Note

Moving Past Preemption: Enhancing the Power of Local Governments over Hydraulic Fracturing

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In the last decade, hydraulic fracturing has transformed the energy outlook of the United States. Due to improvements in drilling technology, the United States now has access to 2214 trillion cubic feet of natural gas resources, enough to last the country for nearly 100 years. As President Barack Obama stated, "We, it turns out, are the Saudi Arabia of natural gas. We've got a lot of it." This unprecedented growth in natural gas production is due to recent advances in a drilling technique known as hydraulic fracturing (also called fracking, hydrofracking, fracing, or hydraulic fragmentation by one Iowan news station. Deep wells are drilled up to 10,000 feet un-

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^{1.} Mason Inman, Estimates Clash for How Much Natural Gas in the United States, NAT'L GEOGRAPHIC, Feb. 29, 2012, http://news.nationalgeographic.com/news/energy/2012/03/120301-natural-gas-reserves-united-states/.

^{2.} David B. Spence, Federalism, Regulatory Lags, and the Political Economy of Energy Production, 161 U. PA. L. REV. 431, 433 (2013).

^{3.} Barack Obama, President of the United States, Remarks by the President on American-Made Energy (Jan. 26, 2012), available at http://www.whitehouse.gov/photos-and-video/video/2012/01/26/president-obama-discusses-blueprint-american-made-energy#transcript.

^{4.} See What Is Shale Gas and Why Is It Important?, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/energy_in_brief/article/about_shale_gas.cfm (last updated Dec. 5, 2012) [hereinafter EIA, What Is Shale Gas?].

^{5.} Chris Earl, Moratorium Vote Held Off on Allamakee County Frac

der the earth's surface, and then horizontally for miles through the ground. Millions of gallons of water combined with chemicals and sand are then forced into the well under high pressure, causing the rock to crack and allowing natural gas to escape.

Although fracking has opened up access to a century's worth of energy, local governments are increasingly concerned about the transformative effect of fracking on communities. On September 22, 2012, thousands gathered in 150 cities across five continents to protest the global spread of hydraulic fracturing and voice their concerns about increases in traffic, noise, water pollution, health risks, and the destruction of the character of their local communities. 9

The rapid expansion of fracking, combined with its negative effects on communities, has led to legal battles between state and local governments over who has the power to regulate it. 10 At the federal level, there are no comprehensive regulations governing fracking. 11 Consequently, state and local governments have primary regulatory authority. 12 Recently, state governments have sought to increase their control over the regulatory process by pushing the limits of the doctrine of state preemption. 13 Preemption allows state governments to simultaneously expand their own authority and reduce local govern-

Sand Mining, KCRG.COM (Jan. 31, 2013), http://www.kcrg.com/news/local/Moratorium-Vote-Held-Off-on-Allamakee-County-Sand-Mining-189315351.html.

- 6. See EIA, What Is Shale Gas?, supra note 4.
- 7. See id.
- 8. See, e.g., Local Actions Against Fracking, FOOD & WATER WATCH, http://www.foodandwaterwatch.org/water/fracking/fracking-action-enter/local-action-documents/ (last visited Oct. 18, 2013) [hereinafter Local Actions] (listing the cities and towns across the country that have implemented ordinances banning fracking).
- 9. See Over 150 Organizations to Call for Ban on Hydraulic Fracturing Through the Global Frackdown, ENEWS PARK FOREST (Sept. 21, 2012, 2:59 PM), http://www.enewspf.com/latest-news/science-a-environmental/36765-over -150-organizations-to-call-for-ban-on-hydraulic-fracturing-through-the-global -frackdown.html.
- 10. See, e.g., Robinson Twp. v. Commonwealth, 52 A.3d 463 (Pa. Commw. Ct. 2012) (deciding a challenge to the state preemption law).
 - 11. See Spence, supra note 2, at 447.
 - See id
- 13. See, e.g., 58 PA. CONS. STAT. §§ 3301–3309 (2013), available at http://www.legis.state.pa.us/WU01/LI/LI/CT/PDF/58/58.PDF. However, Section 3304 was held unconstitutional in *Robinson Township*, 52 A.3d at 485, for violating substantive due process by requiring municipalities to allow oil and gas operations in residential zoning districts.

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ment authority.¹⁴ States often use preemption when they want to create a uniform regulatory environment, which allows industry to operate more efficiently.¹⁵ However, preemption severely diminishes the ability of local governments to exercise their traditional powers of zoning and land use regulation to minimize the effects of industries like fracking on their communities.¹⁶

In response to state's attempts to exercise preemption, coalitions of concerned citizen groups and communities have brought lawsuits in state courts, with minimal success, in the hopes of retaining some control over fracking. ¹⁷ Although some states, such as Colorado, have made nominal attempts to incorporate local concerns into their regulations, ¹⁸ these efforts are inadequate to protect communities. ¹⁹ As a result, local governments across the country are powerless to stop, slow, or even control the use of fracking.

This Note argues that the current fracking regulatory system is failing to protect the interests of local communities and that local governments must retain meaningful control over fracking because they are in the best position to understand how it affects their communities. Part I discusses how fracking affects local communities and describes the changing balance of regulatory power between state and local governments. Part II analyzes how preemption laws affect local communities' ability

^{14.} Paul S. Weiland, *Preemption of Local Efforts to Protect the Environment: Implications for Local Government Officials*, 18 VA. ENVIL. L.J. 467, 468 (1999) [hereinafter Weiland, *Preemption Implications*] (explaining the definition of preemption).

^{15.} See Paul S. Weiland, Federal and State Preemption of Environmental Law: A Critical Analysis, 24 HARV. ENVTL. L. REV. 237, 242–43 (2000) [hereinafter Weiland, Preemption Analysis] (describing the benefits of uniform environmental laws)

^{16.} See, e.g., Range Res.-Appalachia, LLC v. Salem Twp., 964 A.2d 869 (Pa. 2009) (holding that a township's oil and gas regulation was preempted by state law).

^{17.} See, e.g., Robinson Twp., 52 A.3d 463.

^{18.} See Press Release, Office of Gov. John Hickenlooper, Oil and Gas Task Force Makes Recommendations Related to State and Local Regulatory Jurisdiction (Apr. 18, 2012), available at http://www.colorado.gov/cs/Satellite/GovHickenlooper/CBON/1251621390178.

^{19.} See Bob Berwyn, Colorado: Local Government Officials from Around the State Blast Gov. Hickenlooper over Longmont Drilling Lawsuit, SUMMIT CNTY. CITIZENS VOICE (Sept. 19, 2012), http://summitcountyvoice.com/2012/09/19/colorado-local-government-officials-from-around-the-state-blast-gov-hickenlooper-over-longmont-drilling-lawsuit/ (showing that the task force has

not prevented further disputes regarding local government control).

to protect their interests. It evaluates the outcomes of legal battles over fracking regulation, and critiques the few attempts to increase cooperation in the regulatory process. Part III proposes a solution that would substantially increase local government control over fracking while allowing for the continued development of the industry. It proposes a model for a formal organization which would bring community representatives and state decision makers together to create regulations to govern fracking. In the face of state preemption and the rapid expansion of this industry, such a mechanism would help local governments reclaim control over fracking and allow them to forcefully advocate for the protection of their local environments and communities.

I. FRACKING AND ITS CHANGING REGULATORY REGIME

This Part first describes the increased use of fracking and its impacts on the environment and on communities. This Part then discusses the changing regulatory regime governing fracking and introduces local governments' efforts to regain control over fracking and state efforts to preempt them.

A. THE IMPACTS OF FRACKING ON LOCAL COMMUNITIES

Hydraulic fracturing is not a new technique; in fact, it was first commercialized in 1949. The recent growth in natural gas production is due to advances in both horizontal drilling and hydraulic fracturing. These factors have opened up access to unconventional deposits of shale gas, which were previously uneconomical to produce. Across the country, the number of natural gas wells has increased from just over 300,000 to over 500,000 in ten years—an increase twice the rate of the previous decade. The United States Energy Information Administration projects an increase of approximately 29% in natural gas

^{20.} Crocker v. Humble Oil & Ref. Co., 419 P.2d 265, 271 (Okla. 1965).

^{21.} U.S. DEP'T OF ENERGY, MODERN SHALE GAS DEVELOPMENT IN THE UNITED STATES: A PRIMER 9 (2009), available at http://www.netl.doe.gov/technologies/oil-gas/publications/EPreports/Shale_Gas_Primer_2009.pdf [hereinafter DOE, MODERN SHALE GAS] ("[S]hale gas production [is also] economically viable [because of] . . . rapid increases in natural gas prices in the last several years as a result of significant supply and demand pressures.").

^{22.} Id. at 7.

^{23.} U.S. Natural Gas Number of Gas and Gas Condensate Wells, U.S. ENERGY INFO. ADMIN., available at http://www.eia.gov/dnav/ng/hist/na1170_nus_8a.htm (last visited Oct. 18, 2013).

production between 2010 and 2035, almost entirely due to shale gas. And by 2035, half of the United States' energy will come from natural gas. Large shale deposits exist across the United States, but the largest is the Marcellus Shale, which lies under West Virginia, Pennsylvania, Ohio, and New York. Other deposits include the Barnett Shale in Texas, the Fayetteville Shale in Arkansas, the Woodford Shale in Oklahoma, and the Haynesville Shale in Arkansas, Texas, and Louisiana, and the Bakken Shale in North Dakota.

