

DON'T “FRAC” THIS UP: DENTON’S FRAC BAN AND THE APPROPRIATE STATE LEGISLATIVE RESPONSE

Comment*

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I.	INJECTING RHETORIC AT EXTREMELY HIGH PRESSURES: INTRODUCTION TO THE DEBATE	

Remarkable similarities exist between the Grinch who stole Christmas and those seeking to ban municipal fracing, or hydraulic fracturing within municipal corporate limits.¹ Fracing, like Christmas, is a relatively short-lived endeavor, but one can imagine a cantankerous resident and his dog watching from their patio as the drilling process unfolds, constantly complaining of the “Noise! Noise! Noise!”² The “frac ban” supporters—like the Grinch, motivated by self-interest, a lack of understanding, and jealousy of the productive and happy Whos—seek to steal the economic benefits owed to the landowners simply because they are not getting any for themselves. But just as Christmas came for those Whos, production always has, and always will, come for the oil and gas industry in Texas. The difference? The Grinch voluntarily returned the gifts with few consequences, while these municipalities may pay a much steeper price.

Modern hydraulic fracturing, or “fracing,” along with horizontal drilling techniques, unequivocally revitalized the United States’ domestic energy

1. See generally DR. SEUSS, HOW THE GRINCH STOLE CHRISTMAS! (1957) (the story of a mean, green, scrappy creature who almost completely ruined the lives of everyone in a small town).

2. *Id.* at 6.

market over the last decade.³ The resurgence of domestic energy production lowered the country's reliance on foreign imports, reduced coal-related emissions, boosted local economies, and lowered the unemployment rate.⁴ In Texas, where production-scale, highly profitable fracing first occurred, oil and gas production dominates the statewide economy, comprising one-third of the gross state product.⁵

Despite the irrefutable economic benefits associated with fracing, almost instinctively, environmental groups brought up a host of both legitimate and arguably questionable concerns.⁶ The overall unpopularity of fossil fuels—owed to concerns about climate change—only exacerbates the anxiety.⁷ Outcries of groundwater contamination, earthquakes, and methane leaks remain prevalent.⁸ Lobbyists and concerned citizens alike appropriately sought full disclosure of the unknown chemicals involved in the fracing process.⁹ And while fears associated with most of the environmental catastrophes above have now been debunked, assuaged, or attributed solely to negligent practices by a few amoral operators, the damage to public opinion remains despite relentless efforts to set the record straight.¹⁰

Outside of environmental concerns, the greatest resistance to fracing comes from those concerned with its increasing encroachment into residential areas.¹¹ The average citizen's idea of oil drilling—conventional drilling in open fields—does not conform to the new reality of horizontal

3. RUSSELL GOLD, *THE BOOM: HOW FRACKING IGNITED THE AMERICAN ENERGY REVOLUTION AND CHANGED THE WORLD* 5 (2014).

4. Kevin Hassett & Apama Mathur, *Benefits of Hydraulic Fracking*, OXFORD ENERGY F., Feb. 2013, at 11, 12, available at <http://www.aei.org/article/economics/benefits-of-hydraulic-fracking/>.

5. William Keffer, Visiting Assoc. Professor, Tex. Tech Univ. Sch. of Law, Remarks at Oil and Gas I Lecture (Sep. 24, 2014); GOLD, *supra* note 3, at 120–23 (explaining the technique Nick Steinsberger used to help Mitchell Energy become the first economically viable shale frac operation).

6. Kirk D. Willis, *Frack You: A Cost-Benefit Analysis of the Fracking Controversy in Texas*, 38 T. MARSHALL L. REV. 321, 325 (2013).

7. See, e.g., GOLD, *supra* note 3, at 34 (pointing to how environmentalists argue for “a wholesale switch to fuels that don’t emit any carbon”).

8. Willis, *supra* note 6, at 321.

9. See GEORGE E. KING, APACHE CORP., *HYDRAULIC FRACTURING 101: WHAT EVERY REPRESENTATIVE, ENVIRONMENTALIST, REGULATOR, REPORTER, INVESTOR, UNIVERSITY RESEARCHER, NEIGHBOR AND ENGINEER SHOULD KNOW ABOUT ESTIMATING FRAC RISK AND IMPROVING FRAC PERFORMANCE IN UNCONVENTIONAL GAS AND OIL WELLS 1* (2012), available at http://www.kgs.ku.edu/PRS/Fracturing/Frac_Paper_SPE_152596.pdf (“The furor over fracturing and frac waste disposal was largely driven by lack of chemical disclosure and the pre-2008 laws of some states.”).

10. See *id.* (“[Some scholarly] articles have demonstrated either a severe misunderstanding or an intentional misstatement of well development processes”); Marin Katusa, *Don’t Frack Me Up: Correcting Misinformation on Hydraulic Fracturing*, FORBES (Jan. 24, 2012, 3:09 PM), <http://www.forbes.com/sites/energysource/2012/01/24/dont-frack-me-up-correcting-misinformation-on-hydraulic-fracturing/2/> (blaming fracing’s bad reputation on hyperbole and misinformation); *infra* notes 84–86 and accompanying text.

11. See GOLD, *supra* note 3, at 19 (“[In 2013, over] fifteen million Americans lived within a mile of a [fraced well].”).

drilling and fracing.¹² Producers historically relied on the high porosity of large underground reservoirs and the natural tendency of oil and gas to drain under pressure.¹³ The energy industry depleted most of these reservoirs long ago, requiring producers to look elsewhere for production, such as fracing shale formations.¹⁴ But the covetous tendency of shale formations constrains the recovery to areas actually fraced, which necessitates production closer to more residential areas as the outskirts reach their production capacity.¹⁵ The influx of industrial activity in turn produces noise and increases the burden on the infrastructure of municipalities.¹⁶ Most responsible producers take steps to unilaterally mitigate these concerns, but in truth, only so much can be done.¹⁷

As one would expect, the debate quickly became political.¹⁸ Opposition to fracing covers the entire spectrum—from highly organized national interest groups to local grassroots movements.¹⁹ Nationally, jurisdictions responded with everything from statewide moratoria to burdensome local regulatory measures.²⁰ Energy producers and trade associations constantly fight these regulations with varying degrees of success.²¹

Enter Denton, Texas. In November 2014, voters passed an outright ban on hydraulic fracturing within the city limits.²² Texas municipalities have historically enjoyed a long-standing relationship with the state government—which promoted co-regulation—but such a draconian measure has elicited an aggressive call-to-arms from energy lobbyists.²³ With the first lawsuit filed less than twenty-four hours after the Denton ban passed, this novel issue will

12. Timothy Riley, Note, *Wrangling with Urban Wildcatters: Defending Texas Municipal Oil and Gas Development Ordinances Against Regulatory Takings Challenges*, 32 VT. L. REV. 349, 349 (2007).

13. *Id.*

14. See Christopher S. Kulander, *Shale Oil and Gas State Regulatory Issues and Trends*, 63 CASE W. RES. L. REV. 1101, 1101–02 (2013).

15. GOLD, *supra* note 3, at 29.

16. Sorell E. Negro, *Fracking Wars: Federal, State and Local Conflicts Over the Regulation of Natural Gas Activities*, ZONING & PLAN. L. REP., Feb. 2012, at 1, 1–2, available at http://www.rc.com/documents_negro_frackingworks_2012.pdf; Riley, *supra* note 12, at 354.

17. See Bruce Finley, *Oil and Gas Industry Building Giant Walls to Try to Ease Impact*, DENVER POST, May 29, 2014, http://www.denverpost.com/news/ci_25859469/oil-and-gas-industry-building-giant-walls-try.

18. See Jarit C. Polley, Comment, *Uncertainty for the Energy Industry: A Fractured Look at Home Rule*, 34 ENERGY L.J. 261, 261 (2013) (reviewing ten states' local fracing regulations).

19. Jim Malewitz, *Dissecting Denton: How a Texas City Banned Fracking*, TEX. TRIB. (Dec. 15, 2014), <http://www.texastribune.org/2014/12/15/dissecting-denton-how-texas-city-baned-fracking/> [hereinafter Malewitz, *Dissecting Denton*].

20. Polley, *supra* note 18, at 26.

21. *Id.*

22. Jim Malewitz, *Denton Fracking Ban Could Spur Wider Legal Clash*, TEX. TRIBUNE (July 25, 2014), <http://www.texastribune.org/2014/07/25/denton-fracking-ban-could-spur-wider-legal-clash/> [hereinafter Malewitz, *Legal Clash*].

23. Negro, *supra* note 16, at 4; Riley, *supra* note 12, at 363–64.

soon make its way into Texas's energy-friendly courts.²⁴ And to the extent prior case law is a predictor, Denton will lose big.²⁵ Meanwhile, this industry, which relies on capital investment, will suffer from the costs of uncertainty, as well as litigation fees in the millions.²⁶ While not as far-reaching as New York's statewide ban, the Denton ban could set a bad precedent for other municipalities that choose to address their headaches with similarly impulsive and economically devastating ordinances.²⁷

While other states chose a reactive approach, the Texas Legislature is in a unique position to get ahead of the issue by acting now, saving both the municipalities and oil companies years of litigation and millions of dollars in trial expenses and lost capital.²⁸ Texas must not waiver from its commitment to efficiently and effectively develop the natural resources that drive its economy.²⁹ Due to the uncertain nature of oil and gas prices, the industry needs legislative action to create a reasonable degree of regulatory consistency so that producers do not face a patchwork quilt of onerous local ordinances across the state that increase transaction costs and chill investments.³⁰ More importantly, the legislature must formulate any response in a way that protects the co-regulatory approach that has been mostly successful up to this point.³¹ Municipal hydraulic fracturing certainly poses some problems, but Texas is an energy state that promotes the pursuit of reasonable solutions rather than running from the issues at the expense of economic progress.³²

24. James Osborne, *Oil and Gas Industry, Texas Land Office Sue Over Denton Fracking Ban*, DALL. MORNING NEWS (Nov. 5, 2014, 10:26 AM), <http://bizbeatblog.dallasnews.com/2014/11/industry-sues-over-denton-fracking-ban.html/>; Malewitz, *Legal Clash*, *supra* note 22.

25. See Malewitz, *Legal Clash*, *supra* note 22.

26. See, e.g., *City of Houston v. Trail Enters., Inc. (Trail II)*, 377 S.W.3d 873, 876 (Tex. App.—Houston [14th Dist.] 2012, pet. denied) (the suit took over fifteen years to litigate).

27. See Joseph de Avila, *Fracking in Nearby States Benefits New York*, WALL ST. J., Jan. 2, 2015, <http://www.wsj.com/articles/fracking-in-nearby-states-benefits-new-york-1420250017>; David Blackmon, *Study: Denton Fracking Ban Would Cost City Millions*, Energy InDepth (July 14, 2014, 12:12 PM), <http://energyindepth.org/texas/study-denton-fracking-ban-would-cost-city-millions/> (expecting a loss of over 2,700 jobs and \$354 million in revenue if the Denton measure is passed).

28. Compare Martin T. Booher, *Takings Clause Takes Center Stage in NY Fracking Dispute*, LAW360 (Jan. 10, 2014, 12:27 PM), www.law360.com/articles/495670/takings-clause-takes-center-stage-in-ny-fracking-dispute/ (discussing litigation in New York that has been ongoing since 2008), with *Natural Energy, LLC v. City of Morgantown*, No. 11-C-411, 2011 WL 3584376, at 7–9 (W. Va. Cir. Ct. Aug. 12, 2011) (disposing of a takings claim quickly and efficiently at the trial level due to the preemptive nature of the West Virginia statute in question).

29. See, e.g., TEX. NAT. RES. CODE ANN. § 92.001 (West 2011) (“[I]t is the intent of the legislature that the mineral resources of this state be fully and effectively exploited . . .”).

30. See Jonathan Tilove, *Gov.-Elect Abbott: End Local Bans on Bags, Fracking, Tree-Cutting*, STATESMAN (Jan. 8, 2015, 10:25 AM), http://www.statesman.com/news/news/state-regional/gov-elect-abbott-end-local-bans-on-bags-fracking-t/njJQg/#_federated=1.

31. See *infra* Part VII.C.1–2.

32. William Keffer, Visiting Assoc. Professor, Tex. Tech Univ. School of Law, Comments at the Texas Tech Energy Law Symposium, in Lubbock, Tex. (Jan. 16, 2015).

This Comment considers the possible challenges and outcomes of the Denton frac ban to illustrate the need for legislative action that affirms the state's commitment to energy exploration.³³ Part II includes a brief history of Texas oil production, the birth of fracking, and an explanation of the fracking process to give context to Part III's discussion of some reasons why fracking is so contentious.³⁴ Next, Part IV discusses the Denton referendum.³⁵ Part V commences the analysis with a discussion of various regulatory preemption doctrines, the limitations on the extent that home-rule cities can co-regulate, and the lack of relevant legal precedent in Texas.³⁶ Part VI addresses regulatory takings jurisprudence and the likely outcome of a Texas takings case.³⁷ Finally, Part VII examines the currently proposed legislative responses to the issue and discusses some additional possible approaches.³⁸

II. GHOST TOWNS AND NEW GROUND

The first Texas oil and gas boom provides context for Texas's incredibly romanticized notion of oil and gas.³⁹ Accordingly, the consequences of the first bust rationalize the energy industry's juggernaut implementation of fracking.⁴⁰ An overview of the fracking process illustrates why some find fracking appalling and why most should stop worrying.⁴¹ Finally, differences in regional media-coverage choices will explain the incredibly disparate attitudes towards fracking locally and nationally.⁴²

A. *The History and Importance of Black Gold in Texas*

The date was January 10, 1901, when Anthony F. Lucas watched Spindletop oil shoot 1,200 feet in the air and blanket the ground with oil for nine days.⁴³ The discovery completely changed the course of Texas history—within fifteen years, countless derricks captured oil from every corner of the state.⁴⁴ Texas's oil fever served as the impetus for the energy-friendly legal framework that remains largely intact today.⁴⁵ This era applied

33. See *supra* text accompanying notes 1–27.

34. See discussion *infra* Parts II–III.

35. See discussion *infra* Part IV.

36. See discussion *infra* Part V.

37. See discussion *infra* Part VI.

38. See discussion *infra* Part VII.

39. See discussion *infra* Part II.A.

40. See discussion *infra* Part II.A.

41. See discussion *infra* Parts II.B, III.A–B.

42. See discussion *infra* Part III.C.

43. Roger M. Olien, *Oil and Gas Industry*, TEX. ST. HIST. ASS'N (June 15, 2010), <http://www.tshaonline.org/handbook/online/articles/doogz>. Spindletop is arguably the most famous oil well in Texas history and is what sparked the first oil boom in 1901. *Id.*

44. *Id.*

45. GOLD, *supra* note 3, at 23.

the rule of capture to subsurface reservoirs, which is still the foundation for almost all Texas oil and gas law.⁴⁶ More importantly, the infamous *Grimes* decision unambiguously subjugated the surface owner's rights with respect to the mineral owner's attempts to develop the subsurface.⁴⁷ The dominance of the mineral estate—and by extension, the mineral industry—became absolute.⁴⁸

The economic gusher that followed the Spindletop discovery, and others like it, is equally impressive.⁴⁹ By the late 1920s, Texas producers were bringing in 100 million barrels of oil annually.⁵⁰ As time progressed, Texas also benefitted from secondary and tertiary economic stimulation resulting from the colossal influx of cash, which built goodwill for the industry and further solidified the public's fond acceptance of oil's seemingly permanent role as the driving force of the Texas economy.⁵¹ The severance taxes imposed on oil and gas production funded public education, mainly through the university endowment program that helped support higher education upon the discovery of oil beneath public lands.⁵² Additionally, an entire generation of newly rich and equally altruistic "wildcatters"—with the exception of Jerry Jones—made great contributions to the collective Texan culture.⁵³

For the first eighty years of the twentieth century, the industry had its fair share of ups and downs, but by the 1980s it seemed like the end was near for big oil in Texas.⁵⁴ Production slowed and the bottom fell out of the oil market; industry layoffs ran rampant, and oil's proportion of state revenue fell to a fraction of what it had been just a decade earlier.⁵⁵ As the final productive wells were tapering off, and the big oil companies had all but abandoned Texas, a man named George Mitchell—desperate to produce his contractually obligated amount of natural gas—authorized one of his

46. See *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1, 13 (Tex. 2008) ("The rule of capture is a cornerstone of the oil and gas industry and is fundamental both to property rights and to state regulation.").

47. See *Grimes v. Goodman Drilling Co.*, 216 S.W. 202, 203 (Tex. Civ. App.—Fort Worth 1919, writ dismissed w.o.j.) (denying relief to Grimes, surface owner, when the defendant, oil company, set up derrick, machinery, and a slush-pit within feet of Grimes's house).

48. GOLD, *supra* note 3, at 23 (stating that the court decided *Grimes* the way it did "because the hydrocarbons were so valuable. . . . [I]t was a policy decision" (quoting Judge Barney Fudge, 78th Dist. Ct., Wichita County, Tex.)).

49. Olien, *supra* note 43.

50. *Id.*

51. Mary G. Ramos, *Oil and Texas: A Cultural History*, TEX. ALMANAC, <http://www.texasalmanac.com/topics/business/oil-and-texas-cultural-history> (last visited Apr. 11, 2015).

52. *Id.*

53. *Id.* Regardless of the Cowboys' successes in the 2014 season, they would still be better off without Jerry Jones. See Mike Fisher, *The Top 10 Mistakes on Jerry Jones' Cowboys Legal Pad*, CBSDFW (Oct. 17, 2013, 3:59 PM), <http://dfw.cbslocal.com/2013/10/17/the-top-10-mistakes-on-jerry-jones-cowboys-legal-pad/>.

