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William C. Mumby

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Trust in Local Government: How States' Legal Obligations to Protect Water Resources Can Support Local Efforts to Restrict Fracking

William C. Mumby*

Hydraulic fracturing, an oil and gas drilling technique commonly referred to as “fracking,” has experienced a profound expansion in the United States since the dawn of the twenty-first century. Providing an influx of cheap oil and gas and new job opportunities, the boom has worked wonders for the American economy. However, with the financial benefits came considerable environmental risks, such as air pollution and water contamination. With the federal government’s role in regulating fracking uncertain, the states have taken up the torch in managing the practice. Dissatisfied with state regulations, many local governments have passed local bans and moratoria to protect their communities from environmental and public health harms. But states and oil and gas interests have responded with lawsuits seeking to invalidate local fracking restrictions as inconsistent with state law.

These preemption efforts have seen recent success in Colorado, where the state supreme court struck down a fracking ban in the City of Longmont and a five-year moratorium in the City of Fort Collins. Notably, the court contrasted the fracking restriction endeavors in Colorado with the success of local restrictions in Pennsylvania. Robinson Township in Pennsylvania successfully argued that Pennsylvania’s obligation to protect natural resources for the public superseded state efforts to prohibit local bans on fracking. The Colorado Supreme Court indicated that no such state obligation to the public existed in the Colorado Constitution or in Colorado common law. However, this begs the question about whether state obligations to protect water resources could bolster efforts of local governments in other states to hamper fracking.

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This Note argues that the legal doctrine identifying this state duty to protect natural resources for the benefit of the public could and should be used in other states—specifically, California and Montana—to defend local fracking restrictions. The stronger a manifestation of the doctrine in a given state, the more likely fracking restrictions will prevail in a preemption challenge. The legal theory may find success in other western states conducting fracking, but determining its applicability requires an in-depth, case-by-case analysis. Relevant considerations include the state’s fracking regulatory scheme, the strength of the state’s obligation to protect water resources for the public benefit, the rigidity of the state’s water rights, and the degree of authority afforded to local governments. With these pieces of the legal puzzle in mind, local governments can begin to assess the likelihood of success of fracking restrictions within their jurisdictions. While this public environmental rights theory does not constitute a panacea, in the right context, it can lend crucial support to efforts to fight fracking and influence the state to impose stricter regulations or even ban the practice in certain areas.

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INTRODUCTION

Since the early 2000s, the oil and gas drilling method known as hydraulic fracturing (“fracking”) has proliferated across the United States.¹ This explosion of oil and gas activity promoted major economic growth.² However, the rapid spread of fracking also attracted strong criticism from those who fear the practice’s environmental harms.³ In the eyes of local communities shouldering the environmental and health burdens of fracking, the states have not done enough to regulate drilling practices.⁴ Accordingly, local governments often try to regulate or ban the practice themselves.⁵ When the cities of Longmont and Fort Collins in Colorado passed local laws to prohibit fracking within their boundaries, the oil and gas industry and the state struck back.⁶ Those municipal ordinances are representative of recent victims of the trend of state oil and gas laws preempting local restrictions on fracking.⁷

1. *Infra* Part I.A.

2. See Matt Egan, *Oil Milestone: Fracking Fuels Half of U.S. Output*, CNN MONEY (Mar. 24, 2016, 12:40 PM), <http://money.cnn.com/2016/03/24/investing/fracking-shale-oil-boom/>; Thomas W. Merrill & David M. Schizer, *The Shale Oil and Gas Revolution, Hydraulic Fracturing, and Water Contamination: A Regulatory Strategy*, 98 MINN. L. REV. 145, 157–61 (2013).

3. Merrill & Schizer, *supra* note 2, at 148–49.

4. Alexandra B. Klass, *Fracking and the Public Trust Doctrine: A Response to Spence*, 93 TEX. L. REV. SEE ALSO 47, 47–48 (2015).

5. *Id.*

6. *City of Longmont v. Colo. Oil & Gas Ass’n*, 369 P.3d 573, 577 (Colo. 2016); *City of Fort Collins v. Colo. Oil & Gas Ass’n*, 369 P.3d 586, 589 (Colo. 2016).

7. See *Longmont*, 369 P.3d at 577 (striking down the City of Longmont’s ban on fracking as inconsistent with state law); *Fort Collins*, 369 P.3d at 589 (striking down the City of Fort Collins’s five-year moratorium on fracking as inconsistent with state law); see also *EQT Prod. Co. v. Wender*, 191 F. Supp. 3d 583, 598–99 (S.D.W. Va. 2016) (holding that West Virginia state law preempted a local prohibition on storage of fracking wastewater); *State ex rel. Morrison v. Beck Energy Corp.*, 37 N.E.3d 128, 135, 138 (Ohio 2015) (holding that a local permitting scheme for oil and gas operations conflicted with Ohio state regulations and was thus preempted); Aleem Maqbool, *The Texas Town That Banned Fracking (and Lost)*, BBC NEWS (June 16, 2015), <http://www.bbc.com/news/world-us-canada-33140732> (reporting on the Texas state legislature’s express preemption of local fracking bans in response to an ordinance passed in Denton, Texas).

Yet, a recent case in Pennsylvania illustrates the potential for local governments to invoke state governments' duties to protect the environment as a defense for local fracking bans.⁸ A Pennsylvania township successfully raised constitutional and common law environmental rights, leading a court to strike down state laws favoring fracking at the expense of local autonomy.⁹ While not binding on other states in the western United States, the success in Pennsylvania could apply in states recognizing similar public environmental rights.¹⁰

In fact, many states in the West possess similar common law or even constitutional declarations of a public right to healthy natural resources.¹¹ For example, California has harnessed its legal duty to protect water resources to champion environmental causes.¹² Montana provides an example of how a state may reconcile strong private rights and oil and gas extraction interests with environmental protection to the benefit of local governments.¹³

This Note argues that local governments in western states can invoke the states' obligations to preserve water resources and local land-use regulatory authority to lend support to local laws restricting fracking. The stronger a state's manifestation of this environmental obligation, the more likely it is that municipalities can successfully defend their efforts to restrict fracking. Part I provides an overview of the fracking boom and the pros and cons of the practice. Part II summarizes the legal and regulatory backdrop for the fight over local fracking restrictions. Part III.A considers the Colorado decisions impacting Longmont and Fort Collins and concludes that strong oil and gas interests, rigid private water rights, and a weak state obligation to protect the environment undercut local bans; however, it finds that Colorado cities may still be able to regulate fracking using land-use powers. Part III.B contrasts Colorado with California, a state with much stronger environmental protections. Considering California's strong obligation to protect water resources, flexible water rights, and a fracking regulatory scheme that defers to local governments, it is likely that local bans on fracking will survive preemption challenges. Part III.C focuses on Montana as a middle ground between the legal extremes of Colorado and California. In Montana, the fracking regulatory scheme and the prominence of private water rights pose a challenge for local restrictions on fracking, but given the resilient environmental rights and the local zoning powers available to counties, local governments can still feasibly place limitations on where and how fracking can

8. See *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 977–78 (Pa. 2013).

9. *Id.* at 954–57, 977–78.

10. See *Klass*, *supra* note 4, at 59.

11. See generally Robin Kundis Craig, *A Comparative Guide to the Western States' Public Trust Doctrines: Public Values, Private Rights, and the Evolution Toward an Ecological Public Trust*, 37 *ECOLOGY L.Q.* 53 (2010).

12. *Infra* Part III.B.2.

13. *Infra* Part III.C.3.

occur. Finally, the Note concludes by advocating for the application of this legal defense to support local fracking restrictions and calling for a case-by-case approach to determine which states provide the best circumstances for it to be effective.

I. BACKGROUND ON FRACKING

A. *Fracking and its Proliferation*

Fracking, while not a new oil and gas drilling method, underwent a revolution in the past decade with the availability of better technology to access less permeable shale deposits.¹⁴ The combination of fracturing and horizontal drilling technology allowed the industry to extract oil and gas from tightly compacted rock formations around the country.¹⁵ The process involves injecting highly pressurized water mixed with sand (or a similar substance) and chemicals underground to crack the rock.¹⁶ The sand acts as a “proppant,” which holds the fissures open and allows the oil and gas trapped within to escape to the surface.¹⁷ Chemicals hold the sand in place and keep the oil and gas from degrading.¹⁸ Drilling sideways underground makes parts of the shale more accessible, thus yielding greater amounts of oil and gas.¹⁹

This technological revolution bore astounding economic results. In 2000, fracking accounted for only 2 percent of oil production in the United States, with 23,000 fracking wells producing about 102,000 barrels of oil a day.²⁰ As of 2015, fracking produced half of the United States’ oil supply, with 300,000 fracking wells generating 4.3 million barrels per day.²¹ As for natural gas, at the beginning of 2015, fracking accounted for 40.1 billion cubic feet per day and more than half of the United States’ domestic output.²² This cheap supply of domestic oil and gas acts as a strong economic driver.²³ In 2012, oil and gas from shale contributed \$237 billion to the United States gross domestic product.²⁴ The abundant supply of oil and gas also leads to lower operating costs for businesses and lower prices for consumers.²⁵ In particular, the transportation sector saw the dramatic benefits from cheap oil and gas.²⁶

14. Merrill & Schizer, *supra* note 2, at 152–54.

15. *Id.* at 153–54.

16. *Id.* at 153.

17. *Id.*

18. *Id.*

19. *Id.* at 153–54.

20. Egan, *supra* note 2.

21. *Id.*

22. Marcelo Prince & Carlos A. Tovar, *How Much U.S. Oil and Gas Comes from Fracking?*, WALL ST. J. (Apr. 1, 2015, 3:12 PM), <http://blogs.wsj.com/corporate-intelligence/2015/04/01/how-much-u-s-oil-and-gas-comes-from-fracking/>.

23. Merrill & Schizer, *supra* note 2, at 157–61.

24. *Id.* at 161.

25. *Id.* at 158–59.

26. *Id.* at 160.

Moreover, in 2012, development of shale oil and gas resources supported 1.7 million jobs.²⁷

Proponents of fracking also point to energy independence and national security as key benefits of the shale boom.²⁸ From 2005 to early 2013, the United States reduced its reliance on oil imports from 60.3 percent of its oil to 36.2 percent.²⁹ By relying less on imports of oil and gas, the United States could avoid relying on hostile foreign nations in a volatile marketplace.³⁰ This, in turn, relieved pressure on the federal government to secure overseas oil reserves through military action.³¹

Finally, fracking advocates point out that while fracking does promote reliance on oil, it has some environmental benefits by flooding the market with natural gas, facilitating a transition from burning coal to burning natural gas.³² In terms of localized air pollutants, natural gas burns much cleaner than coal.³³ Natural gas may also produce fewer carbon emissions than coal and could help mitigate climate change.³⁴

B. Environmental Concerns

Despite these benefits, many scientists and environmental groups condemn fracking as presenting too many environmental and public health risks.³⁵ The Academy Award-nominated documentary, *Gasland*, spread information about personal accounts of air pollution and water contamination.³⁶ The environmental impacts have triggered a surge of local opposition to fracking in communities across the country.³⁷

The major environmental harms flowing from fracking include air pollution,³⁸ competition with renewable energy like wind and solar,³⁹ and stress on local communities in the forms of habitat disruption, traffic

27. *Id.* at 158.

28. *See id.* at 161–62.

29. *Id.* at 162.

30. *Id.* at 161–63.

31. *Id.*

32. *Id.* at 164–65.

33. *Id.* at 164.

34. *Id.* at 165.

35. Marie Cusick, *Survey: Majority of Scientists Oppose Expanded Use of Fracking*, STATEIMPACT: PA. (Jan. 30, 2015, 4:34 PM), <https://stateimpact.npr.org/pennsylvania/2015/01/30/survey-majority-of-scientists-oppose-expanded-use-of-fracking/>. Major environmental groups such as Sierra Club and Natural Resources Defense Council have supported local opposition to fracking. *See* David B. Spence, *The Political Economy of Local Vetoes*, 93 TEX. L. REV. 351, 354–57 (2014).

36. Spence, *supra* note 35, at 356–57.

37. *Id.* at 357–58.

38. Air pollution sources include methane leaks, emissions from drilling equipment and trucks, and release of naturally occurring radioactive materials and volatile organic compounds such as benzene. Merrill & Schizer, *supra* note 2, at 172–75.

39. While federal mandates for renewable energy guarantee that fracking does not completely shut out wind and solar, cheap natural gas may undercut political enthusiasm and investment in development of renewables. *Id.* at 170–72.

congestion, and noise pollution.⁴⁰ In addition, fracking uses high volumes of water for injection purposes; a single well uses between two million and four million gallons for each instance of fracking.⁴¹ Moreover, this water comes out of fracking wells contaminated with chemicals, which leads to tricky disposal issues that can cause runoff pollution into surface water.⁴² Many of these harms disproportionately fall on poor, rural communities and people of color.⁴³ In addition, some reports indicate that fracking fluids can contaminate groundwater⁴⁴ and that the fracturing process can increase frequency of earthquakes.⁴⁵

II. LEGAL OVERVIEW

This Part discusses legal doctrines relevant to local efforts to restrict fracking. Subpart A outlines the current regulatory framework for fracking and assesses a potential opening for the public trust doctrine to provide legal protection for local ordinances restricting fracking. Subpart B provides an overview of the public trust doctrine, which established states' duties to protect natural resources for the benefit of the public. It also includes a summary of

40. *Id.* at 176.

41. *Id.* at 177–79.

