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C O M M E N T

Mineral Estate Conservation Easements: A New Policy Instrument to Address Hydraulic Fracturing and Resource Extraction

by Robert B. Jackson, Jessica Owley, and James Salzman

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In a few short years, hydraulic fracturing (or fracking, as it is colloquially called) has transformed the oil and natural gas industries and changed the landscape of energy policy. While helping the United States approach energy independence, fracking has also generated major conflicts over local land-use decisions.

Although the hydrocarbons trapped in shale and sandstone formations had been viewed as unrecoverable, the advent of high-volume hydraulic fracturing in the early 2000s changed that view.¹ In high-volume hydraulic fracturing, roughly 8,000 to 80,000 cubic meters (2-20 million gallons) of water, chemicals, and sand and other proppants² are pumped underground at pressures (10,000-20,000 pounds per square inch) sufficient to crack open impermeable rock formations, allowing the oil and natural gas to flow through the well to the surface.³ A hydraulically fractured well can now follow a thin layer of impermeable shale or tight sandstone for kilometers or more laterally.⁴ Long horizontal wellbores⁵ often travel under multiple

landowners' properties, requiring companies to acquire larger leases than they need for conventional wells.

The United States, where hydraulic fracturing was developed, is one of the world's largest producers of oil and natural gas.⁶ The country produced nine million barrels of oil daily in 2015, more than one-half from hydraulically fractured wells, with oil production almost doubling since 2000.⁷ In fact, the United States has gone from being the world's largest net importer of oil to being a global exporting powerhouse.⁸

Natural gas extraction and production are also increasing, primarily derived from hydraulic fracturing. Companies produced 12.3 trillion cubic feet of natural gas from shale and other impermeable formations in the United States in 2014, approximately one-half of all gas produced that year.⁹ Electricity powered by natural gas reached parity with coal, at 33% domestic market share in 2015, and natural gas overtook coal for the first time in 2016 as the dominant source of electricity in the United States.¹⁰

Accompanying the rise of high-volume hydraulic fracturing¹¹ has been a suite of environmental and social con-

Authors' Note: We would like to thank Collin Doane for his research assistance on this project and Fred Cheever, Amy Pickle, and Amy Mall for comments on an earlier draft.

1. U.S. ENERGY INFORMATION ADMINISTRATION (EIA), TECHNICAL RECOVERABLE SHALE OIL AND SHALE GAS RESOURCES: AN ASSESSMENT 13 (2013), available at <http://www.eia.gov/analysis/studies/worldshalegas/pdf/fullreport.pdf>; ROYAL SOCIETY & ROYAL ACADEMY OF ENGINEERING, SHALE GAS EXTRACTION IN THE UK: A REVIEW OF HYDRAULIC FRACTURING 12 (2012) [hereinafter ROYAL SOC'Y]; Natural Resources Canada, *Exploration and Production of Shale and Tight Resources*, <http://www.nrcan.gc.ca/energy/sources/shale-tight-resources/17677> (last visited Dec. 12, 2016).
2. A proppant is material used to keep cracks in the rock open after the water used in hydraulic fracturing leaves. ROYAL SOC'Y, *supra* note 1, at 68.
3. Robert B. Jackson et al., *The Environmental Costs and Benefits of Fracking*, 39 ANN. REV. ENV'T & RESOURCES 327, 329 (2014).
4. *Id.* at 334.
5. A wellbore is the "hole created by drilling operations," synonymous with borehole. ROYAL SOC'Y, *supra* note 1, at 69.

6. Linda Doman et al., *United States Remains Largest Producer of Petroleum and Natural Gas Hydrocarbons*, TODAY IN ENERGY, May 23, 2016, <http://www.eia.gov/todayinenergy/detail.cfm?id=26352>.
7. *Id.*
8. See EIA, *Petroleum and Other Liquids—Crude Oil Production*, www.eia.gov/dnav/pet/pet_crd_crdpdc_adc_mbbldpd_a.htm (last visited Dec. 12, 2016).
9. EIA, *Frequently Asked Questions: How Much Shale Gas Is Produced in the United States?*, <http://www.eia.gov/tools/faqs/faq.cfm?id=907&t=8> (last visited Dec. 12, 2016).
10. Tyler Hodge et al., *Natural Gas Expected to Surpass Coal in Mix of Fuel Used for U.S. Power Generation in 2016*, TODAY IN ENERGY, Mar. 16, 2016, <http://www.eia.gov/todayinenergy/detail.php?id=25392>.
11. High-volume hydraulic fracturing is distinguished from other fracturing methods because it requires larger volumes of water. See NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, FINAL SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT ON THE OIL, GAS, AND

cerns, including potential water and air contamination, greenhouse gas emissions, health effects, and community disruptions.¹² Flaming faucets have become iconic, if contentious, images for the anti-fracking movement. Leakages of natural gas and other hydrocarbons, such as the carcinogen benzene, have been higher in places than estimated by the U.S. Environmental Protection Agency and various state agencies.¹³ Recent work suggests that living near oil and natural gas production in Pennsylvania increases the likelihood of asthma, potentially from hydrocarbon releases into the air or because of the dust associated with industrial activity and the approximately 1,000 truck trips required to hydraulically fracture a typical horizontal well.¹⁴

Concerned over these negative environmental impacts, individuals and communities have turned to the law to restrict oil and natural gas production. Communities such as Denton, Texas, counties such as Santa Cruz, California, states including Maryland, New York, and New Jersey, and even countries such as France and Germany have banned high-volume hydraulic fracturing, permanently or temporarily.¹⁵ In the United States, town- and county-level bans have been vigorously opposed by the industry, in part through legal challenges that emphasize the state as the primary entity regulating oil and natural gas production.¹⁶ Many such challenges are currently underway.¹⁷ While effective in some settings, these statutory approaches have met with mixed success. There is potential for private efforts to restrict fracking, as well. To date, though, this has been a largely unexplored approach.

SOLUTION MINING REGULATORY PROGRAM, FINDINGS STATEMENT 5-35 (2015) [hereinafter N.Y. DEC FSGEIS]. Jurisdictions have defined “high-volume” differently. For example, New York Department of Environmental Conservation has defined it as “the stimulation of a well using 300,000 or more gallons of water as the base fluid for hydraulic fracturing for all stages in a well completion[.]” *id.* at 2 n.1, while Michigan has set the threshold at 100,000 gallons. See UNIVERSITY OF MICHIGAN, HYDRAULIC FRACTURING IN THE STATE OF MICHIGAN: PUBLIC PERCEPTIONS OF HIGH-VOLUME HYDRAULIC FRACTURING & DEEP SHALE GAS DEVELOPMENT 4 (2013), available at <http://graham.umich.edu/media/files/HF-08-Public-Perceptions.pdf>. Low-volume hydraulic fracking has been practiced since at least the 1950s.

