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The Emperor's New Clothes: Fracking Legislation in Texas

INTRODUCTION

A sign above a residential faucet reads, "Do Not Drink this Water."^TThe homeowner, Mike Markham, then proceeds to light a run-of-the-mill cigarette lighter and place it mere millimeters away from where the running water will ensue when he turns on the tap.² Shortly after the water begins to run. Mike suddenly withdraws his hand.³ The previously innocuous running tap water has become enflamed, and the kitchen sink is momentarily engulfed in flames.⁴ This occurrence is nothing new to Mike, and more and more footage and reports of such shocking scenes are surfacing with the advent of fracking across America. As these accounts become more pervasive, two questions loom: Is fracking safe? And, who is responsible for ensuring that it is?

Hydraulic fracturing (fracking) is a very popular means of releasing natural gas trapped beneath the earth's surface. As a relatively new process, the environmental impacts of fracking are not fully known. Moreover, legislation or jurisprudence seeking to regulate the process is almost non-existent. Drilling operations that utilize fracking inject water, sand, and a chemical mixture (collectively known as "fracking fluid") into the ground to create subterranean fractures and facilitate natural gas release.³ Companies frequently do not disclose the composition of their chemical mixture and claim that the mixture is a trade secret. Increased concerns among environmentalists and the public atlarge about the "mystery" mixtures have prompted legislative action to address those concerns.

Effective September 1, 2013, the legislature of the State of Texas enacted House Bill 2767, which amended Texas's Natural Resource Code.⁶ This amendment seeks to encourage reusing oil and gas waste produced incident to drilling⁷ rather than disposing

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^{1.} GASLAND (HBÓ 2010).

^{2.} *Id.*

^{3.} *Id.*

^{4.} *Id*.

^{5.} See Vera Koster, What is Shale Gas? How Does Fracking Work?, CHEMISTRYVIEWS.ORG. (Sept. 5, 2013) http://www.chemistryviews.org/details/edu cation/1316813/What_is_Shale_Gas_How_Does_Fracking_Work.html, archived at http://perma.cc/9SKL-5V2A.

^{6.} H.B. 2767, 83d Leg., Reg. Sess. (Tex. 2013).
7. TEX. NAT. RES. CODE § 122.001 (West 2012).

of it by storing it underground indefinitely.⁸ House Bill 2767 (the Waste Recycling Law) allows producers of fracking waste to give the waste to recyclers who will then treat it for a "beneficial use."⁹ The statute will relieve waste producers and recyclers of tort liability for damages that occur once the waste is transferred to a recycler or third party for subsequent use if there is a contractual agreement that the treated wastewater will be used "in connection" with drilling procedures; there is no relief of liability for personal and property damage.¹⁰

Unfortunately, several issues will arise in light of this new legislation. First, with the enactment of House Bill 3328 in 2011, Texas became the first state to require those that utilize fracking to disclose the chemical composition of their fracking fluid.¹¹ However, Texas's fracking fluid disclosure policy includes an exception for chemicals classified as trade secrets: the Texas Railroad Commission must prescribe a process by which fracking operators may "withhold and declare certain information as a trade secret."¹² Also, the chemical disclosure requirement provision does not apply retroactively; therefore, fracking operations that commenced prior to the disclosure requirement, which is a majority of them, are not subject to the provision.¹³ As a result, established drillers are not required to disclose any of the components of the fracking fluid for their well, irrespective of whether the chemicals are a trade secret, and new fracking wells can claim the trade secret disclosure exemption for many chemicals. Thus, fracking fluid producers and recyclers could transfer ownership of their fracking waste to another party with its chemical makeup being completely unknown to the recyclers or other subsequent recipients. Secondly, Texas tort law typically allows an injured consumer of a product to sue under the theory of strict products liability.¹⁴ However, under the Section 122.001 of the Texas Natural Resources Code, certain injuries do not have a cause of action under strict products liability. Consequently, harmful chemicals could be passed along to unsuspecting recyclers and subsequent third parties, cause injury, and leave the injured

^{8.} C.S.H.B. 2767 – Bill Analysis, Energy Resources Committee (Tex. 2013).

^{9.} TEX. NAT. RES. CODE § 122.002 (West 2012).

^{10.} TEX. NAT. RES. CODE § 122.003.

^{11.} TEX. NAT. RES. CODE ANN. § 91.851 (West 2011 & Supp. 2012).

^{12.} *Id*.

^{13.} See Randy Lee Loftis, *Texas' new fracking disclosure law doesn't shed light on everything*, THE DALLAS MORNING NEWS (Aug. 7, 2012, 7:27 AM), http://www.dallasnews.com/news/community-news/dallas/headlines/20120806-texas-new-fracking-disclosure-law-doesnt-shed-light-on-everything.ece, archived at http://perma.cc/N5PN-F79R.

^{14.} See Darryl v. Ford Motor Co., 440 S.W.2d 630, 633 (Tex. 1969).

with nowhere to turn for a remedy. Lastly, the Waste Recycling Law leaves the "beneficial use" component unspecified, thereby leaving the metes and bounds for tort liability undefined.

This Comment begins with a background discussion of the following: Texas House Bill 2767's pertinent elements, hydraulic fracturing, environmental concerns that prompted the legislation, and Texas's role in the fracking debate. Next, the Comment discusses Texas's laws on trade secrets, fracking fluid disclosure, and products liability. Then, the Comment considers the potential negative implications of House Bill 2767 in light of Texas's existing trade secret, disclosure, and products liability provisions. Finally, the Comment suggests revisions for House Bill 2767 and § 91.851 of the Texas Natural Resources Code so that the law's requirements are clearly defined and do not offend other well-established laws.

I. BACKGROUND

A. Texas House Bill 2767

On May 28, 2013, Texas Governor Rick Perry signed House Bill 2767 during the Texas 83rd Legislature.¹⁵ Effective September 1, 2013, House Bill 2767 amended Subtitle D, Title 3 of the Texas Natural Resources Code and added Chapter 122, a statute for the treatment and recycling for beneficial use of oil and gas waste.¹⁶ The statute presents an alternative to indefinite underground storage and specifically provides that when the waste is "transferred to a person who takes possession of that waste for the purpose of treating the waste for a subsequent beneficial use," the waste is now the property of that recycler.¹⁷ Additionally, drilling operations that elect to send their waste to recyclers for beneficial reuse are relieved of tort liability for damages if there is a contractual agreement that the treated waste will be used "in connection" with drilling procedures.¹⁸ Similarly, recyclers who pass the now-treated waste to a subsequent party would also be relieved of tort liability.¹⁹ This new statutory provision is

^{15.} H.B. 2767, 83d Leg. Reg. Sess. (Tex. 2013).

^{16.} *Id*.

^{17.} *Id*.

^{18.} *Id*.

