

# An Environmental FOIA: Balancing Trade Secrecy with the Public's Right to Know

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*This Note discusses the growing use of trade secrecy to withhold critical environmental information from the public. Over the last decade, trade secrecy has moved to the forefront of intellectual property law as an effective method for protecting valuable business information. Trade secrecy grants individuals and businesses the sole right to information they have obtained through their time and investment. Generally, the value of a trade secret depends on the suppression of data not known to the public. In this manner, trade secrecy directly conflicts with environmental regulation that relies on the collection and distribution of information about land, air, water, and human health. Despite this conflict, environmental laws allow proprietary interests to prevail over the public interest in obtaining environmental information by exempting trade secret material from reporting requirements.*

*Trade secrecy in environmental law threatens transparency, accountability, and public safety. Existing approaches to balancing secrecy with the public's right to know fall short of increasing public access to environmental information. Using the United Kingdom's Environmental Information Regulations (EIRs) as a model, this Note argues that the United States should adopt an Environmental Freedom of Information Act (FOIA), which presumes that environmental data held by agencies should be disclosed unless a refusal can be justified. An Environmental FOIA would shift the burden to trade secret holders and require them to demonstrate how their proprietary interests outweigh the public interest in environmental information access.*

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DOI: <https://doi.org/10.15779/Z384B2X56N>

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\* J.D. 2021, University of California, Berkeley, School of Law. I am incredibly grateful to Professor Sonia Katyal for her invaluable advice, guidance, and mentorship throughout the writing process. I would also like to thank Professor Robert Infelise for listening to my ideas, sharing his environmental expertise, and providing me with feedback. Finally, I would like to thank my family and friends for their endless love and support.

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## INTRODUCTION

In 2014, Rebecca Bowen and her family lived near an oil well site in Clarington, Ohio, which caught fire, triggering thirty explosions and engulfing twenty trucks filled with chemicals.<sup>1</sup> Black smoke from the fire polluted the air and thousands of gallons of chemicals permeated Opossum Creek, a local

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1. See Press Release, Ohio Env’t Council, *Stories from Fracking Country: Ohioans on the Frontline of Oil and Gas Development Demand Stronger Protections for Their Communities* (Mar. 24, 2017), <https://theoec.org/press-releases/stories-from-fracking-country-ohioans-on-the-frontline-of-oil-and-gas-development-demand-stronger-protections-for-their-communities/> [<https://perma.cc/3XNC-R7NY>]; Scott Tong, “*The Public Has a Right to Know*”: *Fracking Companies Don’t Have to Disclose Chemicals Linked to Health Concerns*, MARKETPLACE (Nov. 15, 2017), <https://www.marketplace.org/2017/11/15/epas-legalized-suppression-fracking-chemical-secrets/> [<https://perma.cc/839D-9NUK>].

waterway that feeds into the Ohio River.<sup>2</sup> Doctors told Bowen that her daughter's esophagus had "melted" from breathing in the air. They diagnosed her husband with six spots on his lung and just half a year later, more spots appeared.<sup>3</sup> To this day, the public does not know what chemicals Bowen and her family were exposed to. Halliburton, the company operating the site, did not provide emergency responders with the identities of all substances involved in the fire.<sup>4</sup> Although firefighters received a partial list of chemicals from Halliburton a few days after the accident, the list did not include any chemical identities that the company deemed proprietary information.<sup>5</sup> Ohio law allows withholding of so-called trade secret information, even if it means leaving first responders in the dark.<sup>6</sup>

The massive fire that Rebecca Bowen and her family lived through demonstrates why access to environmental information is essential to community risk assessment, human health, and public safety. If the chemical substances Halliburton used in Ohio were not kept secret, the state could have properly evaluated the danger of the oil well to the surrounding community. Moreover, individuals living near the site would have been aware of the threat chemicals posed to their health and Halliburton could have been held accountable for the devastating impact of its actions. Instead, in a direct conflict over environmental data, the law allowed Halliburton's claim of trade secrecy and confidentiality to prevail over the public's interest in disclosure.<sup>7</sup>

The United States has long protected trade secrets as a form of intellectual property, but companies' use of trade secrecy as a means to withhold environmental information from the public is growing.<sup>8</sup> Regulated entities frequently invoke trade secret privilege for information they are required to

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2. See Tong, *supra* note 1; see also Mariah Blake, *Halliburton Fracking Spill Mystery: What Chemicals Polluted an Ohio Waterway?*, MOTHER JONES (July 24, 2014), <https://www.motherjones.com/politics/2014/07/halliburton-ohio-river-spill-fracking/> [<https://perma.cc/RZV2-GS37>].

3. Tong, *supra* note 1.

4. *Id.*

5. *See id.*

6. *See* OHIO REV. CODE ANN. § 1509.10(A)(9)(a) (LexisNexis 2016); Blake, *supra* note 2.

7. *See, e.g.*, Mary L. Lyndon, *Trade Secrets and Information Access in Environmental Law*, in *THE LAW AND THEORY OF TRADE SECRECY: A HANDBOOK OF CONTEMPORARY RESEARCH* 442, 455 (Rochelle C. Dreyfuss & Katherine J. Strandburg eds., 2011) (elaborating on the individual and systemic public interest in disclosure).

8. *See id.* at 445.

submit to government agencies.<sup>9</sup> If environmental information<sup>10</sup> can qualify for trade secret protection, it is unlikely that it will be fully reported to government agencies or released to the public. Although environmental laws include trade secret protections to respect the intellectual property rights of regulated parties, secrecy undermines risk management and increases the likelihood of environmental harms.<sup>11</sup> The suppression of trade secret information also allows regulated parties to avoid oversight, incentivizing dangerous behavior.<sup>12</sup> Thus, trade secret protections are incompatible with transparency, accountability, and safety—goals environmental laws should aim to achieve.<sup>13</sup>

Federal environmental laws typically require the collection and distribution of data to regulate pollution, avoid health hazards, and protect species. However, many of these laws also prohibit agencies from publicly releasing trade secret information submitted by regulated entities.<sup>14</sup> For example, the Emergency Planning and Community Right-to-Know Act (EPCRA), the Toxic Substances Control Act (TSCA), the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and the Clean Water Act (CWA) all contain provisions which allow regulated entities to invoke trade secret privilege for information they submit to the United States Environmental Protection Agency (EPA).<sup>15</sup> Although entities may invoke trade secret privilege with little support for their claims, the privilege nonetheless prevents agencies from releasing that data to the public. Activities underregulated by federal law, such as fracking, best illustrate the dangerous results. State fracking laws provide broad protections for trade secrets, allowing

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9. See, e.g., W. Whitaker Rayner, *Protecting Trade Secrets Furnished to the Government*, TRADE SECRET INSIDER (July 29, 2014), <https://www.tradesecretsinsider.com/protecting-trade-secrets-furnished-to-the-government/> [<https://perma.cc/W7X2-7M38>] (instructing businesses to take precautions in submitting information to the government) (“[N]otions of public disclosure and access to governmental records are largely inconsistent with the protection of confidential and proprietary trade secrets of private businesses. While both the federal government and states attempt to accommodate these competing interests, businesses should be very careful when producing documents to public entities and should have a plan to minimize their exposure if such documents must be produced.”).

10. “Environmental information” is used throughout this Note to generally refer to information on the state of the environment and its impact on human health, including information collected pursuant to laws and policies about the environment.

11. See Sarah Lamdan, *Beyond FOIA: Improving Access to Environmental Information in the United States*, 20 GEO. ENV'T L. REV. 481, 483 (2017); Lyndon, *supra* note 7, at 442.

12. See Julie E. Zink, *When Trade Secrecy Goes Too Far: Public Health and Safety Should Trump Corporate Profits*, 20 VAND. J. ENT. & TECH. L. 1135, 1143 (2018).

13. See David S. Levine, *Secrecy and Unaccountability: Trade Secrets in Our Public Infrastructure*, 59 FLA. L. REV. 135, 157–58 (2007) [hereinafter Levine, *Secrecy and Unaccountability*] (footnote omitted) (“[D]emocratic government is driven by notions of transparency and accountability. Secrecy is the exception, rather than the norm. When considering these contrasting goals and values, it becomes apparent that trade secrecy and public accountability cannot easily coexist.”).

14. See Freedom of Information Act (“FOIA”), 5 U.S.C. § 552; Toxic Substances Control Act of 1976 (“TSCA”), 15 U.S.C. §§ 2601–97; Federal Water Pollution Control Act (“FWPCA”), 33 U.S.C. §§ 1251–1387; Clean Water Act (“CWA”), 33 U.S.C. § 1251; Emergency Planning and Community Right-to-Know Act of 1986 (“EPCRA”), 42 U.S.C. §§ 11001–05, 11021–23, 11040–50.

15. See *supra* note 14 (citing relevant statutes).

oil companies to keep the government and the public in the dark about chemicals used in operations.<sup>16</sup>

In the absence of a comprehensive scheme that requires widespread disclosure of environmental information impacting the public, individuals must seek environmental content through the nation's most vital right to know law—FOIA.<sup>17</sup> It provides the public a right to request access to federal agency records, but it excludes records protected by any of its nine exemptions.<sup>18</sup> Exemption 4 protects trade secret or confidential material.<sup>19</sup> The amount of content it withholds from the public has grown over time. Federal agencies regularly misapply and overuse the exemption to deny the public access to government documents.<sup>20</sup> Agencies are inclined to find that information qualifies for trade secret protection to avoid challenges from regulated parties, who submit information to the agency and intend to prevent the information's public release.<sup>21</sup> Recent judicial interpretations of Exemption 4 have compounded this problem and expanded the scope of information falling within its boundaries.<sup>22</sup>

This Note examines the relationship between trade secrecy and the public's right to know environmental information and suggests that the United States enact an Environmental FOIA modeled after the United Kingdom's EIR. The United Kingdom has recognized that the public has a right to access critical environmental information, even where proprietary interests are at stake. Accordingly, the United Kingdom has taken steps beyond implementing a standard freedom of information law by creating EIRs, which serve as additional transparency measures for environmental information.<sup>23</sup> The United States has not yet taken a similar approach—there is no law that broadly disseminates environmental data to the public.

Part I of this Note discusses the current legal framework in the United States, which shields all potential trade secret environmental information from public disclosure. It covers federal environmental statutes, state fracking laws, and FOIA. Part II analyzes the tension between secrecy and environmental regulation, including issues with transparency, accountability, and public safety. Part III examines current approaches to increasing disclosure of and access to environmental information, including statutory reform, litigation, and proposals to redefine trade secrecy. Finally, Part IV argues that an Environmental FOIA that presumes disclosure of environmental data held by agencies, unless a refusal

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16. See Tong, *supra* note 1.

17. 5 U.S.C. § 552.

18. *Id.* at (b)(1)–(9).

19. *Id.* at (b)(4).

20. See David C. Vladeck, *Information Access—Surveying the Current Legal Landscape of Federal Right-to-Know Laws*, 39 ENV'T L. & POL'Y ANN. REV. 10773, 10781 (2009).

21. See *id.* at 10778.

22. See *Food Mktg. Inst. v. Argus Leader Media*, 139 S. Ct. 2356 (2019); see also *Env't Integrity Project v. EPA*, 864 F.3d 648 (D.C. Cir. 2017).

23. See *The Environmental Information Regulations 2004*, SI 2004/3391 (UK) [hereinafter *Environmental Information Regulations*].

can be justified, would prevent regulated parties from making unwarranted trade secret claims. At heart, this Note maintains that trade secret holders should have the burden of proving that their proprietary interests outweigh the public interest in information concerning the environment.

## I.

### TRADE SECRECY IN ENVIRONMENTAL LAW

To understand how trade secrecy is used to obstruct the freedom of environmental data, it is important to recognize the dynamic nature of trade secrecy in the United States. Information is protected as a trade secret if it (1) is not generally known or readily ascertainable, (2) is subject to reasonable secrecy measures, and (3) has actual or potential economic value.<sup>24</sup> Accordingly, trade secret law encompasses a variety of material including formulas, processes, methods, techniques, and machines.<sup>25</sup> Legal protections for trade secret materials are designed to encourage research, experimentation, and innovation by providing individuals and companies the sole right to knowledge they have obtained through their time and investment.<sup>26</sup> But trade secrecy has also been described as an “ever-expanding” doctrine that can potentially apply to “any form of information connected to a business” due to its extensive definition of eligible subject matter.<sup>27</sup>

In terms of limiting the public’s access to information, trade secrecy is by far the most powerful branch of intellectual property law.<sup>28</sup> Trade secrecy operates differently from patents, copyrights, and trademarks.<sup>29</sup> In contrast to these other forms, trade secrets are never registered with the government; instead, protection automatically attaches when information of value is kept secret by the owner.<sup>30</sup> The duration of protection for trade secrets is also unique because it is unlimited.<sup>31</sup> So long as the legal elements are met, a trade secret could last forever. Where no possibility of independent discovery or reverse engineering of the trade secret exists, it is unlikely to ever enter the public domain or provide any public benefit.<sup>32</sup>

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24. BRIAN T. YEH, CONG. RSCH. SERV., R43714, PROTECTION OF TRADE SECRETS: OVERVIEW OF CURRENT LAW AND LEGISLATION 2 (2016).

25. *See id.* at 7.

26. *See id.* at 5.

27. Levine, *Secrecy and Unaccountability*, *supra* note 13, at 150, 156.

28. David S. Levine, *Confidentiality Creep and Opportunistic Privacy*, 20 TUL. J. TECH. & INTELL. PROP. 11, 20 (2017) [hereinafter Levine, *Confidentiality Creep*].

29. *Id.*

30. *See id.*

31. *Id.* For contrast, design patents are protected for fifteen years from issuance and utility patents are protected for twenty years from the date on which the application for the patent was filed. Copyright protection lasts for the life of the author, plus seventy years. *See Trademark, Patent, or Copyright?*, USPTO, <https://www.uspto.gov/trademarks/basics/trademark-patent-or-copyright> [https://perma.cc/2JC8-G4MH].

32. *See Levine, Secrecy and Unaccountability*, *supra* note 13, at 157.

Over the last decade, trade secrecy has grown in popularity as an effective method to protect valuable intellectual material.<sup>33</sup> The increase in popularity can be attributed to its broad range of eligible subject matter, lack of a registration process, and unlimited duration. The Defend Trade Secrets Act's (DTSA) passage in 2016, which created a federal, private, civil cause of action for trade secret misappropriation for the first time, also accelerated the trend.<sup>34</sup> Prior to 2016, litigants had to bring all actions for trade secret misappropriation in state courts.<sup>35</sup> While trade secrecy primarily remains a state law matter, trade secret litigation moved to the forefront of intellectual property law after the passage of the DTSA.<sup>36</sup>

Environmental regulation has not been immune to the rising popularity of trade secrecy. There are provisions protecting trade secret and confidential business information (CBI) in most laws that gather environmental data and regulate activity that impacts our land, water, air, and health. These provisions were designed to balance intellectual property rights with reporting requirements at a time when trade secrecy was not widespread and "the arrangement was apparently seen as no more than an inconvenience to environmental management."<sup>37</sup> But now that the "business use of secrecy has become more widespread" and "the environmental scene has become more complex,"<sup>38</sup> the provisions operate as powerful tools for regulated entities to avoid public disclosure. The provisions presume trade secrecy exists and require public justification for disclosure.