As fracking spreads across the country, public concern continues to grow. Early failures of the cement casing in wells caused houses to explode because of methane leaks²⁸ and contaminated rivers and drinking wells.²⁹ The infamous documentary film *Gasland* shows homeowners living near natural gas wells lighting a match and setting their tap water on fire—a result of increased levels of methane and other toxic chemicals in the water supply.³⁰ These stories sparked the anti-fracking movement, leading to waves of protest, celebrity attention, and criticism of the industry.³¹

While these situations draw attention and alarm, the less dramatic but equally pervasive effect of fracking is the way industrial activity transforms the landscape and character of communities in both rural and urban areas.³² In many cases,

^{24.} EIA, What Is Shale Gas?, supra note 4.

^{25.} Inman, supra note 1.

^{26.} Shaun A. Goho, Municipalities and Hydraulic Fracturing: Trends in State Preemption, 64 PLAN. & ENVTL. L., July 2012, at 3.

^{27.} See id.; DOE, MODERN SHALE GAS, supra note 21, at 13.

^{28.} OHIO DEP'T OF NATURAL RES., REPORT ON INVESTIGATION OF THE NATURAL GAS INVASION OF AQUIFERS IN BAINBRIDGE TOWNSHIP OF GEAUGA COUNTY, OHIO 46 (2008), available at http://www.dnr.state.oh.us/Portals/11/bainbridge/report.pdf (noting one such example).

^{29.} See, e.g., Abrahm Lustgarten, Officials in Three States Pin Water Woes on Gas Drilling, PROPUBLICA (Apr. 26, 2009, 7:00 AM), http://www.propublica.org/article/officials-in-three-states-pin-water-woes-on-gas-drilling -426.

^{30.} See 'Gasland' Documentary Shows Water that Burns, Toxic Effects of Natural Gas Drilling, HUFFINGTON POST (May 25, 2011, 5:50 PM), http://www.huffingtonpost.com/2010/06/21/gasland-documentary-shows_n_619840.html.

^{31.} See, e.g., Mark Jaffe, Anti-Fracking Rally Draws Celebrities to Civic Center Park, DENVER POST, Oct. 24, 2012, http://www.denverpost.com/commented/ci_21840312?source=commented- (describing a "Frack Free Colorado" rally and concert in Colorado that drew 200 people, including musicians, actors, and activists).

^{32.} See Spence, supra note 2, at 480–81 ("From the beginning of site preparation through the completion of the fracking job, fracking is an industrial process, [with all] the air quality, water quality, . . . visual, . . . noise . . . and

communities are encountering large-scale industrial fossil fuel production for the first time, and as remote natural gas resources are exhausted, fracking continues to push closer to residential areas.³³ These factors have led to legal battles between state and local governments over who has the power to control fracking.34

Fracking takes place on a concrete well pad, which is a flattened piece of property requiring a minimum of five acres of land.³⁵ Operating rigs can run twenty-four hours a day, and the crew often lives on site.36 Other equipment includes tanks or pits for liquid storage, piping, and vertical structures, which have a visual impact on the landscape.³⁷ The fracking process itself can shake the ground, 38 and most of the natural gas processing also occurs on site, requiring "compressor stations, processing plants, and transmission lines." Fracking also includes an enormous increase in truck traffic to haul in equipment and millions of gallons of the water and chemical mixture used to fracture the shale. 40 This truck traffic contributes to air pollution, road stress, and noise impacts, particularly in small towns unused to industrial activity. 41

In addition to impacting the nature and character of communities, fracking has significant environmental consequences. Each well may use around five million gallons of water, 42 which raises concerns about drawdown from groundwater sources, particularly in the Southwest where water is scarce. 43 Commu-

other [impacts we associate with] industrialization.").

- 33. See Goho, supra note 26, at 4.
- 34. See, e.g., Mireya Navarro, Court Rejects a Ban on Local Fracking Limits, N.Y. TIMES, July 26, 2012, http://green.blogs.nytimes.com/2012/07/26/court -rejects-a-ban-on-local-fracking-limits/ (describing a lawsuit in Pennsylvania which struck down a state law forbidding municipalities to limit where natural gas drilling can take place).
- 35. See John M. Smith, The Prodigal Son Returns: Oil and Gas Drillers Return to Pennsylvania with a Vengeance—Are Municipalities Prepared?, 49 DUQ. L. REV. 1, 6 (2011).
 - 36. See id.
 - 37. Spence, supra note 2, at 444.
 - 38. See id. at 488.
 - 39. Smith, supra note 35, at 7.
 - 40. See id. at 21; Spence, supra note 2, at 444.
 - 41. See Smith, supra note 35, at 21.
 - 42. Id. at 6.
- 43. See Hannah Wiseman, Untested Waters: The Rise of Hydraulic Fracturing in Oil and Gas Production and the Need to Revisit Regulation, 20 FORDHAM ENVIL. L. REV. 115, 188 (2009) (explaining why states should consider all "cradle to grave" effects of fracking, including effects on groundwa-

nities are also concerned about what happens with the millions of gallons of "flowback"—the mixture of water, toxic or carcinogenic chemicals, and sometimes radioactive material, which returns to the surface after the shale is fractured. ⁴⁴ The industry often stores this concoction at the well site in open pits or tanks before disposing of it. ⁴⁵ Sometimes the mixture is discharged directly into surface waters or through a wastewater treatment facility, but often, it is injected back into an underground formation, which can cause earthquakes. ⁴⁶ State and local governments are grappling with how to address these and other environmental effects.

B. AN INTRODUCTION TO LOCAL ZONING POWER AND STATE PREEMPTION

Because there is no federal regulation of fracking, the battle over regulatory control is occurring at the state and local level.⁴⁷ The tension lies between local governments' zoning power and the right of states to preempt local control. This Section focuses on the scope of the zoning power and state preemption and the benefits and limitations of local control versus state control.

1. The Local Zoning Power

Traditionally, local governments could control fracking through the zoning power, ⁴⁸ which serves to promote orderly use and development of land. ⁴⁹ States empower municipalities to enact comprehensive plans and zoning ordinances, through which the municipality can divide land geographically based on zones and then designate particular activities or "uses" allowed within each zone. ⁵⁰ Permitted uses are allowed by right, mean-

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^{44.} See Michelle L. Kennedy, The Exercise of Local Control Over Gas Extraction, 22 FORDHAM ENVTL. L. REV. 375, 376–77 (2011). But see Gov. John Hickenlooper Tells Senate Committee He Drank Fracking Fluid, HUFFINGTON POST (Feb. 13, 2013, 6:49 PM), http://www.huffingtonpost.com/2013/02/13/gov-john-hickenlooper-drank-fracking-fluid-hydraulic-fracturing_n_2674453.html (describing how the Governor of Colorado claimed he drank the fluid used by Halliburton in the fracking process to show his support for hydraulic fracturing).

^{45.} See Kennedy, supra note 44, at 377.

^{46.} See Spence, supra note 2, at 487-88.

^{47.} See id. at 447.

^{48.} Smith, *supra* note 35, at 23–24.

^{49.} Id. at 24.

^{50.} Id.

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ing they can occur without being reviewed by the local government. A conditional use, on the other hand, usually involves an application process and public hearings before it is approved, and these uses can be regulated by the local government to protect "the health, safety, and welfare of the community." The community." The community of the co

Local governments across the country have used zoning ordinances to ban, restrict, and regulate fracking. Many municipalities have prohibited fracking, either temporarily or permanently. Others exercise the more traditional form of zoning power by regulating *where* fracking can occur, such as by requiring that wells be drilled a certain distance away from residential areas or fragile natural resources. Finally, some municipalities regulate *how* fracking occurs by imposing permit requirements and impact fees for road construction and maintenance, restricting truck traffic, and regulating noise, odors, pollution, visual impacts, and water use and disposal.

2. State Preemption

Municipalities, however, are creations of the state, and ultimately have only as much authority as a state gives them through the state constitution or statutes. States can preempt local control over an activity through express preemption, conflict preemption, or field preemption. Express preemption is an explicit limitation on local control of an activity. Conflict preemption arises when a court determines an ordinance is superseded because it creates a conflict with a specific part of state law. Field preemption occurs when state regulations are

^{51.} Id.

^{52.} *Id.* at 24–25.

^{53.} See Local Actions, supra note 8.

 $^{54.\} See,\ e.g.,\ ARLINGTON,\ Tex.,\ Gas\ Drilling &\ Prod.\ Ordinances §\ 7.01(B)\ (2011),\ available\ at\ http://www.arlingtontx.gov/citysecretary/pdf/codeofordinances/GasDrilling-Chapter.pdf\ (prohibiting\ gas\ drilling\ within\ 600\ feet\ of\ a\ park\ or\ a\ protected\ use).$

^{55.} See, e.g., id. \S 7.01(A); TOWNSHIP. OF JACKSON, PA., ORDINANCE 141 \S 4(C) (2006), available at http://www.jacksontwppa.com/masterordinanceindex.htm.

^{56.} Goho, supra note 26, at 5.

