped steel from the towers may offset the decommissioning costs.[379] However, because the decommissioning costs may exceed the scrap value by more than $150,000 per turbine, deserted wind farms will likely become an issue in the near future if the turbine owners are not required to decommission them.[380]

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371. Pub. L. No. 94-3580, § 1001, 90 Stat. 2795 (1976) (codified at 42 U.S.C. 6901 (2012)).

372. Pub. L. No. 96-510, § 101, 94 Stat. 2767 (1980) (codified at 42 U.S.C. 9601 (2012)); Fisher, *supra* note 368, at 40.

373. Fisher, *supra* note 368, at 41.

374. *Id.*

375. William S. Stripling, Note, *Wind Energy's Dirty Word: Decommissioning*, 95 TEX. L. REV. 123, 123 (2016) (alteration in original) (quoting 598 Parl Deb HC (6th ser.) (2015) col. 1384–86 (UK)).

376. *Id.* at 124.

377. *Id.* at 124–25.

378. Joshua Conaway, *Be Aggressive with Wind Energy: Blow Away the Decommissioning Fears*, 2 OIL & GAS, NAT. RESOURCES, & ENERGY J. 621, 630 (2017).

379. *Id.* at 633.

380. *Id.* at 634–35.

State regulations should protect landowners in the decommissioning of wind energy projects and "proactively ensure the existence of funding already set aside for the decommissioning of turbines that may remain standing in spite of comprehensive statutory protections."[381]

IV. STRUCTURING FUTURE TAKINGS FOR INFRASTRUCTURE RESILIENCE

When deciding how to structure future eminent domain actions for the infrastructure needs we will confront in the coming years, there are three major factors we should consider based on previous experience with government actions. First, we should avoid racial disparities and other discriminatory actions in our use of eminent domain through increased scrutiny of the exercise of state and local condemnation power. Second, we should give adequate consideration to the environmental impacts of the eminent domain power. Third, we should learn from our past mistakes and adopt a proposed structure for future eminent domain actions enabling new or improved infrastructure.

A. Avoiding Racial Disparities and Discrimination: Increased Scrutiny

In *Kelo v. City of New London*, Justice Clarence Thomas dissented from the majority view that upheld the use of eminent domain for private redevelopment "so long as the purpose is 'legitimate' and the means 'not irrational.'"[382] Justice Thomas reviewed the history of eminent domain power in the United States and argued "the Public Use Clause is most naturally read to authorize takings for public use only if the government or the public actually uses the taken property."[383] In addition, Justice Thomas contended legislatures should not be allowed to "define the scope of valid 'public uses'" and "a court owes no deference to a legislature's judgment concerning the quintessentially legal question of whether the government owns, or the public has a legal right to use, the taken property."[384]

Justice Thomas examined the consequences of using eminent domain for "[s]o-called 'urban renewal' programs" which do not compensate "for the subjective value of these lands to the individuals displaced and the indignity inflicted by uprooting them from their homes."[385] He reasoned that "extending the concept of public purpose

381. *Id.* at 649.
382. 545 U.S. 469, 506 (2005) (Thomas, J., dissenting).
383. *Id.* at 514.
384. *Id.* at 517.
385. *Id.* at 521.

to encompass any economically beneficial goal guarantees that these losses will fall disproportionately on poor communities."[386] Indeed, the *Berman v. Parker* precedent relied upon by the *Kelo* majority was a "slum-clearance project" where "[o]ver 97 percent of the individuals forcibly removed from their homes . . . were black."[387]

Redevelopment programs have had a dramatic impact on the racial and economic character of many urban cities.[388] By employing a blight designation, the idea of urban renewal justified using eminent domain for private development. The aftermath of *Berman* led to forced migration and permanent settlement founded on racial segregation throughout American cities.

> Racial motivations were often submerged under the labels of "slum clearance" or "neighborhood revitalization," but a primary goal of postwar urban renewal was to channel minority settlement into certain areas and to uproot minority communities in other areas. In cities across the country, urban renewal came to be known as "Negro removal."[389]

Many states have attempted to address the breadth of the eminent domain power since the U.S. Supreme Court's interpretation of "public use" in *Berman* and *Kelo*. Although many states took legislative action to revise their blight definitions after the *Kelo* case,[390] federal, state, and local governments are not constrained from broadly interpreting these definitions "to designate a community as blighted, and proceed with eminent domain."[391]

Some have proposed establishing a higher level of scrutiny over eminent domain actions.[392] For example, shortly before the *Kelo* decision,

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386. *Id.*

387. *Id.* at 522 (citing Berman v. Parker, 348 U.S. 26, 30 (1954)).

388. Wendell E. Pritchett, *The "Public Menace" of Blight: Urban Renewal and the Private Uses of Eminent Domain*, 21 YALE L. & POL'Y REV. 1, 46 (2003).

389. *Id.* at 47 (citing ROBERT HALPERN, REBUILDING THE INNER CITY: A HISTORY OF NEIGHBORHOOD INITIATIVES TO ADDRESS POVERTY IN THE UNITED STATES 68–69 (1995); DOUGLAS S. MASSEY & NANCY A. DENTON, AMERICAN APARTHEID: SEGREGATION AND THE MAKING OF THE UNDERCLASS 56 (1993)).

390. *See* Edward Imperatore, Note, *Discriminatory Condemnations and the Fair Housing Act*, 96 GEO. L.J. 1027, 1038–39 (2008) (discussing state legislative responses to the *Kelo* decision).

391. Patricia Hureston Lee, *Shattering 'Blight' and the Hidden Narratives that Condemn*, 42 SETON HALL LEGIS. J. 29, 88 (2017) (noting that the blight "statutes are written [to] broadly cover many different types of properties" and that "[n]arratives regarding the condition of homes or neighborhoods help the court of public opinion justify taking properties in underprivileged communities").