54. Olien, *supra* note 43.

55. *Id.* ("The proportion of state government revenue from the petroleum industry declined to 7 percent in 1993, one-quarter of its level ten years earlier.").

engineers to fracture a few wells in the Barnett shale with water—a novel idea at the time.⁵⁶ In early 1998, Mitchell Energy employees watched one of those wells ooze water dismally out of the ground for five days before producing more gas than any of the company's previous wells to date.⁵⁷ In many ways, that scene epitomizes the arc of modern hydraulic fracturing.⁵⁸ No one could have guessed that a process that took so long to perfect would create such an explosion of productivity and controversy.⁵⁹

B. A New Pusherman Is in Town: Overview of the Fracing Process

Fracing is in no way, shape, or form a novel idea.⁶⁰ Fracing first showed its viability in advanced recovery operations as many as fifty years ago.⁶¹ The fracing procedure at issue, the one responsible for the revitalization of domestic energy production, occurs in dense shale formations and produces hydrocarbons previously thought to be unrecoverable.⁶² For decades, geologists and engineers knew these formations held viable hydrocarbons, but the question of how to economically coax the product out of the cement-like rock eluded even the brightest engineers.⁶³ In 1998, the right combination of stubbornness and desperation allowed the team at Mitchell Energy to develop a viable process.⁶⁴

The basic fracing process has not changed much in the two decades since Nick Steinberger, a Mitchell engineer, hit on his successful recipe.⁶⁵ An operator, typically over a period of a few weeks to a month, drills to a vertical depth of approximately 5,000 to 10,000 feet, then drills horizontally for up to 8,000 feet, depending on geological considerations.⁶⁶ The operator then encases the hole, or wellbore, in several layers of steel and concrete to ensure its integrity and to protect surrounding freshwater sources from

56. GOLD, *supra* note 3, at 120–23 (explaining the technique Nick Steinsberger used to help Mitchell Energy implement the first economically viable frac operation).

57. *Id.*

58. *See infra* text accompanying notes 66–74.

59. *See* discussion *supra* note 56; *infra* text accompanying notes 66–74.

60. *See generally* People's Gas Co. v. Tyner, 31 N.E. 59 (Ind. 1892) (describing fracing operations from over a century ago). In 1892, people poured nitroglycerin into non-productive wells to cause fractures and break up the rocks. *Id.* at 59.

61. Brian Hicks, *A Brief History of Fracking*, ENERGY & CAPITAL (Jan. 10, 2013), <http://www.energyandcapital.com/articles/a-brief-history-of-fracking/2972> (“By 1988, hydraulic fracturing had been successfully applied nearly one million times.”).

62. GOLD, *supra* note 3, at 129.

63. *Id.* at 63–85. Attempts include dynamite, gunpowder, napalm-thickened gasoline, and yes, even nuclear explosions. *See id.*

64. *Id.* at 115–22.

65. *Id.* at 29, 115, 117.

66. U.S. DEP'T OF ENERGY, ENERGY INFO. ADMIN., DRILLING SIDEWAYS – A REVIEW OF HORIZONTAL WELL TECHNOLOGY AND ITS DOMESTIC APPLICATION 9–10 (1993), available at http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/drilling_sideways_well_technology/pdf/tr0565.pdf; KING, *supra* note 9, at 6–10.

contamination while the entire system undergoes the extreme pressures of the frac.⁶⁷ Then, the operator in charge of the fracture forces a mixture of over one million gallons of water, massive amounts of sand, and a pinch of chemicals down the wellbore at tremendous pressures using several large pump trucks.⁶⁸ The pressure creates fractures in the dense shale and the sand "props" the cracks open so they do not close under the weight of the earth above.⁶⁹ In the next few days, extreme pressure pushes the water not trapped in the pores of the subsurface rocks back to the surface through the wellbore.⁷⁰ Oil, gas, or both, trapped in the previously impenetrable shale, escape into the newly created channels and push up to the surface.⁷¹ The increased surface area caused by the fractures makes it possible to economically recover the shale gas.⁷² Per cubic foot, shale releases negligible amounts of hydrocarbons, but these small releases aggregated over the thousands of square feet of new recovery area created by the fractures eventually justify the drilling costs.⁷³ Non-fraced shale wells simply are not profitable.⁷⁴

The economic benefits this new technology provides are unquestionable.⁷⁵ Between 2003 and 2012, employment in the energy sector rose by sixty-seven percent.⁷⁶ In 2011, the United States produced an estimated \$36 billion worth of shale gas.⁷⁷ In 2012, Texas oil and gas producers paid over \$3.6 billion in severance taxes, including the entire input into the Texas Rainy Day Fund—Texas's discretionary-spending fund used to cover shortfalls and prevent tax increases.⁷⁸ Most importantly, the recent boom helped insulate Texas's economy from the worst of the 2008 economic fallout.⁷⁹ Still, the question remains: if fracing is so good, then why is it constantly receiving negative media coverage?⁸⁰

67. KING, *supra* note 9, at 21–24.

68. *Id.* at 6.

69. GOLD, *supra* note 3, at 29.

70. KING, *supra* note 9, at 10.

71. GOLD, *supra* note 3, at 29.

72. *See* KING, *supra* note 9, at 28.

73. *See id.* at 3–4.

74. Mason Inman, *It's Frack, Baby, Frack, as Conventional Gas Drilling Declines*, SCI. AM. (June 23, 2014), <http://www.scientificamerican.com/article/it-s-frack-baby-frack-as-conventional-gas-drilling-declines-infographic/>.

75. *See* Perryman Grp., *Bounty from Below: The Impact of Developing Natural Gas Resources Associated with the Barnett Shale on Business Activity in Fort Worth and the Surrounding 14-County Area*, 66–72 (May 2007), http://star-telegram.typepad.com/barnett_shale/files/Barnett_Shale_Impact_Study.pdf.

76. Hassett & Mathur, *supra* note 4, at 12.

77. *Id.*

78. *Economic Impact*, TXOGA, <https://www.txoga.org/resources/economic-impact/> (last visited Apr. 11, 2015).

79. *See* Jim Landers, *Study: Widespread Economic Gains Seen from Oil and Gas Boom*, DALL. MORNING NEWS, Sept. 4, 2013, <http://www.dallasnews.com/business/energy/20130904-widespread-economic-gains-seen-from-oil-and-gas-boom.ece>.

80. *See infra* notes 84–86 and accompanying text.

III. DOWN-HOLE BACK PRESSURE: ISSUES ASSOCIATED WITH FRACING

The two most common forms of out-of-hole resistance to fracing are environmental and nuisance concerns.⁸¹ The initial lack of understanding of the fracing process and general disfavor of fossil fuels by environmental groups each contribute to the pushback.⁸² The nuisance concerns arise from a number of issues ranging from inconvenient well locations to production logistics.⁸³ Furthermore, evidence shows that the manner in which different media outlets cover the issues associated with fracing affects fracing's public acceptance.⁸⁴ More specifically, focusing on the industry-versus-environmentalist debate, rather than the facts, can polarize public opinion regarding fracing.⁸⁵ When the focus is on the debate, information from interest groups, lobbyists, environmental groups, and disgruntled homeowners can skew the viewer's perception of the facts.⁸⁶

A. *Still Better than Coal: Environmental Concerns*

Several environmental concerns have developed during modern fracing's short life. Some are legitimate concerns based on facts; others owe their existence to misinformation or political agendas.⁸⁷ One thing remains certain: in a traditional cost-benefit analysis, the aggregate benefits of fracing significantly outweigh the known costs.⁸⁸

Until very recently, scientists did not have reliable fracing data; therefore, a few concerned citizens held apprehensions about pumping millions of gallons of injection fluid straight into the ground without first understanding what constructed the fluid or where it went.⁸⁹ This compounded when allegations of groundwater contamination started

81. See discussion *infra* Part III.A–B.

82. See discussion *infra* Part III.A.

83. See discussion *infra* Part III.B.

84. Cara R. Lawson, *Fracking Frames: A Framing Analysis and Comparative Study of Hydraulic Fracturing Coverage in American Newspapers* 27 (2014) (unpublished M.S. thesis, The Ohio State University) (on file with author), available at https://etd.ohiolink.edu/!etd.send_file?accession=osu1397153132&disposition=inline; see Dietram A. Scheufele, *Framing as a Theory of Media Effects*, 49 J. COMM. 103, 103–04 (1999). Once an issue becomes controversial, it tends to push the frames towards covering the debate itself, rather than the science behind it. Lawson, *supra*, at 19, 28.

85. E.g., Peggy Heinkel-Wolfe, *Fracking Debate Draws Cash*, DENTON REC.-CHRON. (Oct. 7, 2014, 11:47 PM), <http://www.dentonrc.com/local-news/local-news-headlines/20141007-fracking-debate-draws-cash.ece>. The media uses frames, which are familiar narratives or approaches, to help convey complex information in a more efficient and predictable way. Scheufele, *supra* note 84, at 105–06. The South generally views fracking in a favorable way, framing most stories around economic benefits. Lawson, *supra* note 84, at 59 (finding economic benefits to be the primary frame in 15.4% of articles).

86. Lawson, *supra* note 84, at 19; see, e.g., Malewitz, *Legal Clash*, *supra* note 22.

87. See KING, *supra* note 9, at 1–2.

88. See Hassett & Mathur, *supra* note 4, at 13.

89. See, e.g., KING, *supra* note 9, at 4 (discussing legitimate, fact-based concerns early opponents had with groundwater contamination and other issues).

appearing.⁹⁰ The most notable example occurred in the film, *Gasland*, when a resident in a Colorado town lit tap water—ostensibly straight from the faucet—on fire; however, as with most apparently outrageous claims, there is now significant evidence rebutting or providing alternative reasons for that phenomenon.⁹¹

Furthermore, scientists now agree that the real danger of groundwater contamination results from poor or negligent well construction, not from the fractures themselves, which would have to travel thousands of feet through several layers of impenetrable rock to reach fresh groundwater.⁹² Most states, including Texas, took the initiative to prescribe well casing requirements to substantially reduce the risk of pollution from faulty wells.⁹³ Companies were initially reticent to release the composition of their proprietary injection recipes because a successful recipe gives a producer an advantage over other producers; but many states now require public disclosure of the exact chemical composure of the injected substance in newly fractured wells through websites such as FracFocus.com.⁹⁴

Opponents of fracing cite air pollution as another justification for limiting or ending hydraulic fracturing.⁹⁵ They claim the increased heavy-truck traffic necessary for the fracturing operations and the multiple diesel or natural gas powered compressors increase greenhouse gas emissions to the point that they outweigh the environmental benefits of using the natural gas.⁹⁶ Despite the traffic increases, electricity from natural gas produces substantially less greenhouse emissions than electricity derived from coal-fired plants—the only feasible alternative to natural gas electricity.⁹⁷ Natural gas electricity plants are also far cheaper to build, less expensive to run, and easier to shut down than their coal-fired counterparts, which allows renewables to power the grid when available.⁹⁸

90. Katusa, *supra* note 10.

91. Daniel Brock, *An Ethical Look at Hydraulic Fracturing*, S.M.U. DIGITAL REPOSITORY 19–20 (2014), http://digitalrepository.smu.edu/cgi/viewcontent.cgi?article=1060&context=upjournal_research (“[F]laming faucets are not a new concept and may appear from . . . naturally occurring methane[] in specific geographic regions.”). *Gasland* is a 2010 HBO documentary covering the negative consequences of fracing; however, the accuracy of some assertions in the film have come into question. See *Gasland Debunked*, ENERGY INDEPTH, <http://energyindepth.org/wp-content/uploads/2011/11/Debunking-Gasland.pdf> (last visited Apr. 11, 2015).

92. Katusa, *supra* note 10.

93. *E.g.*, 16 TEX. ADMIN. CODE ANN. § 3.13 (2015) (providing for “Casing, Cementing, Drilling, Well Control, and Completion Requirements”).

94. Kulander, *supra* note 14, at 1107–08 (“As of April 2012, 130 companies had logged chemicals used in more than 15,000 wells.”).

95. See, e.g., Terry W. Roberson, *Environmental Concerns of Hydraulically Fracturing a Natural Gas Well*, 32 UTAH ENVTL. L. REV. 67, 128 (2012).

96. See, e.g., *id.* at 128–29.

97. *Id.* at 130–31.

98. GOLD, *supra* note 3, at 266.

Another increasingly common concern is whether subsurface fractures concomitant with fracing can cause earthquakes.⁹⁹ To date, long-term seismic data shows no link between earthquakes and hydraulic fracturing.¹⁰⁰ A correlation between earthquakes and wastewater disposal does exist, but other alternatives exist to deal with the frac byproducts, and Texas now regulates disposal wells.¹⁰¹ While these underlying environmental concerns frequently draw nationwide attention from interest groups, it is the increase in industrial activity that has some landowners up in arms.¹⁰²

B. *Keep On Truckin': The Nuisance Issue*

Ideally, mineral owners willingly accept the inconvenience associated with intermittent oil and gas activity because they derive royalty benefits from the operations.¹⁰³ Residents adjacent to drilling operations who do not own the minerals often complain of issues directly associated with the increase in noise and industrial activity incidental to the fracing process.¹⁰⁴ Temporary 120-foot drilling rigs, subsequently removed after drilling, nevertheless create a great deal of noise and light pollution.¹⁰⁵ After drilling ceases, the actual fracing process requires a steady stream of trucks full of water that operators then mix on site and use to frac the shale.¹⁰⁶ The trucks increase traffic, dust, and wear and tear on infrastructure not designed for this level of activity.¹⁰⁷ Then, during the one- to three-day fracturing process, portable pumps hum as they build up the requisite pressure to frac the shale.¹⁰⁸ Finally, after completion, large compressors deliver the gas through pipelines to the final destination.¹⁰⁹ Each phase of the fracing process can

99. Katusa, *supra* note 10.

100. KING, *supra* note 9, at 45 (finding no apparent causal relationship between earthquakes and fracturing).

101. *Id.* The Texas Railroad Commission recently altered disposal well rules in apparent response to several earthquakes in the Dallas–Fort Worth area as well as mounting concerns that these disposal practices can trigger earthquakes. See Associated Press, *Texas Amends Waste Disposal Rules for Fracking*, CBSDFW (Oct. 28, 2014, 3:10 PM), <http://dfw.cbslocal.com/2014/10/28/texas-amends-waste-disposal-rules-for-fracking/>.

102. See discussion *infra* Part III.B.

103. See JOSEPH SHADE, PRIMER ON THE TEXAS LAW OF OIL AND GAS 18–23 (5th ed. 2013).

104. Billie Ann Maxwell, Note, *Texas Tug of War: A Survey of Urban Drilling and the Issues an Operator Will Face*, 4 TEX. J. OIL GAS & ENERGY L. 337, 344 (2008–2009).

105. Riley, *supra* note 12, at 353–54.

106. See Willis, *supra* note 6, at 339.

107. *Id.*; Ana Campoy, *Drilling Strains Rural Roads: Counties Struggle to Repair Damage from Heavy Trucks in Texas Energy Boom*, WALL ST. J., July 26, 2012, <http://www.wsj.com/articles/SB10000872396390444840104577551223860569402>.

108. Riley, *supra* note 12, at 353. It generally takes two to three days for operators to complete the fracing process. Sharon Dunn, *Fracking 101: Breaking Down the Most Important Part of Today's Oil, Gas Drilling*, GREELEY TRIB. (Jan. 5, 2014), <http://www.greeleytribune.com/news/9558384-113/drilling-oil-equipment-wellbore>.

109. See Maxwell, *supra* note 104, at 345–46.

annoy adjacent residents, but reasonable local ordinances or actions by producers could mitigate many of these issues.¹¹⁰

Recently, energy companies have increasingly sought solutions to these problems before major issues arise.¹¹¹ State-of-the-art drilling rigs and sound reduction techniques reduce noise pollution in each step of the completion process.¹¹² The development of advanced frac-water recycling techniques allows operators to reuse frac fluid.¹¹³ These recycling methods reduce the amount of trucks necessary and ease the burden on the state's freshwater supply.¹¹⁴ Additionally, energy companies increasingly negotiate agreements with localities to pay damages resulting from increased heavy-truck traffic, minimizing the local tax burden.¹¹⁵ The remedies above supplement a multitude of state-level regulations and some municipal ordinances that seek to protect citizens from the few bad operators.¹¹⁶

Given the immeasurable forces opposed to fracing, these local bans seem to be preordained.¹¹⁷ But in truth, the Denton ban is a grassroots response to bad operators and poor drafting in previous city ordinances.¹¹⁸

IV. THE DENTON DEBACLE

Attempts to address fracing issues take many forms, ranging from local zoning ordinances that seek to limit or ban fracing in certain areas, like in Denton, to broad and clear-cut statewide bans, like in New York.¹¹⁹ Hydraulic fracturing regulations vary greatly in complexity and diversity.¹²⁰

110. See *infra* text accompanying notes 111–16.

111. Perryman Grp., *supra* note 75, at 66–72.

112. *Id.* at 71.

113. *Id.* at 69 (noting that producers hope to reuse eighty percent of the returned frac fluid). For a discussion on freshwater usage in the Barnett Shale area, see R. Marcus Cady, II, Comment, *Drilling into the Issues: A Critical Analysis of Urban Drilling's Legal, Environmental, and Regulatory Implications*, 16 TEX. WESLEYAN L. REV. 127, 138–40 (2009).

114. See sources cited *supra* note 113.

115. Perryman Grp., *supra* note 75, at 70.

116. Maxwell, *supra* note 104, at 347–50, 357–58; see also Perryman Grp., *supra* note 75, at 70–72 (discussing municipal actions to address the road deterioration, noise levels, and safety concerns associated with fracing operations).

117. See *supra* Part III.

118. See discussion *infra* Part IV.

119. See Mose Buchele, *Denton Voted to Ban Fracking. So Now What?*, STATEIMPACT (Nov. 6, 2014, 12:23 PM), <http://stateimpact.npr.org/texas/2014/11/06/denton-voted-to-ban-fracking-so-now-what/>; Erica Orden & Lynn Cook, *New York Moves to Ban Fracking*, WALL ST. J., Dec. 18, 2014, <http://www.wsj.com/articles/new-york-gov-andrew-cuomos-administration-moves-to-ban-fracking-1418839033>.

