GOVERNING HYDRAULIC FRACTURING THROUGH STATE-LOCAL DYNAMIC FEDERALISM: LESSONS FROM A FLORIDA CASE STUDY

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I. INTRODUCTION

In 2013, a Texas oil company hydraulically fractured an unconventional oil well for the first time in Florida.[1] The exploration took place in Collier County, located in the Everglades—a treasured natural area that has been described as "a river of grass flowing imperceptibly from the hinterland into the sea."[2] This United Nations Educational, Scientific and Cultural Organization World Heritage Site contains vast subtropical wetlands and is a sanctuary for endangered species like the manatee, American crocodile, and Florida panther.[3] But local residents fear that new methods of oil extraction, including the use of hydraulic fracturing (also known as "fracking")[4] could affect the character of these treasured wetlands and their drinking water supply. Matthew Schwartz, executive director of South Florida Wildlands Association, fears for the nearby wildlife, worrying that "the current rash of applications for horizontal drilling and seismic

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1. *See* Press Release, Florida Dep't of Envtl. Prot., Statement from DEP Regarding Consent Order with the Dan A. Hughes Company, L.P. (Apr. 18, 2014) [hereinafter FDEP Press Release], *available at* http://content.govdelivery.com/accounts/FLDEP/bulletins/b1683b.

2. *Everglades National Park*, UNESCO WORLD HERITAGE CENTRE, http://whc.unesco.org/en/list/76 (last visited Dec. 8, 2014).

3. *America's Everglades – The Largest Subtropical Wilderness in the United States*, U.S. NAT'L PARK SERVICE, http://www.nps.gov/ever/index.htm (last updated Mar. 4, 2015).

4. Hydraulic fracturing is also referred to as "fracking" or "fracing." Members of the oil and gas industry disfavor the word "fracking," because they believe the term was coined by environmental groups to imply negative impacts associated with the industry and to suggest the fictional expletive, "frak," used in *Battlestar Galactica*. In using "fracking," this Note does not intend to connote anything negative about the oil and gas industry. Instead, this Note uses the more dominant spelling of the term. John M. Golden & Hannah J. Wiseman, *The Fracking Revolution: A Case Study in Policy Levers to Promote Innovation*, 64 EMORY L.J. (forthcoming 2015).

testing will be impacting and degrading the last remaining habitat for the Florida panther."[5] The foremost concern for Mary Jean Yon, legislative director at Audubon Florida, is "the amount of water used to carry out this process."[6] And in his letter to the Environmental Protection Agency, Senator Bill Nelson of Florida declared, "We cannot tolerate expanded industrial drilling activities that pose a threat to the drinking and surface water so close to the Florida Everglades."[7] He continued by asking the agency to consider "whether outside wildcatters would soil one of the world's great environmental treasures."[8]

However, others disagree with what they view as extreme rhetoric and premature fears. Collier Resources Company, which leases mineral rights and monitors oil production, has operated safely for over six decades and "with minimal impacts to the surrounding environment."[9] Not only do the two families that jointly own Collier Resources Company stand to benefit from further oil exploration, but many Collier County residents who may receive employment from the well projects do as well. Additionally, Americans across the country are likely to welcome the increase in the domestic supply of oil and gas, which has driven gas prices to record lows.[10] Beyond discussions over potential risks and benefits of fracking is the question of how to best regulate the industry. John Dwyer, a citizen of Collier County, critiqued advanced oil extraction in southwest Florida at a county commissioner meeting by stating, "The kingpins of carbon have blackened the façade of democracy."[11] Hydraulic fracturing not only raises particularized concerns over water contamination and quality of life, but also questions whether fracking is being governed in a democratic way. Effective governance over fracking may quell

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5. Roger Drouin, *Could Florida Become the New Fracking Frontier?*, TRUTHOUT (Feb. 4, 2014, 9:31 AM), http://truth-out.org/news/item/21642-fracking-florida-could-florida-become-the-new-fracking-frontier.

6. *Id.*

7. Paresh Dave, *Oil Drilling Near Everglades Prompts Worries About Fracking, Water*, L.A. TIMES (May 2, 2014, 7:00 AM), http://touch.latimes.com/#section/-1/article/p2p-80077588/.

8. *Id.*

9. *Environment*, COLLIER RESOURCES COMPANY, http://www.collierresources.com/Environment (last visited Dec. 11, 2014) (explaining that the Big Cypress Swamp Advisory Committee has independently reviewed and recommended approval of the Collier Resources Company's oil exploration in Big Cypress).

10. *See* U.S. ENERGY INFO. ADMIN., 2012 BRIEF: AVERAGE WHOLESALE NATURAL GAS PRICES FELL 31% IN 2012, *available at* http://www.eia.gov/todayinenergy/detail.cfm?id=9490.

11. *Board of County Commissioners Meeting*, COLLIER COUNTY (Sept. 23, 2014), http://collier.granicus.com/MediaPlayer.php?view_id=4&clip_id=1807 (accessed from the meeting video archive).

exaggerated fears, engage locals in making decisions about their communities, and promote the best practices by the oil industry.

Many of the governance questions associated with fracking arise from an unclear balance of state and local authority. Even where states have expressly preempted local governance of oil and gas development, some courts have found that there is room for local governance;[12] whereas in other states that appear to allow local government control, courts have eliminated local involvement, finding "implied" conflicts or field preemption.[13] Achieving accountable, effective governance of oil and gas requires closer analysis of state and local authority and of the ways in which these governments could collaborate, rather than compete or engage in "zero-sum"[14] decisions, such as development bans, in this increasingly important regulatory area. While much of the state-local governance literature in the oil and gas context has focused on preemption conflicts and bans,[15] this Note is about finding a middle ground. By drawing from accounts of dynamic federalism literature, this Note shows how shared local and state control can work in Collier County and how other states can learn from this approach.

This Note uses a case study to illuminate how a local government is choosing to deal with the national issue of a Texas company coming into its jurisdiction to engage in hydraulic fracturing. Collier County has addressed its concerns surrounding fracking of the Collier-Hogan Well through both cooperation and conflict—using administrative law battles and collaborative approaches with the state to regulate fracking rather than attempting to zone out or altogether ban fracking.[16] This approach provides broader lessons for other local governments on choosing how to effectively regulate the advancing oil industry. Building from this county-based case study, this Note will argue that governing hydraulic fracturing through state-local dynamic federalism is necessary to achieve goals of adequate environmental protection and to respect local interests.

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12. *See, e.g.*, Wallach v. Town of Dryden, 16 N.E.3d 1188 (N.Y. 2014), *reargument denied*, 20 N.E.3d 650 (N.Y. 2014).