392. *See* Catherine E. Beideman, Note, *Eminent Domain and Environmental Justice: A New Standard of Review in Discrimination Cases*, 34 B.C. ENVTL. AFF. L. REV. 273, 291

Professor Nicole Stelle Garnett proposed a "heightened means-ends scrutiny" for takings similar to the constitutional test for exactions developed in the *Nollan v. California Coastal Commission*[393] and *Dolan v. City of Tigard* [394] cases.[395] This proposed heightened scrutiny was also the basis for an amicus brief filed in the *Kelo* case by property law Professors, including Nicole Stelle Garnet and David L. Callies.[396] After the *Kelo* decision, Professor Ilya Somin argued that "courts should forbid most if not all uses of the economic development rationale as inconsistent with the Public Use Clauses of the federal and state constitutions."[397]

Others have proposed using existing causes of action for discrimination such as the Equal Protection Clause, the Civil Rights Act,[398] or the Fair Housing Act (FHA).[399] In *Village of Arlington Heights v. Metropolitan Housing*

(2007) (advocating "for the creation of a new judicial standard which would encompass both environmental justice and eminent domain cases" and "a rebuttable presumption of the defendant government's discriminatory intent, and then allow the government to demonstrate that its decision was not motivated by an intent to discriminate").

393. 483 U.S. 825 (1987).

394. 512 U.S. 374 (1994), *remanded to* 877 P.2d 1201 (Or. 1994).

395. Nicole Stelle Garnett, *The Public-Use Question as a Takings Problem*, 71 GEO. WASH. L. REV. 934, 937 (2003).

396. Brief for Professors David L. Callies et al. as Amici Curiae Supporting Petitioners, Kelo v. City of New London, 545 U.S. 469 (2004) (No. 04-108), 2004 WL 2803192.

397. Ilya Somin, *Controlling the Grasping Hand: Economic Development Takings After* Kelo, 15 SUP. CT. ECON. REV. 183, 185 (2007); *see also* Beideman, *supra* note 392, at 291.

398. Civil Rights Act of 1964, Pub. L. No. 88-352, § 101, 78 Stat. 241 (1964) (codified at 42 U.S.C. § 1971 (2012)).

399. Pub. L. No. 90-284, tit. VIII, § 800, 82 Stat. 73 (1968); *see, e.g.*, J. Peter Byrne, *Condemnation of Low Income Residential Communities Under the Takings Clause*, 23 UCLA J. ENVTL. L. & POL'Y 131, 153 (2005) (observing that "[t]oday, it seems probable that any exercise of eminent domain that disproportionately harmed members of a racial minority would violate the federal Fair Housing Act"); Imperatore, *supra* note 390; Equal Justice Society, Wilson Sonsini Goodrich, Rosati, *Lessons from* Mt. Holly*: Leading Scholars Demonstrate Need for Disparate Impact Standard to Combat Implicit Bias*, 11 HASTINGS RACE & POVERTY L.J. 241, 242–43 (2014) (discussing eminent domain action granted certiorari by the U.S. Supreme Court, but settled before addressing whether disparate impact claims were allowed under the FHA); City of Joliet v. Mid-City Nat'l Bank of Chi., No. 05 CV 6746, 2014 WL 4667254, at *8, *22–23 (N.D. Ill. 2014), *aff'd sub nom.* City of Joliet v. New W., L.P., 825 F.3d 827 (7th Cir. 2016) (finding no evidence of racial discriminatory intent or disparate impact in City's condemnation of two Section 8 housing projects, challenged by owners as "a pretext for racial discrimination"); Green St. Ass'n v. Daley, 373 F.2d 1, 4, 6–7 (7th Cir. 1967) (dismissing claim alleging urban renewal project violated Civil Rights Act of 1866 because eighty-five percent of occupants were African American).

Development Corp.,[400] the U.S. Supreme Court found that the housing plaintiffs did not "carry their burden of proving that discriminatory purpose was a motivating factor in Village's [rezoning] decision," thus the Equal Protection Clause was not violated.[401] Although the complaint also alleged a violation of the Fair Housing Act of 1968, the Court of Appeals did not decide this issue, and the Court remanded the case to decide the statutory claims.[402] Thus, a plaintiff alleging discrimination from an eminent domain action will need to show evidence of discriminatory intent, not discriminatory impact.

The FHA may also provide for a claim under § 3604 to "challeng[e] a condemnation that disproportionately displaces minority residents."[403] Now that the Supreme Court has decided that disparate impact claims of discrimination are allowed under the FHA,[404] a displaced resident may be able to claim discrimination from a condemnation that "produced a racially discriminatory effect because those displaced" were disproportionately minorities.[405] The FHA may "serve as an alternative tool to shape condemnations so as to foster both integrated redevelopment and increased housing opportunities, while allowing municipalities to reinvigorate and redevelop stagnant communities."[406]

Professor David Dana has advocated developing a "new state constitutional law doctrine limiting exclusionary eminent domain," which incorporates existing "state constitutional law doctrine regarding exclusionary zoning."[407] Professor Dana identified two distinct contexts in which exclusionary eminent domain occurs. The first is the suburban context where "low-income households are condemned . . . in the interest of attracting new development that will house or otherwise be

400. 429 U.S. 252 (1977), *remanded to* 558 F.2d 1283 (7th Cir. 1977).

401. *Id.* at 270–71 (also finding that even though "Village's decision carried a discriminatory 'ultimate effect'" this would not constitute a constitutional violation).

402. *Id.* at 271.

403. Imperatore, *supra* note 390, at 1043.

404. *See* Tex. Dep't of Hous. & Cmty. Affairs v. Inclusive Cmtys. Project, Inc., 135 S. Ct. 2507, 2525 (2015) (holding that "disparate-impact claims are cognizable under the Fair Housing Act").

405. *See* Imperatore, *supra* note 390, at 1043–46 (proposing that the claim "focus FHA analysis on the net effect of the project (whether the number of affordable units on the site has increased or decreased) rather than speculate about future patterns of resettlement").

