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**OVERDRESSED AND UNDERREGULATED: HOW THE  
FASHION INDUSTRY’S EXTREME PLASTIC POLLUTION  
CAN BE LINKED TO A LACK OF SUPPLY CHAIN  
REGULATION**

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*Emma Ross*

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#### ABSTRACT

*The lack of regulation of supply chains and the rise of fast fashion have created a feedback cycle of consumer culture predicated on cheap products made largely from synthetic materials. Due to a lack of oversight and regulation, the microplastics from the fashion industry have flowed into the environment unchecked, resulting in an environmental crisis that is difficult to combat. This Note examines the simultaneous rise of the fast fashion industry and complex supply chains, and the devastating impact of plastic microfibers on the environment. It will also review the limitations of the current legal framework in addressing retailer responsibility for their supply chains and the plastic they produce, and how to rectify this through extended producer responsibility and closed-loop supply chains.*

#### INTRODUCTION

The fashion industry has a microplastic problem. While the name sounds small, the impact on the environment is massive. The fashion industry has been essential to American commerce for nearly two centuries and has long been associated with glamor and high-end living.<sup>1</sup> The reality, however, is

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1. See Vanessa Friedman, *What Is 'American Fashion' Now?*, N.Y. TIMES, <https://www.nytimes.com/2021/09/09/fashion/what-is-american-fashion.html> (Sept. 14, 2021) (reporting on the Met Gala, a New York City Fundraiser for the Metropolitan Museum of Art's Costume Institute; known as an opportunity for fashion designers to display their most extravagant works). This is an example of the opulence that separates high-end fashion from that of the average consumer; in 2021 tickets cost \$35,000 each; Vanessa Friedman, *Everything You Need to Know About the Met Gala 2021*, N.Y. TIMES (Sept. 10, 2021), <https://www.nytimes.com/2021/09/10/style/met-gala-vogue-american->



much less attractive. In 2016, textile production generated 65 million tons of plastic, accounting for 20% of all plastic produced in the world that year and 35% of all microfibers found in the environment.<sup>2</sup> “Microplastics” are plastic debris that are specifically less than five millimeters in length.<sup>3</sup> “Microfibers” are an even more specific subset of microplastics that come from textiles.<sup>4</sup> Microfibers are a persistent threat to the environment because of their unique ability to infiltrate air, water, and land.<sup>5</sup> They are not biodegradable, which means that people are now breathing, eating, and drinking plastic.<sup>6</sup>

The rapid expansion of the fashion industry and the rising threat of plastics can be traced to a lack of uniform environmental regulation of supply chains during the globalization push of the 1990s.<sup>7</sup> United States-based manufacturers quickly became incentivized to take their business overseas to produce cheaper, faster, and without regulatory oversight, leading to the rise of what we now refer to as “fast fashion.”<sup>8</sup> In 2014, the average person in the United States bought 60% more clothing than they did in the year 2000, but they kept each item only half as long, leaving the excess to slowly decompose

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fashion.html; and the event itself costs \$3.5 million; Hillary Hoffer & Dominic-Madori Davis, *The Party of the Year for the Fashion World was Scheduled to Take Place Today*, BUS. INSIDER (May 4, 2020, 5:40 PM), <https://www.businessinsider.com/met-gala-2018-theme-cost-ticket-dress-jewelry-2018-5>.

2. Catie Tobin, *How Plastic Pollution is Being Woven into Fast Fashion Culture*, NEW SEC. BEAT (July 30, 2020), <https://www.newsecuritybeat.org/2020/07/plastic-pollution-woven-fast-fashion-culture-2/>; Francesca De Falco et al., *The Contribution of Washing Processes of Synthetic Clothes to Microplastic Pollution*, SCI. REP., Apr. 2019, at 1, 2; *Microplastics*, NAT’L GEOGRAPHIC SOC’Y, <https://education.nationalgeographic.org/resource/microplastics> (May 20, 2022); Beverley Henry et al., *Microfibres from Apparel and Home Textiles*, 652 SCI. TOTAL ENV’T 483, 483 (2019). The type of microplastics that come from textiles are referred to as “microfibers” due to their small size and shape, *id.*

3. *What are Microplastics?*, NOAA (Jan. 26, 2023), <https://oceanservice.noaa.gov/facts/microplastics.html>.

4. Jianli Liu et al., *Microfibers: A Preliminary Discussion on Their Definition and Sources*, 26 ENV’T SCI. POLLUTION RSCH. 29497, 29498 (2019).

5. Henry et al., *supra* note 2, at 485.

6. See G. Pellini et al., *Characterization of Microplastic Litter in the Gastrointestinal Tract of Solea solea from the Adriatic Sea*, 234 ENV’T POLLUTION 943, 943 (2018) (finding that microplastics present a mounting threat to marine life and the human food chain as the plastics are broken into smaller particles and are being ingested into the digestive tracts of organisms lower on the food chain); Henry et al., *supra* note 2, at 484.

7. See Victoria Ledezma, *Globalization and Fashion: Too Fast, Too Furious*, 4 LAURIER UNDERGRADUATE J. ARTS 71, 73 (2017) (discussing the ethical and environmental problems stemming from the globalization of the fashion industry).

8. Annie R. Linden, *An Analysis of the Fast Fashion Industry*, 3-4 (Fall 2016) (Senior Project, Bard College) (on file with Bard Digital Commons, Bard College). Fast fashion is the mass production of low-quality product at a low price point. This product is consumed and disposed of rapidly in favor of the next clothing item that is “stylish” or “trendy”; because it is inexpensive, the consumer can consume more product than ever before, *id.* See also Ronald Jones, et al., *What Does Evidence Tell Us About Fragmentation and Outsourcing?*, 14 INT’L REV. ECON. & FIN. 305, 307 (2005) (discussing the emergence of outsourcing via international trade in production sectors generally).

in landfills.<sup>9</sup> However, consumers alone are not to blame; retailers respond to consumer demand and flood the market with product, which leads to clothing waste and plastic pollution.<sup>10</sup>

This Note will explore how the rise of the fast-fashion industry is inextricably linked to the rise of complex supply chains overseas, and how a lack of regulations contributed to the plastic pollution crisis. This phenomenon can be addressed through federal legislation combining extended producer responsibility (EPR) and closed-loop supply chains (CLSCs).<sup>11</sup> Part I of this Note will explore the rise and impact of fast fashion and how the industry came to rely so heavily on supply chains. Part I will also explore the fashion industry's plastic pollution problem and its drastic impact on the environment. Part II will delve into the existing legal framework the United States provides to regulate supply chains and the internal controls that companies place on themselves. Part III explores the issues with the current legal framework and the drawbacks of existing legislation. Part IV proposes federal legislation that combines EPR and CLSCs to create a comprehensive approach to the fashion industry's microfiber pollution. The proposal combines supply chain mapping, a CLSC system that lowers plastic pollution risks, and enforcement measures to promote compliance.

## I. FAST FASHION AND THE MICROPLASTIC PROBLEM

### A. *The Rise and Impact of Fast Fashion*

Fast fashion is characterized by cheap prices, low-quality products, and rapid production.<sup>12</sup> The fast-fashion model encourages individuals to view their clothing as disposable because it can be readily and inexpensively replaced.<sup>13</sup> Synthetic materials like nylon, rayon, and polyester are heavily

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9. See Ngan Le, *The Impact of Fast Fashion on The Environment*, PRINCETON STUDENT CLIMATE INITIATIVE (July 20, 2020), <https://psci.princeton.edu/tips/2020/7/20/the-impact-of-fast-fashion-on-the-environment> (describing the industry's current trajectory; researchers anticipate there will be a 50% increase in global greenhouse gas emissions in the next decade); Morgan McFall-Johnsen, *The Fashion Industry Emits More Carbon Than International Flights and Maritime Shipping Combined*, BUS. INSIDER (Oct. 21, 2019, 12:22 PM), <https://www.businessinsider.com/fast-fashion-environmental-impact-pollution-emissions-waste-water-2019-10>.

10. See Le, *supra* note 9 (discussing how fast fashion harms the environment through clothing waste and pollution); see generally Akihlesh Ganti, *Positive Feedback*, INVESTOPEDIA, <https://www.investopedia.com/terms/p/positive-feedback.asp> (Sept. 29, 2022) (defining a feedback loop). The cycle of consumer demand and manufacturer response, which then leads to increased consumer demand and so on, is known as a feedback loop.

11. This Note focuses on United States solutions, but most statistics in this Note are global as the impact of plastic pollution cannot be confined to a single country.

12. Linden, *supra* note 8, at 4.

13. See Rachel Bick et al., *The Global Environmental Injustice of Fast Fashion*, ENV'T HEALTH, Dec. 27, 2018, at 1, 2, <https://ehjournal.biomedcentral.com/articles/10.1186/s12940-018-0433-7>.

used in the production of fast fashion due to their low cost.<sup>14</sup> However, due to the throw-away clothing culture fast fashion promotes, those plastics frequently end up polluting the environment instead of in people's closets.<sup>15</sup>

The rise of consumer culture during the Second Industrial Revolution laid the groundwork for people to view clothing as disposable.<sup>16</sup> For the first time, a large portion of society had disposable income and middle-class people were buying clothes they did not need.<sup>17</sup> This served as an early indicator that clothing waste was being produced.<sup>18</sup> The Second Industrial Revolution introduced early synthetics like rayon.<sup>19</sup> World Wars I and II led to the opening of large factories that could mass-produce clothing faster than ever before.<sup>20</sup> In the early 1900s, an abundance of new fashions entered the market, and synthetics such as spandex, polyester, and nylon became available for mass consumption.<sup>21</sup> This foreshadowed the fashion industry's plastic pollution as synthetics became widely available.<sup>22</sup>

The onset of globalization in the late 1980s and early 1990s not only created new international markets for the fashion industry but also marked the true beginning of the fast fashion era.<sup>23</sup> With the rising popularity of the internet in the 1990s, consumers now had access to "e-commerce," which allowed for rapid consumption from a wider array of retailers than was ever

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14. See Olivia Gecseg, *The Rise of Fashion's Obsession with Plastic Fibers*, THE SUSTAINABLE FASHION COLLECTIVE (July 8, 2019), <https://www.the-sustainable-fashion-collective.com/2019/07/08/fashions-obsession-with-plastic-fibers>.

15. See *id.* (explaining that materials like polyesters were favored in the rise of fast fashion as a cheaper alternative to typically higher end products); see also Marc Bain, *If Your Clothes Aren't Already Made Out of Plastic, They Will Be*, QUARTZ (June 5, 2015), <https://qz.com/414223/if-your-clothes-arent-already-made-out-of-plastic-they-will-be/> (discussing manufacturers' preferences for non-biodegradable synthetic in clothing production and the rise in consumer demand for cheap clothing).

16. See Eric Niiler, *How the Second Industrial Revolution Changed Americans' Lives*, HIST., <https://www.history.com/news/second-industrial-revolution-advances> (July 25, 2023) (describing the Second Industrial Revolution and its impact on growth); Ben Fine & Ellen Leopold, *Consumerism and the Industrial Revolution*, 15 SOC. HIST., 151, 167 (1990); See generally *Economic Growth and the Early Industrial Revolution*, U.S. HIST. (2021), <https://www.ushistory.org/us/22a.asp> (attributing the increase in a standard of living to increased productivity from machine-made products).

17. Fine & Leopold, *supra* note 16, at 161, 165. Americans were spending long hours working in factories, which led to less time available to make goods and clothing at home. However, this resulted in increased spending, which fueled the economy. Ganti, *supra* note 8.

18. Fine & Leopold, *supra* note 16, at 173.

19. Mallory Knee, *A Brief History of Synthetic Fabrics in the Fashion Industry*, DETROIT FASHION NEWS (Jan. 26, 2022, 8:53 AM), <https://detroitfashionnews.com/2022/01/26/a-brief-history-of-synthetic-fabrics-in-the-fashion-industry/>.

20. Bailey Marie Burningham, *An Investigation of the Impact of Changing Social Norms on Female Clothing Attire Pre and Post WW II* (Spring 2018) (B.A. Honors Thesis, Utah State University) (on file with Digital Commons, Utah State University).

21. Knee, *supra* note 19; Gecseg, *supra* note 14.

22. Knee, *supra* note 19.

23. Ledezma, *supra* note 7, at 72, 73.



imagined.<sup>24</sup> The accessibility of the internet and popularity of social media increased the demand for clothing into the 2000s.<sup>25</sup>

The consumer demand that has been growing since the 1990s has only been exacerbated by the ease of access provided by the internet and false sense of demand created by an accelerated “trend cycle.”<sup>26</sup> The trend cycle is the ebb and flow of what is and is not “in style.” Worldwide, approximately 80 billion pieces of clothing are consumed every year.<sup>27</sup> This is a 400% increase from only two decades ago in the year 2000.<sup>28</sup> The increasing supply-and-demand feedback loop for affordable and trendy clothes led to a shorter trend cycle.<sup>29</sup> Trend cycles affect how manufacturers create their collections, what consumers purchase, what is kept in closets, and what is thrown out.<sup>30</sup> Traditionally, the fashion industry released collections that were curated around seasons.<sup>31</sup> In contrast, major fast-fashion retailers like Zara and H&M now have 52 trend cycles a year instead of four.<sup>32</sup> Product floods into the market, making consumers feel like they must constantly buy new products to keep up with the latest trends.<sup>33</sup> The extremely fast turnover of what is and is not in style is known as “micro-trending.”<sup>34</sup> This has led to fast-fashion retailers competing for lower prices during production to maintain a competitive edge, one reason why outsourcing overseas is so common.<sup>35</sup> Fast fashion results in a huge amount of textile waste and the lack

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24. See *id.* at 74 (discussing the general interplay between globalization, online shopping, and fast fashion).

25. Riley Johnson, *How Social Media Affects the Fast Fashion Industry*, UNTITLED MAG. (Apr. 23, 2021), <http://untitled-magazine.com/how-social-media-affects-the-fast-fashion-industry/>.

26. Ledezma, *supra* note 7, at 74; Felipe Caro & Victor Martínez-de-Albéniz, *Fast Fashion: Business Model Overview and Research Opportunities*, in *RETAIL SUPPLY CHAIN MANAGEMENT* 250 (Narendra Agrawal & Stephen Smith eds., 2d ed. 2015).

27. India Horner, *Conscious Consumerism: Fast Fashion Fueling Fashion Failure?*, GREENPOP (Mar. 6, 2019), <https://greenpop.org/conscious-consumerism-fast-fashion-fuelling-fashion-failure/>.

28. *Id.*

29. Caro & Martínez-de-Albéniz, *supra* note 26, at 250.

30. Zhai Yun Tan, *What Happens When Fashion Becomes Fast, Disposable and Cheap?*, NPR (Apr. 10, 2016, 12:29 PM), <https://www.npr.org/2016/04/08/473513620/what-happens-when-fashion-becomes-fast-disposable-and-cheap>.

31. Caro & Martínez-de-Albéniz, *supra* note 26, at 250. This would lead to the release of only two collections per year: a fall-winter collection and spring-summer collection, *id.* This made it easier for consumers to keep up with trends and led to inherently less consumption due to lower availability of product in the market, *id.*

32. Audrey Stanton, *What is Fast Fashion, Anyway?*, GOOD TRADE (Sept. 5, 2023), <https://www.thegoodtrade.com/features/what-is-fast-fashion>.

33. Nathalie Remy et al., *Style That's Sustainable: A New Fast-Fashion Formula*, MCKINSEY SUSTAINABILITY (Oct. 20, 2016), <https://www.mckinsey.com/business-functions/sustainability/our-insights/style-thats-sustainable-a-new-fast-fashion-formula>.

34. Izzy Copestake, *Please Stop Falling for Fashion Microtrends*, VICE (Nov. 11, 2022, 4:00 AM), <https://www.vice.com/en/article/k7bg5a/fashion-microtrends-bad-for-environment>.

35. See Remy et al., *supra* note 33 (discussing how the apparel industry has developed a system to decrease production costs while keeping up with the current fashion trends).

of regulation throughout supply chains means that there is little accountability for any waste produced by fashion retailers.<sup>36</sup>

### *B. Supply Chains, Moving Offshore, and a Shifting World*

During the 1980s and 1990s, globalization was on the rise and it became increasingly common in the United States to move manufacturing overseas.<sup>37</sup> As manufacturing shifted overseas, supply chains became increasingly complex,<sup>38</sup> with retailers seeking to accommodate consumer demand for cheap fashion by cutting costs and avoiding regulation.<sup>39</sup> Clothing production requires low-level technology but is labor-heavy.<sup>40</sup> This incentivizes retailers to move operations to countries with lower labor costs and fewer “barriers to entry.”<sup>41</sup> However, every country has different labor laws and resources. Retailers may source through hundreds or even thousands of suppliers throughout different countries to maximize their profit margins and their flexibility.<sup>42</sup> This generates almost no retailer accountability or responsibility in how plastics are created, disposed of, or reused. Retailers rely heavily on the cheap labor, production, and resources of offshore manufacturing.<sup>43</sup> Experts estimate that 97% of all clothing and shoes purchased by Americans is imported from countries with lower

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36. See *id.* (explaining lack of regulation and accountability on the apparel industry allows for quick trends and increased textile waste as a result).

37. Peter Doeringer & Sarah Crean, *Can Fast Fashion Save the US Apparel Industry?*, 4 SOCIO-ECON. REV. 353, 360-61 (2006). Globalization and emphasis on free trade during the 1990s set a perfect stage for American apparel companies to create supply chains in foreign countries, *id.* at 360; Ledezma, *supra* note 7, at 72; see also Lauren Sherman, *Unravelling the Myth of ‘Made in America’*, BUS. OF FASHION (Nov. 7, 2016), <https://www.businessoffashion.com/articles/news-analysis/the-myth-of-made-in-america-ttp-agreement> (“In 2015, 97 percent of all clothes sold in the US were imported.”).

38. See Adolfo Carballo-Penela et al., *The Role of Green Collaborative Strategies in Improving Environmental Sustainability in Supply Chains: Insights from a Case Study*, 27 BUS. STRATEGY & ENV’T 728, 729 (2018) (defining supply chains as “a set of upstream and downstream linkages between suppliers of materials and services which affect different processes and activities that produce goods and services delivered to consumers.”).

39. Piyya Muhammad Rafi-Ul-Shan et al., *Relationship Between Sustainability and Risk Management in Fashion Supply Chains*, 46 INT’L J. RETAIL & DISTRIBUTION MGMT. 466, 476 (2018). This is further exacerbated by faster information technology, the ability to buy clothing online, and fast fashion trends, *id.*; see also Remy et al., *supra* note 33 (discussing Zara and H&M rapidly producing new lines to keep up with fashion trends).