^{57.} *Id.*; *cf.* Jonathan Rosenbloom, *New Day at the Pool: State Preemption, Common Pool Resources, and Non-Place Based Municipal Collaborations*, 36 HARV. ENVTL. L. REV. 445, 451 (2012) (referring to express, conflict, and implied preemption).

^{58.} Goho, supra note 26, at 5.

^{59.} *Id*.

so comprehensive that they occupy the field, leaving no room for local control. ⁶⁰ These questions of preemption are often further complicated by the municipal home rule, a constitutional provision granting municipalities the ability to adopt ordinances regarding issues of local concern. ⁶¹ All of the states in which fracking occurs, except Arkansas, have a municipal home rule. ⁶² Courts are often the ultimate deciders of the type and scope of state preemption. ⁶³

Many states have sought to preempt local control over fracking to create a more consistent regulatory structure and incentivize natural resource development. The states where fracking occurs have adopted different approaches to preemption. For example, Pennsylvania⁶⁴ and New York⁶⁵ have adopted statutes which purport to supersede local regulation of oil and gas development, but while Pennsylvania has seen an explosion of fracking, New York recently extended its statewide moratorium on fracking to conduct further study of the process and its effects.⁶⁶ Colorado on the other hand, generally follows a conflict preemption approach.⁶⁷

3. The Benefits and Limitations of Preemption

From a policy point of view, there are benefits and limitations to both state control and local control. The primary benefit of state preemption is that uniform regulation creates a more predictable and stable environment for the private sec-

- 60. Id.
- 61. *Id*.
- 62. *Id*.
- 63. See *infra* Part I.C for a discussion of court decisions delineating the balance of power between state and local governments.
- 64. 58 PA. CONS. STAT. §§ 3301–3309 (2013), available at http://www.legis.state.pa.us/WU01/LI/LI/CT/PDF/58/58.PDF. But see supra note 13 (noting recent finding by a Pennsylvania court that section 3304 is unconstitutional).
- 65. N.Y. ENVTL. CONSERV. LAW § 23-0303(2) (Consol. 2013), available at http://public.leginfo.state.ny.us/menuf.cgi.
- 66. See Under Massive Pressure, New York Extends Fracking Moratorium, SUSTAINABLEBUSINESS.COM (Oct. 3, 2012), http://www.sustainablebusiness.com/index.cfm/go/news.display/id/24133 [hereinafter Under Massive Pressure].
- 67. See Bd. of Cnty. Comm'rs, La Plata Cnty. v. Bowen/Edwards Assocs., 830 P.2d 1045, 1055 (Colo. 1992) (en banc) ("The purpose of the preemption doctrine is to establish a priority between potentially conflicting laws enacted by various levels of government."); Goho, supra note 26, at 7 (stating that Colorado courts ask whether an "operational conflict" exists between the municipal ordinance and state regulations, and that the Colorado Supreme Court has held that municipal bans on oil and gas drilling are preempted per se).

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tor. 68 It does this by eliminating the patchwork of regulations and zoning laws often created when local governments regulate industry themselves. 69

When creating regulations, states can choose to set uniform minimum standards, uniform maximum standards, or both. Uniform minimum standards "may raise the bar by establishing a baseline of protection," which ensures all municipalities have *some* regulations in place for an industry. It also can help prevent a "race to the bottom" which occurs when municipalities relax environmental standards to attract industry and business to their communities. Uniform maximum standards, on the other hand, which are commonly used in the context of fracking, set a regulatory ceiling and are created to provide a stable environment for industry to operate.

Preemption is also useful when local governments do not have the personnel or financial ability to regulate the impacts of an industry. States generally have more resources with which they can create and enforce regulations. Finally, not all local governments *want* to impose regulations on industrial activity in their communities, especially when they reap the benefits of the industry and the negative impacts are spread over a wider area. In these cases, states are better positioned to create regulations to ensure that costs and benefits are shared.

On the other hand, local governments are better positioned to tailor laws to address particularized harms. ⁷⁶ Uniform environmental laws and regulations are often inflexible and cannot address the context-specific impacts of activities like fracking. ⁷⁷ When the impact of an industry is localized, decision-making

^{68.} See Weiland, Preemption Analysis, supra note 15, at 242-43.

^{69.} See id. at 276.

^{70.} See id. at 242.

^{71.} See id.

^{72.} See id.

^{73.} See Weiland, Preemption Implications, supra note 14, at 504 (describing how "federal laws displaced weak and under-enforced state and local laws" in the 1960s and 1970s).

^{74.} See id. at 504–05 (postulating that centralized environmental protection may result in the coordination necessary to overcome negative externalities).

^{75.} See id

^{76.} See Annie Decker, Preemption Conflation: Dividing the Local from the State in Congressional Decision Making, 30 YALE L. & POL'Y REV. 321, 355 (2012).

^{77.} See Weiland, Preemption Implications, supra note 14, at 505.

that is decentralized and participatory is often preferable to centralized decision making.⁷⁸

Additionally, the process of local governance is often viewed as democracy at work. ⁷⁹ Local governments are closer to the people and frequently more responsive to citizen concerns than state governments. ⁸⁰ In the face of preemption, local governments have fewer avenues to respond to citizen's concerns. ⁸¹

Preemption can also force local governments to become "lobbyists, as opposed to lawmakers" because their only option is to advocate for change in the state regulations. ⁸² Often, local governments do not have this type of political power and cannot spare limited resources for lobbying. ⁸³

On a broader level, preemption limits the ability of local governments to create innovative responses to environmental concerns. A Communities often lead the country on environmental issues when they are able to experiment with approaches to land use and the protection of natural resources. Even more broadly, local governments have carefully guarded their right to determine what kind of communities they will live in and how their land is used. Preemption inhibits the ability of local communities to create and fulfill their own unique visions of how they will live. The solutions of the solution of th

C. RESOLVING DISPUTES BETWEEN STATE AND LOCAL GOVERNMENTS

Disputes about the balance of power between state and local governments over fracking are taking place across the country. Frequently, challenges to local ordinances come from natural gas companies, which generally prefer uniform state

^{78.} See id. at 505–06.

^{79.} See id. at 499.

^{80.} See id.

^{81.} See Weiland, Preemption Analysis, supra note 15, at 281.

^{82.} See Weiland, Preemption Implications, supra note 14, at 500.

^{83.} See id. at 498.

^{84.} See Weiland, Preemption Analysis, supra note 15, at 280.

^{85.} See Jerrold A. Long, Sustainability Starts Locally: Untying the Hands of Local Government to Create Sustainable Communities, 10 WYO. L. REV. 1, 33 (2010).

^{86.} Id. at 21.

^{87.} See *id.* at 33–34 ("A western democracy of communities . . . is the necessary precondition to the full application of our individual and collective intelligence and creativity to the task of creating a sustainable West.").

regulation over fragmented local regulation. Set Litigation concerning the scope of local authority has been particularly prevalent in Pennsylvania, New York, and Colorado. These ongoing disputes have had mixed results for the industry and local governments, with some courts upholding ordinances regulating where fracking occurs, but striking down ordinances regulating how fracking occurs. Some courts, particularly in states such as Colorado where conflict preemption prevails, will analyze each aspect of local regulations to determine whether they conflict with state law. In other states, local governments have no authority to regulate gas drilling. Finally, total bans on fracking by municipalities have been upheld in some states but prohibited in others.

In addition to pursuing litigation, some state and local governments have tried to cooperate in the regulation of fracking. The governor of Colorado created a task force to identify areas of local concern and to involve local governments more fully in the regulatory process. ⁹⁵ In the northeast, the Delaware River Basin Commission, a multi-state organization with statutory power to protect water resources, has sought to expand its role to regulate fracking. ⁹⁶ These attempts have received mixed re-

^{88.} See Goho, supra note 26, at 5.

^{89.} Id. at 5-8.

^{90.} See Anschutz Exploration Corp. v. Town of Dryden, 940 N.Y.S.2d 458, 465 (Sup. Ct. 2012) (upholding a ban on fracking under the local zoning power), aff'd sub nom. Norse Energy Corp. USA v. Town of Dryden, 964 N.Y.S.2d 714 (N.Y. App. Div. 2013), leave to appeal granted, No. 2013-604, 2013 WL 4562930 (N.Y. Aug. 29, 2013); Cooperstown Holstein Corp. v. Town of Middlefield, 943 N.Y.S.2d 722, 723 (Sup. Ct. 2012) (same); Huntley & Huntley, Inc. v. Borough Council of Oakmont, 964 A.2d 855, 863 (Pa. 2009) (upholding restriction on where fracking occurs); Range Res.-Appalachia LLC v. Salem Twp., 964 A.2d 869, 876 (Pa. 2009) (striking down local ordinance that attempted to regulate how fracking occurs).

^{91.} See Town of Frederick v. N. Am. Res. Co., 60 P.3d 758, 765 (Colo. Ct. App. 2002) (holding that state law did not preempt the entirety of a municipal oil and gas drilling ordinance, but that the ordinance's setback, noise abatement, and visual impact provisions were preempted).

^{92.} See N.E. Natural Energy, LLC v. Morgantown, W.V., No. 11-C-411, slip op. at 10 (Monongalia Cnty. Cir. Ct. Aug. 12, 2011) (holding that the W. VA. CODE § 22-1-1 et seq. (1994) gives exclusive control of the area of oil and gas development to the West Virginia Department of Environmental Protection).