406. *Id.* at 1057.

407. David A. Dana, *Exclusionary Eminent Domain*, 17 SUP. CT. ECON. REV. 7, 10 (2009).

geared to middle-class or wealthy people."[408] The second context is where urban gentrification displaces low-income residents.[409]

Professor Dana recognizes there is "no jurisprudence of exclusionary eminent domain upon which reform efforts can readily build."[410] Instead, he proposes adapting two elements of state constitutional law doctrine that exist for exclusionary zoning: judicial review of a locality's fair share obligation for low-income housing and "a rebuttable presumption of illegality" when a locality uses eminent domain that decreases low-income housing to a point below its fair share obligation.[411] This standard would require "a more compelling, more-tailored justification for condemnation than rational basis review would require" and incentivize localities to "create substitute low-income housing in the same neighborhood" so as not to drop below their fair share obligation.[412]

Exclusionary condemnations should also require local governments to internalize "all of the real costs" as such condemnations "systematically undercompensate property owners because they provide no compensation for the condemnees' loss of their ability to remain in their current locality or neighborhood, which is something condemnees presumably value highly."[413] In addition, the "exclusion of low-income households from otherwise middle-class or wealthy areas tends to increase concentrated poverty and associated social harms."[414]

Religious institutions and other nonprofits that generate lower "tax revenues than virtually *any* proposed commercial or residential use" will be vulnerable to economic development condemnations.[415] However, eminent domain actions targeting religious institutions based on religion or because they are tax-exempt could receive a higher level of scrutiny if we consider eminent domain a "land use regulation" subject to the Religious Land Use and Institutionalized Persons Act (RLUIPA).[416]

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408. *Id.* at 8.
409. *Id.* at 9.
410. *Id.* at 10.
411. *Id.*
412. *Id.* at 10–11.
413. *Id.* at 11.
414. *Id.*
415. Ilya Somin & Jonathan H. Adler, *The Green Costs of* Kelo*: Economic Development Takings and Environmental Protection*, 84 WASH. U. L. REV. 623, 653 (2006) (quoting Brief for Becket Fund for Religious Liberty as Amicus Curiae Supporting Petitioners, Kelo v. City of New London, 125 S. Ct. 2655 (2005) (No. 04-108), 2004 WL 2787141, at *11).
416. Religious Land Use and Institutionalized Persons Act of 2000, Pub. L. No. 106-274, 114 Stat. 803 (2000) (codified at 42 U.S.C. § 2000cc (2000)).

While I am in the minority of scholars and courts addressing this issue,[417] I have argued that "any eminent domain action can likely be traced to a local government's comprehensive plan or zoning system and can thus be considered the government's application of a zoning law or landmarking law, subject to RLUIPA."[418]

Critics argued that President Donald J. Trump's campaign promise to "build a wall" will induce the government to use the power of eminent domain to take "the property rights of the private landowners and Native American tribes who occupy the land."[419] In addition to fighting political battles to obtain the necessary funding, building a wall will require the acquisition of the privately-owned land comprising sixty-seven percent of the border with Mexico.[420] The Texas Legislature formally opposed the federal government's use of eminent domain to acquire private property in southern Texas to support the construction of a border wall.[421] Some in Texas have also voiced religious concerns where a church or cemetery is located in the path of the wall.[422]

This section proposes using a heightened standard of scrutiny for eminent domain actions resulting in discriminatory impact. In addition,

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417. *See, e.g.*, St. John's United Church of Christ v. City of Chicago, 502 F.3d 616, 642 (7th Cir. 2007) ("RLUIPA does not apply to eminent domain proceedings." (citing Faith Temple Church, 405 F. Supp. 2d 250, 255 (W.D.N.Y. 2005))); Congregation Adas Yereim v. City of N.Y., 673 F. Supp. 2d 94, 105 (E.D.N.Y. 2009) (same); Faith Temple Church v. Town of Brighton, 405 F. Supp. 2d 250, 255 (W.D.N.Y. 2005) (same); Bram Alden, Comment, *Reconsidering RLUIPA: Do Religious Land Use Protections Really Benefit Religious Land Users?*, 57 UCLA L. REV. 1779, 1797 (2010) ("Given the near consensus among judges as to RLUIPA's inapplicability in the eminent domain context, it is confounding that scholars continue to devote entire law review articles to the question of what is to be done about RLUIPA's effect on eminent domain."); Daniel N. Lerman, Note, *Taking the Temple: Eminent Domain and the Limits of RLUIPA*, 96 GEO. L.J. 2057, 2058–59 (2008) (arguing that "RLUIPA does not apply to eminent domain actions").

418. Shelley Ross Saxer, *Eminent Domain Actions Targeting First Amendment Land Uses*, 69 MO. L. REV. 653, 670 (2004).

419. Philip Lee, *A Wall of Hate: Eminent Domain and Interest-Convergence*, 84 BROOK. L. REV. 421, 423–25 (2019) (asserting courts generally do not use heightened scrutiny when evaluating the government's use of eminent domain).

420. *¶ 22 Hurdling Legal Barriers to Get Trump's 330 Miles of Border Fence Along Southwest*, CONSTRUCTION CONTRACTS LAW REPORT NL1 1, 2–4 (2019).

421. Tex. S. Con. Res. 31, 85th Leg., Reg. Sess. (Tex. 2017); *see also* Thomson Reuters, *supra* note 249 (citing Tex. S. Con. Res. 31, 85th Leg., Reg. Sess. (Tex. 2017)).

422. *See, e.g.*, Morgan Gstalter, *Texas Man Sues over Fear Trump's Emergency Declaration Will Cause Ancestors' Burial Sites to Be Moved*, THE HILL (Mar. 14, 2019), https://thehill.com/homenews/administration/434171-texas-man-sues-over-fear-trumps-emergency-declaration-will-cause [https://perma.cc/D73Q-W2KQ] (noting that cemetery located along the U.S.-Mexico border was historic and connected to the Jackson Ranch Church built in the late 1800s).