40. See Rafi-Ul-Shan et al., *supra* note 39, at 472 (explaining costs of technology in fashion supply chains).

41. *Id.*

42. *Id.* Many manufacturers maintain a smaller number of key suppliers but “smaller” is a relative term and these supply chains are still very complex, *id.*

43. See Rafi-Ul-Shan et al., *supra* note 39.

production costs, which demonstrates the heavy reliance on overseas production.<sup>44</sup>

### *C. The Fashion Industry and Plastic Pollution*

The tiny microfibers hiding in our clothes are often overlooked in favor of more obvious environmental damage caused by the fashion industry.<sup>45</sup> However, microfibers are a unique threat to the global environment because they cannot be easily collected or cleaned up once they infiltrate the environment; therefore, this type of pollution is almost irreversible if it is not prevented.<sup>46</sup>

Plastic pollution occurs at all stages in the fashion industry from production of clothing to its consumption and disposal.<sup>47</sup> The fashion industry is responsible for 35% of all microplastics in the environment, making it the single largest source of microplastics.<sup>48</sup> The fashion industry has become one of the main culprits of microfiber pollution because of the high content of synthetic plastic materials used in clothing production.<sup>49</sup> Microfibers are present in 64% of all clothing,<sup>50</sup> and in 2015, only 3% of the plastics used in clothing production were made of recycled material.<sup>51</sup> Microfibers enter the environment either as primary sources, meaning they are tiny microfibers already, or as secondary sources, meaning they are released from much larger plastic materials such as discarded clothing.<sup>52</sup>

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44. Matea Gold et al., *Ivanka, Inc.*, WASH. POST (July 14, 2017), <https://www.washingtonpost.com/graphics/2017/politics/ivanka-trump-overseas/?utmterm=.014d82f4984e>.

45. See *How Much Do Our Wardrobes Cost to the Environment?*, THE WORLD BANK (Sept. 23, 2019) <https://www.worldbank.org/en/news/feature/2019/09/23/costo-moda-medio-ambiente> (describing environmental impacts for which the fashion industry is responsible, including contributing 10% of global carbon emissions and the pollution of waterways with clothing dye).

46. Hayley McIlwraith et al., *Capturing Microfibers – Marketed Technologies Reduce Microfiber Emissions from Washing Machines*, 139 MARINE POLLUTION BULL. 40, 41 (2019).

47. *Fashion and Waste: An Uneasy Relationship*, COMMON OBJECTIVE (June 8, 2018), <https://www.commonobjective.co/article/fashion-and-waste-an-uneasy-relationship>. Nearly 39 million tonnes of consumer textile waste is created every year, and this is primarily in garment form, *id.* This has massive consequences due to the lack of recycling that takes place, and 57% of all discarded clothing ends up in a landfill, *id.*

48. See De Falco, *supra* note 2, at 2 (“Synthetic clothes contribute by about 35% to the global release of microplastics.”).

49. Phil Byrne, *Microfibres: The Plastic in Our Clothes*, FRIENDS OF THE EARTH (Sept. 14, 2018) <https://friendsoftheearth.uk/plastics/microfibres-plastic-in-our-clothes>; A.P.W. Barrows et al., *Marine Environment Microfiber Contamination: Global Patterns and the Diversity of Microparticle Origins*, 237 ENV’T POLLUTION 275, 276 (2018). This does not account for all the single-use plastic that clothing is wrapped and shipped in, which is different than the microfibers in clothing. Courtney Lindwall, *Single-Use Plastics*, NRDC (Jan. 9, 2020), <https://www.nrdc.org/stories/single-use-plastics-101#what>.

50. Byrne, *supra* note 49. Some common plastics noted on clothing labels are polyester, nylon, and acrylic, *id.*

51. Tobin, *supra* note 2.

52. Henry et al., *supra* note 2, at 484.



## 1. Plastic Production and Carbon Emissions

In addition to adding plastic to the environment, the process of creating plastic microfibers for clothing emits huge quantities of carbon dioxide (CO<sub>2</sub>), which is harmful to the atmosphere.<sup>53</sup> Producing a single polyester shirt can create 12.13 pounds of CO<sub>2</sub>, which is roughly equivalent to driving 13 miles in a standard-size passenger car.<sup>54</sup> Sixty-five million tons of plastic were produced solely for textile use in 2016, which represents 20% of the worldwide plastic production for that year.<sup>55</sup> “Typical fossil plastics have a global warming potential of between 1.7 and 3.5 [kilograms] of CO<sub>2</sub>, depending on the type of plastic. This means that for every kilogram of fossil-based plastic produced, there [are] between 1.7 and 3.5 kilograms of [CO<sub>2</sub>] released.”<sup>56</sup> In 2016, 65 million tons of plastic produced for textiles released approximately 221 to 455 billion pounds of CO<sub>2</sub> into the atmosphere.<sup>57</sup>

The emissions generated in the production of the average polyester shirt are 20% more than those generated in the creation of the average cotton shirt, demonstrating how much of a difference creating plastics makes on the environment.<sup>58</sup> The effects of greenhouse gases, such as CO<sub>2</sub>, on the environment are incredibly detrimental,<sup>59</sup> and producing plastic for fashion textiles in such large quantities is a principal contributor to this ongoing problem.<sup>60</sup>

## 2. Microfiber Shedding and Primary Sources

“Microfiber shedding” is the process of microfibers coming off clothing during production, day-to-day wear, or washing, which releases microfibers into the environment.<sup>61</sup> The washing of clothing is one of the most substantial

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53. Tobin, *supra* note 2.

54. WILL GRIMOND & JOSIE WARDEN, RSA, FAST FASHION’S PLASTIC PROBLEM: SUSTAINABILITY & MATERIAL USAGE IN ONLINE FASHION 4 (2021), <https://www.thersa.org/globalassets/reports/2021/fast-fashions-plastic-problem.pdf>.

55. Tobin, *supra* note 2; Henry, *supra* note 2, at 484.

56. *What is the Carbon Footprint of Plastic?*, WOODLY (May 26, 2021), [https://woodly.com/carbon\\_neutrality/what-is-the-carbon-footprint-of-plastic](https://woodly.com/carbon_neutrality/what-is-the-carbon-footprint-of-plastic).

57. Henry et al., *supra* note 2, at 484.

58. Grimond & Warden, *supra* note 54.

59. *Overview of Greenhouse Gases*, EPA (Aug. 25, 2023), <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>. The effects of greenhouse gases are well documented and include rising temperatures, which have detrimental effects on the environment overall, *id.* This Note does not focus on the effects of carbon dioxide emissions specifically, but it is important to note that the creation of plastic for textiles contributes to this significant problem.

60. Walter Filho et al., *An Overview of the Contribution of the Textiles Sector to Climate Change*, 10 FRONTIERS IN ENV’T SCI. 1, 1 (Sept. 5, 2022).

61. *See generally* Libiao Yang et al., *Microfiber Release from Different Fabrics During Washing*, 249 ENV. POLLUTION 136, 136 (June 2019) (defining microfiber shedding).

contributors of microfiber shedding.<sup>62</sup> A single load of laundry can release up to 700,000 microfibers.<sup>63</sup> The wastewater treatment plants that are meant to protect the environment catch only about 40% of these fibers,<sup>64</sup> and the rest go directly into waterways.<sup>65</sup> This indicates the systematic failure to acknowledge and prevent microfiber pollution.<sup>66</sup> Treatment plants were designed with larger and more traditional waste in mind; due to their dimensions, microfibers slip through the cracks in the systems.<sup>67</sup> The fashion industry alone is responsible for 35% of all microfibers released into the oceans and microfibers released by washing are the primary source of ocean microplastics.<sup>68</sup>

### 3. Clothing Dumping and Secondary Sources

Microfibers also enter the environment via the breakdown of textiles. Due to consumer demand and the rise of fast fashion, the fashion industry overproduces clothing by approximately 30–40% every season, which is equivalent to approximately 13 million tons of clothing per year.<sup>69</sup> Some of this clothing is burned; the rest of it is dumped in landfills.<sup>70</sup> In landfills, because plastic is not biodegradable, clothing can accumulate for thousands of years.<sup>71</sup> Any clothing dumped in landfills is prone to microfiber shedding.<sup>72</sup> This allows the microfibers to end up in the air and the soil.<sup>73</sup> Seventy-three percent of all clothing ends up in landfills, which means that

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62. De Falco et al., *supra* note 2, at 1; Henry et al., *supra* note 2, at 485.

63. Tobin, *supra* note 2.

64. Tobin, *supra* note 2; De Falco et al., *supra* note 2, at 1.

65. Tobin, *supra* note 2. This includes rivers, lakes, and oceans and through the process of evaporation many of the microfibers in the water will also end up in the air again, *id.*

66. See De Falco et al., *supra* note 2, at 1 (acknowledging the “open debate” on whether microfibers can be blocked by wastewater treatment plants at all).

67. See *id.* (discussing studies observing the abundance of microfibers found in wastewater treatment plant effluents around the world). There are filters that can be purchased and attached to washers to decrease the number of microfibers released but they are not standard. Tobin, *supra* note 2.

68. Clare Lissaman, *Fashion's Impact On The World's Oceans*, COMMON OBJECTIVE (Nov. 26, 2021), <https://www.commonobjective.co/article/microfibres-what-to-know-and-do-beatplasticpollution>; see also Christine Gaylarde et al., *Plastic Microfibre Pollution: How Important is Clothes' Laundering?*, 7 HELIYON 1, 2 (2021) (discussing the pollution microfibers create when released into the ocean from laundry washing).

69. Valentina Portela, *The Fashion Industry Waste is Drastically Contributing to Climate Change*, CALPIRG (Mar. 9, 2021), <https://calpirg.org/blogs/blog/cap/fashion-industry-waste-drastically-contributing-climate-change#:~:text=The%20fashion%20industry%20overproduces%20products,of%20water%20and%20plastic%20pollution.>

70. *Id.*

71. Henry et al., *supra* note 2, at 484. This is in stark contrast to natural materials used for clothing which degrade in the presence of microorganisms present in soil, *id.*

72. See *id.* (discussing how synthetic textiles can degrade in landfills slowly over long periods, producing small particles that become airborne).

73. *Id.*

this issue is particularly pressing.<sup>74</sup> In 2018, that was equivalent to about 17 million tons of textile waste in the United States alone, according to the Environmental Protection Agency (EPA).<sup>75</sup>

Wastewater treatment plants are also a major secondary source contributor of microfibers to the environment.<sup>76</sup> The sludge from wastewater treatment plants is routinely used as agricultural fertilizer, which means that the large percentage of microfibers not filtered out in treatment end up in that sludge and subsequently in the soil.<sup>77</sup> Wastewater treatment plants also allow microfibers to enter into rivers; the rivers then carry them along to the oceans or allow them to evaporate and later be redispersed throughout the environment via rain.<sup>78</sup>

#### *D. How Microfibers Impact the Environment and Put Human Health at Risk*

Microfibers are very difficult to clean up or remove from the environment once they are released.<sup>79</sup> Microfibers have been found in 90% of surface waters worldwide.<sup>80</sup> They have been found in locations as deep as the Mariana Trench, the deepest point on Earth, and as high as the top of Mount Everest.<sup>81</sup> Research shows microfibers pose an escalating risk to the environment and to human health due to their ability to infiltrate everything from drinking water to microorganisms' digestive tracts to the air inside our homes.<sup>82</sup>

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74. Debbie Moorhouse, *Making Fashion Sustainable: Waste and Collective Responsibility*, 3 ONE EARTH 17, 17 (2020).

75. Rachel Brown, *The Environmental Crisis Caused by Textile Waste*, ROADRUNNER (Jan. 8, 2021), <https://www.roadrunnerwm.com/blog/textile-waste-environmental-crisis>. To put this into an individual perspective, every year American citizens individually generate approximately 80 pounds of textile waste, *id.*

76. Jianli Liu et al., *Microfiber Pollution: An Ongoing Major Environmental Issue Related to the Sustainable Development of Textile and Clothing Industry*, 23 ENV'T DEV. SUSTAINABILITY 11,240, 11,246 (2021).

77. *Id.*; Byrne, *supra* note 49. Sixty percent of microfibers are not filtered out by the wastewater treatment plants. Tobin, *supra* note 2.

78. Liu et al., *supra* note 76, at 11,246; see also Matt Simon, *Plastic Rain is the New Acid Rain*, WIRED (June 11, 2020, 2:00 PM), <https://www.wired.com/story/plastic-rain-is-the-new-acid-rain/> (describing the phenomenon of "plastic rain" and how it has been compared to acid rain for its potentially disastrous environmental consequences).

79. McIlwraith et al., *supra* note 46, at 41.

80. Gaylarde et al., *supra* note 68, at 1–2.

81. Carolyn Wilke, *Plastics are Showing up in the World's Most Remote Places, Including Mount Everest*, SCIENCE NEWS (Nov. 20, 2020, 11:00 AM), <https://www.sciencenews.org/article/plastics-remote-places-microplastics-earth-mount-everest>.

82. NAT'L GEOGRAPHIC SOC'Y, *supra* note 2; Gaylarde et al., *supra* note 68, at 2; Henry et al., *supra* note 2, at 486.



Microfibers, like most plastics, are generally resistant to biodegradation.<sup>83</sup> This leads to a vast accumulation of microfibers in the environment.<sup>84</sup> There is strong evidence that microplastics alter soil structure.<sup>85</sup> Microfibers have a critical impact on how water, microorganisms, and the soil ecosystem function.<sup>86</sup>

Toxins present on the surface of microfibers, which are added during the production of textiles, present a threat to the biosphere.<sup>87</sup> In addition, over time microfibers may also accumulate persistent organic pollutants (POPs), which include chemicals and pollutants such as “PAHs, DDT, PCBs, and dioxins.”<sup>88</sup> POPs cling to microfibers and, even in low doses, can be damaging to the systems of young animals and humans.<sup>89</sup> The most POPs are accumulated when microfibers come in contact with aquatic environments.<sup>90</sup> The risks are then redistributed to humans via ingestion, the food chain, and our drinking water.<sup>91</sup>

Microorganisms are considered the crux of aquatic life, serving as the building blocks for much of the marine food chain.<sup>92</sup> Microfibers are frequently ingested by microorganisms and due to the small size of the microorganisms, the microfibers have a much more significant impact on the functioning of their systems.<sup>93</sup> Studies have shown that microfibers have a

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83. Henry et al., *supra* note 2, at 484. There are some plastic polymers that have been created that break down more easily such as polyethylene terephthalate, but this is still a relatively new development and most plastic is not readily degrading, *id.*

84. Henry et al., *supra* note 2, at 484.

85. See Matthias C. Rillig et al., *Microplastic Fibers Affect Dynamics and Intensity of CO<sub>2</sub> and N<sub>2</sub>O Fluxes from Soil Differently*, MICROPLASTICS & NANOPLASTICS, Mar. 29, 2021, at 1, 2 (explaining that microplastics can be deposited in soil via the air, discarded clothing, or rainfall, and, once there, may affect the levels of greenhouse gases emitted in the soil, which alters the soil ecosystem).

86. See *id.* (summarizing environmental impacts of microfibers); see also Lili Li et al., *Biodegradability Study on Cotton and Polyester Fabrics*, 5 J. ENGINEERED FIBERS & FABRICS 42, 47 (2010) (explaining that the lack of biodegradation is particularly pertinent in soil-based ecosystems). A study from Cornell University showed that polyester (a form of plastic) fabrics showed minimal initial degradation and then remained intact in both lab and compost conditions, *id.* at 47. Due to the long life of microfibers in soil, the fibers will continue to build up and affect the quality of the soil and ecosystem, as opposed to cotton-based fabrics, which showed an accelerated degradation rate, *id.*

87. Gaylarde et al., *supra* note 68, at 5. These toxins come from the coatings on microfibers from commercial dyes, as well as “softening agents, dyes, anti-wrinkle substances and water repellents.” *Id.*

88. *Id.*; see Madeleine Smith et al., *Microplastics in Seafood and the Implications for Human Health*, 5 CURRENT ENV'T HEALTH REP. 375, 377 (2018) (classifying polycyclic aromatic hydrocarbons (PAHs), and organochlorine pesticides like dichlorodiphenyltrichloroethane (DDT) or hexachlorobenzene (HCB) as POPs).

89. Smith et al., *supra* note 88, at 381.

90. See *id.* at 377 (explaining that POPs have a greater affinity for plastics than water and therefore concentrate on microplastics than in the surrounding waters).

91. *Id.* at 381.

92. EPA, WHAT YOU SHOULD KNOW ABOUT MICROFIBER POLLUTION 1, 2 (July 28, 2020), <https://www.epa.gov/trash-free-waters/what-you-should-know-about-microfiber-pollution> (go to PDF).

93. Mary Cathrine O'Conner, *Humans, Fish and Other Animals Are Consuming Microfibers in Our Food and Water*, ENSIA (July 2, 2018), <https://ensia.com/features/microfiber-impacts/>.

significant impact on aquatic species in particular,<sup>94</sup> finding that “[i]ngestion of microplastics has been recorded in many crustaceans, seabirds, sea snakes, sea turtles, penguins, seals, sea lions, manatees, sea otters, fish, and half of all marine mammals.”<sup>95</sup> The ingestion of microfibers by these aquatic animals can lead to toxic effects on digestive abilities, nutritional deficiencies, and metabolic issues.<sup>96</sup> However, because of the nature of the food chain, this impact is not isolated. As microorganisms are consumed, the negative effects of the accumulating microfibers are able to travel upwards along the chain to larger aquatic and land species (including humans).<sup>97</sup>

Studies have detected airborne microplastics both indoors and outdoors.<sup>98</sup> These microfibers are small enough to be inhaled by humans, which can lead to asthma-like reactions, chronic bronchitis, and other issues with the lungs.<sup>99</sup> These health issues are most often seen in textile workers who work in close contact with synthetic materials and are regularly inhaling them.<sup>100</sup> However, these problems could become pertinent in the general population as microfibers increase in concentration throughout the environment and are less localized in factories. Additionally, because of how small the microfibers are, they cannot safely be removed from the lungs.<sup>101</sup>

In a study of tap water, microplastics were found in 83% of samples (out of 159 samples total); 99.7% of all of these plastics were microfibers from clothing.<sup>102</sup> Humans are also consuming microfibers via fruits and vegetables grown in contaminated soil and animals that have already consumed microfibers.<sup>103</sup> Once a human ingests microfibers, those that are smaller than 2.5 micrometers<sup>104</sup> are capable of entering the gastrointestinal tract.<sup>105</sup> Over time, the accumulation of microfibers may cause issues relating to

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94. Henry et al., *supra* note 2, at 487.

95. Gaylarde et al., *supra* note 68, at 5 (citing M. Taylor et al., *Plastic Microfibre Ingestion by Deep-Sea Organisms*, SCI. REP., 2016, at 1).

96. *See id.* (showing how ingestion can lead to various maladies).

97. Gaylarde et al., *supra* note 68, at 5.

98. Henry et al., *supra* note 2, at 486.

99. Claudia Campanale et al., *A Detailed Review Study on Potential Effects of Microplastics and Additives of Concern on Human Health*, INT’L J. ENV’T RSCH. & PUB. HEALTH, Feb. 2020, at 1, 5, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7068600/>.

100. *Id.*

101. *Id.*

102. Henry et al., *supra* note 2, at 486.

103. Campanale et al., *supra* note 99, at 15.

104. A millimeter is the equivalent of 1000 micrometers. While there is no consensus, one suggested definition of microfibers is “natural or artificial fibrous materials of threadlike structure with a diameter less than 50 [micrometers], length ranging from 1 [micrometer] to 5 [millimeters], and length to diameter ratio greater than 100.” Jianli Liu et al., *Microfiber Pollution in the Earth System*, REVS. ENV’T CONTAMINATION & TOXICOLOGY, Dec. 2022, at 1, 2.

