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Response

Fracking and the Public Trust Doctrine: A Response to Spence

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In his article *The Political Economy of Local Vetoes*,¹ Professor David Spence undertakes a comprehensive and insightful study of state and local legislation governing the use of hydraulic fracturing (fracking) to produce shale oil and gas. He focuses particularly on local zoning ordinances banning or limiting hydraulic fracturing that conflict with state laws encouraging shale oil and gas development. This focus is appropriate because, as he notes: “within the last few years more than 400 local governments, from California to Texas to New York, have enacted ordinances restricting or banning within their borders the use of hydraulic fracturing . . . to produce natural gas or oil from shale formations.”² This is true despite the fact that state law has historically regulated oil and gas activities in the United States.³ As a result, state courts are increasingly forced to decide state–local preemption issues when drillers and royalty owners challenge local zoning ordinances that restrict or ban fracking and when local governments and their citizens challenge state laws that attempt to override local restrictions or bans on fracking. Spence also discusses the growing number of regulatory takings claims by producers and landowners against states and local governments, arguing that such bans on fracking result in a regulatory “taking” of the private property entitling the owner to

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1. David B. Spence, *The Political Economy of Local Vetoes*, 93 TEXAS L. REV. 351 (2014).

2. *Id.* at 351.

3. Mike Soraghan, *Protecting Oil from Water—The History of State Regulation*, GREENWIRE, Dec. 14, 2011, <http://www.eenews.net/stories/1059957631>, archived at <http://perma.cc/5V4T-YXT4>.

just compensation under the Fifth and Fourteenth Amendments to the U.S. Constitution.

Many of these state–local conflicts are arising for the first time with the shale gas “boom” because shale gas resources are often located near population centers and because some of this development is occurring in states and in parts of states that have not been oil-and-gas producing areas for nearly a century, if ever.⁴ Moreover, the concerns over fracking operations are numerous and cover a broad range of environmental and aesthetic impacts that are generally within the purview of both state and local law. For instance, Spence summarizes the potential impacts of fracking operations local governments are responding to as including groundwater contamination, surface-water contamination, localized earthquakes, groundwater depletion, air pollution, excessive truck traffic, noise, interference with quality of life, and disruption of local ecosystems. While Spence states that a few of these concerns are not supported by scientific evidence, the fact remains that many of these concerns are driving local governments and their residents to challenge state efforts to promote fracking because they believe that they are in a better position than the states to balance the benefits and costs of fracking.

In comparing the relative benefits and drawbacks to local or state primacy, Spence’s focus is necessarily on legislation and whether state or local governments are best positioned to legislate with regard to shale gas development. But what about the courts? Is there an independent role for the courts in shaping the development of intergovernmental authority conflicts and regulatory takings claims associated with shale gas development in the United States apart from the statutory interpretation issues that often predominate these types of lawsuits?

This response focuses on the independent role the courts may play in resolving fracking disputes between states and local governments and in regulatory takings claims in states with developed public trust doctrines. In his article, Spence mentions the public trust doctrine and codification of public trust principles in state constitutions but tends to minimize their importance. He discusses the 2013 Pennsylvania Supreme Court decision, *Robinson Township v. Commonwealth of Pennsylvania*,⁵ in which the court

4. See, e.g., J. DANIEL ARTHUR ET AL., WATER RESOURCES AND USE FOR HYDRAULIC FRACTURING IN THE MARCELLUS SHALE REGION 1–4 (Sept. 2008), available at http://www.dec.ny.gov/docs/materials_minerals_pdf/GWPCMarcellus.pdf, archived at <http://perma.cc/KEL6-8MA7> (describing how the Marcellus Shale Region encompasses several major population centers and is within states that have never had a need to regulate oil and gas development); NATIONAL CONF. OF STATE LEGISLATURES, NATURAL GAS DEVELOPMENT AND HYDRAULIC FRACTURING: A POLICYMAKER’S GUIDE (June 2012), available at http://www.ncsl.org/documents/energy/frackingguide_060512.pdf, archived at <http://perma.cc/2AJ4-EDL8> (describing widespread nature of natural gas development and legislative concerns over development activities in populated areas).