Fair Housing claims under the disparate impact standard, recognized by the Supreme Court in *Texas Department of Housing & Community Affairs v. Inclusive Communities Project, Inc.*,[423] may be available to combat discriminatory urban renewal projects using eminent domain. It might also be possible to develop a "new state constitutional law doctrine limiting exclusionary eminent domain," which incorporates existing "state constitutional law doctrine regarding exclusionary zoning."[424] Finally, this section proposes that eminent domain action is a "land use regulation" subject to the heightened scrutiny standard under RLUIPA to counter religious discrimination.

B. Environmental Considerations

Eminent domain actions may cause significant environmental degradation. For example, the La Lomita Chapel near Mission, Texas, "sits directly in the path of President Donald Trump's proposed wall."[425] The chapel is located in the Rio Grande Valley, which is also home to a nearby Butterfly Center and a National Wildlife Refuge.[426] The Rio Grande Valley contains thousands of plant, butterfly, and bird species along with many other endangered species, making it "one of the most biodiverse habitats on the continent."[427]

Using eminent domain for economic development may also "pose[] significant environmental risks, particularly to private land conservation . . . [as] it is likely that some condemnations will target conservation land and open space, including property owned by land trusts or otherwise protected with conservation easements."[428] The border wall already in progress in this area will be approximately the height of a four-story

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423. 576 U.S. 519, 545 (2015) (holding that "disparate-impact claims are cognizable under the Fair Housing Act").

424. David A. Dana, *supra* note 407, at 10 (2009).

425. Dara Kerr, *In a Texas Border Town, a Church on the Edge and Wildlife at Risk*, CNET (May 9, 2019, 5:00 AM), https://www.cnet.com/news/border-wall-now-under-construction-could-kill-off-birds-ocelots-and-a-church [https://perma.cc/5TQ6-U82G] (noting that "[s]ome South Texans say they'd rather live with constant surveillance by Border Patrol than a physical barrier").

426. *Id.*

427. *Id.*

428. Somin & Adler, *supra* note 415, at 641; *Judge Orders Dakota Access Pipeline Shut down Pending Review*, PORTLAND PRESS HERALD (July 6, 2020), https://www.pressherald.com/2020/07/06/judge-orders-dakota-access-pipeline-shut-down-pending-review [https://perma.cc/YW6C-P45E]; *see also* Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs, No. 16-1534 (JEB), 2020 WL 3634426, at *1, *10–11 (D.D.C. July, 6 2020) (forcing the Dakota Access pipeline be shut down until additional environmental reviews can be held).

building and will "cut off access to water and migratory routes for animals."[429] Lawsuits filed against the federal government by the Butterfly Center and the La Lomita Chapel have been dismissed.[430] The aftermath of building this wall will likely include the destruction of the fragile ecosystem in South Texas and the character of "numerous towns whose inhabitants live on both sides of the river."[431]

The US Customs and Border Protection already employs sophisticated surveillance tools to monitor the border such as tethered aerostat radar systems, surveillance towers, drones, sensors, artificial intelligence software, and facial recognition.[432] "[M]any people who live in South Texas say all that surveillance is better than a physical barrier," and border security could be increased by increasing technology.[433] We may only be a few short years from developing technology that would negate the need for a physical, thirty-six-foot high steel wall. Unfortunately, the aftermath of erecting a wall will stay with us for many years.

Alternatively, eminent domain may serve as a valuable tool for environmental protection and conservation.[434] While eminent domain is not typically used for environmental protection, "the growing emphasis on ecosystem and landscape-level management arguably makes the use of eminent domain as much a practical necessity to advance conservation goals as it is to advance other public goals."[435] Environmentalists fear that common law protection of property rights under the Takings Clause may limit the use of eminent domain to protect the health and public uses of the environment.[436]

Eminent domain action for economic redevelopment may adversely impact environmental quality by allowing developers to obtain a swath of properties for a lower price by subsidizing their ability to assemble property they might not otherwise have been able to purchase.[437] This encourages more development "and more of the resulting environmental

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429. Kerr, *supra* note 425 (explaining the ecological hazard a thirty-six-foot wall can pose to wildlife and the environment).

430. *Id.*

431. *Id.*

432. *Id.*

433. *Id.*

434. Somin & Adler, *supra* note 415, at 632.

435. John D. Echeverria, *Regulating Versus Paying Land Owners to Protect the Environment*, 26 J. LAND RESOURCES & ENVTL. L. 1, 6 (2005).

436. Somin & Adler, *supra* note 415, at 627 (asserting that such hindrances would "impede environmental regulation" and limit the creation of "public parks and other environmental amenities").

437. *Id.* at 658–59.

effects, ranging from air pollution and congestion to habitat loss and non-point source water pollution."[438]

Eminent domain "can be used to provide environmental public goods and preserve undeveloped land . . . however, it can also be used to condemn farms, extinguish conservation easements, subsidize unsound development, and pave the way for suburban expansion into the countryside."[439] In addition, the use of eminent domain for economic development as allowed by the *Kelo* decision "will result in environmental harm."[440] Nevertheless, environmental advocates may push for "the use of eminent domain to implement large-scale environmental restoration and protection projects," particularly when there are "hold out[s]" that may thwart such important undertakings.[441]

The government can use eminent domain to benefit ecosystems and the environment by enabling large-scale environmental restoration and protection programs, but condemning large clusters of land for economic redevelopment can cause environmental harm. By using eminent domain to assemble land and prevent holdouts, certain development projects that might not otherwise be viable will receive governmental assistance that will likely increase pollution and ecosystem degradation.