13. *See* Colo. Oil & Gas Ass'n v. City of Longmont, No. 13CV63, 2014 WL 3690665 (Colo. Dist. Ct. July 24, 2014) (trial court order finding the ordinance invalid because of conflict preemption); Ne. Natural Energy, L.L.C. v. City of Morgantown, No. 11-C-411, 2011 WL 3584376 (W. Va. Cir. Ct. Aug. 12, 2011) (trial court order finding the ordinance invalid based on field preemption).

14. *See* Erin Ryan, *Negotiating Federalism*, 52 B.C. L. REV. 1, 4 (2011).

15. *See generally* Shaun A. Goho, Commentary, *Municipalities and Hydraulic Fracturing: Trends in State Preemption*, 64 PLAN. & ENVTL. L. 3, 3 (2012); Francis Gradijan, *State Regulations, Litigation, and Hydraulic Fracturing*, 7 ENVTL. & ENERGY L. & POL'Y J. 47 (2012); Bruce M. Kramer, *Federal Legislative and Administrative Regulation of Hydraulic Fracturing Operations,* 44 TEX. TECH L. REV. 837 (2012).

16. *See infra* Part II.

This Note begins by describing the process of hydraulic fracturing and exploring the potential benefits and risks associated with the process. Part II introduces a fracking dispute between a southwest Florida county, a Texas oil company, and the Florida Department of Environmental Protection (FDEP). Part III discusses the state of the law in Florida regarding fracking. Part IV then explores the current governance options for local governments in Florida, including local power and state preemption, with examples of how other states and their respective local governments approach fracking. Finally, Part V makes a novel argument that state-local dynamic federalism is the most effective solution to regulate hydraulic fracturing.[17]

II. HYDRAULIC FRACTURING

Because there is broad public concern about the impacts of fracking,[18] this Note will focus on effective governance of the enhanced extraction process. This analysis could have focused on other goals associated with fracking, such as maximizing economic interest. Although environmental protection and regulations are not necessarily to the exclusion of economic benefits—and some public officials are most enthusiastic about growth and taxes—the public at large is concerned with the impacts of fracking, especially water contamination.[19] Therefore, this Note focuses on the greatest public demand, particularly in Florida, which appears to be effectively regulating the industry, and explores how state and local authorities can best achieve this goal.

Hydraulic fracturing is a technique used to extract oil and natural gas that is trapped beneath the earth's surface, specifically oil and

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17. Of course, other scholars have proposed the concept of state-local in regulatory contexts, but without also discussing dynamic federalism. *See generally* Paul Diller, *Intrastate Preemption*, 87 B.U. L. Rev. 1113 (2007); John R. Nolon & Steven E. Gavin, *Hydrofracking: State Preemption, Local Power, and Cooperative Governance*, 63 CASE W. RES. L. REV. 995 (2013), *available at* http://digitalcommons.pace.edu/lawfaculty/884/ (discussing state and local governments working together in the hydraulic fracturing context but arguing for a cooperative governance approach rather than arguing for dynamic federalism). Dynamic federalism has been applied to the hydraulic fracturing industry but not to the state-local level. *See* Hari M. Osofsky & Hannah J. Wiseman, *Dynamic Energy Federalism*, 72 MD. L. REV. 773 (2013).

18. Jonathan Groves, *Rule 29 Or: How the Railroad Commission Learned to Stop Worrying and Love Hydraulic Fracturing*, 14 TEX. TECH. ADMIN. L.J. 195, 201 (2012).

19. Steve Brooks, *UT Energy Poll Shows Divide on Fracking*, KNOW (Apr. 9, 2013), http://www.utexas.edu/know/2013/04/09/ut-energy-poll-shows-divide-on-fracking/ (public survey finding that water contamination is the public's number one environmental concern); *see also* Mike Soraghan, *Obscure Regulator Hits Brakes on Northeast Shale Drilling Rush*, N.Y. TIMES (Sept. 13, 2010), http://www.nytimes.com/gwire/2010/09/13/13greenwire-obscure-regulator-hits-brakes-on-northeast-sha-11558.html?scp=3&sq=fracturing&st=cse (describing groundwater quality as the public's central concern).

gas that is found within the pores of underground rock.[20] Many wells are first horizontally drilled to expose more pores in the rock before operators fracture around the wellbore.[21] During this well development process, operators drill wells thousands of feet into rock formations[22] and inject fracturing fluid—which contains mostly water—and also a propping agent—usually sand—and a mixture of chemical additives.[23] The fracturing fluid is injected at a very high pressure to fracture the rock and to release gas.[24] There is little public information available about the chemicals used during the extraction process.[25] This lack of disclosure makes it hard to determine the potential risks involved.[26] However, information available to the public is increasing as a result of FracFocus[27] and state chemical disclosure regulations.[28]

Advocates of fracking assert that oil and gas exploration stands to improve local communities through investment, job growth, and taxes.[29] However, fracking can also produce negative economic impacts on communities.[30] Oil and gas exploration can yield "a local economy that is overly dependent on one industry, leading to lower economic resilience, greater income inequality, and less educated workforces."[31] Beyond potential adverse economic effects, opponents of fracking are concerned about environmental and public health risks.[32]

One of the foremost concerns regarding fracking is water contamination.[33] While there is ongoing scientific dispute about the extent to

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20. BRANDON J. MURRILL & ADAM VANN, CONG. RESEARCH SERV., R42461, HYDRAULIC FRACTURING: CHEMICAL DISCLOSURE REQUIREMENTS 1 (2012), *available at* https://www.fas.org/sgp/crs/misc/R42461.pdf.

21. *See* Evan J. House, *Fractured Fairytales: The Failed Social License for Unconventional Oil and Gas Development*, 13 WYO. L. REV. 5, 19 (2013).

22. *Id.* at 24.

23. Goho, *supra* note 15.

24. *Id.*

25. *See* Hannah Wiseman, *Trade Secrets, Disclosure, and Dissent in a Fracturing Energy Revolution*, 111 COLUM. L. REV. SIDEBAR 1, 4 (2011).

26. *Id.* at 9.

27. FracFocus is a chemical disclosure registry. *About Us*, FRACFOCUS, http://www.fracfocus.org/welcome (last visited on Dec. 11, 2014).

28. MURRILL & VANN, *supra* note 20, at 4-18.

29. *See* TIMOTHY CONSIDINE ET AL., AN EMERGING GIANT: PROSPECTS AND ECONOMIC IMPACTS OF DEVELOPING THE MARCELLUS SHALE NATURAL GAS PLAY 17-19 (2009), *available at* http://marcelluscoalition.org/wp-content/uploads/2010/05/EconomicImpactsofDevelopingMarcellus.pdf.