12. Jackson et al., *supra* note 3, at 330.
13. E.g., Gabrielle Pétron et al., *A New Look at Methane and Nonmethane Hydrocarbon Emissions From Oil and Natural Gas Operations in the Colorado Denver-Julesburg Basin*, 119 J. GEOPHYSICAL RES. ATMOSPHERES 6836 (2014); Kathryn McKain et al., *Methane Emissions From Natural Gas Infrastructure and Use in the Urban Region of Boston, Massachusetts*, 112 PNAS 1941 (2015).
14. Sara G. Rasmussen et al., *Association Between Unconventional Natural Gas Development in the Marcellus Shale and Asthma Exacerbations*, 176 JAMA INTERNAL MED. 1334 (2016).
15. See Keep Tap Water Safe, *List of Bans Worldwide*, <http://keeptapwatersafe.org/global-bans-on-fracking/> (last visited Dec. 12, 2016).
16. See Christopher J. Hilson, *Litigation Against Fracking Bans and Moratoriums in the United States: Exit, Voice, and Loyalty*, 40 WM. & MARY ENVTL. L. & POL'Y REV. 745, 748-49 (2016).
17. See R. Jo Reser, *Fracking Update: Latest Business and Litigation Issues, Federal, State, Municipal Legislation, and EPA Regulation of Hydraulic Fracturing*, A.L.I., Mar. 3, 2015.

In this Comment, we propose a novel tool, the mineral estate conservation easement (MECE), to provide landowners with the ability to restrict hydraulic fracturing and other oil and gas subsurface activities in areas of social or ecological vulnerability. Traditional conservation easements have been established in more than 100,000 places across the United States.¹⁸ Such conservation easements are typically established directly by a landowner through donation to, or purchase by, a land trust or government entity.¹⁹ The MECE creates a logical extension of the philosophy and tradition of servitudes (long-term tailor-made restrictions limiting use of private land), providing landowners with legal flexibility to restrict activities on their land in perpetuity. We expect the MECE may be of particular interest in current or proposed areas of fracking activity where there is also high population density (such as Colorado's Front Range or Fort Worth, Texas) or areas of high conservation or watershed value (such as sage grouse habitat).

In Part I, we provide a primer on conservation easements. Part II sets out the structure of an MECE, assessing whether it is compatible with current state conservation easement acts, as well as whether it would qualify for a federal tax deduction. Part III describes legislative actions that would strengthen the status of MECES.

Overall, we find that MECES hold great potential as a private land use tool to restrict hydraulic fracturing and resource extraction in specific settings. Its legal status is well-supported in most jurisdictions and could be employed immediately as a land use instrument. In other jurisdictions, however, statutory uncertainty remains. This could easily be remedied in most cases with minor statutory or regulatory amendments that would reassure land trusts concerned about investing time and money in agreements that they fear may not be enforceable.

I. A Primer on Conservation Easements

Since their emergence in the 1960s, conservation easements have become a major force in land use throughout the United States.²⁰ More than 100,000 conservation easements now cover more than 40 million acres, roughly the size of Washington State.²¹ Their popularity is attributable to the flexibility and ease of creating conservation easements, the lower cost of purchasing land-use restric-

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18. See National Conservation Easement Database (NCED), *Homepage*, <http://conservationeasement.us> (last visited Dec. 12, 2016).
 19. Federico Cheever & Nancy A. McLaughlin, *An Introduction to Conservation Easements in the United States: A Simple Concept and a Complicated Mosaic of Law*, 1 J.L. PROP. & SOC'Y 107, 112-14 (2015). There are also many conservation easements created by exaction along with a small number coming from condemnation and judicial settlement. See Jessica Owley, *The Emergence of Exacted Conservation Easements*, 84 NEB. L. REV. 1088-89 (2006).
 20. Nancy A. McLaughlin, *Conservation Easements—A Troubled Adolescence*, 48 J. LAND RESOURCES & ENVTL. L. 47, 49-51 (2005).
 21. See NCED, *supra* note 18.

tions compared to purchasing full title to the land, and the potential tax benefits for landowners.

A conservation easement looks and operates much like a contract.²² Following negotiation, the landowner and the conservation easement holder sign and record an agreement detailing restrictions on particular types of uses and activities—what can and cannot occur on the land.²³ The conservation easement is held by a qualifying party (usually a land trust or a government entity).²⁴ As an encumbrance on a deed (instead of simply a contract between parties), the restrictions stay in place even when land ownership changes.²⁵

State laws govern the enforceability of conservation easements, whereas federal law sets the rules for tax deductibility. Both generally require the holder of the conservation easement to be either a nonprofit organization or a government entity.²⁶ The conservation easement holder has the right to enforce the agreement against the current landowner if its terms are violated.

Conservation easements can be created by donation, sale, exaction, or condemnation.²⁷ When a landowner donates a conservation easement, tax savings are often a major incentive.²⁸ Section 170(h) of the Internal Revenue Code (IRC) sets out the requirements of conservation easements to qualify for charitable income, gift, and estate tax deductions.²⁹

Summed up, the tax savings from donated conservation easements can be significant if the donors have large tax bills. Generally, the value of a conservation easement is the difference between the fair market value of the land before the conservation easement is in place and the fair market value of the land encumbered with the conservation easement.³⁰ Donors can deduct up to 50% of their income, with certain donors able to deduct 100%, for up to 16 years.³¹ There are additional deductions related to estate and gift taxes, state income tax deductions, and property taxes.³²

To qualify for federal tax deductions, the conservation easement must:

- Be donated to a qualifying organization (either a qualifying land trust or governmental entity);
- Be perpetual; and
- Have a qualifying conservation purpose.³³

To satisfy the third element of the tax deduction requirements, conservation easements must detail a conservation purpose. In practice, this requirement covers a broad range, including “protection of wildlife habitat, wetlands, forestlands, working farms, historic sites, scenic landscapes, paleontological resources, burial sites, water rights, airspace, recreational facilities, or the more generic ‘open space.’”³⁴