C. Structuring Takings for Future Infrastructure

Part III explored the aftermath of eminent domain actions as well as the decommissioning or abandonment of various types of infrastructure. This section relies on ideas discussed in Part III as to how some states have responded to the aftermath of eminent domain and proposes how to structure takings to facilitate future infrastructure growth or improvement. The proposal focuses on two basic structures used in the past: acquiring fee simple title and creating an easement. However, the proposal introduces a new factor—the public trust—to play a role in making sure that the aftermath of eminent domain actions serving a "public purpose" will redound to the "public trust" if return to the original property owner is not feasible. Finally, this section examines how this proposal will operate in the face of new or developing technology.

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438. *Id.* at 659.
439. *Id.* at 665.
440. *Id.*
441. Echeverria, *supra* note 435, at 46.

1. Acquisition of fee simple title[442]

State statutes generally authorize "the taking of a fee simple title, and it is well established that where the public use so requires the Legislature may authorize the taking of a fee or any less estate."[443] So long as the statute allows for taking a fee interest, the initial condemnation "cannot be held invalid on the ground that a lesser interest only was required to accomplish the purpose the Legislature had in view."[444] If the original purpose for which the land was condemned is abandoned,[445] the condemning authority may sell the property as a fee simple absolute.[446] Similarly, a state statute may permit, but not require, the condemning authority to take a fee simple interest if it opts to take an easement instead.[447]

When the condemning authority acquires property in fee simple without condition or reservation through eminent domain, the condemnee does not retain any interest in the property.[448] The condemning authority may require title but subsequently never put it to public use or a different use unless conveyed through fraud or with bad faith.[449] Once legislation authorizes the use of eminent domain, "[i]t is an accepted principle of law . . . that, unless a statutory provision mandates otherwise, a condemnor may acquire an interest in property in fee simple or in a lesser estate."[450]

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442. *See generally* Katrina M. Wyman, *In Defense of the Fee Simple*, 93 NOTRE DAME L. REV. 1, 50 (2017) (noting that "[w]hile the perpetual monopoly that the fee simple grants may inhibit transfers to higher value uses, that monopoly also has economic advantages to offset its disadvantages").

443. Valentine v. Lamont, 100 A.2d. 668, 672 (N.J. 1953) (citing U.S. Pipe-Line Co. v. Del., Lackawanna & W. R.R., 62 N.J.L. 254, 266 (1898)).

444. *Id.*

445. *Id.* at 673 (finding that even though a board of education took land to establish a public school, it had authority to acquire a fee simple absolute, rather than a fee simple determinable).

446. *Id.* (when the property is no longer required for a public school, the board of education may sell it as a fee simple absolute).

447. *See* Winkel v. Miller, 205 P.3d 688, 694–95 (Kan. 2009) (demonstrating how a court analyzes the plain language of a statute to determine whether the legislature intended for fee simple interest acquisition to be permissive).

448. *See* Mainer v. Canal Auth. of State, 467 So. 2d 989, 992 (Fla. 1985) (holding that when land has been acquired in fee simple for public use through eminent domain, purchase, or donation, the former owner of the property retains no interest in it).

449. *Id.* at 992–93 (holding that "when a condemning authority acquires property in fee simple in good faith for a public purpose, that authority may subsequently convert it to other uses without any impairment of its title or obligation to the original owners").

450. *In re* Condemnation of a Permanent Right-of-Way, 873 A.2d 14, 18 (Pa. Commw. Ct. 2005) (holding that condemning authority does not need to "acquire fee simple title to the land containing the sewer line in order to acquire part of the private sewer line").

There is also a "widely recognized principle that the power of condemnation may not be used to condemn property in excess of that needed for public purposes."[451] This limitation applies to both the physical amount of property to be condemned and the nature or extent of the estate acquired.[452] However, "there is a distinction to be found between the principle that condemnation must be for public purposes and the factual conception of taking an amount of land in excess of the admitted needs of a particular public improvement."[453] In practice, challenges to an excess taking under this principle will likely be unsuccessful "unless the taking represents a transparent intention on the part of the public authority to go into the real-estate business."[454]

As discussed in Section III.A, several states have allowed a condemnee to reclaim property based on state statute or state constitutional provisions to return excess to original landowners.[455] States should be encouraged to consider this type of legislation in order to reduce the disruption and destruction of neighborhoods when developers or municipalities abandon redevelopment or urban renewal projects. In addition, condemnation actions should proceed more humanely to reduce uncompensated suffering and provide for integrating non-blighted buildings into a mixed-use development.[456]

2. Creating an easement

An easement is a legal right to use the property of another for a specific purpose. As the creation of a property interest, it should be supported by a writing under the Statute of Frauds. As a landowner, the first question to ask when either the government or a private entity approaches you to use its power of eminent domain to obtain an easement is, do you

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451. E. L. Strobin, *Right to Condemn Property in Excess of Needs for a Particular Public Purpose*, 6 A.L.R.3d 297 § 2[a] (acknowledging a "widely recognized principle that the power of condemnation may not be used to condemn property in excess of that needed for public purposes").

452. *Id.*

453. *Id.* (differentiating the purpose of condemnation from condemnation with the amount of land needed to fulfill the purpose of condemnation).

454. *Id.* § 2[b].

455. *See supra* notes 107–55 and accompanying text.