105. Campanale, *supra* note 99, at 15.

inflammation, pH imbalance, diminished effects on nutrient absorption, and reproduction.<sup>106</sup>

Experts have acknowledged that the approach to microfiber pollution needs to change, saying “[t]he current global approach to addressing microfiber pollution, such as devices to mitigate microfiber release from clothing during washing or to capture microfibers released in the wastewater, is failing.”<sup>107</sup> The fashion industry is the single largest contributor to microplastics, and there is currently no effective solution for cleanup due to these particles’ tiny size, so efforts to address the mitigation of these plastics entering the environment in the first place is essential.<sup>108</sup>

## II. LEGAL BASIS FOR SUPPLY CHAIN AND PLASTICS REGULATION

### *A. Regulation of Supply Chains*

#### 1. Federal Regulation

Supply chain regulation has been at the forefront of national policy discussions for the last few years, largely triggered by the COVID-19 pandemic.<sup>109</sup> The United States has faced shortages of many goods, extended wait times for deliveries, and significant spikes in prices, making it an ideal time to take a more critical look at overseas supply chains.<sup>110</sup> During his tenure, President Trump largely focused on the importance of domestic manufacturing and the goal of “reshoring” manufacturing.<sup>111</sup> In 2021, President Biden signed Executive Order 14,017, which stated that the United States “must work with allies and partners to diversify supply chains away from adversarial nations and sources with unacceptable environmental and labor standards.”<sup>112</sup> However, this was regarding “critical minerals and

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106. *See id.* at 16 (describing the various deleterious effects that microfibers have on the human body); *see also* Smith et al., *supra* note 88, at 381.

107. Liu et al., *supra* note 76, at 11,247.

108. *See* De Falco, *supra* note 2, at 2 (discussing use of synthetic fibers in the “apparel industry”); *see also* Tobin, *supra* note 2 (discussing use of synthetic fibers in “fashion industry”).

109. Oma Seddiq et al., *Trump Falsely Suggests There Were No Supply Chain Issues When He Was President*, BUS. INSIDER (Jan. 26, 2022), <https://www.businessinsider.com/trump-falsely-suggests-there-were-no-supply-chain-issues-when-he-was-president-2022-1#:~:text=Trump%20sought%20to%20use%20pandemic,be%20reliant%20on%20foreign%20nations.%22>.

110. Exec. Order No. 14,017, 86 Fed. Reg. 11,849 (Feb. 24, 2021).

111. Oma Seddiq et al., *supra* note 109.

112. *Fact Sheet: Biden-Harris Administration Announces Supply Chain Disruptions Task Force to Address Short-Term Supply Chain Discontinuities*, WHITE HOUSE (June 8, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/08/fact-sheet-biden-harris-administration-announces-supply-chain-disruptions-task-force-to-address-short-term-supply-chain-discontinuities/>.

materials,” and there was no reference to general environmental standards in the plan.<sup>113</sup>

Legislators have proposed, but not passed, the Break Free From Plastic Pollution Act in an attempt to address and curtail plastic pollution.<sup>114</sup> This Act is a major step forward in confronting plastic consumption and waste management domestically.<sup>115</sup> The Act would “[r]equire big corporations to take responsibility for their pollution by requiring producers of plastic products to design, manage, and finance waste and recycling programs.”<sup>116</sup> However, the Act does not mention overseas waste nor does it require corporations to take responsibility for the plastic produced by their overseas supply chains.<sup>117</sup>

A failure to hold United States companies accountable for the actions occurring in their overseas supply chains has been the norm. United States courts can apply *forum non conveniens* when United States retailers are sued for damage caused overseas.<sup>118</sup> While this has been most frequently applied to labor cases, it is possible that courts would apply similar principles to environmental damages as well.<sup>119</sup> This leaves plaintiffs who suffer injury due to the environmental damage of overseas supply chains little recourse for recovery.<sup>120</sup>

## 2. State Regulation of Plastics

Due to broad gaps in federal supply chain regulations, some states have implemented more specific plastics legislation to manage waste. Much of this is due to the federal waste management scheme under the Resource Conservation and Recovery Act (RCRA).<sup>121</sup> RCRA requires that the disposal of non-hazardous materials be handled by the states, and plastics and textiles

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113. *Id.*

114. Break Free from Plastic Pollution Act of 2021, S. 984, 117th Cong. (2021).

115. Merkley, Lowenthal Lead Introduction of Congress’s Most Comprehensive Plan to Protect Americans’ Health from Growing Plastic Pollution Crisis, JEFF MERKLEY (Mar. 25, 2021), <https://www.merkley.senate.gov/news/press-releases/merkley-lowenthal-lead-introduction-of-congress-most-comprehensive-plan-to-protect-americans-health-from-growing-plastic-pollution-crisis-2021>.

116. *Id.*

117. *See generally id.* (providing little mention of overseas waste or corporate accountability for supply chains).

118. Peter Rott & Vibe Ulfbeck, *Supply Chain Liability of Multinational Corporations?*, 23 EUR. REV. PRIVATE L. 415, 417 (2015). *Forum non conveniens* is the doctrine that permits a case to be transferred to another forum that is better suited to hearing the case. *Forum non conveniens*, LEGAL INFO. INST., [https://www.law.cornell.edu/wex/forum\\_non\\_conveniens](https://www.law.cornell.edu/wex/forum_non_conveniens) (last updated Dec. 2022).

119. *Id.*

120. *See supra* Section II.D. (illustrating the scope of damage microplastics cause and the variety of ways potential plaintiffs could be impacted).

121. *Resource Conservation and Recovery Act (RCRA) Overview*, EPA (July 14, 2021) <https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview>.

are classified as non-hazardous.<sup>122</sup> This designation as non-hazardous is preventing the federal government from providing a broader scheme for plastic disposal under RCRA.<sup>123</sup>

Massachusetts, for example, has banned textiles from solid waste facilities and will instead divert textiles, aiming to increase donations, reuse, and local management.<sup>124</sup> California was among the first states to address microplastics. Its Safe Drinking Water Act requires “the State Water Resources Control Board to adopt regulations requiring annual testing for, and reporting of, the amount of plastics in drinking water, including public disclosure of those amounts.”<sup>125</sup> Its Ocean Protection Council: Statewide Microplastics Strategy Act requires the Ocean Protection Council to create a statewide microplastics strategy to better understand the risks of microplastics in the ocean.<sup>126</sup>

#### a. New York State Legislation as a Model for Sustainability

On January 7, 2022, New York State Senator Biaggi and New York Assembly Member Kelles announced the Fashion Sustainability and Social Accountability Act (Act), which has the potential to serve as a model and set precedent for fashion sustainability law.<sup>127</sup> If passed, this Act would make New York the first state to implement a law specific to sustainability in the fashion industry.<sup>128</sup> The Act has three key requirements: mapping of supply chains, disclosure of environmental and social impact metrics, and establishment of a community benefit fund.<sup>129</sup>

The supply chain mapping requirement is similar to the solutions proposed in this Note. It requires a “good faith” effort from corporations to map at least 50% of their entire supply chain.<sup>130</sup> The environmental and social impact metrics give companies an 18-month timeline to collect the

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122. *See id.* (providing a list of hazardous wastes that does not include plastics or textiles).

123. *See generally id.* (identifying which substances are non-hazardous).

124. Dacia Meng, *MassDEP Proposes Waste Disposal Ban on Textiles and Mattresses*, NAT’L L. REV. (Oct. 30, 2020), <https://www.natlawreview.com/article/massdep-proposes-waste-disposal-ban-textiles-and-mattresses>.

125. *See Microplastic Legislation Passes in California*, SURFRIDER FOUND. (Oct. 1, 2018), <https://www.surfrider.org/coastal-blog/entry/microplastic-legislation-passes-in-ca>.

126. *Id.*

127. A.B. 8352, 204th Gen. Assemb., Reg. Sess. (N.Y. 2021); Mackenzie S. Schoonmaker et al., *New York Proposes to Require Sustainability Reporting for the Fashion Industry*, NAT’L L. REV. (Jan. 12, 2022), <https://www.natlawreview.com/article/new-york-proposes-to-require-sustainability-reporting-fashion-industry>.

128. Schoonmaker et al., *supra* note 127.

129. N.Y. A.B. 8352.

130. Schoonmaker et al., *supra* note 127. This includes all of production from the raw materials to the final product, *id.*

initial data before requiring annual disclosure.<sup>131</sup> “Companies would be required to disclose, and have independently verified, the annual volume of material they produce, including a breakdown by material type, and how much production has been displaced with recycled materials.”<sup>132</sup> The climate change targets must be absolute and include all scopes of production.<sup>133</sup>

The Act’s enforcement provisions are essential to its effectiveness.<sup>134</sup> The Act allows the New York Attorney General to pursue violations of the disclosures and climate change target requirements mentioned above. Moreover, “[v]iolations can result in a fine of up to 2% of annual revenues of \$450 million or more.”<sup>135</sup> The Act also creates a “community benefit fund” where all the fines will be collected and used to support certain environmental justice projects.<sup>136</sup>

### *B. Internal Controls on Supply Chains*

#### *1. Corporate Social Responsibility (CSR)*

Many retailers create internal controls for their supply chains.<sup>137</sup> This is broadly considered CSR and embodies a corporation’s general practices towards the environment, labor, and philanthropy.<sup>138</sup> The reasons retailers place internal controls on their supply chains vary, but three main goals have been identified: “(1) external demands from stakeholders, (2) threats posed by suppliers, and (3) opportunities to create new products.”<sup>139</sup> These factors are rooted in sustainable supply chain management; however, many retailers fail to implement any sustainability initiatives that are not financially beneficial.<sup>140</sup> Therefore, CSR can fall short of real reform, particularly when it is not backed up by legal requirements and enforcement mechanisms.<sup>141</sup> Absent these safeguards, retailers often employ superficial measures to

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131. *Id.* This is in addition to the parallel requirements for greenhouse gases, chemical management, and water usage.

132. *Id.*

133. *Id.*

134. *Id.*

135. *Id.* Annually, a list will be made public of all the companies that are out of compliance. This is useful for any individuals, government entities, or companies that do not want to endorse or associate with companies failing to meet environmental standards and encourages transparency. *See* N.Y. A.B. 8352, *supra* note 125.

136. *Id.*

137. Garth Hickle, *Extending the Boundaries: An Assessment of the Integration of Extended Producer Responsibility Within Corporate Social Responsibility*, 25 BUS. STRATEGY & ENV’T 112, 113 (2017).

138. *See id.* at 114 (discussing how CSR is often implemented within the corporate structure, regulatory codes, and legislation).

139. *Id.* at 114.

140. *Id.*

141. *Id.*

appease consumers or stockholders, as opposed to taking deeper action for the sake of the environment.<sup>142</sup> CSR also has the potential for a free-rider problem<sup>143</sup> “due to its emphasis on firm-specific activities rather than broader industry initiatives.”<sup>144</sup>

## 2. Closed-Loop Supply Chains (CLSCs)

The majority of the plastic created every year for fashion is not recycled or reused.<sup>145</sup> CLSCs address that issue by using and reusing products from different stages of the supply chain, particularly once consumers have finished with the final product.<sup>146</sup> “The key goal is to keep all materials within the lifecycle and minimize any flow into the external environment” by actively working to recover the final product.<sup>147</sup> CLSCs are critical in managing the prevention of waste from entering the environment.<sup>148</sup> “[W]aste products and emissions can be recycled as a raw material for use in the same or different production process,” or the waste may be used in new ways.<sup>149</sup> A popular example is Nike’s “Reuse a Shoe” program, in which people can bring their old shoes to Nike stores to be repurposed.<sup>150</sup> H&M also collects any unwanted clothing in stores.<sup>151</sup> CLSCs are gaining favor among more progressive companies, often as part of their CSR framework, but it is not the industry norm.<sup>152</sup> A significant challenge in CLSCs is navigating the complexities of the supply chain and actually “closing the loop.”<sup>153</sup>

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142. *See id.* (explaining shortcomings of CSR).

143. *Free Rider Problem*, INVESTOPEDIA (Dec. 29, 2020), [https://www.investopedia.com/terms/f/free\\_rider\\_problem.asp](https://www.investopedia.com/terms/f/free_rider_problem.asp) (defining free-riding as what results when a party benefits from the outcome of an action taken by a larger group without having had to contribute to that action).

144. Hickle, *supra* note 137, at 114.

145. *See supra* text accompanying note 51 (describing how only 3% of plastics used in clothing production are from recycled materials).

146. Alison Ashby, *Developing Closed-Loop Supply Chains for Environmental Sustainability*, 29 J. MFG. TECH. MGMT. 699, 701 (2018).

147. *Id.*

148. *Id.* at 703.

149. *Id.* The waste could also be sold to another company, *id.*

150. Hickle, *supra* note 137, at 115.

151. *Id.*

152. Ashby, *supra* note 146, at 702.

153. *Id.*

### 3. Extended Producer Responsibility (EPR)

EPR is a policy-based approach that holds manufacturers responsible for the environmental impact of their products.<sup>154</sup> Under EPR, “producers are given a significant responsibility—financial and/or physical—for the treatment or disposal of post-consumer products.”<sup>155</sup> While EPR legislation does not exist in the United States for the fashion industry, it does exist with respect to other products.<sup>156</sup> Since 2004, 19 states have established some form of mandated EPR program, generally addressing the disposal of mattresses, paint, pharmaceuticals, and pesticides.<sup>157</sup> EPR programs more commonly apply to toxic waste than plastic because it is viewed as a more pressing issue.<sup>158</sup> However, as evidenced in Part II of this Note, plastic pollution needs to be addressed. EPR may risk weak internal incentive structures that cannot be relied on if the financial stakeholders (in this case the retailers) are not held financially responsible for reducing their pollution.<sup>159</sup> Some experts suggest that there is not enough financial incentive across the board for firms to truly integrate EPR into their corporate policies.<sup>160</sup> The stakeholders of EPR should be held directly responsible through legislation and fines to ensure they have sufficient incentive to act.<sup>161</sup>

EPR has worked elsewhere for textiles; France successfully implemented a textile EPR program under Article L-541-10-3 - *Code de l'Environnement*.<sup>162</sup> This holds all textile and footwear producers responsible for collecting at least 50% of all textiles output per year.<sup>163</sup> The external enforcement of the EPR program provides the incentive retailers need to integrate the program effectively into their business model.

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154. Hickie, *supra* note 137, at 116. EPR is distinct from CSR, which is largely voluntary and much broader in scope, *id.*

155. Hannes Jakob, *Producer and Consumer Responsibility for Circular Economy*, RETHINKING CLIMATE (May 27, 2021), <https://rethinking-climate.org/2021/05/27/producer-and-consumer-responsibility-for-circular-economy/>.

156. Gemma Alexander, *The State of Producer Responsibility in the United States*, EARTH911 (July 17, 2020), <https://earth911.com/business-policy/producer-responsibility-in-the-united-states/>.

157. *Id.*

158. *Id.*

159. See Harri Kalimo et al., *Greening the Economy through Design Incentives: Allocating Extended Producer Responsibility*, 21 EUR. ENERGY & ENV'T L. REV. 274, 278 (2012) (discussing the allocation of responsibility among producers generally versus clothing retailers specifically).

160. Hickie, *supra* note 137, at 121.

161. Kalimo et al., *supra* note 159, at 278.

162. Mohammad Abdullatif Bukhar et al., *Developing a National Programme for Textiles and Clothing Recovery*, 36 WASTE MGMT. & RSCH. 321, 323 (2018).

163. *Id.*



### III. GAPS IN THE FRAMEWORK

#### *A. Lack of Liability and Reliance on Internal Controls*

The federal landscape has gaps when it comes to addressing plastic pollution, particularly within the fashion industry. The United States provides limited regulation of supply chains, especially of their environmental impact. Many of the controls placed on supply chains are created internally by the retailers themselves.<sup>164</sup> However, internal controls do not necessarily meet the same standards and rigor of external regulation and are falling short of effecting actual change. Supply chains have become so complex that any supplier, buyer, or producer at one stage of production can claim ignorance of any other stage.<sup>165</sup> Due to supply chains' structure and lack of liability, the retailer has very little incentive to intervene, even when their internal compliance mechanisms suggest they should.<sup>166</sup> The United States has not legislated any liability, and other countries do not hold the retailer accountable for what their subcontractors do.<sup>167</sup> This situation requires states to legislate on plastic reform in order to mitigate environmental damage, but there is still a significant gap in regulation without federal legislation.

The current legal framework in the United States for imposing any kind of liability or responsibility on fashion retailers relies too heavily on internal controls. CSR relies on the good will of retailers to create the policies and enforce them. This ultimately results in free-rider problems, insufficient liability when there is an environmental disaster, and a lack of transparency with consumers.

#### 1. Greenwashing

As consumers demand more ethically sourced clothing, many retailers are coming under scrutiny for their environmental practices.<sup>168</sup> “Greenwashing” is “a tactic that retailers use to ‘appear’ more sustainable

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164. Julia Zenker, *Made in Misery: Mandating Supply Chain Labor Compliance*, 51 VAND. J. TRANSNAT'L L. 297, 301 (2018).

165. *Id.*

166. *Id.* at 301–302.

167. *See Doe v. Wal-Mart Stores, Inc.*, 572 F.3d 677, 683–84 (9th Cir. 2009) (finding that the retailer did not owe the plaintiff employees of Walmart's international suppliers any common law duty of care over alleged mistreatment). While that was a labor case, the principles are applicable to environmental liability as well. It is likely that a court would make a similar ruling in favor of limited liability for the retailer in the case of environmental torts.

168. *See* Durva Simone Bose, *Greenwashing in Fashion Is on the Rise, Here's How to Spot It*, GREEN QUEEN, <https://www.greenqueen.com.hk/greenwashing-in-fashion-is-on-the-rise-heres-how-to-spot-it/> (Sept. 3, 2022) (discussing the rising interest in sustainability among consumers).

than they actually are.”<sup>169</sup> Greenwashing is often used within the fast-fashion environment to make consumers feel better about their purchases.<sup>170</sup> The International Consumer Protection and Enforcement Network found that 40% or more of environmental claims on retail websites were misleading to consumers.<sup>171</sup> With fast-fashion consumerism and throw-away culture being so prevalent,<sup>172</sup> it can make consumers feel better to believe their inexpensive clothing is not so bad, and major retailers market to that sentiment.<sup>173</sup> Greenwashing is a significant issue because retailers do not have accountability outside of their internal CSR setups. This allows faux responsibility and environmentalism for show without actual change.

The supply chain can complicate greenwashing when it comes to proper labeling and verification.<sup>174</sup> It is difficult to ensure that upstream suppliers are not misleading downstream sellers when it comes to the legitimacy of their sustainability practices.<sup>175</sup> This ultimately has to do with the varying standards of consumer protection laid out by each country.<sup>176</sup> Fashion attorney Douglas Hand stated that the most frequent issue he has come across is “misrepresentation of brands’ supply chain[s] by agents of the brand,” which is intentional greenwashing.<sup>177</sup> In 2022, the Federal Trade Commission announced that it will assess whether to update the “Green Guides,” which outline rules against greenwashing, but no further information has been released.<sup>178</sup>

### B. State-by-State Approach

New York is a good example of a state taking initiative to protect the environment by addressing supply-chain issues. However, relying on states to do this individually means that most states would not have these protections. Additionally, even if other states followed New York’s lead,

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169. *Id.* There are several tactics that a company may use to appear more “green,” including releasing “sustainable collections” without any proof of how sustainable the collections are, *id.* Claims that products are made of recycled material are also popular. See *supra* note 52 (describing how some brands identify themselves as environmentally friendly for using recycled plastics, despite evidence that these garments shed plastic debris).