^{19. &}quot;This [provision] does not affect the liability of a person that treats fluid oil and gas waste for beneficial use in an action brought by a person for damages for personal injury, death, or property damage arising from exposure to fluid oil and gas waste or a treated product." TEX. NAT. RES. CODE § 122.003 (West 2012).

especially relevant to Texas's fracking industry, because of the large amounts of wastewater produced with each fracking operation.²⁰

B. Hydraulic Fracturing

The fracking process facilitates natural gas release from rock formations with low permeability to a well where it can then be collected.²¹ Oil and gas are found in the small pore spaces of sedimentary rock formations, not large cavernous pools, and move through interconnected pore spaces.²² Some formations have pore spaces that are not very well interconnected, and gas can remain trapped in these small pore spaces.²³ Shale formations in particular may have one-tenth the pore space of other rock formations and one-millionth of the permeability.²⁴ Operations that utilize fracking inject fracking fluid into the ground under high pressure to create subterranean fractures or enlarge existing fractures.²⁵ The fracking process makes cracks in the pore space via pressure to serve as a pathway for the release of the natural gas, which was previously unattainable²

C. Environmental Concerns

The fracking process has been in use for several decades, but with the advent of horizontal drilling in the late 1980s, fracking has become an increasingly productive method of natural gas production and, in turn, increasingly more prevalent.²⁷ Both

^{20.} One report estimates that 260 billion gallons of fracking wastewater were produced from fracking wells in Texas in 2012. Elizabeth Ridlington & John Rumpler, Fracking by the Numbers: Key Impacts of Dirty Drilling at the State and National Level. ENV'T AM. RESEARCH & POLICY CTR. 21 (Oct. 2013), http://www.environmentamerica.org/sites/environment/files/reports/EA Fracking Numbers scrn.pdf, archived at http://perma.cc/4SER-J9HC.

^{21.} See Hydraulic Fracturing ("Fracking") FAQs, UNITED STATES http://www.usgs.gov/faq/?q=categories/10132/3814, GEOLOGICAL SURVEY, archived at http://perma.cc/GY5L-NPDJ (last modified Oct. 15, 2014) [hereinafter Fracking FAOs].

^{22.} Keith B. Hall, Address at the Louisiana State University Law Center Energy and Mineral Law Society and the Environmental Law Society Panel Discussion: Hydraulic Fracturing: Misconceptions, Dangers, and Legal Realities (Oct. 8, 2013).

^{23.} *Id.* 24. *Id.*

^{25.} See Fracking FAQs, supra note 21.

^{26.} Keith B. Hall, *supra* note 22.
27. See Michael MacRae, *Fracking: A Look Back*, ASME.ORG (Dec. 2012) https://www.asme.org/engineering-topics/articles/fossil-power/fracking-a-look-

environmentalists and the general public have expressed concern about the impact of fracking on ground water and surface water quality, induced earthquakes, and water availability.²⁸ As research into fracking's environmental impact grows, some results offer damning evidence for fracking proponents. For instance, a study published in 2013 by Lament Cooperative Seismographic Network concluded that 167 earthquakes detected in Youngstown, Ohio between January 2011 and February 2012 were caused by injecting fracking wastewater into waste wells.²⁹

In particular, fracking's impact on water quality, specifically the impact on drinking water, seems to top environmentalists' growing list of concerns. Two types of drinking water exist: ground water and surface water.³⁰ Ground water is water located beneath the earth's surface, such as an aquifer, and surface water is water exposed to the atmosphere such as lakes, rivers, and ponds.² Excess fracking fluid, which is considered waste, either remains in the well where it was used or flows back to the surface.³² The excess fluid that flows back to the surface is often stored in underground wells designated for waste disposal.33 In 1974 Congress passed the Safe Drinking Water Act (SDWA), which is codified in Title 42 of the United States Code, Section 300(h). The SDWA requires, *inter alia*, that the Environmental Protection Agency (EPA) must regulate state programs to ensure drinking water will not be "endangered" by underground injections.³⁵ The danger posed to drinking water by underground injection wells is due, in large part, to the composition of the waste. However, the actual wells themselves pose a similar threat.

back, archived at http://perma.cc/5F8J-SKKP.

35. Id.

^{28.} See id.

^{29.} See Won-Young Kim, Induced Seismicity Associated with Fluid Injection into a Deep Well in Youngstown, Ohio, 118 J. GEOPHYSICAL RESEARCH: SOLID EARTH 3506, 3516–17 (2013) (finding that the pressure used to inject wastewater at the Northstar 1 injection well consequently increased pressure at pre-existing faults, thereby increasing seismic activity).

^{30.} See Questions and Answers about EPA's Hydraulic Fracturing Study, ENVTL. PROT. AGENCY, http://www2.epa.gov/hfstudy/questions-and-answersabout-epas-hydraulic-fracturing-study, archived at http://perma.cc/3GEJ-USRV (last updated Sept. 8, 2014) [hereinafter *Questions and Answers*].

^{31.} See id.

See Fracking FAQs, supra note 21.
 See id.
 Safe Drinking Water Act of 1974, 42 U.S.C. § 300(h) (2012).

Methane, a naturally occurring greenhouse gas,³⁶ is the primary component of natural gas.³⁷ Consequently, ground water sources may be exposed to methane as natural gas is released during fracking. In 2004, the EPA published a study that sought to determine whether fracking in coal bed methane wells contaminated ground water.³⁸ Shortly after the EPA study, in 2005, the Energy Policy Act³⁹ amended the SDWA to exclude frackingrelated injections from the category "underground injections," thus exempting such injections from federal regulation.⁴⁰ This decision was largely because the 2004 EPA study concluded that frackingrelated injections posed no harm to drinking water.⁴¹ However, a subsequent study, led by Duke University, investigated 141 drinking water wells in northeastern Pennsylvania and found evidence suggesting that the fracking injections *did* pose a harm to drinking water because the study found dissolved methane in 82% of the water supplies.⁴² The study revealed that drinking water wells less than one kilometer from gas wells had methane concentrations that were six times higher than the concentrations in drinking water from water wells more than one kilometer from the gas wells.⁴³ This study posited that the presence of methane in drinking water was most likely explained by leaks due to poor gas well construction, which caused natural gas to seep into drinking water.

Conversely, critics of the Duke study rely on a report filed by the United States Geological Survey (USGS), which suggests that the methane found in the water wells is not due to contamination

38. See ENVTL. PROT. AGENCY, EPA 816-R-04-003, EVALUATION OF IMPACTS TO UNDERGROUND SOURCES OF DRINKING WATER BY HYDRAULIC FRACTURING OF COALBED METHANE RESERVOIRS (2004) [hereinafter EVALUATION OF IMPACTS], available at http://permanent.access.gpo.gov/websites /epagov/www.epa.gov/safe water/uic/cbmstudy/docs.html, archived at http://perma .cc/CMX9-VNZJ.

39. Energy Policy Act of 2005, sec. 322, Pub. L. 109-58, 119 Stat. 594, 694 (codified as amended at 42 U.S.C. § 300h(d) (2005)).