456. *See generally* Merriam, *supra* note 149, at 1572–76, 1580, 1590–91 (proposing that clearer rules with an adequate process, more mixed land use, and minimization of eminent domain would create a "'kinder and gentler' approach to eminent domain with longer time horizons").

have the right to take the property?[457] It should also be determined whether the easement is permanent or temporary and whether it is exclusive or nonexclusive. A nonexclusive easement will allow a landowner to grant multiple easements within the same easement.[458] The landowner should negotiate for an easement that has a renewal requirement and is both temporary and nonexclusive "to reduce the number of easements cutting across and through their property."[459]

The easement should have a defined width, location, and scope, such as the substance transported through a pipeline easement or the purpose for which the easement will be used.[460] If the easement is for an underground pipeline, the surface owner should reserve "all rights to use the easement, including producing and developing the minerals beneath the pipeline, that do not materially interfere with the pipeline."[461] Finally, the document should address whether an easement in gross may be freely assigned without the consent of the landowner and what will happen upon the termination or abandonment of the easement.[462]

As discussed in Part III regarding the aftermath of eminent domain for railroad, dam, and other decommissionings, the nature of the original property interest granted will determine the ownership interests following abandonment. In the case of railroads, Congress initially viewed federal grants to the railroads as "either a fee simple absolute or a limited fee with an implied condition of reverter."[463] However, the U.S. Supreme Court later recognized that rights of way granted to railroads before 1871 were in fee simple but would revert to

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457. Jacob R. Lederle, *Negotiating & Drafting a Pipeline Easement*, *in* 30TH ANNUAL ADVANCED REAL ESTATE DRAFTING ch. 11, pt. III, 3 (St. Bar of Tex. 2019).

458. *Id.* at 3–4.

459. *Id.* at 4.

460. *Id.* (for example, railroad purposes or mineral extraction).

461. *Id.* (extensive requirements for pipeline easements should also be negotiated).

462. *Id.* at 6 (suggesting language such as "[i]n the event that the pipeline is not used for any continuous period of six months, then the pipeline shall be deemed abandoned and this Easement terminated. The pipeline shall be considered to be 'used' for purposes of this paragraph only if crude oil and/or associated hydrocarbons are being transported through the pipeline for sale or use in commercial quantities"); *cf.* Rutgard v. City of Los Angeles, 52 Cal. App. 5th 815, 812, 825 (2020) (noting that California Eminent Domain Law provides an opportunity for an original property owner to buy back property acquired by a public entity through eminent domain is not used within ten years for its intended use, unless the "'governing body adopts' a new 'resolution' 'reauthorizing the existing stated public use'" (quoting CAL. CIV. PROC. CODE § 1245.245(b), (f))).

463. Wright, *supra* note 162, at 33 (citing 43 U.S.C. § 912).

the federal government upon abandonment.[464] Grants to railroads after 1875 conveyed only an easement that would terminate when a rail corridor was abandoned.[465] Such an abandonment would leave the underlying land free of the easement encumbrance.[466] To avoid the problem, the federal government amended the NTSA in 1988 to provide that any government grant for a railroad right-of-way conveyed after 1988 would revert to the government if abandoned, future easement documents should clearly identify to whom the easement right reverts when abandoned or terminated.[467]

Dam decommissioning may also implicate takings claims as the dam owners are denied the right to renew their license and removing the dam may adversely impact the property rights of those who are downstream of the dam or those who have been enjoying the riparian rights created initially when the dam was built. State law will likely determine the ownership rights of riparian property. The State holds the title to land under navigable waters, so it retains this right to the submerged original riverbed as well as to any private or state land that is flooded by the federal dam construction.[468] Once the dam is removed and the submerged land reappears, the State retains title to the previously flooded land as well as the original riverbed—"title to newly exposed lands . . . does not transfer away from the state to the previously riparian owner."[469] A takings claim for a loss of water rights will not be successful as the dam owner's water rights before the decommissioning are based on state laws or water rights and are not affected by FERC's license denial.[470]

Dormant Mineral Rights state statutes provide one way to deal with ownership rights following the decommissioning or abandonment of subsurface rights such as wells or mines. These statutes serve as a model

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464. Great N. Ry. Co. v. United States, 315 U.S. 262, 279 (1942) (explaining land-grants prior to 1871 gave railroad owners a "limited fee"); N. Pac. Ry. Co. v. Townsend, 190 U.S. 267, 271 (1903) (explaining these land-grant limited fees under the 1864 act reverted to the government if abandoned); Beaton et al., *supra* note 174, at 19 (describing the history of land-grants wherein pre-1871 grants were limited fees with reverter and post-1875 grants were easement interests); Wright, *supra* note 162, at 33 (confirming the before 1871 land-grants to railroads were a "limited fee made on an implied condition of reverter").

465. Beaton et al., *supra* note 174, at 19 (describing pre-1871 land-grants as limited fees with reverter and post-1875 land-grants as only easement interests).

466. *Id.* at 19–20.

467. *Id.* at 20.

468. Scoones, *supra* note 218, at 50–52.

469. *Id.* at 53.

470. *Id.* at 37.

for one approach to determining property ownership after abandoning or removing infrastructure. Ownership of energy transport lines and power plants after abandonment or decommissioning will depend upon whether there is an easement right or a fee simple interest as to whom owns the underlying property interest after termination.

If the express terms of an easement do not identify the ownership of the surface owner upon abandonment of a surface or subsurface right to use or mine, the extinguishment of the easement will result in complete ownership of the entire property interest. However, either the express terms of the easement or a state statute will dictate the extent of who owns the servient estate when there is an abandonment of an easement interest.

3. The public trust

This Article proposes that the public trust doctrine serve as an appropriate mechanism for dealing with the aftermath of eminent domain actions, particularly in regard to excess, unused, abandoned, or decommissioned fee simple or easement property interests. Because the exercise of eminent domain requires a public use, any property interest acquired using this tool should be considered part of the State's public trust responsibility. Thus, "[a]ll conveyances of lands containing trust resources to private parties are subject to the sovereign's retained *jus publicum* authority, fee simple absolute not withstanding."[471]

The public trust doctrine, which the English Crown adopted from Byzantine Emperor Justinian I[472] and the U.S. Supreme Court recognized in *Illinois Central Railroad Co. v. Illinois*,[473] provides that property subject to the State's public trust cannot be left to the ownership of private parties.

> The state can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under

471. *See* Harry R. Bader, *An Analysis of the Potential Impact of Public Trust Doctrine on the Sovereign's Use of Its Eminent Domain Power*, 18 HAMLINE L. REV. 50, 54, 62–63 (1994) (concluding that the impact of the public trust doctrine on the eminent domain power "has not been thoroughly addressed by either the courts or by legal scholars" and arguing that before a state can take private property already subject to an "implied public trust easement," "the state must meet an affirmative burden (imposed by the combined effect of the public trust doctrine and the prior public use doctrine) . . . that the public values to be achieved through the exercise of condemnation are superior to the public trust values accruing from the land as a result of its current use under the trust easement").