120. See generally Shaun A. Goho, *Municipalities and Hydraulic Fracturing: Trends in State Preemption*, PLAN. & ENVTL. L., July 2012, at 3, 4–5 (reviewing various approaches to the regulation of hydraulic fracturing).

Furthermore, the current prolific nature of these bans and regulations makes any effort to create an accurate and up-to-date survey impossible.¹²¹

Denton's efforts to limit hydraulic fracturing have a long and colorful history starting in 2001, when they passed some of the state's first regulations affecting hydraulic fracturing.¹²² Over the next decade, a constant fight ensued between residents, the city council, and energy companies, coming to a head in early 2014.¹²³ In fact, Frack Free Denton—the group most responsible for organizing and promoting the successful ballot measure—formed after Cathy McMullen, a Denton resident who sold her original home in Wise County because of a bad experience with hydraulic fracturing, felt that the Denton City Council did not do enough to prevent an oil company from drilling a well near her home in 2009.¹²⁴

According to proponents of the ban, previous attempts at local regulation failed because of substantial grandfather provisions and exceptions to the zoning requirements.¹²⁵ This result led some Denton residents to the conclusion that an all-out frac ban was the only viable option.¹²⁶ As a result, on November 4th, 2014, after a drawn-out and widely publicized campaign, Denton passed Texas's first outright ban on hydraulic fracturing by a margin of almost twenty percent of voters.¹²⁷ Within twelve hours, the Texas Oil and Gas Association (TxOGA), Texas's largest statewide petroleum trade association, and the Texas General Land Office (GLO), primarily responsible for managing Texas's extensive mineral interests, sought a temporary injunction and filed suit against the City of Denton.¹²⁸ In this suit, they alleged that several state statutes preempt Denton's ordinance, and therefore, the ordinance clearly violates the Texas Constitution.¹²⁹ Furthermore, mineral owners threaten takings claims against

121. See *id.* at 8. For a comprehensive and up-to-date list of frac bans around the world, see *List of Bans Worldwide*, KEEP TAP WATER SAFE, <http://keeptapwatersafe.org/global-bans-on-fracking/> (last updated Apr. 10, 2015).

122. See *Denton Fracking Facts*, FRACK FREE DENTON, <http://frackfreedenton.com/fracking-facts/> (last visited Apr. 19, 2015).

123. See Jim Malewitz, *The Texas Energy Revolt*, POLITICO MAG. (Dec. 15, 2014), http://www.politico.com/magazine/story/2014/12/texas-fracking-ban-113575_Page2.html#.VLBe08YbDVo [hereinafter Malewitz, *Energy Revolt*].

124. See *id.*; *Citizens of Denton, Texas Call for Fracking Ban*, FRACK FREE DENTON (Feb. 18, 2014), <http://frackfreedenton.com/2014/02/citizens-of-denton-texas-call-for-fracking-ban/>.

125. See Candice Bernd, *Railroaded by the Railroad Commission in Denton*, TEX. OBSERVER (Dec. 9, 2014, 8:15 AM), <http://www.texasobserver.org/railroad-commission-denton-fracking-ban/>.

126. Marissa Barnett, *Denton Voters to Consider State's First Ban on Fracking*, DALL. MORNING NEWS, Sept. 23, 2014, <http://www.dallasnews.com/news/metro/20140923-denton-voters-will-consider-ban-on-fracking-a-first-in-texas.ece>.

127. Buchele, *supra* note 119.

128. *Id.*

129. See Original Petition at 1, 5–8, *Tex. Oil & Gas Ass'n v. City of Denton*, No. 14-08933-431 (431st Dist. Ct., Denton County, Tex. Nov. 5, 2014) [hereinafter *TxOGA Complaint*]; Plaintiff's Original Petition and Application for Permanent Injunction at 4–5, *Patterson v. City of Denton*, No. D-1-GN-14-004628 (53d Dist. Ct., Travis County, Tex. Nov. 5, 2014).

the City of Denton if the ban is upheld.¹³⁰ All the while, some lawmakers seek to solve the problem from Austin.¹³¹

V. ENERGY EXPLORATION VS. LOCAL REGULATORY FREEDOM: REGULATORY PREEMPTION

Given Texas's political climate, the idea of needing more laws seems blasphemous, but that is the battle cry of energy lobbyists and several prominent, right-wing state officials in response to the Denton frac ban.¹³² The ban forces a showdown between Texas's longstanding approval of local regulatory freedom and its fundamental desire to efficiently and fully develop hydrocarbons.¹³³

Most local regulations regarding hydraulic fracturing use the municipal zoning authority to rein in oil and gas producers by creating regulatory hurdles.¹³⁴ The motivation behind slowing down operators in crowded municipal areas usually comes from the desire to implement reasonable safeguards that protect the public and the environment.¹³⁵ But Denton has a different motive: stop all hydraulic fracturing.¹³⁶ Soon, a Texas court will determine whether state law preempts a municipality's right to use its police power to impose an outright ban on hydraulic fracturing.¹³⁷ Texas courts have yet to deal with an outright ban, but analogous situations in other jurisdictions provide insight as to how Texas courts might approach the issue and how the legislature might tailor the appropriate response.¹³⁸

A. *The State Giveth, and the State Taketh Away: Home-Rule Authority*

State law dictates a municipality's power to promulgate and enforce laws within its city limits.¹³⁹ Initially, municipalities' powers were limited

130. Buchele, *supra* note 119.

131. See Nicholas Sakelaris, *Proposed Legislation Could Make it Hard and Expensive to Ban Fracking, Limit Drilling in Texas*, DALL. BUS. J. (Dec. 18, 2014, 7:37 PM), <http://www.bizjournals.com/dallas/news/2014/12/18/proposed-legislation-could-make-it-hard-and.html>.

132. See Candice Bernd, *Since the City of Denton Banned Fracking, Texas GOP Moves to Preempt Local Control*, TRUTHOUT (Mar. 8, 2015, 12:00 AM), <http://www.truth-out.org/news/item/29485-since-the-city-of-denton-banned-fracking-texas-gop-moves-to-pre-empt-local-control>; Tilove, *supra* note 30.

133. See Tilove, *supra* note 30.

134. See Ryan Hackney, *Don't Mess with Houston, Texas: The Clean Air Act and State/Local Preemption*, 88 TEX. L. REV. 639, 658 (2010) ("Texas law grants home-rule cities a great deal of discretion in managing their affairs . . ."); Goho, *supra* note 120, at 4–5.

135. Goho, *supra* note 120, at 4.

136. See Buchele, *supra* note 119.

137. See *id.*

138. See, e.g., *Ne. Natural Energy, LLC v. City of Morgantown*, No. 11-C-411, 2011 WL 3584376, at 9–10 (W. Va. Cir. Ct. Aug. 12, 2011).

139. See Goho, *supra* note 120, at 5.

to those specifically conferred through enabling legislation.¹⁴⁰ As localities expanded in size and complexity over the last 150 years, most states, including Texas, elected to grant home-rule authority to municipalities.¹⁴¹ Municipal home rule inverses the power relationship between state and locale.¹⁴² Instead of waiting for specific grants of power, cities may exercise their police power to the extent that state legislatures do not expressly, or impliedly, manifest intent to restrict municipal authority.¹⁴³ The Texas Constitution confers home-rule authority to cities with populations larger than 5,000 residents and provides that a city may not pass an ordinance that is inconsistent with other state laws or the Texas Constitution.¹⁴⁴ Absent state provisions to the contrary, a city's police power extends to any law reasonably calculated to promote the health, safety, or general welfare of the population.¹⁴⁵

With regards to oil and gas regulation, Texas has a long and successful history of co-regulation between the state government and municipalities, so long as the ordinance is not unreasonable.¹⁴⁶ Regardless of the outcome of a preemption suit, any legislative response to the Denton frac ban must be conservative and prudently calculated.¹⁴⁷ In a state as large as Texas, there must be some flexibility for small to medium-sized localities seeking individualized solutions to protect the safety and welfare of their citizens.¹⁴⁸ It is doubtful, however, that this flexibility reaches Denton's wish to push out the industry that built Texas.¹⁴⁹

140. See Bruce M. Kramer, *The State of State and Local Governmental Relations as it Impacts the Regulation of Oil and Gas Operations: Has the Shale Revolution Really Changed the Rules of the Game?*, 29 J. LAND USE & ENVTL. L. 69, 70 (2013).

141. See *id.*

142. See Robert H. Freilich & Neil M. Popowitz, *Oil and Gas Fracking: State and Federal Regulation Does Not Preempt Needed Local Government Regulation*, 44 URB. LAW. 533, 545 (2012).

143. Goho, *supra* note 120, at 5.

144. TEX. CONST. art. XI, § 5.

145. See, e.g., *Humble Oil & Ref. Co. v. City of Georgetown*, 428 S.W.2d 405, 407–10, 412–13 (Tex. Civ. App.—Austin 1968, no writ).

146. See, e.g., *Tex. Midstream Gas Servs., L.L.C. v. City of Grand Prairie*, No. 3:08–CV–1724–D, 2008 WL 5000038, at *1, *6, *11–13, *17 (N.D. Tex. Nov. 25, 2008) (mem. op.) (preempting one provision but keeping the rest in a very comprehensive municipal ordinance), *aff'd*, 608 F.3d 200 (5th Cir. 2010); *Tysco Oil Co. v. R.R. Comm'n*, 12 F. Supp. 195, 200–01 (S.D. Tex. 1935); *Shelby Operating Co. v. City of Waskom*, 964 S.W.2d 75, 83 (Tex. App.—Texarkana 1997, pet. denied); *Unger v. State*, 629 S.W.2d 811, 812 (Tex. App.—Fort Worth 1982, writ ref'd); *Klepak v. Humble Oil & Ref. Co.*, 177 S.W.2d 215 (Tex. Civ. App.—Galveston 1944, writ ref'd w.o.m.).

147. See *infra* Part VII.C.

148. See *Klepak*, 177 S.W.2d at 218.

149. See Jim Malewitz, *First Lawsuits Filed Over Denton's New Fracking Ban*, TEX. TRIB., Nov. 5, 2014, <http://www.texastribune.org/2014/11/05/denton-fracking-ban-sees-first-lawsuit/> [hereinafter Malewitz, *First Lawsuits*]; *supra* Part II.A.

B. The Good, the Bad, and the Ugly: Categories of Preemption

When a city with home-rule authority passes an ordinance that seems inconsistent with a state statute, the preemption analysis falls into one of three general categories: express preemption, field preemption, or conflict preemption.¹⁵⁰ The appropriate preemption doctrine depends entirely on the language of the statute.¹⁵¹ States vary greatly in their approach to preemption, but there are some generally applicable rules when analyzing the statutes.¹⁵² Sweeping, strong, and exclusionary statutory language tends to make preemption of the conflicting ordinance more likely.¹⁵³ Specific language, or silence on the issue, lends itself to upholding the ordinance.¹⁵⁴ Despite these general rules, courts increasingly take a case-by-case approach and weigh other factors, blurring the distinctions between the categories.¹⁵⁵

In states with extensive energy reserves, an administrative body usually retains most of the authority to regulate statewide hydrocarbon exploration.¹⁵⁶ The amount of power the state confers to these authorities can vary greatly.¹⁵⁷ In Texas, the Railroad Commission (RRC) retains authority to regulate oil and gas exploration, protect correlative rights, and prevent waste.¹⁵⁸ Although the RRC is the chief regulatory authority, courts recognize that municipalities do share extensive co-regulatory powers, especially when dealing with surface use issues.¹⁵⁹ The Denton preemption challenges place Texas courts in uncharted territory.¹⁶⁰ Strategic comparisons to other jurisdictions illustrate the main preemption approaches and provide some insight into the arguments a Texas court might find persuasive.¹⁶¹ Furthermore, legislators are already submitting bills to strengthen Texas's preemptive power over the oil and gas industry; the following examples illustrate some of the pros and cons of each approach.¹⁶²

1. The Fast Train to Preemption Town: Express Preemption

Express preemption of oil and gas regulation occurs when a legislature passes express statutory language proscribing all local regulatory

150. Goho, *supra* note 120, at 5.

151. *See id.*

152. *See id.* at 5–8.

153. *See id.*

154. *See id.*

155. *See Kramer, supra* note 140, at 84–86, 88–91.

156. *See Goho, supra* note 120, at 2–7.

157. *See id.* at 3–5.

158. Maxwell, *supra* note 104, at 347–48.

159. *Unger v. State*, 629 S.W.2d 811, 812 (Tex. App.—Fort Worth 1982, writ ref'd); *see Maxwell, supra* note 104, at 348.

160. Malewitz, *Dissecting Denton, supra* note 19.

161. *See infra* Part V.B.1–3.

162. Sakelaris, *supra* note 131; *see infra* Part V.B.1–3.

authority.¹⁶³ States following express preemption usually name a state agency—such as the RRC—the sole arbiter of all oil and gas activities.¹⁶⁴ For example, in 2012, Pennsylvania Act 13 repealed certain provisions of the previous Pennsylvania Oil and Gas Act and replaced them with language invalidating any local ordinance purporting to regulate oil and gas activity.¹⁶⁵ Act 13 effectively deprived the municipalities of all power to regulate any aspect of oil and gas activity.¹⁶⁶

Texas's conservation statutes do not hold a candle to the preemptive power of Act 13.¹⁶⁷ Texas statutes merely grant specific powers to the RRC and the Texas Commission on Environmental Quality (TCEQ), and remain silent on the relative powers of municipalities, making a true express preemption argument unavailable in opposition to the Denton ban.¹⁶⁸

While an express preemption statute would certainly clear up the issue regarding the extent of municipal authority, it seems unlikely that Texas will ever go to the lengths Pennsylvania did in 2013.¹⁶⁹ In addition to Texas's well-founded and longstanding approval of co-regulation, the emphasis on fiscal conservatism makes it unlikely the RRC will ever have total authority.¹⁷⁰ More responsibilities for the RRC requires more funding—not a popular view among the conservatives in power in Texas.¹⁷¹

2. *Not in My House: Field Preemption*

Field preemption occurs when a court decides that by a statute, or series of statutes, the legislature intends to control every aspect of the subject matter in question.¹⁷² Field preemption does not mean a locale cannot still effectuate some local regulation; it simply lacks carte blanche to fill gaps in regulation pursuant to its home-rule authority.¹⁷³

Recently, the City of Morgantown, West Virginia, imposed an outright ban on hydraulic fracturing that was promptly met with challenge from the

163. *E.g.*, Act 13, 78 PA. CONS. STAT. §§ 2301–3504 (2012), *invalidated by* Robinson Twp., Wash. Cnty. v. Commonwealth, 83 A.3d 901, 913 (Pa. 2013).

164. *Robinson*, 83 A.3d at 915–16.

165. *Id.*

166. *See id.*

167. Compare TEX. NAT. RES. CODE ANN. §§ 81.051(a), 81.052 (West 2008), and TEX. WATER CODE ANN. §§ 26.131(a), 26.406 (West 2011) (containing no express preemption), with Act 13, 78 PA. CONS. STAT. §§ 2301–3504 (preempting all municipal authority expressly).

168. TEX. NAT. RES. CODE §§ 81.051(a), 81.052; TEX. WATER CODE §§ 26.131(a), 26.406.

169. *See infra* text accompanying notes 170–71.

170. *See* Konni Burton et al., *Don't Bust the Spending Cap*, TRIBTALK (Oct. 15, 2014), <http://www.tribtalk.org/2014/10/15/dont-bust-the-spending-cap/> (“State leaders must have the courage to rein in government . . . we’ve learned this lesson all too well from the failed big-government policies of Washington, which have passed on a legacy of debt to the next generation.”).

171. *See id.* But *see* Tilove, *supra* note 30 (citing a recent promise by Texas governor-elect Greg Abbott to consider strong statutory language to prevent large municipalities from overregulating).

172. Goho, *supra* note 120, at 4.

173. *Id.* at 5–6.

energy industry.¹⁷⁴ Similar to the RRC, the West Virginia Department of Environmental Protection (WVDEP) retains broad statutory authority to regulate the entire stream of oil and gas development.¹⁷⁵ Field preemption statutes also contain a provision requiring municipalities to coordinate their local ordinances with state policy to ensure consistency.¹⁷⁶ In a blunt, four-page opinion invalidating Morgantown's frac ban, the court held that the West Virginia Legislature intended the WVDEP to occupy the field of oil and gas regulation to the extent that a municipal frac ban would require an express statutory exception.¹⁷⁷

Two legal distinctions make the *Morgantown* analysis inconsistent with Texas law, but nonetheless, West Virginia's regulatory structure could serve as an appropriate model should Texas choose to enact stronger legislation.¹⁷⁸ First, the statute in West Virginia clearly intends to comprehensively occupy the entire field of oil and gas regulation.¹⁷⁹ Texas lists the RRC's responsibilities as specifically enumerated tasks, and the relevant statutes do not contain the broad, sweeping language found in West Virginia's statutes.¹⁸⁰ Texas lawmakers could easily add language of this nature to more clearly express legislative intent without overextending the RRC.¹⁸¹

Second, West Virginia interprets home-rule authority far more narrowly than Texas does.¹⁸² For instance, West Virginia courts hold that in circumstances in which a court doubts whether a municipality has a certain regulatory power, the answer is that it does not.¹⁸³ Texas, on the other hand, generally maintains a presumption in favor of home-rule authority.¹⁸⁴ Of course, Denton is Texas's first outright ban and the precedent could certainly change.¹⁸⁵

174. *Ne. Natural Energy, LLC v. City of Morgantown*, No. 11-C-411, 2011 WL 3584376, at 1 (W. Va. Cir. Ct. Aug. 12, 2011).