40. Safe Drinking Water Act of 1974, 42 U.S.C. § 300h(d) (2012).

41. EVALUATION OF IMPACTS, *supra* note 38.

42. See Robert B. Jackson et al., Increased Stray Gas Abundance in a Subset of Drinking Water Wells Near Marcellus Shale Gas Extraction, 110 PROCEEDINGS NAT'L ACAD. SCI. 11250, 11251 (2013) (noting that ethane and propane were also present in drinking water wells).

43. See id. 44. See id.

^{36.} ENVTL. PROT. AGENCY, EPA 430-R-13-001, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990 – 2011 1-3 (2013), available at http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory -2014-Main-Text.pdf, archived at http://perma.cc/6N8X-GCLY.

^{37.} Energy Report - Natural Gas, TEXAS COMPTROLLER'S OFFICE, http://www .window.state.tx.us/specialrpt/energy/nonrenewable/gas.php, archived at http: //perma.cc/EQ99-VPEN (last visited Oct. 7,, 2014).

from natural gas wells.⁴⁵ The USGS study analyzed water samples from water wells in Sullivan County, Pennsylvania, ⁴⁶ an area also examined by the Duke study,⁴⁷ to gather pre-drilling data to establish a baseline for ground water quality.⁴⁸ Pre-drilling baseline data is necessary to fully assess natural gas drilling's true effect on ground water and whether an actual threat to ground water exists. Take, for instance, another study published in 2013 by the National Ground Water Association in which researchers evaluated data from 1,701 drinking water wells, also in northeastern Pennsylvania, in an attempt to identify the potential sources of methane found in drinking water.⁵⁰ The study concluded that methane found in water samples was more than likely naturally occurring,⁵¹ supported by documentation that "suggest[ed] the presence of methane gases in the shallow subsurface . . . long before the expansion of shale-gas fracturing in [that] area."⁵² Baseline data, such as that collected by USGS, can provide conclusive evidence of whether fracking is the culprit behind the presence or increased concentration of methane in ground water samples or whether methane is inherent to the water supply.

The idea that naturally occurring, baseline amounts of methane may be present in water supplies is lent credence by Illinois's new fracking regulations. The Hydraulic Fracturing Regulatory Act, enacted on June 17, 2013, requires operations to conduct baseline water sampling prior to commencing fracking.⁵³ A baseline study requirement that quantifies pollutants present in ground water before drilling further insinuates that pre-fracking pollutants, including methane, may be naturally occurring and should be accounted for to accurately assess fracking's environmental impact.⁵⁴ Other studies refute environmentalists' concerns as well

48. SLOTO, supra note 46, at 3.

49. *Id.* at 1.

50. Lisa J. Molofsky et al., Evaluation of Methane Sources in Groundwater in Northeastern Pennsylvania, 51 GROUND WATER 333, 337 (2013).

^{45.} Steve Everly, Four Things to Know About Duke Study #2, ENERGY IN DEPTH (June 24, 2013, 4:04 PM), http://energyindepth.org/national/four-thingsto-know-about-duke-study-2/, archived at http://perma.cc/5YGB-UFCQ.

^{46.} RONALD A. SLOTO, BASELINE GROUNDWATER QUALITY FROM 20 DOMESTIC WELLS IN SULLIVAN COUNTY, PENNSYLVANIA, 2012 1 (2013), available *at* http://pubs.usgs.gov/sir/2013/5085/support/sir2013-5085.pdf, archived at http://perma.cc/5YUW-VMNQ.

^{47.} Jackson et al., *supra* note 42, at 11254.

^{51.} See id. at 347.

^{52.} *Id.* at 336.

^{53.} H.B. 2615, 98th Gen. Ass. (Ill. 2013).
54. See also Brian Fontenot et al., An Evaluation of Water Quality in Private Drinking Water Wells Near Natural Gas Extraction Sites in the Barnett Shale Formation, 47 ENVTL. SCI. & TECH. 10032 (2013) (finding higher

by offering evidence that methane emission levels previously reported by the EPA at natural gas wells were overestimated.³² Such continued research suggests the EPA's 2004 study was deficient and has prompted additional inquiries and legislative action to address those concerns. In fact, the EPA is in the process of conducting another hydraulic fracturing study, scheduled to be released in 2014, that reexamines whether fracking has an effect on drinking water.³

D. Texas, in Particular

Oil and gas production is big business in Texas, and as the nation's leader in natural gas production with more than one-fourth of the nation's natural gas marketed, Texas is at the epicenter of the fracking debate.⁵⁷ The United States has three percent of the world's natural gas reserves, and Texas and Louisiana are responsible for half of the production of that three percent.⁵⁸ The oil and gas industry alone accounts for 14.9% of the state's gross product,⁵⁹ and nearly 312,000 people have jobs in the oil and gas industry.⁶⁰ Fracking's major role in the world's energy industry only increases environmentalists' concerns and the need to ensure fracking developments do not continue to outpace legislative developments.

concentrations of arsenic, selenium, strontium, barium, and TDS in some, but not all, water wells near natural gas wells and concluding that such contaminants may be naturally occurring or anthropogenic and fracking cannot lead to systemic ground water contamination).

^{55.} David T. Allen et al., Measurements of Methane Emissions at Natural Gas Production Sites in the United States, 110 PROCEEDINGS NAT'L ACAD. SCI. EARLY EDITION, 17768, 17770 (Oct. 29, 2013) http://www.pnas.org/content /early/2013/09/10/1304880110.full.pdf+html, archived at http://perma.cc/YGT2-TW9C.

^{56.} Questions and Answers, supra note 30.
57. See Texas State Profile and Energy Estimates - Quick Facts, ENERGY INFO. ADMIN., http://www.eia.gov/state/?sid=TX, archived at http://perma.cc /4Q2U-7LGT (last updated Mar. 27, 2014).

^{58.} A Look At Natural Gas Production In Texas, NAT'L PUBLIC RADIO, http://stateimpact.npr.org/texas/tag/natural-gas-production-in-texas/, archived at http://perma.cc/83MC-7MKL (last visited Oct. 7, 2014).

^{59.} Energy Report - Natural Gas, TEXAS COMPTROLLER'S OFFICE, http://www.window.state.tx.us/specialrpt/energy/nonrenewable/gas.php archived at http://perma.cc/W7SF-YGQ3 (last visited Oct. 7, 2014).

^{60.} A Look At Natural Gas Production In Texas, supra note 58.

II. THE TIES THAT BIND: TEXAS'S CONCURRING, PREVAILING LAWS

A. Trade Secrets

A trade secret is generally defined as "any information that can be used in the operation of a business or other enterprise and that is sufficiently valuable and secret to afford an actual or potential economic advantage over others."⁶¹ The Uniform Trade Secrets Act (UTSA) was created in an attempt to codify common law, thereby relieving ambiguities and inconsistencies in deciding trade secret cases at the state level and creating predictability in this area of law.⁶² Currently, 47 of the 50 states in the United States have adopted a version the UTSA.⁶

In 2013, Texas adopted a form of the UTSA when the state legislature amended the Texas Civil Practice and Remedies Code and added § 134(A) regarding Trade Secrets.⁶⁴ The Texas UTSA defines a trade secret as follows:

[I]nformation, including a formula, pattern, compilation, program, device, method, technique, process, financial data, or list of actual or potential customers or suppliers, that: (A) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and (B) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.⁶

Provided all elements are met, an operator or service that utilizes fracking in Texas can choose not to disclose the chemicals in their fracking fluids that distinguish its product from that of its competitors.