472. *Id.* at 51.

473. 146 U.S. 387, 453–54 (1892).

> them, so as to leave them entirely under the use and control of private parties, except in the instance of parcels mentioned for the improvement of the navigation and use of the waters, or when parcels can be disposed of without impairment of the public interest in what remains, than it can abdicate its police powers in the administration of government and the preservation of the peace. In the administration of government the use of such powers may for a limited period be delegated to a municipality or other body, but there always remains with the state the right to revoke those powers and exercise them in a more direct manner, and one more conformable to its wishes. So with trusts connected with public property, or property of a special character, like lands under navigable waters, they cannot be placed entirely beyond the direction and control of the state.[474]

The public trust doctrine received renewed attention after Professor Joseph Sax "applied it to modern environmental problems during the 1970s."[475] The California Supreme Court in *National Audubon Society v. Superior Court*[476] took an expansive view of the doctrine at the time, finding that

> the public trust is more than an affirmation of state power to use public property for public purposes. It is an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands, surrendering that right of protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust.[477]

Professor Richard Epstein observed that "disposing of public property" under the public trust doctrine "raises the mirror image of public use and just compensation questions under the takings clause of the Fifth Amendment."[478] He views the determination of whether public property under the public trust doctrine may be transferred to private use as a "reverse eminent domain clause."[479] In stating that "[t]he public trust doctrine is the mirror image of the eminent domain clause," Professor Epstein notes that "[b]oth doctrines derive from a strong sense of equity that condemns these uncompensated transfers as a genteel form of theft, regardless of whether the original holdings

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474. *Id.*
475. Bader, *supra* note 471, at 52.
476. 658 P.2d 709, 719 (Cal. 1983).
477. *Id.* at 724.
478. Richard A. Epstein, *The Public Trust Doctrine*, 4 CATO J. 411, 419 (1987) (concerning an issue which "raises the mirror image of public use and just compensation questions under the takings clause of the Fifth Amendment" or private compensation to the public for public land transferred to private owners).
479. *Id.*

are public or private."[480] He proposes that "[i]n principle the public trust doctrine should operate at the constitutional level, as a parallel to the eminent domain clause."[481]

The public trust doctrine may not be sufficiently robust to serve as a tool for dealing with the aftermath of eminent domain. Professor Epstein recognized that "the basis for the public trust doctrine in the United States Constitution is difficult to identify."[482] However, state legislatures could consider establishing a statutory public trust that would serve to recover condemned property when it is no longer used for the public use for which it was acquired.

A state legislature could create a statutory public trust with a state agency serving as the trustee and the public serving as the beneficiaries. This trust could resemble the historical public trust doctrine, but it would avoid some of the issues confronted under the law of trusts.[483]

The public trust doctrine is also limited in defining the resources that are subject to the public trust. Courts and scholars generally recognize that these resources include those traditionally subject to the public trust such as inland navigable waterways and public rights of access to waterways.[484] In addition, over the last four decades, courts and scholars have potentially expanded the list of resources to include water rights, water quality, fish and wildlife, and air resources.[485] These more recent additions to the public trust, such as litigation using public trust claims to address climate change by limiting greenhouse gas emissions, have been limited and in many cases unsuccessful.[486] Therefore, in order to include property interests outside the traditional doctrine resources, a statutory public trust would be more flexible.

The relationship of the public trust doctrine and the Takings Clause under the Fifth Amendment comes into play when private property

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480. *Id.* at 426.

481. *Id.*

482. *Id.* at 426–28 (identifying two alternatives to finding a constitutional home—due process and equal protection).

483. *See* James L. Huffman, *A Fish out of Water: The Public Trust Doctrine in a Constitutional Democracy*, 19 ENVTL. L. 527, 537–45, 567 (1989) (classifying the public trust as a "resulting trust" and concluding that "[b]y confusing the property rights character of the public trust doctrine with concepts of trust law, constitutional rights, judicial review, and governmental power, the courts and commentators have opened the door to dramatic expansion of governmental power with resultant intrusions upon individual rights").

484. Richard M. Frank, *The Public Trust Doctrine: Assessing Its Recent Past & Charting Its Future*, 45 U.C. DAVIS L. REV. 665, 671–74 (2012).

485. *Id.* at 675–80.

486. *Id.* at 677–80.

owners claim a regulatory taking after the State's assertion of public rights under the public trust doctrine.[487] These doctrines also cross paths when a property owner asserts a categorical taking because she has been deprived of all economically viable use of her private property under the U.S. Supreme Court's decision in *Lucas v. South Carolina Coastal Council*.[488] However, if "the challenged regulation reflects a longstanding 'background principle of the State's law of property,'" then the deprivation of all economic value does not constitute a constitutional taking.[489] Classifying the public trust doctrine as a "background principle" of state property law has found support from courts and scholars to limit liability for state regulations that would otherwise constitute a categorical taking under *Lucas*.[490]

It is unlikely that the traditional doctrine of the public trust that applies "to navigable waters for the purposes of navigation, commerce, fishing and sometimes bathing"[491] will be sufficiently flexible to provide a holding place for property no longer needed for the public use that justified the exercise of eminent domain. This Article does not purport to provide an exhaustive analysis of the potential for using some form of the public trust doctrine to deal with the aftermath of eminent domain. However, it may encourage greater exploration of ideas for adopting a humane version of condemnation that enables the return of property initially acquired for the public use to public coffers protected by a public trust.

4. Future infrastructure needs

As future growth requires new and improved infrastructure for residential and commercial developments, taxpayers and developers will need to share the costs and burdens of this infrastructure in order to obtain the benefits.[492] State and local governments have historically imposed some of the burden

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487. *Id.* at 682.