42. Spence, *supra* note 35, at 361–62.

43. See, e.g., Jill E. Johnston, Emily Werder & Daniel Sebastian, *Wastewater Disposal Wells, Fracking, and Environmental Injustice in Southern Texas*, 106 AM. J. PUB. HEALTH 550, 550–56 (2016) (documenting the disproportionate siting of wastewater wells near Latino and impoverished communities in southern Texas); Elena Pacheco, Note, *It's a Fracking Conundrum: Environmental Justice and the Battle to Regulate Hydraulic Fracturing*, 42 ECOLOGY L.Q. 373, 380–85 (2015) (discussing the disproportionate impacts of fracking on poor, rural areas in Pennsylvania); Stefanie Spear, *Fracking Boom in North Dakota Has Heavy Impact on Native Americans*, ECOWATCH (Dec. 6, 2012), <http://www.ecowatch.com/fracking-boom-in-north-dakota-has-heavy-impact-on-native-american-s-1881673245.html> (reporting on the negative effects of fracking on rural communities and Native American tribes in North Dakota).

44. Merrill & Schizer, *supra* note 2, at 180–81. In December 2016, the EPA issued the final version of its comprehensive fracking study, which determined that fracking can contaminate drinking water. Coral Davenport, *Reversing Course, E.P.A. Says Fracking Can Contaminate Drinking Water*, N.Y. TIMES (Dec. 13, 2016), <http://www.nytimes.com/2016/12/13/us/reversing-course-epa-says-fracking-can-contaminate-drinking-water.html>. The final report revised an earlier version that found “no evidence that fracking systematically contaminates water,” instead showing that fracking has caused contamination during all parts of the process: acquisition of water, mixing water with chemicals, injection of fracking fluid into the ground, withdrawal of fluid, and disposal of wastewater. *Id.* However, the study calls for additional research to learn more about the problem. *Id.*

45. Merrill & Schizer, *supra* note 2, at 179–80. In recent years, Oklahoma experienced a spike in earthquakes, possibly linked to fracking. See David Wethe, *Oil, Earthquakes and the Rush to Save Oklahoma*, BLOOMBERG (Nov. 14, 2016, 2:00 AM), <http://www.bloomberg.com/news/articles/2016-11-14/rare-oil-patch-hot-spot-emerges-in-america-s-earthquake-capital>. As of November 14, 2016, 518 earthquakes of 3.0 magnitude or greater on the Richter Scale had occurred in Oklahoma in 2016, capped with a 5.0 magnitude quake on November 6, jeopardizing oil storage and waste disposal infrastructure. See *id.*; Jeanna Bryner, *Magnitude 5.0 Earthquake Strikes Oklahoma*, SCIENTIFIC AMERICAN (Nov. 7, 2016), <https://www.scientificamerican.com/article/magnitude-5-0-earthquake-strikes-oklahoma/>. This spate of earthquakes dwarfs the nine 3.0 or greater quakes that occurred in Oklahoma between 2004 and 2008—just before the state's oil boom. See Wethe, *supra* note 45.

scholarly debate between those who reject an expanded role for the doctrine in environmental regulation and those who support it. Subpart C discusses home-rule local governments and state law preemption, a key threat to local fracking moratoria. Subpart D details prior appropriation water rights. This water rights scheme, particularly prevalent in western states, can represent a key hurdle to efforts to use the public trust doctrine to limit fracking.⁴⁶

A. Regulatory Framework for Fracking

With the role of the federal government in managing fracking fraught with uncertainty,⁴⁷ states act as the primary regulators of the practice. However, while some states have used their authority to place bans on fracking,⁴⁸ others have facilitated its proliferation by passing legislation and promulgating rules promoting oil and gas extraction,⁴⁹ causing outrage in the environmental community.⁵⁰ This has led to local governments attempting to use their inherent powers to ban or temporarily stop fracking within their jurisdictions.⁵¹ But these local efforts have sparked challenges by industry and state governments, who argue that state laws governing fracking displace local ordinances.⁵²

46. See *infra* Part III.A.2

47. *Wyoming v. U.S. Dep't of the Interior*, Nos. 2:15-CV-043-SWS, 2:15-CV-041-SWS, 2016 WL 3509415, at *12 (D. Wyo. 2016) (striking down Bureau of Land Management regulations for fracking on public lands on the grounds that the Energy Policy Act of 2005 completely divested federal authority to regulate fracking), *appeal docketed*, No. 16-8069 (10th Cir. June 29, 2016). The Energy Policy Act amended the Safe Drinking Water Act to exempt fracking companies from chemical disclosure requirements and other groundwater regulations. See Jeanne Marie Zokovitch Paben, *Green Power & Environmental Justice—Does Green Discriminate?*, 46 TEX. TECH. L. REV. 1067, 1079 (2014). While the Obama Administration appealed the district court decision to the Tenth Circuit, the Trump Administration has announced that it intends to rescind the federal fracking rule. Timothy Cama, *Trump to Repeal Obama Fracking Rule*, THE HILL (Mar. 15, 2017, 7:05 PM), <http://thehill.com/policy/energy-environment/324212-trump-to-repeal-obama-fracking-rule>.

48. See, e.g., *Vermont First State to Ban Fracking*, CNN (May 17, 2012, 4:35 PM), <http://www.cnn.com/2012/05/17/us/vermont-fracking/>; Thomas Kaplan, *Citing Health Risks, Cuomo Bans Fracking in New York State*, N.Y. TIMES (Dec. 17, 2014), <https://www.nytimes.com/2014/12/18/nyregion/cuomo-to-ban-fracking-in-new-york-state-citing-health-risks.html>.

49. See, e.g., COLO. REV. STAT. ANN. § 34-60-102(1)(b) (West 2017) (“It is the intent and purpose of this article to permit each oil and gas pool in Colorado to produce up to its maximum efficient rate of production, subject to the prevention of waste, consistent with the protection of public health, safety, and welfare, including protection of the environment and wildlife resources, and subject further to the enforcement and protection of the coequal and correlative rights of the owners and producers of a common source of oil and gas, so that each common owner and producer may obtain a just and equitable share of production therefrom.”).

50. Spence, *supra* note 35, at 355–58.

51. See *id.*; see, e.g., *Policy: Local Fracking Regulations*, CA FRACK FACTS, <http://www.cafrackfacts.org/policy/local-regulations/> (listing examples of local fracking bans in California, including those passed in Mendocino County, Butte County, Santa Cruz County, and San Benito County).

52. See, e.g., *City of Longmont v. Colo. Oil & Gas Ass'n*, 369 P.3d 573, 577 (Colo. 2016) (striking down the City of Longmont’s ban on fracking as inconsistent with state law); *City of Fort*

A recent case from Pennsylvania offers a potentially advantageous legal theory for local governments that want to continue to restrict fracking within their borders. In *Robinson Township v. Commonwealth of Pennsylvania*, the Pennsylvania Supreme Court struck down a state law that expressly prohibited local regulation of fracking as inconsistent with the Environmental Rights Amendment of the state's constitution.⁵³ The Environmental Rights Amendment codified the state's responsibility to preserve natural resources for future generations.⁵⁴ This obligation, known as the public trust doctrine, may offer some hope for other local governments seeking to restrict fracking. The next subpart explains the origins of the public trust doctrine and its potential application to protecting local fracking limitations.

B. Public Trust Doctrine

The public trust doctrine has evolved extensively over hundreds of years. This subpart traces the legal history of the doctrine from its roots in Roman law to its modern-day application. It then considers the main arguments in favor of and against the public trust doctrine as applied in litigation. Finally, it introduces the potential utility of the public trust doctrine for reinforcing local efforts to restrict fracking.

1. History of the Public Trust Doctrine

Legal scholars trace the public trust doctrine back to ancient Roman law, and later, English law, which required the government to preserve waterways for publicly beneficial uses such as navigation and fishing.⁵⁵ The doctrine found its place in United States common law after the Supreme Court held that

Collins v. Colo. Oil & Gas Ass'n, 369 P.3d 586, 589 (Colo. 2016) (striking down the City of Fort Collins's five-year moratorium on fracking as inconsistent with state law).

53. *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 977–78 (Pa. 2013) (“[T]he General Assembly could not eliminate the commands of Article I, Section 27 [the Environmental Rights Amendment]. Rather, the General Assembly would simply have shifted the constitutional obligations onto itself. And those obligations include the duty to ‘conserve and maintain’ the public natural resources, including clean air and pure water, ‘for the benefit of all the people’ . . . Act 13 thus commands municipalities to ignore their obligations under Article I, Section 27 and further directs municipalities to take affirmative actions to undo existing protections of the environment in their localities. The police power, broad as it may be, does not encompass such authority to so fundamentally disrupt these expectations respecting the environment.”). After remanding to the lower court, the Pennsylvania Supreme Court heard the case on appeal again in 2016. *Robinson Twp. v. Commonwealth*, 147 A.3d 536, 541–42 (Pa. 2016). On September 28, 2016, the court held that the enforcement provisions for the state prohibitions on local zoning must be struck down as not severable from provisions that conflicted with the state constitution. *Id.* at 566.

54. *Robinson*, 83 A.3d at 956–57 (“Commonwealth has an obligation to refrain from performing its trustee duties respecting the environment unreasonably, including via legislative enactments or executive action. As trustee, the Commonwealth has a duty to refrain from permitting or encouraging the degradation, diminution, or depletion of public natural resources, whether such degradation, diminution, or depletion would occur through direct state action or indirectly.”).

55. Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 475 (1969).

the State of Illinois could not abdicate its duty to protect submerged lands by granting Chicago Harbor to a railroad company.⁵⁶ The Court articulated that Illinois must hold the submerged lands in trust for the public and that transferring those away to a private company compromised the state's ability to conserve these resources for public benefit.⁵⁷

2. Modern Applications of the Public Trust Doctrine

In 1970, almost one hundred years later, the public trust doctrine made a resurgence with Joseph Sax's foundational article, which took a capacious view of the doctrine as the source of a public legal cause of action to hold state governments accountable in protecting water and other natural resources.⁵⁸ Since that time, state courts have expanded the modern form of the doctrine to cover various natural resources issues.⁵⁹ These include protecting waters and beaches for recreational use,⁶⁰ groundwater⁶¹ and drinking water,⁶² inland wetlands,⁶³ and wildlife itself in addition to its habitat connected to navigable waters.⁶⁴

A recent Supreme Court decision affirmed that the public trust remains a matter of state common law,⁶⁵ but many states have codified the doctrine in their constitutions or by statute.⁶⁶ Nonetheless, scholars have rejected the argument that statutory or constitutional representations of the doctrine stand

56. *Illinois Cent. R.R. Co. v. Illinois*, 146 U.S. 387, 452 (1892).

57. *Id.*

58. "Of all the concepts known to American law, only the public trust doctrine seems to have the breadth and substantive content which might make it useful as a tool of general application for citizens seeking to develop a comprehensive legal approach to resource management problems." Sax, *supra* note 55, at 474.

59. Alexandra B. Klass, *Modern Public Trust Principles: Recognizing Rights and Integrating Standards*, 82 NOTRE DAME L. REV. 699, 707–08 (2006).

60. *See* *Mont. Coal. for Stream Access, Inc. v. Curran*, 682 P.2d 163, 171 (Mont. 1984) (holding that the public trust doctrine applied to protection of all surface waters used for recreational purposes); *Matthews v. Bay Head Improvement Ass'n*, 471 A.2d 355, 363–66 (N.J. 1984) (finding that the public trust doctrine required public access to dry sand beach between the mean high water line and the vegetation line as reasonably necessary).

61. *See* *Env'tl. Law Found. v. State Water Res. Control Bd.*, No. 34-2010-80000583, 2014 WL 8843074, at *7 (Cal. Super. Ct. July 15, 2014) (holding that the public trust doctrine applies to groundwater extraction impacting navigable waters), *petition for reconsideration denied by* *Env'tl. Law Found. v. State Water Res. Control Bd.*, No. 34-2010-80000583, 2015 WL 2337775 (Cal. Super. Ct. Mar. 27, 2015).

62. *See* *Mayor of Clifton v. Passaic Valley Water Comm'n*, 539 A.2d 760, 765 (N.J. Super. Ct. 1987) (declaring that the public trust doctrine applies to drinking water).

63. *See* *Just v. Marinette Cty.*, 201 N.W.2d 761, 769 (Wis. 1972).

64. *See* *Ctr. for Biological Diversity v. FPL Grp., Inc.*, 83 Cal. Rptr. 3d 588, 596–601, 606–07 (Cal. Ct. App. 2008) (dismissing the case on other grounds, but recognizing public trust doctrine in wildlife and public right to enforce the state's obligation to protect wildlife); *see also* Michael C. Blumm & Aurora Paulsen, *The Public Trust in Wildlife*, 2013 UTAH L. REV. 1437, 1439–41 (2013).

65. *PPL Mont., LLC v. Montana*, 565 U.S. 576, 603–604 (2012) ("[T]he public trust doctrine remains a matter of state law.").

66. Craig, *supra* note 11, at 54.

separate from or in lieu of its common law origins.⁶⁷ Rather, they argue that the constitutional provisions and common law work together to create a stronger expression of the public trust from which courts can infer actionable public environmental rights for present and future generations.⁶⁸

3. Critiques of the Public Trust Doctrine

Despite the capacity for the public trust doctrine to promote stronger environmental protections, some scholars question the wisdom of continued expansion of the doctrine on grounds of economic uncertainty, disruption of private rights, and interference with other approaches to environmental regulation.⁶⁹ Critics argue that the doctrine promotes second-guessing state agency decisions in a slew of litigation that wastes time and public resources.⁷⁰ This, in turn, can upend settled property rights and stymie future investments in development in the face of environmental hazards.⁷¹ These critics often assert that reliance on the public trust doctrine in the courts displaces more comprehensive efforts to address natural resource management issues.⁷² They contend that judges lack the expertise to rule on environmental management decisions and that these issues best remain left to the discretion of executive agencies or to the deliberations of legislatures.⁷³

Some have also pointed to the fact that the public trust doctrine defies rule of law and butts up against constitutional issues by circumventing uncooperative legislatures and avoiding compensation for nullification of private rights.⁷⁴ As a background principle of common law, the public trust doctrine, when used to divest private rights, likely does not require compensation for those property rights under the Fifth Amendment of the United States Constitution.⁷⁵

67. See Klass, *supra* note 59, at 700–01.

68. See *id.*

69. See James L. Huffman, *Why Liberating the Public Trust Doctrine is Bad for the Public*, 45 ENVTL. L. 337, 338–39 (2015); Richard J. Lazarus, *Judicial Missteps, Legislative Dysfunction, and the Public Trust Doctrine: Can Two Wrongs Make It Right?*, 45 ENVTL. L. 1139, 1152 (2015); Stephen H. Leonhardt & Jessica J. Spuhler, *The Public Trust Doctrine: What it is, Where it Came from, and Why Colorado Does Not (and Should Not) Have One*, 16 U. DENV. WATER L. REV. 47, 94–96 (2012).