5. 83 A.3d 901 (Pa. 2013).

invalidated a state statute that prevented local governments from banning or limiting shale gas development.⁶ The plurality based its decision on the state's environmental rights amendment to its constitution.⁷ According to the court, that amendment, which codifies common law public trust principles, serves as a limit on the state legislature's ability to override local government efforts to limit development for environmental protection purposes.⁸

Spence recognizes the importance of the decision in Pennsylvania but concludes that it is "a bit of an outlier in this field" and that its effects "on state-local preemption doctrine elsewhere remain to be seen."⁹ This response explores in more detail the role of the public trust doctrine in resolving intergovernmental disputes over shale oil and gas development as well as in regulatory takings claims. It suggests that state constitutional codifications of the public trust doctrine in some states, coupled with robust judicial interpretation of the common law public trust doctrine in other states, have the potential to minimize significantly the ability of states to override local government resistance to shale oil and gas development. The public trust doctrine may also play a role in regulatory takings claims involving shale oil and gas development by providing "cover" to state and local governments if their limits on development are intended to protect public trust resources.

Part I of this response provides background on the public trust doctrine as it exists under state common law, in state constitutions, and in state statutes that have codified the common law doctrine. Part II discusses the cases to date that have addressed public trust doctrine issues in the context of shale oil and gas development. Finally, Part III offers some additional observations regarding the role of the public trust doctrine in judicial resolution of state-local disputes and regulatory takings claims associated with shale oil and gas development.

I. The Public Trust Doctrine

The public trust doctrine is an ancient Roman doctrine that holds that there are certain natural resources, notably submerged lands under tidal and navigable waters, that are subject to government ownership and must be held in trust for the use and benefit of the public as well as future generations.¹⁰ Prior to the 20th century, U.S. courts used the doctrine primarily to preserve public access to water and shoreland areas for commerce, recreation, transportation, and fishing purposes. During that time period, the primary

6. *Id.* (plurality opinion).

7. *Id.* at 978.

8. *See id.* at 956–57. A fourth justice concurred in the holding based on substantive due process grounds. *Id.* at 1001 (Baer, J., concurring).

9. Spence, *supra* note 1, at 374–75.

10. *See* Alexandra B. Klass, *Modern Public Trust Principles: Recognizing Rights and Integrating Standards*, 82 NOTRE DAME L. REV. 699, 702–03 (2006).

case articulating the scope of the public trust doctrine was *Illinois Central Railroad v. Illinois*,¹¹ in which the U.S. Supreme Court held in 1892 that the public trust doctrine barred the Illinois legislature's action in 1869 to sell more than 1,000 acres underlying Lake Michigan in the Chicago Harbor to the railroad.¹² The Court held that the title the state held to the submerged lands at issue was different in character from other state lands that could be sold into private ownership.¹³ Instead, these submerged lands were a "title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties."¹⁴ Although the state could allow some private economic use of such lands, the uses must be ones that "do not substantially impair the public interest in the lands and waters remaining."¹⁵

In the 1970s, the public trust doctrine became important for environmental protection purposes when professor Joseph Sax wrote an influential law review article suggesting that the doctrine could act as a ground to compel states and other governmental entities to protect water and other natural resources from development and other threats.¹⁶ Since that time, many states, such as California, Hawaii, New York, and Louisiana, have developed a robust common law public trust doctrine; other states, such as Pennsylvania and Montana, enshrined public trust principles in their state constitutions; and yet others have codified the public trust doctrine in statutory provisions.¹⁷ Thus, in many states throughout the nation, common law, state constitutions, state statutes, or all three serve to limit state legislative or executive efforts to sell, impair, or interfere with public trust resources. In some jurisdictions, notably California, the public trust doctrine does not require a complete ban on development that would impact public trust resources. Instead, the doctrine requires government officials to take public trust resources into account to the extent feasible in making decisions that would impact such resources.¹⁸

11. 146 U.S. 387 (1892).

12. *Id.* at 405 & n.1, 455.

13. *Id.* at 452.

14. *Id.*

15. *Id.*

16. Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 556–57 (1970).

17. *See* Klass, *supra* note 10, at 723–26 (exploring state statutory schemes incorporating the doctrine).

18. *See, e.g., Nat'l Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419 (Cal. 1983) ("The state has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible."); Holly Doremus, *Groundwater and the Public Trust Doctrine, California Style*, LEGAL PLANET (July 21, 2014), <http://legal-planet.org/2014/07/21/groundwater-and-the-public-trust-doctrine-california-style/>, archived at <http://perma.cc/SDG4-YYFK> (asserting that public trust uses need only be protected to the extent feasible).