170. *Id.*

171. Bella Webb, *The Big Global Greenwashing Crackdown*, VOGUE BUS. (May 27, 2021), <https://www.voguebusiness.com/sustainability/the-big-global-greenwashing-crackdown>.

172. See Kerli Kant Hvass, *Post-Retail Responsibility of Garments – A Fashion Industry Perspective*, 18 J. FASHION MKTG. & MGMT. 413, 413–14 (2014) (describing how fast-fashion purchases and the trend of throw-away fashion are growing in popularity and creating post-consumer textile waste).

173. Bose, *supra* note 168.

174. Webb, *supra* note 171.

175. *Id.*

176. *Id.*

177. *Id.*

178. *Id.*

they would be implementing regulations without unified oversight or guidelines.<sup>179</sup>

As mentioned previously, some states have implemented microplastics legislation (California) or bans on throwing away textiles (Massachusetts). But these states are the exceptions and relying on their activism is a form of free-riding.<sup>180</sup> Additionally, states that have implemented EPR programs have not yet done so with respect to plastics or textiles. Therefore, the fashion industry's plastic pollution is still not being addressed in most states.

Further, although New York's pending legislation serves as a good baseline model for other states, it lacks the EPR and CLSC mechanisms that are crucial to keeping the plastic out of the environment in the first place.<sup>181</sup> It is essential that these methods are legislated on a federal scale to diminish microplastics pollution and ensure retailer compliance.

#### IV. A FEDERAL SOLUTION

The federal government needs comprehensive legislation to address the microplastics pollution generated by the fashion supply chains that United States retailers have overseas. This legislation would create a full federal scheme centralized through EPA, with administration delegated to the states using a cooperative federalism model.<sup>182</sup> This model would allow states and the federal government to work together on overlapping functions and ease the burden of administration on the federal government. It would also allow states that want to exceed federal minimums to be more proactive about microplastics regulations, while still considering key environmental protection goals. This legislation would target United States fashion retailers who rely on overseas supply chains for production and manufacturing.

##### *A. Combining EPR and CLSC*

The ideal solution for preventing microplastics from entering the environment would integrate the EPR model with CLSCs. An integrated EPR/CLSC approach would hold each retailer accountable for the plastic generated by each link in its supply chain. In addition, such an approach

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179. See *Why Do Companies Incorporate in Delaware*, UPCOUNSEL, <https://www.upcounsel.com/why-do-companies-incorporate-in-delaware> (explaining why Delaware, where many companies are incorporated, has the incentive to maintain less strict regulation to appease business owners).

180. See *supra* note 143 and accompanying text.

181. See *supra* Section II(A)(2)(a) (identifying New York as a good example of a state proactively addressing supply chain issues).

182. See *Cooperative Federalism*, ECOS, <https://www.ecos.org/cooperative-federalism/>. Many United States environmental laws use cooperative federalism, so this would not be a departure from the norm, *id.*

would require the retailer to recycle and reuse a certain percentage of textiles and plastic to reduce its environmental impact. Each retailer would be required to map its supply chain, report its environmental impact, and collect and reuse a certain percentage of plastic every year. A retailer would incur fines for failing to meet reporting and recycling requirements.<sup>183</sup>

### 1. Supply Chain Mapping

The Secretary of State in each state would manage the supply-chain mapping portion of the legislation and report it to EPA. Most fashion retailers are private businesses who are already required to file business disclosures with the Secretary of State of the state they are incorporated in.<sup>184</sup> Therefore, it would streamline the process to have each Secretary of State manage supply-chain mapping. The disclosures would then be submitted to and compiled by EPA and made available for public access. These disclosures would be a set of reporting requirements modeled after New York's legislation; the federal legislation would require United States retailers to map a minimum of 50% of their supply chain.<sup>185</sup> Retailers would be required to disclose the annual volume of textiles they produce; the breakdown of produced materials by textile material type; and the percentage of materials recycled or repurposed into the supply chain through the CLSC initiative.<sup>186</sup> During the initial establishment of the plan, the retailers would have 24 months to compile and disclose all environmental and social impact metrics from the supply chains. After this period, the impact metrics would need to be updated and made publicly available annually. This process must be independently verified by a third party.<sup>187</sup>

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183. See Hvass, *supra* note 172, at 416 (describing existing mandatory EPR models that use the “polluter pays” principle and place the burden on producers instead of consumers); see also Kalimo et al., *supra* note 159, at 278. An integrated EPR/CLSC model was developed successfully in the European Union as part of the Directive on Waste Electrical and Energy Equipment (WEEE), *id.* This directive is considered the gold standard for EPR legislation. This model established collective financial responsibility and was so successful in part because it distributed the costs based on how effective each producer was at recycling. This approach to accountability is mirrored in this legislation by fines that only apply when there is a failure to meet targets, *id.*

184. Zoeanna Mayhook, *Privately-Held Companies: Legislation, Regulation, and Limited Dissemination of Financial Information*, DOCUMENTS TO THE PEOPLE, Winter 2019, at 28, 28.

185. A.B. 8352, 204th Gen. Assemb., Reg. Sess. (N.Y. 2021) (including all production from the raw materials to the final product).

186. *Id.* The proposed legislation would be modeled on New York's legislation but modified to address CLSC goals.

187. SCS Global Services is an independent third party that provides “certification, validation, and verification for environmental, sustainability, and food safety and quality performance claims,” and is one example of a third-party system that could be used. *Featured Services*, SCS, <https://www.scsglobalservices.com/>. The EPA regularly uses third parties for verification, such as to verify its green power products using the Center for Resource Solutions's Green-e Energy program, which specializes in renewable energy. *Certification and Verification*, EPA (Feb. 25, 2022), <https://www.epa.gov/green-power-markets/certification-and-verification>.

The legislation achieves two objectives by mapping the supply chain and making environmental impact reports publicly available. First, retailers are setting themselves up to be aware of the actual impact of their supply chains. Often, supply chains become so complex that retailers are not aware of what is happening multiple links down the chain. This solution forces accountability for microfiber pollution. It also allows the retailers to set up the CLSC model discussed in Part II.B.2 to take textiles that could have ended up in the environment and minimize that pollution. Second, publicizing the environmental impact reports allows consumers to make informed decisions about the retailers they purchase from. This also allows stakeholders to hold retailers accountable more effectively. This increases transparency, alleviating the greenwashing problem.

## 2. Closing the Loop

Under EPA, RCRA already handles hazardous waste management in a scheme known as “cradle-to-grave,” which is designed to ensure the responsible management of toxic substances from their inception to their disposal.<sup>188</sup> EPA is the ideal agency to implement this legislation because the CLSC method takes “cradle-to-grave” a step further by ensuring that retailers are reusing their non-hazardous textiles as opposed to disposing of them at the end of the product cycle, also known as “cradle-to-cradle.”<sup>189</sup> The fashion industry overproduces by 30-40% every year, and the majority of that clothing ends up in landfills, causing microfibers to pollute the environment.<sup>190</sup> In response, this legislation would mandate that retailers must recycle or repurpose 35% of their textiles every year to make up for that overproduction.

As mentioned earlier, there are retailers who engage in programs like CLSC, such as Nike and H&M.<sup>191</sup> Madewell also offers an incentive program for customers to bring in any pair of denim in return for a discount on a new pair of jeans.<sup>192</sup> By offering programs like these, retailers can ensure that old products are being repurposed and recycled. This will also help lower costs for the retailer over time, because some materials are very expensive and repurposing textiles is economically beneficial to them as well.<sup>193</sup> Closing

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188. Olivia Suraci, *The Best-Dressed Polluter – Regulation and Sustainability in the Fashion Industry*, 27 HASTINGS ENV'T L. J. 225, 238 (2021).

189. EPA, *supra* note 121 and accompanying text. While states currently regulate plastic under RCRA, the practices used by the EPA (cradle-to-grave and cradle-to-cradle) still exist and can easily be applied to this legislation under the CLSC model, *id.*

190. Portela, *supra* note 69.

191. Hickie, *supra* note 137, at 115.

192. *Recycle Your Denim with Us*, MADEWELL, <https://www.madewell.com/inspo-do-well-denim-recycling-landing.html> (last visited Sept. 17, 2023).

193. Ashby, *supra* note 146, at 703.

the loop is necessary, particularly when it comes to microfibers, because of how difficult it is to remove them from the environment.<sup>194</sup> By implementing CLSC and reusing textiles in the next stage of production, retailers can significantly reduce their environmental impact when it comes to plastics. These recycling statistics would be included in the environmental and social impact metrics mentioned in Part II.A.2.a.

### 3. Enforcement

Enforcement provisions for this legislation are essential. As mentioned in Part III, much of the failure in regulation up until this point has been due to a lack of adequate incentive to change internal processes. Each state will have to meet the federal minimums established by legislation; however, they will have the option to apply stricter standards if they see fit. Should any state fail to enforce federal guidelines as laid out by this legislation, EPA has the right to administer the legislation.<sup>195</sup> In each state, the Attorney General will have the power to impose fines on the retailer if it is not meeting the standards set forth in the legislation.<sup>196</sup> These fines may amount to three percent of their annual revenue. Like in New York's Act, these fines would be used to support environmental justice non-profits and organizations that are addressing plastic pollution.<sup>197</sup> The more effective each retailer is in mapping their supply chain and meeting CLSC goals, the lower any fines would be.

This will encourage retailers to commit to a more environmentally friendly business model over time. To avoid potential abuse of fines, there will be a citizen suit provision to allow for recourse should a retailer feel they have not been treated appropriately. Finally, EPA's Office of Inspector General is an independent organization that performs audits and investigations and will have the ability to audit state Attorneys General at random to assist in preventing fraud of this new system.<sup>198</sup>

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194. McIlwraith et al., *supra* note 46, at 41.

195. See *Other Regulators: Response to Environmental Compliance Violations at Federal Facilities*, EPA (Jan. 18, 2022), <https://www.epa.gov/enforcement/other-regulators-response-environmental-compliance-violations-federal-facilities> ("EPA retains parallel authority to enforce federal requirements even when EPA delegates program authority to a state or tribal government. . . . EPA generally will take enforcement action under the following circumstances: the state or tribal government fails to take timely and appropriate action. . . .").

196. See *supra* Sections II(A)(1) and II(A)(2).

197. A.B. 8352, 204th Gen. Assemb., Reg. Sess. (N.Y. 2021).

198. *About EPA's Office of Inspector General*, EPA (Feb. 11, 2022), <https://www.epa.gov/office-inspector-general/about-epas-office-inspector-general>.

*B. Potential Criticism and Concerns*

Retailers and businesses will likely push back against this legislation. First, obtaining the supply-chain metrics is likely to be difficult and cost-intensive for retailers. Different retailers have different systems and levels of complexity to their supply chains.<sup>199</sup> This could lead to difficulty in accurately obtaining this information, especially when manufacturers benefit from it remaining private, and the information may not be obtained consistently across all retailers.<sup>200</sup> However, the initial mapping period is 24 months, which gives retailers adequate time to fully explore the supply chain and to mitigate the costs over a longer period if necessary.

Second, and probably the main concern for retailers, shareholders, and consumers, is that compliance and sustainability are expensive.<sup>201</sup> As mentioned previously, manufacturing moved overseas to reduce costs, and forcing retailers to assess their supply chains and microfiber pollution will likely raise the cost of production.<sup>202</sup> Once again, this is why this plan gives ample time to make the initial assessments. It is also why the CLSC component is so essential. Reusing and recycling existing textiles will lower the cost of production and, while it may not mitigate all the costs from more environmentally ethical production, it will offset it.<sup>203</sup> Additionally, if consumption is pushed in a more sustainable direction, this may drive retailers to produce clothing in a way that has more long-term wear in mind. This will save the consumer money because they will not need to purchase so frequently.

Third, there is the concern of how difficult it is to pass new legislation. In the meantime, there are temporary solutions to ensure plastic pollution from the fashion industry is addressed. EPA enforces the Clean Water Act (CWA), and it is possible to bring a claim under the citizen suit provision to address plastic pollution in waterways because plastic qualifies as waste under the CWA.<sup>204</sup> However, this is a temporary and limited solution for several reasons. First, the citizen must have standing, and the CWA only addresses water-based plastic pollution. Additionally, the CWA does not mention microplastics, only plastics broadly, and EPA stated in a 2021 memo that “EPA’s research into plastics is in its early stages and . . . the Office of

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199. See Jason M. Halper et al., *Is Sustainability En Vogue or the Newest Staple? What New York’s Proposed Fashion Sustainability and Social Accountability Act Could Mean for the Fashion and Other Industries*, NAT’L L. REV. (Feb. 11, 2022), <https://www.natlawreview.com/article/sustainability-en-vogue-or-newest-staple-what-new-york-s-proposed-fashion> (describing the variability in complexity of various retailers’ supply chains).

200. *Id.* Hence, why third-party verification is essential.

201. *Id.*

202. Rafi-Ul-Shan et al., *supra* note 39, at 471.

203. Ashby, *supra* note 146, at 700.

204. Clean Water Act, 33 U.S.C. § 1365 (2018).

Research and Development has not yet conducted enough research to determine risks to public health and the environment from plastic exposure.”<sup>205</sup> This highlights EPA’s current lack of focus on plastics and the need for a more focused piece of legislation.

The United States attempted to legislate on microplastics in 2015 with the Microbead-Free Waters Act, which banned microplastics in select cosmetics.<sup>206</sup> This Act only addressed cosmetics, which is only one source of microplastics; it did not address secondary source microplastics.<sup>207</sup> There is the potential to expand this Act to address a broader range of microplastics. However, the goal is to address the root of the problem—lack of regulation of overseas fast-fashion supply chains. There is only so much that can be achieved by putting a bandage on the problem. To create real and sustainable change, the root of the pollution must be addressed; that is best done through an integrative EPR/CLSC model that prevents pollution, creates a circular waste economy, and holds retailers accountable for their contributions to microplastic pollution.

#### CONCLUSION

A federal solution is essential to creating a uniform approach to combat the fashion industry’s microfiber pollution. Combining the tenets of EPR and CLSC is the most effective way to minimize the impact of United States retailers’ extensive supply chains. While resistance is anticipated, the long-term advantages of tracking supply chains far outweigh the short-term costs. Consumers seek transparency from fashion retailers. If this legislation is successful, it would significantly reduce the number of microfibers that enter the environment. This would prevent major consequences to the balance of the ecosystem, marine life, the food chain, and human health. Microfibers cause irreparable harm once they enter the environment, and this legislation is the first step in preventing that damage.

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205. EPA, REPORT NO. 21-P-0130 4 (2021).

206. Microbead-Free Waters Act of 2015, 21 U.S.C. § 331 (2015).

207. See *supra* Section I(C)(3); see also Jason P. McDevitt, *Addressing the Issue of Microplastics in the Wake of the Microbead-Free Waters Act*, 12 ENV’T SCI. & TECH. 6611, 6611 (2017).



**SHIFTING BORDERS, SUBMERGED STATES, AND NOVEL  
HUMAN RIGHTS CLAIMS: HOW CLIMATE CHANGE  
IMPACTS COULD HELP REMEDIAL SECESSION  
CRYSTALLIZE INTO CUSTOMARY INTERNATIONAL LAW  
AND BRING OPPRESSED PEOPLES CLOSER TO  
INDEPENDENCE**

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*Joe Udell*

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ABSTRACT

*Whether the right to self-determination provides oppressed peoples with the ability to secede under a remedial theory remains a controversial and unsettled issue. To date, it appears that remedial secession has not yet crystallized into customary international law. However, one of the plausible outcomes of the climate crisis is that the myriad impacts on human and planetary health could eventually lead to bold new interpretations of international law. This paper assesses the likelihood of that possibility and explains how certain oppressed peoples on the frontlines of the climate crisis could then argue that their human rights have been sufficiently violated by the parent state to bolster their case for secession under a remedial theory. Additionally, this paper explores how that discourse might materialize in practice using case studies from Kenya and Sri Lanka, while also highlighting potential obstacles that could complicate fulfilling the relevant remedial secession requirements.*

INTRODUCTION

The right to self-determination has crystallized over the last century into international law as an obligation *erga omnes*, but whether this right provides a people with the ability to secede remains unsettled.<sup>1</sup> Scholars have referred to the concept of secession as “the most controversial” issue with respect to self-determination.<sup>2</sup> However, some states have argued that interpreting the right to self-determination as connoting the ability to secede would be “tantamount to international anarchy.”<sup>3</sup> Although the theory of remedial secession is a particularly contentious model of secession, it has “received the greatest attention from courts and jurists.”<sup>4</sup> This theory treats secession as a remedy of last resort when a parent state has completely frustrated a people’s attempts at internal self-determination and egregiously violated their human rights.<sup>5</sup>

There is no shortage of scholarly debate as to whether customary international law (CIL) currently supports remedial secession.<sup>6</sup> This paper

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1. SIMONE F. VAN DEN DRIEST, REMEDIAL SECESSION: A RIGHT TO EXTERNAL SELF-DETERMINATION AS A REMEDY TO SERIOUS INJUSTICES? 34–35 (2003).

2. *Id.* at 84.

3. ANTONIO CASSESE, SELF-DETERMINATION OF PEOPLES: A LEGAL REAPPRAISAL 39–40 (1995).

4. Thomas W. Simon, *Remedial Secession: What the Law Should Have Done, from Katanga to Kosovo*, 40 GA. J. INT’L & COMPAR. L. 105, 108 (2011).

5. *Id.*

6. See generally Jure Vidmar, *Remedial Secession in International Law: Theory and (Lack of) Practice*, 6 ST. ANTHONY’S INT’L REV. 37, 37 (2010) (arguing that the theory of remedial secession has

will investigate those positions in Part I to ascertain the extent to which remedial secession is a CIL norm. After concluding that remedial secession has not fully crystallized into CIL, Part II will first examine how climate change could erode the principle of territorial integrity, thereby leading to new interpretations of international law. Part II will then highlight how oppressed peoples could rely on recent climate jurisprudence to show that their human rights have been sufficiently violated by the parent state and fulfill a crucial remedial secession requirement. Finally, that Part explores the theoretical impact of these conceivable developments using relevant case studies from Kenya and Sri Lanka. This paper concludes that climate change has the potential to help remedial secession become a CIL norm and assist certain oppressed people pursue independence.

## I. REMEDIAL SECESSION UNDER CUSTOMARY INTERNATIONAL LAW

There are several positions on the right to secede under international law: that people do or should have the right to secede (the permissive view);<sup>7</sup> that people do not have the right to secede (the prohibitive view);<sup>8</sup> and that the right to secede is neither legal nor illegal (the non-regulated view).<sup>9</sup> The theory of remedial secession is a qualified right that represents another potential position best supported by CIL.<sup>10</sup> Under Article 38(1)(b) of the Statute of the International Court of Justice (ICJ), CIL norms are reflected in (1) the general practice of states (2) accepted by law (*opinio juris*).<sup>11</sup> Accordingly, the following discussion will examine relevant sources of international law, judicial decisions, and state practice to highlight how the right to remedial secession appears to be in a stage of development, or *de lege ferenda*.<sup>12</sup>

### A. Friendly Relations Declaration

United Nations General Assembly (UNGA) declarations are soft-law instruments that are evidence of state practice and can also influence state

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little foundation in international law and lacks state practice); DAVID RAIČ, STATEHOOD AND THE LAW OF SELF-DETERMINATION ix (2002) (discussing the right to secession under international law and practice).