70. See Leonhardt & Spuhler, *supra* note 69, at 94–96.

71. See *id.* at 48–49; Huffman, *supra* note 69, at 375; J. Craig Smith & Scott M. Ellsworth, *Public Trust vs. Prior Appropriation: A Western Water Showdown*, 31 NAT. RESOURCES & ENV'T 18, 22 (2016).

72. See Lazarus, *supra* note 69, at 1152–53.

73. See Huffman, *supra* note 69, at 374.

74. See *id.* at 373–74; Lazarus, *supra* note 69, at 1152.

75. See *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1029 (1992) (holding that a regulation that deprives a property owner of all economically viable use of his property amounts to a per se “taking” requiring just compensation, except where based upon “background principles of the State’s law of property and nuisance . . .”). The public trust doctrine is likely one of these background principles of property law exempt from the categorical taking rule from *Lucas*. See Michael C. Blumm, *Two Wrongs? Correcting Professor Lazarus’s Misunderstanding of the Public Trust Doctrine*, 46 ENVTL. L. 481, 485–86 (2016); Klass, *supra* note 59, at 740–41.

4. *Defending the Utility of the Public Trust Doctrine*

Many scholars still support the doctrine as a guiding principle for environmental advocacy, while recognizing its limitations.⁷⁶ Backers of the doctrine rebut claims of destabilizing property rights by asserting that the public trust doctrine functions to transform rights rather than completely eliminate them.⁷⁷ The public trust doctrine does not act as an environmentalist's absolutist trump card against property rights, but rather ensures that threats to fragile natural resources are amply considered in decision making.⁷⁸ In this way, the doctrine and traditional private rights can and do coexist in a balancing framework that undeniably creates tension but can also lead to more sustainable management that gives proper weight to environmental concerns.⁷⁹ While the public trust doctrine can help legitimize state action, it also provides a public right of legal action to challenge where state decisions fail to adequately mitigate risks to water resources.⁸⁰ This is particularly important at a time when water scarcity plagues much of the West.⁸¹ Flow levels of rivers continue to decrease and groundwater aquifers have become significantly depleted, so it is especially important to give the public the chance to take prompt action to defend its rights to safe water supply.⁸² The extent to which private rights give way is determined by what is necessary to respond to the growing environmental challenges.⁸³ Budget-strapped state agencies largely cannot afford to compensate for all of the private rights they weaken, though political exposure could motivate them to soften the blow for those most vulnerable to economic instability.⁸⁴ Finally, the public trust doctrine, deriving from common law predating the creation of many states, is not a new onslaught on private rights.⁸⁵ As the common law exception in takings jurisprudence indicates, the public trust doctrine has long received recognition as a state power and duty; property owners should not be shocked when that duty drives the state to reconsider private rights that undermine the public good.⁸⁶

While public trust critics rightfully point out that many state legislatures and executive agencies do weigh environmental concerns and hash out fair

76. See Blumm, *supra* note 75, at 488–89; ALEXANDRA B. KLASS & LING-YEE HUANG, CENTER FOR PROGRESSIVE REFORM, RESTORING THE TRUST: WATER RESOURCES AND THE PUBLIC TRUST DOCTRINE, A MANUAL FOR ADVOCATES 1–2, 17 (2009).

77. See Blumm, *supra* note 75, at 484–85.

78. See *id.*

79. See *id.*; KLASS & HUANG, *supra* note 76, at 1–2, 4–5.

80. See KLASS & HUANG, *supra* note 76, at 4–5.

81. See *id.* at 6–7.

82. See *id.*

83. See Blumm, *supra* note 75, at 484–85.

84. See Klass, *supra* note 59, at 727.

85. See KLASS & HUANG, *supra* note 76, at 14; Klass, *supra* note 59, at 752–53.

86. See Klass, *supra* note 59, at 752–53.

solutions,⁸⁷ the public cannot always count on these individuals to act in its interests or even to act at all.⁸⁸ Legislative recalcitrance has become a serious issue, and just because the public elects legislators and governors does not mean that they always take the actions that best protect important resources.⁸⁹ Certain communities could face a disproportionate burden of environmental impacts and they deserve a chance to question harmful decisions.⁹⁰ The public trust doctrine gives them that opportunity, as it elevates unease regarding environmental destruction to the level of concern surrounding the modern movement for private rights and economic development.⁹¹ Thus, the doctrine serves an important role filling gaps left by existing state natural resources regulatory schemes.⁹²

Furthermore, the public trust doctrine reflects society's evolving understanding of the importance of protecting natural resources in light of growing industrial threats to water supply and water quality.⁹³ As a common law doctrine, this gives the public trust a flexibility lacking in the legislative process.⁹⁴ While judges may not possess the level of expertise enjoyed by state agencies, they usually avoid the political limelight as well; thus, judges are arguably less susceptible to outside influence and lobbying.⁹⁵ In a time where environmental protection has become a divisive political issue for many,⁹⁶ it remains crucial to preserve a method to reinvigorate a public environmental duty within reluctant governments.⁹⁷

However, the judicial approach to the public trust doctrine does not constitute a replacement for legislative or executive action.⁹⁸ Rather, the doctrine serves as an additional check on the process of making or implementing law.⁹⁹ The public trust doctrine does not allow judicial action to supplant or circumvent the other two branches; it supplements them with public environmental rights that could otherwise have been drowned out by economically focused rhetoric in the decision-making process.¹⁰⁰ The doctrine's public cause of action promotes a precautionary approach by slowing risky projects and demanding the agency or legislature demonstrate, in the face

87. See Huffman, *supra* note 69, at 374.

88. See Klass, *supra* note 59, at 753–54.

89. See *id.*

90. See Klass, *supra* note 4, at 54, 58.

91. See Blumm, *supra* note 75, at 487; Klass, *supra* note 59, at 746–47.

92. See KLASS & HUANG, *supra* note 76, at 15, 18.

93. See Blumm, *supra* note 75, at 486; KLASS & HUANG, *supra* note 76, at 10–11.

94. See KLASS & HUANG, *supra* note 76, at 15; Klass, *supra* note 59, at 735–36, 744, 749–51.

95. See Matthew D. Zinn, *Policing Environmental Regulatory Enforcement: Cooperation, Capture, and Citizen Suits*, 21 STAN. ENVTL. L.J. 81, 142 (2002).

96. See Brian C. Black, *Who Politicized the Environment?*, NEW REPUBLIC (Feb. 1, 2016), <https://newrepublic.com/article/128835/politicized-environment>.

97. See Klass, *supra* note 59, at 753–54.

98. See *id.* at 748–49.

99. See Blumm, *supra* note 75, at 487–89; Klass, *supra* note 59, at 748–49.

100. See KLASS & HUANG, *supra* note 76, at 1–2.

of contrary evidence, the environmental soundness of the action the state hopes to take.¹⁰¹ Thus, the public trust doctrine strengthens the public's voice and fosters thoughtful decision making—the kinds of objectives that ought to be championed and used in new contexts with emerging environmental challenges.

5. *A New Application of the Public Trust Doctrine*

The expansion of the public trust doctrine in some states may have a place in the regulatory scheme for fracking by forcing state governments to account for the impacts of oil and gas development on public trust resources. In particular, given the water-intensive nature of fracking and the risks it poses to water resources, the trend of states applying the public trust to water rights could prove useful in defending fracking restrictions.¹⁰² In a recent article, Alexandra Klass argued for the use of the public trust doctrine to resolve regulatory disputes over fracking and asserted that its successful application in *Robinson* was “the first significant use of the doctrine in this context, but it will not be the last.”¹⁰³ Pointing to previous uses of the public trust doctrine in the oil and gas context, she made the case that this application does not represent an overreach for the doctrine.¹⁰⁴ Yet, while Klass suggested that the doctrine could help defend local fracking bans in California, she did not delve into specifics of how this might play out in court.¹⁰⁵

This Note expands on this legal theory of the public trust doctrine as a shield for local governments and considers its applicability in fracking regulatory disputes in Colorado, California, and Montana. Ultimately, the Note argues that the more robust the public trust doctrine in a state, the higher the likelihood that courts will uphold local restrictions. At the very least, invoking the public trust doctrine can stimulate state governments to conduct more thorough environmental analysis and inspire greater respect for local interests. However, this also demands consideration of other relevant legal doctrines within the states. Namely, the analysis must include an evaluation of the powers of local government, the way state courts view preemption, and the flexibility of prior appropriation water rights.

C. *Local Government Law and State Law Preemption*

At common law, home-rule local governmental power provides for autonomy within the municipality's jurisdiction.¹⁰⁶ Such authority derives from

101. See *id.* at 3–5.

102. See Michelle Bryan Mudd, *Hitching Our Wagon to a Dim Star: Why Outmoded Water Codes and “Public Interest” Review Cannot Protect the Public Trust in Western Water Law*, 32 STAN. ENVTL. L.J. 283, 295–304 (2013).

103. Klass, *supra* note 4, at 59.

104. *Id.*

105. See *id.*

106. SANDRA M. STEVENSON, *ANTIEAU ON LOCAL GOVERNMENT LAW* § 21.01 (Matthew Bender & Co., 2d ed. 2009).

the state, but runs along a spectrum from high-autonomy (local governments can act if it is not prohibited by the state) to low-autonomy (local governments can only act if the state grants permission).¹⁰⁷ The existence of local municipalities as “creatures of the State” establishes the default in the United States at the low-autonomy end of the continuum.¹⁰⁸ In 1868, Justice Dillon of the Iowa Supreme Court articulated this standard such that it now carries the name Dillon’s Rule.¹⁰⁹ Dillon’s Rule declares that local government has no inherent power but may exercise local home-rule authority when: (1) the state expressly grants it, (2) the state implies it from expressly granted powers, or (3) the powers are essential to the municipality’s purposes.¹¹⁰

In response to this restrictive rule, some states adopted grants of home-rule authority into their constitutions.¹¹¹ States can bestow these powers upon all local governments (cities and counties) within their borders or limit the authority to cities of a certain population.¹¹² Still others require that cities adopt a charter enumerating the powers of the city.¹¹³

Even with these declarations of local autonomy, local governments can still run into trouble when their ordinances or charter provisions conflict with state law.¹¹⁴ Under such circumstances, the state may assert that state law preempts local action.¹¹⁵ State law preemption recognizes that local municipalities exist as creations of the state and only possess as much power as state law bestows upon them through the constitution or by statute.¹¹⁶ Preemption allows the state to pursue greater uniformity in the implementation of its policy by invalidating local regulatory efforts that are inconsistent with state goals.¹¹⁷ With uniformity, predictability increases, making it easier for industry to comply with regulations.¹¹⁸

Most preemption analyses include consideration of whether the issue under regulation is a matter of purely local concern, statewide concern, or mixed state and local concern.¹¹⁹ Home-rule municipalities often possess absolute power to regulate matters of local concern, such that ordinances may supersede a conflicting state law.¹²⁰ Examples of purely local powers include

107. *Id.*

108. *Id.*

109. *City of Clinton v. Cedar Rapids & Missouri River R.R.*, 24 Iowa 455, 475 (Iowa 1868).

110. STEVENSON, *supra* note 106, § 21.01.

111. *Id.*

112. *Id.*

113. *Id.*

114. *Id.* § 22.02.

115. *Id.*

116. *Id.* § 13.01.

117. Paul S. Weiland, *Federal and State Preemption of Environmental Law: A Critical Analysis*, 24 HARV. ENVTL. L. REV. 237, 242–43 (2000).

118. *Id.*

119. STEVENSON, *supra* note 106, § 22.02.

120. Supersession of state law only occurs when home-rule language includes provisions such as “local affairs,” “municipal affairs,” or “property, affairs and government.” *Id.* § 22.03. Therefore, the

zoning and other land-use controls.¹²¹ Zoning authority generally allows municipalities to divide land into districts designated with particular uses.¹²² This land-use power can also dictate which activities to permit within a particular zone.¹²³ For instance, cities and counties have applied zoning and building codes to restrict and isolate local environmental hazards in order to prevent erosion and protect aquifers.¹²⁴ By contrast, in matters of statewide or mixed concern, state law may preempt a local ordinance when state law negates local law or when the two conflict.¹²⁵

State law preemption takes three forms: (1) explicit preemption, (2) implicit or field preemption, and (3) conflict preemption.¹²⁶ Explicit preemption involves state legislation specifically forbidding local governments from taking particular legal action.¹²⁷ Implied preemption occurs when the state expresses its intent to occupy the regulatory field and leaves no room for local governments to regulate.¹²⁸ Conflict preemption relies less on the state's intent, but focuses on whether the local ordinance in effect authorizes something prohibited by state law or forbids something authorized by state law.¹²⁹ When a contradiction of laws occurs such that they become irreconcilable, the preemption doctrine demands that the state law prevail over local law.¹³⁰ However, a local ordinance may withstand preemption if it only supplements the state law, so that a reviewing court can harmonize the two regulations.¹³¹ As discussed above, *Robinson* also suggests that the public trust doctrine may assist in curbing the state's ability to preempt anti-fracking ordinances.¹³² However, application of the public trust doctrine may be restricted by private water rights under the predominant scheme in the West, discussed in the next subpart.