175. *See id.*

176. *Id.* at 6.

177. *Id.* at 9.

178. *See infra* Part VII.C.2.

179. *Ne. Natural Energy, LLC*, 2011 WL 3584376, at 6–7 (“[I]t is within the sole discretion of the WVDEP to perform all duties as related to the exploration, development, production, storage and recovery of this State's oil and gas.”).

180. *See TxOGA Complaint*, *supra* note 129, at 9. *Compare id.* (finding that WVDEP has all the authority in the oil and gas field), with 16 TEX. ADMIN CODE §§ 3.1, 3.13, 3.20, 3.32, 3.80 (2015) (covering specific issues ranging from fire safety to financial security of operators).

181. *See Ne. Natural Energy, LLC*, 2011 WL 3584376, at 6–7.

182. *Compare id.* at 7 (presuming in close cases that municipalities do not have the authority in question), with *Tysco Oil Co. v. R.R. Comm'n*, 12 F. Supp. 195, 201 (S.D. Tex. 1935) (determining in close cases if the actions of the RRC were arbitrary or unreasonable), and *Klepak v. Humble Oil & Ref. Co.*, 177 S.W.2d 215, 218 (Tex. Civ. App.—Galveston 1944, writ ref'd w.o.m.) (maintaining a strong presumption in favor of home-rule authority).

183. *Ne. Natural Energy, LLC*, 2011 WL 3584376, at 7.

184. *See Klepak*, 177 S.W.2d at 218.

185. *See Steve Horn, First Texas City to Ban Fracking Cites 'Public Nuisance' in Lawsuit Response*, HUFFINGTON POST GREEN (Dec. 4, 2014, 6:59 PM), http://www.huffingtonpost.com/steve-horn/first-texas-city-to-ban-f_b_6272610.html.

Despite the differing legal doctrines between the two states, Texas courts might still find that the RRC's disjointed regulatory powers, taken as a whole, imply legislative intent to occupy the field of oil and gas regulation.¹⁸⁶ It is true that Texas courts frequently uphold burdensome local regulations so long as they intend to control the surface use aspects of oil and gas exploration—"the when" and "the where."¹⁸⁷ But regulating "the how" traditionally falls under the authority of the RRC.¹⁸⁸ Therefore, a court might heavily scrutinize and invalidate an ordinance that so frustrates the RRC's prerogatives.¹⁸⁹

3. *Taking Advice from Hippies: Conflict Preemption*

Conflict preemption is an implied preemption that courts use when there is no express preemption language and no comprehensive statute occupies the field.¹⁹⁰ Courts generally apply two different tests to address these conflicts.¹⁹¹ The first, more rudimentary, conflicts test applies when "a local ordinance prohibits an act that a state statute permits," or vice versa.¹⁹² The literal nature of this test makes it very difficult to apply and often results in inconsistent outcomes.¹⁹³ For example, if the RRC issues a permit to drill a well, any further limitation imposed by a municipality is automatically in conflict with the RRC.¹⁹⁴ For that reason, most courts apply a more flexible test that allows more reasonable outcomes.¹⁹⁵

The more flexible "operational conflicts" test ascertains the existence of a substantial interference "with the effective functioning of a state statute or regulation or its underlying purpose."¹⁹⁶ This approach gives the courts the greatest amount of leeway in determining which ordinances should stand by allowing dual regulatory authority when a local regulation can coexist with a state statute.¹⁹⁷

186. See Peggy Heinkel-Wolfe, *Ban Faces Challenges*, DENTON REC.-CHRON. (Nov. 17, 2014, 11:45 PM), <http://www.dentonrc.com/local-news/local-news-headlines/20141117-ban-faces-challenges.ece>.

187. See Flower Mound, Tex., Ordinance 36-11 (July 18, 2011), available at <http://www.flower-mound.com/DocumentCenter/View/7149>; Wendy Hundley, *Flower Mound Wins Round in Court in Fight Over Gas Drilling*, DALL. MORNING NEWS, Nov. 26, 2010, <http://www.dallasnews.com/news/community-news/flower-mound/headlines/20101005-Flower-Mound-wins-round-in-court-2478.ece>.

188. See TEX. NAT. RES. CODE ANN. § 81.052 (West 2011).

189. E.g., TEX. NAT. RES. CODE ANN. § 92.001 (West 2011); see Freilich & Popowitz, *supra* note 142, at 546.

190. Freilich & Popowitz, *supra* note 142, at 546.

191. *Id.*

192. Kramer, *supra* note 140, at 104.

193. See *id.* at 104-05.

194. See *id.*

195. See *id.* at 105.

196. *Id.* (quoting *Kotzebue Lions Club v. City of Kotzebue*, 955 P.2d 921, 922 (Alaska 1998)).

197. *Id.*

Over the last couple of years, Colorado courts have applied the operational conflicts test to several outright frac bans.¹⁹⁸ In 2014, in Longmont, Colorado, the Colorado Oil and Gas Association—Colorado's version of TxOGA—successfully challenged an outright ban on hydraulic fracturing.¹⁹⁹ Colorado courts use a lengthy factors test to address operational conflicts, but the crux of the *Colorado Oil & Gas Ass'n v. City of Longmont* holding is simple: the prospective conflict exists because Longmont prohibited an activity the state permits.²⁰⁰

Three arguments in *Longmont* provide insight for the Denton litigation due to the lack of Texas precedent on conflict preemption.²⁰¹ First, Colorado, like Texas, favors allowing home-rule authority when the ordinance in question can harmonize with the state's overriding interests.²⁰² The *Longmont* court held that reconciling total prohibition with the state's interest in mineral production would be impossible, despite Longmont's substantial interest in protecting the welfare and safety of its population.²⁰³ Although Texas generally employs a slightly more permissive definition when portraying home-rule authority, Texas courts expressly recognize conflict preemption.²⁰⁴ An outright ban on a necessary recovery technique is unprecedented in Texas, and due to the express legislative intent to develop the state's hydrocarbons, Texas could follow Colorado's lead and invalidate the Denton ban due to the irreconcilable conflict with the state's interests.²⁰⁵

Second, the Colorado Oil and Gas Conservation Commission's (COGCC) authority to regulate the technical aspects of oil and gas production was very persuasive to the *Longmont* court.²⁰⁶ The court held that the ability to drill for oil and gas is necessarily a prerequisite to the ability to regulate.²⁰⁷ The RRC has comparable authority to regulate the technical aspects of oil

198. Cathy Proctor, *Colorado Fracking Ban Scorecard: 3 Ruled Illegal, 2 Remain*, DENVER BUS. J. (Sept. 2, 2014, 11:05 AM), http://www.bizjournals.com/denver/blog/earth_to_power/2014/08/colorado-fracking-ban-roundup-shows-3-ruled.html?page=all; e.g., *Colo. Oil & Gas Ass'n v. City of Longmont*, No. 13CV63, 2014 WL 3690665, at 14 (Colo. Dist. Ct. July 24, 2014).

199. *Colo. Oil & Gas Ass'n*, 2014 WL 3690665, at 17.

200. *Id.* at 11, 15. The four factors the court used are: "(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." *Id.* at 11.

201. See Kramer, *supra* note 140, 110–14.

202. *Colo. Oil & Gas Ass'n*, 2014 WL 3690665, at 15–16; Klepak v. Humble Oil & Ref. Co., 177 S.W.2d 215, 218 (Tex. Civ. App.—Galveston 1944, writ ref'd w.o.m.).

203. *Colo. Oil & Gas Ass'n*, 2014 WL 3690665, at 16.

204. Compare *id.* at 13 (stating that in the event of a conflict between municipal ordinances and state statutes, the state statute supersedes), with *Nelson v. City of Dallas*, 278 S.W.3d 90, 94–95 (Tex. App.—Dallas 2009, pet. denied) ("[Home-rule cities] possess the full power of self government and look to the legislature not for grants of power, but only for limitations on their power.").

205. See *S. Crushed Concrete, LLC v. City of Houston*, 398 S.W.3d 676, 678 (Tex. 2013) (invalidating a Houston ordinance regulating concrete operations); Malewitz, *First Lawsuits*, *supra* note 149.

206. *Colo. Oil & Gas Ass'n*, 2014 WL 3690665, at 14.

207. See *id.* at 12–13.

and gas production in Texas.²⁰⁸ This includes the authority to regulate hydraulic fracturing, which is by definition a highly technical completion technique that takes place solely underground, and therefore, is arguably outside the reach of a municipality's police and zoning powers.²⁰⁹ Thus, Texas's interest in allowing and regulating hydraulic fracturing and Denton's interest in prohibiting it are mutually exclusive and cannot be harmonized.²¹⁰

The third and final aspect that the RRC shares with its Colorado counterpart is the directive to protect against waste and protect the correlative rights of mineral owners.²¹¹ An outright frac ban directly conflicts with this aspect of the RRC's mission.²¹² In fact, the *Longmont* court found that, due to the nature of shale formations, banning hydraulic fracturing actually creates waste rather than preventing it.²¹³ Texas shares the view that freeing oil and gas from tight shale formations requires fracing, making it a very short leap to conclude that the outright prevention of fracing causes waste.²¹⁴ Furthermore, the correlative rights of landowners abutting city boundaries are subject to harm because producers outside the city limits could capture some of the gas through drainage.²¹⁵ In this regard, the Denton frac ban directly conflicts with the RRC's directives to prevent waste and protect correlative rights.²¹⁶

208. See 16 TEX. ADMIN. CODE ch. 3 (2015); TEX. NAT. RES. CODE ANN. § 92.001 (West 2011) (“[I]t is the intent of the legislature that the mineral resources of this state be fully and effectively exploited and that all land in this state be maintained and utilized to its fullest and most efficient use.”); accord COLO. REV. STAT. § 34-60-102 (2013) (“It is declared to be in the public interest to: . . . Protect the public and private interests against waste in the production and utilization of oil and gas . . . [and s]afeguard, protect, and enforce the coequal and correlative rights of owners . . .”).

209. Zach Brady, Panelist at the Texas Tech Energy Law Symposium, in Lubbock, Tex. (Jan. 16, 2015).

210. See *Colo. Oil & Gas Ass'n*, 2014 WL 3690665, at 16 (“[T]he state interest in production . . . and Longmont's interest in banning hydraulic fracturing . . . present mutually exclusive positions. There is no common ground . . . to harmonize the state and local interest. The conflict in this case is an irreconcilable conflict.”).

211. TEX. NAT. RES. CODE ANN. §§ 85.045–.046 (West 2011); *Colo. Oil & Gas Ass'n*, 2014 WL 3690665, at 15–16.

212. See *Colo. Oil & Gas Ass'n*, 2014 WL 3690665, at 15–16 (“Longmont's ban on hydraulic fracturing prevents the efficient development and production of oil and gas resources.”).

213. *Id.* at 15.

214. *Id.*; accord *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1, 6 (Tex. 2008).

215. See *Colo. Oil & Gas Ass'n*, 2014 WL 3690665, at 15–16. Although it is true that shale does not drain in the same way that oil reservoirs do, Texas does not recognize trespass through hydraulic fracturing, so operators could drain some of the gas by fracing. *Coastal Oil & Gas Corp.*, 268 S.W.3d at 8.

216. See *supra* Part V.B.3.

C. *Drilling in a New Direction: Additional Preemption Concerns*

Texas courts will soon decide which direction to take the regulatory preemption doctrine.²¹⁷ The ban's proponents at Frack Free Denton seem emboldened by Texas municipalities' "perfect winning track record" defending drilling ordinances; however, the oil and gas ordinances Texas courts usually uphold are fundamentally different.²¹⁸ To date, ordinances held valid under Texas law have imposed restrictions that could be overcome through compliance, or were narrowly tailored to protect sensitive locations.²¹⁹ Texas courts likely upheld these regulations solely because they regulated the appropriate location of a permissible activity, rather than prohibiting it outright.²²⁰ No Texas ordinances conflict with the purpose and intent of the RRC in quite the way a frac ban does.²²¹

1. *Fracing = Drilling = Fracing: Because Math*

Proponents of the Denton frac ban argue that the ban is not a prohibition on drilling, but is simply a regulation preventing the process of hydraulic fracturing.²²² The *Longmont* court rejected that same argument, finding that prohibiting fracing is tantamount to a prohibition on all oil and gas exploration.²²³ The Supreme Court of Texas similarly recognizes the economic value of hydraulic fracturing.²²⁴ The greedy geological tendencies of the Barnett Shale make traditional recovery uneconomical.²²⁵ Banning hydraulic fracturing over a dense shale formation inexorably prevents drilling of any kind as well as re-fracing, in turn causing economic waste.²²⁶

217. Peggy Heinkel-Wolfe, *Judge Assigned to Industry Lawsuit Against Fracking Ban*, DENTON REC.-CHRON. (Jan. 15, 2015, 11:55 PM), <http://www.dentonrc.com/local-news/local-news-headlines/20150115-judge-assigned-to-industry-lawsuit-against-fracking-ban.ece>.

218. *See Of Lawsuits and Lies*, FRACK FREE DENTON (Oct. 20, 2014), <http://frackfreedenton.com/2014/10/of-lawsuits-and-lies/>.

219. *See, e.g.*, *Trail Enters., Inc. v. City of Houston (Trail I)*, 957 S.W.2d 625, 628 (Tex. App.—Houston [14th Dist.] 1997, pet. denied).

220. *See id.*; cases cited *supra* note 146. No challenged municipal ordinance to date has been a categorical, outright ban. Riley, *supra* note 12, at 349–73.

221. *See* discussion *infra* Part V.C.1.

222. *See* Max B. Baker, *Denton Voters Approve State's First Ban on Hydraulic Fracturing*, STAR-TELEGRAM (Nov. 13, 2014, 10:47 AM), <http://www.star-telegram.com/news/politics-government/article/3906359.html>.

223. *Colo. Oil & Gas Ass'n v. City of Longmont*, No. 13CV63, 2014 WL 3690665, at 15–16 (Colo. Dist. Ct. July 24, 2014).

224. *See* *Coastal Oil & Gas Corp. v. Garza Energy Trust*, 268 S.W.3d 1, 16 (Tex. 2008) (approvingly citing the expert opinion that "hydraulic fracturing is not optional; it is essential to the recovery of oil and gas in many areas").

225. *See supra* Part II.B.

226. *Colo. Oil & Gas Ass'n*, 2014 WL 3690665, at 15–16; Alasdair Brown, *Refracks Improve NPV*, HARTENERGY (Aug. 1, 2014, 8:00 AM), <http://www.epmag.com/refracks-improve-npv-720186#p=3> [hereinafter Brown, *Refracks Improve NPV*].

A case that frac ban proponents cite as authority for the ban's propriety illustrates the logical error.²²⁷ In *Trail Enterprises, Inc. v. City of Houston*, the City of Houston passed an ordinance that prohibited all drilling within 1,000 feet of Lake Houston, one of the city's main fresh water sources.²²⁸ Proponents contend that Houston's 1,000-foot setback is far more prohibitive than Denton's—which banned only fracing, instead of all drilling—and therefore, they assert that the Denton ban is legal.²²⁹ But in practice, the Denton ban is radically more restrictive.²³⁰ To use an analogy: saying that a ban on hydraulic fracturing is less restrictive than an outright ban across 1,000 feet is akin to saying that a ban on all car tires is less restrictive than closing a street.²³¹ Given the Supreme Court of Texas's willingness to recognize the economic considerations of hydraulic fracturing, surely the error will not go unnoticed.²³² Companies could technically still drill, but a court will look beyond the literal language and contemplate the economic reality; without fracing, further development of the Barnett Shale will not occur.²³³

2. *A Drop in the Bucket: Protecting Water Sources*

The Denton ordinance explicitly states that one of its objectives is to ensure water quality and prevent contamination.²³⁴ But in Texas, the RRC has the exclusive authority to protect freshwater sources from contamination due to oil and gas exploration.²³⁵ This means that, to the extent the ban operates to protect the city's water source, it directly conflicts with state authority.²³⁶ Courts tolerate a great deal of municipal discretion in handling the externalities of oil and gas operations, but that flexibility ends when

227. *Of Lawsuits and Lies*, *supra* note 218. The frac ban website cites to the sister case that dealt with the takings aspect of the dispute, but the same ordinance instigated a slew of litigation. *See Trail Enters., Inc. v. City of Houston (Trail I)*, 957 S.W.2d 625, 628 (Tex. App.—Houston [14th Dist.] 1997, pet. denied); *City of Houston v. Trail Enters., Inc. (Trail II)*, 377 S.W.3d 873, 876 (Tex. App.—Houston [14th Dist.] 2012, pet. denied).

228. *Trail I*, 957 S.W.2d at 628.

229. *Id.*; *see* DENTON, TEX., CODE OF ORDINANCES ch. 16, art. VII, § 14.201 (2014), available at <http://www.star-telegram.com/incoming/article3802514.ece/BINARY/Denton%20Drilling%20ordinance.pdf>.

230. *Trail I*, 957 S.W.2d at 634; *see* discussion *infra* notes 231–33 and accompanying text.

231. *But see* Ben Wear, *Austin Declares Two-Year Ban on New Street Events in "City's Core,"* AUSTIN AM.-STATESMAN (Nov. 26, 2014, 5:33 PM), http://www.mystatesman.com/news/news/austin-declares-two-year-ban-on-new-street-events-njGkd/#f99e0bff.3574000.735563#__federated=1.

232. *See supra* note 224.

233. *See, e.g., supra* note 224; *supra* Part II.B.

234. DENTON CODE OF ORDINANCES ch. 16, art. VII, § 14 (“WHEREAS, during hydraulic fracturing, chemicals and waste fluid pumped into such wells may be introduced into and could contaminate drinking water aquifers . . .”).