7. See, e.g., David Gauthier, *Breaking Up: An Essay on Secession*, 24 CANADIAN J. PHIL. 357 (1994) (describing the normative view that peoples should have the right to secede).

8. JUAN FRANCISCO ESCUDERO ESPINOSA, SELF-DETERMINATION AND HUMANITARIAN SECESSION IN INTERNATIONAL LAW OF A GLOBALIZED WORLD: KOSOVO V. CRIMEA 38 (2017).

9. JAMES CRAWFORD, THE CREATION OF STATES IN INTERNATIONAL LAW 390 (2d ed. 2006).

10. See VAN DEN DRIEST, *supra* note 1, at 103 (discussing that a qualified right to unilateral secession does exist under contemporary international law standards).

11. U.N. Charter art. 38, ¶ 1.

12. See VAN DEN DRIEST, *supra* note 1, at 311 (discussing how the traces of the qualified right to remedial secession found in international law can be developed).

action.<sup>13</sup> Although scholars have argued that several landmark declarations indicate a remedial right to secede,<sup>14</sup> the theory is most closely associated with paragraph seven of Principle V of the Declaration on Principles of International Law Concerning Friendly Relations (Friendly Relations Declaration).<sup>15</sup> UNGA unanimously adopted the Declaration in 1970 and two years later, the International Commission of Jurists heralded it as “the most authoritative statement of the principles of international law relevant to the questions of self-determination and territorial integrity.”<sup>16</sup> Otherwise known as the “Saving Clause,” it reads:

Nothing in the foregoing paragraphs shall be construed as authorizing or encouraging any action which would dismember or impair, totally or in part, the territorial integrity or political unity of sovereign and independent States conducting themselves in compliance with the principle of equal rights and self-determination of peoples as described above and thus possessed of a government representing the whole people belonging to the territory without distinction as to race, creed[,] or colour.<sup>17</sup>

The Saving Clause has generated considerable academic debate. Proponents of the remedial secession theory rely on an inverse reading of the text to argue against the supremacy of the principle of territorial integrity,<sup>18</sup> which is commonly viewed as a “significant limitation” on the ability of peoples to secede.<sup>19</sup> Under this interpretation, the principle of territorial integrity will prevail over the right to self-determination only if the parent state has a government that represents all of its citizens “without distinction

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13. See *id.* at 194 (explaining how documents without binding legal force, such as governmental declarations, reflect State practice).

14. Miriam McKenna argues that the reference to “alien subjugation, domination and exploitation” in the Declaration on the Granting of Independence to Colonial Countries and Peoples “presupposes a certain remedial quality inherent in decolonisation” because it “links the furtherance of independence with the breach of a people’s self-determination under colonial regimes, and can therefore seem analogous to the case for remedial secession.” Miriam McKenna, *Remedial Secession: Emerging Right or Hollow Rhetoric?* 23 (2010) (Master thesis, University of Copenhagen) (on file with Lund University). Antonio Cassese recognizes—but ultimately refutes—the temptation to read Article 1 of the 1966 International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (which are identical) together with Article 27 of the ICCPR such that the provisions are interpreted “cumulative[ly],” thereby granting minorities the ability to “free themselves” from sovereign states. CASSESE, *supra* note 3, at 61.

15. G.A. Res 2625 (XXV), at 124 (Oct. 24, 1970).

16. INT’L COMM’N JURISTS, EAST PAKISTAN STAFF STUDY 44 (1972).

17. G.A. Res. 2625, *supra* note 15.

18. The principle of territorial integrity states that “[a]ll Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.” U.N. Charter art. 2, ¶ 4.

19. CRAWFORD, *supra* note 9, at 390.

as to race, creed[,] or colour.”<sup>20</sup> Conversely, Katherine Del Mar posits that the entire purpose of the Saving Clause is to “safeguard the territorial integrity of States.”<sup>21</sup> Other scholars, including James Crawford and Karl Doehring, assert that the Saving Clause represents evidence of a qualified right to secede under international law.<sup>22</sup> As the following subsection will illustrate, this discourse has occasionally made its way into judicial decisions as *obiter dictum*.<sup>23</sup>

### B. Judicial Decisions

Judicial opinions are examples of *opinio juris* and can therefore help determine whether remedial secession is a CIL norm.<sup>24</sup> The following case law reveals various degrees of acknowledgment of a remedial right to secede as a last resort, provided the parent state denies a people’s internal self-determination and commits flagrant human rights abuses against them. However, no independence movement has succeeded under the theory in any judicial system, and there remains little clarity as to the specific threshold of human rights abuse that would implicate a remedial right to secede.<sup>25</sup>

#### 1. League of Nations

The idea that an oppressed people could have a right to secede under international law was first examined in the 1920 *Åland Islands* case.<sup>26</sup> The

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20. Michael P. Scharf, *Earned Sovereignty: Juridical Underpinnings*, 31 DENVER J. INT’L L. & POL’Y 373, 382 (2003) (quoting G.A. Res. 2625 (XXV), at 124 (Oct. 24, 1970)). Interestingly, a virtually identical clause was included in the 1993 Vienna Declaration and Programme of Action, save for the omission of the phrase “race, creed, or colour.” See World Conference on Human Rights, *Vienna Declaration and Programme of Action*, ¶ 2, U.N. Doc. A/Conf.157/23 (June 25, 1993). The Vienna Declaration’s status as a policy document means that it is not legally binding, but the fact that it was adopted by all UN member states indicates that “distinctions based on religion, ethnicity, language or other factors” could help “trigger the right to secede” for oppressed peoples. Scharf, *supra* note 20. Note that the UN has also referenced remedial secession in the 1993 Report of the Rapporteur to the U.N. Sub-Commission Against the Discrimination and the Protection of Minorities on Possible Ways and Means of Facilitating the Peaceful and Constructive Solution of Problems Involving Minorities, and General Recommendation XXI, which was adopted by the Committee on the Elimination of Racial Discrimination in 1996. Scharf, *supra*.

21. KATHERINE DEL MAR, *THE MYTH OF REMEDIAL SECESSION*, in *STATEHOOD AND SELF-DETERMINATION: RECONCILING TRADITION AND MODERNITY IN INTERNATIONAL LAW* 94 (Duncan French ed., 2013).

22. *Id.* at 93.

23. *Obiter dictum* refers to language in a judicial decision that is not central to the holding of the case. Although it is not legally binding, courts can still rely on the language as persuasive authority in other legal disputes. *obiter dictum*, LEGAL INFO. INST., [https://www.law.cornell.edu/wex/obiter\\_dictum](https://www.law.cornell.edu/wex/obiter_dictum).

24. VAN DEN DRIEST, *supra* note 1, at 203.

25. Vidmar, *supra* note 6, at 40.

26. See Milena Sterio, *On the Right to External Self-Determination: “Selfistans,” Succession, and the Great Powers’ Rule*, 19 MINN. J. INT’L L. 137, 143 (2010) (discussing the origin of remedial secession through the *Åland Islands* case).

dispute focused on the Swedish-speaking Ålanders' efforts to secede from Finland and become part of Sweden based on the principle of self-determination.<sup>27</sup> The Commission of Rapporteurs, who were appointed by the League of Nations to oversee the case, noted that "separation"<sup>28</sup> might be justified when a people can no longer preserve their language, religion, and culture within the parent state:

The separation of a minority from the State of which it forms a part and its incorporation in another State can only be considered as *an altogether exceptional solution*, a last resort when the State lacks the will or the power to enact and apply just and effective guarantees.<sup>29</sup>

Over the last century, the development of international law and evolving jurisprudence on secession has led to a rediscovery of sorts for the *Åland Islands* case, with the dictum above serving as evidence that "remedial secession has always constituted part of the right of ('external') self-determination."<sup>30</sup>

## 2. Supreme Court of Canada

After Quebec held a secession referendum in 1995, the Supreme Court of Canada examined, *inter alia*, whether there is a right to unilateral secession under international law in *Reference re Secession of Quebec*.<sup>31</sup> The Court pointed out that self-determination is "normally fulfilled" internally,<sup>32</sup> but a right to external self-determination can still arise in "the most extreme of cases."<sup>33</sup> Such cases include (1) colonial people under "imperial" rule;<sup>34</sup> (2) "people subject to alien subjugation, domination or exploitation outside a colonial context;"<sup>35</sup> and, potentially, (3) "when a people is blocked from the meaningful exercise of its right to self-determination internally."<sup>36</sup> (Even

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27. Report Presented to the Council of the League of Nations by the Commission of Rapporteurs, League of Nations Doc B.7.21/68/106 (1921).

28. *Id.* at 4.

29. *Id.* (emphasis added). This bit of dicta was not relevant to the dispute since Finland provided "satisfactory guarantees" regarding the preservation of the Ålanders' heritage, *id.* at 5.

30. DEL MAR, *supra* note 21, at 92.

31. *Reference re Secession of Quebec* [1998] 2 S.C.R. 217 (Can.).

32. *Id.* ¶ 126. External self-determination refers to the right of a people to separate from an existing state to form a new independent state, while internal self-determination refers to a people's ability to exercise their rights within the existing state. *See also* Sterio, *supra* note 26, at 145 (discussing the Canadian Supreme Court's analysis of whether Quebec had the right to secede from Canada).

33. *Id.*

34. *Id.* ¶ 132.

35. *Id.* ¶ 133.

36. *Id.* ¶ 134.

then, the right arises only as “as a last resort.”<sup>37</sup>). The Court noted that the remedial third scenario “parallels” the first two but emphasized that it “remains unclear” whether it “actually reflects an established international law standard” and declined to elaborate since the facts had not “approach[ed] such a threshold.”<sup>38</sup>

The Court’s willingness to at least consider remedial secession has generated considerable scholarly discussion based on the assumption that if Canada had “denied [the Québécois] any such right of democratic self-government and respect for human rights, unilateral secession from Canada would have been permissible under international law.”<sup>39</sup> Such optimism, which relies heavily on dicta, should be somewhat tempered as the decision does not identify facts that would justify unilateral secession or seriously analyze the relevant international law. Even if the Court had done so, it would only have persuasive weight in the international legal system as a domestic court decision.

### 3. African Commission on Human and Peoples’ Rights

The African Commission on Human and Peoples’ Rights (ACHPR) indicated that remedial secession may be possible in *Katangese Peoples’ Congress v. Zaire*.<sup>40</sup> In that dispute, the President of the Katangese Peoples’ Congress sought the Commission’s support for its secessionist movement. The movement was based on a violation of the right to self-determination under Article 20 of the African Charter on Human and Peoples’ Rights (Banjul Charter).<sup>41</sup> The President, however, failed to offer evidence that the Katangese qualified as a people, that Zaire had committed severe human rights violations against them, or had frustrated their right to internal self-determination.<sup>42</sup> Accordingly, the Commission held the following:

In the absence of concrete evidence of violations of human rights to the point that the territorial integrity of Zaire should be called to question and in the absence of evidence that the people of Katanga are denied the right to participate in Government as guaranteed by Article 13(1) of the African Charter, the Commission holds the view that Katanga is obliged to exercise a variant of self-determination

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37. *Id.*

38. *Id.* ¶ 135.

39. Scharf, *supra* note 20, at 383.

40. See *Katangese Peoples’ Congress v. Zaire*, Afr. Comm’n on Hum. & Peoples’ Rts., Comm’n No. 75/92, ¶ 3 (1995) (describing the independence and possible secession of Katanga under the African Charter on Human and Peoples’ Rights).

41. *Id.* ¶¶ 1, 2.

42. *Id.* ¶¶ 3, 6.

that is compatible with the sovereignty and territorial integrity of Zaire.<sup>43</sup>

The above passage notably mirrors the Saving Clause and thus highlights the notion that remedial secession could be supported under international law in the presence of severe human rights violations and a lack of internal self-determination. Moreover, the fact that the Commission includes this language seemingly *sua sponte* underscores the tantalizing potential of the theory for aggrieved people.

In 2003, the ACHPR reinforced this jurisprudence in *Kevin Mgwanga Gunme v. Cameroon*, which was filed by 14 individuals on behalf of the Southern Cameroon people.<sup>44</sup> The applicants argued that a 1961 UN plebiscite denied the possibility of an independent Southern Cameroon and thereby violated their right to self-determination.<sup>45</sup> Although the Commission recognized the Southern Cameroonians as a “people,”<sup>46</sup> their secession would only be justified if they were able to “meet the test set out in the *Katanga* case.”<sup>47</sup> As in *Katanga*, this was not possible since the applicants did not demonstrate proof of a “massive violation of human rights” or the denial of their right to internal self-determination.<sup>48</sup> Despite its holding, *Mgwanga Gunme* remains significant because the Commission “showed some traces of a qualified right to unilateral secession” and “recognized the existence of such a right with more conviction” than in *Katanga* through its “positive phraseology.”<sup>49</sup>

#### 4. International Court of Justice

The most recent case relevant to this discussion is the ICJ Advisory Opinion on Kosovo’s 2008 unilateral declaration of independence.<sup>50</sup> Many scholars anticipated that this opinion would definitively shed light on the uncertain criteria of remedial secession, particularly since the Kosovar Albanians seemingly fulfilled the theoretical requirements based on the “grave humanitarian situation”<sup>51</sup> they suffered at the hands of Yugoslav

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43. *Id.* ¶ 6.

44. *Kevin Mgwanga Gunme v. Cameroon*, Afr. Comm’n on Hum. & Peoples’ Rts., Commc’n No. 266/03, ¶ 1 (2009).

45. *Id.* ¶ 3.

46. *Id.* ¶ 179.

47. *Id.* ¶ 194.

48. *Id.* ¶ 199.

49. VAN DEN DRIEST, *supra* note 1, at 140.

50. Accordance with International Law of the Unilateral Declaration of Independence in Respect of Kosovo, Advisory Opinion, 2010 I.C.J. Rep 2010 [hereinafter Kosovo Advisory Opinion].

51. *Id.* ¶ 58.



forces during the Kosovo War.<sup>52</sup> The ICJ instead took up the “narrow and specific”<sup>53</sup> question of whether Kosovo’s declaration of independence was in accordance with international law, rather than considering if international law confers upon people a positive right to secede.<sup>54</sup>

Despite the limited scope of the ICJ’s majority opinion, the separate opinions of Judges Abdulqawi Yusuf and Antônio Augusto Cançado Trindade acknowledge the relevance of remedial secession to the Kosovo situation (and others like it). Judge Yusuf declared that in “exceptional circumstances”—such as when people are subjected to “discrimination, persecution and egregious violations of human rights or humanitarian law”—the right to self-determination “may support a claim to separate statehood provided it meets the conditions prescribed by international law.”<sup>55</sup> Judge Yusuf then cited the Saving Clause and the *Katanga* and *Quebec* decisions for support.<sup>56</sup> However, his remedial secession discussion remains largely speculative since he did not elaborate on whether the Kosovar Albanians’ experience (or other instances of historical oppression) would satisfy the requirements for such “exceptional circumstances.”<sup>57</sup>

Judge Trindade’s separate opinion similarly calls for a flexible version of contemporary international law that could accommodate a right to remedial secession.<sup>58</sup> According to him, the principle of self-determination currently faces “new and violent manifestations of systematic oppression of peoples.”<sup>59</sup> To Judge Trindade, it is “immaterial” whether “self-determination is given the qualification of “remedial” or some other title.<sup>60</sup> Rather, tyrannical states should not be able to simply “invoke territorial integrity in order to commit atrocities” against peoples or “perpetrate them on the assumption of State sovereignty.”<sup>61</sup>

### C. State Practice

The above case law indicates limited support for the right to remedial secession and a lack of clarity regarding the precise type and intensity of

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52. See HUM. RTS. WATCH, UNDER ORDERS: WAR CRIMES IN KOSOVO 3 (2001) (reporting the human rights abuses committed by Yugoslav forces against Kosovar Albanians in 1999).

53. Kosovo Advisory Opinion, ¶ 51.

54. The ICJ held by a ten-to-four vote that the declaration did not violate international law, *id.* ¶ 123.

55. Kosovo Advisory Opinion, Separate Opinion of Judge Abdulqawi Yusuf, ¶ 11.

56. *Id.* ¶¶ 12, 14–15.

57. *Id.* ¶ 11.

58. Kosovo Advisory Opinion, Separate Opinion of Judge Antônio Augusto Cançado Trindade at ¶ 175.

59. *Id.*

60. *Id.*

61. *Id.* ¶ 176.

human rights violations that a people must suffer to properly invoke it. Accordingly, the next step is to consider whether remedial secession is supported by state practice. The international community has historically been unkind to secessionist movements, which have received “virtually no international support or recognition” when the parent state maintains its opposition to secession.<sup>62</sup> Nevertheless, the outlier experiences of oppressed peoples in Bangladesh, Croatia, and Kosovo are particularly relevant given that they seemingly satisfied the criteria for remedial secession and attracted widespread support from the international community.

### 1. Bangladesh

The 1971 creation of Bangladesh most closely “demonstrates a model case for what a remedial right to secession should have looked like.”<sup>63</sup> After Pakistan gained independence from India in 1947, the state divided into East and West Pakistan.<sup>64</sup> In the following decades, the Bengali majority in East Pakistan was severely underrepresented in the military and government, forced to speak the Urdu language, and denied access to economic resources.<sup>65</sup> In December 1970, the Awami League, a pro-autonomy Bengali party, secured an absolute majority of the National Assembly.<sup>66</sup> This prompted West Pakistan to annul the general election and install martial law in East Pakistan.<sup>67</sup> Military forces subsequently killed millions of Bengalis, and 10 million refugees fled to India.<sup>68</sup> In an apparent act of last resort, the Awami League declared Bangladesh’s independence in April 1971.<sup>69</sup> On December 3, 1971, India’s armed forces directly intervened.<sup>70</sup> The international community quickly acknowledged Bangladesh after a December 17 ceasefire.<sup>71</sup> By September 1973, over 100 states granted Bangladesh recognition, and the UN admitted the state in 1974.<sup>72</sup>

Given the obvious denial of the Bengalis’ internal self-determination and the significant human rights violations they suffered, it is not difficult “to characterize the secession of East Pakistan as the most convincing instance

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62. James Crawford, *State Practice and International Law in Relation to Secession*, 69 BRIT. Y.B. INT’L L. 85, 108 (1999).

63. Simon, *supra* note 4, at 139.

64. CRAWFORD, *supra* note 9, at 140.

65. Simon, *supra* note 4, at 139.

66. CRAWFORD, *supra* note 9, at 139–40.

67. *Id.*

68. Simon, *supra* note 4, at 139–40.

69. *Id.*

70. CRAWFORD, *supra* note 9, at 141.

71. Rokas Levinskas, *Whether There Is a Right to Remedial Secession Under International Law?*, 20 TEISES APZVALGA L. REV. 44, 52 (2019).