D. Prior Appropriation Water Rights

Prior appropriation water rights emerged in the western United States in the 1800s as a custom among miners who sought to resolve disputes over scarce water resources.¹³³ Over time, the prior appropriation doctrine laid the

local/statewide/mixed concern analysis should not come into play in the case of an express caveat of local powers limited by mandate of the state government. *Id.*

121. PATRICIA E. SALKIN, *AMERICAN LAW OF ZONING* § 2:4 (Thomson Reuters, 5th ed. 2016).

122. *Id.* § 1:18.

123. *Id.* § 9:16.

124. *Id.* § 36:7.

125. STEVENSON, *supra* note 106, §§ 22.02, 22.03.

126. *Id.* § 22.02.

127. *Id.*

128. *Id.*

129. *Id.*

130. *Id.*

131. *Id.*

132. *See Robinson Twp. v. Commonwealth*, 83 A.3d 901, 977–78 (Pa. 2013).

133. A. DAN TARLOCK, *LAW OF WATER RIGHTS AND RESOURCES* § 5:3 (Thomson Reuters 2016).

foundation for the irrigation-based economies of the arid West, which depended on their ability to lay claim to and transport water long distances to support agriculture and life in burgeoning communities.¹³⁴ Prior appropriation promoted the principle of “first in time, first in right” so that the first person to put water to beneficial use obtained legal rights to that water.¹³⁵ At common law, prior appropriation consists of three elements for a valid water rights claim: (1) notice of intent to appropriate, (2) an actual diversion, and (3) the application of the water to beneficial use.¹³⁶ This water rights scheme created a system of ranking such that earlier appropriated rights became historically vested and generally could not be divested.¹³⁷ Such appropriated rights remained at the top of the hierarchy and got first priority access to the water source.¹³⁸

Prior appropriation acts as the basis of water rights in the West, but each state possesses its own variation on the doctrine.¹³⁹ Notably, evolution of the law in some states shows that the water rights established by prior appropriation may not always be absolute.¹⁴⁰ For instance, the public trust doctrine exudes potential as a check on rigid water rights,¹⁴¹ but not all state judiciaries accept this view.¹⁴² Thus, appropriative water rights stand to limit the applicability of the public trust doctrine generally, and to attempt to use it to defend a local fracking restriction specifically.¹⁴³ For example, an effort to address a fracking operation’s high water use could founder if the company involved has vested appropriative rights and the state does not allow the public trust doctrine to promote reevaluation of such rights.

III. STATE ANALYSES

This Part provides analyses of the role the public trust doctrine could play in three western states with active fracking operations: Colorado, California, and Montana. Each state has a subpart which assesses the state’s fracking regulatory regime, the relative strength of the public trust doctrine, and the likelihood that the doctrine could help local restrictions withstand preemption challenges in the future. Table A summarizes the key takeaways from the analysis.

134. *Id.* § 5:1; *see generally* MARC REISNER, *CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER* (rev. ed. 1993).

135. Tarlock, *supra* note 133, § 5:4.

136. *Id.* § 5:44.

137. Smith & Ellsworth, *supra* note 71, at 18.

138. *Id.*

139. *See* Reed D. Benson, *Alive but Irrelevant: The Prior Appropriation Doctrine in Today’s Western Water Law*, 83 U. COLO. L. REV. 675, 678–79, 691–704 (2012); *see also infra* Parts III.B, IV.B.

140. *See supra* note 139.

141. *See infra* Part III.B.2.

142. *See infra* Part III.A.2.

143. *See id.*; Smith & Ellsworth, *supra* note 71, at 21–22.

TABLE A: Summary of Public Trust Doctrine and Fracking in Colorado, California, and Montana

	Colorado ¹⁴⁴	California ¹⁴⁵	Montana ¹⁴⁶
Precedential Strength of Public Trust and Private Water Rights	<ul style="list-style-type: none"> -Weak manifestation of public trust doctrine -Private rights prioritized over public rights to access -Streams within Colorado held to be non-navigable and thus not subject to public trust protections 	<ul style="list-style-type: none"> -Strong for access and environmental protection -Judicial expansion into nontraditional realms to address threats to water resources -Includes potential cause of action for reassessment of private water rights where feasible 	<ul style="list-style-type: none"> -Strong for access to public trust waters for recreation -Aided by environmental rights provisions in the state constitution, the public trust doctrine has been expanded to protect water quality -Weak for challenging private water rights
Current Local Restrictions on Fracking	<ul style="list-style-type: none"> -Ban in Longmont also struck down by Colorado Supreme Court -Longmont ban replaced by local environmental regulations and land-use restrictions -Moratorium in Fort Collins also invalidated -After the court decisions, Boulder adopted new regulations to replace its moratorium 	<ul style="list-style-type: none"> -Various counties have passed fracking bans, including Mendocino, Butte, Santa Cruz, San Benito, and Alameda Counties -Monterey County is the first major oil and gas producing county to ban fracking, but its ban on ongoing operations has been stayed pending litigation or settlement 	<ul style="list-style-type: none"> -Currently no local fracking bans -Potential for local fracking restrictions based on home-rule powers

144. *Infra* Part III.A.

145. *Infra* Part III.B.

146. *Infra* Part III.C.

Likelihood of Local Bans Surviving Preemption Challenges	-Unlikely, unless efforts to pass a constitutional amendment gain more traction	-Likely, given the reservation of local power in California fracking regulations and robust public trust doctrine	-Possible, but likely better to pass strong environmental regulations and land-use restrictions like Longmont
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A. Colorado

Colorado serves as the first example state for applying a public trust theory defense for local restrictions on fracking. Subpart 1 discusses the recent Colorado Supreme Court cases finding that a local ban and moratorium were both preempted by state law. Subpart 2 details Colorado’s fraught history with the public trust doctrine and explains why the prior appropriation water rights scheme in the state has stood firm against the doctrine. Subpart 3 concludes that, given the Colorado judiciary’s rejection of a robust public trust doctrine and endorsement of a state policy promoting fracking, local bans on fracking are unlikely to survive preemption challenges. Subpart 4 evaluates next steps for Colorado local government and assures that local land-use authority still gives those governments considerable power to regulate fracking even when they cannot ban it completely.

1. Preemption of Local Fracking Restrictions: Longmont and Fort Collins

On May 2, 2016, the Colorado Supreme Court handed down two decisions establishing that state law preempted efforts by cities to restrict fracking within their jurisdictions.¹⁴⁷ The court focused on evaluating competing regulatory schemes and steered away from contentious factual disputes about the merits and risks of fracking.¹⁴⁸

In the fall of 2012, residents of the City of Longmont voted to add Article XVI to the city charter, prohibiting fracking and related waste storage within the city.¹⁴⁹ On November 5, 2013, citizens of the City of Fort Collins voted for an ordinance placing a five-year moratorium on fracking activities.¹⁵⁰ The Colorado Oil and Gas Association (“The Association”) sued both cities, arguing for state law preemption of the restrictions and an injunction against enforcing them.¹⁵¹

147. *City of Longmont v. Colo. Oil & Gas Ass’n*, 369 P.3d 573, 577 (Colo. 2016); *City of Fort Collins v. Colo. Oil & Gas Ass’n*, 369 P.3d 586, 589 (Colo. 2016); see COLO. REV. STAT. ANN. § 34-60-102(1)(b) (West 2017).

148. *Longmont*, 369 P.3d at 576–77.

149. *Id.* at 577.

150. *Fort Collins*, 369 P.3d at 589.

151. *Longmont*, 369 P.3d at 577; *Fort Collins*, 369 P.3d at 589.

The Association moved for summary judgment against both defendants and the district court granted the motions.¹⁵² In *Longmont*, the district court found an operational conflict between Article XVI and state law, in that Article XVI impeded a state interest by contradicting state law's allowance of regulated fracking.¹⁵³ In *Fort Collins*, the district court similarly found an operational conflict between state law and the ordinance and held that state law impliedly preempted the city's moratorium.¹⁵⁴ *Longmont* and *Fort Collins* appealed the decisions to the court of appeals, which then transferred the cases to the Colorado Supreme Court.¹⁵⁵

On appeal, *Longmont* made two main arguments: (1) the district court erred in its preemption analysis because fracking regulation is a matter of local concern, and (2) because the inalienable rights provision of the Colorado Constitution creates fundamental rights to life, liberty, property, safety, and happiness, which cannot be abridged by the state (absent a compelling government interest), Article XVI should supersede state law allowing fracking.¹⁵⁶ The Colorado Supreme Court rejected both arguments and affirmed the district court's order.¹⁵⁷

The court characterized its role as "establish[ing] a priority between potentially conflicting laws" of home-rule cities, such as *Longmont* and *Fort Collins*, and the State.¹⁵⁸ It established that its standard of review entailed evaluating material facts pertaining to the legal question of preemption (not the factual impacts of regulations "on the ground").¹⁵⁹ To begin its preemption analysis, the court sought to determine whether fracking fell into the category of statewide concern, local concern, or mixed concern. In this analysis, Colorado courts weigh four factors: (1) need for statewide uniformity of regulation, (2) extraterritorial impact of local regulation, (3) whether state or local governments traditionally regulated the matter, and (4) whether the Colorado Constitution specifically commits the matter to state or local regulation.¹⁶⁰

The court concluded that the matter fell into the mixed category.¹⁶¹ Under the first factor, the court reasoned that state law established an interest in effective and fair recovery of oil and gas resources.¹⁶² The pervasive nature of

152. *Longmont*, 369 P.3d at 577; *Fort Collins*, 369 P.3d at 589–90. In *Longmont*, the state agency charged with regulating fracking in Colorado joined the Association as a plaintiff. *Longmont*, 369 P.3d at 577.

153. *Longmont*, 369 P.3d at 577, 582.

154. *Fort Collins*, 369 P.3d at 590.

155. *Longmont*, 369 P.3d at 577; *Fort Collins*, 369 P.3d at 590.

156. *Longmont*, 369 P.3d at 577.

157. *Id.* at 586.

158. *Id.* at 578 (citations omitted).

159. *Id.* at 578–79.

160. *Id.* at 580.

161. *Id.* at 581.

162. *Id.* at 580.

fracking in the state made it necessary for productive extraction, and Longmont's ban could "result in uneven and potentially wasteful production of oil and gas" particularly if subterranean pools crossed Longmont's jurisdictional boundaries.¹⁶³ The second factor also favored the state because the ban "increase[d] the cost of producing oil and gas," "reduce[d] royalties," and encouraged a patchwork of localized bans across the state.¹⁶⁴ However, the third factor favored both the state and the municipality; the state traditionally regulated oil and gas development and local government traditionally regulated land use.¹⁶⁵ The fourth factor favored neither because the Colorado Constitution did not commit fracking regulation to either the state or local governments.¹⁶⁶

With the mixed classification, the court determined that local regulation conflicted with state law, so state law preempted the fracking ban.¹⁶⁷ State law did not explicitly, or implicitly, preempt the ban because "[a] dominant state interest alone . . . does not necessarily evince a legislative intent to exclude any local regulation."¹⁶⁸ However, the court did find an operational conflict, in that Longmont forbade what the state statute authorized.¹⁶⁹ The ban "impede[d] the effectuation of the state's interest" in efficient production of oil and gas by making state regulations about fracking chemicals and the locations of waste sites "superfluous."¹⁷⁰

Moreover, the court found that the inalienable rights provision of the state constitution could not prevent preemption.¹⁷¹ Absent a compelling government interest, the provision guarantees rights to citizens of the state such as "enjoying and defending their lives and liberties"; "acquiring, possessing and protecting property"; and "seeking and obtaining their safety and happiness."¹⁷² Nonetheless, the court did not find the provision specific enough to avoid preemption.¹⁷³ The court contrasted it with the Environmental Rights Amendment of the Pennsylvania Constitution, which adopted public trust doctrine protections of the environment for future generations.¹⁷⁴ The court highlighted that Colorado courts and the state constitution do not recognize the public trust doctrine; therefore the local ban could not withstand preemption.¹⁷⁵

163. *Id.*

164. *Id.* at 581.

165. *Id.*

166. *Id.*

167. *Id.* at 583.

168. *Id.* at 583–84.

169. *Id.* at 583–85.

170. *Id.* at 584–85.

171. *Id.* at 585.

172. *Id.* at 585–86.

173. *Id.*

174. *Id.* at 586; PA. CONST. art. I, § 27.

175. *Longmont*, 369 P.3d at 586.

In *Fort Collins*, the court used the same reasoning relied upon in *Longmont* to classify fracking as a matter of mixed state and local interest.¹⁷⁶ However, the district court erred by holding that state law implicitly preempted the ordinance; rather, only operational conflict allowed for preemption because the moratorium “prevent[ed] operators who abide by the . . . rules and regulations from fracking until 2018.”¹⁷⁷ Even the fact that Fort Collins used a temporary moratorium and not a complete ban could not save the fracking restriction.¹⁷⁸ The court reasoned that “the availability of alternatives to fracking does not lessen the state’s . . . interest in fracking.”¹⁷⁹ Because fracking has become ubiquitous in oil and gas production and because a moratorium “does not regulate, but forbids,” the court held that even a five-year hiatus must be preempted.¹⁸⁰ As part of its reasoning, the court relied on a New Jersey case finding a one-year moratorium unacceptable, which suggests that any future fracking moratorium in Colorado would need to be shorter than one year to have a chance of avoiding preemption.¹⁸¹

2. *Water Rights and the Weak Public Trust Doctrine in Colorado*

In rejecting Longmont’s assertion that the equal rights amendment protected its fracking ban from preemption, the Colorado Supreme Court pointed to the fact that Colorado, unlike Pennsylvania, did not recognize the public trust doctrine in its constitution.¹⁸² Furthermore, Colorado’s adherence to a strict form of prior appropriation water rights has resulted in the state taking a very limited view of the doctrine—if not rejecting it altogether.¹⁸³

Colorado formally adopted prior appropriation with a Colorado Supreme Court ruling in 1882, but the state recognized the need for the doctrine in the arid West before it acquired statehood in 1876.¹⁸⁴ The Colorado Constitution contains a number of provisions recognizing the rights of the public to divert and claim unappropriated water for beneficial use.¹⁸⁵ Colorado uses a “pure”

176. *City of Fort Collins v. Colo. Oil & Gas Ass’n*, 369 P.3d 586, 590–91 (Colo. 2016).