Although many states have limited their common law doctrine to water-based resources, others such as California and New York have extended the doctrine to protect wildlife, scenic, and other land-based public trust values. Moreover, states with constitutional or statutory public trust provisions have included a broad scope of resources within the doctrine's protection.¹⁹ For instance, the California courts have found that the common law public trust doctrine limits surface water withdrawals that impact lakes; imposes limits on wind turbines that may kill raptors such as eagles, hawks, and falcons; and limits groundwater withdrawals that adversely impact connected surface waters.²⁰ The California courts have also confirmed that the public trust doctrine imposes limits on local governmental action as well as state governmental action.²¹ In Louisiana, courts have used the doctrine to limit the construction and operation of a hazardous waste disposal facility.²² In New York, courts have held for over a century that the public trust doctrine protects parkland, and there are numerous New York decisions, including one in 2013, preventing development on parkland based on the doctrine.²³

With regard to state constitutional provisions, Pennsylvania amended its state constitution in 1971 to provide that:

The people have a right to clean air, pure water, and to the preservation of natural, scenic, historic, and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.²⁴

19. Klass, *supra* note 10, at 707–14.

20. See Doremus, *supra* note 18 (reporting on a California trial court decision in July 2014 holding that groundwater pumping that affects flows in a navigable stream are subject to the public trust doctrine).

21. See Ctr. for Biological Diversity v. FPL Grp., 83 Cal. Rptr. 3d 588, 599–602 (Cal. Ct. App. 2008) (holding that the public trust doctrine places obligations on counties to consider impacts on raptors and other birds when approving and regulating wind turbine projects but that the plaintiffs could not succeed on their claims because they sued the private wind farm operators rather than the counties that owed the legal duty under the doctrine).

22. Save Ourselves, Inc. v. La. Envtl. Control Comm'n, 452 So. 2d 1152, 1159–60 (La. 1984) (recognizing that the public trust doctrine imposes a duty on state actors to provide meaningful review of the impact of their decisions on natural resources and the environment); Ryan M. Seidemann, The Public Trust Doctrine and Surface Water Management and Conservation: A View from Louisiana (Mar. 17–19, 2011) (unpublished manuscript) (discussing potential impacts of public trust doctrine on development of shale resources in Louisiana).

23. See, e.g., Raritan Baykeeper, Inc. v. City of New York, 984 N.Y.S.2d 634 (Sup. Ct. Dec. 20, 2013) (granting plaintiffs' motion for summary judgment and holding that development of a composting facility in a park violates the common law public trust doctrine and citing earlier similar cases).

24. PA. CONST. art. I, § 27.

When Montana amended its constitution in 1974, it included a provision that granted an “inalienable” right to a “clean and healthful environment” and placed a duty on the state and private parties to “maintain and improve a clean and healthful environment in Montana for present and future generations.”²⁵ Montana courts have used the Montana constitutional provision to hold that a nonprofit group could sue the state environmental agency and a mining company to prevent discharge of contaminants into a river that would adversely impact water quality and species even though the agency’s rules allowed the discharge.²⁶ Thus, constitutional public trust provisions can override conflicting state statutes and regulatory decisions.

As for statutory public trust provisions, Minnesota, Michigan, and a few other states enacted environmental rights statutes in the 1970s that codified the public trust doctrine and expanded its scope to include land, water, soil, animal, mineral, aesthetic, and other natural resources.²⁷ For instance, the Minnesota Environmental Rights Act (MERA) gives any person the right to seek injunctive relief in court against any person “for the protection of the air, water, land, or other natural resources” in the state whether publicly or privately owned, from “pollution, impairment or destruction.”²⁸ “Natural resources” include, but are not limited to, “all mineral, animal, botanical, air, water, land, timber, soil, quietude, recreational and historical resources” as well as state-owned scenic and aesthetic resources.²⁹ Minnesota courts have interpreted MERA broadly to protect birds, trees, historic buildings, marsh and wetland areas, quietude in residential areas, drinking water wells, wetlands, and the wilderness experience in forests.³⁰ To protect such resources, Minnesota courts have enjoined a gravel pit operation, a shooting range, tree harvesting, and highway projects, among others.³¹ Like California, Minnesota law limits local government action as well as state action that may impact protected natural resources.³²

The discussion above shows how the public trust doctrine can serve as a judicial “sword” to limit actions by private parties, local governments, and state governments that may adversely impact protected public trust resources. But the public trust doctrine can also serve as a “shield” for local or state actors when they attempt to limit private action that may adversely impact

25. MONT. CONST. art. II, § 3; MONT. CONST. art. IX, § 1.

26. *Mont. Envtl. Info. Ctr. v. Dept. of Envtl. Quality*, 988 P.2d 1236, 1242–43 (Mont. 1999).