235. TEX. WATER CODE ANN. § 26.131(a) (West 2008).

236. *See id.*; *supra* Part V.B.3.

municipalities usurp state authority and make policy decisions.²³⁷ Normally, Texas courts sever the preempted provisions in an ordinance to uphold the ordinance in its entirety, but that option is not available in Denton without invalidating the whole ban.²³⁸ The court might look to Denton's express intentions and invalidate the ban, or it could overlook the repugnant elements and read the ban in a more favorable manner.²³⁹

Overall, the Denton frac ban sets the stage for a decision of major importance for the Texas preemption doctrine.²⁴⁰ The Denton ban has top politicians and the energy industry clamoring.²⁴¹ Throughout Texas's history, courts have allowed municipalities to regulate oil and gas operations with relative impunity, so long as the ordinances are reasonable and still allow for development.²⁴² Texas courts have yet to draw the line demarcating where reasonable municipal oil and gas regulation ends, but Denton will probably soon find itself on the wrong side of that line.²⁴³ Whether it is done through the courts or through the legislature remains to be seen.²⁴⁴ But even if Denton's ban is upheld, the city will still have to defend itself against takings claims by individual landowners.²⁴⁵

VI. COME AND TAKE IT: REGULATORY TAKINGS

If the Denton ban survives the preemption challenges, individual landowners will file a surge of claims requesting compensation for what they view as an illegal taking of their property.²⁴⁶ The Fifth Amendment of the Constitution, as well as provisions in the Texas Constitution, provides that the government may not take private real property without just compensation

237. See, e.g., *Tex. Midstream Gas Servs., L.L.C. v. City of Grand Prairie*, No. 3:08-CV-1724-D, 2008 WL 5000038, at *1 (N.D. Tex. Nov. 25, 2008) (mem. op.); Remarks from Tom Phillips, Baker Botts, Former Chief Justice, Supreme Court of Tex., to Denton City Council (July 15, 2014), available at http://www.txoga.org/assets/doc/JUSTICE_PHILLIPS_DENTON_CITY_COUNCIL_REMARKS_%28Final_7-147-14%29.pdf.

238. See *Tex. Midstream Gas Servs., L.L.C.*, 2008 WL 5000038, at *13-14.

239. DENTON CODE OF ORDINANCES ch. 16, art. VII, § 14; *Hous. Ass'n of Alcoholic Beverage Permit Holders v. City of Houston*, 508 F. Supp. 2d 576, 583 (S.D. Tex. 2007) ("A general law and a city ordinance will not be held repugnant to each other if any other reasonable construction leaving both in effect can be reached." (quoting *City of Richardson v. Responsible Dog Owners of Tex.*, 794 S.W.2d 17, 19 (Tex. 1990))).

240. See Jess Davis, *Texas City's Vote to Ban Fracking Sets Up Legal Fight*, LAW360 (Nov. 4, 2014, 11:33 PM), <http://www.law360.com/articles/591555/texas-city-s-vote-to-ban-fracking-sets-up-legal-fight>.

241. See Tilove, *supra* note 30.

242. See, e.g., *Helton v. City of Burkburnett*, 619 S.W.2d 23, 24 (Tex. Civ. App.—Fort Worth 1981, writ ref'd n.r.e.).

243. See *supra* Part V.

244. See Malewitz, *First Lawsuits*, *supra* note 149.

245. See *infra* Part VI.

246. Nicholas Sakelaris, *Denton's Fracking Ban: Is It a Reasonable Prohibition or the Taking of Mineral Rights?*, DALL. BUS. J. (Oct. 30, 2014, 10:36 AM), <http://www.bizjournals.com/dallas/blog/2014/10/dentons-fracking-ban-is-it-a-reasonable.html>.

to the landowner.²⁴⁷ A takings claim initially only contemplated a physical invasion of the land, but the United States Supreme Court quickly imposed liability when a regulation encumbered property to the extent that it became worthless to the owner.²⁴⁸ The Texas takings doctrine tracks federal takings very closely.²⁴⁹ Texas's oil and gas takings litigation is sparse, and some might say it borders incoherence.²⁵⁰ Accordingly, Part VI further defines and applies Texas's patchwork takings jurisprudence in an attempt to divine the outcome of a takings case in Denton.²⁵¹

A. Instructions Not Included: Regulatory Takings Basics

There are two main types of regulatory takings.²⁵² The Supreme Court's *Lucas* approach applies to situations in which the government's actions deprive the owner of "all economically beneficial uses," and is subject only to the government's valid exercise of police power.²⁵³ In situations with only a partial economic loss, a *Penn Central* regulatory takings analysis balances three factors that look to the economic effects on the plaintiff, the plaintiff's reasonable expectations, and the nature of the regulation.²⁵⁴ Texas amalgamates the two tests.²⁵⁵ In Texas, a government action must "substantially advance a legitimate state interest" without "deny[ing] landowners of all economically viable use of their property, or . . . unreasonably interfere[ing] with landowners' rights to use and enjoy their property."²⁵⁶ Essentially, the Texas regulatory takings doctrine has three prongs that effectively work as two separate tests.²⁵⁷

The first prong asks whether the regulation advances a "legitimate state interest," or in the case of a local ordinance, whether it is a reasonable exercise of police power designed to protect the safety and welfare of the citizenry.²⁵⁸ Both *Penn Central* partial takings and *Lucas* total takings assess the propriety of the government action before moving into the economic factors.²⁵⁹

247. U.S. CONST. amend. V; TEX. CONST. art. 1, § 17.

248. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1014 (1992) ("[W]hile property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking." (quoting *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922))).

249. See *Mayhew v. Town of Sunnyvale*, 964 S.W.2d 922, 932 (Tex. 1998).

250. Riley, *supra* note 12, at 373–91. For a comprehensive review of early Texas mineral takings litigation, see generally *Mayhew*, 964 S.W.2d 922.

251. See discussion *infra* Part VI.A–D.

252. See discussion *infra* notes 253–56.

253. *Lucas*, 505 U.S. at 1018–21 (emphasis omitted).

254. *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978).

255. See *Mayhew*, 964 S.W.2d at 933–36.

256. *Id.* at 934–35.

257. *Id.*

258. See *id.* at 934.

259. See R. S. Radford, *Of Course a Land Use Regulation that Fails to Substantially Advance Legitimate State Interests Results in a Regulatory Taking*, 15 FORDHAM ENVTL. L. REV. 353, 367 (2004).

Ordinances with the objective of abating nuisances, preventing pollution, and protecting certain areas with zoning provisions are all considered legitimate exercises of police power.²⁶⁰ Texas courts have not defined the extent to which they will inoculate municipalities that attempt to regulate oil and gas activities.²⁶¹ But the outer limit of a municipality's power mainly rests on the economic impacts on the plaintiff; reasonable use of police power is a very permissive standard and courts generally defer to legislative intent.²⁶² Therefore, the Denton ordinance will survive the legitimate interest test and move into the consideration of the economic factors under *Penn Central* and *Lucas*.²⁶³

The second and third prongs of a Texas takings analysis essentially function as the *Penn Central* and *Lucas* tests.²⁶⁴ Indeed, the Supreme Court of Texas approves of applying the federal standards to state takings claims.²⁶⁵ Takings litigation requires a fact-intensive inquiry, and the proper measure of economic loss poses particular problems because the extent of loss determines which test to use.²⁶⁶ A total loss triggers a *Lucas*-type analysis, while a partial economic loss prompts the more fact-sensitive *Penn Central* analysis.²⁶⁷ Before addressing how Denton's regulation might stand up to a takings plaintiff under each test, there must be a determination of which test is appropriate.²⁶⁸

B. Get Out Your Calculators: Parcel As a Whole and the Denominator

The parcel-as-a-whole discussion in *Penn Central* and the denominator issue in *Lucas* each play a unique role in oil and gas regulatory takings

While there are inconsistencies in the exact language the court uses to express its consideration of legitimate government interests, it always addresses the issue at some point in its analysis. *Id.* "Our phraseology may differ slightly from case to case—e.g., regulation must 'substantially advance,' or be 'reasonably necessary to,' the government's end. These minor differences cannot, however, obscure the fact that the inquiry in each case is the same." *Id.* (emphasis omitted) (citations omitted) (quoting *Nollan v. Cal. Coastal Comm'n*, 483 U.S. 825, 845 (1987) (Brennan, J., dissenting)).

260. See *Mayhew*, 964 S.W.2d at 934–35.

261. See *Riley*, *supra* note 12, at 388–89.

262. See *Radford*, *supra* note 259, at 364–67, 400 ("[T]he judge does not sit as super legislator or executive, intent on preventing regulation that 'goes too far,' The court must proceed to analyze [the takings] claim, as any other legal claim, regardless of the consequences to government policy." (quoting *Hage v. United States*, 35 Fed. Cl. 147, 150–51 (1996))).

263. See DENTON, TEX., CODE OF ORDINANCES ch. 16, art. VII, § 14 (2014); *Mayhew*, 964 S.W.2d at 934–35. Of course, just because the ordinance is a reasonable exercise of police power does not mean it will survive a preemption challenge. See discussion *supra* Part V.

264. See *Mayhew*, 964 S.W.2d at 934.

265. See *Sheffield Dev. Co. v. City of Glenn Heights*, 140 S.W.3d 660, 671 (Tex. 2004).

266. Ethan Shenkman, *Could Principles of Fifth Amendment Takings Jurisprudence Be Helpful in Analyzing Regulatory Expropriation Claims Under International Law?*, 11 N.Y.U. ENVTL. L.J. 174, 195 (2002).

267. See *Riley*, *supra* note 12, at 38.

268. See *infra* Part VI.B.

jurisprudence.²⁶⁹ Both tests attempt to handle the question of which calculation a court should use in determining the economic impact caused by a regulation.²⁷⁰

In *Penn Central*, the Supreme Court held that takings “jurisprudence does not divide a single parcel into discrete segments” to determine if the rights to a particular segment are taken.²⁷¹ A plaintiff’s ability to manipulate takings litigation by focusing a court’s attention on only the regulated portion of the land greatly concerned the Court.²⁷² Most regulation inherently destroys some fractional interest in the property, so if a court focuses on the micro-level when assessing property values, takings liability would extend to almost every government action.²⁷³ Therefore, when assessing property values in oil and gas takings claims, the question is whether courts should look to just the oil and gas portion of the mineral estate, the entire mineral estate, or the entire estate including the surface.²⁷⁴

In *Lucas*, Justice Scalia changed the moniker to the denominator issue.²⁷⁵ In a *Lucas* takings analysis, a court asks whether all economic value in the land is lost.²⁷⁶ It is called the denominator issue because of the way a loss in economic value is calculated.²⁷⁷ The economic loss equals the value of the property lost due to the regulation, divided by the total value of the same property without the regulation.²⁷⁸ The closer the quotient is to one, the more likely there is a total taking.²⁷⁹ In an oil and gas regulatory takings case, the entire analysis of the case can change based on how a court views the total value of the property in the denominator.²⁸⁰ The more narrowly a court views an interest, the more profound the economic effect because there is less value in the denominator to absorb economic loss.²⁸¹ Thus, if the regulation

269. Riley, *supra* note 12, at 391–94.

270. Keith Woffinden, Comment, *The Parcel as a Whole: A Presumptive Structural Approach for Determining When the Government Has Gone Too Far*, 2008 BYU L. REV. 623, 628–31 (2008).

271. *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 130 (1978). The Court has also refused to allow temporal segmentation, which is extremely significant to jurisdictions under facing moratoria because moratoria are inherently temporary. See Carol Necole Brown, *The Categorical Lucas Rule and the Nuisance and Background Principles Exception*, 30 TOURO L. REV. 349, 368 (2014) [hereinafter Brown, *The Categorical Lucas Rule*].

272. *Penn Cent. Transp. Co.*, 438 U.S. at 130.

273. *E.g., id.* In *Penn Central* the plaintiffs argued that the building restriction affected a taking of their airspace. *Id.* at 136.

274. Riley, *supra* note 12, at 394.

275. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1016–17 & n.7 (1992) (“Unsurprisingly, this uncertainty regarding the composition of the denominator in our ‘deprivation’ fraction has produced inconsistent pronouncements by the Court.”).

276. Brown, *The Categorical Lucas Rule*, *supra* note 271, at 356–57.

277. Woffinden, *supra* note 270, at 624.

278. *Id.*

279. *E.g., Vulcan Materials Co. v. City of Tehuacana*, 369 F.3d 882, 895 (5th Cir. 2004) (holding that a taking occurred based on the city’s prohibition of the plaintiff’s limestone quarry); see Woffinden, *supra* note 270, at 624.

280. Riley, *supra* note 12, at 394.

281. Woffinden, *supra* note 270, at 624.

prohibits a landowner from developing his minerals, but the court includes both the mineral and surface estates in the denominator, the economic impacts decrease and *Penn Central* is the proper test.²⁸² Conversely, if the regulation prohibits mineral production, and the court only values the mineral portion of the entire estate, it is likely a complete taking—making *Lucas* the proper test.²⁸³

Courts across the United States apply these tests inconsistently at best.²⁸⁴ Texas courts have not addressed the issue directly, but mineral estate dominance is the golden rule of Texas oil and gas jurisprudence.²⁸⁵ The emphasis on the importance of the mineral estate makes it possible that a Texas judge will give less regard to the value of the overlying surface estate in his assessment of the economic loss.²⁸⁶ A judge will be even less inclined to include the surface if the mineral owner has no interest in the surface.²⁸⁷ That considered, a landowner who owns both the surface and the minerals will likely be subject to a partial takings analysis.²⁸⁸

C. Hittin' the Trail: Partial Takings in Denton

The standard for a partial takings analysis in Texas is defined as “unreasonable interfere[nce] with landowners’ rights to use and enjoy their property.”²⁸⁹ Unreasonable interference is determined by an analysis of the “economic impact” and “the extent to which the regulation interferes with distinct investment-backed expectations,” almost the exact language used in *Penn Central*.²⁹⁰ These economic factors are incredibly fact intensive and neither factor is dispositive.²⁹¹

To this point, Texas is most keen to follow the *Penn Central* test when dealing with oil and gas and other mineral takings cases.²⁹² The reliance on

282. *See id.*

283. *See id.*

284. *See generally* Laura Lydigsen, Note, “Fairness and Justice” After Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency: Subsequent Regulatory Takings Decisions Under the “Parcel as a Whole” Framework, 82 WASH. U. L. Q. 1513 (2004) (analyzing the inconsistent application of the parcel-as-a-whole rule).

285. *See Acker v. Guinn*, 464 S.W.2d 348, 352 (Tex. 1971) (“[The mineral] estate is dominant, of course, and its owner is entitled to make reasonable use of the surface for the production of his minerals.”).

286. *See id.*; Riley, *supra* note 12, at 391 (“[A] disaggregation paradigm would treat the mineral estate as essentially lost to the owner and could be utilized to sustain a partial or *Lucas* categorical takings challenge.”).

287. *But see* Riley, *supra* note 12, at 294 n.334 (citing *Mid Gulf, Inc. v. Bishop*, 792 F. Supp. 1205, 1214 (D. Kan. 1992)).

288. *See id.* at 392.

289. *Mayhew v. Town of Sunnyvale*, 964 S.W.2d 922, 935 (Tex. 1998).

290. *Id.*; accord *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978).

291. *See Penn Cent. Transp. Co.*, 438 U.S. at 124; *Shenkman, supra* note 266, at 195. *But see infra* text accompanying notes 323–24.

292. *E.g., Edwards Aquifer Auth. v. Day*, 369 S.W.3d 814, 838 (Tex. 2012); *City of Houston v. Trail Enters., Inc. (Trail II)*, 377 S.W.3d 873, 879 (Tex. App.—Houston [14th Dist.] 2012, pet. denied).

the *Penn Central* test is due mostly to the nature of the challenged ordinances.²⁹³ Until the Denton ordinance, all local ordinances—however frustrating to producers—regulated, rather than prohibited, oil and gas activity, which is far more likely to trigger a *Penn Central* analysis.²⁹⁴

I. Late Expectations: Investment-Backed Expectations

An investment-backed expectations analysis looks to a landowner's expectations through the lens of the existing use of the property and the laws in existence prior to the enactment of a new regulation.²⁹⁵ This consideration initially developed to prevent a landowner from manufacturing a taking by purchasing property encumbered by a regulation and then claiming the government took the landowner's interests through the regulation.²⁹⁶

A property owner takes notice of any regulation existing or contemplated for her property.²⁹⁷ This imposed foreseeability inherently protects municipalities that have a history of regulating oil and gas activity from liability because mineral owners take constructive notice of the city's proclivity to regulate.²⁹⁸ Therefore, the investment-backed-expectations factor weighs heavily in favor of a plaintiff who detrimentally relies on a lack of existing or proposed regulation, but likewise weighs against a plaintiff who makes unreasonable capital expenditures in the face of regulation.²⁹⁹ Landowners who inherit their mineral estates are further disadvantaged because they took no risks to obtain their interests.³⁰⁰

Therefore, in considering the investment-backed expectations of mineral owners in Denton, the analysis hinges on the historical regulatory scheme, the foreseeability of an outright frac ban in Denton, the existing uses of the land in question, and the reasonableness of owners' expenditures in reliance on the existing regulatory scheme.³⁰¹

Denton has a long history of regulating oil and gas activity, but there is a fundamental disconnect between zoning and spacing requirements and the outright prohibition of fracing.³⁰² Zoning, spacing, and nuisance abatement

293. See *Trail II*, 377 S.W.3d at 883.

294. See cases cited *supra* note 146; discussion *supra* Part VI.B.

295. *Mayhew*, 964 S.W.2d at 936.

296. *Trail II*, 377 S.W.3d at 883.

297. *Mayhew*, 964 S.W.2d at 936.

298. *Riley*, *supra* note 12, at 397.

299. *Trail II*, 377 S.W.3d at 883.