30. Goho, *supra* note 15, at 4.

31. *Id.*

32. Nolon & Gavin, *supra* note 17.

33. Jarit C. Polley, *Uncertainty for the Energy Industry: A Fractured Look at Home Rule*, 34 ENERGY L.J. 261, 264 (2013).

which fracking can contaminate underground water,[34] inadequate well casing is one such way that water contamination can occur.[35] Faulty well casing can cause methane to leak from wells; and fracturing fluid migrating through the casing can also pollute the underground water resources.[36] Additionally, on-site storage and off-site disposal of wastewater, also known as "flowback water," which is the fluid mixture that returns to the surface,[37] has the potential to cause further contamination.[38] Air pollution is yet another environmental and public health concern. In addition to pollution caused by trucking equipment and thousands of gallons of water, the fracking process emits "volatile organic compounds and methane" into the air, which generates public health hazards and may also affect climate change.[39] Further, fracking can alter the quality of life for local residents.[40] Truck traffic, noise, and visual impacts have the potential to change the character of communities in undesirable ways.[41] Finally, injecting wastewater from drilling operations has caused earthquakes—many of them minor but some of which have been substantial.[42] Because these risks "are felt most acutely in local communities,"[43] meaningful

34. Hannah J. Wiseman, *Risk and Response in Fracturing Policy*, 84 U. COLO. L. REV. 729, 740 (2013) (showing there is little proof that fracturing itself has caused groundwater contamination).

35. *See, e.g.*, BUREAU OF OIL & GAS MGMT., PA. DEP'T OF ENVTL. PROT., STRAY NATURAL GAS MIGRATION ASSOCIATED WITH OIL AND GAS WELLS (Oct. 28, 2009), *available at* http://www.dep.state.pa.us/dep/subject/advcoun/oil_gas/2009/Stray%20Gas%20Migration%20Cases.pdf (showing improperly cased wells have caused methane contamination of water).

36. Nathaniel R. Warner et al., *Geochemical Evidence for Possible Natural Migration of Marcellus Formation Brine to Shallow Aquifers in Pennsylvania*, 109 PROC. NAT'L ACAD. SCI. 11961, 11965 (2012), *available at* http://nofracking.com/static/media/PDF/PNAS-2012-Warner-1121181109.pdf.

37. *Hydraulic Fracturing Defined*, GEOLOGICAL SOC'Y OF AM., http://www.geosociety.org/criticalissues/hydraulicFracturing/defined.asp (last visited Mar. 8, 2015).

38. *See* N.M. OIL CONSERVATION DIV., CASES WHERE PIT SUBSTANCES CONTAMINATED NEW MEXICO'S GROUND WATER (2008), http://www.emnrd.state.nm.us/ocd/documents/GWImpactPublicRecordsSixColumns20081119.pdf (suggesting that various substances from pits can leak into groundwater); Daniel J. Rozell & Sheldon J. Reaven, *Water Pollution Risk Associated with Natural Gas Extraction from the Marcellus Shale*, 32 RISK ANALYSIS 1382, 1388-89 (2011) (describing how surface spills and leaks from surface pits can contaminate water).

39. Nolon & Gavin, *supra* note 17, at 997.

40. Goho, *supra* note 15, at 4.

41. *Id.*

42. Cliff Frohlich et al., *The Dallas-Fort Worth Earthquake Sequence: October 2008 Through May 2009,* 101 BULL. SEISMOLOGICAL SOC'Y AM. 327, 327 (2011) (assessing the relationship between the small Dallas-Fort Worth earthquakes and activities associated with the natural gas production in Tarrant County); Katie M. Keranen et al., *Potentially Induced Earthquakes in Oklahoma, USA: Links Between Wastewater Injection and the 2011 Mw 5.7 Earthquake Sequence*, 41 GEOLOGY 699, 699-700 (2013).

43. Goho, *supra* note 15, at 4.

participation from local governments is critical to effectively mitigate the risks and to regulate the advancing oil and gas industry.

Energy experts believed that the United States would soon exhaust its natural gas until the 1990s when Texas oil and gas companies perfected the fracturing process.[44] Hydraulic fracturing has since spread to other shale formations, including the Fayetteville formation in Arkansas; the Marcellus formation in New York, Pennsylvania, Ohio, and West Virginia,[45] among others; and most recently the limestone formation in Florida.[46] Technologies have rapidly advanced, allowing fracking to greatly increase in recent years—so much so that President Barack Obama has described America as the "Saudi Arabia of natural gas."[47] Regulations, however, need to catch up to this advancing technology. While local and state governments in the Fayetteville and Marcellus shale states traditionally regulate fracking through zoning, municipal bans, and preemption, the Florida case study explored in this Note can show states how a non-traditional approach that strikes a balance between state and local control over oil and gas development is most effective.

III. THE COLLIER-HOGAN WELL DISPUTE

In 2013, the Dan A. Hughes Company (Hughes Company) introduced hydraulic fracturing of an unconventional well to Florida.[48] FDEP Secretary Herschel Vinyard reported that the enhanced oil extraction process had never been done in Florida prior to the Hughes Company.[49] However, oil wells have existed in Florida for over seventy years, with one oil field in the State's panhandle and another in Collier County.[50] In 2003, FDEP reported that fracking was used experimentally in conventional wells in the Jay Field.[51] FDEP identifies conventional wells as ones that are not horizontally drilled; therefore, the 2013 fracking of an unconventional well, one

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44. Wiseman, *supra* note 25, at 3.

45. *Id.*

46. *See* Brief for Petitioner at 2, Collier Cnty. v. Fla. Dep't of Envtl. Prot., Case No. 14-0012 (DEP June 12, 2014).

47. President Barack Obama, 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#transcirpt).

48. FDEP Press Release, *supra* note 1.

49. *Id.*

50. Greg Allen, *Florida County Goes to Court Over 'Acid Fracking' Near Everglades*, NPR ALL THINGS CONSIDERED (July 2, 2014, 5:31 PM), *available at* http://www.npr.org/2014/07/02/327373952/florida-county-goes-to-court-over-acid-fracking-near-everglades.

51. Memorandum from John Littlejohn, Deputy Sec'y, Fla. Dep't of Envtl. Prot., to Herschel T. Vinyard Jr., Sec'y, Fla. Dep't of Envtl. Prot. (Sept. 29, 2011), *available at* http://news.caloosahatchee.org/docs/Dep_Fracturing_Response_130118.pdf.

that was horizontally drilled before being fractured, is new to Florida and might pose significant risks to groundwater.[52]

While fracking has been successful in shale-type formations, the technique will not necessarily be effective in Florida's limestone formation, which lies at least ten thousand feet beneath the earth's surface.[53] The particular geological concern over horizontal drilling in Collier County is that it is "located over a Karstic Aquifer system with non-contiguous porous confining layers consisting mostly of sandstone, dolomite, and shell beds which are particularly vulnerable to any pollution sources."[54] The novelty of fracking to Florida, the current lack of state legislation regarding fracking, the particular geological structure of Collier County, the uniqueness of the Everglades, and the large local public outcry against advanced oil extraction make fracking in Collier County ripe for a case study.