There are at least three areas of concern where trade secret and CBI protections constrain access to environmental content. First, federal environmental statutes require the EPA to collect and report environmental data to the public but exclude trade secret information from these requirements. Second, state fracking laws provide the strongest protections for trade secret information, encouraging the oil and gas industry to suppress information about chemical substances used in drilling operations. Fracking laws thus illustrate the far end of the spectrum, where proprietary interests are clearly prioritized over the public interest. Finally, environmental information is not readily accessible to the public through open record laws such as FOIA, which also protect confidential data from disclosure.

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33. See JEFFREY MORDAUNT, NEIL EISGRUBER & JOSHUA SWEDLOW, STOUT, TRENDS IN TRADE SECRET LITIGATION REPORT 2020, at 5 (2020).

34. See *id.* at 12–13; Defend Trade Secrets Act, 18 U.S.C. § 1836.

35. See Levine, *Confidentiality Creep*, *supra* note 28, at 22; UNIF. TRADE SECRETS ACT, 14 U.L.A. 538 (2005).

36. See John E. Elmore, *A Quantitative Analysis of Damages in Trade Secrets Litigation*, FORENSIC ANALYSIS INSIGHTS, Spring 2016, at 79, 86, [http://www.willamette.com/insights\\_journal/16/spring\\_2016\\_11.pdf](http://www.willamette.com/insights_journal/16/spring_2016_11.pdf) [<https://perma.cc/2P2T-FRX8>].

37. Lyndon, *supra* note 7, at 443.

38. *Id.* at 445.

A. *Trade Secret Exemptions in Federal Environmental Statutes*

When Congress approved President Nixon's proposal to create the EPA fifty years ago, the objective was to "consolidate in one agency a variety of federal research, monitoring, standard-setting and enforcement activities to ensure environmental protection."<sup>39</sup> Information access is vital to achieving these goals because environmental decision-making is already plagued with uncertainty about bio-geophysical processes and socioeconomic costs.<sup>40</sup> A continuous and transparent stream of information allows the EPA, policymakers, and the public to assess actions that impact our environment and hold parties who violate the law accountable.<sup>41</sup> However, many environmental statutes contain provisions that broadly protect trade secrets and a broader category of CBI from publication. Businesses can then use these information privacy tools<sup>42</sup> to suppress environmental data, making it harder to regulate private activities.

A prominent example of this phenomenon is the regulation of potentially hazardous chemicals. Multiple federal statutes currently allow regulated parties to withhold chemical identities as trade secrets from information they are otherwise required to report to the government. For example, the EPCRA is a proactive planning law that helps communities plan and prepare for chemical emergencies.<sup>43</sup> It requires federal, state, and local governments to report on the storage and releases of hazardous substances.<sup>44</sup> These reports are used to prepare for potential chemical risks to communities. But the EPCRA contains a provision that allows any person or company required to submit information to withhold specific chemical identities, including chemical names, as trade secrets.<sup>45</sup> Consequently, these chemical identities cannot be properly assessed to prepare for the risks that the law aims to prevent.

Similar provisions exempting trade secrets from disclosure can be found in environmental tracking and reporting laws such as FIFRA and TSCA. FIFRA "governs the registration, distribution, sale, and use of pesticides in the United States."<sup>46</sup> However, the statute allows pesticide manufacturers to mark any portions of records they submit to the EPA as trade secret, commercial, or

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39. *EPA History*, U.S. EPA (Dec. 21, 2016), <http://epa.unhyperbolic.org/mirror/www.epa.gov/history.html> [<https://perma.cc/T522-L7D8>].

40. See Peter H. Sand, *The Right to Know: Freedom of Environmental Information in Comparative and International Law*, 20 TUL. J. INT'L & COMPAR. L. 203, 206 (2011).

41. See Lyndon, *supra* note 7, at 452–53.

42. Elliot Fink, *Dirty Little Secrets: Fracking Fluids, Dubious Trade Secrets, Confidential Contamination, and the Public Health Information Vacuum*, 29 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 971, 975 (2019).

43. See 42 U.S.C. §§ 11001–02.

44. *Id.* § 11005.

45. *Id.* § 11042 (stating that any person may withhold the specific identity of a chemical from an emergency and hazardous chemical inventory reporting form when it is a trade secret substantiated in accordance with EPA regulations).

46. *Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and Federal Facilities*, U.S. EPA (Feb. 16, 2021), <https://www.epa.gov/enforcement/federal-insecticide-fungicide-and-rodenticide-act-fifra-and-federal-facilities> [<https://perma.cc/MP3X-5G8T>].

financial information.<sup>47</sup> Likewise, the TSCA, which provides the EPA with authority to require reporting, record keeping, and testing relating to chemical substances, prohibits the EPA from publicly disclosing a regulated entity's information if it would qualify for protection as trade secret or CBI.<sup>48</sup> Under both statutes, chemicals are regulated because they have the potential to be hazardous to humans and the environment, but their identities might not ever be submitted to the agency, let alone the public.

Although trade secret exemptions in environmental laws attempt to balance intellectual property rights with reporting requirements, regulated entities can use the exemptions as loopholes to avoid oversight. The exemptions do not have clearly defined boundaries while the statutes themselves are not clear about what information actually deserves protection as a trade secret or what standards should direct the decision. Instead, Congress has given the EPA Administrator discretion to fill in the gaps and ultimately decide what should be withheld or released to the public. For example, the CWA requires records on effluent data be available to the public, "except that upon a showing satisfactory to the Administrator" that making those records available would divulge methods or processes entitled to protection as trade secrets.<sup>49</sup> Typically, it is enough for information to have the *potential* to qualify as trade secret or CBI to prevent its release because Section 1905 of Title 18 prohibits employees of the United States from improperly disclosing various forms of confidential government information, including trade secrets.<sup>50</sup> Thus, the Administrator has to keep criminal liability for unauthorized trade secret disclosures in mind when deciding which content to withhold.<sup>51</sup>

When regulated parties submit information to an agency, they are not required to provide support for their trade secret claims. Further compounding the problem, agencies often infrequently review the claims and inadequately investigate them when they do. For example, under FIFRA, parties who submit

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47. See *Pesticide Registration Manual: Chapter 15 - Submitting Data and Confidential Business Information*, U.S. EPA (Jan. 15, 2021), <https://www.epa.gov/pesticide-registration/pesticide-registration-manual-chapter-15-submitting-data-and-confidential> [<https://perma.cc/GBW5-ZMEA>] (citing FIFRA Section 10(b)).

48. 7 U.S.C. §§ 136h(a)–(b) (explaining that applicants may "clearly mark any portions" of their required reporting that are, in their opinion, "trade secrets or commercial or financial information," and the Administrator shall not make public any information that relates to such privileged or confidential information); see also 15 U.S.C. § 2613(a) ("[T]he Administrator shall not disclose information that is exempt from disclosure.").

49. 33 U.S.C. § 1318(b); cf. Clean Air Act, 40 C.F.R. § 2.208 (2014) (allowing information to be withheld so long as a business has satisfactorily shown it would cause substantial harm to their competitive position or would impair the government's ability to obtain necessary information in the future).

50. See U.S. Dep't of Just., *Crim. Res. Manual* § 1665, <https://www.justice.gov/archives/jm/criminal-resource-manual-1665-protection-government-property-disclosure-confidential-government> [<https://perma.cc/S4NM-72KK>].

51. 33 U.S.C. § 1318(b) ("[T]he Administrator shall consider such record, report, or information, or particular portion thereof confidential in accordance with the purposes of section 1905 of Title 18.").

documents marked as trade secrets only need to support their claim if such support is required or requested by the agency.<sup>52</sup> But in practice, the EPA most commonly reviews trade secret or confidentiality claims in the context of FOIA requests because they have limited resources.<sup>53</sup> Even if the agency regularly reviewed claims, the laws do not require a robust verification process and frequently exempt material from the minimal corroboration requirements that are in place.<sup>54</sup> For example, under the TSCA, “information describing the processes used in manufacture or processing of a chemical substance” or “the use, function, or application of a chemical substance” are categories that never need to be substantiated.<sup>55</sup> Hence, it is likely that if parties are not required to support their claims, they will assert trade secret privilege for their environmental information, and the law will accept that designation.

### B. Proprietary Interests in State Fracking

State regulation of fracking serves as the most prominent and extreme example of how the law has prioritized trade secrecy over the public interest in environmental information. Fracking, short for “hydraulic fracturing,” involves injecting large volumes of water, sand, and chemicals into a well to create cracks in bedrock formations to allow oil and gas to flow to the surface.<sup>56</sup> Although there is growing concern about the negative effects of fracking on the environment and human health,<sup>57</sup> state legislatures are struggling to reconcile trade secret protections for the oil and gas industry with the need for transparency.

Oil and gas companies use intellectual property rights to protect their fracking processes. While they have patented procedures for drilling, they

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52. Kathryn E. Szmuszkovicz & Sean M. Roberts, *Protection of Confidential Inert Ingredient Information in a World of Disclosure*, CPDA Q., January – March 2010, at 1, 4, <https://www.bdlaw.com/content/uploads/2018/06/protection-of-confidential-inert-ingredient-information-in-a-world-of-disclosure-cpda-quarterly.pdf> [<https://perma.cc/X9LZ-TUVC>] (“A company submitting inert ingredient information has several opportunities to protect that information from disclosure[—]by claiming it as CBI, substantiating the CBI claim if requested, and even defending the CBI claim in court if necessary.”).

53. *Id.* at 3.

54. See U.S. EPA, 550-B-14-001, INSTRUCTIONS FOR COMPLETING THE EPCRA TRADE SECRET SUBSTANTIATION FORM (2014), [https://www.epa.gov/sites/production/files/2014-01/documents/trade\\_secret\\_instructions.pdf](https://www.epa.gov/sites/production/files/2014-01/documents/trade_secret_instructions.pdf) [<https://perma.cc/3RZQ-RTHX>]; see also *Substantiation to Accompany Claims of Trade Secrecy Under the Emergency Planning and Community Right-To-Know Act of 1986*, U.S. EPA, [https://www.epa.gov/sites/production/files/2019-04/documents/ts-form\\_2019.pdf](https://www.epa.gov/sites/production/files/2019-04/documents/ts-form_2019.pdf) [<https://perma.cc/H2E3-SS92>].

55. *What to Include in CBI Substantiations*, U.S. EPA (July 7, 2021), <https://www.epa.gov/tscabi/what-include-cbi-substantiations> [<https://perma.cc/6578-HUT4>].

56. *What Is Hydraulic Fracturing?*, U.S. GEOLOGICAL SURV., [https://www.usgs.gov/faqs/what-hydraulic-fracturing?qt-news\\_science\\_products=0#qt-news\\_science\\_products](https://www.usgs.gov/faqs/what-hydraulic-fracturing?qt-news_science_products=0#qt-news_science_products) [<https://perma.cc/MMP6-WK6M>].

57. See Roger Drouin, *As Fracking Booms, Growing Concerns About Wastewater*, YALE ENV'T 360 (Feb. 18, 2014), [https://e360.yale.edu/features/as\\_fracking\\_booms\\_growing\\_concerns\\_about\\_wastewater](https://e360.yale.edu/features/as_fracking_booms_growing_concerns_about_wastewater) [<https://perma.cc/8CUW-8JMU>].

regularly invoke trade secret and confidential privilege to hide the chemical composition of fracking fluids they inject into the ground.<sup>58</sup> Companies argue that without protections for their proprietary interests, they would “lose money on their investments” to develop new fracturing fluids that other companies do not have.<sup>59</sup> They argue that there would be no “incentives to improve the fracking process” because “without a high expected return, companies have no reason to make [an] initial investment.”<sup>60</sup> Companies also frequently claim that disclosing chemical mixtures used during fracking would allow competitors to reverse engineer their trade secret formulas, destroying any economic value.<sup>61</sup>

Fracking is underregulated by the federal government<sup>62</sup> and the oil and gas industry has successfully advocated for stringent trade secret protections under state law.<sup>63</sup> Trade secret rules at the state level “are so lax that there’s essentially no oversight” of chemicals used in drilling.<sup>64</sup> State fracking laws limit chemical reporting requirements and create deadlines for individuals requesting information on chemical substances used in their communities. These laws ultimately keep the public in the dark.<sup>65</sup> In the absence of federal law, the scope of trade secret protection for fracking chemicals varies from state to state and there is no consistency in disclosure requirements.<sup>66</sup>

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58. See Fink, *supra* note 42, at 1002 (“The evidence available since many states began requiring disclosure of fracking chemicals seems to indicate that trade secrets are being claimed by the industry in giant frequencies to avoid meaningful disclosure.”) (“An investigation by the Obama-era DOE in 2014 came to a similar conclusion: trade secrets were being invoked 84% of the time.”).

59. See John Craven, Note, *Fracking Secrets: The Limitations of Trade Secret Protection in Hydraulic Fracturing*, 16 VAND. J. ENT. & TECH. L. 395, 413 (2014).

60. *Id.*; see also GARY SERNOVITZ, *THE GREEN AND THE BLACK: THE COMPLETE STORY OF THE SHALE REVOLUTION, THE FIGHT OVER FRACKING, AND THE FUTURE OF ENERGY* 79 (2016) (arguing that the need for trade secret protection is overblown because there is likely little difference between one company’s proprietary frack fluid formulas and other companies’ formulas).

61. Kellie Fisher, Note, *Communities in the Dark: The Use of State Sunshine Laws to Shed Light on the Fracking Industry*, 42 B.C. ENV’T AFF. L. REV. 99, 110 (2015). Fracking fluids can qualify as trade secrets under the Uniform Trade Secrets Act (UTSA). See Fink, *supra* note 42, at 1010 (“Halliburton created what it called its CleanSuite™ line of fracking chemicals and methods.”).

62. Oil and gas production is “largely ungoverned at the federal level.” NAT. RES. DEF. COUNCIL, NRDC POLICY BASICS: FRACKING I (2013), <https://www.nrdc.org/sites/default/files/policy-basics-fracking-FS.pdf> [<https://perma.cc/C7NY-XTPN>]. The Safe Drinking Water Act, Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act, and National Environmental Policy Act exempt fracking. *Id.*

63. See Jesse Coleman, *Meet the Shadow Lobbyists Protecting Fracking from Regulation: The IOGCC*, GREENPEACE (Apr. 11, 2016), <https://www.greenpeace.org/usa/shadow-lobbyists-protecting-fracking-regulation-iogcc/> [<https://perma.cc/6CAW-XH6H>]; *Map: The Fracking Boom, State by State*, INSIDE CLIMATE NEWS (Jan. 20, 2015), <https://insideclimatenews.org/news/20150120/map-fracking-boom-state-state> [<https://perma.cc/7VEP-NNQH>].

64. Celia Henry Arnaud, *Figuring out Fracking Wastewater*, C&EN WASH., March 2015, at 8, 13, [https://cen.acs.org/content/dam/cen/static/pdfs/Article\\_Assets/93/09311-cover1-2.pdf](https://cen.acs.org/content/dam/cen/static/pdfs/Article_Assets/93/09311-cover1-2.pdf) [<https://perma.cc/5RMH-CNX5>].