27. *Klass*, *supra* note 10, at 719–27.

28. MINN. STAT. ANN. §§ 116B.02–03 (West 2014).

29. MINN. STAT. ANN. § 116B.02 (West 2014).

30. *Klass*, *supra* note 10, at 722–23.

31. *Id.*

32. *See, e.g., State ex rel. Archabal v. Cnty. of Hennepin*, 495 N.W.2d 416, 421–26 (Minn. 1993) (holding that MERA prevented a city from demolishing historic building to build a new jail); *Cnty. of Freeborn v. Bryson*, 210 N.W.2d 290, 297 (Minn. 1973) (holding that MERA prevented a county from building a highway through a wetland area where feasible and prudent alternatives were available).

public trust resources. For instance, courts have rejected regulatory takings claims against state and local governments on public trust grounds when governments have amended instream flow regulations, prohibited the filling of wetlands, restricted urban development, banned personal watercraft on certain waterbodies, denied a permit for a pier, or otherwise taken actions to protect public trust resources that impact private property rights.³³

Because of the scope of resources subject to public trust protection and the wide range of surface water, groundwater, land, and aesthetic impacts associated with shale oil and gas development, it is hardly a stretch to envision use of the public trust doctrine to override state statutes that encourage development to the detriment of protected resources or that limit local governments' efforts to restrict such development. The next Part explores the application of the public trust doctrine to shale oil and gas operations to date.

II. Potential Public Trust Doctrine Limits on Shale Oil and Gas Development

Many of the states with public trust protection of natural resources as a result of common law, statute, or state constitution have significant shale oil or gas resources. These include California, Pennsylvania, Michigan, New York, Louisiana, and Montana. Although not all of these states have applied public trust protections to limit shale oil and gas development, several state legislatures and courts have addressed the issue.

For instance, in Pennsylvania, in 2012, the legislature enacted a new law, "Act 13," that required all local ordinances to "allow for the reasonable development of oil and gas resources" and imposed uniform rules for oil and gas regulation.³⁴ Local governments and residents that had enacted zoning ordinances limiting hydraulic fracturing that were more stringent than Act 13 challenged the law on various grounds, including an argument that it violated Article I, Section 27 of the Pennsylvania Constitution. In a 2013 decision, the Pennsylvania Supreme Court plurality agreed and invalidated many provisions of Act 13.³⁵ It held that "a new regulatory regime permitting

33. See Klass, *supra* note 10, at 734–43 (discussing cases involving regulatory takings claims); Alexandra B. Klass, *Renewable Energy and the Public Trust Doctrine*, 45 U.C. DAVIS L. REV. 1021, 1031 (2012) (same).

34. 58 PA. CONS. STAT. ANN. §§ 3303–3304 (West 2014) (providing that state environmental laws "occupy the entire field" of oil and gas regulation to the exclusion of all local ordinances, that state law preempts and supersedes local regulation of oil and gas operations, and that all local ordinances must allow for the reasonable development of oil and gas resources, and imposing uniform rules for hydraulic fracturing in the state that prevent local governments from establishing more stringent rules).

35. *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 913 (Pa. 2013) (plurality opinion); see also John C. Dernbach et al., *Robinson Township v. Commonwealth of Pennsylvania: Examinations and Implications* (Widener Law Sch. Legal Studies Research Paper Series, Paper No. 14-10), available at <http://ssrn.com/abstract=2412657>, archived at <http://perma.cc/F77T-PWGW>.

industrial uses as a matter of right in every type of pre-existing zoning district is incapable of conserving or maintaining the constitutionally-protected aspects of the public environment and of a certain quality of life.”³⁶ Moreover, under the law, “some properties and communities will carry much heavier environmental and habitability burdens than others,” which is inconsistent with the Commonwealth’s obligation to act as a trustee.³⁷ This result is inconsistent with the obligation that the trustee act for the benefit of “all the people.”³⁸

In interpreting its Environmental Right Amendment, the plurality found that the obligation to preserve protected resources was imposed not only on the state but on local governmental entities as well.³⁹ As a result, the plurality found that by limiting the ability of local governments to protect public trust resources for their citizens, the state legislature not only failed to meet its own obligation under the state constitution but also prevented local governments from meeting their similar obligations under the state constitution.⁴⁰