^{61.} RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 (1995).

^{62.} See Trade Secrets Act Summary, UNIFORM LAW COMM'N, http://www .uniformlaws.org/ActSummary.aspx?title=Trade%20Secrets%20Act, archived at http://perma.cc/GLB3-7CS6 (last visited Oct. 7, 2014).

^{63.} See Legislative Fact Sheet - Trade Secrets Act, UNIFORM LAW COMM'N, http://www.uniformlaws.org/LegislativeFactSheet.aspx?title=Trade%20Secrets%2 0Act, archived at http://perma.cc/L3UU-J4V5 (last visited Oct. 7, 2014).

^{64.} S.B. 953, 83d Leg., Reg. Sess. (Tex. 2013).
65. TEX. CIV. PRAC. & REM. CODE § 134A.002 (West 2013).

B. Disclosure

Texas was the first state in the country to enact a law that requires disclosure of the chemicals in fracking fluid.⁶⁶ As of September 1, 2011, Texas codified a mandatory disclosure policy as Section 91.851 of the Texas Natural Resources Code, Chapter 91, Subchapter S (Disclosure Law).⁶⁷ The code requires, among other things, that drillers disclose the composition of fracking fluids by registering said components on the online chemical disclosure registry, FracFocus,⁶⁸ that is provided by the Ground Water Council and the Interstate Oil and Gas Compact Commission.⁶

The information operators must disclose on FracFocus includes the total amount of water being used and all chemicals required by Title 29 of the Code of Federal Regulations, Section 1910.1200(g)(2),⁷⁰ which specifies that hazardous chemicals must be reported on a Safety Data Sheet.⁷¹ This provision implies that only "hazardous chemicals" that require the use of a Safety Data Sheet must be reported by drilling operations. As such, the Disclosure Law goes hand in hand with trade secret law: the Disclosure Law requires that the Texas Railroad Commission allow trade secret exemptions pursuant to Texas Government Code §552.110,⁷² which exempts trade secrets from being regularly available_to the public (required under Texas Government Code 552.021)⁷³ if doing some would cause "competitive harm."⁷⁴ In effect, the Disclosure Law does not require drilling operations to publicly disclose any chemicals in fracking fluid that they consider a trade secret.

^{66.} Texas Fracking Bill: State Becomes First to Require Public Disclosure of Chemicals, HUFFINGTON POST (June 20, 2011, 1:42 PM), http://www.huffington post.com/2011/06/20/texas-fracking-bill-disclosure-law n 880557.html, archived at http://perma.cc/NLP7-FW94.

^{67.} H.B. 3328, 82d Leg., Reg. Sess. (Tex. 2011).
68. TEX. ADMIN. CODE §3.29 (West 2013). The Texas Railroad Commission adopted Title 16, Section 3.29 of the Texas Administrative Code on December 30, 2011 to implement Section 91.851 of the Texas Natural Resources Code. This section specifies general provisions found in Section 91.851 of the Texas Natural Resources Code.

^{69.} TEX. NAT. RES. CODE ANN. § 91.851 (West Supp. 2012).
70. *Id.*71. 29 C.F.R. § 1910.1200(g)(2) (2013).
72. TEX. NAT. RES. CODE ANN. § 91.851.
73. TEX. GOV'T CODE ANN. § 552.021 (West 2012).
74. TEX. GOV'T CODE ANN. § 552.110.

C. Products Liability

1. Products Liability and the Common Law

In the common law tradition, "one engaged in the business of selling or otherwise distributing products who sells or distributes a defective product is subject to liability for harm to persons or property caused by the defect."⁷⁵ Three categories of product defects exist: manufacturing defect, design defect, and defect resulting from inadequate warnings or instruction.⁷⁶ Texas law also recognizes these three categories of defects.⁷⁷ A product is deemed defective due to inadequate warning or instruction if such inadequacy renders the product unreasonably dangerous, and the risk the product poses is foreseeable and could have been prevented or mitigated with "reasonable instructions or warnings."⁷⁸

To recover damages in a strict products liability claim, a plaintiff must prove that a manufacturer: (1) "Placed in the stream of commerce a product, (2) [the product] was in a defective or unreasonably dangerous condition, (3) which condition caused the plaintiff injuries or damages."⁷⁹ Also, "the product must have reached the consumer without substantial change in its condition from the time it was sold."⁸⁰ This standard analyzes the product itself, not the manufacturer or seller's actions.⁸¹ Hence, whether a manufacturer or seller acted reasonably or observed a high standard of care is of no consequence because such actions cannot serve as a defense.⁸²

The crux of any strict products liability claim is whether the source of injury is indeed a product.⁸³ In this context, Texas case law has broadly defined a product as "something distributed or otherwise placed, for any commercial purpose, into the stream of

^{75.} RESTATEMENT (THIRD) OF TORTS - PRODUCTS LIABILITY § 1 (1998).

^{76.} RESTATEMENT (THIRD) OF TORTS - PRODUCTS LIABILITY § 2 (1998).

^{77.} J. HADLEY EDGAR & JAMES B. SALES, TEXAS TORTS AND REMEDIES § 40.01 (Matthew Bender, rev. ed. 2013).

^{78.} RESTATEMENT (THIRD) OF TORTS - PRODUCTS LIABILITY § 2 (1998).

^{79.} EDGAR & SALES, *supra* note 77.

^{80.} *Id.* (citing Houston Lighting & Power Co. v. Reynolds, 765 S.W.2d 784, 785 (Tex. 1988) (finding that electricity, although a product, is not subject to strict liability claims because it undergoes a substantial change between the time it is generated by the electric company and when it actually reaches the consumer)).

^{81.} RESTATEMENT (THIRD) OF TORTS - PRODUCTS LIABILITY § 1 cmt. a (1998).

^{82.} Id.

^{83.} EDGAR & SALES, *supra* note 77.

commerce for use or consumption."⁸⁴ A sale is not required for the item to be considered in the stream of commerce.⁸⁵ but it is required that the item be "tangible personal property."⁸⁶

2. Products Liability and Texas Legislation

Texas's products liability law is deeply rooted in the Restatements. A defective product in which the defect was existent at the time of sale creates liability for a commercial seller or distributor only for personal injuries or property damage caused by the defective product.⁸⁷ As signified by the language "person or property," this theory of liability is only applicable to personal or property damages.⁸⁸ Personal or property damage also includes economic loss if such loss was the result of personal injury of the plaintiff or another person, and the injury "interferes" with the plaintiff's protected interest, or the plaintiff's property aside from the defective product.⁸⁹ Personal injury and property damages are not applicable under the Waste Recycling Law, so any plaintiff seeking damages that are applicable under the Waste Recycling Law must seek recovery under another theory of products liability.