65. See Benjamin W. Cramer, *What the Frack? How Weak Industrial Disclosure Rules Prevent Public Understanding of Chemical Practices and Toxic Politics*, 25 S. CAL. INTERDISC. L.J. 67, 94 (2016).

66. See Matthew McFeeley, *Falling Through the Cracks: Public Information and the Patchwork of Hydraulic Fracturing Disclosure Laws*, 38 VT. L. REV. 849, 850 (2014).

State fracking laws have considerable differences in the procedures used to collect data from oil and gas companies. Some states have their own regulatory bodies dedicated to collecting data on chemical substances used in fracking,<sup>67</sup> but others only mandate that companies submit chemical information via a publicly accessible website named FracFocus.<sup>68</sup> Of the eighteen states with significant fracking activity, six require well operators to report information to FracFocus by posting it to the site themselves.<sup>69</sup> But a 2013 Harvard study found that FracFocus was not “an acceptable regulatory compliance method for chemical disclosures.” The rates of withheld chemical ingredients has also increased over time since FracFocus allows for “overly broad” proprietary claims.<sup>70</sup> When submitting fracking fluid information to the site, oil well operators can mark information as CBI, a category that covers trade secrets.<sup>71</sup> At least 70 percent of disclosures included at least one ingredient marked as CBI in 2015.<sup>72</sup> In 2016, FracFocus version 3.0 adopted a systems approach that enabled well operators to submit separate lists of additives and chemical ingredients as a default.<sup>73</sup> The systems approach should have incentivized greater disclosure because it was “meant to prevent reverse engineering of additive formulas while enabling disclosure of constituent chemicals.”<sup>74</sup> However, a 2020 study from the University of Chicago found that “withholding rates remained high”<sup>75</sup> and “FracFocus might not be an appropriate regulatory tool for safeguarding the environment and public health.”<sup>76</sup>

In addition to the procedural differences, the type of fracking fluid information disclosed varies by state. When companies do not invoke trade secret law, they typically report the chemical ingredient name, identification

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67. States with the most stringent fracking laws, such as Wyoming and California, require companies to submit information to the state rather than relying on FracFocus. *See* McFeeley, *supra* note 66, at 867–70.

68. *Id.* at 862–63.

69. T. Robert Fetter, *Fracking, Toxics, and Disclosure* 5, 6 (November 2018) (unpublished manuscript), <https://sites.duke.edu/trfetter/files/2018/11/Fetter-ftd-25nov2018.pdf> [<https://perma.cc/L3JJ-84L4>]; McFeeley, *supra* note 66, at 866–68.

70. KATE KONSCHNIK WITH MARGARET HOLDEN & ALEXA SHASTEEN, HARVARD LAW SCH., ENV'T LAW PROGRAM, *LEGAL FRACTURES IN CHEMICAL DISCLOSURE LAWS: WHY THE VOLUNTARY CHEMICAL DISCLOSURE REGISTRY FRACFOCUS FAILS AS A REGULATORY COMPLIANCE TOOL* 1–2 (2013), <http://blogs.law.harvard.edu/environmentallawprogram/files/2013/04/4-23-2013-LEGALFRACTURES.pdf> [<https://perma.cc/D3KB-RY3A>].

71. U.S. EPA, EPA/601/R-14/003, *ANALYSIS OF HYDRAULIC FRACTURING FLUID DATA FROM THE FRACFOCUS CHEMICAL DISCLOSURE REGISTRY 1.0* 17 (2015), <https://www.epa.gov/hfstudy/analysis-hydraulic-fracturing-fluid-data-fracfocus-chemical-disclosure-registry-1-pdf> [<https://perma.cc/X9QD-8U9W>].

72. *Id.*

73. *See* Kevin Trickey, Nicholas Hadjimichael & Prachi Sanghavi, *Public Reporting of Hydraulic Fracturing Chemicals in the USA 2011–18: A Before and After Comparison of Reporting Formats*, 4 *LANCET PUBLIC HEALTH* 178, 179–80 (2020).

74. *Id.* at 179.

75. *Id.* at 184.

76. *Id.*

number, percentage concentration in fracturing fluid, supplier, and trade name.<sup>77</sup> However, when fracking companies designate disclosures as trade secrets, they only report the concentration used and are often allowed to withhold the chemical name and identification number.<sup>78</sup> Without that content, it is impossible to know the underlying ingredients. “The *amount* of a particular chemical used in an operation is rarely revealed.”<sup>79</sup> Moreover, only a small minority of states require factual justification for trade secret claims. Most do not verify claims or provide a process for individuals to challenge claims.<sup>80</sup> Ultimately, information about fracking chemicals remains inaccessible to the public. FracFocus has official Terms of Use that put “restrictions on public use, sharing, and aggregation of the data” that does make it on the site,<sup>81</sup> and all states exempt additives considered to be CBI from public disclosure.<sup>82</sup> In California for example, well operators must report chemical information to a state agency,<sup>83</sup> but the state still allows operators to refuse the public’s right to access the information.<sup>84</sup> Ten states even allow fracking well operators to withhold trade secret content from medical professionals treating patients exposed to fracking fluids.<sup>85</sup>

Finally, the timing of fracking fluid disclosure also complicates matters. At least six states, including California, require pre-fracking disclosure. But not all require that this information be shared with local landowners.<sup>86</sup> Disclosures made before the fracturing process are also “necessarily estimates because conditions encountered during fracking may require adjustment.”<sup>87</sup> On the other end of the spectrum, states such as North Dakota and New Mexico require parties to submit information about fracking chemicals only *after* the drilling process.<sup>88</sup>

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77. Fetter, *supra* note 69, at 6.

78. *Id.*; see also BRANDON J. MURRILL & ADAM VANN, CONG. RSCH. SERV., R42461, HYDRAULIC FRACTURING: CHEMICAL DISCLOSURE REQUIREMENTS 12 (2012) (“The level of detail required to be disclosed often depends on how states protect trade secrets, as these protections may allow submitting parties to withhold information from disclosure at their discretion or to submit fewer details about proprietary chemicals, except, perhaps, in emergencies. Even if a disclosure law does not protect information from public disclosure, other state laws, such as an exemption in an open records law, may do so.”); *cf.* New Mexico’s rule allows parties to withhold all details about fracking chemicals. N.M. CODE R. § 19.15.16.19(B) (LexisNexis 2021) (“[D]oes not require the reporting or disclosure of proprietary, trade secret or confidential business information.”).

79. Cramer, *supra* note 65, at 85.

80. See Melanie McCormick, *Conflicting Theories at Play: Chemical Disclosure and Trade Secrets in the New Federal Fracking Regulation*, 9 GOLDEN GATE U. ENV’T L.J. 217, 231 (2016); McFeeley, *supra* note 66, at 888–89.

81. McFeeley, *supra* note 66, at 865.

82. Fetter, *supra* note 69, at 6.

83. See Trickey, *supra* note 73, at 184.

84. See TASHA STOIBER, BILL WALKER & BILL ALLAYAUD, EWG, CALIFORNIA’S FRACKING FLUIDS: THE CHEMICAL RECIPE 6 (2015), <https://www.ewg.org/research/california-s-toxic-fracking-fluid-chemical-recipe/california-s-fracking-disclosure-law> [<https://perma.cc/2KET-LRQ3>].

85. See McFeeley, *supra* note 66, at 897.

86. See *id.* at 871.

87. *Id.* at 872.

88. *Id.* at 882; see also MURILL & VANN, *supra* note 78, at 11–12; see also N.M. CODE R. § 19.15.16.19(B) (LexisNexis 2021); N.D. ADMIN. CODE 43-02-03-27.1(1)(g), (2)(i) (2021).

New Mexico requires parties to submit within forty-five days of fracturing, while North Dakota provides a longer time frame of sixty days after fracking completion.<sup>89</sup> This difference in timing means that fracking companies can invoke trade secrecy for required disclosures either before or after the fracking process, depending on the state in which the oil well is located. And there will rarely be enough time before or after fracking to test groundwater to determine if any new chemicals are present as a result of the activity.<sup>90</sup> There is a significant public cost to this problem—it is nearly impossible to reverse engineer pollution problems to ascertain their secret origins.<sup>91</sup> Due to the inadequate reporting requirements, the limited information available to the public, and the timing of disclosure, state fracking regulations illustrate the consequences of laws that prioritize trade secret protections over the public interest.

### C. Confidentiality Under FOIA Exemption 4

Whereas environmental laws typically require federal and state governments to collect environmental data from private parties, right-to-know laws allow individuals to seek access to government-held information. The most prominent information access law at the federal level is FOIA.<sup>92</sup> While FOIA does not create a right of access to records held by Congress, the courts, or states, the statute allows members of the public to request access to federal agency records.<sup>93</sup> When submitting a request, individuals must reasonably describe the records they are seeking.<sup>94</sup> The agency then decides if the information should be released or if the request should be rejected.

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89. McFeeley, *supra* note 66, at 882.

90. See Tom Lutey, *Montana Fracking Fluid Disclosure Rules Draw Critics*, BILLINGS GAZETTE (Sept. 19, 2018), [https://billingsgazette.com/news/state-and-regional/govt-and-politics/montana-fracking-fluid-disclosure-rules-draw-critics/article\\_985dd823-329a-5401-8488-3b976ddd6c22.html](https://billingsgazette.com/news/state-and-regional/govt-and-politics/montana-fracking-fluid-disclosure-rules-draw-critics/article_985dd823-329a-5401-8488-3b976ddd6c22.html) [<https://perma.cc/2FXH-WLKW>].

91. See Lyndon, *supra* note 7, at 445.

92. 5 U.S.C. § 552.

93. Exec. Order No. 13,392, 70 Fed. Reg. 75,373 (2005), *reprinted in* 5 U.S.C. § 552 app. at 44. Although FOIA does not include a right of access to state-held records, states have their own public records laws that often align with FOIA provisions. See Christina Koningisor, *Transparency Deserts*, 114 Nw. U. L. REV. 1461, 1475 (2020) (“FOIA began to influence the makeup of many state public records laws, even those that had been enacted prior to 1966. New state public records laws were enacted, some of which were patterned on FOIA. Amendments to existing state public records laws began to contain exemptions and provisions adopted from the federal law. And state court judges began to look to federal interpretations of analogous provisions of FOIA to guide their own interpretations of the state public records law.”) (footnotes omitted). For this reason, this Note does not separately address state public records laws. However, Christina Koningisor has surveyed the state and local transparency regimes with a focus on public records laws, concluding that these “transparency statutes are both less effective and more critical to democratic governance at the state level than they are at the federal level.” *Id.* at 1466.

94. *How Do I Make a FOIA request?*, U.S. DEP’T OF JUST., <https://www.foia.gov/how-to.html> [<https://perma.cc/GTL8-AD4U>].

When FOIA was enacted in 1966, it was seen as a huge step towards government transparency and accountability.<sup>95</sup> Congressman John Moss, who championed FOIA, was elected in the midst of the Cold War and was concerned that the trend toward government secrecy could end in a dictatorship.<sup>96</sup> He thought that the public's access to information would correlate to greater national security.<sup>97</sup> Even President Lyndon B. Johnson, who refused to hold a public signing ceremony at the time of FOIA's enactment, noted that he signed the measure "with a deep sense of pride that the United States is an open society."<sup>98</sup> Despite the lofty framework that FOIA sets forth for access to information, any party seeking environmental data through FOIA faces several challenges.

First, FOIA includes nine exemptions which are intended to protect the interests of both the government and regulated entities who submit information; these exemptions prohibit the release of information that may be classified, privileged, or may otherwise invade personal privacy.<sup>99</sup> Federal agencies can invoke these exemptions to deny requests for information.<sup>100</sup> Most relevant here is Exemption 4, which makes a substantial amount of environmental content inaccessible to the public.<sup>101</sup>

Exemption 4 protects "trade secrets and commercial or financial information obtained from a person [and is] privileged or confidential" from publication.<sup>102</sup> It exempts a significant amount of information because if the content falls into the larger category of "confidential" material, it is not necessary to go through the effort of showing that it qualifies for trade secrecy. Moreover, "matters that fall within Exemption 4's scope are not subject to discretionary release by the government"—they are always withheld.<sup>103</sup> Because environmental laws often require regulated parties to self-report, submitters preemptively mark information as trade secret or confidential to ensure it will

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95. See *Freedom of Information Act*, HISTORY (Aug. 21, 2018), <https://www.history.com/topics/1960s/freedom-of-information-act> [<https://perma.cc/YM5X-EJLX>].

96. See *id.*

97. *Id.*

98. *Id.*

99. *Freedom of Information Act: Frequently Asked Questions*, U.S. DEP'T OF JUST., <https://www.foia.gov/faq.html> [<https://perma.cc/LN8C-FJSP>].

100. See Lamdan, *supra* note 11, at 495.

101. *Id.* at 496; e.g., *Entergy Gulf States Louisiana, L.L.C. v. U.S. EPA*, 817 F.3d 198 (5th Cir. 2016) (Sierra Club requested documents collected under the Clean Air Act, but the EPA withheld 18,000 pages out of 21,685 pages under FOIA Exemption 4 for containing third-party contractual information that may be subject to confidential treatment).

102. 5 U.S.C. § 552(b)(4).

103. Vladeck, *supra* note 20, at 10777–78 (“[U]nlike many of FOIA’s other exemptions, matters that fall within Exemption 4’s scope are not subject to discretionary release by the government. In permitting submitters to sue to enjoin disclosure under the Act (so-called reverse-FOIA cases), the Supreme Court in *Chrysler v. Brown* suggested that Exemption 4 implicates and may be co-extensive with, the Trade Secrets Act, which makes it a crime for federal employee to knowingly disclose trade secret information in the government’s hands absent legal authorization to do so.”); see also U.S. DEP'T OF JUST., OFF. OF INFO. POL'Y, *FREEDOM OF INFORMATION ACT GUIDE: EXEMPTION 4*, at 355–56 (2019) [hereinafter U.S. DEP'T OF JUST., FOIA GUIDE], [https://www.justice.gov/archive/oip/foia\\_guide09/exemption4.pdf](https://www.justice.gov/archive/oip/foia_guide09/exemption4.pdf) [<https://perma.cc/S8MD-FVY7>].

not be publicized through FOIA as an agency record if a request is made in the future.<sup>104</sup>

Second, agencies are cautious about releasing documents that may fall within the scope of Exemption 4. Federal employees are wary about deciding in favor of release because any “unauthorized disclosures” under FOIA subject them to criminal liability since Exemption 4 is co-extensive with the Trade Secrets Act.<sup>105</sup> Thus, the possibility that a record may qualify for protection may be enough to prevent the agency from releasing it. If the agency reaches the decision that it is authorized to release content, it risks dealing with a reverse FOIA suit.<sup>106</sup> A reverse FOIA action occurs when the submitter of information to an agency seeks to prevent that agency from revealing it to a third party.<sup>107</sup> Reverse FOIA actions can arise from pending and prospective agency disclosures and are time consuming and costly. They “effectively [shrink] [FOIA]’s disclosure mandate in an industry-protective manner.”<sup>108</sup> Reverse FOIA actions disincentivize agencies from releasing information and consequently, limit FOIA’s effectiveness as a tool to obtain access to environmental information.<sup>109</sup>

Finally, Exemption 4 encompasses more information now than it has in the past because of recent judicial opinions that have broadly interpreted its language. In 2019, the Supreme Court’s decision in *Food Marketing Institute (FMI) v. Argus Leader Media*<sup>110</sup> opened the door for more content to fall within the scope of Exemption 4. In an opinion authored by Justice Gorsuch, the Court rejected the “substantial competitive harm” test for determining whether agencies should withhold information.<sup>111</sup> Under the substantial competitive harm test, government-held information did not qualify as “confidential” unless disclosure was likely to cause substantial harm to the competitive position of the person from whom the information was obtained. In *Argus Leader*, the Court chose to interpret Exemption 4 broadly by holding that information is “confidential” if it is (1) “customarily and actually treated as private by its owner”<sup>112</sup> and (2) “provided to the government under an assurance of privacy.”<sup>113</sup> The Court did not clearly define the boundaries of this new test and it is unclear if both elements must be met for a material to be considered

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104. Lamdan, *supra* note 11, at 496.