^{93.} See Anschutz Exploration Corp., 940 N.Y.S.2d at 471.

^{94.} See Voss v. Lundvall Bros., 830 P.2d 1061, 1068 (Colo. 1992).

^{95.} See Press Release, Hickenlooper, supra note 18.

^{96.} See Natural Gas Drilling Index Page, Del. River Basin Comm'n, http://www.nj.gov/drbc/programs/natural/ (last modified July 18, 2013).

views. In Colorado, local governments are concerned that the value of the task force is minimal and has neither increased local government power over fracking nor prevented conflict between state and local governments. Questions have risen regarding the Delaware River Basin Commission's actual effectiveness and its appropriate scope of authority over fracking. On the whole, whether conflict or cooperation has prevailed, the result is that local governments are experiencing diminished control over fracking in their communities.

II. THE CURRENT REGULATORY REGIME IS FAILING TO PROTECT LOCAL GOVERNMENT CONTROL OVER FRACKING

This Part analyzes how Pennsylvania, New York, Colorado, and the Delaware River Basin Commission approach fracking regulations and their effect on local governments' control over fracking. Part A evaluates the outcome of legal disputes over fracking in Pennsylvania and New York. Part B explores the effectiveness of Colorado's efforts to cooperate with local governments to create fracking regulations and the Delaware River Basin Commission's attempt to exert regional control over the regulation of fracking.

A. CONFLICTS OVER THE REGULATION OF FRACKING

Fracking is causing intense conflict between local governments, the state, and the oil and gas industry over where regulatory power should reside. Pennsylvania and New York are two states where litigation over preemption and regulatory control is prevalent. These states have taken similar approaches to preemption and both result in diminished local control over fracking.

1. Express Preemption in Pennsylvania

The Marcellus Shale, lying beneath New York, Pennsylvania, West Virginia, and Ohio, is one of the nation's largest shale formations. ⁹⁹ Of these states, Pennsylvania has seen the largest

^{97.} See, e.g., Berwyn, supra note 19 (showing that Colorado task force has not prevented further disputes regarding local government control).

^{98.} See Hari M. Osofsky & Hannah J. Wiseman, Hybrid Energy Governance, 2014 U. ILL. L. REV. (forthcoming 2014) (manuscript at 26), available at http://ssrn.com/abstract=2147860 [hereinafter Osofsky & Wiseman, Hybrid Energy].

^{99.} Elisabeth N. Radow, Citizen David Tames Gas Goliaths on the Marcel-

expansion of fracking, 100 and consequently, the greatest number of disputes regarding who has the power to control it.

Pennsylvania takes an express preemption approach to drilling. 101 Even before its most recent overhaul, the Oil and Gas Act of Pennsylvania was written to preempt almost all local control over oil and gas drilling. 102 Local governments challenged the law, and the Pennsylvania Supreme Court issued a pair of decisions determining the limits of state preemption and the boundaries of the local zoning power. 103 In the first case, the court decided that the location of a natural gas well was not a feature of the operation regulated by the Act, 104 meaning that local governments retained the power to impose siting requirements on wells. The court also decided that the local regulation did not "accomplish the same purposes" as the Act, because although some of the goals of the state and local regulations were the same, the court found that the primary goal of the local regulations was to "preserv[e] the character of residential neighborhoods."105

In the second case, however, the Pennsylvania Supreme Court struck down an ordinance that attempted to regulate surface and land development associated with oil and gas drilling. The court found that the ordinance attempted to create a

lus Shale Stage: Citizen Action as a Form of Dispute Prevention in the Internet Age, 12 CARDOZO J. CONFLICT RESOL. 373, 374 (2011).

^{100.} U.S. Crude Oil and Natural Gas Proved Reserves, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/naturalgas/crudeoilreserves/ (last updated Aug. 1, 2013).

^{101.} See Huntley & Huntley, Inc. v. Borough Council of Oakmont, 964 A.2d 855, 863 (Pa. 2009) ("As applied presently, Section 602 of the Oil and Gas Act contains express preemption language. That language totally preempts local regulation of oil and gas development except with regard to municipal ordinances adopted pursuant to the MPC as well as the Flood Plain Management Act.").

^{102.~58} PA. CONS. STAT. $\$ 3302 (2013), available at http://www.legis.state.pa.us/WU01/LI/LI/CT/PDF/58/58.PDF (formerly 58 PA. STAT. ANN. $\$ 601.602 (1996)).

^{103.} See Goho, supra note 26, at 6.

^{104.} Huntley & Huntley, 964 A.2d at 863–64 ("[A]lthough...the Act places some restrictions on the siting of wells-most notably, setback requirements designed to prevent damage to existing water wells, buildings and bodies of water, as well as measures intended to protect attributes of Pennsylvania's landscape such as parks, forests, gamelands, scenic rivers, natural landmarks, and historical and archeological sites, it does not automatically follow that the placement of a natural gas well at a certain location is a feature of its operation.") (citations omitted).

^{105.} Id. at 865.

^{106.} Range Res.-Appalachia, LLC v. Salem Twp., 694 A.2d 869, 877 (Pa.

"comprehensive regulatory scheme" and was therefore preempted by the Oil and Gas Act. The court specifically found that many of the regulations in the ordinance "substantively overlap[ped]" with state regulations because both established permitting procedures, imposed bonding requirements, and regulated site restoration after drilling operations ceased. To see the comprehensive regulatory of the court specific and regulated site restoration after drilling operations ceased.

These two cases delineated the balance of regulatory power in Pennsylvania and left local governments with little control over fracking. In these decisions, the Pennsylvania Supreme Court adopted a "how versus where" distinction to determine which level of government has regulatory power. ¹⁰⁹ In other words, local governments retain limited control over the location of gas wells within their communities, but are preempted from regulating any aspect of the wells' operation, even if the operations affect the community's health, safety and welfare. ¹¹⁰

^{2009) (&}quot;In view of the Ordinance's focus solely on regulating oil and gas drilling operations, together with the broad preemptive scope of [the Oil and Gas] Act with regard to such directed local regulations, . . . each of the oil and gas regulations challenged in Appellees' complaint is preempted by the Oil and Gas Act and its associated administrative regulations.").

^{107.} Id. at 875.

^{108.} Id.

^{109.} *Id.* at 873; see Goho, supra note 26, at 4–5.

^{110.} See Goho, supra note 26, at 5-6.

^{111.} Huntley & Huntley Inc. v. Borough Council of Oakmont, 964 A.2d 855, 865 (Pa. 2009).

^{112.} Id.

^{113.} Id. at 866.

jectives, the Pennsylvania Oil and Gas Act and these court decisions do not fully allow a local government to make decisions regarding land use, because they are preempted from imposing different or more stringent regulations on oil and gas development and fracking. Preemption directly undermines the purpose and importance of local zoning.

The power of local governments was further diminished when the Pennsylvania legislature overhauled the Oil and Gas Act and replaced it with Act 13, which sought to preempt all local regulation of oil and gas operations, including environmental laws and all zoning code provisions. 114 Section 3304 of the Act required that every local ordinance allow for the "reasonable development of oil and gas resources" and that oil and gas operations be "a permitted use *in all zoning districts*. 115 Permitted uses are allowed as a matter of right, so Act 13 gave local governments no say as to how *or* where fracking took place. 116

The subsequent legal battle brought together a large coalition of plaintiffs, including municipalities, land owners, environmentalists and citizen groups. The plaintiffs challenged the constitutionality of Act 13, and specifically § 3304, arguing in part that it forced municipalities to enact zoning ordinances allowing mining and gas operations in all zoning districts regardless of the municipalities' comprehensive plan and development structure. The court, consistent with the "how versus where" distinction, found that "§ 3304 violat[ed] substantive due process because it allows incompatible uses in zoning districts and does not protect the interests of neighboring property owners from harm, alters the character of the neighborhood,

^{114.} See Nancy D. Perkins, The Fracturing of Place: The Regulation of Marcellus Shale Development and the Subordination of Local Experience, 23 FORDHAM ENVIL. L. REV. 44, 45–47 (2012).

^{115. 58} PA. CONS. STAT. §§ 3304(a), (b)(5) (2013), available at http://www.legis.state.pa.us/WU01/LI/LI/CT/PDF/58/58.PDF (emphasis added).

^{116.} See supra Part I.B.1.

^{117.} See, e.g., Janice Crompton, Municipal Officials Decry State Control of Shale Drilling, PITTSBURGH POST-GAZETTE, Dec. 14, 2011, http://old.post-gazette.com/pg/11348/1196672-455-0.stm?cmpid=news.xml (quoting state Representative Jess White as saying, "[e]liminating or severely limiting local zoning of Marcellus Shale is indefensible corporate welfare on the backs of the taxpayers of Pennsylvania").

^{118.} Robinson Twp. v. Commonwealth, 52 A.3d 463, 480–81 (Pa. Commw. Ct. 2012).