177. *Id.* at 592–93.

178. *Id.* at 593–94.

179. *Id.* at 593.

180. *Id.* at 593–94.

181. *Id.* at 594 (analogizing the fracking moratorium with a moratorium on conversion of rental units into condominiums in *Claridge House One, Inc. v. Borough of Verona*, 490 F. Supp. 706, 713 (D.N.J. 1980), *aff’d*, 633 F.2d 209 (3d Cir. 1980)). The court also pointed to a Colorado statute that limited construction moratoria to six months, which may indicate a more restrictive view of what constitutes a moratorium of permissible length. *See id.*; COLO. REV. STAT. ANN. § 30-28-121 (West 2017).

182. *City of Longmont v. Colo. Oil & Gas Ass’n*, 369 P.3d 573, 586 (Colo. 2016).

183. Leonhardt & Spuhler, *supra* note 69, at 62–65.

184. *Coffin v. Left Hand Ditch Co.*, 6 Colo. 443, 446 (Colo. 1882).

185. *See* COLO. CONST. art. XVI, § 5 (“The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the state, subject to appropriation as hereinafter provided.”); COLO. CONST. art. XVI, § 6 (“The right to divert the unappropriated waters of any natural

form of prior appropriation such that water rights rely on the date of appropriation.¹⁸⁶ The state does not prioritize particular types of use or require sharing of water in times of shortage.¹⁸⁷ Moreover, taking of any water previously appropriated requires just compensation.¹⁸⁸

Colorado has historically presented the public trust doctrine as a weak and limited doctrine.¹⁸⁹ In 1913, the Colorado Supreme Court took a strict view of the applicability of the public trust when it held that “[t]he natural streams of the state are nonnavigable within its limits”¹⁹⁰ The court affirmed its limited construction of the doctrine when it rejected a modern attempt to apply it to Colorado’s waters.¹⁹¹ When rafters on the Colorado River floated into privately owned waters, they asserted an easement based on the public trust doctrine as a defense to a criminal trespass claim.¹⁹² The court rejected their defense and held that vested interests in private ownership remained more firmly rooted in Colorado law than the public trust doctrine.¹⁹³

Recent analyses of Colorado water rights and the public trust suggest that this trend shows no signs of changing.¹⁹⁴ Despite language in the Colorado Constitution describing water as “property of the public . . . dedicated to the use of the people of the state,”¹⁹⁵ Colorado has seemingly interpreted this as a declaration of the public’s right to appropriate, rather than navigate such waters.¹⁹⁶ The state only possesses the mandatory role of reinforcing these private rights; it holds no obligation to act to restrict use or preserve water resources.¹⁹⁷ Colorado points to the lack of clear standards for water allocation under the public trust doctrine as a reason why it does not invoke the doctrine to resolve water rights disputes.¹⁹⁸

In addition, attempts to adopt the public trust doctrine as a constitutional amendment via ballot initiative have consistently foundered since 1994.¹⁹⁹

stream to beneficial uses shall never be denied.”); COLO. CONST. art. XVI, § 7 (“All persons and corporations shall have the right-of-way across public, private and corporate lands for the construction of ditches, canals and flumes for the purpose of conveying water for domestic purposes, for the irrigation of agricultural lands, and for mining and manufacturing purposes, and for drainage, upon payment of just compensation.”).

186. Paul Noto, *Water Law Basics for Real Estate Practitioners*, 44-NOV COLO. LAW. 63, 63 (2015).

187. *Id.*

188. *Strickler v. City of Colorado Springs*, 26 P. 313, 317–318 (Colo. 1891).

189. *See Leonhardt & Spuhler*, *supra* note 69, at 62–64.

190. *In re German Ditch & Reservoir Co.*, 139 P. 2, 9 (Colo. 1913).

191. *People v. Emmert*, 597 P.2d 1025, 1027 (Colo. 1979) (en banc).

192. *Id.* at 1025.

193. *Id.* at 1027.

194. *See Leonhardt & Spuhler*, *supra* note 69, at 64.

195. COLO. CONST. art. XVI, § 5.

196. *See Leonhardt & Spuhler*, *supra* note 69, at 66–67.

197. *Id.* at 64.

198. *Id.*

199. Advocates pushed for public trust amendments in 1994, 1995, 1996, 2002, 2007, and 2012. *Id.* at 81–88. The most recent effort to get a public trust amendment on the 2016 ballot failed to obtain

These endeavors to amend the state constitution took various forms, but all focused on applying the public trust doctrine as a check on water rights in the interest of public access and environmental protection.²⁰⁰ They failed either under scrutiny of judicial review of election law requirements or for failure to obtain the requisite number of signatures on the petition to appear on the ballot.²⁰¹ The inability of this effort to obtain political momentum is likely due to heavy investment in long-held water rights and the purported costliness of adopting the public trust doctrine.²⁰² Thus, barring a massive influx of resources to support public trust advocacy or a dramatic shift in political ideology, the public trust doctrine seems unlikely to make a comeback in Colorado.

3. Local Government Bans on Fracking Unlikely to Avoid Preemption

The reluctance of Colorado to recognize anything more than the most limited incarnation of the public trust doctrine suggests that any effort to apply it as a defense to local fracking bans would fail.²⁰³ Indeed, the court's reasoning in *Longmont*, contrasting Pennsylvania's public trust doctrine with Colorado's lack of one, confirms as much.²⁰⁴ And the failure to gain any traction for a constitutional amendment to adopt the public trust means that it is unlikely that circumstances will shift sufficiently to alter the precedent set by *Longmont* and *Fort Collins*.²⁰⁵ State policy seems rigidly fixed on prioritizing appropriative water rights and oil and gas interests over public rights and environmental protection.²⁰⁶

Thus, given the Colorado Supreme Court's finding that fracking regulation constituted a matter of mixed state and local concern, other anti-fracking efforts across Colorado will face strong limitations on what restrictions can include.²⁰⁷ The prevalence of fracking across the state and the court's intolerance for ripple effects caused by local bans,²⁰⁸ even for those as short as one year,²⁰⁹ indicate that the state and the oil and gas industry will not allow local governments to

enough petition signatures. Kelsey Ray, *Both of Colorado's Anti-Fracking Initiatives Fail to Make the Ballot*, COLORADO INDEPENDENT (Aug. 29, 2016), <http://www.coloradoindependent.com/160924/colorado-fracking-measures-fail>.

200. Leonhardt & Spuhler, *supra* note 69, at 81–88.

201. *Id.*; Ray, *supra* note 199.

202. See Leonhardt & Spuhler, *supra* note 69, at 88–90.

203. See *id.*

204. See *City of Longmont v. Colo. Oil & Gas Ass'n*, 369 P.3d 573, 586 (Colo. 2016).

205. See Leonhardt & Spuhler, *supra* note 69, at 81–90; Ray, *supra* note 199.

206. See Leonhardt & Spuhler, *supra* note 69, at 94–96; *Longmont*, 369 P.3d at 584–85; *City of Fort Collins v. Colo. Oil & Gas Ass'n*, 369 P.3d 586, 593 (Colo. 2016).

207. *Longmont*, 369 P.3d at 581.

208. *Id.*

209. See *Fort Collins*, 369 P.3d at 594 (analogizing the fracking moratorium with a moratorium on conversion of rental units into condominiums in *Claridge House One, Inc. v. Borough of Verona*, 490 F. Supp. 706, 713 (D.N.J. 1980), *aff'd*, 633 F.2d 209 (3d Cir. 1980)).

halt fracking. Nevertheless, local governments may have recourse through carefully drafted local regulations on fracking.

4. Future for Colorado Local Government

Even though local bans on fracking seem unable to withstand preemption challenges, local governments can still use their land-use authority to regulate fracking.²¹⁰ In order to avoid preemption, other municipalities will want to find ways to tailor their efforts to avoid extraterritorial impacts and conflicts with state policy of efficient oil and gas production.²¹¹ The court in *Fort Collins* struck down the moratorium for forbidding the practice for too long, rather than regulating, so Colorado municipalities could still attempt stricter regulations on fracking without impermissibly interfering with state law.²¹²

In fact, Longmont successfully defended its own fracking regulations against state preemption prior to the Colorado Supreme Court's recent decision in *Longmont*.²¹³ These regulations, justified under home-rule police power over land use and zoning, became the default regulatory scheme after the court struck down the full ban on fracking.²¹⁴ They provide a reasonable fallback for a community that has expressed concern regarding the hazards of fracking to public health, safety, and property.²¹⁵ The regulations include a groundwater monitoring plan,²¹⁶ disclosure of trade secret chemicals in fracking fluid to first responders,²¹⁷ mitigation of the visual impact of fracking wells,²¹⁸ zoning prohibitions on fracking in residential areas,²¹⁹ and mandatory setbacks, requiring the siting of wells away from rivers, streams, wetlands, and riparian areas.²²⁰

In addition, after the *Fort Collins* decision, the City and County of Boulder replaced its six-year moratorium on fracking with a six-month

210. See Shaun A. Goho, *Municipalities and Hydraulic Fracturing: Trends in State Preemption*, 64 PLANNING & ENVTL. L. 3, 4–5 (2012) (detailing local land-use authority to regulate how and where fracking occurs).

211. See *Longmont*, 369 P.3d at 581, 584–85.

212. See *Fort Collins*, 369 P.3d at 594.

213. See *Longmont Succeeds in Critical Oil and Gas Case*, CITY OF LONGMONT (Oct. 14, 2014, 8:47 PM), <https://www.longmontcolorado.gov/Home/Components/News/News/335/3?page=20&arch=1>.

214. Karen Antonacci, *Colorado Supreme Court Strikes Down Longmont's Voter-Approved Fracking Ban*, TIMES-CALL (May 2, 2016, 9:41 AM), http://www.timescall.com/longmont-local-news/ci_29839751/colo-supreme-court-strikes-down-longmont-fracking-ban.

215. See *Longmont Makes History as First Colorado City to Ban Fracking*, FOOD & WATER WATCH (Nov. 7, 2012), <http://www.foodandwaterwatch.org/news/longmont-makes-history-first-colorado-city-ban-fracking>.

216. LONGMONT, COLO., MUN. CODE § 15.04.020.B.32.w.x, https://www.municode.com/library/co/longmont/codes/code_of_ordinances?nodeId=PTIICOOR_TIT15LADECO_CH15.04USRE_15.04.020SPUSST.

217. *Id.* § 15.04.020.B.32.v.viii.

218. *Id.* § 15.04.020.B.32.w.iv.

219. *Id.* §§ 15.04.020.B.32.c.iii, v.iii, w.i-iii.

220. *Id.* §§ 15.04.020.B.32.w.ix, 15.05.020.E.

moratorium—a stopgap while the municipality considered new permissible local fracking regulations.²²¹ Subsequently, Boulder extended its moratorium on two occasions to buy itself more time to develop regulations.²²² On March 23, 2017, Boulder’s Board of County Commissioners approved new fracking regulations, which the county described as the “strongest set of regulations on oil and gas development in the State of Colorado.”²²³ The regulations went into effect on May 1, 2017 as the moratorium expired.²²⁴

However, while these regulations offer hope for communities within states that lack a robust public trust doctrine, the public trust theory for protecting fracking bans is still likely to find success in other states with an expansive public trust and more malleable water rights. The next subpart looks at California as a prime example of this possibility.

B. California

This subpart considers California as a contrasting representation of how the public trust doctrine can provide a stronger avenue for a legal defense for fracking bans. Subpart 1 looks at the success of local fracking restrictions in California counties. It investigates the legal framework for home-rule, preemption, and fracking regulation to determine why fracking companies have not successfully challenged a local fracking ban. Subpart 2 considers the robust public trust doctrine in California and its expansion to protect against excessive water use and other threats to water resources. Subpart 3 argues that California’s local governments would likely find success using the public trust doctrine to defend various fracking bans. Furthermore, that subpart asserts that such a legal theory should be applied to reflect local environmental concerns and ensure that state agencies continuing to promote fracking do so in an environmentally responsible way. Subpart 4 suggests that efforts to restrict fracking in California at the local level will likely continue and may heighten political pressure for stronger state regulations or even a statewide ban.

221. John Fryar, *Boulder County Ends Fracking Moratorium, Imposes Another*, DAILY CAMERA (May 19, 2016, 3:22 PM), http://www.dailycamera.com/news/ci_29914463/boulder-county-ends-one-fracking-moratorium-imposes-another.

222. John Fryar, *Boulder County Again Extends Moratorium on Oil and Gas Development*, TIMES-CALL (Dec. 13, 2016, 1:16 PM), http://www.timescall.com/top-stories/ci_30656894/boulder-county-again-extends-moratorium-oil-and-gas.