105. Vladeck, *supra* note 20, at 10778.

106. See U.S. DEP’T OF JUSTICE, FOIA GUIDE, *supra* note 103, at 355.

107. See Vladeck, *supra* note 20, at 10777–78.

108. David E. Pozen, *Freedom of Information Beyond the Freedom of Information Act*, 165 U. PA. L. REV. 1097, 1116 (2017).

109. See Vladeck, *supra* note 20, at 10777.

110. 139 S. Ct. 2356, 2366 (2019).

111. *Id.* at 2363 (establishing the substantial competitive harm test, what the Court refers to as “substantial harm to the competitive position of the person from whom the information was obtained”).

112. *Id.* at 2366.

113. *Id.*; DANIEL J. SHEFFNER, CONG. RSCH. SERV., LSB10294, WHEN DOES THE GOVERNMENT HAVE TO DISCLOSE PRIVATE BUSINESS INFORMATION IN ITS POSSESSION? 1 (2019).

confidential.<sup>114</sup> Nonetheless, it is evident that agencies can withhold a larger category of information under Exemption 4 if competitive harm is now irrelevant.<sup>115</sup> While the Supreme Court had never previously addressed Exemption 4, lower courts had consistently required a showing of substantial competitive harm for the exemption to apply.<sup>116</sup> Justice Breyer, joined by Justices Ginsburg and Sotomayor, dissented from the majority opinion and noted its departure from years of precedent, implying that it might swallow FOIA whole.<sup>117</sup>

Exemption 4 has also prevailed over a provision of the CWA, which requires the EPA to report information on effluents to the public.<sup>118</sup> In *Environmental Integrity Project v. EPA*, the D.C. Circuit held that Section 308 of the CWA, which “authorizes [the] EPA to obtain records from power plants and states that those records ‘shall be available to the public,’” does not supersede Exemption 4 of FOIA.<sup>119</sup> Section 308 of the CWA requires publication of records unless it “would divulge methods or processes entitled to protection as trade secrets.”<sup>120</sup> This language conflicts with FOIA because FOIA allows agencies to withhold both trade secret *and* certain commercial and financial information that is deemed confidential. Since Section 308 of the CWA is the later statute, the court reasoned that if Congress wanted it to supersede Exemption 4, it could have expressly done so.<sup>121</sup> As a result of this decision, the EPA is not likely to publicly report data that does not actually qualify for trade secrecy under the CWA, but nonetheless falls into the massive category of “confidential” information.

## II.

### THE CONFLICT BETWEEN SECRECY AND REGULATION

The series of trade secret protections discussed in Section I directly conflict with the purpose of environmental regulation. Trade secret law creates “informational blind-spots” because its value depends on the suppression of

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114. See Defendant’s Motion for Summary Judgment at 12, *Ctr. for Investigative Reporting v. Dep’t of Labor*, No. 19-cv-05603 (N.D. Cal. Mar. 4, 2020).

115. See *Argus Leader*, 139 S. Ct. at 2366.

116. *Id.* at 2367 (Breyer, J., concurring in part and dissenting in part).

117. *Id.* at 2368 (“For the majority, a business holding information as private and submitting it under an assurance of privacy is enough to deprive the public of access. But a tool used to probe the relationship between government and business should not be unavailable whenever government and business wish it so. And given the temptation, common across the private and public sectors, to regard as secret all information that need not be disclosed, I fear the majority’s reading will deprive the public of information for reasons no better than convenience, skittishness, or bureaucratic inertia.”).

118. See 33 U.S.C. § 1251(e).

119. 864 F.3d 648 (D.C. Cir. 2017); Steven L. Hoch, *FOIA Rules over the CWA – Short and Simple*, CLARK HILL (July 27, 2017), <https://www.clarkhill.com/alerts/foia-rules-over-the-cwa-short-and-simple.pdf> [https://perma.cc/7CTC-MAX9] (discussing *Environmental Integrity Project v. EPA*).

120. 33 U.S.C. §§ 1318(a), (b).

121. See Hoch, *supra* note 119.

data.<sup>122</sup> But environmental regulation relies on the collection and distribution of data.<sup>123</sup> Secrecy in the environmental context is thus counterintuitive and dangerous.<sup>124</sup> This Section focuses on the consequences of prioritizing secrecy over disclosure of environmental information. First, trade secret protection in federal environmental law leads to a lack of transparency and accountability, which increases the risk of environmental harm. Second, as lenient state fracking laws have demonstrated, prioritizing trade secrecy can endanger public health as information is not properly disclosed to researchers, medical professionals, and at-risk communities.

#### A. *Lack of Transparency and Accountability*

The use of trade secret exemptions under federal environmental statutes, in addition to FOIA's Exemption 4, has led to a lack of transparency and accountability.<sup>125</sup> "[P]roprietary information, known by few, impede[s] the public's interest in an open democratic society" and limits our ability to understand how private behavior impacts the public and our environment.<sup>126</sup> Scientific research is more difficult when information is not easily accessible, as secrecy inhibits risk assessment by serving as a roadblock to public criticism and feedback.<sup>127</sup> However, trade secrecy in environmental law is not only an obstacle to risk assessment. It leads to dangerous behavior from private parties.<sup>128</sup>

When secrecy prevents environmental information from being publicized, trade secret owners get to have "power without liability"; they will not be held accountable for the negative environmental impacts of their actions.<sup>129</sup> Private

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122. Levine, *Confidentiality Creep*, *supra* note 28, at 21; Levine, *Secrecy and Unaccountability*, *supra* note 13, at 157 ("The conflict between trade secrecy and a transparent and accountable democratic government is ultimately a clash of governing theory and values. Trade secrets, by their very name, have secrecy as the default position; while loss of protection and consequential transparency can and does happen, recognition of the value of secrecy remains its governing principle.").

123. See McCormick, *supra* note 80, at 223 (discussing how disclosure provisions inform communities about public health and empower citizens to take more active roles in addressing possible threats to their communities).

124. See Lyndon, *supra* note 7, at 457 ("[S]ecrecy in risk management is inefficient. It subsidizes current technologies by obscuring their costs. It allows the secret keeper to impose risks and then hoard information about them. In effect, it transfers the health and safety options of those who are exposed to those who create and profit from the exposure.").

125. See Lamdan, *supra* note 11, at 491–92.

126. See Levine, *Confidentiality Creep*, *supra* note 28, at 12–13 ("Increasing amounts of secret and proprietary information, known by few, impede the public's interest in an open democratic society where . . . growing recognition that confidentiality and privacy designations on information can have a significant impact on the public's ability to know what private industry, and increasingly the government[']s, . . . confidential and private information is needed in order to understand how private behavior impacts the public.").

127. See Zink, *supra* note 12, at 1143.

128. See Lyndon, *supra* note 7, at 457–58 ("Disclosure and warning enable victims to protect themselves. Keeping chemical risks secret shifts the burden of uncertainty to those with little capacity to bear it and then withholds the data necessary to study and respond to the exposure . . . . The law effectively allows polluters to anonymously deposit chemicals everywhere, including in our bodies.").

129. *Id.* at 458.

parties can engage in what Professor David Levine has characterized as “opportunistic privacy,” the “dubious use of privacy law and principles as an information control tool.”<sup>130</sup> For instance, the chemical industry is known to have misused “trade secrecy to conceal the dangerous aspects of their products” for decades.<sup>131</sup> Hazardous chemicals such as perfluorooctanoic acid (PFOA), vinyl chloride, and benzene have found their way into household items despite their carcinogenic effects.<sup>132</sup> As Professor Julie Zink has previously described, manufacturers such as DuPont, Union Carbide, BF Goodrich, Imperial Chemical, and Monsanto were the first to become aware of the dangers, but continued to use these materials by claiming secrecy and confidentiality.<sup>133</sup> Around 1960, communications between industry members about the use of vinyl chloride noted “there is no question that skin lesions, absorption of bone of the terminal joints of the hands, and circulatory changes can occur in workers associated with the polymerization of PVC.”<sup>134</sup> The corporations kept using the substance despite being aware of the risks, internally noting that the confidentiality of their communications was “exceedingly important.”<sup>135</sup> DuPont even went as far as holding workshops for employees, led by the company’s general counsel, on what not to document and share about the company’s PFOA use.<sup>136</sup>

This deadly practice of using secrecy to conceal potential and known health risks continues today. About 95 percent of new chemical notifications that the EPA receives includes information protected as a trade secret.<sup>137</sup> Manufacturers have used CBI and trade secret protections as a shield to withhold the names and identities of 17,585 chemicals registered with the EPA.<sup>138</sup> Following massive class action lawsuits and settlements,<sup>139</sup> DuPont phased out their use of

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130. Levine, *Confidentiality Creep*, *supra* note 28, at 13.

131. Zink, *supra* note 12, at 1144–45 (“Corporations assert trade secrecy for a number of reasons, some of which are improper. For decades, companies have been introducing new products, such as cigarettes, asbestos fibers, pesticides (namely, DBCP), and lead paint into the market.”).

132. *Id.* at 1145–56.

133. *Id.* at 1151.

134. *Trade Secrets: A Moyers Report: The Documents*, PBS, <http://www.pbs.org/tradesecrets/program/vinyl.html> [<https://perma.cc/APS5-GD52>].

135. *Id.*

136. See Roy Shapira & Luigi Zingales, *Is Pollution Value-Maximizing? The Dupont Case* 31 (Nat’l Bureau of Econ. Rsch., Working Paper No. 23866, 2017), <https://www.law.northwestern.edu/research-faculty/colloquium/law-economics/documents/Spring18Zingales.pdf> [<https://perma.cc/K9WP-VQVH>] (citing Mariah Blake, *Welcome to Beautiful Parkersburg, West Virginia: Home to One of the Most Brazen, Deadly Corporate Gambits in U.S. History*, HUFFINGTON POST (Aug. 27, 2015), <http://highline.huffingtonpost.com/articles/en/welcome-to-beautiful-parkersburg/> [<https://perma.cc/7AMX-XSEZ>]).

137. Sharon Lerner, *A Chemical Shell Game: How DuPont Concealed the Dangers of the New Teflon Toxin*, INTERCEPT (Mar. 3, 2016), <https://theintercept.com/2016/03/03/how-dupont-concealed-the-dangers-of-the-new-teflon-toxin/> [<https://perma.cc/YW2C-35CK>].

138. Lerner, *supra* note 137.

139. See Molly Wood & Sean McHenry, *The Two-Decade Long Battle with DuPont over a Toxic Chemical*, MARKETPLACE (Oct. 15, 2019), <https://www.marketplace.org/2019/10/15/the-two-decade->

ingredients like PFOA.<sup>140</sup> But they began using new secret chemicals which likely have the “the same chemical performance properties” and problems as the older generation of chemicals.<sup>141</sup> Without the names or structures of these new substances, it is difficult for scientists to ensure public safety by tracking their presence in food, water, and the environment. David Andrews, a senior scientist at the Environmental Working Group, described the problem best when he noted that “scientists can’t search for contaminants if they don’t know what they’re looking for.”<sup>142</sup> And if scientists do not know what they are looking for, it is nearly impossible to hold private parties accountable for their harmful activities.

### B. Threats to Public Safety

When there is a lack of transparency and accountability, trade secrecy directly endangers public health in ways scientists cannot fully understand. State fracking laws best illustrate the dangers of placing secrecy above transparency, as the potential human health risks that fracking chemicals pose to communities remain relatively unknown.<sup>143</sup> Without access to fracking fluid compositions, researchers cannot fully determine the harm inflicted by oil and gas companies’ operations.<sup>144</sup> Chemicals may be released into the environment during any point in the fracking process. Fracking chemicals can pollute air or groundwater through accidental spills, well blowouts, and explosions of chemical transportation trucks.<sup>145</sup> Thus, tracking the public safety impact of secret fracking fluid formulas is nearly impossible.

The information gap caused by secrecy is expanding as companies regularly claim their proprietary interests would be harmed if fracking fluid composition were publicized. State laws support those claims. According to a report by the United States Department of Energy in 2014, trade secrecy was invoked for 84 percent of registered oil wells.<sup>146</sup> The suppression of fracking

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legal-battle-with-dupont-over-a-toxic-chemical/ [https://perma.cc/576X-DYKM] (“For environmental lawyer Robert Bilott, it all started with a phone call from West Virginia farmer Earl Tennant, whose cows were dying. It ended with a class action suit against chemical maker DuPont and a settlement of more than \$600 million over personal injuries related to the chemical known as perfluorooctanoic acid, or PFOA.”).

140. Lerner, *supra* note 137.

141. *Id.*

142. *Id.*

143. See Grant Smith & Tasha Stoiber, *Health Professionals: Fracking Can’t Be Done Without Threatening Public Health*, EWG (Mar. 16, 2018), <https://www.ewg.org/news-and-analysis/2018/03/health-professionals-fracking-can-t-be-done-without-threatening-public> [https://perma.cc/7LYZ-EV2S].

144. See Lyndon, *supra* note 7, at 454 (“Secrecy makes scientific research more difficult and more costly . . . . Resistance to reporting the amounts of chemicals firms discharge has hindered assessment of environmental loading and ecosystem effects.”).

145. McFeeley, *supra* note 66, at 852–53.

146. U.S. DEP’T OF ENERGY, SEC’Y OF ENERGY ADVISORY BD., TASK FORCE REPORT ON FRACFOCUS 2.0 11 (2014),

fluid information makes drinking water more polluted and fracking accidents more treacherous.<sup>147</sup> In 2016, the EPA identified 1,606 chemicals in fracking fluid and wastewater, but only had detailed information on 173.<sup>148</sup> The agency noted that data gaps, and the lack of cooperation by the drilling industry, prevented an assessment of the nationwide frequency of impacts on drinking water from fracking.<sup>149</sup> What is known is that fracking fluids have been linked to reproductive and developmental health problems.<sup>150</sup>

Alongside the impacts on drinking water, secrecy makes it difficult and dangerous for emergency responders to treat individuals in the case of a fracking accident.<sup>151</sup> In 2008, an emergency room nurse named Cathy Behr attempted to treat an oil well site employee who was involved in a fracturing fluid spill.<sup>152</sup> She spent ten minutes treating the patient without wearing protective gear or knowing what she was exposed to.<sup>153</sup> A few days later, Behr's exposure to the patient led her to be admitted to the ICU with chemical poisoning.<sup>154</sup> She had swollen liver, erratic blood counts, and lungs filling with fluid.<sup>155</sup> The fracking company refused to disclose details about what the nurse or employee had been exposed to because it was a trade secret.<sup>156</sup>

Advocates for disclosure note that information access allows government officials to track pollution of drinking water sources, medical professionals to effectively respond to incidents involving human exposure to chemicals, and the public a chance to assess the risks of living near fracking sites.<sup>157</sup> At present however, state law does not go far enough to ensure that these public interests in health and safety are prioritized over proprietary interests. Although states are

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[https://www.energy.gov/sites/prod/files/2014/04/f14/20140328\\_SEAB\\_TF\\_FracFocus2\\_Report\\_Final.pdf](https://www.energy.gov/sites/prod/files/2014/04/f14/20140328_SEAB_TF_FracFocus2_Report_Final.pdf) [<https://perma.cc/92B3-Z7TM>].