^{119.} Range Res.-Appalachia, LLC v. Salem Twp., 964 A.2d 869, 873 (Pa. 2009) (describing the "how versus where" distinction).

and makes irrational classifications." The court permanently enjoined the Commonwealth from enforcing the provisions of § 3304. 121

The State appealed the decision to the Supreme Court of Pennsylvania, which has yet to rule. 122 Given the precedent, it seems likely that the state supreme court will at least uphold the ruling regarding § 3304 of Act 13. While Pennsylvania courts have protected *some* local control over fracking and oil and gas development, the Pennsylvania legislature has shown an interest in the unfettered development of natural gas in the state. Under the doctrine of state preemption, the courts are unable to fully prevent these actions, despite recognizing the importance of the local zoning power. The strong reaction of local governments to these attempts to preempt their control indicates that these communities do not believe their interests are being protected by the state or the courts.

The negative reactions of communities are substantiated by analysis which suggests that although the Oil and Gas Act contains environmental regulations, they do not allow for meaningful input from citizens. For instance, § 3212.1 of the Oil and Gas Act allows municipalities to submit comments to the Pennsylvania Department of Environmental Protection (DEP) when gas wells are proposed within their boundaries. However, the DEP's review of the comments is restricted to matters related only to the *location* of the well, and the DEP is not required to actually consider the comments. In addition, there is no mechanism through which municipalities can appeal DEP decisions.

^{120.} Robinson Twp., 52 A.3d at 485.

^{121.} Id

^{122.} See, e.g., Paul J. Gough, Corbett Appeals Ruling on Act 13 Zoning, PITTSBURGH BUS. TIMES, Jul. 27, 2012, http://www.bizjournals.com/pittsburgh/blog/energy/2012/07/corbett-appeals-ruling-on-act-13-zoning.html.

^{123.} See generally 14 Reasons to Oppose HB 1950 and SB 1100, MARCELLUS OUTREACH BUTLER, http://www.marcellusoutreachbutler.org/14-reasons-to-oppose-hb-1950-and-sb1100.html (last visited Oct. 18, 2013).

^{124. 58} PA. CONS. STAT. \S 3212.1(a) (2013), available at http://www.legis.state.pa.us/WU01/LI/LI/CT/PDF/58/58.PDF.

^{125.} *Id.* § 3212.1(b) ("Comments and responses under subsections (a) and (a.1) may be considered by the department in accordance with section 3215(d) (relating to well location restrictions).").

^{126.} *Id.* § 3215(d) ("Notwithstanding any other law, no municipality or storage operator shall have a right of appeal or other form of review from the department's decision."); *see also* Perkins, *supra* note 114, at 52–53 ("The comment process is limited, however, because DEP's review is restricted to

The regulations themselves are not stringent enough to protect communities and the environment. PennFuture, an environmental group in Pennsylvania called the legislation a "weak" and "squandered" opportunity. 127 The House Minority Leader Frank Dermody opined that the legislation "does not raise the revenues necessary to make sure the taxpayers are not left holding the bag" with regard to clean-up. 128 In addition, a part of the act which went into effect in September 2012 gives authority to DEP administrators, instead of local experts, to decide whether and when residential water users should receive letters regarding water quality issues in their neighborhoods, meaning that the public may not receive any notification if there are contaminants in their water supply. 129 Environmental groups such as the Sierra Club, Earthjustice, Clean Water Action, and the Delaware Riverkeeper Network asked the governor to reverse the change so that the public receives information about its water quality immediately. 130

Ultimately, the citizens of Pennsylvania have seen a rapid expansion of an industry that has a significant impact on land use and is not being appropriately regulated by the state government. While local governments have, thanks to the courts retained minimal power over *where* fracking can take place in their communities, they cannot control the process of fracking to reduce its impacts on the community and the environment.

2. A Cautionary Tale: Preemption and the Fracking Moratorium in New York

Unlike Pennsylvania, New York has not experienced a boom in natural gas production because the state has a moratorium on fracking. ¹³¹ New York has taken a very cautious approach to fracking to ensure it is carried out in a way that is consistent with protecting the environment and communities.

matters related to well location, the consideration of comments is not mandatory and municipalities cannot appeal DEP permit decisions.").

^{127.} Laura Olson, Shale Bill Heads to Governor, PITTSBURGH POST-GAZETTE, Feb. 9, 2012, http://www.post-gazette.com/stories/local/state/shale-bill-heads-to-governor-215214/.

^{128.} Id.

^{129.} Kevin Begos, 14 Eco Groups Ask Pennsylvania to Change Drill/Water Policy, ASSOCIATED PRESS, Oct. 23, 2012, http://www.poconorecord.com/apps/pbcs.dll/article?AID=/20121023/NEWS90/121029908/-1/news.

^{130.} Id.

^{131.} See, e.g., Under Massive Pressure, supra note 66.

In many ways, however, New York's approach to preemption and local control mirrors Pennsylvania in that New York has taken an express preemption approach to regulation. New York's Oil, Gas, and Solution Mining law states: "The provisions of this article shall supersede all local laws or ordinances relating to the regulation of the oil, gas and solution mining industries."132 The court battles in New York are also similar to those in Pennsylvania. Following Huntley and Range-Resources in Pennsylvania, 133 New York courts considered similar cases regarding the scope of state preemption. In Anschutz Exploration Corp. v. Town of Dryden, the court considered a zoning ordinance that banned all activities related to exploration, production and storage of natural gas and oil. 134 Anschutz Exploration Corporation sued the town, arguing that New York state law preempted the ordinance. 135 The court held that because the "statute[] preempt[s] only local regulations 'relating' to the applicable industry . . . [it does] not expressly preempt local regulation of land use, but only regulations dealing with operations." Similarly, in a case decided just days later, a court in a different county upheld a complete local ban on fracking: "[n]either the plain reading of the statutory language nor the [statute's history] would lead this court to conclude that the phrase 'this article shall supersede all local laws or ordinances relating to the regulation of the oil, gas and solution mining industries'... was intended by the Legislature to abrogate the constitutional and statutory authority vested in local municipalities to enact legislation affecting land use." ¹³⁷

These cases show that, similar to Pennsylvania, New York adheres to a "how versus where" distinction regarding the scope of local zoning power. ¹³⁸ However, New York goes further than Pennsylvania by recognizing that a complete ban on

^{132.} N.Y. ENVTL. CONSERV. LAW \S 23-0303(2) (Consol. 2013), available at http://public.leginfo.state.ny.us/menuf.cgi.

^{133.} See supra Part II.A.1.

^{134.} Anschutz Exploration Corp. v. Town of Dryden, 940 N.Y.S.2d 458, 461 (N.Y. Sup. Ct. 2012), affd sub nom. Norse Energy Corp. USA v. Town of Dryden, 964 N.Y.S.2d 714 (N.Y. App. Div. 2013), leave to appeal granted, No. 2013-604, 2013 WL 4562930 (N.Y. Aug. 29, 2013).

^{135.} Id. at 461.

^{136.} Id. at 467 (emphasis added).

^{137.} Cooperstown Holstein Corp. v. Town of Middlefield, 943 N.Y.S.2d 722, 728 (N.Y. Sup. Ct. 2012), *aff'd*, 964 N.Y.S.2d 431 (N.Y. App. Div. 2013).

^{138.} *Id.* at 729 ("The state maintains control over the 'how' of such procedures while the municipalities maintain control over the 'where' of such exploration.").

fracking is considered a regulation of the "where" of fracking. New York, therefore, has afforded greater protection to municipalities that want to completely exclude fracking from their communities. But, the law leaves no avenue for local governments that want to *allow* fracking to impose regulations on operations tailored to the concerns of the community.

The court in *Anschutz* also left open the possibility that future regulations could further prevent local control: "In the absence of a clear expression of legislative intent to preempt local control over land use, the statute could not be read as preempting local zoning authority." In addition, although this case was upheld on appeal, its fate now rests in the hands of the highest court in New York, which granted leave to appeal in August of 2013. Finally, because there is currently a statewide moratorium on fracking, the ultimate validity of local ordinances regulating or banning fracking as well as the strength of final statewide environmental protections are still in flux.

On the political front in New York, citizen groups have been effective in pressuring the government to more closely study the effects of fracking. In September of 2012, Governor Cuomo's administration announced that New York must review potential health effects of fracking. The administration made this decision even though the state had been studying fracking for the previous four years, which culminated in an extensive Environmental Impact Statement documenting the impacts of fracking. However, the 80,000 public comments sent to the commissioner of the State Department of Environmental Conservation raised numerous concerns about public health and called for either a permanent ban or further study. Many comments called for an independent study of the health and environmental effects, and although the state has rejected that idea, it appears open to the possibility of receiving input from

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^{139.} Anschutz, 940 N.Y.S.2d at 466-67.

^{140.} Norse Energy Corp. USA v. Town of Dryden, No. 2013-604, 2013 WL 4562930, at *1 (N.Y. Aug. 29, 2013).

^{141.} See, e.g., Mireya Navarro, New York State Plans Health Review as It Weighs Gas Drilling, N.Y. TIMES, Sept. 20, 2012, http://www.nytimes.com/2012/09/21/nyregion/new-york-states-decision-on-hydrofracking-will-await -health-review.html? r=0.

^{142.} See N.Y. DEP'T OF ENVTL. CONSERVATION, REVISED DRAFT SGEIS ON THE OIL, GAS AND SOLUTION MINING REGULATORY PROGRAM (2011), available at http://www.dec.ny.gov/energy/75370.html.