In December 2012, FDEP issued a permit to the Hughes Company to construct a well in Collier County.[55] Then, in August 2013, FDEP issued an operation permit to the Hughes Company to operate the well as an oil production well.[56] On December 23, 2013, the Hughes Company issued a well completion procedure notice, also called a workover notice, to FDEP.[57] The workover notice proposed fracking as its method to extract oil from the Collier-Hogan Well,[58] although FDEP refers to the fracking process used here as "an enhanced extraction procedure."[59] FDEP was concerned about the workover notice because the Hughes Company's suggested method of extracting oil had not previously been performed in Florida.[60]

Concerned with the potential risks of fracking and desiring to further study the process, FDEP asked the Hughes Company to suspend its operation of the workover procedure.[61] However, the Hughes Company commenced with its planned operation and without FDEP approval; thus, the Hughes Company can be credited with one of the first fracking operations in Florida.[62] On December 31, 2013, upon

52. Allen, *supra* note 50. However, FDEP has not found any contamination in the Collier-Hogan Well. *Board of County Commissioners Meeting*, COLLIER COUNTY (Sept. 9, 2014), http://www.colliergov.net/index.aspx?page=2280 (accessed from the meeting video archive).

53. *See* Brief for Petitioner, *supra* note 46, at 2, 8.

54. *Id.* at 8.

55. Consent Order, Fla. Dep't of Envtl. Prot. v. Dan A. Hughes Co., Case No. 14-0012 (DEP Apr. 8, 2014).

56. *Id.*

57. FDEP Press Release, *supra* note 1.

58. *See id.*

59. *Id.*

60. *Id.*

61. *Id.*

62. *See id.*

notification that the workover procedure had taken place, FDEP issued a Cease and Desist Order.[63] On April 8, 2014, FDEP and the Hughes Company signed a Consent Order, in which the Hughes Company agreed to pay a $25,000 settlement and to install groundwater monitors, among other obligations.[64]

Collier County did not learn about the Collier-Hogan Well incident until April 18, 2014, three months after the Cease and Desist Order was issued.[65] The press release issued by FDEP was not only the first time Collier County learned that fracking had occurred but also the first time FDEP expressed its concern that the Hughes Company's action could adversely affect the County's groundwater, which its residents rely on for drinking water.[66] A state-local governance dispute thus began as an administrative battle between Collier County and FDEP.[67] Collier County filed claims against the state agency demanding that FDEP better regulate hydraulic fracturing.[68] Specifically, the County challenged FDEP's Consent Order and improper issuance of the Hughes Company's permits.[69] Meanwhile, the Hughes Company fell behind on the obligations upon which it agreed in the Consent Order, prompting FDEP to revoke every permit the Hughes Company had in Florida and to file suit in Collier County Circuit Court against the Hughes Company.[70]

Contemporaneous to the County's administrative challenge against FDEP, the agency drilled groundwater monitors to determine whether the water had been contaminated at the Collier-Hogan Well.[71] FDEP also hired independent experts to investigate the well site to determine the effects, if any, of this new extraction process.[72] FDEP noted that it desired to increase the scope of inspection requirements, increase its legislative authority to regulate, and place the burden of clean-up requirements on oil companies rather than tax payers.[73]

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63. *In re* Dan A. Hughes Co., Final Order Requiring Operations at Well 20-3H Collier-Hogan Cease and Desist (DEP Dec. 31, 2013).

64. Consent Order, Fla. Dep't of Envtl. Prot. v. Dan A. Hughes Co., Case No. 14-0012 (DEP Apr. 8, 2014).

65. *See* Brief for Petitioner, *supra* note 46, at 3-4.

66. *Id.* at 3.

67. Brief for Petitioner, *supra* note 46, at 9-10.

68. *See id.*

69. *Id.* at 4, 9-10.

70. Consent Order, Fla. Dep't Envtl. Prot. v. Dan A. Hughes Co., Case No. 14-0012 (DEP Apr. 8, 2014).

71. *Board of County Commissioners Meeting*, *supra* note 52.

72. *Id.*

73. *Id.*

FDEP invited the Collier County Commission and the Southwest Conservancy—a nonprofit organization that serves to protect southwest Florida's water, land, and wildlife[74]—to join its suit.[75] At the County Commissioner Meeting, the Board of County Commissioners suggested withdrawing its suit against FDEP on the condition that FDEP issue a commitment letter to continue holding the Hughes Company accountable, continue testing for possible contamination at the Collier-Hogan Well, and commit to furthering legislation that supports regulation of the advancing technologies in the oil and gas industry.[76] The Southwest Conservancy declined its invitation to join FDEP's suit against the Hughes Company; instead, the Conservancy secured a stipulated agreement with FDEP in return for its voluntary withdrawal from its petition to intervene in the FDEP Consent Order case.[77] The Conservancy obtained many legally binding commitments, including that FDEP must identify which chemicals it must test for and declare what steps will be taken if contamination is found.[78] Although the Conservancy was disappointed that the County so readily discussed dropping its suit from FDEP without a legally binding commitment from the agency, the Conservancy now supports the County's withdrawal from its suit against FDEP since the Conservancy is content with the legally binding commitment it secured.[79] The Conservancy was even supportive of the County joining its stipulated agreement with FDEP.[80]

After securing its own stipulated agreement with FDEP regarding, specifically, the Collier-Hogan Well and, more broadly, a commitment by FDEP to assist and pursue legislative action, the County withdrew its administrative challenge against the state agency.[81] The County also accepted an invitation from FDEP to join its suit against the Hughes Company.[82] Joining the suit allowed the County to sit at the table and meaningfully participate in holding the Hughes Company responsible for its actions. Commissioner Tim Nance, however, explained that the County's intervening in the FDEP lawsuit is only one piece of the puzzle.[83] Mr. Nance analogizes Collier County's rela-

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74. *Our Work*, CONSERVANCY OF SW. FLA., http://www.conservancy.org/our-work (last visited Dec. 8, 2014).

75. *Board of County Commissioners Meeting*, *supra* note 52.

76. *Id.*

77. *Id.*

78. *Id.*

79. *Id.*

80. *Id.*

81. *Board of County Commissioners Meeting*, COLLIER COUNTY (Oct. 14, 2014), http://www.colliergov.net/index.aspx?page=2280 (accessed from the meeting video archive).

82. *Id.*

83. *Id.*

tionship with fracking to a movie. Litigation over the Collier-Hogan Well is like a preview to a film; the litigation is a preliminary message for the forthcoming big picture. Legislation, Mr. Nance purports, is the feature.[84] He believes that true regulation of the oil and gas industry will occur at the legislative level. Nevertheless, Collier County's actions are critical to triggering regulatory activity and to keeping pressure on the State.