State law determines whether a conservation easement burdening solely the surface or subsurface estate is enforceable. Federal tax laws determine whether such conservation easements are deductible. Internal Revenue Service (IRS) implementing regulations make clear that a conservation easement does not qualify for a deduction “if at any time there may be extractions or removal of minerals by any surface mining method,”³⁵ unless the mining methods “may have limited, localized impact on the real property but that are not irremediably destructive of significant conservation interests.”³⁶

Where the landowner entering into the conservation easement does not own the subsurface estate, that owner must obtain the agreement of the subsurface owner through a subordination agreement or similar document.³⁷ There is an exception when the landowner can demonstrate (generally with a report from a geologist) that “the probability of extraction or removal of minerals by any surface mining method is so remote as to be negligible.”³⁸ Apparently, these conditions have not been too onerous to meet, because there are many conservation easements on land where the landowner did not hold the subsurface rights.³⁹ There is no text in the statute or regulations addressing the situation of specifically protecting solely the mineral estate.

II. MECEs

Conservation easements have developed as a widespread land-conservation technique. In this section, we assess the legal status of a conservation easement prohibiting hydraulic fracturing and other mineral extraction activities beneath a landowner’s property without also limiting surface activities, a tool we call the MECE. Such a conservation easement would encumber only subsurface rights and provide a way to protect land from subsurface mineral extraction,

22. See Gerald Korngold, *Conservation Easements and the Development of New Energies: Fracking, Wind Turbines, and Solar Collection*, 3 *LSU J. ENERGY L. & RESOURCES* 101, 127 (2014); Jeffrey O. Sundberg, *Using Conservation Easements to Protect Open Space: Public Policy, Tax Effects, and Challenges*, 10 *J. PROP. TAX ASSESSMENT & ADMIN.* 5, 7 (2013); Jessica Owley, *When New Governance Enters the Courthouse: Judicial Interpretation of Environmental Contracts*, Presentation at the 14th Annual Colloquium of the International Union for Conservation of Nature Academy of Environmental Law in Oslo, Norway (June 24, 2016).

23. See Sundberg, *supra* note 22.

24. *Id.*

25. *Id.*

26. See, e.g., Uniform Conservation Easement Act (UCEA) §1(2) (1981). Some states specifically expand this list to include Indian tribes. See *CAL. CIV. CODE* §815.3(c). States may have slightly differing guidelines for the nonprofits that can hold conservation easements, but generally they must be nonprofits that have conservation or land protection as a primary purpose. See UCEA §1(2)(ii).

27. Owley, *supra* note 19, at 1088-89.

28. James R. Farmer et al., *Motivations Influencing the Adoption of Conservation Easements*, 25 *CONSERVATION BIOLOGY* 827, 833 (2011).

29. I.R.C. §170(h).

30. Cheever & McLaughlin, *supra* note 19, at 119-20.

31. *Id.* at 120 n.33.

32. *Id.* at 133, 172.

33. I.R.C. §170(h).

34. Cheever & McLaughlin, *supra* note 19, at 111.

35. I.R.C. §170(h)(5)(B)(i).

36. Treas. Reg. §1.170A-14(g)(4).

37. JESSICA JAY, *CONSERVATION EASEMENTS AND MINERALS* 7 (2010), available at <http://www.conservationlaw.org/publications/14-ConservationEasementsandMinerals.pdf>.

38. *Id.*; Treas. Reg. §1.170A-14(g)(3).

39. Notably, obtaining such a report does not actually prevent exploitation of the subsurface interests. If circumstances change and new technologies or mineral sources become valuable, the geologist’s certificate cannot serve to prevent exploitation.

while still allowing the surface to be open to development. The protections provided would include preventing potential risks of groundwater contamination, land subsidence, and induced seismicity associated with fluid injection for hydraulic fracturing, wastewater disposal, or other activities. We have found no examples of such agreements in practice, but believe they would be attractive to some landowners in regions where there currently is pressure for resource extraction or where such pressure might arise.

In this Comment, we focus on the power to use conservation easements solely to protect the subsurface estate, because this is a new approach. Conservation easements are already in use that limit both subsurface and surface activities, and many solely limit surface activity. Thus, we can envision three types of conservation easements: (1) encumbrances on both surface and subsurface activities, (2) encumbrances on surface activities alone, and (3) encumbrances on only subsurface activities. Categories (1) and (2) are already in frequent use, but category (3)—our proposed MECE—is not.⁴⁰

In some parts of the United States, there are split estates where one person or entity owns the surface of the land and someone else owns the subsurface. All 50 states allow some type of split estate,⁴¹ and in some parts of the United States they are common.⁴² For the most part, however, landowners own full fee-simple title (that is, both the surface and subsurface rights) to their land. Mineral or subsurface estates are generally considered the dominant estate, with a right superior to that of the surface owner, making it hard for a surface landowner to prevent mining or fracking below their land even in the presence of significant surface impacts and nuisance-like problems.⁴³ We expect two

types of landowners to be interested in MECEs: those who own only the mineral estate and wish to prevent fracking, and those who own the entire parcel in fee simple and wish to place a conservation easement solely on the subsurface estate to prevent fracking.

A. *The Uniform Conservation Easement Act and State Conservation Easement Enabling Acts*

State property law determines whether conservation easements are enforceable. While various state enabling acts differ slightly, they follow similar patterns of setting forth acceptable purposes and affirming that the arrangements are permissible under state law. The National Conference of Commissioners on Uniform State Laws (NCCUSL) authored the Uniform Conservation Easement Act (UCEA) in 1981.⁴⁴ The UCEA served as the model for almost one-half the states.⁴⁵

This section examines the UCEA and state enabling acts to assess the status of an MECE under current laws. In all, we find that the conservation easement acts in Texas, Pennsylvania, and 28 other states support the enforcement of MECEs; 16 other states do not have laws that support MECEs; and the text of the acts in four states is ambiguous. This is summarized in the map below, with states unlikely for MECEs in black, possible states for MECEs in grey, and states allowing MECEs with no shading at all. In the sections that follow, we describe each category in more detail.