72. *Id.*

of state practice in favour of a remedial right to secession.”<sup>73</sup> One could then argue that “the more a situation resembles the plight of East Pakistan, the stronger its case for secession.”<sup>74</sup> However, Bangladesh was not presented as a secession at the time. Accordingly, there are dangers in using it as an *ex post facto* model.<sup>75</sup> Another established perspective interprets the creation of Bangladesh as a *fait accompli*, which states “had no alternative but to accept” in the wake of India’s intervention.<sup>76</sup> The fact that most states only recognized Bangladesh *after* Pakistan, and not following earlier reports of human rights abuse, further supports this position.<sup>77</sup>

## 2. Croatia

The case of Croatia parallels Bangladesh and indicates that, with respect to the requirements of remedial secession, the threshold level of human rights abuse may be lower than the extreme harm suffered by the Bengalis in East Pakistan.<sup>78</sup> Croatia was one of six republics, along with Slovenia, Serbia, Bosnia-Herzegovina, Macedonia, and Montenegro, that comprised the Socialist Federal Republic of Yugoslavia (SFRY) and shared power in a rotating presidency.<sup>79</sup> In June 1991, Croatia and Slovenia declared independence after Serbia blocked the installation of Croatia’s presidential candidate.<sup>80</sup> As tensions flared and the Serb-dominated Yugoslav National Army (YNA) invaded both territories, the European Community (EC) intervened, negotiating a ceasefire as well as the postponement of independence declarations under the Brioni Accord.<sup>81</sup> Still, a civil war erupted in which Serbia carried out a political coup and the YNA engaged in an ethnic cleansing campaign against the Croats.<sup>82</sup> After the three-month moratorium ended, Croatia and Slovenia again declared independence (seemingly as a last resort), followed by Macedonia and Bosnia-Herzegovina.<sup>83</sup>

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73. Tamara Jaber, *A Case for Kosovo? Self-Determination and Secession in the 21st Century*, 15 INT’L J. HUM. RTS. 926, 939 (2010).

74. Simon, *supra* note 4, at 140.

75. See *id.* (arguing that Bangladesh represents a “factual precedent—a kind of situation where the international community should have recognized a legal right to secession”).

76. CRAWFORD, *supra* note 9, at 393.

77. VAN DEN DRIEST, *supra* note 1, at 278.

78. McKenna, *supra* note 14, at 44.

79. Jaber, *supra* note 73, at 937.

80. VAN DEN DRIEST, *supra* note 1, at 285. Slovenia is not presented as a case study as its secession was “more equivocal” given that the SFRY “may be said to have acquiesced in its separation,” *id.* at 287.

81. *Id.* at 285.

82. *Id.*

83. *Id.* at 286.

The EC ultimately appointed the Badinter Arbitration Commission (Commission) to provide legal advice on the crisis.<sup>84</sup> In Opinion No. 1, the Commission seemingly supported the remedial secession theory by noting that the SFRY “no longer [met] the criteria of participation and representatives inherent in a federal state.”<sup>85</sup> However, the Commission concluded that the SFRY was “in the process of dissolution.”<sup>86</sup> As such, opponents of the remedial secession theory maintain that “Croatia’s claim to remedial secession was not explicitly accepted by the international community.”<sup>87</sup>

Although dissolution is legally separate from secession, “it is exceedingly difficult to maintain” this distinction in practice,<sup>88</sup> especially when dissolution originates from a series of unilateral secession attempts. The timeline of events is also relevant here: the EC granted Croatia recognition in January 1992,<sup>89</sup> but Serbia and Montenegro were not established as a state (the Federal Republic of Yugoslavia) until April 1992, and the SFRY’s dissolution was not final until July 1992.<sup>90</sup> Therefore, the recognition of Croatia by a significant number of states before the SFRY’s complete disintegration, all while the SFRY actively resisted such independence efforts “suggests that recognition could have been extended on the basis of the validity of Croatia’s secession according to the remedial criteria.”<sup>91</sup> However, similar to the case of Bangladesh, the contention that the irreversible nature of the SFRY’s dissolution led to early international support for Croatia counters this perspective. The fact that the UN did not admit Croatia until after Serbia and Montenegro announced their willingness to recognize it as a new state further supports this notion.<sup>92</sup>

### 3. Kosovo

The recent case of Kosovo also provides evidence of state practice supporting a right to remedial secession. As described earlier, Kosovar Albanians experienced a denial of their internal self-determination and endured an ethnic cleansing campaign in the late 1990s.<sup>93</sup> Kosovo is

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84. Jaber, *supra* note 73, at 938.

85. E.C. Conference on Yugoslavia, Arbitration Commission, Opinion No. 1, ¶ 2(b), 92 I.L.R. 162, (Nov. 29, 1991).

86. *Id.* ¶ 3.

87. Vidmar, *supra* note 6, at 47.

88. Jaber, *supra* note 73, at 938.

89. *Id.*

90. *Id.* at 939.

91. *Id.*

92. CRAWFORD, *supra* note 9, at 401.

93. HUM. RTS. WATCH, *supra* note 52, at 3.

currently recognized by close to 100 countries,<sup>94</sup> with many states seemingly basing their recognition on remedial secession factors.<sup>95</sup> For example, the United States and the United Kingdom both referenced the human rights crisis in Kosovo and the failure of negotiations with Serbia in their written ICJ submissions.<sup>96</sup> Although some states argued that Kosovo's unique, or *sui generis*, nature prevents it from serving as a precedent,<sup>97</sup> this stance goes against the idea that international law should be applied equally to accommodate paradox and avoid "blatant unfairness."<sup>98</sup>

The arguments against Kosovo serving as a remedial secession model vary. One position is that it did not secede as a matter of last resort.<sup>99</sup> This is supported by the fact that the 2008 declaration of independence occurred roughly a decade after the Kosovo War and at a time when there was no human rights crisis.<sup>100</sup> Some states, like Russia, have also argued that the conflict could have been resolved internally, but for Kosovo's insistence on independence during negotiations.<sup>101</sup> Interestingly, this perspective could point to the existence of *opinio juris*, as "one of the fundamental divergences of opinion seems to rest on whether an essential criterion of a right to remedial secession—whether it was invoked as a last resort—has been satisfied."<sup>102</sup> Finally, other critics maintain that Kosovo does not have the ability to enter relationships with other nations due to the continued presence of the UN Interim Administration Mission in Kosovo Force and thus fails to meet the criteria for statehood under the Montevideo Convention on the Rights and Duties of States.<sup>103</sup>

## II. CLIMATE CHANGE AND ITS POTENTIAL IMPACT ON REMEDIAL SECESSION

As the above section illustrates, international law provides limited support for remedial secession. Nevertheless, evolving jurisprudence on the subject, combined with notable evidence of state practice—particularly with respect to the broad recognition of Kosovo's independence—indicates some

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94. *Countries that Recognize Kosovo 2023*, WORLD POPULATION REVIEW, <https://worldpopulationreview.com/country-rankings/countries-that-recognize-kosovo> (last visited Oct. 20, 2023).

95. Jaber, *supra* note 73, at 942.

96. *Id.*

97. VAN DEN DRIEST, *supra* note 1, at 261.

98. THOMAS FRANCK, FAIRNESS IN INTERNATIONAL LAW AND INSTITUTIONS 160 (1995).

99. Vidmar, *supra* note 6, at 49, 50.

100. *Id.* at 49.

101. Jaber, *supra* note 73, at 942.

102. *Id.*

103. See Upendra Acharya, *ICJ's Kosovo Decision: Economical Reasoning of Law and Question of Legitimacy of the Court*, 12 CHIC-KENT J. INT'L & COMP. L. 1, 26 (2012) (explaining why Kosovo does not meet the requisite requirements to achieve statehood).

momentum towards the development of a CIL norm. Against this backdrop, climate change will inevitably confront the ability of people across the globe to realize their rights to self-determination.<sup>104</sup> The remainder of this paper will focus on an intriguing sub-issue: how climate change could represent the paradigm shift necessary to help remedial secession crystallize into law.

### *A. Principle of Territorial Integrity*

This paper has emphasized that the principle of territorial integrity represents a significant impediment to remedial secession. However, that may no longer be the case in the future as state borders shift or vanish entirely due to climate change.<sup>105</sup> Climate-induced sea level rise will seriously affect about 70% of the world's coastlines,<sup>106</sup> especially small island states like Kiribati, Tuvalu, and the Maldives, which will likely disappear within decades.<sup>107</sup> These developments could conceivably “challenge the principle of territorial integrity” and raise serious questions regarding sovereignty and statehood.<sup>108</sup> Accordingly, the interpretation of international law under such novel conditions will demand “open-mindedness” and “flexibility” from the international community.<sup>109</sup>

The potential evolution of the territorial integrity principle could play an important part in helping remedial secession develop into a CIL norm. For instance, judges and states may consider territorial integrity from a more nuanced perspective and realize that borders have historically “changed hands innumerable times.”<sup>110</sup> Even today, minor territorial shifts occur regularly in contested areas but fail to capture global attention.<sup>111</sup> It is thereby possible that courts adjudicating remedial secession issues—particularly in jurisdictions impacted by sea level rise—will give less weight to the principle, which would likely move jurisprudence more favorably towards

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104. *Understanding Human Rights and Climate Change*, OFF. U.N. HIGH COMM'R HUM. RTS., UNDERSTANDING HUMAN RIGHTS AND CLIMATE CHANGE 1, 14 (2015), <https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/COP21.pdf>.

105. See Mark P. Nevitt, *On Environmental, Climate Change & National Security Law*, 44 HARV. ENV'T L. REV. 321, 348 (2020) (discussing how climate change threatens territorial integrity and state sovereignty).

106. JANE MCADAM ET AL., INTERNATIONAL LAW AND SEA-LEVEL RISE: FORCED MIGRATION AND HUMAN RIGHTS 5–6 (2016).

107. Joachim Wündisch, *Territorial Loss as a Challenge for World Governance*, 48 PHIL. PAPERS 155, 156 (2019).

108. Eleanor Doig, *What Possibilities and Obstacles Does International Law Present for Preserving the Sovereignty of Island States?*, 21 TILBURG L. REV. 72, 86 (2016).

109. *Id.* at 93.

110. Nick Routley, *Animation: How the European Map Has Changed Over 2,400 Years*, VISUAL CAPITALIST (Oct. 28, 2021), [www.visualcapitalist.com/2400-years-of-european-history](http://www.visualcapitalist.com/2400-years-of-european-history).

111. See Cathrine Brun, *Living with Shifting Borders: Peripheralisation and the Production of Invisibility*, 24 GEOPOLITICS 878, 879 (2019) (discussing a geopolitical practice of gradual shifts in borders that largely go unnoticed by the general public).

claimants. Should the territorial integrity principle weaken, the international community may be more inclined to sympathize with oppressed peoples and recognize new states created under a remedial theory.

Conversely, as the above section revealed, state recognition is heavily influenced by geopolitical factors, and the more closely a secession attempt seems likely to cause significant international conflict, the more likely it will fail.<sup>112</sup> Climate change will not only decrease the planet's habitable territory, it will also cultivate numerous socio-political issues, such as food and water scarcity, transnational migration, and internal displacement.<sup>113</sup> These developments will collectively test states' "capacity to govern,"<sup>114</sup> and "increase risks of violent conflicts in the form of civil war and inter-group violence."<sup>115</sup> Amidst this uncertainty, states may be more hesitant to recognize remedial secession attempts and crystallize a CIL norm that could pose a threat to their existence.

### *B. Climate Litigation and Human Rights*

Recent climate litigation developments also have the capacity to help remedial secession become a CIL norm. Since 2015, there have been over 2,000 climate-related cases, 25% of which were filed between 2020 and 2022.<sup>116</sup> Domestic courts worldwide have held states accountable for ineffective climate policies and fossil fuel expansion and are increasingly recognizing the ties between climate change and human rights.<sup>117</sup> This trend is expected to intensify because courts appear to be more willing to assign liability to states based in part on attribution science, which is "rapidly advancing"<sup>118</sup> to the point where national emissions can be reasonably linked to global greenhouse gas (GHG) increases and their effects.<sup>119</sup>

Several landmark cases illustrate how climate litigation is relevant to remedial secession with respect to human rights. In *Urgenda Foundation v. State of the Netherlands*, the Supreme Court of the Netherlands upheld a

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112. McKenna, *supra* note 14, at 64.

113. Nevitt, *supra* note 105, at 332.

114. MCADAM ET AL., *supra* note 106, at 43.

115. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE WORKING GROUP II, CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY 1, 3 (2014), [www.ipcc.ch/site/assets/uploads/2018/03/WGIIAR5\\_SPM\\_Top\\_Level\\_Findings-1.pdf](http://www.ipcc.ch/site/assets/uploads/2018/03/WGIIAR5_SPM_Top_Level_Findings-1.pdf).

116. JOANA SETZER & CATHERINE HIGHAM, GLOBAL TRENDS IN CLIMATE CHANGE LITIGATION: 2022 SNAPSHOT 1 (2022).

117. *Id.* at 3–4.

118. Chelsea Harvey, *Attribution Science Linking Warming to Disasters Is Rapidly Advancing*, SCI. AM. (June 3, 2022), [www.scientificamerican.com/article/attribution-science-linking-warming-to-disasters-is-rapidly-advancing/](https://www.scientificamerican.com/article/attribution-science-linking-warming-to-disasters-is-rapidly-advancing/).

119. See *Source Attribution*, CLIMATE ATTRIBUTION (2022), <https://climateattribution.org/attribution/source/> (describing how attribution science helps trace a quantity of GHG emissions to a given source).

lower court ruling that required a state for the first time to reduce its GHG emissions to preserve its citizens' rights under Articles 2 (the right to life) and 8 (the right to respect for private and family life) of the European Convention on Human Rights (ECHR).<sup>120</sup> Likewise, the German Constitutional Court in *Neubauer v. Germany* held that the country's Federal Climate Protection Act violated the constitutionally protected human rights of future generations.<sup>121</sup> Finally, in *PSB v. Brazil*, the Supreme Federal Court of Brazil became the world's first court to recognize the Paris Agreement as a human rights treaty.<sup>122</sup> In doing so, the Court established that "there is no legally valid option of simply omitting to combat climate change."<sup>123</sup>

If domestic climate policies can violate human rights, these policies are directly relevant to the remedial secession requirement that a people suffer egregious human rights violations attributed to the parent state. Combined with the prospect of a less authoritative territorial integrity principle, climate jurisprudence may soon compel more states to recognize remedial secession efforts. For instance, a secessionist unit hoping to prevail under such a theory in court could rely on climate jurisprudence and point to climate-related harms to bolster its claims against the parent state. The slate of pending climate cases at the European Court of Human Rights,<sup>124</sup> and advisory opinions at the ICJ, Inter-American Court of Human Rights,<sup>125</sup> and the International Tribunal for the Law of the Sea regarding state climate change obligations, may also strengthen the existing connection between human rights and climate change under international law. This jurisprudence may potentially apply in the remedial secession context and should be monitored closely for relevant supporting language.

120. See *Urgenda Found. v. State of the Neth.*, ECLI:NL:HR:2019:2007, Judgment (Dec. 20, 2019) (Neth.) (discussing the Netherlands' Supreme Court landmark ruling using the ECHR's Articles 2 and 8 requiring a state to reduce GHG emissions to preserve its citizens' rights).

121. *Neubauer v. Ger.*, Bundesverfassungsgericht [BVerfG] [Federal Constitutional Court], 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20, ¶ 192, Mar. 24, 2021 (Ger.). The claimants based their case on Articles 2 and 8 of the ECHR, with the Court acknowledging the positive obligations placed upon the State. It nevertheless observed that the ECHR "does not lead to protection of greater scope than that afforded" under the German constitution, *id.* at ¶ 147.

122. Isabella Kaminski, *Brazilian Court World's First to Recognise Paris Agreement as Human Rights Treaty*, CLIMATE HOME NEWS (July 7, 2022), [www.climatechangenews.com/2022/07/07/brazilian-court-worlds-first-to-recognise-paris-agreement-as-human-rights-treaty/](https://www.climatechangenews.com/2022/07/07/brazilian-court-worlds-first-to-recognise-paris-agreement-as-human-rights-treaty/).

123. *PSB v. Brazil*, S.T.F.J. ADPF 708, ¶ 17, July 1, 2022 (Braz.).

124. Helen Keller & Corina Heri, *The Future is Now: Climate Cases Before the ECtHR*, 40 NORDIC J. HUM. RTS. 153, 154 (2022).

125. Juan Auz & Thalia Viveros-Uehara, *Another Advisory Opinion on the Climate Emergency? The Added Value of the Inter-American Court of Human Rights*, EJIL: TALK! (Mar. 2, 2023), <https://www.ejiltalk.org/another-advisory-opinion-on-the-climate-emergency-the-added-value-of-the-inter-american-court-of-human-rights/>.



### C. Case Studies

The following case studies illustrate how climate change could help aggrieved peoples realize a claim of remedial secession. The first case study examines Kenya's Endorois tribe, which gained scholarly attention after a landmark ACHPR decision in 2010.<sup>126</sup> This case study is relevant to the present discussion given the qualified support for remedial secession in the *Katanga* and *Mgwanga Gunme* opinions. The second case study considers Sri Lanka's Tamils, who endured a situation notably similar to the Bengalis in East Pakistan but failed to capture international support for their secession campaign.<sup>127</sup>

#### 1. Endorois

The Endorois represent an intriguing case study for remedial secession in Africa based on judicially recognized abuses. In the 1970s, the Kenyan government evicted the Endorois from the Lake Bogoria and the Monchongoi Forest areas to make way for lucrative tourism development.<sup>128</sup> The ACHPR ruled in 2010 that this eviction violated the Endorois' human rights under Articles 8, 14, 17, 21, and 22 of the Banjul Charter.<sup>129</sup> The Commission acknowledged the Endorois as a distinct "people"<sup>130</sup> with a way of life that is "intimately intertwined" with their ancestral lands.<sup>131</sup> Without access to this resource-rich area, the Commission reasoned that the Endorois are "unable to fully exercise their cultural and religious rights, and feel disconnected from their land and ancestors."<sup>132</sup>

Although Indigenous peoples such as the Endorois are not often interested in external self-determination, Kenya has a strong history of secessionist discourse, dating from the eve of its independence to the present.<sup>133</sup> Over 12 years have passed since the ACHPR decision, and the government has yet to compensate the Endorois or provide them with unrestricted access to their ancestral lands pursuant to the Commission's

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126. Centre Minority Rts. Dev. ex rel. Endorois Welfare Council v. Kenya, Afr. Comm'n on Hum. & Peoples' Rts., Commc'n No. 276/03 (2010) [hereinafter Endorois case].

127. ESPINOSA, *supra* note 8, at 38.

128. Dinah Shelton, *Self-Determination in Regional Human Rights Law: From Kosovo to Cameroon*, 105 THE AM. J. INT'L L. 60, 78-79 (2011).

129. Endorois case at ¶ 22.

130. *Id.* at ¶ 162.

131. *Id.* at ¶ 156.

132. *Id.*

133. See Reginald M.J. Oduor, *The Right to Secession in the Kenyan Context: Philosophical Reflections, with Special Reference to Non-Dominant Ethnic Groups*, POLITIKA 2 (2019), [www.politika.io/en/notice/the-right-to-secession-in-the-kenyan-context-philosophical-reflections-with-special](http://www.politika.io/en/notice/the-right-to-secession-in-the-kenyan-context-philosophical-reflections-with-special) (pointing out Kenya's long history of engaging in secessionist discourse).

recommendations.<sup>134</sup> As a result, the Endorois live in “desolate and . . . extreme poverty,” and it is therefore not inconceivable that they would consider remedial secession as a last resort.<sup>135</sup>

If the Endorois were to contemplate this pathway to independence, the injustices stemming from their displacement and continued government inaction may not be enough to meet the uncertain oppression criteria mentioned in *Katanga* and reaffirmed in *Mgwanga Gunme*. However, a consideration of recent climate change impacts would certainly push the Endorois closer to that threshold. For example, climate change has resulted in an alarming expansion of Lake Bogoria that has devastated villages, roads, schools, fish-handling facilities, arable land, prayer sites, and clean water springs.<sup>136</sup> This destruction has also caused the spread of deadly diseases such as visceral leishmaniasis, schistosomiasis, typhoid, malaria, and cholera.<sup>137</sup> Because rising lake waters have affected the area’s only healthcare dispensary, the Endorois must now walk several kilometers “to access even basic medicine,”<sup>138</sup> and as far as 24 kilometers to fetch water.<sup>139</sup> Such devastating climate impacts “cut across all the sectors of [Endorois] society”<sup>140</sup> and, accordingly, would be useful in any push for remedial secession.