The Collier-Hogan Well serves as an interesting case study as to how a local government, a state agency, and a nonprofit organization are working together to regulate fracking. At the forefront of the commissioners' and Conservancy members' minds is the importance of effectively mitigating the potential impact of fracking on water quality and endangered species.[85] FDEP is also invested in shaping how its policies address fracking.[86] While the Collier-Hogan Well located in the Everglades is just one example of fracking nationwide, the well has the potential to dictate how Florida will govern fracking practices in the future. The Florida case study also has the potential to show other states how local and state governments might be able to work either cooperatively or in conflict to effectively address issues associated with fracking.[87]

IV. LEGISLATION GOVERNING FRACKING

Florida's oil and gas laws, written before fracking occurred within the state, do not reflect the current state of oil and gas technology. As a result of the unchanged laws, "these new methods of extraction do not always fit within the current regulatory framework."[88] The incident at the Collier-Hogan Well and the consequential disputes between FDEP, Collier County, the Hughes Company, and the Southwest Conservancy reveal the discrepancy between advancing technology and legislation. Some of Florida's regulations of the oil and gas industry include requirements for obtaining a permit[89] and environmental protection requirements regarding harms such as pollution.[90] Along with the Florida Statutes' broad rules regarding oil and gas, FDEP writes its own administrative regulations. However, the State only regulates fracking through the workover notice require-

84. *Id.*

85. *Board of County Commissioners Meeting*, *supra* note 52 (commissioners speaking about their ongoing concerns regarding fracking); *Our Work*, *supra* note 74.

86. *Board of County Commissioners Meeting*, *supra* note 52.

87. *See infra* Part 0.

88. *Inappropriate Oil Drilling and Water Don't Mix,* CONSERVANCY OF SW. FLA., http://www.conservancy.org/policy/inappropriate-drilling-and-water-dont-mix (last visited Dec. 10, 2014).

89. FLA. STAT. § 377.241 (2013).

90. *Id.* § 377.371.

ment, which requires operators to notify FDEP before beginning a workover operation.[91]

Within this somewhat old set of regulations, the Hughes Company's only obligation pursuant to Florida's statutes and administrative codes was to give FDEP notice of its intent to engage in the advanced extraction procedure, which it did through its December 23, 2013, workover notice. The Hughes Company maintains that "at all times it was operating lawfully under a valid permit and followed all applicable procedures required to conduct the Workover Operations . . . ."[92] The fact that the Hughes Company did nothing illegal—although it disregarded FDEP's request to cease operations and was subsequently sued—reveals the need for legislative reform for the benefit of all parties.

Currently there is an absence of laws regulating fracking; however, the void should not be attributed to a lack of proposals. In Florida's last legislative session, Representative Ray Rodrigues proposed House Bill 71, which would have required companies to inform FDEP of the chemicals they use in the well development process and to forward the information to the national registry.[93] House Bill 71, among other bills seeking to regulate fracking, died in committee.[94] The 2015 legislative session will offer an opportunity for Florida to regulate fracking and to include the County in the process, particularly through FDEP's assistance.[95]

In addition to regulating fracking at the state legislative level, local zoning and altogether prohibition of fracking is a legitimate and often used option by local governments whose states have home rule power.[96] In home rule power states, local governments have greater authority to regulate anything that affects their internal affairs.[97] However, home rule power varies substantially among states. In Colorado, for example, local governments have home rule power, but their regulations may only supersede those of the state if they relate to "matters of local concern."[98] A county court addressing a ban on fracturing in Longmont, Colorado, found that the regulation of fracking is not a matter of local concern, because it affects national com-

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91. FLA. ADMIN. CODE ANN. r. 62C-29.006 (2014).

92. Consent Order, Fla. Dep't Envtl. Prot. v. Dan A. Hughes Co., Case No. 14-0012 (DEP Apr. 8, 2014).

93. Fla. HB 71, § 2 (2014).

94. *CS/HB 71 – Fracturing Chemical Usage Disclosure Act*, FLA. HOUSE OF REPRESENTATIVES, http://www.myfloridahouse.gov/Sections/Bills/billsdetail.aspx?BillId=51190 (last visited Jan. 16, 2015).

95. *Board of County Commissioners Meeting*, *supra* note 81.

96. Goho, *supra* note 15, at 4.

97. Polley, *supra* note 33, at 267.

98. Voss v. Lundvall Bros., 830 P.2d 1061, 1064 (Colo. 1992).

panies that cross local and county lines, and local regulation of fracking may not conflict with state regulation.[99] In states that follow Dillon's Rule, on the other hand, local governments only have the powers expressly and specifically delegated to them by the state through delegating acts.[100]

Florida is a home rule state and thus enjoys greater autonomy to address local concerns.[101] However, Collier County did not even seem to consider zoning, much less the prohibition of fracking. One possible reason is that even home rule states have limited power in regards to fracking, as exhibited by the *Longmont* case.[102] Another reason why Collier County may not have attempted to pass a zoning ordinance is Florida's Bert J. Harris Act, which provides that "[w]hen a specific action of a governmental entity has inordinately burdened an existing use of real property or a vested right to a specific use of real property," the property owner is entitled to relief.[103] Although zoning is one governance option that the County could pursue, the Bert J. Harris Act may dissuade the County from the zoning of fracking because of a fear that it will be sued for placing too high of a burden on property owners.[104] Even though Florida is mostly devoid of legislation regarding fracking, other traditional governance options are available in the meantime, including zoning, prohibition, and litigation of fracking; and overlapping state and local powers can make these governance options even more effective.

V. GOVERNANCE OPTIONS: LOCAL POWER VERSUS STATE PREEMPTION

Scholars define good governance in a variety of ways. For example, effective governance has been envisioned under a utilitarian approach, which focuses on maximizing welfare.[105] Others define effective governance by justice, an equitable distribution of costs and benefits.[106] This Note roughly follows a utility-based approach, because the maximization of welfare creates the fewest environmental costs

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99. *See* Colo. Oil & Gas Ass'n v. City of Longmont, No. 13CV63, 2014 WL 3690665, at *14 (Colo. Dist. Ct. July 24, 2014).

100. Polley, *supra* note 33, at 268.

101. *Understanding Florida's Home Rule Power*, FLA. LEAGUE OF CITIES, INC., http://www.floridaleagueofcities.com/Resources.aspx?CNID=645 (last visited Dec. 13, 2014).

102. *See* Goho, *supra* note 15, at 5 (describing the fact that preemption of zoning ordinances and bans occurs even in home rule states).

103. FLA. STAT. § 70.001 (2013).

104. *See infra* Part 0.