147. Leaks and spills are a regular occurrence in fracking. *E.g.*, *North Dakota and Fracking*, EARTHJUSTICE (Sept. 29, 2015), <https://earthjustice.org/features/north-dakota-and-fracking> [<https://perma.cc/C9AE-D4CM>] (“In early 2015, three million gallons of fracking wastewater gushed from a leaking pipeline in western North Dakota.”).

148. Fink, *supra* note 42, at 1002.

149. *See id.*

150. Michael Greenwood, *Chemicals in Fracking Fluid and Wastewater Are Toxic, Study Shows*, YALE NEWS (Jan. 6, 2016), <https://news.yale.edu/2016/01/06/toxins-found-fracking-fluids-and-wastewater-study-shows> [<https://perma.cc/U2LN-BRKB>].

151. *See, e.g.*, Kathiann M. Kowalski, *Ohio Firefighters Kept in the Dark on Drilling and Fracking Chemicals*, ENERGY NEWS NETWORK (Sept. 30, 2019), <https://energynews.us/2019/09/30/midwest/ohio-firefighters-kept-in-the-dark-on-drilling-and-fracking-chemicals> [<https://perma.cc/3WXT-BPVT>].

152. Jim Moscou, *Oil & Gas Exploration: Is ‘Fracking’ Safe?*, NEWSWEEK (Aug. 19, 2008), <https://www.newsweek.com/oil-gas-exploration-fracking-safe-87557> [<https://perma.cc/6vnc-4cv6>]; *see also* Lyndon, *supra* note 7, at 455 (detailing Cathy Behr's story).

153. Moscou, *supra* note 152.

154. *Id.*

155. *Id.*

156. *Id.*

157. Fisher, *supra* note 61, at 111, 124; *see also* Fetter, *supra* note 69, at 1 (explaining the increased use of information-based regulations and noting, “[d]isclosure . . . offers an opportunity to ‘wait and see’ while also allowing the public and regulators to gather more information about issues of concern”).

starting to force fracking companies to provide doctors with trade secret information to properly treat patients and protect themselves, there's a catch—the doctors can only get the chemical names if they sign a confidentiality agreement and agree not to share the information.<sup>158</sup>

### III.

#### EXISTING APPROACHES TO BALANCING TRADE SECRECY WITH THE PUBLIC'S RIGHT TO KNOW

As discussed in Part I, trade secrecy is only rising in popularity and environmental regulation is more essential than ever with the acceleration of climate change.<sup>159</sup> In the absence of a proper resolution, the conflict between trade secrecy and environmental law is likely to grow with time. Past scholarship raised this issue<sup>160</sup> but the public's interest in environmental information continues to be ignored in favor of trade secret protections. Existing approaches to enhancing disclosure of environmental information can be broken down into three main categories: statutory reform, litigation, and redefining trade secrecy. First, federal and state legislatures engage in statutory reform by amending environmental laws to increase public access to government-held information and by creating more robust processes to verify trade secret claims. Second, private parties engage in litigation in order to hold trade secret holders accountable for the negative environmental impacts of their actions. And third, scholars propose that the United States should redefine trade secrecy to account for the public's interest in environmental information. Each of these approaches has limitations.

#### A. Statutory Reform

Federal and state legislatures engage in statutory reform in an attempt to increase disclosure of government-held information and constrain the use of trade secrecy in environmental law. Federally, two primary examples of this reform are the amendments passed to modify FOIA and the TSCA. At the state level, fracking laws once again serve as the best example. While these efforts to change the law are a step in the right direction, amendments to existing law have fallen short of increasing information access for the public. In each instance, reforms have been difficult to implement and are inconsistently applied due to changing administrations.

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158. Susan Phillips, *Pennsylvania Doctors Worry Over Fracking 'Gag Rule,'* NPR (May 17, 2012), <https://www.npr.org/2012/05/17/152268501/pennsylvania-doctors-worry-over-fracking-gag-rule> [<https://perma.cc/QLQ7-99F9>].

159. See, e.g., Henry Fountain, *Climate Change Is Accelerating, Bringing World 'Dangerously Close' to Irreversible Damage,* N.Y. TIMES (May 12, 2021), <https://www.nytimes.com/2019/12/04/climate/climate-change-acceleration.html> [<https://perma.cc/24WE-WSB3>].

160. See Lyndon, *supra* note 7; Zink, *supra* note 12.

### 1. Fixing FOIA

There is general consensus in all three branches of government that FOIA fails “to pierce the veil of administrative secrecy and to open agency action to the light of public scrutiny.”<sup>161</sup> In 2009, President Obama began his first term in office by sending a memo to his executive departments and agencies stating that FOIA reflects a national commitment to ensuring an open government and “should be administered with a clear presumption: In the face of doubt, openness prevails.”<sup>162</sup> Despite the President’s message, agencies improperly withheld documents in a third of cases that were challenged on appeal during the Obama administration.<sup>163</sup> By the end of President Obama’s second term, Congress stepped in to pass the relatively unsuccessful FOIA Improvement Act of 2015.<sup>164</sup>

In a bipartisan effort to fix FOIA, Congress amended the statute to require agencies to release materials unless they could “reasonably foresee” that disclosure would cause identifiable harm to an interest protected by an exemption.<sup>165</sup> However, the vague language of the Act only led to more uncertainty about the definition of “reasonably foreseeable.” Thus, the implications of the new foreseeable harm standard on FOIA’s exemptions are unknown.<sup>166</sup> In expanding the scope of information covered by Exemption 4, the Supreme Court’s *Argus Leader* decision left open the question of what the revised foreseeable harm standard means in the context of trade secret and confidentiality claims.<sup>167</sup> To date, only three lower courts have squarely addressed the issue.<sup>168</sup> Although two found that “foreseeable harm poses an

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161. SHEFFNER, *supra* note 113, at 2.

162. Freedom of Information Act: Memorandum for the Heads of Executive Departments and Agencies, 74 Fed. Reg. 4681 (Jan. 21, 2009); Alfred J. Lechner, Jr., *More Needs to Be Done to Fix FOIA*, THE HILL (July 6, 2016), <https://thehill.com/blogs/congress-blog/judicial/286632-more-needs-to-be-done-to-fix-foia> [<https://perma.cc/PA9X-GV3B>].

163. See Lechner, *supra* note 162; see also Ted Bridis, *Obama’s Final Year: U.S. Spent \$36 Million in Records Lawsuits*, ASSOCIATED PRESS (Mar. 14, 2017), <https://apnews.com/article/lawsuits-archive-freedom-of-information-act-freedom-of-information-0b27c4d4b23b436d805328694e58c605> [<https://perma.cc/Z9L2-VP73>].

164. Lechner, *supra* note 162.

165. 5 U.S.C. § 552(a)(8)(A)(i)(I).

166. Al-Amyn Sumar, *Unpacking FOIA’s “Foreseeable Harm” Standard*, COMMC’NS L., Winter 2020, at 15, 18, [https://www.americanbar.org/content/dam/aba/publications/communications\\_lawyer/winter2020/cl\\_3\\_5\\_2.pdf](https://www.americanbar.org/content/dam/aba/publications/communications_lawyer/winter2020/cl_3_5_2.pdf) [<https://perma.cc/PSV6-46E3>] (“[T]he Court’s decision could not speak to that point because the request at issue was filed before June 30, 2016, when the 2016 amendments went into effect.”).

167. See *id.* at 18 (“The Court’s opinion did not mention foreseeable harm, much less address these arguments—leaving it to lower courts to sort things out.”).

168. *Id.* at 19; Ctr. for Investigative Reporting v. Dep’t of Labor, 424 F. Supp. 3d 771, 780 (N.D. Cal. 2019); Am. Small Bus. League v. U.S. Dep’t of Def., 411 F. Supp. 3d 824, 835–36 (N.D. Cal. 2019); Ctr. for Investigative Reporting, v. U.S. Customs & Border Prot., 436 F. Supp. 3d 90, 112–14 (D.D.C. 2019).

additional burden on agencies” invoking Exemption 4,<sup>169</sup> the third rejected that view outright.<sup>170</sup>

In the face of this ambiguity, one thing remains clear: the foreseeable harm amendment did little to “improve” the public’s access to government-held environmental data.<sup>171</sup> Federal agencies still regularly overuse and misapply FOIA’s Exemption 4, creating a barrier to access by deterring individuals from pursuing requests for information.<sup>172</sup> The new standard is likely to result in years of FOIA litigation, which increased under the former Trump administration given its preference for secrecy over transparency.<sup>173</sup> In 2018, the “federal government censored, withheld or said it couldn’t find records . . . more often . . . than at any point in the past decade.”<sup>174</sup> Although the Biden administration has generally pledged to increase government transparency,<sup>175</sup> it is unclear if President Biden intends to push for any type of FOIA reform given the number of urgent items on his agenda.

## 2. Refining the TSCA

Although statutory reform of FOIA has fallen flat, Congress has been mindful of the public’s growing concerns about the chemicals to which they may be exposed. In 2016, Congress overhauled the TSCA through enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act.<sup>176</sup> In an effort to balance the competing interests in trade secrecy and transparency, the Lautenberg Act modified the TSCA to include a mandatory requirement for the EPA to evaluate existing chemicals, conduct risk-based assessments, and

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169. Sumar, *supra* note 166, at 19 (first citing *Ctr. for Investigative Reporting v. Dep’t of Labor*, 424 F. Supp. 3d 771 (N.D. Cal. 2019); and then citing *Ctr. for Investigative Reporting v. U.S. Customs & Border Prot.*, 436 F. Supp. 3d 90 (D.D.C. 2019) (adopting standard)).

170. Sumar, *supra* note 166, at 19 (citing *Am. Small Bus. League v. U.S. Dep’t of Def.*, 411 F. Supp. 3d 90 (N.D. Cal. 2019) (rejecting standard)).

171. See Miranda Green, *Bipartisan Senators Introduce Bill to Challenge New EPA Policy and Supreme Court Ruling on FOIA*, THE HILL (July 23, 2019), <https://thehill.com/policy/energy-environment/454298-bi-partisan-senators-introduce-bill-to-challenge-new-epa-policy-and> [<https://perma.cc/QUA3-SZXU>] (reporting that in 2019 another bipartisan group of Senators introduced that Open and Responsive Government Act, which aims to “reverse recent developments that undermine the public’s right to access information and hold government accountable” such as the *FMI* decision).

172. See Lechner, *supra* note 162.

173. See Camille Fassett, *The Freedom of Information Act Is Getting Worse Under the Trump Administration*, FREEDOM OF THE PRESS FOUND. (Mar. 14, 2019), <https://freedom.press/news/freedom-information-act-getting-worse-under-trump-administration/> [<https://perma.cc/U3L9-JD93>].

174. Ted Bridis, *US Sets New Record for Censoring, Withholding Gov’t Files*, ASSOCIATED PRESS (Mar. 12, 2018), <https://apnews.com/article/714791d91d7944e49a284a51fab65b85> [<https://perma.cc/P6ME-Y5TU>].

175. *Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking*, White House (Jan. 27, 2021), <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/> [<https://perma.cc/6UD5-THV9>].

176. Am. Chemistry, *Third Anniversary of the 2016 Amendments to TSCA*, AM. CHEMISTRY MATTERS: A. BLOG OF THE AM. CHEMISTRY COUNCIL (June 27, 2019), <https://blog.americanchemistry.com/2019/06/third-anniversary-of-the-2016-amendments-to-tsca> [<https://perma.cc/ET5W-FYMB>].

increase public transparency for chemical information.<sup>177</sup> The Act also provides consistent source funding for the EPA to carry out its new responsibilities.<sup>178</sup> To create greater transparency and curb excessive CBI claims, submitters are now required to provide initial justification for confidentiality claims for the EPA to review, and claims expire after ten years unless renewed.<sup>179</sup> States and health providers also now have access to CBI material, although the EPA has imposed confidentiality agreements for providers receiving such information.<sup>180</sup>

Changes to the TSCA improved the review process for confidentiality claims but did not necessarily increase the public's access to chemical information. The 2016 Amendments did not create an affirmative right for the public to obtain information on chemical names or their intended uses.<sup>181</sup> The only information that the EPA can provide to the public is health and safety studies required by the existing law.<sup>182</sup> But under the former Trump administration, the EPA withheld these studies and other non-confidential information by improperly claiming that the information were confidential.<sup>183</sup>

In a 2017 letter written to then-EPA Administrator Andrew Wheeler, five senators outlined problems with the EPA's application of the TSCA Amendments.<sup>184</sup> Foremost among their concerns was the EPA's failure to provide timely public access to non-confidential information and access by eligible parties to confidential business information under Section 14 of the

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177. *Id.*

178. See Lynn L. Bergeson, *Protecting Confidential Business Information: An Evolving Challenge*, 2 INT'L CHEM. REGUL. & L. REV. 65, 68 (2019), [https://www.lawbc.com/uploads/docs/icrl\\_2019\\_02-008.PDF](https://www.lawbc.com/uploads/docs/icrl_2019_02-008.PDF) [<https://perma.cc/3HNW-Y9D6>] (“[S]everal U.S. Senators expressed their disappointment with certain aspects of EPA’s implementation of Lautenberg, including its treatment of CBI. On June 20, 2019, Senators Tom Udall (D-NM), Cory Booker (D-NJ), Ed Markey (D-MA), Jeff Merkley (D-OR), and Sheldon Whitehouse (D-RI) sent a letter to EPA Administrator Andrew Wheeler requesting information on EPA’s implementation of Lautenberg, including information on CBI issues.”).

179. See RICHARD A. DENISON, ENV’T DEF. FUND: HEALTH, A PRIMER ON THE NEW TOXIC SUBSTANCES CONTROL ACT (TSCA) AND WHAT LED TO IT 9, 12 (2017), <https://www.edf.org/sites/default/files/denison-primer-on-lautenberg-act.pdf> [<https://perma.cc/GN4L-BQMP>].

180. See Richard Denison, *EDF Comments Fault EPA for Deviating from the Law in Proposal for States and Health Professionals’ CBI Access*, ENV’T DEF. FUND (Apr. 17, 2018), <http://blogs.edf.org/health/2018/04/17/edf-comments-fault-epa-for-deviating-from-the-law-in-proposal-for-states-and-health-professionals-cbi-access/> [<https://perma.cc/9FC7-SJLY>].

181. DUSTY HORWITT, P’SHP FOR POL’Y INTEGRITY, TOXIC SECRETS: COMPANIES EXPLOIT WEAK US CHEMICAL RULES TO HIDE FRACKING RISKS 27 (2016).