I. State Laws That Support MECEs

Because what we think of today as a conservation easement was not permitted under common law, each state had to pass a statute before the enforcement of conservation easements in its jurisdiction was assured. Since 2004, every U.S. state has adopted a conservation easement enabling act.⁴⁶ Many states were influenced by the UCEA, either adopting it outright or embracing some provisions.⁴⁷ The purpose of the UCEA was to sweep away the impediments of common law that made enforcement of perpetual negative easements in gross uncertain; common law courts did not generally enforce perpetual restrictions on land uses except by an adjoining landowner.⁴⁸ The prefatory notes to the UCEA indicate that the drafters did not believe that they were creating something new, but simply clarifying the enforceability of a mechanism that in many cases already existed.⁴⁹

40. For category (2) conservation easements that only restrict the surface right or for category (1) conservation easements that do not specifically address fracking, limitations on fracking may still arise where it can be shown that the activity will conflict with other restrictions within the agreement. See, e.g., *Stockport Mountain Corp. v. Norcross Wildlife Found.*, No. 3:11cv514, 2012 WL 719345 (M.D. Pa. Mar. 1, 2012) (fracking found to violate a conservation easement that prohibited commercial activity on the land).

41. See Phillip Wm. Lear et al., *Split Estates and Severed Minerals: Rights of Access and Surface Use After the Divorce (and Other Leasehold Access-Related Problems)*, 1 ROCKY Mtn. MIN. L. Fdn., Paper 12 (2005). Louisiana, where the legal system is not based on British common law, has a slightly different approach that allows mineral estates to merge with surface estates after a period of non-use of the mineral estate in a doctrine like adverse possession. See LA. REV. STAT. ANN. §31:27 (2000).

42. In Wyoming, 48% of the land in the state is held in a split fee (making most private land split). THE CONSERVATION FUND, WYO. STATE FORESTRY DIV., FOREST LEGACY PROGRAM, ASSESSMENT OF NEED FOR THE STATE OF WYOMING 38 (2009), <http://slf-web.state.wy.us/forestrydivision/forestryprograms/legacy09.pdf>. In New York, less than 1% of the Appalachian Basin acreage is federal or split estate land. NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK'S NATURAL GAS AND OIL RESOURCE ENDOWMENT: PAST, PRESENT AND POTENTIAL 35 (2007), <http://www.dec.ny.gov/about/37805.html>. In a broader context, the United States owns the mineral rights under 57.2 million acres of private land, making at least some of the acreage in each state a split fee. BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, *Mineral and Surface Acreage Managed by the BLM*, https://www.blm.gov/wo/st/en/info/About_BLM/subsurface.html (last updated Oct. 13, 2011).

43. See Paige Anderson, *Reasonable Accommodation: Split Estates, Conservation Easements, and Drilling in the Marcellus Shale*, 31 VA. ENVTL. L.J. 136, 140-41 (2013).

44. UCEA, drafted by the NCCUSL (1981), available at http://www.uniformlaws.org/shared/docs/conservation_easement/ucea81.pdf.

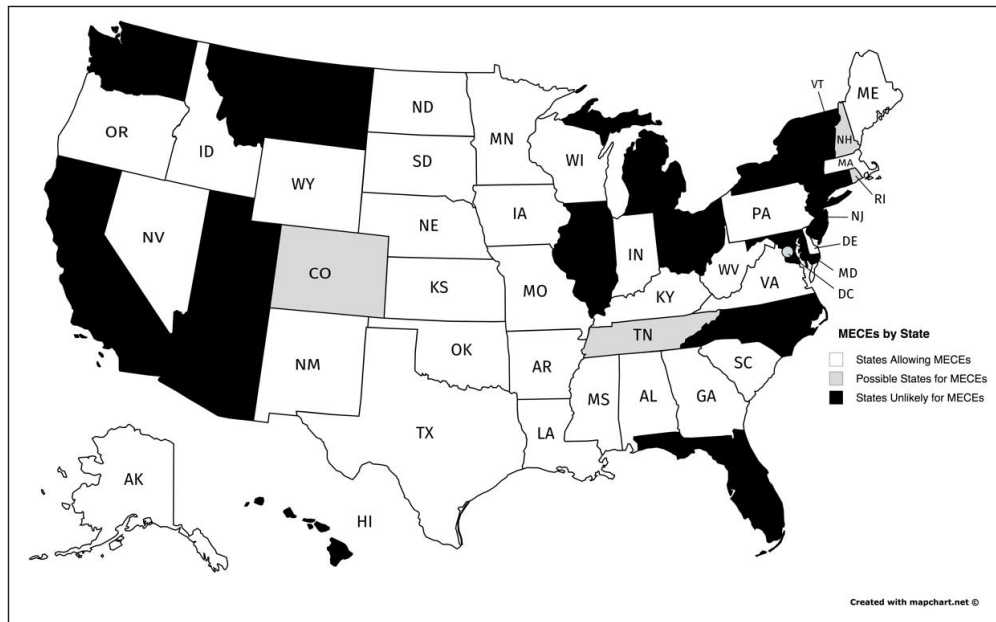
45. Uniform Law Commission, *Conservation Easement Act—Enactment Status Map*, <http://www.uniformlaws.org/Act.aspx?title=Conservation%20Easement%20Act> (last visited Dec. 12, 2016).

46. McLaughlin, *supra* note 20, at 48 n.2.

47. See ROBERT H. LEVIN, A GUIDED TOUR OF THE CONSERVATION EASEMENT ENABLING STATUTES 8 (Land Trust Alliance 2014).

48. See Nancy A. McLaughlin, *Rethinking the Perpetual Nature of Conservation Easements*, 29 HARV. ENVTL. L. REV. 421, 426 (2005).

49. See NCCUSL, UCEA Prefatory Note 1-3, available at http://www.uniformlaws.org/shared/docs/conservation_easement/ucea_final_81%20



Acceptable purposes for conservation easements under the UCEA “include retaining or protecting natural, scenic, or open-space values of real property, assuring its availability for agricultural, forest, recreational, or open-space use, protecting natural resources, maintaining or enhancing air or water quality, or preserving the historical, architectural, archaeological, or cultural aspects of real property.”⁵⁰ No court has held that conservation easements must actually achieve these goals, only that the agreements must be made with these conservation goals in mind. Protection of water quality and natural resources from hydraulic fracturing appear valid under the UCEA. The purposes specifically note the goal of protecting natural values of real property. If one seeks to prevent hydraulic fracturing due to concerns about water quality or subsidence, for example, the UCEA provides a straightforward path.