105. David B. Spence, *The Political Economy of Local Vetoes*, 93 TEX. L. REV. 351, 351-52 (2014).

106. Alice Kaswan, *Distributive Justice and the Environment*, 81 N.C. L. REV. 1031, 1031 (2003).

while maximizing the benefits of fracking. However, ensuring that citizens' voices are heard—another element of good governance used within this Note—is a process-based concern, which moves the governance approach beyond a purely utilitarian approach. Local participation is important, because local residents are the ones experiencing many of the benefits and costs of fracking: Landowners may be looking forward to an increase in the value of their land, while the potential neighbors to the oil extraction site may have anxieties over their health and the structure of their community.[107] Accountable governance requires consideration of these local concerns. However, because "more benefits than costs spill beyond local boundaries" and the risks of fracking may be exaggerated, state governance is necessary to prevent municipalities from overregulating and thereby decreasing welfare.[108]

As it is defined in this Note, effective governance balances competing interests, such as pursuing economic benefits and protecting the environment, and engages the critical actors in the regulatory process. Moreover, effective governance demands dynamic interaction in the regulatory process between the state government, local governments, environmental groups, and the public. Effective governance is necessary to provide the oil and gas industry with clear expectations; to give state and local governments the opportunities to either conflict or cooperate with one another and thus to effectively experiment toward better policy; and to ensure that the concerns of environmental groups are heard. This Part discusses the current governance options for regulating fracking. However, these governance options are not the most effective means of addressing the state, local, and industry-based concerns associated with hydraulic fracturing. Therefore, Part V suggests a more effective governance option in the form of state-local dynamic federalism.

Local governments regulate fracking through zoning ordinances, operational zoning, outright bans, and litigation.[109] Local governments derive their power to regulate oil and gas development from state governments.[110] The Tenth Amendment to the U.S. Constitution gives the states police powers to protect public health, safety, and welfare.[111] States then delegate certain police powers to local governments. To determine the extent of powers granted by states to local governments, the first step is to determine whether a state follows the home rule or Dillon's Rule. In home rule states, local gov-

107. Spence, *supra* note 105, at 27.

108. *Id.* at 28-31.

109. Goho, *supra* note 15, at 4.

110. *See* U.S. CONST. amend. X.

111. *Id.*

ernments have the authority to regulate fracking to protect public health and safety.[112] In Dillon's Rule states, however, these powers must be expressly granted.[113]

Local governments can regulate where fracking occurs through zoning and land use restrictions, prohibiting fracking in certain zones and then designating which uses are allowed within each zone.[114] Local governments also regulate how fracking occurs through operational measures, which focus on the technical aspects of drilling.[115] Courts have tended to strike down operational measures while allowing zoning and land use ordinances.[116] The Pennsylvania Oil and Gas Act attempted to prevent zoning-based measures by expressly preempting local ordinances that purport to regulate oil and gas well operations.[117] However, the Pennsylvania Supreme Court in two decisions issued on the same day held that municipalities could regulate fracking through zoning ordinances that control the location of wells but that municipalities were prohibited from enacting operational ordinances.[118]

As introduced in Part III, outright bans are other ways that local governments are regulating fracking; however, these bans are more likely to be struck down in court than zoning ordinances that merely set limitations on the industry.[119] For example, the City of Morgantown, West Virginia banned fracking[120] based on the home rule charter granted to it in West Virginia's Constitution.[121] A lower court judge struck down the outright ban on fracking and held that West Virginia's interest in oil and gas development preempted the City's ordinance.[122] In response to the Morgantown ruling, two other local

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112. Kenneth E. Vanlandingham, *Municipal Home Rule in the United States*, 10 WM. & MARY L. REV. 269, 272 (1968).

113. City of Clinton v. Cedar Rapids & Mo. River R.R. Co., 24 Iowa 455 (1868) (Judge Dillon recognized that a municipality may only act according to the powers it is explicitly granted by the state).

114. 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, 24 (2011).

115. *See, e.g.*, Cooperstown Holstein Corp. v. Town of Middlefield, No. 2011-0930, slip op. at 10-11 (N.Y. Sup. Ct. Feb. 24, 2012).

116. *See id.* at 728; Huntley & Huntley, Inc. v. Borough of Oakmont, 964 A.2d 855, 863 (Pa. 2009); Range Res. Appalachia, LLC v. Salem Twp., 964 A.2d 869, 876 (Pa. 2009).

117. 58 PA. STAT. ANN. § 3302 (2012).

118. *Huntley*, 964 A.2d at 863; *Range*, 964 A.2d at 876.

119. *See* Colo. Oil & Gas Ass'n v. City of Longmont, No. 13CV63, 2014 WL 3690665 (Colo. Dist. Ct. July 24, 2014); Ne. Natural Energy, L.L.C. v. City of Morgantown, No. 11-C-411, slip op. at 10, 2011 WL 3584376 (W. Va. Cir. Ct. Aug. 12, 2011).

120. Morgantown, W. Va., Ordinance 721.03(a), *available at* http://documents.foodandwaterwatch.org/doc/Frack_Actions_MorgantownWV-ban.pdf.

121. W. VA. CONST. art VI, § 39(a).

122. *Ne. Natural Energy, L.L.C.*, No. 11-C-411, slip op. at 9-10.

governments repealed their fracking bans.[123] West Virginia's law is still unclear as to whether the state would actually preempt an ordinance that bans fracking, as its Supreme Court has yet to rule on the issue.[124] However, the Colorado Supreme Court has held that a municipality's total ban on fracking is impermissible.[125]

Meanwhile, litigation can be a vehicle for local governments to regain their power from states.[126] New York courts have held that a complete ban on fracking, when carried out through zoning, is permissible.[127] Furthermore, the New York municipalities' decisions to litigate the preemption question, rather than submit to the preemption language found in New York's Environmental Conservation Law, reinstated the local governments' power to completely ban fracking through zoning.[128]

As local governments have expanded their regulation of fracking or enacted bans, many states have attempted to preempt municipal authority over oil and gas development.[129] Preemption has been defined as "the simultaneous expansion in power of a higher level of government and reduction in power of a lower level of government."[130] The validity of preemption depends not only on the strength of home rule powers but also on the court's interpretation of preemption language.[131] State preemption can be used to provide uniform regulations, which creates a more predictable and stable environment for the private sector.[132] States have legitimate interests in the development of their natural resources, and they generally have more re-

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123. Goho, *supra* note 15, at 6.

124. *Id.* at 7.

125. *See* Colo. Oil & Gas Ass'n v. City of Longmont, No. 13CV63, slip op. at 17, 2014 WL 3690665 (Colo. Dist. Ct. July 24, 2014); Voss v. Lundvall Bros., 830 P.2d 1061, 1069 (Colo. 1992).