182. 15 U.S.C. § 2613(b)(2).

183. Richard Denison, *7 Ways Trump’s EPA Is Breaking Our Bipartisan Chemical Safety Law*, ENV’T DEF. FUND (June 17, 2019), <https://www.edf.org/blog/2019/06/17/7-ways-trumps-epa-breaking-our-bipartisan-chemical-safety-law> [<https://perma.cc/W3N4-PNS8>] (“In its first evaluation of a chemical’s risk under TSCA, the EPA denied the public access to critical health and safety information from studies used in the assessment — in direct violation of the law’s requirements.”).

184. Letter from Tom Udall, U.S. Sen., Cory A. Booker, U.S. Sen., Edward J. Markey, U.S. Sen., Jeffrey A. Merkley, U.S. Sen. & Sheldon Whitehouse, U.S. Sen., to Andrew Wheeler, Administrator, U.S. EPA (June 20, 2019), [https://legacy-assets.eenews.net/open\\_files/assets/2019/06/21/document\\_gw\\_01.pdf](https://legacy-assets.eenews.net/open_files/assets/2019/06/21/document_gw_01.pdf) [<https://perma.cc/WP7U-W7M7>].

TSCA.<sup>185</sup> The senators noted that the EPA had not provided an account to the public on how many CBI claims it had received, for what types of information, or the outcomes of claim reviews it had conducted.<sup>186</sup> All the while, chemical companies continue to lobby for stronger trade secret protections despite the 2016 amendments.<sup>187</sup>

### 3. *Strengthening State Fracking Laws*

In the wake of fracking accidents and pollution of drinking water sources, state legislatures have become more inclined to strengthen reporting requirements for fracking fluids. Laws that previously allowed oil and gas companies to report only the percentage concentration of secret chemicals have been reformed to include chemical identification numbers and names as required submission information.<sup>188</sup> State regulatory bodies then verify trade secret claims before shielding fracking fluids from public disclosure.<sup>189</sup>

Montana adopted these requirements in 2017 and was applauded for limiting the ability of the fracking industry to claim trade secrecy.<sup>190</sup> Ingredient-level disclosures are now submitted to the Montana Board of Oil and Gas Conservation, whether or not they are trade secrets.<sup>191</sup> While fracking companies can request that information be withheld from the public as a trade secret, the Board conducts a preliminary review to determine if the fracking fluid actually deserves protection and further requires companies to support their claims.<sup>192</sup> If information qualifies for trade secret protection, it must be updated every three years to ensure it still meets the requirements.<sup>193</sup> Notably, however, chemicals dumped into “state waters” are never entitled to confidentiality or protection from disclosure.<sup>194</sup> This is a substantial change because Montana defines state waters broadly, including both surface and groundwater, meaning polluting

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185. *Id.* at 8–9.

186. *Id.* at 9.

187. *See, e.g.*, Pat Rizzuto, *Trade Secret Protections Lacking, Chemical Companies Tell EPA*, BLOOMBERG L. (July 24, 2019), <https://news.bloombergenvironment.com/environment-and-energy/trade-secret-protections-lacking-chemical-companies-tell-epa> [<https://perma.cc/2CZE-3MMU>].

188. *E.g.*, S. 299, 65th Leg., Reg. Sess. (Mont. 2017) (enacted).

189. *Id.* § 3.

190. *See* Fink, *supra* note 42, at 1012–13; *see also* Tripp Baltz, *Fracking Chemical Disclosure Requirement Approved in Montana*, BLOOMBERG (Apr. 13, 2017), <https://news.bloomberglaw.com/environment-and-energy/fracking-chemical-disclosure-requirement-approved-in-montana> [<https://perma.cc/E285-ZEZ4>].

191. Mont. S. 299 § 3.

192. *Id.*; *see also* Fink *supra* note 42, at 1013 (“[O]nce disclosure occurs, the industry entity can request that [the Board of Oil and Gas Conservation [BOGC]] withhold publishing that was disclosed for confidentiality or trade secret purposes. Once such a request is made, the BOGC determines whether a particular ingredient is deserving of confidentiality or not.”).

193. Mont. S.B. 299 § 3(5).

194. *Id.* at § 5(5).

chemicals previously protected as trade secrets are published in the interest of transparency to the public.<sup>195</sup>

State judiciaries also influence modifications to fracking disclosure laws. In Wyoming, the first state to require companies to report a complete list of chemicals on a well by well basis, the Wyoming Supreme Court held that the state's Oil and Gas Commission had the burden of justifying the use of trade secret exemptions after it withheld chemical information from public review.<sup>196</sup> This led to a settlement which implemented the Wyoming Supreme Court's ruling by requiring the Oil and Gas Commission to adopt a new framework for evaluating trade secret claims.<sup>197</sup>

Meanwhile, the Pennsylvania Supreme Court struck down several provisions of the state's controversial Act 13.<sup>198</sup> The legislation was passed in 2012 to provide uniform regulation on oil and gas development within the state, but allowed companies to withhold chemical compositions from medical professionals who treated patients exposed to fracturing fluids.<sup>199</sup> In order to obtain this information, health professions were required to execute confidentiality agreements and written statements that it was needed for medical diagnosis.<sup>200</sup> While the Pennsylvania Supreme Court's decision does not mean that health professionals can start publicizing trade secrets they obtain from fracking companies,<sup>201</sup> it highlights a widespread public health consequence of secret fracking fluids.

Stricter disclosure requirements not only prioritize public health, but they also incentivize fracking companies to demonstrate environmental stewardship.

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195. MONT. ADMIN. R. § 17.30.1304(72) (2020) (“State waters’ means any body of water, irrigation system, or drainage system, either surface or underground.”).

196. See *Powder River Basin Res. Council v. Wyo. Oil & Gas Conservation Comm’n*, No. 94650, 2013 WL 8718518, at \*9 (Wyo. Dist. Ct. Mar. 21, 2013), *rev’d on other grounds*, 320 P.3d 222, 2014 WY 37 (Wyo. 2014).

197. See *Wyoming to Strengthen Fracking Chemical Disclosure in Response to Citizen Pressure*, EARTHJUSTICE (Jan. 26, 2015), <https://earthjustice.org/news/press/2015/wyoming-to-strengthen-fracking-chemical-disclosure-in-response-to-citizen-pressure> [<https://perma.cc/2B54-YEPN>] (“The new policies require oil and gas companies to provide detailed information demonstrating why specific chemical identities qualify for the narrow trade secrets exemption under Wyoming law. These policies will ensure that the Oil and Gas Commission receives the information necessary to identify legitimate confidentiality claims and prevent companies from evading disclosure requirements based on weak, boilerplate assertions that the chemicals they use are trade secrets.”).

198. See *Robinson Twp. v. Commonwealth*, 147 A.3d 536, 575–76 (Pa. 2016).

199. H.R. 1950, 2011 Gen. Assemb., Reg. Sess. (Pa. 2011) (enacted) (Act 13 prevented medical professionals from disclosing the chemical composition of the fracturing fluids); see also Phillips, *supra* note 158.

200. See Phillips, *supra* note 199.

201. See Michael D.I. Siget, *Pennsylvania Supreme Court Declares Medical Gag Rule Unconstitutional*, PA. MED. SOC’Y (Oct. 4, 2016), <https://www.pamedsoc.org/detail/article/Cap-Update-Blog-Oct-5-16> [<https://perma.cc/YT7T-KMVF>] (“[The Pennsylvania Supreme Court’s decision in *Robinson Twp.*] does not mean that the legislature cannot confer special protections on a certain industry, including gag orders on professionals. However, to do so, they must identify why these special protections are needed for that industry as opposed to the numerous other industries operating within the Commonwealth. This ruling also does not mean that health professionals can start publicizing trade secrets about chemicals that they may obtain from a fracking company.”).

Oilfield service provider Baker Hughes Inc. embraced the move towards transparency by choosing to disclose the chemical ingredients used in its hydraulic fracturing operations.<sup>202</sup> The company stated it “ha[s] a responsibility to provide the public with the information they want and deserve” and hopes that disclosure increases public trust while encouraging commercial innovation.<sup>203</sup> The move by Baker Hughes is a good faith effort to enhance transparency, but disclosure policies also provide immense benefits at a very low cost to companies. The reality is that “[v]ery little expense or effort is required” to report because fracking companies already generate logs including chemical data.<sup>204</sup> Higher costs may accompany substantiation of trade secret claims, but they are only incurred once for each chemical identity.<sup>205</sup> While the involvement of fracking companies can enhance disclosure, not all companies believe disclosure is necessary.

The oil and gas industry continues to lobby state lawmakers for greater trade secrets protections. When the trend to reform fracking law gained strength, groups like the American Legislative Exchange Council (ALEC) partnered with ExxonMobil to formulate “‘model legislation’ for stringent trade secret protection” across states.<sup>206</sup> These models propose hurdles for anyone requesting information by limiting who can access fracking fluid information and by adding strict deadlines for requests.<sup>207</sup> While most states have continued to implement stricter reporting requirements despite this type of lobbying, others moved in the opposite direction.<sup>208</sup> In 2014, North Carolina lifted a fracking ban in the state.<sup>209</sup> But rather than including disclosure requirements, the law made it a misdemeanor for government officials to publicly disclose trade secret ingredients in fracking chemicals that are pumped into the ground.<sup>210</sup> North Carolina’s decision illustrates how the state-by-state approach to managing trade

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202. See Timothy Cama, *Baker Hughes to Start Disclosing Fracking Chemicals*, THE HILL (Oct. 1, 2014), <https://thehill.com/policy/energy-environment/219443-baker-hughes-to-start-disclosing-fracking-chemicals> [<https://perma.cc/H3ZV-3MPJ>]; see also Abrahm Lustgarten, *Gas Execs Call for Disclosure of Chemicals Used in Hydraulic Fracturing*, PROPUBLICA (Oct. 2, 2009), <https://www.propublica.org/article/gas-execs-call-for-disclosure-of-chemicals-used-in-hydraulic-fracturing-102> [<https://perma.cc/N4T7-7ZF9>] (“Two prominent gas industry executives [Chesapeake Energy CEO Aubrey McClendon and Range Resources CEO John Pinkerton] have directly addressed one of the key environmental concerns surrounding the expansion of natural gas development by calling for the disclosure of chemicals used in hydraulic fracturing.”).

203. Cama, *supra* note 202.

204. McFeeley, *supra* note 66, at 855.

205. *Id.*

206. Cramer, *supra* note 65, at 93, 94.

207. See *id.* at 94.

208. See, e.g., Energy Modernization Act, S. 786, 2013–2014 Gen. Assemb., Reg. Sess. (N.C. 2014).

209. John Murawski, *NC Senate Passes Bill that Would Lift Fracking Moratorium*, CHARLOTTE OBSERVER (May 22, 2014), <https://www.charlotteobserver.com/news/politics-government/article9123938.html> [<https://perma.cc/2GMW-TVK7>].

210. Sarah Preston, *N.C. Fracking Bill Could Chill Free Speech*, ACLU N.C. (May 29, 2014), <https://www.acluofnorthcarolina.org/en/news/nc-fracking-bill-could-chill-free-speech> [<https://perma.cc/3BLS-YLTQ>].

secrecy in environmental regulation is failing. Without a uniform approach, access to environmental information is uneven across states and it is impossible to collect useful data. But the longstanding tug of war between the public and industry at the state level also prevents the federal government from stepping in to regulate fracking fluids.<sup>211</sup>

### B. Litigation

Private citizens turn to litigation in seeking out remedies for environmental harms potentially caused by secret behavior, but their attempts have been futile. Unlike legislative reform, which is forward looking, litigation often only provides a forum for individuals already harmed. Thus, plaintiffs attempting to hold parties accountable through litigation face several obstacles including identifying harms, proving causation, and reaching a satisfactory resolution.<sup>212</sup>

First, it is difficult to identify injurious behavior because ecological harms are physically and temporally distant. Actions in one location may have adverse effects in other locations<sup>213</sup> and individuals who are negatively impacted by trade secret chemicals may be unaware of their injuries for years.<sup>214</sup> While it may not be apparent today that a substance can cause cancer, it may be clearly evident in a decade. When victims do become aware of their injuries, they may be precluded from litigation by statute of limitations or lack of existing evidence.<sup>215</sup> Gathering evidence after a complaint is filed may be also challenging because a court may limit discovery if it determines that the company documents contain proprietary information.<sup>216</sup>

Second, plaintiffs carry the burden of establishing a causal relationship between a defendant's harmful conduct and their injury.<sup>217</sup> In other words, plaintiffs must show that exposure to a specific chemical or substance, likely a

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211. See Cramer, *supra* note 65, at 77–78 (“[T]he ‘Fracturing Responsibility and Awareness of Chemicals (FRAC) Act’ was introduced in 2009 by Democratic Representatives and Senators exclusively. After a period of disinterest, the bill was reintroduced in 2011. The later version died in committee.”); Marcus Adams, Note, *Transparency and the Protection of Trade Secrets in the Fracturing World: The Case for Upfront Substantiation and Immediate Evaluation of Fracturing Fluid Trade Secret Claims in Louisiana*, 4 LSU J. ENERGY L. & RES. 427, 434 (2016) (“Nine natural gas companies boldly refused to respond to a 2010 letter sent by the EPA requesting disclosure of the chemicals being used in their fracturing fluids for incorporation into a study of the potential impact and harm the fluids cause.”).

212. See Richard J. Lazarus, *Restoring What's Environmental About Environmental Law in the Supreme Court*, 47 UCLA L. REV. 703, 744–48 (2000).

213. See *id.* at 745–47.

214. See Levine, *Confidentiality Creep*, *supra* note 28, at 26.

215. See Zink, *supra* note 12, at 1169–70.

216. See generally *Hill v. Sw. Energy Co.*, 858 F.3d 481 (8th Cir. 2017) (upholding initial limits on discovery in property owner's lawsuit claiming company's fracking waste migrated into the subsurface of their property because discovery of information regarding waste fluid migration involved sensitive proprietary information, including company's e-mails discussing injection wells and well file).

217. Kristin E. Schleiter, *Proving Causation in Environmental Litigation*, 11 AMA J. ETHICS 456, 456 (2009).

trade secret, caused their illness.<sup>218</sup> But scientific knowledge about environmental risk may be extremely limited for secret substances, making it hard to link the defendant's actions to the harm. Even well-known substances move through air, soil, and water in ways that are unpredictable and difficult to trace. When trade secrecy prevents plaintiffs from knowing what they have been exposed to, it becomes nearly impossible to pinpoint the source of harm, which may also have multiple origins or causes. For example, illness-causing toxins from a polluted water source could have entered the stream through various locations and combined with other substances to lead to negative health impacts. Considered collectively, the challenges of proving causation heighten the cost of litigation against large corporations, deterring individuals from bringing cases in the first place.<sup>219</sup>

Finally, cases are often resolved through settlements rather than judgements. Given the difficulties of proving causation, plaintiffs view settlement as their only chance at recovery. While settlement is a beneficial result for most individual plaintiffs, it increases the information gap between the public at large and trade secret holders.<sup>220</sup> Corporate defendants prefer out-of-court settlements with strict non-disclosure agreements. Although corporations are primarily motivated to keep settlements confidential to withhold the amount they are willing to pay plaintiffs, settlements also prevent the public from learning about the corporation's wrongful conduct.<sup>221</sup> Keeping wrongful conduct secret interferes with the ability of scientists and public health experts to understand and assess environmental risks in their communities.<sup>222</sup>

These consequences unfolded in Colorado, where the state held public hearings over a proposal to tighten groundwater testing rules for oil and gas companies in 2012.<sup>223</sup> The state commission issued a subpoena for Laura Amos, a landowner, to testify about her direct experience with water well contamination almost a decade earlier.<sup>224</sup> When her family's well was contaminated in 2002, she developed a tumor.<sup>225</sup> But the company behind the contamination, Encana, entered into a confidential settlement with the family.<sup>226</sup> Due to the nondisclosure agreement involved, the company threatened to sue Amos if she

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218. See Fisher, *supra* note 61, at 114.