III. IMPORTANT IMPLICATIONS OF HOUSE BILL 2767

A. Problematic, to Say the Least

Texas was the first state to legally require drilling operations that utilize fracking to disclose the chemical composition of their fracking fluid.⁹¹ Texas's fracking fluid disclosure policy also creates an exception for chemicals that are considered trade secrets. Together, these pieces of legislation create several problems in light of the Waste Recycling Law, namely the subsequent owners of fracking waste being exposed to liability due to damages caused by chemicals present in the waste, although the subsequent owner was unaware of the waste's chemical

^{84.} Fresh Coat, Inc. v. K-2, Inc., 318 S.W.3d 893, 897 (Tex. 2010).

^{85.} EDGAR & SALES, supra note 77.

^{86.} RESTATEMENT (THIRD) OF TORTS - PRODUCTS LIABILITY § 19 (1998).

^{87.} RESTATEMENT (THIRD) OF TORTS - PRODUCTS LIABILITY § 1 cmt. d (1998).

^{88.} *Id.*89. RESTATEMENT (THIRD) OF TORTS - PRODUCTS LIABILITY § 21 (1998).
90. *See* H.B. 2767, 83d Leg., Reg. Sess. (Tex. 2013).

^{91.} TEX. NAT. RES. CODE ANN. § 91.851 (West Supp. 2012).

composition, and the consequent distortion of traditional notions of products liability.

1. Is Fracking Fluid a Trade Secret?

To qualify as a trade secret, four basic requirements must be met,⁹² and fracking fluid meets each of these requirements. First, fracking fluid's chemical composition or formula is the subject of the trade secret. Second, this formula derives obvious economic value for drilling operations that use the fracking process because the chemicals in fracking fluid are considered "essential to the process of releasing gas trapped in . . . underground formations."⁹³ These chemicals serve important functions that help facilitate natural gas release, such as preventing bacteria growth,⁹⁴ managing well pressure,⁹⁵ and inhibiting corrosion of well casings⁹⁶ that are cemented to maintain a barrier between fracking fluid and natural gas and the groundwater supplies.⁹⁷ Likely, by keeping the composition of a specific formula that is able to achieve superior results a secret, the owner of this formula gains a significant competitive advantage compared to other drilling operators or fracking service providers using an inferior product.

Third, the formula for fracking fluid is neither generally known to the public nor readily ascertainable because it is not easily determined. Investigation or reverse engineering could lead to its discovery, but "[t]he fact that a trade secret is of such a nature that it can be discovered by experimentation or other fair and lawful means does not deprive its owner of the right to protection from those who would secure possession of it by unfair means."⁹⁸ Lastly, the companies appear to be making an effort to keep their formulas secret from the public and potential competitors, evidenced at least in part by claiming the trade secret exemption to the fracking fluid disclosure law.

^{92.} See TEX. CIV. PRAC. & REM. CODE § 134A.002 (West 2013).

^{93.} Ken Cohen, "Fracking" Fluid Disclosure: Why it's Important, EXXONMOBIL (Aug. 25, 2011), http://www.exxonmobilperspectives.com/2011/08 /25/fracking-fluid-disclosure-why-its-important-2/, archived at http://perma.cc /599 V-VP2L.

^{94.} See Hydraulic Fracturing: The Process, FRACFOCUS, http://fracfocus.org /hydraulic-fracturing-how-it-works/hydraulic-fracturing-process, archived at http: //perma.cc/X8FN-276Q (last visited Oct. 7, 2014).

^{95.} Cohen, *supra* note 93.

^{96.} Hydraulic Fracturing: The Process, supra note 94.

^{97.} *Explore Shale*, EXPLORE SHALE, http://exploreshale.org/#, archived at http://perma.cc/BN94-JU7S (last visited Oct. 7, 2014).

^{98.} K&G Oil & Tool & Serv. Co. v. G&G Fishing Tool Serv., 314 S.W.2d 782, 788 (Tex. 1958).

As introduced in the Texas House of Representatives, the Disclosure Law required an operation that wanted to claim trade secret protection to submit a formal request to the Railroad Commission that responded to each inquiry required by the Code of Federal Regulations.⁹⁹ Inquiries must be sufficiently answered to claim trade secret protection.¹⁰⁰ Thus, trade secret protection would have only been available upon the Railroad Commission's approval.¹⁰¹ The final, enacted version of the disclosure law, however, deleted this upfront requirement for claim secret protection and now requires only that the Railroad Commission "prescribe a process" whereby an operator can claim trade secret protection.¹⁰² The Railroad Commission has yet to prescribe a process" by law or regulation, but the provisions that are prescribed impose limitations only for those who seek to challenge an operator's trade secret claim, not the operator claiming trade secret protection.¹⁰³ A person seeking to challenge an operator's trade secret claim must do so within two years of a well completion report being filed,¹⁰⁴ and the challenger must be the landowner where the well is located, an adjacent landowner, or a government agency.¹⁰⁵

Suspiciously, operators are left with no authority to police the requirements for trade secret claims, and instead the onus has been placed on a challenger. The trade secret law goes on to say that if an operator's trade secret protection claim is challenged, the Railroad Commission must notify the operator and provide him "an opportunity to substantiate its trade secret claim."¹⁰⁶ Requiring an operator to substantiate his trade secret claim only after a challenge to the claim has been asserted presupposes that the operator actually did so previously. In effect, drilling operators are

105. H.B. 3328, 82d Leg., Reg. Sess. §91.853 (Tex. 2011). Notably, the disclosure law excludes mineral estate owners' eligibility to bring a trade secret challenge, even though, under Texas law, the mineral estate's rights are dominant to the land or surface owner's rights. Oil & Gas Exploration & Surface Ownership, R.R. COMM'N OF TEX., https://web.archive.org/web/201405 16154943/http://www.rrc.state.tx.us/about/faqs/SurfaceOwnerInfo.pdf, archived at http://perma.cc/9LH4-V7BH (last visited Oct. 7, 2014).

^{99.} H.B. 3328, 82d Leg., Reg. Sess. §91.856 (Tex. 2011).

^{100. 40} C.F.R. § 350.7 (2011).

^{101.} H.B. 3328, supra note 99.

^{102.} H.B. 3328, 82d Leg., Reg. Sess. §91.853 (Tex. 2011).

^{103.} *Id.*104. Per Form W-2, Texas requires well completion reports be filed with the Railroad Commission of Texas within 30 days of completing a well. Oil Well Potential Test, Completion or Recompletion Report, & Log, R.R. COMM'N OF TEX., http://www.rrc.state.tx.us/media/2764/w-2-0114.pdf, archived at http://per ma.cc/Y8WQ-AQYG (last visited Oct. 7, 2014).