126. *See* Anschutz Exploration Corp. v. Town of Dryden, 940 N.Y.S.2d 458, 467 (N.Y. Sup. Ct. 2012); Cooperstown Holstein Corp. v. Town of Middlefield, 943 N.Y.S.2d 722, 728 (N.Y. Sup. Ct. 2012).

127. *Anschutz Exploration Corp.*, 940 N.Y.S.2d at 467; *Cooperstown Holstein Corp.*, 943 N.Y.S.2d at 728.

128. *Anschutz Exploration Corp.*, 940 N.Y.S.2d at 467; *Cooperstown Holstein Corp.*, 943 N.Y.S.2d at 728.

129. *See* Colo. Oil & Gas Ass'n v. City of Longmont, No. 13CV63, 2014 WL 3690665, at 17 (Colo. Dist. Ct. July 24, 2014) (Colorado preempting municipal authority); Voss v. Lundvall Bros., 830 P.2d 1061, 1069 (Colo. 1992); Ne. Natural Energy, L.L.C. v. City of Morgantown, No. 11-C-411, slip op. at 9-10, 2011 WL 3584376 (W. Va. Cir. Ct. Aug. 12, 2011) (West Virginia preempting municipality's ban on fracking).

130. Paul S. Weiland, *Preemption of Local Efforts to Protect the Environment: Implications for Local Government Officials*, 18 VA. ENVTL. L.J. 467, 468 (1999).

131. *See Colo. Oil & Gas Ass'n*, No. 13CV63, 2014 WL 3690665; *Ne. Natural Energy, L.L.C.*, No. 11-C-411, slip op. at 10.

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

sources to enforce those regulations.[133] On the other hand, oil and gas development creates local impacts, which municipalities have traditionally regulated through their zoning and police powers.[134] Local governments may be better at addressing particularized harms; moreover, "the process of local governance is often viewed as democracy at work."[135] Because local governments have unique visions of how they want to use their land, they are in ideal positions to find creative solutions to their problems.[136] Local governments should have the legal authority to realize their visions for their respective communities and to be free from the inhibitions of preemption.[137]

Although the risks of fracking can differ based on geology, there are certain shared risks and issues. The goal everywhere is effective governance. Collier County's administrative battles and resolution with FDEP regarding hydraulic fracturing regulations reveal an important lesson the County has learned from Marcellus shale states: zoning laws and associated preemption debates are not the most effective answers to securing local interests.

VI. STATE-LOCAL DYNAMIC FEDERALISM

The governance options discussed in Part IV of this Note reflect the most common approaches to regulating fracking and suggest that authority should be allocated to either the state or the local government. Viewing state and local authority as being mutually exclusive is similar to the concept of dual federalism, which rigidly separates state and federal power.[138] The tendency to bifurcate authority between the two levels of government makes sense at first blush. A state agency such as FDEP may be deemed the more effective entity to regulate the oil and gas industry because of its resources and expertise. On the other hand, local communities are deeply affected by fracking and thus have major stakes in the matter. Additionally, states tend to be slow in altering their current regulations to confront the novel issues presented by fracking.[139] While states have regulated oil and gas for a long time and are best equipped to do so,[140] states have to take into account local interests and the localized effects of

133. Rachel A. Kitze, Note, *Moving Past Preemption: Enhancing the Power of Local Governments over Hydraulic Fracturing*, 98 MINN. L. REV. 385, 394 (2013).

134. Goho, *supra* note 15, at 5.

135. Kitze, *supra* note 133, at 395.

136. Jerrold A. Long, *Sustainability Starts Locally: Untying the Hands of Local Governments to Create Sustainable Communities*, 10 WYO. L. REV. 1, 33 (2010).

137. *Id.* at 33-34.

138. *See* Michael S. Greve, *Against Cooperative Federalism*, 70 MISS. L.J. 557, 557-58 (2000).

139. Goho, *supra* note 15, at 4.

140. *Id.* at 5.

fracking. Upon closer examination, it is clear that static governance is not sufficient to address both state and local concerns. In the federal-state context, either-or allocations of power neither accurately describe governance nor provide useful lessons for how governance allocations should occur.[141] Just as scholars have recognized that "dual federalism is dead,"[142] the same recognition is needed at the state level.

Alternatively, some scholars have suggested that cooperative governance is the proper approach to regulating fracking.[143] However, this cooperative approach is often anemic, resulting in local governments taking passive roles in regulating, thus creating an absence of meaningful interaction between state and local government.[144] For example, Colorado attempted to take a more cooperative approach to the regulation of fracking through the creation of the Oil and Gas Task Force.[145] The task force encouraged each local government to name a designee to participate in the Colorado Oil and Gas Conservation Commission, allowed designees to request an additional ten days to review permits, and provided them with technical training.[146] Although designees may consult with well operators, may file complaints, and must be notified of an impending permit, there is a lack of opportunity for the designees to influence the state's regulatory regime.[147] Cooperative governance is similar to cooperative federalism, in which cooperation means, "state and local governments administer and implement federal programs"[148]—the only difference here being that local governments administer state programs. In addition to being weak, cooperative governance in some cases simply might not be available. Because the federal government and the State of Florida have taken relatively unaggressive approaches toward environmental regulation of oil and gas, cooperative federalism may not even be a possibility in Florida.[149]

Although cooperation facilitates collaboration between governmental entities, conflict also has value.[150] Further, effective govern-

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141. *See* Robert A. Schapiro, *Toward a Theory of Interactive Federalism*, 91 IOWA L. REV. 243, 246 (2005).

142. *Id.*

143. *See, e.g.*, Nolon & Gavin, *supra* note 17, at 998.

144. *See id.* at 1036-39.

145. *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.

146. *Id.*

147. Kitze, *supra* note 133, at 407.

148. Greve, *supra* note 138, at 558.

149. *See id.* at 567.

150. Hari M. Osofsky, *Diagonal Federalism and Climate Change Implications for the Obama Administration*, 62 ALA. L. REV. 237, 287 (2011).

ance requires municipalities to take on greater, even dissenting, roles to ensure their interests are protected and to pressure policymakers to meaningfully deliberate.[151] The best approach to regulate fracking does not come down to deciding whether the state or local governments is the optimal authority; likewise, effectively regulating the industry requires more than local governments passively engaging in the policies of states. Instead, state-local dynamic federalism, in which states and local governments cooperate and conflict in a dynamic and overlapping way, is the answer to the regulation of fracking.