223. Press Release, Boulder Cty., Boulder County Adopts Strongest Set of Regulations on Oil and Gas Development in the State of Colorado (Mar. 23, 2017), <https://www.bouldercounty.org/news/boulder-county-adopts-strongest-set-of-regulations-on-oil-and-gas-development-in-the-state-of-colorado/>. The Boulder County regulations require Special Use Review, which considers site-specific context of proposed operations for all new oil and gas development in the county. Other notable features include enforceable mitigation measures, air and water quality monitoring, a compensation program for impacted county residents, and emergency response plans. *Id.*

224. *Id.*

1. Success of Local Fracking Restrictions in California

In contrast to Colorado cities, California counties have had remarkable success with their fracking bans, with several counties in the state passing fracking bans in local elections.²²⁵ Moreover, until recently, the oil and gas industry has exhibited caution in challenging local bans, perhaps recognizing uncertain legal prospects in California courts.²²⁶

California's legal structure concerning home-rule authority and fracking regulation suggests that local fracking bans stand a better chance of surviving a preemption challenge in California than they did in Colorado.²²⁷ The California Constitution recognizes the police power and zoning authority of local governments to control local matters²²⁸ and exempts charter cities from preemption where they regulate "municipal affairs."²²⁹ Compellingly, such cities have the "unquestioned right to regulate the business of operating oil wells within [their] city limits, and to prohibit their operation within delineated areas and districts if reason appears for so doing."²³⁰

225. In the 2016 election, Monterey County became the most recent addition to the list of counties in California to ban fracking, joining the ranks of Mendocino, Butte, Santa Cruz, San Benito, and Alameda counties. Paul Rogers, *Fracking Ban: Environmentalists Declare Victory on Monterey Measure Z*, THE MERCURY NEWS (Nov. 9, 2016, 1:18 AM), <http://www.mercurynews.com/2016/11/09/fracking-ban-environmentalists-declare-victory-on-monterey-measure-z/>. Monterey County ranks fourth in statewide oil production, signaling that even counties with significant economic stake in the oil industry have begun to question the proliferation of fracking across the state. *See id.*

226. *See* Press Release, Center for Biological Diversity, Oil Industry Drops Lawsuit Over California County's Fracking Ban: Oil Company Dismisses Own Case, Ending Only Active Legal Challenge to San Benito's Measure J (Apr. 6, 2015), https://www.biologicaldiversity.org/news/press_releases/2015/fracking-04-06-2015.html. However, after the passage of Monterey County's Measure Z, Chevron, Aera Energy, and other oil companies filed suit against the fracking ban in December 2016, asserting takings and preemption claims. Jim Johnson, *County Counsel: Measure Z Legal Fight Likely to Take Years to Resolve*, MONTEREY HERALD (Jan. 24, 2016, 6:43 PM), <http://www.montereyherald.com/article/NF/20170124/NEWS/170129854#author1>. The court ordered a stay on many of Measure Z's restrictions. *Id.* While Measure Z still prevents oil companies from introducing new fracking wells in the county, the remaining restrictions on oil and gas operations remain the subject of negotiation between the county and the oil industry in an effort to avoid costly litigation. *Id.* The Monterey County Board of Supervisors hopes to prepare an ordinance to allow oil companies to seek exemptions from Measure Z. *Id.* Property owners whose minerals rights are impacted by Measure Z have also sued the county arguing for preemption of the local regulation. Jim Johnson, *Mineral Rights, Royalty Owners Sue County Challenging Measure Z*, MONTEREY HERALD (Mar. 13, 2017, 9:03 PM), <http://www.montereyherald.com/article/NF/20170313/NEWS/170319933>.

227. *See* Memorandum from Hollin Kretzmann & Kassie Siegel on Local Governments and the Power to Ban Fracking and Other Forms of Unconventional Oil and Gas Activity in California 6–7 (Jan. 31, 2014), <http://www.cafrackfacts.org/wp-content/uploads/2013/11/Local-Governments-and-the-Power-to-Ban-Fracking-January-201412.pdf>; *City of Longmont v. Colo. Oil & Gas Ass'n*, 369 P.3d 573, 577 (Colo. 2016); *City of Fort Collins v. Colo. Oil & Gas Ass'n*, 369 P.3d 586, 589 (Colo. 2016).

228. CAL. CONST. art. XI, § 7 ("A county or city may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws.")

229. *Id.* art. XI, § 5.

230. *Beverly Oil Co. v. City of Los Angeles*, 40 Cal. 2d 552, 558 (1953).

In municipalities other than charter cities, local government ordinances must not conflict with state law or they will be preempted.²³¹ Under California law, preemption can occur when a local law (1) duplicates state law, (2) contradicts state law, or (3) enters a field that has been fully occupied by state law.²³² California courts “presume, absent a clear indication of preemptive intent from the Legislature,” that exercises of conventionally local power, like land-use ordinances, are “not preempted by state statute.”²³³ Moreover, Senate Bill 4,²³⁴ the recent legislation establishing the state’s fracking regulatory scheme, includes both a savings clause preserving local governments’ regulatory authority²³⁵ and a provision allowing local governments to conduct their own Environmental Impact Reports for proposed fracking operations.²³⁶ These provisions suggest legislative intent for municipalities to have a say in how and where fracking is conducted in California and ensure that the role of local governments in regulating fracking is not duplicative of state law.²³⁷

While the oil and gas industry may argue that local bans contradict state policy to “encourage the wise development of oil and gas,”²³⁸ this ignores the high legal bar for preemption that state law be “so overshadowing that it obliterates all vestiges of local power as to a subject where municipalities have traditionally enjoyed a broad measure of autonomy.”²³⁹ On July 1, 2015, the California Division of Oil, Gas, and Geothermal Resources (DOGGR) promulgated final fracking regulations, but these likely do not prevent local governments from placing their own restrictions on the practice.²⁴⁰ The DOGGR rules, developed in consultation with various state environmental agencies,²⁴¹ represent the strictest fracking regulations in the country.²⁴² The

231. CITY ATTORNEY’S DEP’T LEAGUE OF CAL. CITIES, *THE CALIFORNIA MUNICIPAL LAW HANDBOOK* § 1.36 (Ann H. Davis ed., 2016).

232. *Id.*; *see, e.g.*, *Big Creek Lumber Co. v. Cty. of Santa Cruz*, 136 P.3d 821, 827 (Cal. 2006) (upholding ordinances relating to the permissible locations for timber operations against preemption by state forestry statutes). Field preemption occurs when the state legislature covers at least part of the area of regulation and impliedly indicates that the area is: (1) exclusively a matter of state concern; (2) of such paramount state concern it will not tolerate additional local action; or (3) of such a nature that adverse effects of a local ordinance on the state outweighs the benefit to the municipality. CITY ATTORNEY’S DEP’T LEAGUE OF CAL. CITIES, *supra* note 231, § 1.39(3).

233. *Big Creek Lumber*, 136 P.3d at 827 (emphasis omitted).

234. S.B. 4 2013-2014 Reg. Sess. (Cal. 2013), http://www.leginfo.ca.gov/pub/13-14/bill/sen/sb_0001-0050/sb_4_bill_20130920_chaptered.pdf.

235. CAL. PUB. RES. CODE § 3160(n) (West 2017).

236. *Id.* § 3161(b)(3)(C).

237. *See* Memorandum from Hollin Kretzmann & Kassie Siegel, *supra* note 227, at 5.

238. § 3106(d).

239. *See Big Creek Lumber*, 136 P.3d at 830.

240. *See* Julie Cart, *State Issues Toughest-in-the-Nation Fracking Rules*, L.A. TIMES (July 1, 2015, 8:13 PM), <http://www.latimes.com/local/lanow/la-me-ln-state-issues-fracking-rules-20150701-story.html>.

241. Agencies consulted include the Department of Toxic Substances Control, the State Air Resources Board, the State Water Resources Control Board, and the Department of Resources Recycling and Recovery, in addition to local air districts and regional water quality control boards. *See* § 3160(b)(1)(A).

regulations set specifications to ensure engineering integrity of fracking wells and direct companies to report on water use and water quality.²⁴³ In addition, the regulations require fracking operations to obtain permits, to disclose chemicals used (though not the concentrations of chemical mixtures deemed trade secrets), and to notify private landowners of any drilling occurring nearby their property.²⁴⁴ However, the regulations do not speak to location-based restrictions for wells and wastewater; in fact, the regulations require that any fracking operation comply with “local agencies with jurisdiction over the location of the well stimulation activities,” suggesting that such agencies and municipalities can use zoning authority to decide where fracking may occur, or if it can occur within their borders at all.²⁴⁵ Also, as long as it is “safe to do so,” a fracking company must cease operations if DOGGR determines that the well operator no longer meets the other standards required by the regulations.²⁴⁶ This represents a key reversal from the interim regulations, which existed prior to July 1, 2015 and mandated that DOGGR “shall allow” fracking whenever the well operator could meet certain criteria.²⁴⁷ The change signals DOGGR’s intent to leave substantial regulatory power in the hands of local agencies by shifting the presumption from allowing fracking to disallowing it unless state and local regulations are satisfied.²⁴⁸

Similarly, state law does not lead to field preemption because, while Senate Bill 4 defines how fracking may be conducted, it does not indicate where or whether it may be done.²⁴⁹ In addition, Senate Bill 4 establishes local zoning authority over oil and gas activities and contains no express language preempting local regulations.²⁵⁰

Thus, it appears that California local governments have a strong case for continuing to ban fracking within their jurisdictions. However, where any doubts arise about how absolute this local authority actually is, the public trust doctrine offers a legal theory to shore up the defense.

2. California’s Robust Public Trust Doctrine

In *National Audubon Society v. Superior Court*, the California Supreme Court demonstrated its willingness to put a check on prior appropriation water rights by invoking the public trust doctrine to protect fragile aquatic resources.²⁵¹ The case involved the classic water wars between Owens Valley

242. See Cart, *supra* note 240.

243. See *id.*; CAL. CODE REGS. tit. XIV, § 1782 (West 2017).

244. See Cart, *supra* note 240.

245. See § 1782(a)(9).

246. See § 1782(c).

247. See Memorandum from Hollin Kretzmann & Kassie Siegel, *supra* note 227, at 5.

248. See § 1782(c); Memorandum from Hollin Kretzmann & Kassie Siegel, *supra* note 227, at 5.

249. See Memorandum from Hollin Kretzmann & Kassie Siegel, *supra* note 227, at 5–6.

250. CAL. PUB. RES. CODE § 3690 (West 2017).

251. Nat’l Audubon Soc’y v. Superior Court, 658 P.2d 709, 728–29 (Cal. 1983) (en banc).

and Los Angeles over the impacts of Los Angeles' water diversions from Mono Lake.²⁵² Environmental groups invoked the public trust doctrine in an effort to compel a closer evaluation of the environmental damage to the lake caused by the withdrawals.²⁵³ As a result of these impacts, the court ordered the State Water Resources Control Board to reconsider Los Angeles' water permit in light of the state's duty to protect water resources as a trust for the public.²⁵⁴ The court recognized that an absolutist envisioning of the public trust would require complete divestment of water rights.²⁵⁵ It therefore struck a compromise in which state agencies must consider the public trust in their decision-making calculi and accommodate it to the extent "feasible."²⁵⁶ This has been described as a publicly reviewable balancing test.²⁵⁷

Since the Mono Lake decision, California has extended the public trust doctrine further to cover non-navigable fisheries²⁵⁸ and groundwater when extraction impacts navigable waters.²⁵⁹ In addition, California courts applied the doctrine to protection of ecological resources and wildlife and found that local governments share the state's trust duty.²⁶⁰

3. *Public Trust Could Help Defend Local Government Bans on Fracking*

With such a robust and versatile incarnation of the public trust doctrine, California local governments could likely apply it as another protection for carefully drafted fracking bans.²⁶¹ California's public trust doctrine demonstrates potential for limiting water rights of the fracking industry if it appears they are damaging public trust waters. Advocates could invoke the trust in response to excessive water extraction that impacts navigable waters or other fracking activities that risk polluting surface water or groundwater. With new evidence from the Environmental Protection Agency that contamination can occur at any stage of the fracking process, the likelihood of an accident that threatens public trust resources remains all the greater.²⁶² Local governments should gather information about geology and hydrology with their jurisdictions

252. *Id.* at 713–16.

253. *Id.*

254. *Id.* at 728–29.

255. *Id.* at 712, 727.

256. *Id.* at 712.

257. Blumm, *supra* note 75, at 485.

258. *See* Cal. Trout, Inc. v. State Water Res. Control Bd., 255 Cal. Rptr. 184, 211 (Cal. Ct. App. 1989); Golden Feather Cmty. Ass'n v. Thermalito Irrigation Dist., 257 Cal. Rptr. 836, 839 (Cal. Ct. App. 1989).

259. *Envtl. Law Found. v. State Water Res. Control Bd.*, No. 34-2010-80000583, 2014 WL 8843074, at *7 (Cal. Super. Ct. July 15, 2014), *petition for reconsideration denied by* *Envtl. Law Found. v. State Water Res. Control Bd.*, No. 34-2010-80000583, 2015 WL 2337775 (Cal. Super. Ct. Mar. 27, 2015).

260. *Ctr. for Biological Diversity v. FPL Grp., Inc.*, 83 Cal. Rptr. 3d 588, 595–96, 604–05 (Cal. Ct. App. 2008).

261. Klass, *supra* note 4, at 55.

262. *See* Davenport, *supra* note 44.

in order to assess risks fracking could pose in order to craft restrictions that best preserve these resources and minimize legal exposure. Armed with sturdy home-rule authority and a constitutional and common law basis for conserving and guarding water supplies, municipalities can take action on solid legal footing. The flexibility and empowering capabilities of California's legal schemes offer great hope for local governments wanting to ban fracking in their jurisdictions or eager to protect bans they already have in place.