488. 505 U.S. 1003, 1016–19 (1992) (holding that a landowner suffers a taking under the Fifth Amendment when the owner's private property is deprived of all economically beneficial uses for the common good).

489. Frank, *supra* note 484, at 682–83 (quoting *Lucas*, 505 U.S. at 1029–30).

490. Esplanade Props. L.L.C. v. City of Seattle, 307 F.3d 978, 985 (9th Cir. 2002); Palazzolo v. Rhode Island, No. WM 88-0297, 2005 WL 1645974, at *1, *6 (R.I. Super. 2005); Frank, *supra* note 484, at 682–83 (discussing Joseph L. Sax, *Property Rights and the Economy of Nature: Understanding* Lucas v. South Carolina Coastal Council, 45 STAN. L. REV. 1433 (1993)).

491. James L. Huffman, *Speaking of Inconvenient Truths—A History of the Public Trust Doctrine*, 18 DUKE ENVTL. L. & POL'Y F. 1, 97 (2007).

492. Jim Rossi & Christopher Serkin, *Energy Exactions*, 104 CORNELL L. REV. 643, 644 (2019).

on developers through exactions and impact fees to make them internalize the costs of their projects.[493] Not only should developers internalize the costs of roads, sewers, water systems, schools, affordable housing, and public transportation, they should also "internalize the costs they impose on energy infrastructure . . . [to] encourage them to incorporate greater energy efficiency in their buildings."[494]

As discussed in this section, our electrical transport system will require greater infrastructure investment to distribute these resources across the country. Although customers will eventually pay the cost of these needed improvements, private investors must be willing to improve or build new energy transport systems. Professors Jim Rossi and Christopher Serkin propose that "local energy exactions can produce valuable information about customer energy demand and its alternatives, diversify risks in energy infrastructure investment, and promote intergovernmental competition for the provision of underfunded public goods related to a community's energy future, including grid reliability and carbon reduction."[495]

In addition to figuring out how to pay for new infrastructure, we must also structure our acquisition of private property through the eminent domain power to address new technologies. Public uses requiring physical infrastructure such as a border wall or mass transit should condemn a fee simple interest in the property so that landowners are adequately compensated for their loss of land, privacy, etc.

The grant of a fee simple interest should require that upon abandonment or restructuring of the physical infrastructure, the property acquired through eminent domain will be returned to the public trust for appropriate distribution. If changes in technology allow for a nonphysical barrier, the State should be required to remove the physical structure and choose how to distribute the unencumbered property for the public use. Returning the property to the State would allow for actions such as the Rails to Trails Act to convert railroad tracks to hiking trails.

The potential need for future airspace rights also weighs in favor of condemning property to take a fee simple interest rather than an easement. The "ad coelum doctrine" that governs the ownership of airspace rights based on ownership of the surface land provides landowners with "long held common law property rights in the low-altitude airspace

493. *Id.* at 644–45.
494. *Id.* at 645–66.
495. *Id.* at 712.

above their parcels."[496] Professor Troy Rule has proposed that landowners be entitled to "exclude drones from the airspace above the surface of their land to a height of 500 feet in most locations," supplying a ceiling to the ad coelom doctrine.[497]

In suggesting that drones be restricted to "overflight of public roads and highways to avoid trespass claims and maintain residential privacy," this Article proposes that eminent domain to acquire new public roads or mass transit railways be structured as a fee simple acquisition.[498] By acquiring a fee simple interest in the surface, future "roadways" for drones, above-ground mass-transit, and other yet-to-be-determined technology will be accommodated based on the common law ad coelum doctrine. Alternatively, acquiring an easement for the road or mass transit railway will limit the expansion of the easement scope to include future technologies. Abandonment of the easement or a change in scope may terminate the easement such that the rights cannot return to the public trust.

CONCLUSION

Our nation has lamented the aftermath of eminent domain actions affecting thriving and diverse neighborhoods, public infrastructure that requires decommissioning, and the need to condemn property for future infrastructure needs. Scant attention has been paid to the damage wrought by these actions, which may never be realized in terms of a successful public project or which may be used for the public benefit temporarily and then abandoned as society's needs and technology change. By examining the aftermath of many different public projects enabled by the eminent domain power, we should be able to develop an approach to future condemnation acquisitions that will address the previous failures.

First, we should strive to eliminate the racial discrimination that has animated many of our redevelopment projects in the past. We should use heightened scrutiny to recognize other types of discrimination that play a role in using the eminent domain power. Second, environmental impacts of condemnation actions should be recognized

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496. *See* Troy A. Rule, *Airspace and the Takings Clause*, 90 WASH. U. L. REV. 421, 426–27 (2012).

497. Troy A. Rule, *Airspace in an Age of Drones*, 95 B.U. L. REV. 155, 159 (2015).

498. *See* Shelley Ross Saxer, *Zoning for Dollars and Drones?*, PROPERTY JOTWELL (June 1, 2017), https://property.jotwell.com/zoning-for-dollars-and-drones [https://perma.cc/H8X9-AZEL] (discussing Troy A. Rule, *Drone Zoning*, 95 N.C. L. REV. 133 (2016)).

in formulating eminent domain acquisitions. Finally, we should structure future takings to acquire fee simple interests that provide greater compensation to the landowner and allow for the future usage of airspace rights within a particular transportation corridor.

Once the fee simple interest or easement is no longer required to serve the public use, the public trust doctrine as formulated through state statutory law should return the property to the State or local government. A public trust agency could then be tasked with acting as a trustee to ensure that the abandoned interest is either returned to the original landowner or used for an appropriate public purpose. By using the public trust doctrine (or a modified concept of the doctrine) as a mirror image of the public use requirement of the Fifth Amendment Takings Clause, property interests originally acquired by eminent domain should return to the public trust to address any adverse aftermath of previous takings.