300. See *id.* at 881.

301. See discussion *supra* notes 295–300.

302. Malewitz, *Dissecting Denton*, *supra* note 19. The Denton frac ban is an example of the type of hyper-prohibitory ordinance to which the dissent in *Penn Central* referred. *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 146 (1978) (Rehnquist, J., dissenting) (“Appellants are not free to use their property as they see fit within broad outer boundaries but must strictly adhere to their past use”); see discussion *supra* notes 228–33.

ordinances do not generally operate as complete bars to production.³⁰³ These local regulatory ordinances enjoy longstanding general approval by courts, so the foreseeability of Denton simply tightening up its zoning requirements could not be disputed.³⁰⁴ On the other hand, the total prohibition of a technique integral to shale gas recovery over one of the largest shale gas deposits in the United States probably does not satisfy the foreseeability requirement.³⁰⁵ Mineral owners should not be charged with notice of an impending ban on fracking when every ordinance to date merely required setbacks or similar regulatory hurdles.³⁰⁶ Therefore, it was probably reasonable for mineral owners to continue with business as usual and continue to invest capital.³⁰⁷

Texas requires "distinct" investment-backed expectations, which means that the court looks to the subjective actions of each individual plaintiff, as well as the objective view of what actions would be reasonable for a mineral owner to undertake.³⁰⁸ To the extent it is reasonable for a landowner to overlook the possibility of a frac ban, she must personally act in reliance on that belief.³⁰⁹ Thus, the existing use consideration weighs against mineral owners with no recognizable intent to explore for their minerals before the ban went into effect.³¹⁰ Existing use also works as a detriment to landowners with already producing wells because Texas courts view producing wells as investments realized, rather than a reasonable investment-backed expectation of future profit.³¹¹

With that established, it becomes clear that plaintiff selection will be paramount in a takings challenge against Denton.³¹² A good plaintiff will have purchased or leased a mineral estate capable of production under the old regulations with evidence of intent to drill.³¹³ The perfect plaintiff will own the mineral estate, plan to frac the shale, and already have a heap of capital

303. See discussion *supra* notes 228–33.

304. *E.g.*, *Trail II*, 377 S.W.3d at 881–83; Riley, *supra* note 12, 396–97; see cases cited *supra* note 146.

305. Molly Hennessy-Fiske, *In Denton, Texas, Voters Approve 'Unprecedented' Fracking Ban*, L.A. TIMES, Nov. 7, 2014, <http://www.latimes.com/nation/la-na-texas-fracking-20141108-story.html>; *Barnett Shale Information*, TEX. RAILROAD COMMISSION, <http://www.rrc.state.tx.us/oil-gas/major-oil-gas-formations/barnett-shale-information/> (last visited Apr. 20, 2015).

306. See *Trail II*, 377 S.W.3d at 879; Malewitz, *Dissecting Denton*, *supra* note 19.

307. See discussion *supra* notes 302–06.

308. *Trail II*, 377 S.W.3d at 881.

309. See *id.*

310. *Id.* at 883.

311. See *id.* (“[The landowners’] argument ignores the evidence that producing wells are already in existence on the property and misunderstands the nature of the investment-backed expectations factor.”).

312. See discussion *infra* notes 313–16.

313. See *Norman v. United States*, 429 F.3d 1081, 1093 (Fed. Cir. 2005) (“The purpose of . . . investment-backed expectations . . . is to limit recoveries to property owners who can demonstrate that they bought their property in reliance on a state of affairs that did not include the challenged regulatory regime.” (quoting *Gardens v. United States*, 331 F.3d 1319, 1345–46 (Fed. Cir. 2003)) (internal quotations omitted)), cited with approval in *Trail II*, 377 S.W.3d at 882.

laid out in the project.³¹⁴ With the latter set of facts, a court should have no trouble finding that investment-backed expectations weigh in favor of the landowner.³¹⁵ Anything less, and the outcome becomes questionable.³¹⁶

2. Buyer Beware: Economic Impact

The next factor concerns the economic impact of the regulation.³¹⁷ Under this factor, a court looks to the difference between the original value of the property and the value after the regulation takes effect.³¹⁸ The greater the loss, the more this factor weighs in favor of the plaintiff.³¹⁹ The economic impact of an ordinance on an owner can depend almost entirely on the extent of ownership vis-à-vis the parcel-as-a-whole analysis described above, especially when dealing with an outright ban.³²⁰ Hence, engaging in a partial takings analysis requires a preliminary assumption that the court used the broad, parcel-as-a-whole approach and did not find a total economic loss that would normally trigger a *Lucas* analysis.³²¹

Once again, Texas case law lacks guidance regarding economic impacts in the context of oil and gas ordinances. For example, in *Trail Enterprises*, the court conceded that the regulation in question, a 1,000-foot setback around an integral freshwater source, caused considerable economic impacts, but the court did not delve any further into the question.³²² The court left the question open mostly because the plaintiffs had existing productive wells and spent no money toward drilling new wells, and it already found that the investment-backed expectations weighed heavily against the plaintiffs.³²³ This means that if a court finds against a Denton mineral owner's investment-backed expectations, succeeding with a partial takings claim becomes difficult, regardless of substantial economic loss.³²⁴

314. See, e.g., *Miller Bros. v. Dep't of Natural Res. (Nordhouse Dunes Case)*, 513 N.W.2d 217, 219 (Mich. Ct. App. 1994) (“[Plaintiffs] are developers who had leased oil and gas rights from the owners, and who had been preparing to develop the area’s oil and gas potential.”).

315. See *id.*

316. E.g., *Sheffield Dev. Co. v. City of Glenn Heights*, 140 S.W.3d 660, 678 (Tex. 2004) (illustrating a situation in which a landowner was “blindsided” by a regulation, but the court still found against protecting his investment-backed expectations because of minimal detrimental reliance).

317. *Trail II*, 377 S.W.3d at 883.

318. *Mayhew v. Town of Sunnyvale*, 964 S.W.2d 922, 935–36 (Tex. 1998); Steven J. Eagle, “Economic Impact” in *Regulatory Takings Law*, 19 HASTINGS W.-NW. J. ENVTL. L & POL’Y 407, 420 (2013).

319. Eagle, *supra* note 318, at 417–18.

320. See Brown, *The Categorical Lucas Rule*, *supra* note 271, at 356–57.

321. See discussion *infra* Part VI.D; *supra* Part VI.B.

322. *City of Houston v. Trail Enters., Inc. (Trail II)*, 377 S.W.3d 873, 883 (Tex. App.—Houston [14th Dist.] 2012, pet. denied).

323. *Id.* The court also determined that the plaintiffs had not extinguished all of their remedies because some of the property was actually outside the setback. *Id.* at 883–84.

324. See *id.*

Again, plaintiff selection is key.³²⁵ Mineral owners with productive fraced wells are at a disadvantage in corresponding litigation because they already see returns on their investment and continue to profit despite the ordinance.³²⁶ But in addition to their profit, owners of fraced wells also face detrimental economic impacts as a result of the ordinance because, unlike the traditional wells in *Trail Enterprises*, fraced wells are re-fraced several times to extend their productive lifespan.³²⁷ In this regard, the nature of the property interest in fraced wells is completely different from every other extractive-industry takings claim to date.³²⁸ Texas courts recognize the economic necessity of fracing for initial production; however, whether they will extend that logic to refracing remains to be seen.³²⁹

D. *Everything but the Kitchen Sink: Lucas Takings*

The alternative is that a court would find that the regulation destroys all economically viable use of the property.³³⁰ In *Lucas*, Justice Scalia was adamant that a total taking only occurs if “the owner of real property has been called upon to sacrifice *all* economically beneficial uses in the name of the common good.”³³¹ An ordinance that effectively prohibits oil and gas production might leave the land “economically idle,” but a court could find that economic value remains in the land.³³² If the court finds another economic use, *Penn Central* is likely the proper standard; otherwise, the court delves into *Lucas*.³³³ So, an owner of both the surface and mineral estate probably would not trigger a *Lucas* takings due to the value left in the property, but a severed mineral estate owner might.³³⁴

After a finding of complete economic deprivation of property value, *Lucas* asks whether “background principles of the [s]tate’s law of property and nuisance” preclude recovery.³³⁵ In Texas, “title to the oil and gas estate . . . is held subject to reasonable regulations by the state under the police power.”³³⁶ By extension, this can include home-rule authority.³³⁷ Thus, in a potential Denton case, the court would ask whether (1) the

325. See discussion *supra* notes 308–11.

326. See *Trail II*, 377 S.W.3d at 883.

327. See Brown, *Refracks Improve NPV*, *supra* note 226; discussion *supra* notes 213–15.

328. See, e.g., *Trail II*, 377 S.W.3d at 883–84. The court saw the traditional wells in *Trail II* as investments realized, whereas fracing requires continued capital expenditure over the life of the well. *Id.*

329. See cases cited *supra* notes 214–15.

330. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1019 (1992).

331. *Id.*

332. See *id.*; *supra* Part VI.B.

333. Woffinden, *supra* note 270, at 624.

334. See *supra* Part VI.B.

335. *Lucas*, 505 U.S. at 1029.

336. *Tysco Oil Co. v. R.R. Comm’n*, 12 F. Supp. 202, 202 (S.D. Tex. 1935).

337. See TEX. CONST. art. XI, § 5.

ordinance abates a nuisance, or (2) the ordinance finds authority from the state's existing limitations on property rights.³³⁸

1. Lucas's Nuisances

The *Lucas* nuisance exception stems from the idea that the government should not be required to compensate landowners for taking rights that never attached to the land.³³⁹ Since a landowner has no right to maintain a nuisance, the government owes the landowner nothing because nothing has been taken.³⁴⁰ This means that any activity by a landowner that a court could enjoin through private or public nuisance actions may be ripe for regulation.³⁴¹ Originally, *Lucas* restricted a court's consideration to common-law nuisances only, expressly refusing to recognize statutorily defined harmful use.³⁴² Although most courts now take a broader view, this narrow construction meant that having a statute or ordinance stating that the prohibited use caused public harm did not inherently satisfy the nuisance exception.³⁴³

In *Denton*, the question becomes: could a private landowner prevent fracking through a nuisance claim?³⁴⁴ Any nuisance exception, according to the *Lucas* Court, must be grounded in a common-law prohibition.³⁴⁵ While Texas did reel in the drill-at-all-costs mentality originally associated with oil and gas operations, courts still remain focused on the development of the state's vast mineral resources and take a very tempered look at oil and gas nuisance claims.³⁴⁶

The *Lucas* Court also recognized that nuisance law evolves constantly; what was once a perfectly reasonable use might now constitute a nuisance.³⁴⁷ Although Texas has very little common law on oil and gas nuisance, the trend

338. Riley, *supra* note 12, at 398–99.

339. *Lucas*, 505 U.S. at 1027; Michael C. Blumm & Lucas Ritchie, *Lucas's Unlikely Legacy: The Rise of Background Principles as Categorical Takings Defenses*, 29 HARV. ENVTL. L. REV. 321, 359 (2005).

340. See Blumm & Ritchie, *supra* note 339, at 326.

341. *Lucas*, 505 U.S. at 1029.

342. *Id.* at 1031 (“We emphasize that to win its case [the state] must do more than proffer the legislature’s declaration that the uses *Lucas* desires are inconsistent with the public interest . . .”); Blumm & Ritchie, *supra* note 339, at 359–60.

343. *Lucas*, 505 U.S. at 1029. Courts have not, however, construed the nuisance exception so narrowly in practice; many courts have elevated statutory nuisance to background principles, another *Lucas* exception. Blumm & Ritchie, *supra* note 339, at 322–23.

344. See *Lucas*, 505 U.S. at 1029.

345. *Id.* at 1031.

346. Compare *Grimes v. Goodman Drilling Co.*, 216 S.W. 202, 203 (Tex. Civ. App.—Fort Worth 1919, writ dismissed w.o.j.) (refusing to enjoin the oil producer from causing truly horrible living conditions), with David Hasemyer, *Fracking Companies Fight Texas Families' Air Pollution Suits, Fearing Precedent*, INSIDECLIMATE NEWS (Aug. 13, 2014), <http://insideclimatenews.org/news/20140813/fracking-companies-fight-texas-families-air-pollution-suits-fearing-precedent> (describing a recent Texas lower court nuisance case).

347. *Lucas*, 505 U.S. at 1031; Blumm & Ritchie, *supra* note 339, at 336.

could easily change.³⁴⁸ In fact, groundwater contamination and air-quality nuisance claims are becoming increasingly common.³⁴⁹ If these pollution claims start succeeding frequently, Texas courts could shift their focus regarding what constitutes a nuisance and take a more skeptical look at fracing activities.³⁵⁰ This possibility gives operators all the more reason to take air-quality concerns and cement-casing requirements seriously to avoid reaching that point.³⁵¹

Even if these nuisance claims start becoming more prevalent, a court still might require the government to establish some likelihood of harm to defend a takings claim based on a public nuisance.³⁵² Jurisdictions are split on the issue of proof, with some requiring proof of some harm, and others looking only to the severity of the harm should the harm manifest.³⁵³ Proving causation between fracing and harm to the citizens of Denton would be extremely difficult.³⁵⁴ And as a general matter, Texas courts show reluctance in imposing nuisances on a valid, lawful business.³⁵⁵ This holds especially true when the business is as established and productive as mineral exploration.³⁵⁶ So once again, there is no way to predict how the courts will rule on an issue of vital importance to the outcome of a takings claim.³⁵⁷

2. *Let Sleeping Dogs Lie: Background Principles*

In addition to nuisance, many courts elevate longstanding land use statutes to background principles that inherently limit property rights.³⁵⁸ Since a local ordinance is not considered state property law, a court must decide whether to elevate the ordinance to a background principle.³⁵⁹ Furthermore, courts usually only elevate longstanding, traditional zoning regulations that were in existence at the time the owner purchased the property.³⁶⁰

Texas's public policy promoting mineral exploration weighs against elevating Denton's ordinance to a background principle of state property

348. Kaoru Suzuki, Note, *The Role of Nuisance in the Developing Common Law of Hydraulic Fracturing*, 41 B.C. ENVTL. AFF. L. REV. 265, 283 (2014) ("Nuisance causes of action appear sparsely in hydraulic fracturing cases."); e.g., Hasemyer, *supra* note 346.

349. See Suzuki, *supra* note 348, at 291–93.

350. See Blumm & Ritchie, *supra* note 339, at 336; Hasemyer, *supra* note 346.

351. See discussion *supra* notes 111–16.

352. Blumm & Ritchie, *supra* note 339, at 340–41.

353. *Id.*

354. See *id.* at 339–41.

355. *Vulcan Materials Co. v. City of Tehuacana*, 369 F.3d 882, 895 (5th Cir. 2004).

356. See *id.*

357. See *infra* Part VI.D.2.

358. Blumm & Ritchie, *supra* note 339, at 342–61; Riley, *supra* note 12, at 399.

359. See Blumm & Ritchie, *supra* note 339, at 358.

360. *Id.* at 355–58.

law.³⁶¹ While the Supreme Court of Texas usually shows no hesitation in elevating local zoning ordinances to a background principle, a court will recognize that the Denton ban does not amount to a zoning ordinance in the classic sense.³⁶² Completely banning a production technique, arguably within the exclusive authority of the RRC, does not constitute a zoning ordinance and, therefore, is not a background principle.³⁶³ Given the breadth of statutes and case law promoting oil and gas exploration, and the lack of precedent concerning frac bans, background principles probably will not protect the Denton ordinance.³⁶⁴

Overall, it is unclear what route Texas will take in deciding a *Lucas* taking, assuming it gets to that point.³⁶⁵ Lawyers defending the ban seem to think that fracing constitutes a nuisance and is limited by background principles of property law, but it remains an uphill battle against the industry and the energy-friendly Texas courts.³⁶⁶ What is clear is that considering Texas's history and the costs of takings claims, municipalities like Denton should tread lightly when it comes to prohibitory oil and gas regulations.³⁶⁷

E. Mess with the Bull and You'll Get the Horns: Costs of a Takings Claim

Takings claims are inherently subjective, impossible to predict, time-consuming, and inconsistent in their application.³⁶⁸ Combine that with the cost of losing a takings claim, and each suit becomes a game of Russian Roulette with half the chambers loaded instead of just one.³⁶⁹ Even if Denton wins a takings case, the fact-intensive nature of takings litigation minimizes the precedential value, and the city will still be fighting a war of attrition against a slew of plaintiffs.³⁷⁰

Proponents of the frac ban find comfort in the city's \$4 million slush fund set aside to defend against the impending legislation.³⁷¹ In reality, that

361. See TEX. NAT. RES. CODE ANN. § 92.001 (West 2011); *Riley*, *supra* note 12, at 398.

362. *E.g.*, *Mayhew v. Town of Sunnyvale*, 964 S.W.2d 922, 933 (Tex. 1998) (“Zoning decisions are vested in the discretion of municipal authorities; courts should not assume the role of a super zoning board.”); see cases cited *supra* note 146.

363. See *Of Lawsuits and Lies*, *supra* note 218.

364. See sources cited *supra* notes 361–63.

365. See *supra* Part VI.D.

366. See *Horn*, *supra* note 185.

367. See *infra* Part VI.E.

368. See, e.g., *City of Houston v. Trail Enters., Inc. (Trail II)*, 377 S.W.3d 873, 877–84 (Tex. App.—Houston [14th Dist.] 2012, pet. denied). Trail’s takings claim took over fifteen years to litigate. *Id.* at 876 (noting that Trail first filed suit in 1995); see also Blumm & Ritchie, *supra* note 339, at 328 (noting that many regard the *Penn Central* analysis as a “bewildering mess” (quoting James E. Krier, *The Takings-Puzzle Puzzle*, 38 WM. & MARY L. REV. 1143, 1143 (1997))); *supra* Part VI.

369. See discussion *infra* notes 371–84.

370. See Dana Larkin, Comment, *Dramatic Decreases in Clarity: Using the Penn Central Analysis to Solve the Tahoe-Sierra Controversy*, 40 SAN DIEGO L. REV. 1597, 1647 (2003); *Of Lawsuits and Lies*, *supra* note 218.