States that have adopted the UCEA generally have the same list of permissible purposes, and a few states have added slightly to it.⁵¹ The NCCUSL lists 21 states as having adopted the UCEA in some form.⁵² Not all of the states listed as adopting the UCEA, however, adopted the UCEA’s list of purposes verbatim.

Adopting the purposes sections directly (or with small changes that do not affect our analysis) are Alabama, Alaska, Arkansas, Delaware, Idaho, Indiana, Kansas, Kentucky, Maine, Minnesota, Mississippi, Nevada, Oregon, South Carolina, South Dakota, Texas, Virginia, Wisconsin, and Wyoming.⁵³

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50. UCEA §1(1).

51. For example, Alabama also allows conservation easements for protection of paleontological resources and includes silvicultural uses as distinct from agriculture or forests. ALA. CODE §35-18-1.

52. Uniform Law Commission, *Legislative Fact Sheet—Conservation Easement Act*, <http://www.uniformlaws.org/LegislativeFactSheet.aspx?title=Conservation%20Easement%20Act> (last visited Dec. 12, 2016). Washington, D.C., and the Virgin Islands have also adopted the UCEA.

53. ALA. CODE §35-18-1; ALASKA STAT. ANN. §34.17.060(1); ARK. CODE ANN. §15-20-402(1); DEL. CODE ANN. tit. 7, §6901(1) (adding protection of

Additionally, six non-UCEA states have adopted purposes sections that are substantially similar to the one in the UCEA: Georgia, Louisiana, Missouri, Nebraska, Oklahoma, and West Virginia.⁵⁴ These 25 states thus have a conservation easement statute that should not pose an impediment for MECEs.

While New Mexico is officially categorized as a UCEA state,⁵⁵ its purposes section is different. New Mexico views conservation easements as “retaining or protecting natural or open space values of real property, assuring the availability of real property for agricultural, forest, recreational or open space use *or protecting natural resources*.”⁵⁶

This language offers slightly less room for an interpretation that MECEs are permissible because it removes water quality protection as a designated purpose, but the broad mandate of protecting natural resources should be able to encompass restrictions on injurious subsurface uses. Iowa’s definition contains similar language, and MECEs should be permissible as protection of natural resources.⁵⁷

Although not a UCEA state, Pennsylvania’s Conservation and Preservation Easements Act has an identical list of purposes, adding only that the protection of land occurs for “public and economic benefit.”⁵⁸ Protecting aquifers from hydraulic fracturing activities and potential contamination, for example, would likely meet that requirement. Pennsylvania’s Act also contains special provisions with respect to coal rights, but the statute is specific in only addressing coal and not subsurface rights generally.

North Dakota is in a category of its own. Instead of enacting a specific conservation easement act, North Dakota amended its easement law to allow negative ease-

“fish and wildlife habitat, rare species and natural communities”); IDAHO CODE ANN. §55-2101(1); IND. CODE ANN. §32-23-5-2; KAN. STAT. ANN. §58-3810; KY. REV. STAT. ANN. §382.800; ME. REV. STAT. ANN. tit. 33, §476; MINN. STAT. ANN. §84C.01; MISS. CODE ANN. §89-19-1; NEV. REV. STAT. §111.410(1); OR. REV. STAT. §271.715; S.C. CODE ANN. §27-8-20 (1976); S.D. CODIFIED LAWS §1-19B-56; TEX. NAT. RES. CODE ANN. §183.001(1); VA. CODE ANN. §10.1-1009; WIS. STAT. §700.4(1) (adding protection of burial sites); WYO. STAT. ANN. §34-1-201.

54. GA. CODE ANN. §44-10-1; LA. REV. STAT. ANN. §9-1271; MO. REV. STAT. §442.014.1; NEB. REV. STAT. §76-2.111(1) (adding any purpose as may qualify as a charitable contribution under the Internal Revenue Code); OKLA. STAT. tit. 60, §49.1(1); W. VA. CODE §20-12-1.

55. Uniform Law Commission, *supra* note 52.

56. N.M. STAT. ANN. §47-12-2(A), (B) (emphasis added).

57. IOWA CODE §457A.1 (allowing conservation easements “to preserve scenic beauty, wildlife habitat, riparian lands, wetlands, or forests; promote outdoor recreation, agriculture, soil or water conservation, or open space; or otherwise conserve for the benefit of the public the natural beauty, natural and cultural resources, and public recreation facilities of the state”).

58. PA. STAT. ANN. tit. 32, §5053.

ments (restrictions that run with the land) even when not held by an adjacent landowner. There are no set purposes and therefore limitations on subsurface rights should be allowed. They may not be perpetual though, as state law limits such restrictions to 99 years.⁵⁹

While Massachusetts' general conservation easement statute offers questionable support of MECES (see discussion below), Massachusetts also has a specific law for "watershed preservation restrictions."⁶⁰ This law enables restrictions on land for retaining land in a condition to:

protect the water supply of the commonwealth, to forbid or limit any or all (a) construction or placing of buildings; (b) excavation, dredging or removal of loam, peat, gravel, soil, rock or other mineral substance except as needed to maintain the land; and (c) other acts or uses detrimental to such watershed.⁶¹

As MECES would work directly to protect the watershed, this provision offers a clear legal foundation for establishing such a structure in Massachusetts.

We should note that it is not clear at this point how MECES will interact with oil and gas laws regarding unitization and forced pooling for the approximately forty states that have such laws. Indeed, this is a question generally for conservation easements that encumber surface rights (or full fee simple rights, as well). Courts have not yet grappled with how to resolve possible conflicts. Larger individual MECES or groups of adjacent or nearby MECES could make forced pooling less likely by increasing the extent of land area or number of landowners opposed to extraction in a given pool.

2. State Laws That Do Not Appear to Support MECES

While Arizona is classified as a UCEA state, its statute emphasizes the protection of conservation, historical, architectural, archaeological, or cultural aspects of real property.⁶² It further defines conservation purposes along the lines of the IRC, listing the following acceptable list:

- (a) Preserving land areas for outdoor recreation by, or the education of, the general public.
- (b) Protecting a relatively natural habitat of fish, wildlife or plants or similar ecosystem.
- (c) Preserving open space, including farmland and forest land, if the preservation is either: (i) For the scenic enjoyment of the general public. (ii) Pursuant to a clearly delineated federal, state or local governmental conservation policy.⁶³

This language does not appear to leave room for MECES because of the more specific nature of this list, making Arizona the only "UCEA state" where MECES are questionable.