219. See Lazarus, *supra* note 212, at 745 ("Ecological injury has several recurring features that render its redress through law especially difficult.")

220. See Fisher, *supra* note 61, at 125.

221. See Zink, *supra* note 12, at 1170 n.256.

222. See Cramer, *supra* note 65, at 100.

223. Cathy Proctor, *Colorado Case Featured in Report on Oil and Gas Deals with Landowners*, DENVER BUS. J. (June 7, 2013), [https://www.bizjournals.com/denver/blog/earth\\_to\\_power/2013/06/battle-over-witness-in-oil-gas.html](https://www.bizjournals.com/denver/blog/earth_to_power/2013/06/battle-over-witness-in-oil-gas.html) [<https://perma.cc/UXW5-4WES>].

224. *Id.*

225. *A Personal Story: Laura Amos, Encana Colorado*, PRESERVE BEARTOOTH FRONT (Feb. 18, 2014), <https://preservethebeartoothfront.com/2014/02/18/a-personal-story-laura-amos-encana-colorado/> [<https://perma.cc/FV33-ANUJ>].

226. See *id.*

testified about her experience in the state's hearings.<sup>227</sup> Given the difficulties plaintiffs face, individual suits are unlikely to remedy a problem as broad as trade secrecy in environmental law.

### C. Redefining Trade Secrecy

Besides statutory reform and litigation, past scholarship has suggested redefining trade secrecy to account for the public's interest in information that impacts health and safety. This approach focuses solely on trade secret law rather than a patchwork of amendments to existing environmental laws. Professor Zink outlined this proposal by recommending an additional provision to the Defend Trade Secrets Act that would incorporate the "precautionary principle."<sup>228</sup> The precautionary principle, a common concept in environmental law, suggests that governments have a duty to take preventative measures to avoid public harm.<sup>229</sup>

To integrate the precautionary principle into the DTSA, the legislature would need to include an additional element in the definition of trade secret: a showing that "the information does not endanger public health."<sup>230</sup> Zink argues that this modification would "curb corporations' use of trade secrets as a shield to conceal" dangerous behavior.<sup>231</sup> This approach has many benefits because it would prioritize public health over commercial interests, would require trade secret holders to prove that their products and processes are safe in order to receive protection, and would lead to better science and earlier detection of risks. The proposed addition also respects the underlying policy behind trade secret protection—incentivizing innovation. Since corporations would need to experiment in order to confirm or deny the danger of their secret, they would invest in research and development.

However, Zink's approach also has many drawbacks that are difficult to overcome. At the outset, pushback against such a fundamental change to trade secret law is likely. Altering the definition of trade secrecy would have impacts beyond environmental law, and thus the proposal would likely face immense opposition from corporate lobbyists.<sup>232</sup> Its "better safe than sorry"<sup>233</sup> approach places a heavy burden on businesses attempting to achieve trade secret status for their information because it is nearly impossible to prove the absence of harm.<sup>234</sup>

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227. *See id.*

228. Zink, *supra* note 12, at 1177.

229. *Id.*

230. *Id.* at 1179–80.

231. *Id.* at 1178.

232. *See* Frank B. Cross, *Paradoxical Perils of the Precautionary Principle*, 53 WASH. & LEE L. REV. 851, 859 (1996) ("The critics thus object that the 'flaw in such playing-it-safe is that it replaces environmental risk with risks to jobs and wealth, which environmentalists often loftily ignore.' The critics typically emphasize the financial costs attendant to embracing the precautionary principle.")

233. Craven, *supra* note 60, at 412 (citing Cass R. Sunstein, *Beyond the Precautionary Principle*, 151 U. PA. L. REV. 1003 (2003)).

234. *See* Christopher D. Stone, *Is There a Precautionary Principle?*, 31 ENV'T L. REP. 10790, 10791 (2001) ("[T]he precautionary principle is pitched in terms of burden of proof. . . . [T]he burden is

Moreover, the DTSA does not preempt state law, so states would also need to change their definition of trade secrecy to adopt the precautionary principle.<sup>235</sup> If not, parties could still use secrecy under state law to conceal environmental information, as seen in the fracking context.

A trade secret definition that incorporates the precautionary principle would also be costly and difficult to implement. As discussed throughout this Note, environmental harms are not easy to identify or predict.<sup>236</sup> Litigation would ensue to decide what “safe” means and what may “endanger the public health.”<sup>237</sup> If it is left to trade secret holders to show their information will not put the public at risk, the studies they conduct may not be reliable. The secrecy of the information itself could prevent unbiased third-party involvement. Furthermore, trade secret protection would have to be provided based on current scientific knowledge, without knowledge about future dangers. Information deemed “safe” at the outset and that qualifies for trade secret protection may not qualify later when dangers become readily apparent.<sup>238</sup>

Finally, redefining trade secrecy to incorporate the precautionary principle may reduce the risk to public health and safety from private activities, but does not increase public information access. The new definition would not account for the potential benefits that the public would receive from trade secret information that cannot be proven as dangerous at the outset. Surely, there are situations where it is difficult to prove that a trade secret endangers the public health; nonetheless, the public’s interest in having access to it outweighs the trade secret holder’s proprietary interest.<sup>239</sup>

#### IV.

##### CREATING AN ENVIRONMENTAL FOIA

In the United States, the scales tip dangerously in favor of protecting intellectual property rights over accessing environmental information. But the societal benefits of trade secrecy must be properly weighed against the public interest in information access.<sup>240</sup> Trade secrecy’s broad application is

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placed upon the body proposing a possibly harmful activity to show that no harm will be caused. But, of course, to demand prior proof that an action will cause *no harm* is on its face extreme.”).

235. Fink, *supra* note 42, at 1022.

236. See Lyndon, *supra* note 7, at 452 (“[Environmental] information also evolves over time; risk management is an iterative process. Access to the stream of information, not a peek or a snapshot, is needed.”).

237. See Zink, *supra* note 12, at 1180.

238. See *id.* at 1178.

239. E.g., Fink, *supra* note 42, at 1011 (“[P]erhaps CleanStim™ [a secret fracking chemical formula], rather than being a non-genuine trade secret, is a trade secret so well-conceived that public policy dictates sharing it with the rest of the country; if there was evidence that CleanStim™ could decrease incidences of groundwater contamination, it seems like this would be the wisest course of action.”).

240. See, e.g., Sarah Spencer, “*Either Secrecy, or Legal Monopoly*”: *Why We Should Choose Fracking Patents*, 42 WM. & MARY ENV’T L. & POL’Y REV. 599, 616 (2018) (weighing corporation’s interest in innovation against public’s interest in disclosure).

unjustifiable where “profit is not a concern, but accountability through transparency is.”<sup>241</sup> Given the recent trend to strengthen trade secret law, it is unlikely that any modification to the trade secret doctrine will sufficiently fill the environmental information gap. Instead, as Professor Sarah Lamdan has previously suggested, the United States needs to create a “streamlined environmental information transparency regime.”<sup>242</sup> Enacting an Environmental FOIA, modeled after the United Kingdom’s EIR can accomplish this goal. An Environmental FOIA is both necessary and long overdue in the United States, which is far behind the international community on environmental information transparency.<sup>243</sup>

#### A. Benefits of the United Kingdom’s Approach

The United Kingdom’s EIRs provide public “access to environmental information held by public authorities.”<sup>244</sup> The regulations do this in two ways: by requiring public authorities to make environmental information available proactively and by providing members of the public a right to request environmental information from public authorities.<sup>245</sup> On the surface, this aligns closely with the typical freedom of information act, but Lamdan has outlined many benefits to a statute designed specifically for access to environmental information.<sup>246</sup>

In practice, the United Kingdom’s EIRs are consistent with the precautionary principle<sup>247</sup> and strike a balance between trade secrecy and regulation in four ways. First, the United Kingdom’s approach is advantageous because it adopts and promulgates the idea that an informed public is essential to environmental health and that everyone has a right to environmental information. Second, the regulations define “environmental information”

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241. Levine, *Secrecy and Unaccountability*, *supra* note 13, at 173.

242. Lamdan, *supra* note 11, at 491.

243. *Id.* at 499 (“The international community recognizes the importance of environmental information transparency, and some nations have established streamlined environmental information access statutes and systems.”); *see also id.* at 501–02 (discussing Principle 10 of the Rio Declaration as a source of progress for environmental information access and the Aarhus Convention as the first legally binding instrument for the implementation of Principle 10, but noting that the U.S. FOIA offers less information transparency than the Aarhus provisions).

244. Environmental Information Regulations, *supra* note 23, pt. 2.

245. *See What Are the Environmental Information Regulations?*, INFO. COMM’R’S OFF., <https://ico.org.uk/for-organisations/guide-to-the-environmental-information-regulations/what-are-the-eir/> [<https://perma.cc/XKN6-AEX9>].

246. *See* Lamdan, *supra* note 11, at 507–10; *see also infra* Part IV.B (discussing the advantages and disadvantages of implementing an environmental FOIA).

247. The precautionary principle, as applied in Europe, was also an underlying reason for Professor Zink’s proposal to amend the definition of a trade secret. *See* Fink, *supra* note 42, at 1015 (“Europe’s underlying chemical regulatory philosophy, the so-called ‘precautionary principle’, perhaps better termed the ‘better safe than sorry’ concept, requires governments to essentially force corporations and other entities seeking trade secret protection to first prove that their products and processes are safe before gaining protection. Julie Zink has argued that such an approach should be adopted in America and recommended amending the DTSA to reflect that pro-public health policy.”).

broadly so that the public can access a larger quantity of government-held data. Third, the regulations require proactive disclosure, which disseminates information regularly without request. And fourth, the regulations implement a public interest test before providing protections for proprietary information, ensuring that trade secrets do not endanger public safety.

### 1. *A Right to Access Environmental Information*

The United Kingdom's law gives the public a right to access environmental content.<sup>248</sup> Its EIRs are based on international agreements about environmental sustainability, which have recognized that information access is essential to a meaningful debate of behaviors impacting our ecosystem and health.<sup>249</sup> In the early 1990s, the Rio Declaration on Environment and Development was enacted, listing twenty-seven principles to guide countries across the globe in sustainable development.<sup>250</sup> Chief among them is Principle 10, which states that “[a]t the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities[.]”<sup>251</sup> The Rio Declaration was adopted by 175 countries, including the United States. But unlike the United States, the United Kingdom embraced the idea that “an informed public plays an important role in environmental protection and enhancement.”<sup>252</sup>

In Europe, Principle 10 prompted forty-seven nations and the United Kingdom to meet for a Convention on Access to Information, Public Participation in Decision-Making, and Access to Justice in Environmental Matters.<sup>253</sup> Popularly known as the Aarhus Convention, this meeting mandated the “right to obtain environmental information held by public authorities . . . and the right to challenge and review environmental determinations made in secrecy and without public participation.”<sup>254</sup> The Aarhus Convention defined “environmental information” expansively, including pollution statistics, chemical lists, and cost-benefit assumptions used in decision-making.<sup>255</sup>

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248. INFO. COMM’R’S OFF., THE GUIDE TO ENVIRONMENTAL INFORMATION REGULATIONS 5, 6 (2015) [hereinafter GUIDE TO ENVIRONMENTAL INFORMATION REGULATIONS] (“The Regulations give people a right of access to information about the activities of public authorities that relate to or affect the environment, unless there is good reason for them not to have the information.”).

249. See Lamdan, *supra* note 11, at 505. The Environmental Information Regulations were created when the United Kingdom signed the Aarhus Convention, which provided for the implementation of Principle 10 of the Rio Declaration, “a broad-based agreement that sets out principles for nations to strive for while encouraging sustainable development.” *Id.* at 500, 505.

250. U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26 (Aug. 12, 1992) [hereinafter *Rio Declaration*]; see also Sand, *supra* note 40, at 216 (noting the Rio Conference and other environmental treaties opening public access to government-held information).

251. *Rio Declaration*, *supra* note 250, princ. 10.

252. Lamdan, *supra* note 11, at 499.

253. See *id.* at 501–02.

254. *Id.* at 502; see also Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, June 25, 1998, 2161 U.N.T.S. 447.

255. See Lamdan, *supra* note 11, at 503.

Following the Convention, the United Kingdom amended its EIRs to create a separate environmental transparency scheme rather than relying on its existing FOIA.<sup>256</sup> By implementing the EIRs and embracing the Aarhus Convention, the United Kingdom has surpassed the United States by providing increased access to environmental information.<sup>257</sup>

### 2. *Defining “Environmental Information” Broadly*

Another benefit to the United Kingdom’s approach is its broad definition of “environmental information.”<sup>258</sup> Under the EIRs, “environmental information” includes content that would otherwise be excluded under the United States FOIA.<sup>259</sup> The definition covers many records held by public authorities because it is not limited to official documents.<sup>260</sup> It is any information, written, visual, aural, or electronic pertaining to the state of the environment, policy agreements, cost-benefit analyses, and public safety.<sup>261</sup>

Moreover, the definition does not exclude information held solely on behalf of another entity.<sup>262</sup> Any information a public authority produces or receives is considered “held” by the government for EIR purposes, meaning individuals can request access to it.<sup>263</sup> These requests can be made for information held by any organization that qualifies as a public authority under the EIRs.<sup>264</sup> This includes government departments and their executive agencies, companies wholly owned by other public authorities under the United Kingdom’s FOIA, bodies carrying out functions of public administration, and bodies that have public responsibilities.<sup>265</sup> The last category may involve private companies, so long as they render public services relating to the environment.<sup>266</sup> In contrast, the United States FOIA only covers federal agencies, limiting requests for information.<sup>267</sup>

### 3. *Requiring Proactive Disclosure*

The inclusive definition of “environmental information” under the United Kingdom’s EIRs is also beneficial because it works in tandem with the law’s

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256. See The Environmental Information (Amendment) Regulations 1998, SI 1998/1447 (UK).

257. See Lamdan, *supra* note 11, at 506.

258. Environmental Information Regulations, *supra* note 23, pt. 1, § (2)(1)(a)–(f).

259. Lamdan, *supra* note 11, at 508.

260. Environmental Information Regulations, *supra* note 23, § 2(1)(a)–(f).

261. See *id.*

262. GUIDE TO ENVIRONMENTAL INFORMATION REGULATIONS, *supra* note 248, at 6.

263. *Id.*

264. *Id.* at 5–6.

265. INFO. COMM’R’S OFF., PUBLIC AUTHORITIES UNDER THE EIR 3 (2021), <https://ico.org.uk/media/for-organisations/documents/2021/2619024/pas-under-the-eir.pdf> [<https://perma.cc/T5PD-6QG4>].