^{143.} See Navarro, supra note 141.

outside experts. 144 While this shows the importance and potential effectiveness of citizen action, the ultimate outcome of fracking regulations and preemption of local zoning laws remains unclear. Under the current law, municipalities can impose local bans on fracking but the state statute preempts the regulation of fracking operations by local governments. 145

B. ATTEMPTS AT COOPERATION IN THE REGULATION OF FRACKING

While Pennsylvania and New York follow an express preemption approach to fracking, some attempts at cooperation have occurred elsewhere. This Section will describe the different attempts at cooperation made by Colorado and by the Delaware River Basin Commission.

1. The Tension Between Conflict and Cooperation in Colorado

Colorado presents a particularly interesting example of the battle for control over fracking and oil and gas development. In Colorado, the Oil and Gas Conservation Commission (Colorado Commission) has express authority over oil and gas development. ¹⁴⁶ Colorado courts look to whether there is an "operational conflict" between zoning ordinances and state regulations. ¹⁴⁷ This involves a detailed factual investigation into whether local regulations "conflict with the achievement of the state interest."

The battle over control of oil and gas development has a decades-old history in Colorado, beginning in the 1980s when drilling moved closer to populated areas. ¹⁴⁹ For example, in *Town of Frederick v. North American Resources Co.*, the court used a conflict preemption approach and determined that local governments could not impose stricter technical or safety conditions on wells than state regulations. ¹⁵⁰ At the same time, how-

^{144.} See id.

^{145.} N.Y. ENVTL. CONSERV. LAW \S 23-0303(2) (Consol. 2013), available at http://public.leginfo.state.ny.us/menuf.cgi.

^{146.} See Angela Neese, Comment, The Battle Between the Colorado Oil and Gas Conservation Commission and Local Governments: A Call for a New and Comprehensive Approach, 76 U. COLO. L. REV. 561, 565 (2005).

^{147.} Bd. of Cnty. Comm'rs, La Plata Cnty. v. Bowen/Edwards Assocs., 830 P.2d 1045, 1059 (Colo. 1992).

^{148.} Town of Frederick v. N. Am. Res. Co., 60 P.3d 758, 761 (Colo. 2002) (quoting *Bowen/Edwards*, 830 P.2d at 1059).

^{149.} See Neese, supra note 146, at 566.

^{150.} Town of Frederick, 60 P.3d at 765.

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ever, the court upheld the town's ability to issue its own permits for oil and gas drilling if the conditions did not conflict with state regulations.¹⁵¹

However, unlike New York, 152 the Colorado Supreme Court has established a *per se* rule that municipal bans on oil and gas development are impermissible. In Voss v. Lundvall Brothers, the court considered four factors to determine whether a state regulatory scheme preempted local regulation: "[1] whether there is a need for statewide uniformity of regulation; [2] whether the municipal regulation has an extraterritorial impact; [3] whether the subject matter is one traditionally governed by state or local government; and [4] whether the Colorado Constitution specifically commits the particular matter to state or local regulation." In this case, the court found that the need for statewide uniformity of regulation of oil and gas development and production weighed in favor of eliminating the right of communities to ban fracking and drilling. 154 The court determined that local bans would conflict with the state's interest in the "efficient and fair development and production of oil and gas resources."155

Colorado has therefore taken a conflict approach to determining when local regulation of oil and gas development is and is not permitted. Colorado courts have also come to the now familiar result that local governments are preempted from regulating problematic aspects of fracking operations and they are not able to impose complete bans on fracking. Where Colorado differs from other state, however, is the state government tried to take a more cooperative approach to regulation.

In February of 2012, Governor Hickenlooper of Colorado created the Oil and Gas Task Force to resolve fracking-related issues through a cooperative approach, with the goal of avoiding litigation and new legislation. Some important aspects of the task force include: encouraging local governments to name a Local Government Designee to participate in the Colorado Oil and Gas Conservation Commission program; informing Designees of the opportunity to request an additional ten days to re-

^{151.} Id. at 763.

^{152.} See supra Part II.A.2 (discussing how New York courts have upheld complete local bans on fracking).

^{153.} Voss v. Lundvall Bros., 830 P.2d 1061, 1067 (Colo. 1992).

^{154.} Id.

^{155.} Id.

^{156.} See Press Release, Hickenlooper, supra note 18.

view permits; providing for mutual understanding by promulgating accurate information and identifying development impacts; promoting technical training of Designees; and providing general education to communities. ¹⁵⁷

The recommendations that ultimately emerged from the task force, however, neither mention any possibilities for new regulation nor do they actually give local governments much say in the process of permitting and regulating wells. The Local Government Designee program through the Colorado Commission only gives the Designee the opportunity to engage in consultation with the operator of an oil and gas well, requires that they be given notice of an impending permit, and allows them to file complaints. There do not appear to be any opportunities for the Designee to actually influence the regulation of fracking operations in their community. The community of the designee to actually influence the regulation of fracking operations in their community.

Furthermore, the structure of the Colorado Commission calls into question its ability and commitment to meaningfully engage local government in the regulation of oil and gas development. Historically, the board of the Colorado Commission was composed entirely of industry representatives. ¹⁶¹ Under the 1994 amendments, the board composition changed slightly, requiring two out of the seven seats on the board to be held by non-industry members who are experienced in agriculture, land reclamation, environmental protection, or soil conservation. ¹⁶² Further amendments in 2007 added additional requirements for board members, to ensure that at least one representative had experience in every one of these areas. ¹⁶³ However, the amendments also required that three members have substantial experience in the oil and gas industry and three members have a college degree in petroleum geology or petroleum engi-

^{157.} See id.

^{158.} See id. (listing the Task Force's recommendations).

^{159.} See Surface Owner/LGD Involvement in COGCC Processes, COLO. OIL & GAS CONSERVATION COMM'N, http://www.cogcc.state.co.us/ (select "General" tab; then follow "Surface Owner/LGD Flowchart" hyperlink) (last visited Oct. 18, 2013).

^{160.} See generally id. (presenting a rudimentary flow chart as the only information available regarding the Local Government Designee Program on the Colorado Commission's website).

^{161.} See Neese, supra note 146, at 575–76.

^{162.} See id. at 576 (citing COLO. REV. STAT. § 34-60-104(2)(a) (2013), available at http://www.sos.state.co.us/pubs/elections/statutes.html.

^{163.} COLO. REV. STAT. \S 34-60-104 (2013), available at http://www.sos.state.co.us/pubs/elections/statutes.html.

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neering.¹⁶⁴ In addition, the 2007 amendments actually *removed* the requirement that two of the seats be held by non-industry members, and did not replace this provision with a new quota or requirement. It is entirely conceivable that the individuals with backgrounds in environmental issues could still have significant ties to the industry, and even more likely that those with degrees or experience related to oil and gas are in some way beholden to the industry. This composition raises "fox guarding the hen house" concerns because the Colorado Commission has the "power to make and enforce rules, regulations, and orders" and to "do whatever may reasonably be necessary to carry out the provisions of the Act."

Finally, the Task Force has thus far been unsuccessful in promoting cooperation, stemming conflict, or alleviating local concerns about fracking. For example, in July of 2012, the Colorado Commission and the Colorado State Attorney General's Office sued the City of Longmont, claiming that the oil and gas regulations passed by the city "trespassed into areas meant to be governed by the state." ¹⁶⁶

Later that year, Longmont city residents voted to amend their city charter to ban fracking and the storage of fracking waste in their city. ¹⁶⁷ Given the legal precedent in Colorado, ¹⁶⁸ it seems inevitable that this ban will be struck down. ¹⁶⁹ Even though the charter still allows other types of extraction, the fact that an estimated eighty to ninety percent of modern wells use fracking ¹⁷⁰ means it will be relatively straightforward for a court to find that the ban on the use of fracking limits the efficient development of resources.

^{164.} Id.

^{165.} *Id.* § 34-60-105(1).

^{166.} See Scott Rochat, State Sues Longmont Over Oil and Gas Drilling Regulations, LONGMONT TIMES-CALL, July 30, 2012, http://www.timescall.com/news/longmont-local-news/ci_21193961/colorado-files-lawsuit-against -longmont-oil-gas-drilling.

^{167.} See Voters Approve Longmont Fracking Ban, The Denver Post, Nov. 7, 2012, http://www.denverpost.com/dontmiss/ci_21948965/voters-approve-longmont-fracking-ban.

^{168.} See supra notes 153-55 and accompanying text.

^{169.} See Scott Rochat, With Longmont Fracking Ban Passed, Questions Lie Ahead, LONGMONT TIMES-CALL, Nov. 8, 2012, http://www.timescall.com/news/ci_21960617/longmont-fracking-ban-passed-questions-lie-ahead (discussing attorney Rick Samson's opinion that the ban likely will not stand a legal challenge in the courtroom).

^{170.} See id.

Even if the Longmont ban ends up being merely symbolic, it emphasizes continued public resistance to fracking, and illustrates the remaining concerns about its effect on communities and the environment. Ultimately, the cooperative efforts in Colorado have not served their stated purpose of promoting cooperation and stemming conflict between state and local governments, and it is clear that local governments in Colorado remain inadequately involved in the regulation of fracking in their communities.