^{106.} H.B. 3328, 82d Leg. Reg. Sess. §91.853 (Tex. 2011).

allowed to claim trade secret protection without providing any evidence to support such a claim. Evidentiary support of the trade secret claim is only necessary if a party challenges the claim, and then, only if that party is an eligible party recognized by the disclosure law.¹⁰⁷

Certainly, a higher standard for claiming the right to trade secret protection should be implemented. In other areas of law, such as discovery, a party must provide evidence when it asserts the trade secret exemption from disclosure requirements.¹⁰⁸ Evidence of a valid trade secret is provided upfront, rather than only in response to a challenge as seen with fracking trade secret exemptions. As written, erroneous claims to trade secret protection could be asserted, and the state and public would be none the wiser. In 2012, the year after the state's chemical disclosure policy was enacted, a reported 10,000 trade secret exemptions were claimed.¹⁰⁹ The apparent ease with which a drilling operator can claim the trade secret exemption is alarming, especially in light of the volume of exemptions being claimed. Consequently, with the aid of the state legislature, Texas operators can skirt around disclosure requirements with minimal effort.

2. Disclosure & Trade Secret: Mutually Exclusive?

The majority of Texas's drilling operations utilizing fracking techniques commenced prior to Texas's disclosure requirement, and the disclosure rule does not apply retroactively.¹¹⁰ More specifically, the disclosure law is only applicable to fracking treatments performed on wells with initial drilling permits issued on or after February 1, 2012.¹¹¹ In 2011 alone, 22,480 drilling permits were issued.¹¹² This means the hundreds of thousands of pre-existing drilling operations are not required to disclose the

^{107.} The parties allowed to challenge trade secret status can be especially problematic in states such as Texas that recognize mineral estates, which split the ownership of the mineral rights and the surface rights.

^{108.} In re Continental Gen. Tire, 979 S.W.2d 609, 613 (Tex. 1998) (holding that Rule 507 of Texas Rules of Evidence requires a party resisting discovery to establish that their information being withheld is in fact have a trade secret and failure to properly establish trade secret compels disclosure).

^{109.} Brantley Hargrove, *A Year Since Disclosure Law, Fracking Fluid Remains a Mystery*, DALLAS OBSERVER BLOGS (Feb. 4, 2013, 3:03 PM), http://blogs.dallasobserver.com/unfairpark/2013/02/a_year_since_disclosure_law_fr. php, archived at http://perma.cc/7DQY-2VXR.

^{110.} Loftis, supra note 13.

^{111. 16} TEX. ADMIN. CODE § 3.29(b) (2013).

^{112.} *Texas Drilling Statistics*, TEX. R.R. COMM'N, http://www.rrc.state.tx.us/media/19846/txdrillingstats.pdf, archived at http://perma.cc/Q2PS-H2UU (last visited Oct. 7, 2014).

components of the fracking fluid used in their well, and newly opened fracking wells can claim the disclosure exemption for many chemicals, provided it is a trade secret. In short, the vast majority of Texas drilling operations currently in use are not required to disclose their fracking fluid formula.

Pursuant to the Texas Uniform Trade Secrets Act, a trade secret must have an economic value.¹¹³ Disclosure of any trade secret would likely always cause competitive harm because economic value is intrinsic to the secret, rendering the purported "competitive harm" restriction of the exemption requirement superfluous. Interestingly, the operations that are required to disclose the composition of their fracking fluid must do so "as soon as possible, but not later than 15 days following the *completion*" of fracking.¹¹⁴ Certainly, this does not achieve the result that any reasonable person desiring disclosure would hope to see. This provision undermines the very intent of the disclosure policy, which was to quell the public and environmentalists' concerns about fracking chemicals. Disclosing the chemicals used after they have already been used does nothing to quell concerns; in fact, such a provision will likely further infuriate fracking opponents because at the time of disclosure, any supposed damage has already been done. Any potential harm that could result from a hazardous chemical used in the fracking process has long been released. Moreover, drilling operators could potentially transfer their fracking wastewater to a recycler to be treated for a subsequent use, allowing the chemical makeup to remain completely unknown to recyclers or subsequent recipients.

3. Here Comes Products Liability

The overwhelming concern with the fracking process and fracking fluid's chemical composition is potential contamination to water supplies. Suits under a theory of strict products liability may be the preferred method of a claim for damages, especially in a claim alleging water contamination.¹¹⁵ Texas tort law allows an injured consumer of a product to sue under the theory of strict products liability.¹¹⁶ Fracking waste is deemed a product because it meets every requirement needed to qualify as a product as defined

^{113.} TEX. CIV. PRAC. & REM. CODE § 134A.002(6)(A) (West 2013).

^{114. 16} TEX. ADMIN. CODE § 3.29(c)(1) (2013) (emphasis added).

^{115.} See generally Jim Gash, Beyond Erin Brockovich and A Civil Action: Should Strict Products Liability Be The Next Frontier For Water Contamination Lawsuits, 80 WASH. U. L. Q. 51 (2002).

^{116.} Darryl v. Ford Motor Co., 440 S.W.2d 630, 633 (Tex. 1969).

by Texas jurisprudence.¹¹⁷ Fracking waste is tangible, personal property placed into the stream of commerce, for a commercial purpose, for use or consumption. Sellers generally cannot be liable for damages caused by defective products because they are non-manufacturing entities.¹¹⁸ Seven exceptions to this general principal exist, one of which does not relieve the non-manufacturing seller of liability if "the seller altered or modified the product and the claimant's harm resulted from that alteration or modification."¹¹⁹ Under the Waste Recycling Law, certain injuries are not subject to a cause of action for tort liability.¹²⁰

When a recycler becomes the property owner of fracking waste with unknown chemical components, the recycler is certain to have altered the product (the wastewater), but the recycler's treatment of the water is unlikely to be the cause of the harm. In fact, the recycler's treatment of the wastewater is meant to remove contaminants so that it is in an acceptable form for reuse or, in some cases, disposal.¹²¹ Provided the recycler provides an adequate warning cautioning a subsequent party of the fracking waste's potential risk, exemption from liability still applies because the Texas Civil Practice and Remedies Code says "[a] seller that did not manufacture a product is not liable for harm caused . . . unless . . . the warning or instruction was inadequate."¹²² This provision is

... the warning or instruction was inadequate."¹²² This provision is important because the Waste Recycling Law relieves liability in the subsequent transfer as well.¹²³ Two questions emerge from this statutory provision: (1) Can a recycler ever adequately warn or provide instructions when ignorant of its product's complete composition? (2) If the Waste Recycling Law exempts the manufacturer, the drilling operator, from tort liability, and Texas statutory law exempts the non-manufacturing seller, the recycler, from tort liability, is an injured party left completely without a remedy?

Assuming fracking fluid satisfies the requisite elements necessary to be classified as a product, the argument could be made that fracking fluid with hazardous chemicals would satisfy the remaining elements of a strict products liability cause of action: the product is unreasonably dangerous, thus defective, and it

^{117.} Fresh Coat, Inc. v. K-2, Inc., 318 S.W.3d 893, 897 (Tex. 2010).

^{118.} TEX. CIV. PRAC. & REM. CODE ANN. § 82.003 (West 2011).