There are nevertheless significant hurdles in the way of Endorois independence. First, it is unclear how the international community would perceive the climate effects endured by the Endorois given that analogous harms caused by soaring GHG emissions are expected to rise exponentially across the globe.<sup>141</sup> Second, the tribe would need to establish that Kenya has sufficiently frustrated its right to internal self-determination. This is

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134. See Nyang’ori Ohenjo, *Implement Endorois Decision 276/03: Report on the Impact of Non-Implementation of the African Commission’s Endorois Decision*, CTR. FOR MINORITY RTS DEV. 1–2 (Mar. 2022), <https://www.witness.org/wp-content/uploads/2022/04/Endorois-Report.pdf> (discussing how the Commission’s recommendations have never been fully implemented or realized for the Endorois people).

135. *New: Report on the Impact of Non-Implementation of the African Commission’s Endorois Decision*, WITNESS, <https://www.witness.org/our-work/regional-programs/africa/endorois-report/> (last visited Oct. 21, 2023).

136. See Melvine Anyango Otieno & Raphael Kimosop, *Climate Change Adaptation and Health by the Indigenous Community from Lake Bogoria, Kenya: An Interview with Raphael Kimosop*, PLANETARY HEALTH ALL. (June 13, 2022), <https://phalliance.medium.com/climate-change-adaptation-and-health-by-the-indigenous-community-from-lake-bogoria-kenya-an-7d5ad3c3930d> (describing the myriad of activities around Lake Bogoria that have been disrupted due to climate change).

137. *Id.*

138. Billy Rwothungeyo, *Climate-Linked Lake Rise Frustrates Indigenous Endorois Health Volunteers*, MINORITY RTS. GRP. (Sept. 6, 2022), <https://minorityrights.org/2022/09/06/climate-endorois>.

139. WITNESS, *supra* note 135.

140. Indigenous Rts. Radio, *Carson Kiburo on the Impact of Climate Change on the Endorois Peoples of Kenya*, CULTURAL SURVIVAL, at 4:28, (Nov. 2021), <https://rights.culturalsurvival.org/carson-kiburo-impact-climate-change-endorois-peoples-kenya>.

141. Nevitt, *supra* note 105, at 329, 105

complicated by the 2013 election of Grace Kipchoim as Minister of Parliament for the Baringo South constituency—the first Endorois member to hold the seat.<sup>142</sup> The Endorois would likely need to argue that the 2014 task force dedicated to implementing the ACHPR ruling—which was not required to consult with the Indigenous community and did not contain a tribal representative—amounts to a denial of their internal self-determination.<sup>143</sup> This is not a far-fetched position if one recognizes that access to their ancestral lands is essential to the Endorois' survival.

Third, although climate change jurisprudence would help the Endorois make a more compelling case for remedial secession, any climate harms would need to be linked to the parent state. This argument would be weakened by the fact that Kenya has established a “robust legal and institutional framework to tackle matters relating to climate change.”<sup>144</sup> Accordingly, Kenya could argue that its development of the framework constitutes sufficient climate action and that any subsequent climate harms were not deliberate. The Endorois, however, could then point to the “significant” implementation problems that Kenya has had, which represent a “major threat” to the country’s climate ambitions and suggest that such policies are merely superficial in nature.<sup>145</sup>

Finally, even if the Endorois were to put forth a convincing argument for remedial secession, their independence would likely have to conform to the principle of *uti possidetis juris*, which requires new states to uphold former colonial borders.<sup>146</sup> Despite scholarly debate regarding the extent to which *uti possidetis juris* applies to post-decolonization independence scenarios,<sup>147</sup> the principle has historically been relevant to African pan-independence.<sup>148</sup> The Endorois would thus have the difficult task of arguing that the principle is not pertinent in any push for secession.

## 2. Tamils

A case study of the Tamils represents a more likely candidate for remedial secession, given their prior independence efforts and Sri Lanka's

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142. KTN News, *First Endorois Female MP Who Has Defied Odds*, YOUTUBE, at 0:57, (Mar. 24, 2013), [www.youtube.com/watch?v=MAUfo7DsA-k](http://www.youtube.com/watch?v=MAUfo7DsA-k).

143. *Kenya: Implementing 2010 Endorois Ruling*, HOUS. & LAND RTS. NETWORK: HABITAT INT'L COAL. (Sept. 29, 2014), [www.hlm.org/activitydetails.php?title=Kenya:-Implementing-2010-Endorois-Ruling&id=o3BqZQ==#.Y8pguOzP3a0](http://www.hlm.org/activitydetails.php?title=Kenya:-Implementing-2010-Endorois-Ruling&id=o3BqZQ==#.Y8pguOzP3a0).

144. Meissy Janet Naeku, *Climate Change Governance: An Analysis of the Climate Change Legal Regime in Kenya*, 22 ENV'T L. REV. 170, 182 (2020).

145. *Id.* at 183.

146. Case Concerning the Frontier Dispute (Burkina Faso/Republic of Mali), Judgment, 1986 I.C.J. Rep, ¶ 23 (Dec. 22) [hereinafter *Frontier Dispute*].

147. VAN DEN DRIEST, *supra* note 1, at 173–74.

148. *Frontier Dispute* at ¶ 25.

well-documented human rights abuses and denials of Tamil internal self-determination. After the country achieved independence from British rule in 1948, the Sinhalese majority entrenched themselves in high-ranking government positions, passed laws that prevented the minority Tamil people from practicing their language and culture, and limited their access to educational opportunities, government services, and public employment.<sup>149</sup> In response, the Tamils, who reside largely in the northern and eastern parts of the country, pushed for the creation of a separate state called Tamil Eelam.<sup>150</sup>

The Liberation Tigers of Tamil Eelam eventually led the secessionist movement as the country fell into a civil war that officially lasted from 1983 to 2009.<sup>151</sup> During that time, the Sri Lankan government killed roughly 70,000 to 140,000 Tamil civilians,<sup>152</sup> while hundreds of thousands were internally displaced<sup>153</sup> or forced to flee the country as refugees.<sup>154</sup> After the war reached a bloody conclusion, some scholars posited that the alleged genocide, war crimes, and crimes against humanity suffered by the Tamils, combined with previous state denials of their internal self-determination, met the requirements for remedial secession.<sup>155</sup>

Although the arguments in favor of remedial secession fell on deaf ears, Sri Lanka remains “as segregated as ever,”<sup>156</sup> and Tamils in the heavily militarized north and east regions continue to suffer many of the same abuses they endured throughout the civil war.<sup>157</sup> For instance, the country’s

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149. See Nithyani Anandakugan, *The Sri Lankan Civil War and Its History, Revisited in 2020*, HARV. INT’L REV. (Aug. 31, 2020), <https://hir.harvard.edu/sri-lankan-civil-war/> (explaining that these laws included the Sinhala Only Act and the policy of standardization).

150. *Id.*

151. *Id.*

152. Anji Manivannan, *Emerging Voices: Sri Lanka’s Tamils Need Genocide Recognition and Innovative Justice Mechanisms*, OPINIO JURIS (Aug. 15, 2019), <http://opiniojuris.org/2019/08/15/emerging-voices-sri-lankas-tamils-need-genocide-recognition-and-innovative-justice-mechanisms/>.

153. Sonia Sarkar, *Sri Lankan Muslims Struggle to Belong After Civil War ‘Still Outsiders’*, S. CHINA MORNING POST (Sept. 19, 2022), [www.scmp.com/week-asia/politics/article/3192787/sri-lankan-muslims-struggle-belong-after-civil-war-still](http://www.scmp.com/week-asia/politics/article/3192787/sri-lankan-muslims-struggle-belong-after-civil-war-still).

154. Graeme Hugo & Lakshman Dissanayake, *The Process of Sri Lankan Migration to Australia Focusing on Irregular Migrants Seeking Asylum*, in *A LONG WAY TO GO: IRREGULAR MIGRATION PATTERNS, PROCESSES, DRIVERS AND DECISION-MAKING* 197, 210 (Marie McAuliffe & Khalid Koser eds., 2017).

155. See Thamil Venthana Ananthavinayagan, *Dum Vivimus Vivamus. The Tamils in Sri Lanka: A Right to External Self-Determination?*, 2 PEACE HUM. RTS. GOVERNANCE 23, 43 (2018) (arguing the Tamils have a potential case to seek remedial secessions based on previous denials of self-determination); see also P. Sivakumaran, *Remedial Sovereignty*, SRI LANKA GUARDIAN (Oct. 10, 2011), [www.srilankaguardian.org/2011/10/remedial-sovereignty.html](http://www.srilankaguardian.org/2011/10/remedial-sovereignty.html) (discussing the right under article 1 of the CCPR providing all people, including the Tamils, with the right to self-determination).

156. Hannah Ellis-Petersen, *Tamils Fear Prison and Torture in Sri Lanka, 13 Years After Civil War Ended*, THE GUARDIAN (Mar. 26, 2022), <https://www.theguardian.com/world/2022/mar/26/tamils-fear-prison-and-torture-in-sri-lanka-13-years-after-civil-war-ended>.

157. *Id.*

Prevention of Terrorism Act, which the European Parliament recently declared to be a breach of “human rights, democracy[,] and the rule of law,”<sup>158</sup> has subjected Tamils to abductions, torture, harassment, surveillance, land grabs, and lengthy imprisonments without evidence.<sup>159</sup> These facts indicate that, despite the official conclusion of the civil war, the “roots of the conflict remain unresolved” and remedial secession—should the Tamil people wish to pursue it—may be necessary as a last resort.<sup>160</sup> If that is the case, the Tamils could have an even stronger claim to remedial secession than Kosovo, which unilaterally declared its independence nearly a decade after the state-sanctioned ethnic cleansing campaigns had ended.<sup>161</sup> Furthermore, the principle of *uti possidetis juris* may not be as significant of an impediment to secession as in the Endorois case, given that Sri Lanka is divided by province, with the Tamils representing a majority in the northern and eastern provinces.<sup>162</sup>

Amidst Sri Lanka’s continuing human rights abuses, the alarming impacts of climate change could help the Tamils make a compelling argument for remedial secession. Before the civil war, the Tamils’ lack of political representation prevented them from generating the “support of their communities when natural disasters struck.”<sup>163</sup> This trend continues today,<sup>164</sup> and, as climate-induced extreme weather events have increasingly hit Sri Lanka, the overlap of these natural disasters and civil strife has caused “vast destruction”<sup>165</sup> on the Tamils’ food production infrastructure along the climate crisis “frontlines.”<sup>166</sup> The government has instead focused its attention on developing more profitable agriculture and service industries,<sup>167</sup> while investing heavily in oil and gas projects that will significantly increase the country’s GHG emissions.<sup>168</sup> Sri Lanka recently announced a multi-phase

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158. *Id.*

159. *Id.*

160. *Id.*

161. See *supra* notes 156–60 and accompanying text for a discussion weighing the likelihood of success between the Tamils and Kosovo for using remedial secession as a last resort.

162. Ellis-Petersen, *supra* note 156.

163. Connor Lawrence, *Climate Change and Conflict in East and North Sri Lanka*, MANDALA PROJS. (Dec. 2013), <http://mandalaprosjects.com/ice/ice-cases/lanka-civil.htm>.

164. See Mahinda Senevi Gunaratne et al., *Climate Change and Food Security in Sri Lanka: Towards Food Sovereignty*, HUMANS. & SOC. SCIS. COMMS., Oct. 2021, at 1, 3 (explaining that rural communities, that make up the majority of the population, still exert little political significance).

165. Lawrence, *supra* note 163.

166. *Building Sri Lanka’s Resilience to Climate Change*, WORLD BANK (Sept. 21, 2018), [www.worldbank.org/en/news/feature/2018/09/21/building-sri-lankas-resilience-to-climate-change](http://www.worldbank.org/en/news/feature/2018/09/21/building-sri-lankas-resilience-to-climate-change).

167. Gunaratne et al., *supra* note 164, at 11.

168. Jeevethan Selvachandran, *Preparing for the Impact of Climate Change in Sri Lanka*, ASIA & THE PAC. POL’Y SOC’Y (Oct. 30, 2021), [www.policyforum.net/preparing-for-the-impact-of-climate-change-in-sri-lanka/](http://www.policyforum.net/preparing-for-the-impact-of-climate-change-in-sri-lanka/); Uditha Jayasinghe & Devjyot Ghoshal, *Sri Lanka Finalises Oil Exploration Rules, Earmarks 900 Offshore Blocks*, REUTERS (Jan. 12, 2023), <https://www.reuters.com/business/energy/sri-lanka-finalises-oil-exploration-rules-earmarks-900-offshore-blocks-2023-01-12/>.

climate resiliency initiative, but its implementation has been especially limited in regions where the Tamils reside.<sup>169</sup> Those areas are expected to encounter “severe water scarcity” and sea level rise in the future, which could “lead to a re-emergence of ethnic conflict between the Sinhalese majority and the Tamil minority and aggravate ongoing sectarian conflict between the former and the Muslim minority.”<sup>170</sup> These considerations elevate the situation beyond a theoretical exercise and could garner the international support necessary for Tamil independence based on a remedial theory.

### CONCLUSION

This paper has examined whether there is currently a right to remedial secession under CIL. After arguing that there is some momentum developing towards this right, it considered how climate change impacts and jurisprudence could shift interpretations of international law and help remedial secession crystallize into a CIL norm. The possibilities and challenges within this pathway to independence were then highlighted in two case studies centered around particularly aggrieved peoples in climate-affected areas.

Finally, there are several other notable developments arising from the nexus of human rights and the environment that could be a boon for peoples pursuing secession under international law. This includes the potential addition of an ecocide crime to the Rome Statute of the International Criminal Court, the burgeoning rights-of-nature movement, and the UN’s recent recognition of the human right to a healthy environment.<sup>171</sup> Viewed in tandem with the impacts of climate change, future scholarship could build on the arguments in this paper and examine how these ecocentric legal shifts also represent conceivable avenues for oppressed groups to fulfill the remedial secession criteria.

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169. Selvachandran, *supra* note 168.

170. Angshuman Choudhury et al., *Climate Security in the Bay of Bengal*, IPCS-CLINGENDAEL INST. 5, 41 (Jan. 2022), [www.planetarysecurityinitiative.org/sites/default/files/2022-01/Climate\\_Security\\_in\\_the\\_Bay\\_of\\_Bengal\\_3eproef.pdf](http://www.planetarysecurityinitiative.org/sites/default/files/2022-01/Climate_Security_in_the_Bay_of_Bengal_3eproef.pdf).

171. See Katie Surma, *Fifty Years After the UN’s Stockholm Environment Conference, Leaders Struggle to Realize its Vision of “a Healthy Planet,”* INSIDE CLIMATE NEWS (June 10, 2022), <https://insideclimatenews.org/news/10062022/un-stockholm-ecocide-right-of-nature/> (discussing the possibility of “making ecocide a crime before the International Criminal Court” alongside crimes like genocide and war crimes).

# TRAIN WRECK: PUBLIC RISK COMMUNICATIONS IN THE WAKE OF THE EAST PALESTINE DERAILMENT

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*Lindsay Matheos\**

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## ABSTRACT

*Following the February 2023 derailment of a hazardous materials freight train, residents of the small Ohio town of East Palestine began noticing alarming physical symptoms and adverse environmental effects, including burning throats and eyes and thousands of dead fish. These warning signs directly contradicted official claims of air and water safety. In the wake of the derailment, media and residents alike have repeatedly highlighted poor risk communication and public distrust towards government officials responsible for ensuring resident safety.*

*This Article delves into risk communications in the aftermath of the East Palestine derailment. I begin by examining how the history and geography of “rainside” Rust Belt communities, including East Palestine, limit their ability to prepare for and respond to emergencies. I then scrutinize existing federal and state legislative and regulatory mechanisms governing risk communication—including the Emergency Planning and Community Right-to-Know Act and the Hazardous Materials Transportation Act—examining how previously unexamined gaps in these regulations impede effective communication for rainside communities. I conclude by proposing solutions to address these gaps. These solutions include increased corporate accountability, improvements in railroad labor and infrastructure conditions, and the adoption of a community-based participatory research framework for risk communication.*

## INTRODUCTION

On February 3, 2023, flames and smoke blotted out the night sky over the small town of East Palestine, Ohio.<sup>1</sup> That evening, a 150-car Norfolk Southern<sup>2</sup> freight train carrying over 100,000 gallons of vinyl chloride

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1. Jess Thomson, *Could Toxic Chemicals Reach 100 Miles Radius of East Palestine?*, NEWSWEEK (Feb. 15, 2023, 12:19 PM), <https://www.newsweek.com/toxic-chemicals-ohio-train-derailment-east-palestine-spread-far-1781465>.

2. Norfolk Southern is one of the six highest-revenue (Class I) freight rail companies operating in the United States. *Class I vs. Short Line & Regional Railroads*, GENESSEE & WYOMING, <https://www.gwrr.com/freight-railroads/class-i-vs-short-line-railroads/> (last visited Sept. 30, 2023); see *An Introduction to Class I Freight Railroads*, RAILINC (Mar. 23, 2023), <https://public.railinc.com/about-railinc/blog/introduction-class-i-freight-railroads> (describing Class I railroads as those with operating revenues above an annually-readjusted threshold and listing seven Class I railroads prior to the Canadian Pacific-Kansas City Southern merger).



derailed just over the Pennsylvania border.<sup>3</sup> This event exposed those within a radius as great as 100 miles to a known carcinogen.<sup>4</sup>

The next day, East Palestine's mayor declared a state of emergency,<sup>5</sup> and authorities ordered those living within one mile of the burn to evacuate and asked the remaining town residents to shelter in place.<sup>6</sup> Nevertheless, local officials repeatedly claimed that the air and water in the town were safe.<sup>7</sup>

Two days after the derailment, while the fires still burned, the warnings escalated in urgency, advising residents to abide by the evacuation order or face potential arrest.<sup>8</sup> Fearing an imminent explosion of one car, Ohio Governor Mike DeWine issued his first press release on the derailment,<sup>9</sup> contradicting local officials' previous safety declarations. On February 6, the East Palestine Unified Command, comprised of Norfolk Southern representatives as well as local, state, and federal officials, signed off on Norfolk Southern's plan to conduct a controlled explosion of five train cars to circumvent the impending explosion.<sup>10</sup> Officials warned all 5,000 residents of the town to shelter in place.<sup>11</sup> Governor DeWine and Pennsylvania Governor Josh Shapiro expanded the evacuation order to include a one- by two-mile area around the derailment, taking weather patterns into account.<sup>12</sup> This evacuation order communicated a much higher

3. See Rebekah Riess et al., *Train Derailment in Northeastern Ohio Sparks Massive Fire*, CNN, [https://www.cnn.com/2023/02/04/us/east-palestine-ohio-train-derailment-fire?cid=external-feeds\\_iluminar\\_msn](https://www.cnn.com/2023/02/04/us/east-palestine-ohio-train-derailment-fire?cid=external-feeds_iluminar_msn) (Feb. 4, 2023, 10:17 PM), *reprinted in* ABC7 NEWS (Feb. 4, 2023), <https://abc7news.com/east-palestine-ohio-train-derailment-fire-news/12769727/>.