Dynamic federalism reconceives federalism as a "dynamic relationship between state and federal authority"[152] rather than as "mutually exclusive spheres of power."[153] Dynamic federalism celebrates the benefits of overlapping jurisdiction, such as promoting effective governance, ensuring a regulatory safety net, and encouraging policy innovation.[154] The benefits are particularly relevant in the environmental context where jurisdictional overlap is common.[155] The federal government often regulates issues that are local in nature, while states actively regulate areas with national and international effects.[156] Particularly with respect to the issue of fracking, the noise, traffic, and location of oil and gas extraction collectively have a localized effect,[157] while pollution from fracking has a state, national, and even international impact.[158] The concept and benefits of dynamic federalism are applicable to state and local governments, which this Note terms "state-local dynamic federalism." While there has been a move toward exploring dynamic approaches at the federal-state level, such an approach has seldom been conceived of at the state-local level.

Effective governance is achieved through overlapping jurisdiction: one level of government's regulatory activity triggers the other optimal level of government to enact regulations.[159] Once the jurisdiction that is most capable of optimal regulation has been identified, both levels of government should continue to have authority over the problem to maintain effective governance.[160] Collier County uniquely engaged in regulatory activity through litigation in which it demanded

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151. Jessica Bulman-Pozen & Heather K. Gerken, *Uncooperative Federalism*, 118 YALE L.J. 1256, 1288 (2009); Osofsky, *supra* note 150.

152. Kirsten H. Engel, *Harnessing the Benefits of Dynamic Federalism in Environmental Law*, 56 EMORY L.J. 159, 176 (2006).

153. *Id.* at 175.

154. *Id.* at 176-83.

155. *Id.* at 166.

156. *Id.*

157. Goho, *supra* note 15, at 4.

158. Nolon & Gavin, *supra* note 17, at 997.

159. *See* Engel, *supra* note 152, at 177-78.

160. *Id.*

that the state better regulate fracking.[161] Collier County's administrative challenge against FDEP placed pressure on the agency to revoke every permit that the Hughes Company had in Florida and to file suit against the Company.[162] Additionally, the County influenced FDEP to respond with more regulatory measures regarding fracking, including commitments to increase its legislative authority to regulate, to increase the scope of inspection requirements, and to place the burden of clean-up requirements on oil companies. FDEP may be the jurisdiction that is more capable of optimal regulation because of its resources and financial backing as a state agency; however, to sustain optimal regulation, the County has to remain at the proverbial table and continue placing pressure on the agency. By joining FDEP's lawsuit against the Hughes Company, the County is securing effective governance over fracking in this particular instance.

Another benefit of dynamic federalism is the checks and balances that a compound system provides: if one level fails to act, the other can assume the responsibility.[163] Collier County provided a "regulatory safety net" for its community by making demands of FDEP when its regulations and consequences for the Hughes Company were lacking.[164] The County's additional pressure has caused FDEP to drill groundwater monitors to investigate water contamination at the well site.[165] Additionally, overlapping jurisdiction ensures both that affluent interest groups are heard at the federal and state level and that opposing groups can also advocate for their interests at a lower level of government.[166] Engaging Collier County with the state in the regulatory process of fracking is critical to ensuring that the voices of local residents are heard and that their local officials have the opportunities to advocate for their concerns. Moreover, democracy is furthered and individuals are best represented when local and state representatives interact with one another.

Dynamic federalism promotes regulatory innovation by encouraging states to function as "laboratories of democracy" capable of experimenting with policy without harming the rest of the nation.[167] Local governments are also forums for innovation.[168] Because the environment is continually changing, regulatory innovation is critical in responding to potential risks and in taking advantage of possible eco-

161. *See generally* Brief for Petitioner, *supra* note 46.

162. *See generally* Consent Order, Fla. Dep't of Envtl. Prot. v. Dan A. Hughes Co., Case No. 14-0012 (DEP Apr. 8, 2014).

163. Bulman-Pozen, *supra* note 151, at 1290-91.

164. *See* Engel, *supra* note 152, at 178.

165. *Board of County Commissioners Meeting*, *supra* note 52.

166. Bulman-Pozen, *supra* note 151, at 1290-91; Engel, *supra* note 152, at 179.

167. New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting).

168. Diller, *supra* note 17, at 1114.

nomic benefits.[169] Innovative policy may be disseminated across municipalities and up to the state level.[170] Most importantly, interaction between different levels of government can lead "parties to adopt policy positions significantly different from the positions they would have adopted had they been regulating in a vacuum."[171] The dynamic interaction between FDEP and Collier County can serve as a model for how other states and counties can evolve their regulatory postures to most effectively regulate fracking.

Arguably, Collier County should not have yielded so quickly in dropping its administrative challenge against FDEP. However, the threat of litigation caused FDEP to respond to and address the County's concerns. The County was the stepping-stone that caused FDEP to improve its regulatory activity. In joining FDEP's suit against the Hughes Company and through its commitment to affect legislative change, the County has secured a position to meaningfully participate in the regulatory process. Additionally, Collier County's stipulated agreement with FDEP was essential in securing guarantees from the State and in ensuring the substantive outcomes promised. The Conservancy's stipulated agreement with FDEP is an additional safeguard to protect the County.

While the County's administrative challenge against FDEP along with its stipulated agreement provided the County with a critical role in the regulatory scheme and placed needed pressure on the agency, a pre-established procedure that invites both meaningful participation from and current information to the County would be more sustainable, effective, and desirable. Legislation that requires local representation to be involved in the regulatory process will offer checks and balances, create a regulatory safety net, and effectuate goals of best regulation practices. Nevertheless, the dynamic interaction between Collier County and FDEP has encouraged other municipalities and states to celebrate their overlapping jurisdiction and has provided them with a framework by which they can best regulate fracking.

VII. CONCLUSION

The regulation of fracking—a growing practice in the United States—is a complex endeavor that requires meaningful local and state involvement. Through battling FDEP, Collier County has caused the agency to improve its regulatory practices. And by joining FDEP in its suit against the Hughes Company, the County continues

169. *See* Michael W. McConnell, *Federalism: Evaluating the Founders' Design*, 54 U. CHI. L. REV. 1484, 1484, 1493 (1987) (explaining that "decentralization allows for innovation and competition in government").

170. Diller, *supra* note 17, at 1118-19.

171. Engel, *supra* note 152, at 171.

to apply pressure on FDEP to ensure continued best regulation. The dynamic interaction between the two levels of government has yielded effective governance over fracking of the Collier-Hogan Well. By partnering with FDEP on this single suit against the Hughes Company, Collier County is laying the foundation for a continued partnership with the state agency going into the 2015 legislative session and beyond to draft bills that provide needed expectations for the oil and gas industry and that comport with the public's environmental concerns.

Because dual federalism is unproductive and thus will not lead to good governance, state and local authorities should stop relying on it for the regulation fracking. Governments around the country should utilize a state-local dynamic federalism approach to realistically and effectively address the needs of this overlapping industry. By leaning into their overlapping jurisdiction, Collier County and FDEP offer the nation a model for effective governance.

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