2. A Regional Approach: Evaluating the Delaware River Basin Commission's Efforts to Take Control over Fracking

The Delaware River Basin Commission (DRBC) is a federal-interstate government agency formed through a compact in 1961 between the United States and Pennsylvania, New York, New Jersey, and Delaware. The DRBC's members include the governors of the member states and the North Atlantic Division Engineer of the U.S. Army Corps of Engineers, who serves as the federal representative. The DRBC has legal authority over water-quality related issues in the Delaware River Basin. In 2010, it drafted regulations for natural gas development. The concerns of the DRBC include how the amount of water used in fracking affects water resources, the release of pollutants into ground water from drilling operations, and the treatment and disposal of flowback, which contains chemicals and occasionally radioactive material, from fracking operations.

The regulations would constrain the number and location of gas sites within the watershed, require surface and ground-water monitoring, require sites to comply with setback requirements, limit the quantity of water that may be withdrawn for fracking, impose mandatory waste disposal processes, and require water quality testing. ¹⁷⁶ However, the DRBC defers to

^{171.} See Natural Gas Drilling Index Page, DEL. RIVER BASIN COMM'N, http://www.state.nj.us/drbc/programs/natural/ (last modified July 18, 2013) (describing the DRBC's history and involvement in natural gas drilling in the Northeast).

^{172.} See id.

^{173.} See id.

^{174.} See id.

^{175.} See supra notes 43-48 and accompanying text.

^{176.} See DEL. RIVER BASIN COMM'N, DRBC DRAFT NATURAL GAS DEVELOPMENT REGULATIONS "AT-A-GLANCE" FACT SHEET (2010), available at http://www.state.nj.us/drbc/library/documents/naturalgas-draftregs-factsheet.pdf.

the state for well construction and operation procedures.¹⁷⁷ These regulations were proposed in 2010, and revised in 2011, but have yet to be approved by the state members.¹⁷⁸

While the DRBC is an important example of interstate cooperation regarding environmental protection, in the context of fracking its limitations will likely come to define it more than its successes. First, there are serious questions regarding the legitimate scope of the DRBC's jurisdiction over fracking. The DRBC was developed in 1961, long before fracking was an issue in the region, and arguably, its mandate does not extend to the regulation of fracking. ¹⁷⁹

Second, the regulations have yet to be approved by the member states and it is unclear whether they ever will be. Pennsylvania believes that the DRBC should limit its regulations to issues of water withdrawal and wastewater management, and leave all other regulations to the state, such as wastewater discharge permits, residual waste management, well construction and operation activities, and erosion and sediment control. Similarly, New York has asked the DRBC to halt all efforts to complete and publish draft regulations, believing they are duplicative of state regulations and unnecessary. Issue the state of t

Third, the DRBC's purview over water use and contamination does not cover the full range of problems posed by fracking. Issues such as air pollution, as well as the more direct and physical impacts of fracking, like the visual impacts, sound pollution, traffic, and setbacks cannot be regulated by the DRBC. ¹⁸² Indeed, the DRBC has left many of these issues up to

178. See Draft Natural Gas Development Regulations, DEL. RIVER BASIN COMM'N, http://www.nj.gov/drbc/programs/natural/draft-regulations.html (last modified Nov. 7, 2012).

^{177.} See id.

^{179.} See Osofsky & Wiseman, Hybrid Energy, supra note 98, at 26 (stating many "have questioned the authority of the [DRBC] to interpret its jurisdictional mandate so broadly").

^{180.} See Letter from Michael L. Krancer, Sec'y, Pa. Dep't of Envtl. Prot., to Carol Collier, Exec. Dir., Del. River Basin Comm'n (Apr. 11, 2011), available at http://www.state.nj.us/drbc/library/documents/NGC/Agencies/PADEP041111 .pdf (noting that additional DRBC oversight would be "duplicative and unnecessary").

^{181.} See Letter from James M. Tierney, Assistant Comm'r for Water Res., N.Y. State Dep't. of Envtl. Conservation, to Carol Collier, Exec. Dir., Del. River Basin Comm'n (Apr. 15, 2011), available at http://www.state.nj.us/drbc/library/documents/NGC/Agencies/NYSDEC041511.pdf.

^{182.} See Congressman Matt Cartwright Joins Advocacy Groups to Discuss

state regulation, which leaves local governments with the same preemption problems they faced before.

Ultimately, while the DRBC is a useful model for a cooperative approach to regulating fracking, as it stands it has inadequate support and authority to go forward with the regulatory process and does not address many of the concerns most relevant to local governments.

III. MOVING PAST PREEMPTION

Despite some efforts to enhance cooperation between state and local governments, the analysis above shows that the trend in states has been to preempt local government control over fracking. A solution to the regulation of fracking must include increasing the involvement and control of local governments, because they are best suited to understand the impacts of fracking on the character and environment of their communities.

A. THE IMPORTANCE OF LOCAL GOVERNMENT CONTROL OVER FRACKING

In the context of fracking, the interests of state and local governments diverge. Although the state statutes described above contain statements related to protecting the health and welfare of communities and the environment, the primary purpose of these statutes is to promote the development of natural resources, and they are written to facilitate the growth of the industry. Government officials who operate at a state-wide level are less likely than local officials to notice or be concerned with how fracking affects particular communities, and local officials often do not have the resources to advocate for their interests. Fracking has an intense impact on the character of the land, and its effects are felt most by the communities in

Potential Impacts of Fracking Near National Parks and Trails, APPALACHIAN MOUNTAIN CLUB (July 15, 2013), http://www.outdoors.org/about/newsroom/press/2013/fracking-national-parks.cfm.

^{183.} See, e.g., Bd. of Cnty. Comm'rs, La Plata Cnty. v. Bowen/Edwards Assocs., 830 P.2d 1045, 1057 (Colo. 1992) ("The state's interest in oil and gas development is centered primarily on the efficient production and utilization of the natural resources in the state.").

^{184.} See Long, supra note 85, at 20 (highlighting that western communities are "incredibly diverse").

^{185.} See Weiland, Preemption Implications, supra note 14, at 498 (describing the Town of Wendell's small population and lack of resources as an impediment to successfully lobbying state officials).

which it takes place. ¹⁸⁶ Preemption eliminates the ability of these communities to make land-use decisions tailored to localized concerns and to deal specifically with the impacts of fracking on the environment, roads, other local infrastructure, and quality of life. ¹⁸⁷ Because states such as Colorado have taken a ceiling approach to preemption, local communities are unable to create stricter regulations that might be necessary to address particular localized impacts of the industry. ¹⁸⁸ The continuing legal and political battles over fracking indicate that local governments and communities are dissatisfied with the how state governments have taken away their powers over the development and use of land. Local governments must have greater power to regulate fracking.

B. A NEW MODEL FOR CREATING AND IMPLEMENTING FRACKING REGULATIONS

The solution proposed by this Note attempts to balance the interests of local governments with continued development of the natural gas industry in a way that has not yet been attempted or specifically proposed in the context of the regulation of fracking. Some authors propose increased federal regulation over fracking. ¹⁸⁹ Although a federal regime may improve certain aspects of the fracking process, such as disclosure of chemicals and waste disposal, federal law would not address the unique local concerns of communities related to siting, and other localized community and environmental impacts. Furthermore, natural gas drilling enjoys open support from both sides of the political aisle, and Congress and the President appear uninterested in imposing federal regulations on fracking. ¹⁹⁰ Other authors suggest simply preserving traditional local control over the siting of fracking operations. ¹⁹¹ Siting power alone, howev-

^{186.} See Spence, supra note 2, at 444 ("These operations fundamentally change the character of an area for the duration of fracking activities.").

^{187.} See Perkins, supra note 114, at 51.

^{188.} See supra Part II.B.1.

^{189.} See generally Wiseman, supra note 43 (discussing the need for federal regulation of fracking). But see Spence, supra note 2, at 506 (calling for "narrow federal regulation only").

^{190.} See, e.g., Kevin Begos, Obama Fracking Support in Climate Speech Worries Environmental Groups, HUFFINGTON POST (June 27, 2013, 5:31 PM), http://www.huffingtonpost.com/2013/06/27/obama-fracking-support_n_ 3510651.html (discussing President Obama's climate change speech in which he expressed his support for increased use of "cleaner-burning natural gas").

^{191.} See generally Kennedy, supra note 44 (suggesting the "uniform enforcement of local zoning laws without special treatment for the oil and gas

er, does not give local governments enough power to control the fracking operation in a way that will protect their communities. Suggestions for comprehensive state statutes, such as those used by Pennsylvania, often work to further diminish local power. ¹⁹²

The solution proposed in this Note seeks not only to keep preemption at bay by retaining local siting control, but also to give local governments an active and meaningful role in the creation of regulations that allow them to protect their communities' unique interests. This solution builds on the cooperative models attempted in Colorado and by the Delaware River Basin Commission, but addresses their main weakness, which is the lack of formal and meaningful involvement of local government representatives in these commissions. The inclusion of local representatives in the regulatory and permitting process is necessary to address the consequences of fracking that have an immediate impact on communities.

To that end, regional or state-level organizations should be created and given regulatory authority over fracking. Such an organization could be created by state compacts, an increasingly used tool in the context of electricity transmission, ¹⁹³ by executive order like the Colorado Commission, ¹⁹⁴ by state statute, or perhaps by an act of Congress, like the DRBC. ¹⁹⁵ Ideally, a regional organization would align with the location of natural gas deposits. This would encourage interstate cooperation in many cases, allow for the creation of region-wide standards, and bring together coalitions of local government groups that have similar concerns regarding fracking. ¹⁹⁶

However, given the DRBC's lack of success in facilitating an agreement between the member states regarding regula-

industry"); Smith, *supra* note 35 (arguing that local municipal control over oil and gas activities should be preserved, pursuant to traditional zoning powers).