Massachusetts was the first state to adopt a conservation easement statute (which it labels a conservation restriction), well before the publication of the UCEA. As such, it has been the model for several states (Connecticut, Florida, Illinois, Maryland, Montana, New Jersey, North Carolina, and Ohio).⁶⁴ As discussed above, the Massachusetts law has a specific type of restriction (a watershed preservation restriction) that can serve as a legal foundation for an MECES. Unfortunately, the basic definition of a conservation restriction in Massachusetts does not allow for such a structure, and the states that have followed Massachusetts' model have adopted the conservation restriction language without also adopting the watershed preservation restrictions. The Massachusetts statute allows conservation easements "whose purpose is to retain land or water areas predominantly in their natural, scenic or open condition or in agricultural, farming, forest or open space use."⁶⁵ This focus on surface conditions would make it a challenge to have a conservation easement that solely prevents subsurface activities without a mandate to keep the land in its natural or open-space condition.

The Massachusetts law also contains a list of permissible limitations on land, and the restriction on excavation and dredging specifically notes that it is about prohibiting actions that "affect the surface."⁶⁶ But a catchall phrase at the end of the list states that limitations on land use of "other acts or uses detrimental to such retention of land or water areas" are permissible.⁶⁷ If we read this list of restrictions as offering methods to carry out the stated goal in the definition, the inclusion of the catchall phrase is not beneficial to the establishment of MECES. If, however, we interpret the list as examples of permissible restrictions, there may be room for MECES under this approach. Florida, Maryland, and North Carolina have adopted this same language, with the same caution about actions that affect the surface and the same catchall phrase.⁶⁸

Connecticut and Ohio adopted the Massachusetts statute's main definition without a list of permissible limitations.⁶⁹ Montana took the opposite approach, adopting

59. N.D. CENT. CODE §47-05-02.1.

60. MASS. GEN. LAWS ANN. ch. 21, §59.

61. MASS. GEN. LAWS ANN. ch. 184, §31.

62. ARIZ. REV. STAT. §33-271(1).

63. *Id.* §33-271(2).

64. CONN. GEN. STAT. ANN. §47-42a; FLA. STAT. §704.06(1); 765 ILL. COMP. STAT. 120/0.01; MD. CODE ANN. REAL PROP. §2-118; MONT. CODE ANN. §76-6-203; N.J. STAT. ANN. §13:8B-1; N.C. GEN. STAT. §121-34; OHIO REV. CODE ANN. §5301.70(A).

65. MASS. GEN. LAWS ch. 184, §31.

66. *Id.* at (d).

67. *Id.* at (g).

68. FLA. STAT. §704.06(1). See also (11), which says nothing in the statute shall be construed "to prohibit or limit the owner of the land . . . to voluntarily negotiate the sale or utilization of such lands . . . for the construction and operation of linear facilities, including . . . pipeline transmission and distribution facilities." While it appears that the section is aimed at protecting access to public utilities like water, gas, and sewage, it could be interpreted as permissive of below-ground activity. Other provisions of the statute, however, suggest broad leeway for acceptable conservation purposes and restraints. See also MD. CODE ANN. REAL PROP. §2-118; N.C. GEN. STAT. §121-34.

69. CONN. GEN. STAT. ANN. §47-42a; OHIO REV. CODE ANN. §5301.70(A).

only the list of permissible restrictions without first creating an overall definition. Its list mirrors the Massachusetts list but in its provision preventing sand and gravel excavation (including “other material”), it does not restrict it by only actions with surface impacts.⁷⁰ Illinois adopted the definition language and some of the list of permissible limitations but did not include a catchall phrase, making an even stronger case against the use of MECEs in Illinois.⁷¹ New Jersey follows the Massachusetts model but in its list of permissible restrictions removes the requirement that mineral excavation must affect the surface, suggesting a greater receptiveness to an MECE.⁷²

With language that differs from the Massachusetts model, Michigan’s definition of conservation easements also focuses on maintaining land predominantly in its natural, scenic, or open-space condition.⁷³ Utah’s approach is similar, focusing on protection of open land.⁷⁴ New York also appears to have language that would make MECEs questionable, with its permissible purposes including “scenic, open, historic, archaeological, architectural, or natural condition, character, significance or amenities of the real property.”⁷⁵

California’s Conservation Easement Act describes the purposes of conservation easements as retaining the “land predominantly in its natural, scenic, historical, agricultural, forested, or open-space condition.”⁷⁶ As with other states’ laws, the California enabling act requires that it be liberally construed to forward the purposes of land conservation.⁷⁷ Nonetheless, it is not clear that prohibiting fracking would be adequate to qualify as preserving land in its natural condition. This is particularly true in light of legislative history and case law that emphasize the statute as one seeking to protect against sprawl, development, and conversion of habitat.⁷⁸ Hawaii has largely adopted California’s statute.⁷⁹

The stated purpose of Vermont’s law puts it at odds with the idea of an MECE. Vermont enacted its statute to preserve present land uses and to prevent sprawl:

It is the purpose of this chapter to encourage and assist the maintenance of the present uses of Vermont’s agricultural, forest, and other undeveloped land and to prevent the accelerated residential and commercial development thereof; to preserve and to enhance Vermont’s scenic natural resources; to strengthen the base of the recreation industry and to increase employment, income, business, and investment;

and to enable the citizens of Vermont to plan its orderly growth in the face of increasing development pressures in the interests of the public health, safety and welfare.⁸⁰

This focus on development appears hostile to MECEs without accompanying restrictions on surface use and development. The state of Washington takes a similar approach, with legislative findings concerned about “the haphazard growth and spread of urban development” that is leading to conversion of open-space lands.⁸¹ However, to meet this goal, the statute notes that acquisition of mineral rights might be appropriate.⁸²

3. State Laws That Might Support MECEs

Colorado defines a conservation easement as:

a right in the owner of the easement to prohibit or require a limitation upon or an obligation to perform acts on or with respect to a land or water area, airspace above the land or water, or water rights beneficially used upon that land or water area, owned by the grantor appropriate to the retaining or maintaining of such land, water, airspace, or water rights, including improvements, predominantly in a natural, scenic, or open condition, or for wildlife habitat, or for agricultural, horticultural, wetlands, recreational, forest, or other use or condition consistent with the protection of open land, environmental quality or life-sustaining ecological diversity, or appropriate to the conservation and preservation of buildings, sites, or structures having historical, architectural, or cultural interest or value.⁸³

The acceptable purposes for conservation easements in Colorado may encompass restrictions on hydraulic fracturing, because it lists protection of environmental quality as an important goal. While the Conservation Easement Enabling Act does not identify subsurface rights specifically, its nonexclusive list of potential areas of limitation illustrates a willingness to look at restrictions on various aspects of property rights. Indeed, the explicit acknowledgment of air rights in the Colorado statute suggests that subsurface rights could also be consistent with this approach. Colorado specifically recognizes the ability to create conservation easements for water rights.⁸⁴ This logic could extend to protect subsurface rights against hydraulic fracturing.⁸⁵ Indeed,

70. MONT. CODE ANN. §76-6-203. In this way, Montana may seem more amenable to an MECE, but the list of permissible restrictions generally appears to be focused on protecting land in its existing condition and it is not clear that a restriction that allowed changes of the surface would be acceptable.