4. *Future for California Local Government*

Governor Jerry Brown has shown little interest in banning fracking on the statewide level.²⁶³ With the public trust doctrine acting as an extra layer of protection for local fracking restrictions, local governments can continue to push against the water-intensive and environmentally risky practice. By forming a patchwork of bans and heightened restrictions across the state, local governments and environmental groups can solidify a public coalition to pressure the state government. Such a movement, demanding that benefits of fracking be reassessed in light of increasingly clear harms, partially motivated New York to ban fracking across the state.²⁶⁴ Similarly, continuing local bans with growing confidence in their legality with the support of the public trust doctrine could gradually convince the California state government to ban fracking or enact a moratorium until stronger regulations can be put in place.²⁶⁵

Understandably, California's economy relies on oil and gas development, so it may be difficult to muster a statewide ban in the near future.²⁶⁶ However, despite significant economic opportunities in the Marcellus Shale in New York, Governor Cuomo deemed the environmental and public health risks of fracking too great.²⁶⁷ Local bans in California can therefore continue to create leverage for environmentalists and fracking-intensive communities. Communities that do not want to ban fracking outright can still use public trust arguments to support strict regulations and push the state toward a more precautionary approach. Moreover, California possesses a leading and still growing green economy in wind, solar, and electric vehicles.²⁶⁸ The value of these clean energy resources will grow over time and, if enough local communities see

263. Mollie Reilly, *Jerry Brown Pressured to Ban Fracking in California*, HUFFINGTON POST (Nov. 16, 2015, 5:51 PM), http://www.huffingtonpost.com/entry/jerry-brown-fracking_us_564a39cbe4b08cda348a0cb2.

264. See Kaplan, *supra* note 48.

265. See *id.*

266. A report on the Californian economy found that the oil and gas industry produced \$21.6 billion in state and local tax revenue and 468,000 direct and indirect jobs. Shan Li, *Oil and Gas Industry Generates Thousands of Jobs in California, Report Finds*, L.A. TIMES (Apr. 22, 2014, 11:34 AM), <http://www.latimes.com/business/la-fi-mo-oil-gas-economy-california-20140422-story.html>.

267. See Kaplan, *supra* note 48.

268. David R. Baker, *California's Economy is World's Second Greenest*, SF GATE (May 17, 2015, 3:00 PM), <http://www.sfgate.com/business/article/California-s-economy-is-world-s-second-6268170.php>.

fracking as a public health threat, it will lose political capital. Thus, even if the state does not ban fracking, it could phase it out and allow environmental protections to take priority.

Not all states possess California's robust legal framework for resisting the proliferation of fracking. Other states have strong public trust doctrines and still try to guard private rights to water and oil and gas operations. The next subpart considers Montana as an example of such a state.

C. Montana

Montana constitutes an intriguing middle ground between the limited public trust of Colorado and the robust public trust and environmental ethic of California. Subpart 1 indicates that fracking companies conduct operations within Montana under state regulations. While no fracking bans exist in the state yet, there exists potential for them to emerge under home-rule authority. Subpart 2 explores Montana's manifestation of the public trust doctrine, determining that it has a strong recreational access component, but that it can still run afoul of rigid private water rights. Subpart 3 considers potential applications of the public trust doctrine defense for local fracking restrictions in the contexts of water use and water pollution. Subpart 4 concludes that local governments could defend fracking bans and moratoria using the public trust defense. However, local governments would rest on more solid legal footing using the public trust to bolster their legal authority to enact stricter regulations using land-use powers to limit the economic incentives of fracking in sensitive areas.

1. Fracking Regulation in Montana and Potential for Local Restrictions

On August 26, 2011, the Montana Board of Oil and Gas Conservation (MBOGC) adopted new rules regulating fracking in the state.²⁶⁹ These rules include requirements that fracking companies get approval from MBOGC before beginning operations,²⁷⁰ issue a report to MBOGC on actual work performed at the well site within thirty days of completing such work,²⁷¹ and disclose the types of chemicals included in fracking fluid²⁷² unless the company raises a trade secret exemption.²⁷³ In addition, MBOGC rules set testing and construction standards for fracking well casings²⁷⁴ and ostensibly require companies to dispose of fluids in ways that do not “degrade surface

269. *Hydraulic Fracturing*, INTERMOUNTAIN OIL AND GAS BMP PROJECT, UNIV. OF COLO. AT BOULDER, <http://www.oilandgasbmps.org/resources/fracing.php> (last updated Jan. 4, 2017).

270. “No well may be reperforated, recompleted, reworked, chemically stimulated, or hydraulically fractured without first notifying the board” MONT. ADMIN. R. 36.22.1010(1) (West 2017).

271. *Id.*

272. *Id.* at 36.22.1015.

273. *Id.* at 36.22.1016.

274. *Id.* at 36.22.1106.

water, groundwater, or cause harm to soils” and to restore the area after completion of fracking.²⁷⁵

Nonetheless, environmentalists expressed concerns that these regulations do not go far enough to protect water resources and local communities.²⁷⁶ In particular, they pointed out that fracking companies only have to reveal the chemical families of the fluids they inject into the ground and not the precise chemical name.²⁷⁷ They also asserted that the breadth of the trade secret exemption allows fracking companies to hide the contents of fracking fluids by asserting a need for confidentiality.²⁷⁸ This specific issue motivated the environmental groups Earthjustice, Natural Resources Defense Council, and Montana Environmental Information Center to file with MBOGC a petition for additional rulemaking to increase transparency and bolster protections for water resources.²⁷⁹ On September 22, 2016, MBOGC rejected the petition in a unanimous vote, signaling skepticism of the petitioners’ claims of water contamination.²⁸⁰

Given pockets of discontent with the environmental protections offered by the state, some citizens appear ready to combat fracking at the local level.²⁸¹ On November 15, 2014, Helen Slottje, an attorney who advocated for the adoption of local fracking bans in New York leading up to the statewide ban, spoke in Billings, Montana to advocate for the use of similar tactics in Montana.²⁸² She argued that local land-use authority coupled with strong

275. See *id.* at 36.22.1005(1).

276. See Scott Detrow, *Montana Joins Pennsylvania in Requiring Fracking Disclosure—But Environmental Groups Aren’t Happy*, STATEIMPACT: PA. (Sept. 14, 2011, 12:22 PM), <https://stateimpact.npr.org/pennsylvania/2011/09/14/montana-joins-pennsylvania-in-requiring-fracking-disclosure-but-environmental-groups-arent-happy/>; *Coalition Seeks Greater Public Access to Information About Chemicals Used in Fracking*, EARTHJUSTICE (July 26, 2016), <http://earthjustice.org/news/press/2016/coalition-seeks-greater-public-access-to-information-about-chemicals-used-in-fracking>.

277. Petition for Rulemaking by the Nat. Res. Def. Council et al., In re Amendment of Regulations Governing Disclosure of Well Stimulation Fluids and Proprietary Chemicals and Trade Secrets, at 4–5 (July 25, 2016), <http://earthjustice.org/sites/default/files/files/Rulemaking%20Petition%20FINAL%20-%20signed%20%282%29.pdf>.

278. *Id.* at 5–6.

279. See *id.* at 1.

280. Matthew Brown, *Montana Board Rejects More Fracking Disclosures*, ASSOCIATED PRESS (Sept. 22, 2016), http://billingsgazette.com/news/state-and-regional/montana/montana-board-rejects-more-fracking-disclosures/article_e3bb64a0-d0cf-55ba-adc9-788cb3ee5896.html.

281. See HERTHA L. LUND, WILLIS WEIGHT & DENNIS R. LOPACH, *FRACKING IN MONTANA: ASKING QUESTIONS, FINDING ANSWERS* 4–6 (2015), <http://lund-law.com/wp-content/Documents/FRACKING%20IN%20MONTANA%20-%20Final%20012916%20with%20cover.pdf> (evaluating the risks of fracking and potential avenues for action for agricultural interests and other private landowners); see also Jack Healy, *Tapping Into the Land, and Dividing Its People*, N.Y. TIMES (Aug. 15, 2012), <http://www.nytimes.com/2012/08/16/us/montana-tribe-divided-on-tapping-oil-rich-land.html> (discussing the divide within the Blackfoot Tribe over whether to allow fracking on its reservation given the harmful environmental impacts but promise of much-needed economic growth).

282. Ed Kemmick, *Fracking-Ban Expert to Speak Saturday in Billings*, LAST BEST NEWS (Nov. 14, 2014), <http://lastbestnews.com/site/2014/11/fracking-ban-expert-to-speak-saturday-in-billings/>.

environmental language in the Montana Constitution made the state a good place for new local restrictions on fracking.²⁸³

While no bans have been attempted yet, citizens in Carbon County recently petitioned their respective county governments to use zoning powers to restrict fracking in 2700 acres of residential and agricultural property.²⁸⁴ Though the county commissioners initially approved the resolution, they later reversed their decision and rejected the citizen-initiated zoning requirement in light of objections raised by neighboring landowners.²⁸⁵ The initiators of the resolution challenged the decision, and ultimately reached the Montana Supreme Court.²⁸⁶ The court dismissed the challenge, holding that the county arbitrarily disregarded procedural requirements for the citizen-initiated zoning petition and that this made the commissioners' initial approval of the resolution unlawful.²⁸⁷ Nevertheless, the court assured the citizens that they could still pursue the desired zoning restrictions if they properly filed the petition in accordance with various procedural constraints.²⁸⁸ Thus, there may still be hope for citizens and local governments to use local authority to restrict fracking in their communities.²⁸⁹

Montana citizens could use home-rule powers to restrict fracking within their jurisdiction. The Montana Constitution says that local governments have the power to exercise self-government²⁹⁰ and that by adopting a charter such municipalities may "exercise any power not prohibited by this constitution, law, or charter."²⁹¹ Montana local governments maintain the authority to regulate land-use and conduct zoning.²⁹² However, Montana's oil and gas statutes and regulations promote the development of oil and gas resources and the protection of mineral rights.²⁹³ Specifically, Montana law disallows the prevention of "complete use, development, or recovery of any mineral, forest, or agricultural resources by the owner of any mineral, forest, or agricultural

283. *Id.*

284. Eleanor Guerrero, *Commissioners Respond to Silvertip Zoning Lawsuit*, CARBON COUNTY NEWS (Apr. 9, 2015, 10:08 AM), <http://www.carboncountynews.com/content/commissioners-respond-silvertip-zoning-lawsuit>.

285. *Martinell v. Bd. of Cty. Comm'rs*, 373 P.3d 34, 35–36 (Mont. 2016).

286. *Id.* at 36.

287. *Id.* at 38–39.

288. *Id.* at 39.

289. *See id.*

290. MONT. CONST. art. II, § 2.

291. *Id.* art. XI, § 6.

292. MONT. CODE ANN. §§ 76-2-201, 76-2-301 (West 2017).

293. MONT. ADMIN. R. 36.1.101(3)(g)(ii) (West 2017) ("Responsibilities [of MBOGC] include promoting conservation of oil and gas; preventing waste, contamination, and damage to land and underground strata from oil and gas activities; establishing well spacing units and protecting the correlative rights of mineral owners . . ."); MONT. CODE ANN. § 82-11-111(7) (West 2017) ("[MBOGC] may take measures to demonstrate to the general public the importance of the state's oil and gas exploration and production industry, to encourage and promote the wise and efficient use of energy . . .").

resource.”²⁹⁴ It is unclear, though, whether “mineral” in this statute includes oil and gas resources.²⁹⁵ Furthermore, state regulations preserve zoning authority to prohibit mining within residential areas and to place conditions on such activity in other zones.²⁹⁶ The Montana Supreme Court recently upheld local zoning restrictions on mining in a rural area of growing residential use against a discrimination challenge by an impacted gravel mining company.²⁹⁷

As such, it appears that Montana local governments at least have some authority to use zoning restrictions to limit fracking in certain areas and place conditions on the practice in other districts. A complete ban within a municipality’s jurisdiction may be possible if the prohibition on “mineral” extraction bans does not apply to fracking, but this has yet to be tested by a local government or hinted at through judicial precedent.²⁹⁸

Given some legal uncertainty, local governments in Montana should turn to provisions in Montana’s constitution guaranteeing some environmental protections.²⁹⁹ As explained in the next subpart, common law precedent regarding the public trust doctrine gives additional context for the utilization of these provisions to protect water resources threatened by fracking.

2. Public Trust Doctrine and Water Rights in Montana

Montana followed what some scholars characterize as the “modern trend” of the public trust doctrine that Colorado rejected.³⁰⁰ In 1984, the Montana Supreme Court invoked the public trust doctrine and the Montana Constitution to hold in favor of the public’s right to recreational use of navigable waters irrespective of private ownership of the streambeds or banks.³⁰¹ The court later expanded its application of the public trust doctrine to uphold a state agency’s water rights claims for fish, wildlife, and recreational purposes.³⁰²

294. MONT. CODE ANN. § 76-2-209(1) (West 2017).

295. *See id.*

296. *Id.*

297. *Helena Sand & Gravel, Inc. v. Lewis & Clark Cty. Planning & Zoning Comm’n*, 290 P.3d 691, 694–96, 699–700 (Mont. 2012).

298. *See* § 76-2-209.

299. *See* MONT. CONST. art. II, § 3 (inalienable rights include a “right to a clean and healthful environment . . .”); *id.* art. IX, § 1(1) (“The state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations.”); *id.* art. IX, § 7 (“The opportunity to harvest wild fish and wild game animals is a heritage that shall forever be preserved to the individual citizens of the state and does not create a right to trespass on private property or diminution of other private rights.”).

300. Craig, *supra* note 11, at 77.

301. *Mont. Coal. for Stream Access, Inc. v. Hildreth*, 684 P.2d 1088, 1092 (Mont. 1984) (finding that the public’s recreational use prevails regardless of the ownership of the streambed); *Mont. Coal. for Stream Access, Inc. v. Curran*, 682 P.2d 163, 171 (Mont. 1984) (“[U]nder the public trust doctrine and the 1972 Montana Constitution, any surface waters that are capable of recreational use may be so used by the public without regard to streambed ownership or navigability for nonrecreational purposes.”).

302. *In re Adjudication of the Existing Rights to the Use of All the Water*, 55 P.3d 396, 398 (Mont. 2002).