While in Pennsylvania it was the state legislature that acted to promote hydraulic fracturing by limiting local zoning laws, in Vermont, in 2012, the state legislature banned hydraulic fracturing throughout the state.⁴¹ Notably, in hearings leading up to the new legislation, supporters cited the public trust doctrine as a reason to impose the ban.⁴² In 2008, the state had enacted legislation declaring that groundwater was a public trust resource subject to judicial protection under the common law public trust doctrine.⁴³ In 2012, legislators expressed concern that if shale gas operations resulted in groundwater contamination, the state would be violating its public trust obligations.⁴⁴

In Louisiana, which has a robust common law public trust doctrine as well as shale oil and gas resources, the state responded to numerous criticisms that massive amounts of water were being used for hydraulic fracturing purposes without considering competing public trust values.⁴⁵ As a result, in 2010, the Louisiana attorney general and other state agencies issued a guidance memorandum stating that based on the public trust

36. *Robinson Twp.*, 83 A.3d at 979 (plurality opinion).

37. *Id.* at 980.

38. *Id.*

39. *Id.* at 977–78.

40. *Id.*

41. VT. STAT. ANN. tit. 10, § 1390 (2013).

42. Carl Etnier, *Vermont First State in Nation to Ban Fracking for Oil and Gas*, VTDIGGER.ORG (May 4, 2012), available at <http://vtdigger.org/2012/05/04/vermont-first-state-in-nation-to-ban-fracking-for-oil-and-gas/>, archived at <http://perma.cc/6UY-4JPM>.

43. 2008 Vt. Acts & Resolves 624–30.

44. *See id.* (discussing how the ban on fracking could help to protect Vermont’s air, land, and water).

45. Seidemann, *supra* note 22, at 2–6.

doctrine, any use of running waters in the state must be approved by the state's attorney general's office and the state Department of Natural Resources and that the state had an affirmative duty under the doctrine as well as the state constitution to ensure that consumptive uses of the state's waters were not threatening protected resources.⁴⁶

The same concerns have been expressed in California, which has a robust common law public trust doctrine and may also possess significant shale oil and gas resources. Although fracking is allowed in both on- and off-shore wells in the state and in federal waters off the coast, many in the state are concerned about the environmental impacts of fracking on inland and coastal waters as well as on the natural resources and wildlife those waters support.⁴⁷ A California court also held in 2014 that the public trust doctrine limits adverse impacts to groundwater that are connected to surface waters protected by the doctrine.⁴⁸ Because California has well-developed case law on the public trust doctrine and courts have used the doctrine to limit a wide range of industrial activities and development, any future expansion of fracking operations will inevitably encounter claims based on the public trust doctrine. Moreover, any effort by the state in the future to override local fracking bans will face good arguments that the public trust doctrine prevents such an override of local authority and requires both state and local authorities to balance the benefits of fracking with the potential impact on protected resources.

In Michigan, the courts have limited both the common law public trust doctrine and the state's codification of that doctrine in the Michigan Environmental Policy Act so that they apply only to "navigable waters" and not to non-navigable surface waters or to groundwater.⁴⁹ As a result, some fracking impacts on waters within the state will place an obligation on state officials to protect those water resources while other types of impacts solely to groundwater or non-navigable waters will not. Nevertheless, because the Michigan statute places obligations on state officials and the state legislature to protect state natural resources, this could limit state legislative and executive approvals of fracking operations.⁵⁰

46. *Id.*; Memorandum from James D. Buddy Caldwell, Attorney Gen., Office of the Attorney Gen., and Scott A. Angelle, Sec'y, Dep't of Natural Res., to All State Surface Water Manager (Feb. 5, 2010), available at http://dnr.louisiana.gov/assets/docs/conservation/groundwater/Appendix_F.pdf, archived at <http://perma.cc/V2JF-MCDP>.

47. Patrick McGreevy, *Groups Pressure Legislature to Back California Fracking Moratorium*, L.A. TIMES, May 22, 2014, <http://www.latimes.com/local/political/la-me-pc-groups-increase-pressure-for-moratorium-on-fracking-in-calif-20140522-story.html>, archived at <http://perma.cc/5ZBP-PLLL>.