371. See *Of Lawsuits and Lies*, *supra* note 218.

amount probably would not scratch the surface of a few successful takings claims.³⁷² In the Nordhouse Dunes case, a Michigan court ordered the state to pay the plaintiffs in excess of \$119 million in lost revenues in return for title to their mineral rights.³⁷³ That is a long way from the \$4 million that Denton wagers will get them through the litigation.³⁷⁴ What should be more alarming to Denton officials is that the area affected by the state action in Michigan covered 3,500 acres, roughly 1/5 of the productive area in Denton.³⁷⁵ It must be conceded that Denton will never face a lump-sum judgment comparable to the Nordhouse Dunes case due to more fragmented ownership.³⁷⁶ But the sheer number of suits they might eventually have to defend will result in considerable legal fees.³⁷⁷

Takings claims are premature at this point; the court must first decide whether the regulation is preempted.³⁷⁸ If a court finds the regulation valid, the takings claims ripen and the city should be ready for suits.³⁷⁹ Given the unpredictability of a regulatory takings claim, Denton officials should fear the prospect of repeatedly going in front of Texas's energy-friendly courts to defend takings claims against these aggrieved landowners.³⁸⁰ In the best-case scenario, the city spends what could potentially be millions of dollars and wins these cases.³⁸¹

Financially, it would be better for Denton if the ban was preempted because the city could say it fought the industry while avoiding millions of dollars in potential liability.³⁸² Better still, a legislative remedy from Austin could rule out the entire prospect of protracted legal action—an even more

372. See John H. Logie, *Anatomy of an Inverse Oil & Gas Case (The Nordhouse Dunes Case)*, SF54 A.L.I.-A.B.A. 443, 454 (2001).

373. *Id.* The oil was valued at \$16 per barrel when calculating damages. *Id.* at 450.

374. See *Of Lawsuits and Lies*, *supra* note 218.

375. See *Denton, Texas*, CITY-DATA.COM, <http://www.city-data.com/city/Denton-Texas.html#b> (last visited Apr. 12, 2015). Using 61.5 square miles as the size of Denton, multiplied by roughly 640 acres per square mile equals 39,360 acres, or roughly 1/10 of the acreage in the Nordhouse Dunes case. See Logie, *supra* note 372, at 445. The ratio of 1/10 then must be adjusted to 1/5 because roughly half of Denton County sits over productive portions of the Barnett shale. See Anne Leonard, *Barnett Shale: Lessons Learned Used on a Global Scale*, DRILLING INFO (Mar. 24, 2010), <http://info.drillinginfo.com/barnett-shale-lessons-learned-used-on-a-global-scale/>.

376. Compare Peggy Heinkel-Wolfe, *Mineral Royalty Owner Sues Denton*, DENTON REC.-CHRON. (Sept. 29, 2014, 11:01 PM), <http://www.dentonrc.com/local-news/local-news-headlines/20140929-mineral-royalty-owner-sues-denton.ece> (single plaintiff suing on behalf of two companies and a trust), with Logie, *supra* note 372, at 445 (referring to three primary plaintiffs).

377. See Buchele, *supra* note 119.

378. *Id.*

379. *Id.*

380. See *supra* Part VI.C–D.

381. See Remarks from Tom Phillips, *supra* note 237.

382. See *Could a Frack-Free Denton Result in an Economic Boom?*, KEVIN RODEN (July 14, 2014), <http://rodenfordenton.com/2014/07/an-unlikely-economic-analysis-of-a-denton-fracking-ban/>. Kevin Roden, of the Denton City Council, believes that there might be substantial intangible benefits the City of Denton will derive for not backing down against the oil industry. *Id.* More specifically, win or lose, Denton will always be viewed as Texas's most liberal city and will certainly reap some benefits from the attention. *Id.*

attractive alternative for Denton.³⁸³ But no legislation will properly remedy this issue; in fact, some might do more harm than good.³⁸⁴

VII. THE GOLDILOCKS PRINCIPLE: THE PROPRIETY OF SEVERAL PROPOSED STATE RESPONSES

Texas is in a conundrum. Municipal co-regulation with state government, up to this point, has mostly been successful.³⁸⁵ If a court breaks this trend in response to the Denton ban, it could set precedent that may later work as a detriment to other, more appropriate areas of municipal action.³⁸⁶ Furthermore, a court can only solve the problem in Denton; other municipalities could adopt other equally prohibitive ordinances.³⁸⁷ Fortunately, the legislature responded with two bills that operate to prevent Denton-type ordinances in the future—regardless of the outcome in Denton.³⁸⁸ Each of these proposed bills would certainly achieve this goal, but in their current form, each bill has some troubling language that could completely destroy all municipal oil and gas regulation.³⁸⁹

A. This Porridge Is Too Hot: House Bill 539

House Bill 539 (HB 539) would discourage local regulation of the oil and gas industry by requiring municipalities to reimburse the state for five years of lost revenue on any oil and gas production the ordinance prevents.³⁹⁰ Under this proposed bill, before a municipality can ever hold a hearing or vote on a new measure, the municipality must pay the Texas Legislative Budget Board (LBB) to prepare a fiscal note outlining the ordinance's predicted cost to the state.³⁹¹ The costs include every conceivable source of oil and gas revenue the state will lose as a result of the ordinance: tax revenue, permit fees, and lost royalty income.³⁹² The bill also requires a municipality to pay for an impact statement to estimate how much the Texas general school

383. Sakelaris, *supra* note 131.

384. *See infra* Part VII.A–B.

385. *See supra* text accompanying notes 134–38.

386. *See* N. Sec. Co. v. United States, 193 U.S. 197, 200 (1904) (Holmes, J., dissenting) (“Great cases, like hard cases, make bad law. For great cases are called great, not by reason of their real importance in shaping the law of the future, but because of some accident of immediate overwhelming interest which appeals to the feelings and distorts the judgment.”).

387. *See generally* Emily Schmall, *Other Texas Towns Join Denton in Challenging Fracking*, DALL. MORNING NEWS, Nov. 30, 2014, <http://www.dallasnews.com/business/energy/20141130-other-texas-towns-join-denton-in-testing-oil-gas-supremacy-on-fracking.ece> (noting that other cities have attempted to stop fracking with varying success).

388. Sakelaris, *supra* note 131.

389. *See infra* Part VII.A–B.

390. *See* Tex. H.B. 539, 84th Leg., R.S. (2015). This bill does not apply retroactively, so it would not affect the Denton ordinance unless the city later modifies the ordinance. *See id.*

391. *Id.*

392. *Id.*

fund will lose due to a decrease in property taxes.³⁹³ The costs in the fiscal note and school impact statement are then aggregated, and the municipality must reimburse the state for all lost revenue if and when the ordinance does pass.³⁹⁴

Before a city can even hold a hearing to gauge public concerns about a proposed ordinance, the city must spend local funds to prepare a comprehensive—therefore probably expensive—fiscal note.³⁹⁵ This requirement alone might make the more trivial ordinances too expensive for some cities to even consider.³⁹⁶ Once the LBB prepares the fiscal note and impact statement, the municipality, at each subsequent hearing, must provide public notice of the liability that the city will incur by passing the new ordinance.³⁹⁷ Additionally, the locality must develop and publish a plan outlining the revenue sources that the city plans to use to cover its obligation, including any local tax increases.³⁹⁸ City council members will avoid these ordinances like the plague, recognizing the political costs of a tax increase.³⁹⁹ Once the voters see the possibility of increased taxes and envision the money coming out of their wallets, the ordinance will become a hard sale indeed.⁴⁰⁰ Voters will see exactly how much it really costs to keep the eighteen-wheelers off their streets.⁴⁰¹

If the ordinance in question somehow passes, the costs imposed on the city over the next five years are intimidating.⁴⁰² For instance, Denton County receives over \$60 million in oil and gas revenue annually; this entire shortfall would rest on Denton County taxpayers.⁴⁰³

Forcing localities to absorb the entire cost of their decisions is the best part of this bill.⁴⁰⁴ While Denton residents surely recognize that local tax revenues will decrease due to the frac ban, they probably fail to realize all of the indirect effects of their decision.⁴⁰⁵ Without this bill, any revenue the state loses from these oil and gas operations in Denton costs other Texas

393. *Id.*

394. *Id.*

395. *See id.*

396. *See id.*; see also Jim Bradbury, *The War of Escalating Bans: A Look at the King Bills Filed in Response to Denton, Texas*, BLUE WIND (Jan. 11, 2015), <http://bluewindpartners.com/the-war-of-escalating-bans-a-look-at-the-king-bills-filed-in-response-to-denton-texas/> (“No city will be prepared to incur the substantial financial and political price imposed by a calculation performed by [the LBB].”).

397. *See* Tex. H.B. 539.

398. *Id.*

399. *See* Bradbury, *supra* note 396.

400. *See* Tex. H.B. 539.

401. *See id.*

402. *See infra* text accompanying notes 403–05.

403. *See* Tex. H.B. 539; Perryman Grp., *supra* note 75, at 56.

404. *See* Tex. H.B. 539.

405. *See, e.g.*, Rick Moriarty, *Fracking Ban Bad for Upstate New York Economy, Business and Energy Groups Say*, SYRACUSE.COM (Dec. 18, 2014, 12:02 PM), http://www.syracuse.com/news/index.ssf/2014/12/fracking_ban_bad_for_upstate_new_york_economy_business_and_energy_groups_say_1.html.

citizens the benefits derived from those tax dollars.⁴⁰⁶ By extension, every taxpaying Texan and his or her children are currently subsidizing Denton's peace of mind.⁴⁰⁷ Meanwhile, Denton still benefits from cheap electricity and natural gas resulting from the prolific production across the Barnett Shale, while absorbing none of the externalities associated with production.⁴⁰⁸ It is fundamentally unfair—and un-Texan—for a locale to reap all the benefits of cheap oil and gas without absorbing its fair share of the costs.⁴⁰⁹

Unfortunately, HB 539's greatest strength—blindly allocating the full costs of these prohibitions—is also the bill's greatest weakness.⁴¹⁰ Missing from the bill is a provision that recognizes the importance of reasonable local zoning ordinances that effectively regulate oil and gas operations.⁴¹¹ Municipalities need the ability to control some aspects of extractive industries using their police power.⁴¹² For instance, if a municipality wants to create a 500-foot setback from the city's primary source of freshwater, not many would argue that this is an unreasonable risk aversion.⁴¹³ Hydraulic fracturing can be done safely, but why take the risk of subjecting a city's drinking water to contamination in the case of an industrial accident?⁴¹⁴ If HB 539 were to pass, a municipal authority would have to choose between protecting its freshwater source and incurring a five-year debt to the state.⁴¹⁵

Moreover, rather than an outright prohibition, instead assume that the regulation required that all oil and gas operations over a certain decibel level stop between the hours of 8 p.m. and 7 a.m. within 300 feet of a residence.⁴¹⁶ Technically this falls within the definition of an “oil or gas measure” found within the bill; it regulates production.⁴¹⁷ Under HB 539, a city would have

406. See Perryman Grp., *supra* note 75, at 56.

407. See *id.*

408. See, e.g., Moriarty, *supra* note 405. New York recently banned all hydraulic fracturing activity in the state, but it still takes cheap natural gas from its neighbors in Pennsylvania who absorb all the externalities associated with the industry. *Id.* This is also a concern because large, affluent communities with the power to vote out fracking push the activity into poorer, more rural areas. Russell Gold, *The Fracking Fight's New Front Line*, WALL ST. J., June 4, 2014, <http://www.wsj.com/articles/fracking-meets-new-resistance-from-communities-1401905185>.

409. See discussion *supra* note 408.

410. See *supra* text accompanying notes 403–06; discussion *infra* notes 411–26.

411. See Bradbury, *supra* note 396.

412. See Freilich & Popowitz, *supra* note 142, at 575.

413. E.g., *Trail Enters., Inc. v. City of Houston (Trail I)*, 957 S.W.2d 625, 636 (Tex. App.—Houston [14th Dist.] 1997, pet. denied) (validating a 1,000-foot setback).

414. See KING, *supra* note 9, at 12 (“[T]he Texas study included an investigation of the 16,000 multi-fractured horizontal wells that were drilled during the study period. No ground water [sic] contamination was found in any stage of drilling, well construction, hydraulic fracturing or production operations.”).

415. See *City of Houston v. Trail Enters., Inc. (Trail II)*, 377 S.W.3d 873, 878 (Tex. App.—Houston [14th Dist.] 2012, pet. denied); Tex. H.B. 539, 84th Leg., R.S. (2015).

416. See Cady, *supra* note 113, at 149–51.

417. Tex. H.B. 539 (“‘Oil or gas measure’ means a municipal ordinance or other municipal measure, including a measure requiring approval by voters, to regulate, limit, or prohibit the production, storage, or

to pay to exercise its police power and abate the noise caused by operations.⁴¹⁸ A state should not require a city to pay to figure out how much this marginal lull in production costs taxpayers.⁴¹⁹ In addition, a state should not require a city to pay any revenue that might be lost while its residents sleep.⁴²⁰

Another missing component from HB 539 is an adjustment mechanism for the five-year tax liability owed to the state.⁴²¹ Most of the money a municipality would have to pay the state would result from lost severance taxes.⁴²² In Texas, the oil and gas severance tax is based on market value, not quantity produced.⁴²³ Currently, Texans are painfully aware that the market value can change quickly.⁴²⁴ Therefore, a municipality can incur a substantially larger liability in comparison to what the state would receive from actual production.⁴²⁵ Even if the bill is later construed to allow an adjustment to the liability under the fiscal note, the state will still require the municipality to pay the LBB for a new fiscal note each time it wants to amend its ordinance.⁴²⁶

Overall, HB 539 shifts the costs of frac bans from statewide taxpayers to those responsible for the bans—a laudable goal.⁴²⁷ It would also greatly reduce municipalities' inclination to deal with frac concerns with impulsive and prohibitory bans.⁴²⁸ The bill goes too far, however, by essentially debilitating a city that might otherwise attempt to reasonably and prudently regulate oil and gas surface activities.⁴²⁹

transportation of oil or gas.”). The way this statute reads, a general municipal noise ordinance probably would not fall into this definition. *See id.*

418. *Id.*; *see Cady, supra* note 113, at 149–51.

419. *See* Tex. H.B. 539; Bradbury, *supra* note 396. This outcome is not limited to noise ordinances; it might also include aesthetic and safety requirements, such as putting up adequate fencing around a fracing operation. *See* Tex. H.B. 539.

420. *See* discussion *supra* notes 416–19.

421. *See generally* Tex. H.B. 539 (containing no provision allowing a municipality to adjust the amount due under the fiscal note during the five-year term).

422. Perryman Grp., *supra* note 75, at 10.

423. *Texas Severance Tax Incentives: Past and Present*, TEX. RAILROAD COMMISSION, <http://www.rrc.state.tx.us/oil-gas/publications-and-notices/texas-severance-tax-incentives-past-and-present/> (last updated Feb. 12, 2015, 4:12 PM). Oil and condensate are currently taxed at 4.6% of market value, while natural gas is taxed at 7.5%. *Id.*

424. Russell Gold, *Back to the Future? Oil Replays 1980s Bust*, WALL ST. J., Jan. 13, 2015, <http://www.wsj.com/articles/back-to-the-future-oil-replays-1980s-bust-1421196361>. “Between June 2014 and [January 2015], crude prices have fallen by 57% and could well head lower.” *Id.*

425. *See supra* notes 423–24. A fiscal note prepared on June 2014 would reflect over twice the tax liability that operators would face just seven months later. Gold, *supra* note 424.

426. Tex. H.B. 539.

427. *See* discussion *supra* notes 404–08.

428. Bradbury, *supra* note 396.

429. *See* discussion *supra* notes 411–20.

B. This Porridge Is Too Cold: House Bill 540

House Bill 540 (HB 540) is a companion bill to HB 539 that takes a slightly different approach to curtailing unreasonable municipal regulation.⁴³⁰ HB 540 provides that, for a municipality to hold an election to pass or repeal any municipal ordinance, the city must first submit the measure to the Attorney General (AG) for a preliminary determination of the regulation's legality.⁴³¹ Once the city submits the measure, the AG then has ninety days to advise the city whether the measure is compatible with state preemption and takings law.⁴³² If the AG determines that any part of the ordinance violates state or federal law, the municipality cannot hold an election or otherwise implement the measure.⁴³³

The most obvious benefit of HB 540 is its efficiency.⁴³⁴ If a city has a question about the legality of a municipal ordinance, it would simply send it to the AG and get an answer in ninety days, rather than passing a questionable ordinance and going through the costs of defending it.⁴³⁵ If the AG found an ordinance to be legal, the opinion might be highly persuasive to a court in a later takings or preemption claim based on the same measure.⁴³⁶ As effective as HB 540 appears, it overlooks several extremely important considerations.⁴³⁷

Very little precedent exists regarding prohibitory municipal oil and gas ordinances in Texas.⁴³⁸ While Denton's ban is likely preempted by state law, that prediction arises from case law containing minimal factual similarities to the current situation in Denton.⁴³⁹ In reality, the outcome of a Denton preemption suit is unpredictable.⁴⁴⁰ Therefore, entrusting the AG seems illogical—however well-intentioned—when making a determination on the legality of an ordinance when very little meaningful jurisprudence exists on the subject.⁴⁴¹

430. See Tex. H.B. 540, 84th Leg., R.S. (2015). This bill does not apply retroactively so it would not affect the Denton ordinance unless the city later modified the ordinance. *Id.*

431. *Id.*

432. *Id.*

433. *Id.*

434. See *id.* This legislation would also go a long way to help achieve Governor Abbott's recently stated goal of curtailing highly regulated localities, or what he dubbed "Californianiz[ation]." Tilove, *supra* note 30.