^{119.} *Id*.

^{120.} H.B. 2767, 83d Leg., Reg. Sess. (Tex. 2013).

^{121.} Bill Chameides, *Fracking Water: It's Just so Hard to Clean*, NAT'L GEOGRAPHIC SOCIETY (Oct. 4, 2013), http://energyblog.nationalgeographic.com /2013/10/04/fracking-water-its-just-so-hard-to-clean/, archived at http://perma.cc/X8C3-Z425.

^{122.} TEX. CIV. PRAC. & REM. CODE ANN. § 82.003.

^{123.} H.B. 2767, 83d Leg., Reg. Sess. (Tex. 2013).

caused the injury. The Waste Recycling Law allows a recycler to escape tort liability if the recycler treats fracking waste so that it is suitable for use in connection with oil and gas drilling as long as the recycler transfers the product to another party that contractually agrees to use the treated wastewater in connection with oil and gas drilling.¹²⁴ However, because the product is treated, this may qualify as a substantial change, thus exempting the operator. With the exemption of the manufacturer and the recycler, the unsuspecting consumer of the treated wastewater is at the mercy of the wastewater purveyors. Hence, an injured consumer could be left without remedy. In the absence of the tort liability exemption, it would still be unjust to make an ignorant recycler liable for damages caused by components they had no reason to know existed in the product they acquired from an operator.

B. Vague Terminology

Many problems also arise with the enactment of the Waste Recycling Law due to the infinite gray areas that emerge in the law itself. Some issues are deferred to the Texas Railroad Commission to be delineated at a later, unspecified date.¹²⁵ The legislation offers no firm deadline for the Commission to address these issues, leaving the question of whether the Commission will address the issues at all. Unless this statutory requirement is actually carried out, the law cannot take full effect. In a related issue, the statute does not define "beneficial use." A strict definition of the phrase is certainly not necessary because a strict definition can cause litigation problems by clever parties who seek a loophole by upholding a strict interpretation standard. The drafters should, at minimum, offer a non-exclusive set of examples of that would constitute a beneficial use, lending at least some guidance to parties attempting to interpret the law.¹²⁶

Another particularly gray area is in the Waste Recycling Law's protection from tort liability when a contractual agreement provides that treated wastewater will be used "in connection" with oil and gas drilling or production.¹²⁷ The law also fails to specify which activities are sufficiently linked to oil and gas drilling production to be considered "in connection." Extensive preparatory actions take place before actual drilling, and certainly before actual

^{124.} Id.

^{125.} Id. (stating, "The commission shall adopt rules to govern the treatment and beneficial use of oil and gas waste.").

^{126.} Other areas of Texas law utilize this method when defining terms in statutory provisions. See, e.g., TEX. TRANSP. CODE Ann. § 51.009 (West 2011).

^{127.} H.B. 2767, 83d Leg. Reg. Sess. (Tex. 2013).

production begins. If the treated wastewater was used during site preparation before drilling began, would this be protected from tort liability? How attenuated can the use of the treated wastewater and the drilling or production activities be before tort liability is triggered? Absent legislative amendments to address this vague notion, questions like these are left for the courts to answer.

C. Consequences

The Waste Recycling Law creates an exception to the traditional notion of products liability seen in Texas. As the person that created the product to be placed into the stream of commerce, the initial "manufacturer" of fracking water—the drilling operator—should be held responsible. Such liability would comport with the traditional application of product liability. However, the Waste Recycling Law is contrary to this traditional application and does not hold the drilling operator responsible. The Waste Recycling Law allows a simple property transfer to exempt the manufacturer from liability in the event an injury occurs.

While the Waste Recycling Law touts that it is premised on the desire to promote the beneficial reuse of fracking wastewater, in reality, the law achieves just the opposite. Texas law has essentially created a disincentive to recycle. Recyclers likely want to find a reuse for wastewater as opposed to injecting it in the ground, but the exposure to liability is far too great. In the unfortunate event that the treated wastewater causes injury, the recycler cannot impute liability to the drilling operator or the service company. Even if recyclers were reasonable and exercised a high degree of care, a strict products liability claim would not care. A strict products liability claim would only see the defective product, and since the manufacturer, by law, is off the hook, the recycler is the sole party responsible. This risk far outweighs the benefit the recyclers would gain in these wastewater transactions.

Trade secrets are another area within these pieces of legislation that raise the proverbial red flag. Ultimately, drilling operations and service companies have an increased incentive to claim trade secrecy. If the trade secret exemption can be claimed merely by stating that the chemicals are subject to trade secret protection, and no further evidence is required until the proper party challenges this assertion, why not claim the trade secret exemption? Even if a drilling operator's claim is bogus, the risk is well worth it because the operator can now legally be non-compliant with state law while protecting their product. If, and only if, a party challenges the assertion could the operator potentially lose its trade secret status. In the absence of a challenging party, the operators can still sidestep disclosure because the law allows disclosure up to two weeks after fracking operations have ended. By this point, the operator has achieved his goal, and the operator only has to fulfill his legal duty as an afterthought. Together, the laws create immunity for waste producers and recyclers irrespective of dangerous chemicals that may be present.

IV. SOLUTION

In the environmentalists' perfect world, fracking would be nonexistent.¹²⁸ Likewise, in a drilling operator's perfect world, the oil and gas industry would operate and produce natural gas sans government regulation with relish. However, such ideals are extreme, and there must be a way for these rival camps to coexist. The most effective solution for Texas to minimize or eliminate kerfuffle regarding fracking is via legislative amendments.

A. Trade Secret Protection

The first step in solving the problems inherent to the Waste Recycling Law is to amend the Disclosure Law. Subsection (a) of the Disclosure Law should include a private disclosure provision that requires the Commission to prescribe a process by which an entity withholding and declaring certain information as a trade secret can disclose the withheld information to a recycler or subsequent party to whom the waste or treated waste is transferred, subject to a confidentiality, non-disclosure, or other equivalent agreement. The private disclosure must include a listing of all known chemicals used during fracking that have the potential to be present in any fracking waste and provide a means for recovery of damages if the terms of the agreement are breached. A nondisclosure agreement would allow recyclers and subsequent parties to have full awareness of the wastewater's composition yet preserve the company's trade secret protection. This provision is likely the most uncomplicated solution suggested, and if used, would be effective in protecting the interests of all parties, fracking

^{128.} Julie Wernau, *Gov. Quinn Signs Bill to Regulate Fracking*, CHI. TRIB. (June 17, 2013), http://articles.chicagotribune.com/2013-06-17/business/chiquinn-fracking-bill-20130617_1_fracking-fracturing-our-environment-many-envi ronmental-advocates, archived at http://perma.cc/GQ9W-YLCG (noting that despite Illinois's extensive fracking regulations, the environmental group Southern Illinoisans Against Fracturing Our Environment were "horrified" with the passage of the regulations and will continue to seek out measures to ban fracking altogether).

operators or services, recyclers, and subsequent owners of the waste.