48. See *supra* note 20 and accompanying text.

49. *Mich. Citizens for Water Conservation v. Nestlé Waters N.A., Inc.*, 709 N.W.2d 174, 222 (Mich. Ct. App. 2005).

50. See, e.g., Katharine Hoeksema, *Fracking the Mitten and the Public Trust*, MICH. ENVTL. L.J., Fall 2012, at 14, 23–27 (2012).

As Spence notes, in addition to state–local preemption issues surrounding fracking, there are a growing number of regulatory takings claims against state or local governments that have chosen to limit fracking activities to the potential financial detriment of drillers and landowners. Plaintiffs’ groups in New York and Colorado have already filed lawsuits alleging that government restrictions on fracking result in a taking of private property without just compensation in violation of the Fifth and Fourteenth Amendments to the U.S. Constitution.⁵¹ In the famous case of *Penn Central Transportation Company v. New York City*,⁵² the U.S. Supreme Court held that any regulatory taking claim must consider the nature of the governmental interest at stake, the magnitude of the economic impact on the property owner, and the degree to which the regulation interferes with the reasonable, investment-backed expectations of the property owner. In a later and controversial case, *Lucas v. South Carolina Coastal Commission*,⁵³ the Court broadened the circumstances under which a regulation could result in a taking of property—namely, where a regulation would deprive the owner of “all economic use” of the property. The court found that a taking could occur under those circumstances unless “background principles” of state nuisance and property law would have prohibited the development separate and apart from the challenged regulation. In the absence of such “background principles” of state property law, state or local regulation on its own did not necessarily prevent a landowner from developing reasonable, investment-backed expectations that could result in a taking requiring compensation.

Significantly, there are strong arguments that the public trust doctrine is a “background principle” of common law that would allow states and local governments to limit fracking without constituting a taking. The public trust doctrine dates back to Roman law, and has been upheld by the U.S. Supreme Court since the *Illinois Central* case in 1892. In that case, the Court found that the Illinois legislature’s decision to invalidate its sale of the Chicago Harbor to the railroad was not an unconstitutional taking of private property because the public trust doctrine prohibited the conveyance in the first place.⁵⁴ Since the *Illinois Central* decision, both federal and state courts in Washington, New York, and Rhode Island have rejected regulatory takings

51. See Spence, *supra* note 1, at 397–98 & nn.200–01 (discussing lawsuits); Ellen M. Gillmer, *Enviros Revels in N.Y. Victory as Industry Plans Next Steps*, ENERGYWIRE (July 1, 2014), <http://www.eenews.net/energywire/2014/07/01/stories/1060002192>, archived at <http://perma.cc/UXU3-VP5U> (reporting on New York Court of Appeals decision holding that state oil and gas law does not preempt local bans on fracking activities and discussing related lawsuits by landowners and drillers that such bans constitute a taking).

52. 438 U.S. 104 (1978).

53. 505 U.S. 1003 (1992).

54. *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 455 (1892).

claims in part based on the public trust doctrine.⁵⁵ State courts could easily find that state or local limits on fracking designed to protect state waters and other public trust resources do not result in takings because the impacts of fracking on water resources, aesthetic resources, and other public trust resources would be prohibited under the public trust doctrine as a matter of common law or as incorporated into state statutory or constitutional provisions codifying the doctrine.

In sum, there are several examples of state courts already applying the public trust doctrine to shale oil and gas development. There are many others that have a history of using public trust principles as a check on legislative action (or to defend state action in response to takings claims) as a matter of common law, state constitutional law, statutory law, or all three. As noted earlier, in most cases, the public trust doctrine will not act as a complete ban on shale oil and gas development in any particular circumstance. Instead, the doctrine will require state and local actors to fairly consider the impacts of shale oil and gas development on public trust resources. Pennsylvania is an example where the state supreme court found the legislature had gone too far in promoting shale oil and gas development in a way that prevented state or local actors in the future from providing the necessary balancing of interests. In other states, the legislative action may not be so extreme. But the fact remains that the public trust doctrine should be recognized as having the potential to play a significant role in limiting shale oil and gas development either by placing limits on state legislation to override local bans or to defend local or state efforts to protect public trust resources in the face of regulatory takings claims.

III. The Future Role of the Public Trust Doctrine in Conflicts Over Shale Oil and Gas Development

Parts I and II explained the contours of the public trust doctrine and how it has been used to limit shale oil and gas development to date. This Part returns to Professor Spence's article and questions what role, if any the public trust doctrine should play in addressing intergovernmental conflicts over shale oil and gas development. In other words, how should courts use the public trust doctrine in determining whether to place limits on state action, local action, or both with regard to shale oil and gas development?