435. Tex. H.B. 540; Malewitz, *Legal Clash*, *supra* note 22.

436. *About Attorney General Opinions*, TEX. ST. LIBR. & ARCHIVES COMMISSION, <https://www.tsl.texas.gov/ld/pubs/liblaws/aboutag.html> (last modified Mar. 2, 2011).

437. See discussion *infra* notes 438–50.

438. See *supra* Parts V–VI.

439. See *supra* Part IV.

440. See discussion *supra* notes 239–44.

441. Bradbury, *supra* note 396.

The same logic applies to the takings consideration under HB 540.⁴⁴² Takings claims require a fact-intensive analysis of economic loss, and Texas courts have yet to decide how to evaluate the economic value of a mineral estate and split-ownership situation.⁴⁴³ Once again, the AG would be relying more on intuition rather than case law.⁴⁴⁴ HB 540 also suggests that the AG could consider every possible plaintiff in the municipality and determine if there was a governmental taking within ninety days. This task is simply impossible.⁴⁴⁵ Furthermore, if the AG found the ordinance to be legal, any "takings plaintiff" that did come forward would have to litigate against the weight of an AG opinion based only on a cursory overview of local property interests.⁴⁴⁶

Most importantly, HB 540 fails to recognize the fundamental idea that Texas affords its municipalities some degree of local autonomy to deal with the exigencies that legislators in Austin do not understand.⁴⁴⁷ In the context of reasonable oil and gas measures, should implementing a noise ordinance fall under the authority of a locally elected city council or an AG elected at large who has likely never been to the neighborhoods making the noise complaints?⁴⁴⁸ The state is certainly free to say that the determination belongs to the AG, but that outcome is very difficult to rationalize given Texas's history.⁴⁴⁹ While HB 540 would not cut off reasonable regulation like HB 539, preemption and takings case law is simply too anemic to subordinate a municipality's authority in favor of the AG—courts are the proper recourse in these close calls.⁴⁵⁰

C. There is More than One Way to Skin a Bowl of Porridge: Mixed Metaphors and Solutions

The Texas Legislature should not deprive municipalities of the authority to create reasonable oil and gas regulations; its response should be more flexible.⁴⁵¹ The goal should be to maintain the pre-Denton balance of

442. See Tex. H.B. 540, 84th Leg., R.S. (2015) ("A municipality may not hold an election on the proposed measure if the attorney general has determined that any portion of the proposed measure would . . . cause a governmental taking of private property.").

443. See Shenkman, *supra* note 266, at 195.

444. See discussion *supra* Part V.

445. Tex. H.B. 540; see, e.g., *City of Houston v. Trail Enters., Inc. (Trail II)*, 377 S.W.3d 873, 876 (Tex. App.—Houston [14th Dist.] 2012, pet. denied). Trail's takings claim took over fifteen years to litigate—considerably longer than ninety days. *Id.*

446. See *supra* note 445; *About Attorney General Opinions*, *supra* note 436.

447. But see Tom Giovanetti, *Don't Fetishize Local Control*, DALL. MORNING NEWS, Feb. 1, 2015, <http://www.dallasnews.com/opinion/latest-columns/20150201-tom-giovanetti-dont-fetishize-local-control.ece>.

448. See Tex. H.B. 540; Cady, *supra* note 113, at 149–51; Bradbury, *supra* note 396.

449. Giovanetti, *supra* note 447; see cases cited *supra* note 146.

450. See *supra* Part VII.A; *supra* text accompanying notes 239–44, 365–67.

451. See *supra* Part VII.C.1–2.

municipal authority, while preventing Denton-like responses in the future.⁴⁵² HB 539 and HB 540 solve the problem, but go too far.⁴⁵³ Several other alternatives solve the problem without obliterating legitimate local authority.⁴⁵⁴

1. An Axe to Grind: Taking the Edge Off HB 539 and HB 540

The first alternative combines HB 539 and HB 540 into a superbill. HB 539 and HB 540 each aim to prevent a situation like the Denton ban from ever occurring again, and there can be no real doubt that if these bills pass, a Denton situation would never occur again.⁴⁵⁵ But separately, each bill has its own flaws.⁴⁵⁶ HB 539, with its merciless application of the costs to municipalities, makes even narrowly tailored municipal regulations prohibitively expensive.⁴⁵⁷ HB 540 epitomizes overkill—the legislative equivalent of an outright ban on fracing.⁴⁵⁸ By taking the best components of each bill, and recognizing the longstanding appreciation of municipal authority, Texas municipalities will have a clearer understanding of the limits on their authority.⁴⁵⁹

First, there should be a list of municipal authority exceptions, such as noise abatement, hours of operation, and aesthetic requirements, which are presumed valid and not subject to the fiscal note and impact statement requirements.⁴⁶⁰ These types of regulations are not particularly burdensome, and some producers already engage in these practices.⁴⁶¹ This exceptions clause would recognize legitimate municipal authority and not subject otherwise reasonable regulations to the expense of a fiscal note and impact statement.⁴⁶²

Second, land-use and zoning regulations that do not relate to the technical aspects of production should have their own category.⁴⁶³ Rather than subjecting zoning ordinances to the fiscal note requirement, the AG should review them using the same procedure as proposed in HB 540.⁴⁶⁴ While preemption case law is insufficient for the AG to make a well-informed opinion on the legality of a frac ban, the precedent regarding

452. See discussion *supra* notes 385–89.

453. See discussion *supra* Part VII.A–B.

454. See *infra* Part VII.C.1–2.

455. See *supra* Part VII.A–B.

456. See *supra* Part VII.A–B.

457. See discussion *supra* notes 402–08.

458. See discussion *supra* notes 438–50.

459. See discussion *infra* notes 460–76.

460. *E.g.*, Tex. H.B. 1496, 83d Leg., R.S. (2013).

461. Finley, *supra* note 17.

462. See cases cited *supra* note 146; *supra* note 395.

463. See discussion *infra* notes 464–67.

464. See Tex. H.B. 540, 84th Leg., R.S. (2015).

zoning ordinances in extractive industries is considerably more developed.⁴⁶⁵ Therefore, sufficient legal authority exists to legitimize any opinion the AG has regarding the legality of setback requirements and other similar measures.⁴⁶⁶ Furthermore, takings claims would be easier for the AG to consider as applied to zoning and setbacks because the AG could more easily pinpoint owners that might suffer takings.⁴⁶⁷

Third, the bill needs an express provision allowing municipalities to adjust their liability if they do choose to regulate outside the exceptions clause.⁴⁶⁸ Either the municipality should be able to pay the LBB to create a new fiscal note and impact statement, or the state should adjust the initial predictions to reflect a change in market values.⁴⁶⁹

Taken together, these exceptions would serve to deter municipal authorities from avoiding externalities without punishing the municipalities that enact regulations favorable to Texas's policy of efficient energy production.⁴⁷⁰ A municipality such as Denton would still be free to ban fracking; it would just have to pay for it, rather than having the rest of the state absorb the tax shortfall.⁴⁷¹

All of these additions not only make the proposed bill a more accurate reflection of underlying Texas policy regarding municipal co-regulation, but also make for a much more passable bill.⁴⁷² Governor Abbot recently received considerable backlash for his remark regarding his desire for stronger state preemption of local authority.⁴⁷³ Substantial portions of Texas constituents hold extremely high regard for local autonomy.⁴⁷⁴ HB 539 and HB 540, considered separately, are unlikely to engender the support of this voting bloc.⁴⁷⁵ But with the compromises outlined above, legislators can claim that they are protecting municipal authority, while simultaneously promoting energy—making both groups happy.⁴⁷⁶

2. *When, Where, What, and How: Stronger Preemption Statute*

Rather than passing comprehensive legislation that subjects municipalities to complex regulatory hurdles, the easier approach is for the Texas

465. See cases cited *supra* note 146.

466. See cases cited *supra* note 146.

467. *E.g.*, *City of Houston v. Trail Enters., Inc. (Trail II)*, 377 S.W.3d 873, 876 (Tex. App.—Houston [14th Dist.] 2012, pet. denied). When the ordinance in question is aimed at specific locations, or types of locations, it is inherently easier to identify possible affected ownership interests. *Id.*

468. See discussion *supra* notes 421–27.

469. See discussion *supra* notes 421–27.

470. See TEX. NAT. RES. CODE ANN. § 92.001 (West 2011); see discussion *supra* notes 460–69.

471. See discussion *supra* notes 460–69, 405–09.

472. See discussion *infra* notes 473–76.

473. Giovanetti, *supra* note 447.

474. See *id.*

475. See discussion *supra* Part VII.A–B.

476. See discussion *supra* notes 460–71.

Legislature to clearly define RRC authority and remove all doubts about where municipal authority ends.⁴⁷⁷ The preemption statute should, in effect, create a horizontal severance of oil and gas authority at the point at which the drill bit enters the ground.⁴⁷⁸ The conservation statutes in Colorado and West Virginia exemplify this approach.⁴⁷⁹ Basically, anything related to the technical aspects of oil and gas production—what is done and how—would fit squarely within the realm of the RRC.⁴⁸⁰ Municipalities would then be relatively free to use their police power to determine when and where the activity takes place.⁴⁸¹

The RRC should maintain total control of the technical aspects of production for several reasons.⁴⁸² Initially, the RRC, not the municipality, is charged with the prevention of waste, protection of correlative rights, and protection of the environment.⁴⁸³ To achieve this goal, the RRC informs itself of the science behind efficient and safe mineral extraction.⁴⁸⁴ The safe drilling practices the RRC assembled over its extensive existence can be applied even-handedly to almost any situation, subject only to the geology of the location in question.⁴⁸⁵

Beyond that, the municipalities possess only the authority to protect their citizens from the surface dangers of the industry through reasonable setbacks and land-use restrictions.⁴⁸⁶ Municipalities lack the necessary expertise and extensive research to determine whether a completion technique is safe.⁴⁸⁷ Therefore, the state should allow municipalities to

477. See discussion *infra* notes 478–96. On Monday, May 18, 2015, Governor Greg Abbott signed H.B. 40 into law—effective immediately. Max B. Baker, *Governor Abbott to Sign Denton Fracking Bill*, STAR-TELEGRAM (May 18, 2015), <http://star-telegram.com/news/business/barnett-shale/article21282813.html>. HB 40, or the so-called fracking bill is a direct response to the Denton Frac Ban, and fears of other similar bans in the future. See *id.* The bill expressly preempts local authority from the regulation of oil and gas activities below the surface—leaving municipalities the power to regulate only limited surface use aspects of oil and gas operations, so long as those regulations do not effectively prohibit fracking operations. *Id.* This bill, which surfaced and was passed after this article was finished, is in line with what the rest of this section recommends. See *infra* notes 478–96. The next page in this long saga will deal with the municipal response to this legislation and the creative ways they will find around the state legislation to regulate future oil and gas operations. See Baker, *supra*.

478. See, e.g., *Colo. Oil & Gas Ass'n v. City of Longmont*, No. 13CV63, 2014 WL 3690665, at 12 (Colo. Dist. Ct. July 24, 2014).

479. See *id.*; *Ne. Natural Energy, LLC v. City of Morgantown*, No. 11-C-411, 2011 WL 3584376, at 9 (W. Va. Cir. Ct. Aug. 12, 2011).

480. See, e.g., *Colo. Oil & Gas Ass'n*, 2014 WL 3690665, at 12.

481. See *id.*

482. See discussion *infra* notes 483–85.

483. See TEX. NAT. RES. CODE ANN. § 92.001 (West 2011); Christi Craddick, *Finding Common Ground About What's Underground*, TEX. RAILROAD COMMISSION (Nov. 12, 2014), www.trc.state.tx.us/about-us/commissioners/craddick/news/111214b/.

484. Craddick, *supra* note 483.

485. See *id.*

486. See Kevin J. Duffy, Comment, *Regulating Hydraulic Fracturing Through Land Use: State Preemption Prevails*, 85 U. COLO. L. REV. 817, 836–37 (2014).

487. *Id.* at 859.

reasonably regulate where the activity takes place, not prohibit the activity altogether.⁴⁸⁸

Clearly severing all aspects of production and placing production under the sole authority of the RRC would promote cooperation between producers and municipalities.⁴⁸⁹ Municipalities will understand that fracking will take place until the RRC says otherwise.⁴⁹⁰ Instead of trying to creatively eliminate the entire industry, municipalities would seek to use the tools they do have to mitigate the surface effects.⁴⁹¹ In fact, there are several examples of setbacks being used to effectively regulate urban drilling for extended periods of time.⁴⁹²

The preemption approach is also a good option because of its simplicity.⁴⁹³ Denton is probably an outlier; most localities welcome the petroleum industry and its benefits with open arms.⁴⁹⁴ But just in case, prudence dictates that some authority exist so that a court may quickly and efficiently dismiss highly prohibitive bans.⁴⁹⁵ HB 539 and HB 540 overreact. Stronger preemption language clears up the question of municipality authority in the future, without subjecting all parties involved to countless and complex hurdles.⁴⁹⁶ Less regulation is certainly more in this case.

VIII. WHY CAN'T WE BE FRIENDS: CONCLUSION

Returning to the Grinch for a moment, more similarities to the situation in Denton become apparent.⁴⁹⁷ Once the Grinch started to understand the Whos, he realized he could tolerate them, and both sides benefited from the other's existence.⁴⁹⁸ Education and tolerance were key for the Grinch to shed his prejudices and join society.⁴⁹⁹ The Denton frac ban supporters and the oil producers could take a lesson from the Grinch.⁵⁰⁰

The Denton frac ban resulted from the convergence of two completely different worlds, previously separated by miles of open land.⁵⁰¹ On one hand

488. *See id.* at 858–61.

489. *See* Craddick, *supra* note 483.

490. *See* Duffy, *supra* note 486, at 861.

491. *Id.* at 859.

492. Craddick, *supra* note 483.

493. *See, e.g.,* Ne. Natural Energy, LLC v. City of Morgantown, No. 11-C-411, 2011 WL 3584376, at 5–9 (W. Va. Cir. Ct. Aug. 12, 2011). This trial court opinion consists of only five pages and quickly disposes of all legal issues. *Id.*

494. *See* Malewitz, *Dissecting Denton*, *supra* note 19. *But see* Dan Solomon, *What Other Texas Municipalities Are Considering New Fracking Laws?*, TEX. MONTHLY, Dec. 2, 2014, <http://www.texasmonthly.com/daily-post/what-other-texas-municipalities-are-considering-new-fracking-laws>.

495. *See generally* Solomon, *supra* note 494 (questioning whether the ban is constitutional).

496. *See* discussion *supra* Part VII.A–B.

497. *See supra* Part I.

498. *See* DR. SUESS, *supra* note 1.

499. *See id.*

500. *See id.*

501. *See supra* text accompanying notes 11–12.

is the oilman—the oil business is all he knows.⁵⁰² His job is to get oil out of the ground, not maneuver a subdivision and its inhabitants.⁵⁰³ On the other hand are municipal residents.⁵⁰⁴ Never before subject to oil production, these local residents tend to latch on to misinformation regarding the science behind fracking to justify their complaints.⁵⁰⁵ Oil companies need to do a better job of taking unilateral action to appease their new neighbors so the situation does not get out of control.⁵⁰⁶ Furthermore, educating the public about the fracking process and its benefits is key; misinformation must not be the only source of information on fracking.⁵⁰⁷

Denton now finds itself in a legal battle against more than 100 years of legal precedent and public policy that directly contradicts its position.⁵⁰⁸ Even after the extensive, expensive litigation, Denton will remain in the same situation it started in if the regulation is invalidated.⁵⁰⁹ Furthermore, Denton subjected itself to the risk of highly unpredictable takings claims with highly unpredictable damages.⁵¹⁰ Countless municipalities, such as Dallas and Fort Worth, have longstanding relationships with the oil and gas industry simply because they joined in developing fair, workable regulations.⁵¹¹ The oil and gas companies are not blameless.⁵¹² A few bad actors can push a municipality to take these irrational actions.⁵¹³ Operators must realize that, in these urban settings, they are representatives of the entire industry and must act accordingly.⁵¹⁴ Education and reputation are the keys to gaining public acceptance of fracking.⁵¹⁵

No matter what the legislature chooses to do—even if it chooses to do nothing—the petroleum industry and municipalities can learn valuable lessons from the Denton frac ban.⁵¹⁶ Denton exemplifies a situation where a lack of understanding and an unwillingness to negotiate produced an extremely inefficient result.⁵¹⁷ As a consequence, and as evidenced by the proposed legislation, Denton's actions pose a serious risk to the future of local municipal authority.⁵¹⁸ Municipalities must remember that they

502. *See supra* Part II.A.

503. *See supra* Part II.A.

504. *See supra* Part I.

505. *See* discussion *supra* notes 81–86; *supra* Part III.A–B.

506. *See supra* text accompanying notes 111–16.

507. *See supra* text accompanying notes 75–80.

508. *See supra* Parts V–VI.

509. *See supra* Part V.

510. *See supra* Part VI.

511. *See generally* Craddick, *supra* note 483 (discussing the shared responsibilities within the oil and gas industry).

512. *See* Malewitz, *Dissecting Denton*, *supra* note 19.

513. *See id.*

514. *See id.*

515. *See* discussion *supra* notes 501–14.

516. *See* discussion *infra* notes 517–21.

517. *See supra* Part IV.

518. *See supra* Parts V, VII.A–B.

regulate at the state's pleasure; no inherent right to local regulation exists.⁵¹⁹ If individual municipalities continue to abuse this power, the legislature will take it away.⁵²⁰

The reason for legislative action is simple: Oil and gas is too profitable and too important to the economy to allow municipalities *carte blanche* to prohibit it.⁵²¹ Oil is the economic backbone of this state—a job creator—and is deeply entrenched in the Texan culture.⁵²²

519. *See supra* Part V.

520. *See* Giovanetti, *supra* note 447; *supra* Parts V, VII.

521. *See* discussion *supra* notes 75–80.

522. *See supra* Part II.