266. *Id.* at 6.

267. 5 U.S.C. § 552(f) (defining agencies as any “executive department, military department, Government corporation, Government controlled corporation, or other establishment in the executive branch of the Government (including the Executive Office of the President), or any independent regulatory agency”).

proactive disclosure principle.<sup>268</sup> Designed to increase transparency, the EIRs require public authorities to “make environmental information available proactively” rather than waiting for a request, “using easily accessible electronic means whenever possible.”<sup>269</sup> While any member of the public is entitled to request material,<sup>270</sup> authorities must publicize their commitment to proactive publication by providing details of what information is already available on their website.<sup>271</sup> This system is fairly manageable in today’s world, where the technology for “creating, storing, and sharing information” is widely available.<sup>272</sup>

The constant obligation of public authorities to disseminate environmental information is a crucial difference between a system that requires proactive disclosures and one that relies on requests. Public participation in environmental matters is hindered when individuals have to request information in order to trigger a government entity’s procedural obligations. But under the EIRs, if environmental information needs to be requested, it is still relatively simple to do so. Unlike both the United States and United Kingdom’s FOIA statutes, requests under the EIRs can be made verbally.<sup>273</sup> Requesters do not need to provide a reason for wanting the information, and all requests must be treated equally.<sup>274</sup> Once a public authority receives a request, it typically has twenty working days to respond.<sup>275</sup> But in a system where the government makes affirmative disclosures, the number of requests and backlog will naturally be lower. Where a response is provided, it may point the requester to information already publicly available.

#### 4. *The Public Interest Test*

While there are several advantages to the United Kingdom’s EIRs, the most compelling aspect is that disclosure is the default—information is only kept private when there is a good reason to do so.<sup>276</sup> There are few exceptions that allow public authorities to withhold material, all of which are subject to the “Public Interest Test.”<sup>277</sup> The public interest test requires authorities to balance the public interest arguments for disclosure against those for upholding an

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268. See Environmental Information Regulations, *supra* note 23, pt. 2, § 4(1)(a).

269. Guide to Environmental Information Regulations, *supra* note 248, at 8, 16 (noting that it is not sufficient to simply respond to requests when the goal is transparency).

270. *Id.* at 4.

271. *Id.* at 15.

272. Vladeck, *supra* note 20, at 10779; see also Lamdan, *supra* note 11, at 507 (citing Rebecca Hill, *Government Claims Open Data Successes*, PUBLICTECHNOLOGY (Oct. 17, 2016), <https://www.publictechnology.net/articles/news/government-claims-open-data-successes> [<https://perma.cc/WQE5-G9MD>]) (“This national open-access information model has been declared a success in the United Kingdom, and is a model that nations like the United States can aspire to.”).

273. Lamdan, *supra* note 11, at 509 n.186.

274. See Guide to Environmental Information Regulations, *supra* note 248, at 19.

275. *Id.* at 22.

276. *Id.* at 5.

277. See Lamdan, *supra* note 11, at 507.

exception.<sup>278</sup> Authorities “can refuse to provide information only when the public interest in maintaining the exception outweighs the public interest in disclosure.”<sup>279</sup>

The public interest test serves as an “extra stage in the process of deciding what information to provide” to a requester.<sup>280</sup> Any refusal to disclose environmental information to the public must be justified in writing.<sup>281</sup> When public authorities provide access to data, they “cannot place any conditions or restrictions on that access.”<sup>282</sup> In other words, citizens do not need to sign confidentiality agreements to obtain access. Generally, intellectual property rights “should not prevent a public authority [from] disclosing information under the Regulations.”<sup>283</sup>

Under the EIRs, a public authority may refuse to disclose information if it would adversely affect “the confidentiality of commercial or industrial information.”<sup>284</sup> The exception requires four elements: (1) the information is commercial or industrial in nature, (2) confidentiality is provided by law, (3) confidentiality is protecting a legitimate economic interest, and (4) confidentiality would be adversely affected by disclosure.<sup>285</sup> Trade secrets are not explicitly mentioned in the exception for commercial or industrial information, but the same four elements would apply.<sup>286</sup> However, “public authorities should take care [in] applying” the exception because “it is not enough simply to argue that disclosure would adversely affect . . . commercial interests. . . . There must also be confidentiality provided by law.”<sup>287</sup> Moreover, even if all four elements are met, the public interest test still applies to the exception.<sup>288</sup> There is a strong public interest in trade secret protection according to the EIRs, but “this does not mean that there is a de facto blanket exception for trade secrets.”<sup>289</sup> The regulations note that it will “still be necessary to consider the weight of public interest factors in favour of disclosure in the particular

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278. Guide to Environmental Information Regulations, *supra* note 248, at 28; *see also* INFO. COMM’R’S OFF., CONFIDENTIALITY OF COMMERCIAL OR INDUSTRIAL INFORMATION (REGULATION 12(5)(E)) 15, ¶ 65, [https://ico.org.uk/media/for-organisations/documents/1624/eir\\_confidentiality\\_of\\_commercial\\_or\\_industrial\\_information.pdf](https://ico.org.uk/media/for-organisations/documents/1624/eir_confidentiality_of_commercial_or_industrial_information.pdf) [https://perma.cc/28H5-LNVP] (“There will always be some public interest in disclosure to promote transparency and accountability of public authorities, greater public awareness and understanding of environmental matters, a free exchange of views, and more effective public participation in environmental decision making, all of which ultimately contribute to a better environment.”).

279. Guide to Environmental Information Regulations, *supra* note 248, at 40.

280. *Id.* at 28.

281. *Id.* at 42.

282. *Id.* at 11.

283. *Id.*

284. INFO. COMM’R’S OFF., CONFIDENTIALITY OF COMMERCIAL OR INDUSTRIAL INFORMATION (REGULATION 12(5)(E)), *supra* note 278, at 3, ¶ 5.

285. *Id.* ¶ 10.

286. *See id.* at 17, ¶ 70.

287. *Id.* at 4, ¶ 11.

288. *Id.* ¶ 14.

289. *Id.* at 17, ¶ 72.

case.”<sup>290</sup> Thus, in the trade secret context, environmental information should be more accessible through the EIRs than FOIA or environmental statutes because regulated entities will not be able to suppress information that does not qualify for protection and does not outweigh the public interest in disclosure.

### *B. Implementing an Environmental FOIA*

Enacting a law modeled after the United Kingdom’s EIRs will ensure that environmental data in the United States is accessible to the public, even where proprietary interests may exist. Like much of Europe, the United States should assume that the public has a right to know information regarding the environment which may impact their health and safety. By embracing this principle through an Environmental FOIA, the United States can achieve a balance—ensuring transparency and accountability in environmental regulation while also accounting for the intellectual property interests of trade secret holders. However, there may be practical challenges to implementing an Environmental FOIA and ensuring its success, since it would not be a complete overhaul of existing laws.

#### *1. Advantages*

An Environmental FOIA with the same principles as the United Kingdom’s EIRs will be the most effective way to grant the public access to environmental information.<sup>291</sup> It will address the current issues resulting from the overlap of trade secrecy and environmental regulations by shifting the burden of seeking out information and justifying disclosure away from the public. Instead, due to the presumption in favor of disclosure, regulated entities invoking the trade secret privilege would need to justify non-disclosure because information will always be released unless an exception applies *and* it meets the public interest test. Moreover, if we presume all information should be released except in instances where the balance tips in favor of proprietary interests, trade secret owners will be incentivized to substantiate their claims to government agencies. Without support for their claims, it will be difficult to demonstrate that their proprietary and economic interests will be harmed if the information is released. Trade secret holders will also be more inclined to consider the public interest that their intellectual property will be weighed against, accounting for the environmental and public health impacts of their actions. Ultimately, the public interest test for exemptions will help achieve a balance between competing interests—the freedom of environmental information and the protection of intellectual property rights.

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290. *Id.*

291. *See* Vladeck, *supra* note 20, at 10781 (“There is precedent for such a balancing test in FOIA already. Under FOIA’s personal privacy exemption, Exemption 6, courts are directed to set aside agency decisions to withhold personal information unless the agency can show that disclosure ‘would constitute clearly unwarranted invasion of public privacy.’”).

An Environmental FOIA will also create a streamlined approach to environmental information access that is not plagued by existing problems under the traditional FOIA statute. Unlike existing open records laws, an Environmental FOIA will broadly define “environmental information” and require agencies to proactively disclose records in electronic form, both of which are administrable principles. Critiques of the traditional FOIA point to time delays, a backlog of requests, and the misuse of exemptions.<sup>292</sup> Although more agency records will be available through an expansive definition of environmental information under the new law, this is unlikely to be burdensome if proactive disclosures are also required. Agencies will regularly make environmental information available on their own, leading to fewer requests which need responses, and avoiding the traditional time delays and backlogs. Finally, an Environmental FOIA with proactive disclosure and the public interest test for exemptions will also leave agencies with less discretion than Congress typically allows. Under FOIA and environmental laws, vague language in the statutes has left agencies with gaps to fill, leading to the overuse and misapplication of exemptions. With the default as disclosure, however, agencies will have less discretion to decide what should and should not be released to the public.

## 2. *Difficulties*

Although there will be many benefits to adopting an Environmental FOIA modeled after the United Kingdom’s EIRs, there will also be challenges implementing the new law. First, an Environmental FOIA will be most effective where regulations require support for or limit the use of trade secret and confidentiality claims. Corporations may continue to withhold data from the government under existing statutes and agencies cannot disclose that which they do not have. In this way, an Environmental FOIA is a solution more oriented towards public access to environmental information the government holds than on forcing the government to collect more information. However, the advantage of an Environmental FOIA is that once the government obtains content that qualifies as environmental information, it is likely to be released regardless of what statute it was collected under. In contrast, amending every existing law to strengthen reporting requirements would not guarantee the public access to any information collected, ignoring the heart of the problem. Additionally, regulated entities reporting required information to the government should be less likely to use trade secret protections under those laws if an Environmental FOIA exists,

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292. See Steven Aftergood, *Number of FOIA Requests Reaches Record High*, FED’N AM. SCIENTISTS (May 8, 2017), <https://fas.org/blogs/secrecy/2017/05/foia-record-high/> [<https://perma.cc/7GA5-6M4K>] (“Almost everyone involved with the FOIA—requesters as well as agencies—seems to be dissatisfied with the way the process works. It can be excruciatingly slow, with response times often counted in years. Decisions to withhold information frequently appear arbitrary, excessive or otherwise inappropriate.”).

because unsupported trade secret claims will no longer automatically prevent disclosure.

The second obstacle to implementing an Environmental FOIA is addressing problems at the state level. The traditional FOIA statute only applies to federal agencies<sup>293</sup> and states have their own open records laws.<sup>294</sup> As discussed throughout this Note, however, the conflict between environmental information access and secrecy is not limited to the federal government. State fracking laws most evidently prioritize trade secrecy over the freedom of environmental information. However, many states have modeled their open records laws after the federal FOIA<sup>295</sup> and could similarly adopt their own versions of an Environmental FOIA, proactively supplying environmental data and using the public interest test for any potential exemptions.<sup>296</sup> Moreover, an Environmental FOIA may still allow disclosure of fracking fluid information used in states because the EPA has data on fracking chemicals from its New Chemical program pursuant to TSCA.<sup>297</sup> In 2018, thirty-three members of Congress asked the EPA “to disclose the identities of all chemicals used in hydraulic fracturing and oil and gas drilling that the EPA has identified as potentially harmful to human health.”<sup>298</sup> The EPA never released this confidential information, but it would fall within the scope of a new Environmental FOIA.<sup>299</sup> Finally, the cost of

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293. *About FOIA and Other Information Access Programs*, U.S. DEP’T OF STATE, <https://foia.state.gov/Learn/> [<https://perma.cc/362T-FZWL>].

294. *See* Koningisor, *supra* note 93, at 1471.

295. *Id.* (“State legislatures often incorporate the statutory language of FOIA directly into state law.”).

296. Amending state public records laws to require affirmative disclosure to improve transparency while also reducing the burden on agencies is not a new proposal. It has also been suggested that state statutes can be revised to narrowly tailor exemptions to disclosure that are reflective of the public interest. *See* Koningisor, *supra* note 93, at 1543.

297. *See* Letter from Matthew Cartwright et al., Reps., to Scott Pruitt, Administrator, U.S. EPA (Mar. 8, 2018), <https://www.pfpi.net/wp-content/uploads/2018/05/CongressionalLettertoPruittSecretChemicals3.8.2018.pdf> [<https://perma.cc/JA7M-9X44>]. Fracking fluid disclosure may also become less of a problem if the Biden administration chooses to bring it within the existing federal environmental scheme, eliminating current exemptions. Although the Biden administration has not called for or implemented a complete ban on fracking, President Biden has stated he wants to “gradually move away” from fracking. *See* Amber Phillips, Joe Biden’s ‘Not Banning Fracking’ Defense, Explained, WASH. POST (Sept. 1, 2020), <https://www.washingtonpost.com/politics/2020/09/04/joe-biden-not-banning-fracking-defense-explained/> [<https://perma.cc/LB8Q-E5CX>]; Vicky Brown Varela, *What’s Next for Fracking Under Biden?*, COUNCIL ON FOREIGN RELS. (Dec. 18, 2020), <https://www.cfr.org/in-brief/whats-next-fracking-under-biden> [<https://perma.cc/DPT4-732Z>].

298. Cartwright et al., *supra* note 297, at 1.

299. The EPA has previously indicated an interest in regulating fracturing chemical substances and mixtures under the TSCA. In 2014, the EPA issued a Notice of Proposed Rulemaking to create a mechanism for obtaining fracking fluid data that would assist the EPA with “risk characterization, external transparency, and public understanding.” Hydraulic Fracturing Chemicals and Mixtures, 79 Fed. Reg. 28,664 (May 19, 2014). The agency also solicited comments on “incentives and recognition programs that could be used to support the development and use of safer chemicals in hydraulic fracturing.” *Id.* at 28,665. The notice was withdrawn in 2018 under the Trump administration. *See* OFF. OF MGMT. & BUDGET, OFF. OF INFO. & REGUL. AFFS., HYDRAULIC FRACTURING CHEMICALS AND MIXTURES (Spring 2018),

implementing an Environmental FOIA may serve as an obstacle to enacting such a law if agencies need additional time, money, and resources to follow the new guidelines. Arguably, the transparency and accountability benefits of publicizing environmental information will outweigh these costs. While these hurdles may demonstrate that an Environmental FOIA will not solve the issue of trade secrecy in environmental law in one broad stroke, it will fundamentally change the way we look at environmental information access in the United States by prioritizing the public's right to know.

#### CONCLUSION

Trade secrecy should never be used to suppress and conceal environmental data when it promotes dubious behavior, rather than innovation and research. Legislation that streamlines access to environmental information in the United States would better serve the purpose of regulation by enhancing transparency, accountability, and public safety. Information access assists agency experts in evaluating risk, informing the public about potential dangers, and allows communities to prepare for environmental hazards. While an Environmental FOIA would not completely overhaul existing laws, it would change the way we approach information access and intellectual property rights in this country by shifting the burden to trade secret holders to demonstrate why their proprietary interest outweighs the public interest in environmental information.