71. 765 ILL. COMP. STAT. 120/0.01.

72. N.J. STAT. ANN. §13:8B-1.

73. MICH. COMP. LAWS §324.2140(a).

74. UTAH CODE ANN. §57-18-1 (“for the purpose of preserving and maintaining land or water areas predominantly in a natural, scenic, or open condition, or for recreational, agricultural, cultural, wildlife habitat or other use or condition consistent with the protection of open land”).

75. N.Y. ENVTL. CONSERV. LAW §49-0301.

76. CAL. CIV. CODE §815.1.

77. *Id.* §816.

78. THOMAS S. BARRETT & PUTNAM LIVERMORE, *THE CONSERVATION EASEMENT IN CALIFORNIA* (1983).

79. HAW. REV. STAT. §198-1.

80. VT. STAT. ANN. tit. 10, §6301.

81. WASH. REV. CODE §84.34.200.

82. *Id.* §84.34.210 (“Among interests that may be so acquired are mineral rights.”).

83. COLO. REV. STAT. ANN. §38-30.5-102.

84. Mesa County Land Conservancy, Inc. v. Allen, 318 P.3d 46 (Colo. Ct. App. 2012), available at https://www.courts.state.co.us/Courts/Court_Of_Appeals/Opinion/2012/11CA1416-PD.pdf.

85. Note that there is a potential impediment for subsurface owners to enter into an MECE. Where there is a split estate and a property owner holds only the subsurface estate, there could be concerns with Colorado’s limitation of who can enter into a conservation easement to “record owners of the surface of the land.” This would not be a problem where the surface owner holds the subsurface rights but could limit the ability to enter into MECEs on severed estates. See also Nicholas R. House, *Conflicting Property Rights Between Conservation Easements and Oil and Gas Leases in Ohio: Why Current Law Could Benefit Conservation Efforts*, 55 WM. & MARY L. REV. 1587 (2014).

Colorado's 15-year history of encumbering water rights with conservation easements without requiring a correlated land encumbrance could serve as a good example of how MECES might work in the state and elsewhere.

New Hampshire's and Rhode Island's generous (identical) definition of conservation easements begins by focusing on preserving land predominantly in its natural conditions, but then also allows restrictions "consistent with the protection of environmental quality."⁸⁶

In Tennessee, one can have a conservation easement that seeks "to preserve, maintain or enhance the present condition, use or natural beauty of the land, geological, biological, historic, architectural, archaeological, cultural or scenic resources of the state of Tennessee."⁸⁷ The broad language about protecting geological resources could extend to protecting the subsurface.

Note that this investigation of the state conservation easement enabling acts does not affirmatively answer the question of whether MECES are permissible in each state. It does address whether such a structure would be permissible under the state laws on conservation easements, but it may be that something like an MECE would be permissible under traditional property law tools like easements or covenants. One could investigate each state's property law rules to see whether something akin to a negative easement in gross on subsurface rights would run with the land. General uncertainty on the enforceability of such restrictions led to the passage of conservation easement statutes, but does not mean that such a restriction is impermissible everywhere.⁸⁸

B. Tax Deductibility

In addition to the question of legality of MECES under state conservation easement enabling acts, potential donors may also care about the tax consequences. Indeed, one of the biggest drivers of conservation easements has been the ability of landowners to receive a federal tax deduction for transferring property rights to qualifying entities.⁸⁹ This section examines whether MECES would be consistent with the federal tax code.

I. Current Law

The IRC does not allow tax deductions for partial interests, with the sole exception of conservation easements.⁹⁰

Because conservation easements are an exception to a long-held policy, courts have been inconsistent, with some construing the IRC strictly and others quite broadly. There are two significant statutory impediments to consider.

The IRC requires a deductible conservation easement to be a "qualified real property interest,"⁹¹ which it defines as "the entire interest of the donor other than a qualified mineral interest, a remainder interest, and a restriction (granted in perpetuity) on the use which may be made of the real property."⁹² A "qualified mineral interest" means (A) subsurface oil, gas, or other minerals, and (B) the right to access to such minerals.⁹³ This likely is meant to allow the donation of a conservation easement from a landowner who does not control the subsurface rights.

The IRC defines acceptable purposes for conservation easements as

- (i) the preservation of land areas for outdoor recreation by, or the education of, the general public, (ii) the protection of a relatively natural habitat of fish, wildlife, or plants, or similar ecosystem, (iii) the preservation of open space (including farmland and forest land) . . . or (iv) the preservation of an historically important land area or a certified historic structure.⁹⁴

None of these purposes clearly covers groundwater resources. The strongest claim would likely involve section (ii) and the assertions that an aquifer should be considered a similar ecosystem to other natural habitat, but this is by no means a powerful argument. Thus, without amendment to the IRC, MECES will not clearly be eligible for charitable tax donations.⁹⁵ In the final section of this Comment, we offer amendment text that would make MECES tax deductible.

2. Valuation Issues

Even if an MECE is tax deductible, the question remains how large the deduction should be—that is, how to value an MECE in dollars. Valuation has been a topic of debate with conservation easements and the subject of several tax cases and investigations.⁹⁶ Some conservation easements significantly change behavior and yield a more protective and conservation-oriented future for a parcel of land. This occurs where the land was at risk of development. Where there is no such risk, the opportunity cost becomes difficult to value. Where a landowner receives a tax deduction for protecting land that was never earmarked for development, one might question the public benefit involved.⁹⁷

86. N.H. REV. STAT. ANN. §477:45(I) ("appropriate to retaining or maintaining such land or water area, including improvements thereon, predominantly in its natural, scenic, or open condition, or in agricultural, farming, open space or forest use, or in any other use or condition consistent with the protection of environmental quality"); R.I. GEN. LAWS §34-39-2 (same language as New Hampshire).