B. Setback Requirements

Setback distance requirements specify the distance that must exist between a gas well and a dwelling. Setback distances are important not only for nuisance issues, but also for mitigating damages in the event of blow-outs or spills. Texas's drilling setbacks are not regulated by the state but instead are regulated locally.¹²⁹ In addition to setback requirements' variability from one municipality to the next, the requirements also vary depending on the type of structure.¹³⁰ For instance, the drilling distances may be required to be as little as 200 feet from water wells in some cities, and as much as 1,000 feet in others.¹³¹ As recently as December of 2013, the city of Dallas amended its current gas ordinance to mandate a minimum 1,500-foot setback.¹³² To appease both opponents and proponents of fracking, the most logical solution, similar to that seen in Dallas, would be to allow drilling but institute greater setback requirements. However, complications can arise with setback requirements.

First, decisions to drill a well in a particular location are not arbitrary; they depend on a number of factors: "property lines; mineral property boundaries; surface and lease agreements; development plans; encroachment of new development; lease lines; drilling spacing orders; access; centralization of facilities; technical limitations; and the actual location of the resource."¹³³ Increased setbacks also mean an increased amount of surface area impacted by a drilling operation¹³⁴ and the potential for adverse environmental impacts due to the increased materials required to reach the minerals from the well bore.¹³⁵ Such complications

^{129.} See 1000-Foot Drilling Setbacks from Protected Uses of Cities Within Texas, CITY LEAGUE OF TEXAS, http://www.leaguecity.com/DocumentCenter /Home/View/4390, archived at http://perma.cc/46SQ-ARFQ (last visited Oct. 7, 2014).

^{130.} Id.

^{131.} Id.
132. Jim Malewitz, Dallas City Council Tightens Gas Drilling Ordinance,
132. Jim Malewitz, Dallas City Council Tightens Gas Drilling Ordinance, THE TEXAS TRIBUNE (Dec. 11, 2013), http://www.texastribune.org/2013/12/11 /dallas-city-council-tightens-gas-drilling-ordinanc/, archived at http://perma.cc /7JHG-XBSL.

^{133.} Amy J. Williams & Terry Fankhauser, The Real Impacts of Increased Drilling Setbacks, DENVER POST, Feb. 9, 2013, at 21A.

^{134.} Id. (noting, for example, that a 350-foot setback would impact only 8.8 acres, while a 1,000-foot setback would impact 72 acres).

^{135.} Id.

exacerbate the very problems environmentalists wish to resolve. As suggested in a *Denver Post* article regarding Colorado's setback regulations, "[a]ny new rule should provide flexibility for all interested parties to determine the best location of a well while respecting private property rights."¹³⁶ That same sentiment is applicable to Texas's situation.

Uniform setback requirements are not the solution. Environmentalists' concerns are consistently the same, but every drilling operation is unique. While perhaps more cumbersome for municipal authorities, any setback requirements imposed should be assessed on a case-by-case basis rather than a "the further the better" approach as seen in recent regulations.¹³⁷ Certainly, minimum setbacks should be enforced when in proximity to municipal water supplies or public buildings such as schools and libraries. Furthermore, adjacent property owners should have the right to keep drilling a reasonable distance from property lines. Private landowners should be free to negotiate with drilling operators and create private contracts in the same manner that the common law tradition recognizes the rule of capture and a landowner or mineral rights owner's fundamental right to do what he wants on his own land without purposely violating any rights or the safety of adjacent landowners.

C. Baseline and Interval Testing

The primary concern of fracking opponents is the effect of fracking on the environment. Baseline testing and continual testing at regular intervals both during and after drilling would provide empirical evidence to environmentalists that would accurately and objectively assess fracking's true environmental impact. Such testing is not new and has been done in fracking studies,¹³⁸ but Texas's fracking regulations should include testing similar to that seen in Illinois Hydraulic Fracturing Regulatory Act, which requires water testing before fracking commences and at 6-, 18-, and 30-month intervals after fracking has been completed at a site.¹³⁹ Additionally, an independent third party laboratory must conduct the testing to ensure the integrity of the results, testing exceptions granted to owners of private water supplies.¹⁴⁰ Texas should take the Illinois approach a step further and incorporate testing of groundwater as well as soil during fracking and

^{136.} *Id*.

^{137.} See Malewitz, supra note 132.
138. See, e.g., Everly, supra note 45.
139. H.B. 2615 98th Gen. Ass. (Ill. 2013).

^{140.} Id.

immediately after drilling has ended. Monitoring levels of contamination during drilling can ensure safety during the process rather than just solely acting remedially after drilling.

D. Pre-fracking Disclosure

Millions of acres of privately owned land are subject to fracking,¹⁴¹ and unlike corporate or government entities that may own mineral rights, most lay members of society are likely not savvy enough to understand the intricacies of the drilling industry and do not know precisely what an agreement to allow drilling entails. The Disclosure Law currently requires disclosure of fracking chemicals post-fracking. This approach, which only announces a known potential threat after said threat has been introduced, is counterintuitive. The only way to combat this situation is to amend the state's current law to require chemical disclosure pre-fracking, thus ensuring vested members of the public are afforded the opportunity to make informed decisions before entering into drilling agreements.

CONCLUSION

Texas's existing trade secret and disclosure laws are already incompatible, and with the addition of Chapter 122 to the Texas Natural Resources Code, even more complications come to light. Together, the entire regulatory scheme self implodes. While the Disclosure Law purports to address the public's concerns by requiring disclosure, the included trade secret exemption unthreads this already loosely woven piece of legislation. Furthermore, the Disclosure Law was only effective as of 2012, long after most of Texas's fracking operations had already been permitted by the state to drill, thus eliminating existing operators' duty to disclose their chemicals. Even though the state requires new fracking operations (permitted in 2012 or later) to disclose the chemical composition of their fracking fluids, these operations are able to circumvent this requirement by claiming trade secret exemption with no proof required. Now, the Waste Recycling Law adds recyclers and other subsequent parties that take possession of fracking waste to this very complicated equation.

^{141.} See Amy Mall, BLM fracking rule will apply to more than 55 million acres of private land (see maps), NATURAL RES. DEF. COUNCIL STAFF BLOG (May 10, 2012), http://switchboard.nrdc.org/blogs/amall/blm_fracking_rule_will_apply_t.html, archived at http://perma.cc/U38-ZLTY (estimating, per the Bureau of Land Management, that 57.2 million acres alone are owned privately and subject to mineral estates severed from surface ownership).

Given the likelihood that most fracking operations will exercise their right to claim trade secrecy and the apparent ease with which operations can claim this right, pertinent chemicals in the fracking fluid will remain shrouded in mystery. Consequently, recyclers and subsequent owners of fracking waste will be unaware of potentially dangerous components accompanying their acquisition. Accordingly, environmentalists' concerns are essentially left unaddressed. In its current state, Texas's fracking legislation amounts to nothing more than "feel good" legislation, but with artful drafting, legislators can find the common thread that unites fracking proponents and opponents alike.

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