55. *Esplanade Props., LLC v. City of Seattle*, 307 F.3d 978, 981–84 (9th Cir. 2002) (finding a city's denial of a shoreland permit application was not a taking because "background principles" of Washington law, including the public trust doctrine, would restrict the development at issue based on its potential impact on tidelands); *W.J.F. Realty Corp. v. State*, 672 N.Y.S.2d 1007, 1012 (Sup. Ct. 1998) (concluding that the public trust doctrine as well as the state constitution supported constitutionality of a state law restricting development in Long Island); *Palazzolo v. Rhode Island*, No. WM 88-0297, 2005 WL 1645974 (R.I. Super. Ct. July 5, 2005), *on remand from* 533 U.S. 606 (2001) (finding that state denial of permit to fill eighteen acres of salt marsh was not a taking because landowner's action would constitute a nuisance and was limited by the state public trust doctrine, which had been incorporated into the state's constitution).

As Spence details so well, local governments and state governments bring different strengths as well as different shortcomings to regulating shale oil and gas development. He concludes that local governments do not capture all the local costs and benefits associated with fracking within their borders while states do capture most of those impacts.⁵⁶ This might lead one to conclude that states are therefore in a better position to regulate, and thus, state law should preempt local regulation.⁵⁷ But Spence also points out that the costs and benefits are not distributed evenly throughout the states, and the costs of fracking will often fall more heavily on local communities, which supports their ability to regulate.⁵⁸ He ultimately concludes that a rule against preemption may be the best path to encourage bargaining that would cause state and local governments to resolve differences over fracking on their own through payments of royalties or other benefits to local landowners or governments.⁵⁹

In some cases, local governments will act to promote shale oil and gas development above and beyond state law and in more cases local governments will act to prevent development in opposition to state law. In either situation, however, in many states the public trust doctrine will require both state and local governments to consider the impact of development on public trust resources. This requirement acts as a significant check on legislative discretion and thus provides additional support for local bans that may conflict with state efforts to promote shale oil and gas development. At the same time, however, the public trust doctrine also provides support to states like California and New York, as well as to local governments throughout the nation, that may want to move more slowly on shale oil and gas development because of concerns associated with the impact of such development on protected public trust resources. In other words, not only can the public trust doctrine play a role in resolving state–local disputes over shale oil and gas development, it can also help both state and local governments balance the benefits and costs of such development and place greater emphasis on protecting public trust resources in the process.

Significantly, the lawsuits to date surrounding shale oil and gas development, and particularly those involving the public trust doctrine, highlight the need for state and local governments to obtain as much information as possible regarding the condition and existence of public trust resources and the potential impact of development on those resources. Thus, government and private studies, research, and assessment will be critical in resolving the inevitable disputes arising from the conflicts between development and public trust resources. This process is particularly important not only for litigation purposes but also because it provides a set of

56. Spence, *supra* note 1, at 383.

57. *Id.*

58. *Id.* at 384.

59. *Id.* at 393–94.

opportunities for resolving conflicts or potential conflicts without the need for litigation. With better information on the impacts of shale oil and gas development on public trust resources, state and local governments can in some circumstances work together and find common law ground within a framework that includes public trust principles.

In sum, it is possible that the public trust doctrine may play a significant role in resolving state–local conflicts over regulation of shale oil and gas development. The *Robinson Township* case is the first significant use of the doctrine in this context but it will not be the last. As noted above, while the doctrine is not a presence in all states with shale gas resources, it is a well-developed presence in many of them. Legal scholars are already debating the impact of *Robinson Township* outside of Pennsylvania,⁶⁰ but the important point is that even though *Robinson Township* is based on a fairly unique provision of that state’s constitution, the principles in the case can easily apply in any state that recognizes public trust principles as a matter of common law, statute, or state constitutional law.

60. See, e.g., Ellen M. Gilmer, *Enviros Push “Public Trust” as Trump Card Over Oil and Gas Influence*, ENERGYWIRE, Aug. 15, 2014, <http://www.eenews.net/energywire/2014/08/15/stories/1060004530>, archived at <http://perma.cc/C3CQ-HN6T> (discussing views of legal experts over the impact of the *Robinson Township* case on shale gas development outside of Pennsylvania).