87. TENN. CODE ANN. §66-9-301.

88. For an example of investigating state property law to determine permissibility of restrictions outside of the state conservation easement enabling acts, see Jessica Owley, *The Enforceability of Exacted Conservation Easements*, 36 VT. L. REV. 261, 287-98 (2011) (examining California property law to evaluate the enforceability of exacted conservation easements outside of the context of the state conservation easement laws).

89. Cheever & McLaughlin, *supra* note 19, at 118.

90. See Treas. Reg. §1.170A-14(a).

91. I.R.C. §170(h)(1)(A).

92. I.R.C. §170(h)(2).

93. I.R.C. §170(h)(6).

94. I.R.C. §170(h)(4)(A).

95. They may still yield property tax benefits depending on the jurisdiction's approach to calculating property taxes.

96. See Nancy A. McLaughlin, *Conservation Easements and the Valuation Conundrum*, 19 FLA. TAX REV. 225 (2016).

97. See Lisa Provence, *Scenic Treasure: How Conservation Lines the Pockets of the Rich*, THE HOOK, Mar. 3, 2011, <http://www.readthehook.com/88910/scenic-treasure-how-conservation-lines-pockets-rich> (criticizing the public subsidization of conservation easements that protect the estates of wealthy individuals who do not intend to develop their land in the first place). See also *Kiva Dunes Conservation, LLC v. Commissioner*, 97 T.C.M. (CCH)

In the case of an MECE, the standard valuation approach would take the value of the land without the MECE and subtract the value of the land with the MECE. Implicit in this calculation is that the land is both available for fracking and desirable for fracking. If, for example, the fair market value of the land is \$1,000,000 without encumbrances but only worth \$250,000 if you can no longer hydraulically fracture there, then the MECE is worth \$750,000. But those “before and after” prices can be hard to calculate. In New York, one might argue that there should be no value because fracking has been banned.⁹⁸ The before and after value is the same.⁹⁹ That said, the perpetual nature of an MECE is more certain than the current governor’s moratorium. The next governor (or even this one) could change his view and lift the moratorium. Where an MECE encumbered the land perpetually, the vagaries of individual politicians would not impact land protection efforts. Thus, an MECE could perform an important conservation service and have value even in places with restrictions on fracking.

One might argue that an MECE should have value for land that lies over shale deposits but is not currently under consideration for fracking. While today’s technology may calculate the land value as virtually unchanged with or without hydraulic fracturing rights, changes in the market or improvements in technology might make these lands viable sites in the future. Does it make sense to only consider today’s market circumstances when calculating a perpetual restriction? Given the IRS’ increasingly strict view of valuation, the valuation of the MECE could be low unless one can show a likelihood that the land is at risk of being hydraulically fractured and there is a real opportunity cost for the landowner.

Granting tax deductions for MECEs may also be politically difficult. Members of the public may question conservation easements when the landowners can do whatever they like on the surface. It might be off-putting to some environmental groups, for example, to learn that a sprawling suburban development or a Walmart superstore holds an MECE and is benefiting from a tax deduction.

III. Proposals and Conclusion

As we set out in Part II, state conservation easement enabling acts in states such as Texas, Pennsylvania, and UCEA states already appear to support the enforceability of MECEs. In a small number of states such as Califor-

nia, Colorado, and Ohio, the acts do not explicitly endorse MECEs, and land trusts may be hesitant to use them. In these states, the relatively high transaction and purchase costs would be risky investments if they proved vulnerable to legal challenge in the future. This was the case in the past with traditional conservation easements, where lack of clarity slowed their development and use.¹⁰⁰ Similar hesitancy might apply to land trusts that enter into MECEs without clear statutory authority even in states where MECEs are arguably consistent with state property law.¹⁰¹

Therefore, we suggest amendments to state enabling acts to confirm and clarify the enforceability of MECEs. One approach would be for states to adopt language that specifically addresses hydraulic fracturing. Such text might define a valid purpose for a conservation easement as including “protection of groundwater and prevention of seismicity from unconventional extraction, including hydraulic fracturing, wastewater disposal, and related activities.” This targeted language offers the benefit of addressing the issue directly, developing clear legislative history, and avoiding unintended consequences. It would also be sufficient simply to include protection of groundwater and prevention of seismic activities without even mentioning fracking.

A second approach would encourage states to adopt language in the UCEA, particularly the text defining acceptable purposes for conservation easements to include “protecting natural resources, maintaining or enhancing air or water quality.” This could offer political benefits because so many states have adopted the same or similar UCEA language, so it would not pose any risks of untested language.

We also recommend clarification of the IRC rules confirming the deductibility of MECEs. Specifically, we recommend amending the IRC’s list of acceptable purposes to include (v) the protection of groundwater and prevention of seismic activity.”

Conservation easements are a popular and widely supported tool providing landowners with the ability to protect their land in perpetuity. Mineral conservation easements are a logical extension of the tradition of conservation easements. Such MECEs appear to be legally allowed in much of the country right now. More than two dozen states have statutory language that would support the formation of MECEs, including the important oil and gas producing states of Alaska, Louisiana, Oklahoma, Texas, West Virginia, and Wyoming. We support the exploration of MECEs as an additional tool for landowners to exercise their rights and responsibilities.

1818 (2009) (where the Tax Court concluded that Kiva Dunes was entitled to a \$28.6 million deduction for placing a conservation easement on a golf course); *Scheidelman v. Commissioner*, 755 F.3d 148, 151 (2d Cir. 2014) (involving a façade easement in an upscale Brooklyn neighborhood).

98. See N.Y. DEC FSGEIS, *supra* note 11, at 41.

99. Treasury Regulations explicitly state that “there may be instances where the grant of a conservation restriction may have no material effect on the value of the property.” Treas. Reg. §1.170A-14(h)(3)(ii).

100. See *Owley*, *supra* note 19, at 1086.

101. Note that we have only explored the legality of MECEs under state conservation easement enabling acts. It may be in some states that the laws of servitudes (covenants and easements) enable MECE-like arrangements. A close examination of each state’s property law would be needed to answer that question. See *supra* note 84 and accompanying text.