In addition, the court has interpreted a provision of Montana Constitution guaranteeing a public right to beneficial uses of water as an additional source of public trust protections.³⁰³ However, that provision of the state constitution also establishes appropriative water rights in Montana.³⁰⁴ The rigidity of such rights, even in the face of public trust concerns, remains codified in state statute.³⁰⁵ Thus, unlike in California, where the California Supreme Court used the public trust doctrine to order a state agency to reconsider water allocation in light of ecological concerns, in Montana, vested water rights trump public interest concerns.³⁰⁶

Nonetheless, in tandem with the environmental provisions of Montana's constitution, the Montana Supreme Court has expanded the access rights granted by the public trust doctrine into the realm of water quality protection.³⁰⁷ In *Montana Environmental Information Center (MEIC)*, the court held that the constitutional right "to a clean and healthful environment is a fundamental right" and that "any statute or rule which implicates that right must be strictly scrutinized and can only survive scrutiny if the State establishes a compelling state interest and . . . its action is closely tailored to effectuate that interest and is the least onerous path that can be taken to achieve the State's objective."³⁰⁸ The case involved a nonprofit challenge to agency rules allowing a mining permit to discharge arsenic-laden wastewater into a river.³⁰⁹ Finding that the state agency arbitrarily neglected to include the arsenic concentration in its environmental review, the court held that the nonprofit had standing to bring the challenge under the Montana Constitution and struck down the rule.³¹⁰ The holding implicitly found the right to a clean and healthful environment "self-executing," such that it can be invoked by a plaintiff without legislative action or a violation of an existing regulation.³¹¹

In *Cape-France*, the court found that installation of a well would result in groundwater contamination and held that this constituted grounds for rescission of the installation contract.³¹² This represents how the environmental rights of the Montana Constitution allow for a cause of action against private violations of public resources in addition to infringements by the state.³¹³

303. *Galt v. State ex rel. Dep't of Fish, Wildlife & Parks*, 731 P.2d 912 (Mont. 1987); MONT. CONST. art. IX, § 3 ("All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law.").

304. See MONT. CONST. art. IX, § 3.

305. MONT. CODE ANN. §§ 75-5-705, 75-7-104, 85-1-111 (West 2017).

306. See *supra* note 305; *supra* note 251.

307. See *Cape-France Enters. v. Estate of Peed*, 29 P.3d 1011, 1017 (Mont. 2001); *Mont. Env'tl. Info. Ctr. v. Dep't of Env'tl. Quality (MEIC)*, 988 P.2d 1236, 1242-43 (Mont. 1999).

308. *MEIC*, 988 P.2d at 1246 (emphasis omitted).

309. *Id.* at 1238.

310. *Id.* at 1242-43, 1249.

311. *Klass*, *supra* note 59, at 716; see *MEIC*, 988 P.2d at 1247.

312. *Cape-France*, 29 P.3d at 1017.

313. See *Klass*, *supra* note 59, at 716.

Michelle Bryan Mudd has argued that the authority and responsibilities bestowed by these constitutional public trust principles represent state police power and extend to local government authority.³¹⁴ While local government zoning authority in Montana only extends so far as to require promotion of public health, public safety, general welfare, and appropriate land-uses,³¹⁵ such general grants of authority arguably include duties to protect the environment under the public trust doctrine.³¹⁶ Therefore, public trust protections could feasibly be invoked by local governments seeking to legally defend local restrictions on fracking. The next subpart explores potential applications of this theory.

3. Possible Applications of Public Trust Defense in Montana

MEIC arguably stands for the principle that constitutional public trust provisions may override conflicting state statutes or regulatory decisions.³¹⁷ Thus, Montana's local governments may invoke the public trust doctrine and the environmental rights granted by the state constitution to protect local restrictions on fracking if they can show that fracking represents a threat to public rights to environmental protection.³¹⁸ The two clearest ways to attempt this are to allege either excessive water use or water contamination.

In all likelihood, a challenge against excessive water use would be unsuccessful in situations where a company with an appropriated water right wishes to divert high volumes of surface water or withdraw groundwater in a way that interferes with public access. However, a challenge could prevail if such high water use infringed on another preexisting water right.³¹⁹

More compellingly, local governments could employ the public trust defense theory and the Montana Constitution's environmental protections where fracking restrictions appear necessary to prevent water contamination. Blanket bans, even shored up with the public trust theory, may not pass muster of a strong state interest in developing oil and gas resources because state law purports that fracking companies can conduct fracking in a responsible way that limits serious environmental harm.³²⁰ However, *MEIC* and *Cape-France* illustrate how the right facts can make a strong case for judicially invalidating certain state and private actions.³²¹ If the ability of a fracking company to

314. See Michelle Bryan Mudd, *A "Constant and Difficult Task": Making Local Land Use Decisions in States with a Constitutional Right to a Healthful Environment*, 38 *ECOLOGY L.Q.* 1, 4, 7 (2011).

315. MONT. CODE ANN. §§ 76-2-203, 76-2-304 (West 2017).

316. See Mudd, *supra* note 314, at 15.

317. See Klass, *supra* note 4, at 52.

318. See *id.*

319. John B. Carter, *Montana Groundwater in the Twenty-First Century*, 70 *MONT. L. REV.* 221, 222, 236–38 (2009).

320. See MONT. ADMIN. R. 36.22.1005 (West 2017).

321. See *Mont. Env'tl. Info. Ctr. v. Dep't of Env'tl. Quality*, 988 P.2d 1236, 1242–43 (Mont. 1999); *Cape-France Enters. v. Estate of Peed*, 29 P.3d 1011, 1017 (Mont. 2001).

conduct operations in an environmentally accountable way is suspect, then additional constraints could be judicially enforceable.³²²

Thus, if a local government can demonstrate the necessity of zoning restrictions on fracking, not just for residential areas, but other regions particularly vulnerable to water contamination, then such limitations should withstand preemption challenges.³²³ For instance, these constraints could point to geological limitations on adequate maintenance of fracking well casings³²⁴ or the proximate location of important surface water resources such that any extraction poses too high of a risk to public access rights.³²⁵ Ultimately, the success of fracking restrictions depends on the ability of local governments to demonstrate their necessity for protecting the public's rights to a healthy environment and access to water resources. However, even this context-specific approach offers numerous factual scenarios on which to base fracking constraints.

4. Future for Montana Local Government

While the case for a complete fracking ban within a local jurisdiction seems weaker in Montana than in California, there is still plenty of room for Montana local governments to take action with the support of environmental rights and the public trust doctrine.³²⁶ While MBOGC seems reluctant to make regulatory concessions to environmental groups, the state's strong public trust doctrine and the public's interest in a healthy environment and access to recreational opportunities can still spark formidable local action.³²⁷ An additional impetus could take the form of economic hardship felt in rural communities as teachers and bus drivers flock to lucrative oil jobs and a flood

322. See *MEIC*, 988 P.2d at 1242–43; *Cape-France*, 29 P.3d at 1017.

323. See *Helena Sand & Gravel, Inc. v. Lewis & Clark Cty. Planning & Zoning Comm'n*, 290 P.3d 691, 694–96, 699–700 (Mont. 2012).

324. This could be analogized to *Cape-France*. In that case, the Montana Supreme Court held that a contract for drilling a well could be rescinded because evidence showed that creation of the well carried with it high risk of spreading pollution and water contamination, and with it liability to the well operator. *Cape-France*, 29 P.3d at 1013–14. Like the aquifer in *Cape-France*, if the fracking well in the hypothetical could not safely fracture the shale in the earth and obtain the oil and gas without contaminating groundwater with fracking fluid or other waste, this could result in an infringement on public environmental rights. See *id.* at 1013–14, 1017.

325. *MEIC*, while not directly analogous, lends support in this hypothetical with its precedent of challenging state agency actions that arbitrarily threaten environmental resources. See *MEIC*, 988 P.2d at 1242–43, 1249. Siting a fracking well near a vulnerable water body may not seem as egregious an infraction as failing to evaluate arsenic concentrations in a permitted discharge, but the relevant agency could be forced to allow additional local restrictions to make sure that the operation is secure. See *id.* Potentially, a court could require the agency to relocate the fracking well to comply with *MEIC*'s mandate to follow “the least onerous path that can be taken to achieve the State’s objective.” See *id.* at 1246.

326. See *Klass*, *supra* note 59, at 716; *Klass*, *supra* note 4, at 52–53.

327. See *Brown*, *supra* note 280; *Klass*, *supra* note 59, at 715–16.

of outside workers strains local resources, driving rent prices and crime rates up.³²⁸

Local response will necessarily require case-by-case determinations of the threats fracking may pose to a given town or zoning district. But as the effort to obtain more information and mobilize communities continues, local governments should equip themselves to push for controls on fracking that will better preserve their water resources and environmental rights.³²⁹

CONCLUSION

Local fracking bans in states with a more robust public doctrine trust are more likely to avoid preemption. The public trust defense for local restrictions on fracking may not work for every state, but it offers another useful legal theory for local municipalities eager to limit a questionable practice. It presents another layer of protection for local governments hoping to save water in light of drastic droughts and shortages, protect vulnerable communities from air, water, and noise pollution, mitigate risk of manmade earthquakes, and reduce reliance on fossil fuels and fight climate change.³³⁰

Beyond California and Montana, local governments in a variety of western states subject to fracking should consider the public trust defense theory.³³¹ However, it is not a silver bullet; at best, it embodies a guiding principle.³³² Those who wish to invoke the public trust defense theory should gauge its applicability on a state-by-state basis as well as a municipality-by-municipality basis. In addition to evaluating the state's receptiveness to the public trust doctrine, this analysis also requires consideration of the extent of home-rule authority of local governments in the state and the flexibility of appropriative water rights. Municipalities in those states without a robust public trust doctrine can rely on more inherently local regulatory home-rule power as Longmont and Boulder did.³³³ They can also continue to lobby for reforms to restrict fracking at the ballot, even where public trust amendments are unlikely to succeed.³³⁴ Other states, like Montana, may not have the fracking regulatory framework favorable to complete bans or moratoria. Yet, these states can still use the public trust doctrine and related environmental constitutional provisions to

328. See *Bakken Oil Boom Brings Growing Pains to Small Montana Town*, NAT'L GEOGRAPHIC (July 9, 2014), <http://news.nationalgeographic.com/news/special-features/energy/2014/07/140709-montana-oil-boom-bakken-shale/>.

329. See Mudd, *supra* note 314, at 15.

330. See *supra* Part I.B.

331. Other western states with fracking worth investigating include: New Mexico, Utah, Wyoming, North Dakota, Oklahoma, and Texas. See Zahra Hirji & Lisa Song, *Map: The Fracking Boom, State by State*, INSIDE CLIMATE NEWS (Jan. 20, 2015), <https://insideclimatenews.org/news/20150120/map-fracking-boom-state-state>.

332. See Blumm, *supra* note 75, at 484–85.

333. See *supra* notes 216–223.

334. See *supra* notes 199–202.

defend zoning and other inherently local restrictions.³³⁵ This way, local governments can site fracking away from residential communities, agricultural areas, and water bodies, or at least condition fracking on more stringent requirements than what the state demands.³³⁶

Despite some legal risks to pushing the public trust doctrine to its limits, it is worth trying to build on the successes of *Robinson* in states that present a legal climate amenable to the argument.³³⁷ Many scholars question whether the public trust doctrine has outlived its usefulness, arguing that it interferes with state agency decision making,³³⁸ puts vested, appropriative water rights in limbo,³³⁹ and generally promotes excessive litigation in the face of development and extractive industry.³⁴⁰ However, in an era of scarce water in the West, it remains essential to allow those most affected by state decisions promoting fracking to voice environmental and public health concerns.³⁴¹ Local communities bear the brunt of the environmental costs of fracking and the locals may not obtain the jobs promised to them by the industry.³⁴² It is important that legal challenges to local fracking restrictions by private interests and state governments face environmental scrutiny beyond the economic prioritization classic preemption analysis affords.

The public trust doctrine functions to complement other regulatory efforts, not replace them; advocates should turn to the doctrine for extra leverage to bolster solid legal arguments, rather than hope it can salvage otherwise questionable claims.³⁴³ Nonetheless, the doctrine's strengths are its flexibility and its ability to adapt in tandem with public environmental values, as more recent constitutional codifications³⁴⁴ and expansive uses of the doctrine show.³⁴⁵

Thus, municipalities in strong public trust states that do not present debilitating legal obstacles should develop the theory based on the circumstances fracking presents within their jurisdictions. With the public trust

335. See Klass, *supra* note 4, at 52.

336. See Salkin, *supra* note 121, §§ 9:16, 36:7.

337. See *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 977–78 (Pa. 2013).

338. See Lazarus, *supra* note 69, at 1152–53; Leonhardt & Spuhler, *supra* note 69, at 94–96.

339. See Leonhardt & Spuhler, *supra* note 69, at 88–89.

340. See *id.* at 48–49, 89–90; Huffman, *supra* note 69, at 375; Smith & Ellsworth, *supra* note 71, at 22.

341. See Merrill & Schizer, *supra* note 2, at 172–81; KLAS & HUANG, *supra* note 76, at 6–7.

342. See Susan Christopherson, *Fracking Isn't the Job Creator You Think It Is*, NEW REPUBLIC (Jan. 28, 2015), <https://newrepublic.com/article/120873/fracking-creates-jobs-how-many>; NATIONAL GEOGRAPHIC, *supra* note 328.

343. See KLAS & HUANG, *supra* note 76, at 1–2.

344. See, e.g., MONT. CONST. art. II, § 3 (inalienable rights include “right to a clean and healthful environment . . .”); *id.* art. IX, § 1 (“The state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations.”).

345. See Jordan M. Ellis, *The Sky's the Limit: Applying the Public Trust Doctrine to the Atmosphere*, 86 TEMP. L. REV. 807, 814 (2014) (asserting that courts consider the present interests and values of society when determining how far to stretch the public trust doctrine); *supra* notes 59–64.

doctrine as an extra defense for local restrictions, municipalities can hopefully obtain gradual traction to sway state policy to crack down more on the environmental harms of fracking.