^{192.} See generally Neese, supra note 146 (suggesting a comprehensive oil and gas statute that clearly defines the balance of power between state and local governments).

^{193.} See Osofsky & Wiseman, Hybrid Energy, supra note 98, at 50.

^{194.} See Neese, supra note 146, at 565.

^{195.} See Del. River Basin Compact of 1961, Pub. L. No. 87-328, 75 Stat. 688; Osofsky & Wiseman, Hybrid Energy, supra note 98, at 22 ("Rather than continuing to litigate water disputes, the states, with Congress's approval, entered into a compact . . ."); About DRBC, DEL. RIVER BASIN COMM'N, http://www.state.nj.us/drbc/about/ (last modified July 3, 2013).

^{196.} See generally Hannah Wiseman, Expanding Regional Renewable Governance, 35 HARV. ENVTL. L. REV. 477 (2011) (discussing the benefits of regional organizations to govern renewable energy development).

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tion, ¹⁹⁷ state-level organizations may be preferable, easier to create, and more efficient in reaching agreements regarding the regulation of fracking. In light of continued opposition to fracking, states may be willing to look for avenues through which they can quell local opposition while allowing for the development of the industry. Local officials may also prefer a state-level organization, because there would be fewer conflicting voices and their concerns would be more readily heard. A state-level body, created by state statute, would provide a setting that could facilitate cooperation between state and local government.

More important than the exact geographic scope of the organization, however, is its composition. The Colorado Commission and the DRBC both fall short because neither allow the direct involvement of local officials in the regulatory process. ¹⁹⁸ In a new organization, there should be representatives from statelevel environmental agencies and an equal or greater number of representatives from communities where fracking is taking place. Preferably, these officials would have some background in land-use planning and zoning, and understand the unique impacts that fracking has on communities. To make the organization more manageable, each locality with fracking could appoint one representative to the organization, where a percentage of those representatives would be chosen or elected to be part of the group that creates regulations. The remaining representatives would not be directly involved with creating regulations, but would vote on final regulations. In addition, these representatives would be immediately involved when a permit application for their particular locality is submitted. In this way, the organization can utilize the knowledge that local officials have of a specific area 199 and allow them to offer input regarding sensitive natural features, community development concerns, and neighborhood and environmental impacts.

The composition of these organizations must also address issues of "industry capture," when the interests of the industry end up controlling the creation of regulations. Concerns regarding industry capture of the Colorado Commission limits its integrity as the primary regulatory authority over gas and oil development, and calls into question this organization's ability to

^{197.} See supra Part II.B.2.

^{198.} See supra Part II.B.

^{199.} See supra Part III.A.

represent the interests of citizens. A new organization should be primarily composed of public representatives, as described above. At the same time, it is clear that industry representatives often have the most up-to-date technical knowledge of oil and gas operations. These individuals could therefore be involved in creating general regulations, but their voting presence should be minimal.

The primary goal of the organization should be to promulgate binding regulations, which should be continuously evaluated and modified based on new information about fracking as it develops. This power to create binding regulations would come through the state statute or other mechanism creating the organization. A key goal of the organization should be to determine when a particular regulation can be a baseline and when a regulation must be uniform across a region or state. Baseline regulations should be used whenever they might be necessary to protect the unique features of local communities without placing an unreasonable burden on industry. 202 These could include setbacks, barriers to address noise and visual impacts, and regulations regarding truck traffic and other impacts on infrastructure.²⁰³ These are issues that should often be addressed differently, based on the character, geography, landscape, and environmental features of a particular community. When uniform regulations are necessary, including local governments in the process of creating and revising these regulations will help ensure that these regulations are strong and concerns of communities are addressed.

This organization should also be given permitting authority over oil and gas development. When an application for a permit is received, the local official from the community in which development will take place should be involved throughout the entire permitting process to ensure the community's concerns are addressed. This organization will not eliminate

^{200.} See supra Part II.B.1.

^{201.} See Osofsky & Wiseman, Hybrid Energy, supra note 98, at 1 (noting that private actors possess the most information regarding the technical aspects of shale gas development).

^{202.} See Nancy D. Perkins, Principled Preemption in an Age of Interest Convergence: Preserving the Distinction Between Pennsylvania's Environmental Regulation and Local Land Use Regulation, 47 Duq. L. Rev. 27, 84 (2009) ("[L]egislature[s] . . . should decide whether state standards establish a regulatory ceiling or floor, weighing the advantages and disadvantages of each option.").

^{203.} See supra Part I.A.

conflict regarding the regulations, but may minimize it if local governments feel their interests are being adequately represented.

The primary issue that will arise in the context of this type of organization is overlapping regulation, which was a problem with the DRBC. 204 However, unlike the DRBC, which has limited jurisdiction, these organizations should have full regulatory authority over fracking. Political will is another concern, and in places like Pennsylvania where fracking has progressed substantially, the opportunities for cooperation may be more limited. State-level officials may not want to hamper the development of natural gas, and local officials may still think that such an organization would not go far enough to protect their interests. However, the best place to propose and experiment with such an organization may be a state like New York or other states where fracking is in its early stages. The government in New York has already proved willing to listen to concerns of citizens and local governments by extending the moratorium on fracking. Furthermore, because New York courts have upheld local fracking bans, these bans could make it very difficult for the state to profit from the development of natural gas resources if most or all municipalities simply enact bans. This combination of factors may be conducive to the creation of a new organization that gives local representatives a voice in the regulatory process, while allowing for the development of natural gas resources. Even in other states, however, creating such an organization could facilitate greater cooperation between state and local governments, reducing conflict and the need for litigation.

Ultimately, however, the atmosphere across the country may not be supportive of the creation of such organizations, but it is possible that this situation will change in coming years. The U.S. Environmental Protection Agency (EPA) is conducting a study on the effects of fracking, and is set to release a draft of its findings in 2014, with the complete findings to follow. This study may prompt renewed state and local efforts to create strong regulations. Alternatively, the EPA itself may require new state-wide regulations, which could aid in creating an atmosphere of greater cooperation. In addition to the possibilities

^{204.} See supra Part II.B.2.

^{205.} See EPA's Study of Hydraulic Fracturing and Its Potential Impact on Drinking Water Resources, ENVTL. PROT. AGENCY, http://www.epa.gov/hfstudy/(last updated Aug. 21, 2013).

of new information, the fracking boom will likely stabilize in coming years, particularly as natural gas prices continue to drop. Given the Obama Administration's strong support for fracking and the excitement surrounding home-grown energy, it is clear that fracking will not disappear. But as fracking becomes a more normal part of our energy culture, concerned citizens and environmentalists hope that an atmosphere for properly addressing the short- and long-term impacts of fracking will soon arise.

CONCLUSION

The combination of horizontal drilling and hydraulic fracturing has led to an energy revolution in the United States. However, tapping these vast deposits of natural gas comes at a cost to the communities located above them. In the absence of federal regulation, state and local governments have been embroiled in legal and political disputes regarding the scope of their respective regulatory authority. As state governments push the boundaries of preemption, local governments are increasingly powerless to control the effects of this industry on their communities and the environment. Although local governments have retained some power over fracking through the court system and citizen activism, on the whole they are being forced to sit back and watch this industry invade their communities.

The issues discussed in this Note also have applications far beyond the fracking industry. Disputes regarding the appropriate balance of state and local control can arise in the context of any industrial activity that has significant impacts on local communities. Particularly when technological developments outpace the creation of regulations, there is more reason for communities to have concerns about the short- and long-term effects of an industry. State preemption of local land use laws forces local governments to bear the burdens of an industry and denies them the ability to create regulations to protect their communities. Although the prospect of a century's worth of home-grown energy is not one that should be lightly dismissed,

^{206.} See Natural Gas Prices Drop to Lowest Level in a Decade, AM. PUBLIC MEDIA (Apr. 12, 2012), http://www.marketplace.org/topics/sustainability/natural-gas-prices-drop-lowest-level-decade (reflecting a recent drop in natural gas prices, but suggesting that fracking may not be "worth the trouble" at these prices).

^{207.} See Begos, supra note 190.

citizens and local governments have legitimate and substantial concerns about the myriad of known and unknown effects of the fracking industry. These individuals and communities must be given a meaningful opportunity to be heard and to have their concerns addressed

Communities need a new mechanism through which they are given a voice in the creation of regulations to govern fracking. Local representatives must be involved in the regulatory process because they are in the best position to understand the unique concerns of their communities. The use of express preemption in Pennsylvania and New York has greatly constrained local control over fracking. The attempts at cooperative models in Colorado and the Delaware River Basin have failed to give local representatives a meaningful role in these organizations. New regional or state-wide organizations, with regulatory authority, should be created to bring together state and local representatives to create and revise regulations and issue permits. An organization which involves state and local representatives can help to ensure that the interests of communities are represented from the day an application is filed until the day a well is dry. These organizations will allow for the development of natural gas resources while preserving the ability of local governments to protect the health, safety and welfare of their communities.