4. Thomson, *supra* note 1.

5. East Palestine Information, *Declaration of Emergency*, FACEBOOK (Feb. 4, 2023, 9:29 AM), <https://www.facebook.com/photo/?fbid=558513309662948&set=a.302221145292167>.

6. Riess et al., *supra* note 3.

7. See, e.g., East Palestine Information, FACEBOOK (Feb. 4, 2023, 11:39 AM), <https://www.facebook.com/EPInformation/posts/pfbid0KwaJDNtRcN8GaAvrHXyPakAkCidUuwUerGNHq1ABPTmZfHDGShxQAoYYB3puSQL>; East Palestine Information, *Press Release [sic] 1:30 pm 2/4/23*, FACEBOOK (Feb. 4, 2023, 2:44 PM), <https://www.facebook.com/photo/?fbid=558679672979645&set=a.302221145292167> (asserting that water is safe to drink); Columbiana County EMA, FACEBOOK (Feb. 5, 2023, 2:51 PM), [https://www.facebook.com/permalink.php?story\\_fbid=pfbid0wnW4mF92mfPyA46SeQtXRQ9yCyR8giXGg7YBZto7hW9HrPNrXAsawWY5RepSYytul&id=100064673290311](https://www.facebook.com/permalink.php?story_fbid=pfbid0wnW4mF92mfPyA46SeQtXRQ9yCyR8giXGg7YBZto7hW9HrPNrXAsawWY5RepSYytul&id=100064673290311) (confirming that air and water were safe following the derailment).

8. Mike DeWine (@GovMikeDeWine), TWITTER (Feb. 5, 2023, 8:40 PM), <https://twitter.com/GovMikeDeWine/status/1622409784593993729>.

9. *Id.*

10. *Protecting Public Health and the Environment in the Wake of the Norfolk Southern Train Derailment and Chemical Release in East Palestine, Ohio: Hearing Before S. Comm. on Env't & Pub. Works*, 118th Cong. (2023) [hereinafter *Committee Hearing*] (statements of Eric Brewer, Director and Chief of Hazardous Materials Response, Beaver County Department of Emergency Services, and Alan Shaw, President and CEO, Norfolk Southern Corporation).

11. Riess et al., *supra* note 3.

12. Press Release, Governor Mike DeWine, East Palestine Update: Evacuation Area Extended, Controlled Release of Rail Car Contents Planned for 3:30 p.m. (Feb. 6, 2023), <https://governor.ohio.gov/media/news-and-media/east-palestine-update-evacuation-area-extended-controlled-release-of-rail-car-contents-planned-for-3-30-pm-02062023>.

sense of urgency than had previously been conveyed. Despite repeated reassurances that the air and water around the site were safe, the Governor's office warned that those in the evacuation zone faced "grave danger of death" or "high risk of severe injury [if they remained], including skin burns and serious lung damage."<sup>13</sup>

The controlled explosion of the five derailed cars and their cargo created an imposing mushroom cloud and released phosgene gas, a chemical used as a weapon during World War I, into the atmosphere.<sup>14</sup> Less than a day after this explosion, in familiar refrain, federal and state officials returned to assuring residents that nothing unsafe was detected in the air or water.<sup>15</sup> Yet the fumes, which were noticeable miles from the burn site,<sup>16</sup> told a different story. Just two days after the controlled explosion and five days after the initial derailment, state authorities told residents it was safe to return home.<sup>17</sup>

In the midst of this ongoing disaster, many East Palestine residents grew distrustful of the government officials nominally responsible for ensuring public safety.<sup>18</sup> Clear signs of adverse impacts on both humans and the environment were abundant from the start. Within days of the derailment, tens of thousands of fish and other aquatic animals were reported dead downstream.<sup>19</sup> Scores of residents reported unexplained symptoms, including headaches, congestion, throat and eye irritation, bloody noses, and skin rashes.<sup>20</sup> A group of Centers for Disease Control and Prevention (CDC) investigators, who had worked 18-hour days conducting door-to-door health

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13. *Id.*

14. Brittany Peterson & Seth Borenstein, *Toxic Gases Connected to Ohio Train Derailment Cause Concern*, ASSOCIATED PRESS (Feb. 8, 2023, 12:53 PM), <https://apnews.com/article/rail-accidents-evacuations-ohio-health-climate-and-environment-3f84663f0b97837cc74a8ce9a50ef6c7>.

15. U.S. EPA Region 5 (@EPAGreatLakes), TWITTER, <https://twitter.com/EPAGreatLakes/status/1623033901391159298?t=TCe0kNoq5YqzSrZMoU9kZg&s=19> (Feb. 7, 2023, 2:00 PM); Grace Christopher & Erin Simonek, *Officials Provide Updates on Controlled Release of Chemicals in East Palestine*, WFMJ, <https://www.wfmj.com/story/48323539/officials-provide-updates-on-controlled-release-of-chemicals-in-east-palestine> (Feb. 6, 2023, 11:48 PM).

16. U.S. EPA Region 5, *supra* note 15.

17. Press Release, Governor Mike DeWine, East Palestine Update: Residents Can Safely Return Home (Feb. 8, 2023), <https://governor.ohio.gov/media/news-and-media/east-palestine-update-residents-can-safely-return-home-02082023>.

18. See, e.g., Benji Jones, *What the Ohio Train Derailment Teaches Us About Poisoning Public Trust*, VOX (Mar. 8, 2023, 7:00 AM), <https://www.vox.com/science/23624376/east-palestine-derailment-air-quality-safety> (illustrating that locals were losing trust in government officials).

19. Press Release, Governor Mike DeWine, East Palestine Update - 3/6/23 (Mar. 6, 2023), <https://governor.ohio.gov/media/news-and-media/East+Palestine+Update-3-6-23-03062023>.

20. Gabrielle Gurley, *Whose Test Results Should East Palestine Believe?*, AM. PROSPECT (Mar. 23, 2023), <https://prospect.org/environment/2023-03-23-test-results-east-palestine/>; Brenda Goodman, *First on CNN: CDC Team Studying Health Impacts of Ohio Train Derailment Fell Ill During Investigation*, CNN, <https://www.cnn.com/2023/03/31/health/ohio-train-derailment-cdc-team-symptoms/index.html> (Mar. 31, 2023, 8:48 AM); see also Emily Baumgaertner, *One Family's Toxic Train Wreck Ordeal: Illness, Exile and Debt*, N.Y. TIMES, <https://www.nytimes.com/2023/08/16/health/east-palestine-ohio-train-derailment-crisis.html> (Aug. 21, 2023) (explaining that some East Palestine residents continue to experience mysterious health complications following the derailment).

surveys of residents near the derailment site, fell ill with the same symptoms a month after the fire was extinguished.<sup>21</sup> Representatives from Norfolk Southern canceled their attendance at a town hall meeting due to “growing physical threat” from unspecified “outside parties.”<sup>22</sup> But all the while, government officials repeatedly assured residents that, despite safety concerns rooted in personal observations and experiences, the air and water posed no threats.<sup>23</sup> As one resident put it, “Why are people getting sick if there’s nothing in the air or water?”<sup>24</sup>

This Article does not assert that government officials deliberately lied to residents. Rather, it argues that the gap between lived experiences and official communications about the East Palestine derailment creates a frustrating feeling—real or imagined—of governmental “gaslighting”<sup>25</sup> and highlights the need for stronger communication about environmental risks. While several statutes and regulations aim to provide comprehensive risk communication protocols, large gaps leave towns like East Palestine uniquely vulnerable to being under- or uninformed about the hazards they face daily. This Article highlights these gaps and proposes solutions.

Part I of this Article begins by situating East Palestine as a “railside community” in America’s Rust Belt, one of many towns that are host to America’s 140,000 miles of freight rail. It discusses how railside communities face unique risks, much like the fenceline communities that abut polluting infrastructure, given the transitory and varied nature of the substances moving through them. Part II then outlines current statutes and regulations governing risk communication, arguing that glaring gaps in these laws and regulations leave towns like East Palestine severely under-protected. Finally, Part III offers a range of solutions that would better protect

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21. Goodman, *supra* note 20. As of August 2023, the Occupational Safety and Health Administration (OSHA) has opened an investigation into the incident but has issued no citations. News Release, U.S. Dep’t of Labor, Department of Lab., Norfolk Southern Corp., Teamsters’ Railways Union Enter Agreement to Enhance Safety at East Palestine, Ohio, Derailment Site (Aug. 9, 2023), <https://www.dol.gov/newsroom/releases/osha/osha20230809>.

22. Patrick Orsagos, *Upset Ohio Town Residents Seek Answers over Train Derailment*, ASSOCIATED PRESS (Feb. 16, 2023, 12:15 AM), <https://apnews.com/article/ohio-derailment-town-hall-meeting-b95ef5c6389f417b9cbe088c109b9d84>; *Norfolk Southern Says It Won’t Attend Town Hall, Fearing ‘Growing Physical Threat,’* WSYX ABC 6 (Feb. 15, 2023, 5:17 PM), <https://abc6onyourside.com/news/local/norfolk-southern-east-palestine-ohio-town-hall-fearing-growing-physical-threat>.

23. East Palestine Information, *supra* note 7; Columbiana County EMA, *supra* note 7; U.S. EPA Region 5, *supra* note 15; Christopher & Simonek, *supra* note 15.

24. Brooks Sutherland & Max Filby, *‘Why Are People Getting Sick?’ East Palestine Residents Voice Concerns; Norfolk Southern Skips Meeting*, CINCINNATI ENQUIRER, <https://www.cincinnati.com/story/news/local/2023/02/15/norfolk-southern-skips-crowded-east-palestine-meeting-after-derailment/69909098007/> (Feb. 16, 2023, 8:59 AM).

25. Charles Creitz, *Erin Brockovich Torches East Palestine, Ohio Disaster Response from Government: ‘Not Going to Gaslight Me,’* FOX NEWS (Feb. 24, 2023, 9:44 PM), <https://www.foxnews.com/media/erin-brockovich-torches-east-palestine-ohio-disaster-response-government-not-going-gaslight-me>.

residents of railside communities, including corporate accountability and transparency measures, labor and infrastructure improvements, and community-based participatory research frameworks.

# I. AMERICA’S RUST BELT, FREIGHT RAILWAYS, AND RAILSIDE COMMUNITIES

Before examining the statutory and regulatory gaps that leave towns like East Palestine vulnerable, it is critical to understand how East Palestine’s status as a Rust Belt town and a “railside community” contributes to its vulnerability.

## A. Rust Belt Vulnerability

The Rust Belt is not a strictly defined geographical area but is generally said to stretch from Upstate New York to Illinois.<sup>26</sup> First known as America’s “manufacturing belt,” this area thrived in the late 19th to the mid-20th centuries as the core of the country’s automotive and steel industries.<sup>27</sup> More than half of the country’s manufacturing jobs were clustered in this region in 1950,<sup>28</sup> and the manufacturing industry accounted for high percentages of total employment in Rust Belt states.<sup>29</sup> In Ohio, for example, manufacturing accounted for more than one-third of all employment in the state and more than 40% of male employment statewide.<sup>30</sup> Many of these manufacturing jobs were likely also high-paying union jobs; while statistics for union membership by state do not appear to exist prior to 1983, the manufacturing industry has historically been one of the most unionized industries.<sup>31</sup>

Over the latter half of the 20th century, as union manufacturing jobs—the backbone of the region’s economy—were automated or shipped overseas

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26. Mark Abadi et al., *MAP: From the Bible Belt to the Rust Belt, the United States Has 13 Distinct ‘Belts,’* BUS. INSIDER, <https://www.businessinsider.com/regions-america-bible-belt-rust-belt-2018-4> (Feb. 20, 2023, 6:30 AM).

27. David R. Meyer, *Midwestern Industrialization and the American Manufacturing Belt in the Nineteenth Century*, 49 J. ECON. HIST. 921, 921 (1989); Lee E. Ohanian, *Competition and the Decline of the Rust Belt*, FED. RSRV. BANK OF MINNEAPOLIS (Dec. 20, 2014), <https://www.minneapolisfed.org/article/2014/competition-and-the-decline-of-the-rust-belt>.

28. SIMEON ALDER ET AL., CTR. FOR QUANTITATIVE ECON. RSCH., *THE DECLINE OF THE U.S. RUST BELT: A MACROECONOMIC ANALYSIS* 4, [https://www.atlantafed.org/-/media/documents/cqer/publications/workingpapers/cqer\\_wp1405.pdf](https://www.atlantafed.org/-/media/documents/cqer/publications/workingpapers/cqer_wp1405.pdf).

29. *Id.* at 5.

30. 2 HOWARD G. BRUNSMAN, U.S. BUREAU OF THE CENSUS, U.S. CENSUS OF POPULATION: 1950, CHARACTERISTICS OF THE POPULATION, PART 35, OHIO, 35-69 (1952), <https://www2.census.gov/library/publications/decennial/1950/population-volume-2/37783896v2p35ch3.pdf>.

31. GERALD MAYER, CONG. RSCH. SERV., RL32553, *UNION MEMBERSHIP TRENDS IN THE UNITED STATES* 16-17 (2004), <https://sgp.fas.org/crs/misc/RL32553.pdf>.

to lower labor costs, former manufacturing hubs struggled to stay afloat.<sup>32</sup> The “Rust Belt” refers to these former manufacturing hubs.<sup>33</sup> Exact characteristics may vary, but most scholars correlate Rust Belt cities and towns with declining populations and a milieu of social problems, including unemployment, poverty, and abandoned or blighted buildings.<sup>34</sup> While every city and town within the Rust Belt has its own unique history, many scholars have outlined the deindustrialization-to-disinvestment pipeline that pervades the region.<sup>35</sup> As localities lost well-paying, union manufacturing jobs, un- and under-employment rates increased, property values plummeted, local tax bases dissolved, residents left, and public services and municipal funding were gutted.<sup>36</sup>

Across the Rust Belt, this deindustrialization has a wide-reaching social ripple effect. Rust Belt communities generally face increased rates of suicide, opioid addiction, and domestic violence, as well as “loss of faith in institutions such as government.”<sup>37</sup> Deindustrialization has also led to negative environmental impacts, as businesses abandon factories and leave them to decay for decades.<sup>38</sup> These social and environmental issues often continue over decades, and deindustrialized Rust Belt towns become “sites of persistent struggle, creating a cycle of failure from which it is difficult to escape.”<sup>39</sup> Consequently, Rust Belt residents are more likely to lack strong safety nets or robust public support networks.

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32. Others have proposed alternate explanations for the Rust Belt’s manufacturing decline. *See, e.g.,* JASON R. HACKWORTH, *MANUFACTURING DECLINE: HOW RACISM AND THE CONSERVATIVE MOVEMENT CRUSH THE AMERICAN RUST BELT* 60-61, 215 (2019) (describing how “the construction of blackness as threatening to white safety, political power, and property,” as opposed to market forces and globalization, produces urban decline through five unique modalities).

33. Amy E. Mersol-Barg, Note, *Urban Agriculture & the Modern Farm Bill: Cultivating Prosperity in America’s Rust Belt*, 24 DUKE ENV’T L. & POL’Y F. 279, 280-81 (2013); Emily A. Shrider, *Welcoming Cities, Welcoming Policies? Immigration Policymaking and Immigrant Renewal Strategies in the Rust Belt*, 28 S. CAL. INTERDISC. L.J. 661, 669-70 (2019).

34. *See, e.g.,* David Brady & Michael Wallace, *Deindustrialization and Poverty: Manufacturing Decline and AFDC Reciprocity in Lake County, Indiana 1964-93*, 16 SOCIO. F. 321, 323, 347 (2001) (explaining how deindustrialization led to manufacturing job loss); Shrider, *supra* note 33; Joseph Schilling & Jonathan Logan, *Greening the Rust Belt: A Green Infrastructure Model for Right Sizing America’s Shrinking Cities*, 74 J. AM. PLAN. ASS’N 451, 452 (2008); Mersol-Barg, *supra* note 33.

35. John Russo & Sherry Lee Linkon, *The Social Costs of Deindustrialization*, YOUNGSTOWN ST. UNIV.: CTR. FOR WORKING CLASS STUDIES, <https://ysu.edu/center-working-class-studies/social-costs-deindustrialization> (last visited Oct. 30, 2023).

36. J. Lawrence Broz et al., *Populism in Place: The Economic Geography of the Globalization Backlash*, 75 INT’L ORG. 464, 465, 473 (2021); Sharryn Kasmir, *On Difference and Combination: Politics and Social Movement Organizations in a Pennsylvania Rust-Belt Region*, 95 FOCAAL 74, 78 (2023).

37. Russo & Linkon, *supra* note 35, at 152; Broz et al., *supra* note 36.

38. *Id.* at 156.

39. *Id.*; Shawna J. Lee et al., *Racial Inequality and the Implementation of Emergency Management Laws in Economically Distressed Urban Areas*, CHILD. & YOUTH SERVS. REV., Nov. 2016, at 1, 2 (“[Rust Belt areas] continue to grapple with prolonged economic stagnation and decline that stem from business loss and relocation, among other factors.”); *see* Broz et al., *supra* note 36, at 477.

Lying in the heart of America's Rust Belt, East Palestine, Ohio has followed the same general trajectory as other Rust Belt towns in the wake of deindustrialization. Columbiana County, in which East Palestine is located, was home to a thriving agricultural industry throughout the 1800s.<sup>40</sup> Extensive railroad construction across the manufacturing belt ushered in a host of new industries, including the ceramics industry.<sup>41</sup> Ceramics played a significant role in spurring economic development in the East Palestine area: Columbiana County once produced half of all ceramics in North America,<sup>42</sup> and W.S. George Pottery Company began operating a large pottery facility out of East Palestine in the early 1900s.<sup>43</sup> However, W.S. George sold its East Palestine facility in 1955 after declaring bankruptcy,<sup>44</sup> and the plant ceased operations around 1960.<sup>45</sup> Since then, East Palestine has seen a stark population decline: while the country's population has more than doubled since 1950,<sup>46</sup> East Palestine's population has shrunk by 8%.<sup>47</sup> Today, the town's median household income is almost 30% less than the state of Ohio's,<sup>48</sup> but in 1950, East Palestine's median family income was on par with the state's.<sup>49</sup>

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40. *Historical Sketch of Columbiana County*, COLUMBIANA CNTY., <http://www.columbianacounty.org/history> (last visited May 1, 2023) [hereinafter *Historical Sketch*].

41. *Id.*

42. Jeremy H. Beardmore, *Get to Know the Staffordshire of America and How It All Started*, THE COLLECTOR (Jan. 30, 2020), <https://www.thecollector.com/get-to-know-the-staffordshire-of-america-and-how-it-all-started/>.

43. *East Palestine*, EAST PALESTINE AREA CHAMBER OF COM., <https://www.eastpalestinechamber.com/east-palestine> (hover over top right photo in array) (last visited May 1, 2023). East Palestine was also home to a notable tire and rubber factory, but there appears to be limited information on it, indicating it was not as prominent or long-lasting as the pottery, *id.*

44. *Town History*, EAST PALESTINE, OHIO, <http://eastpalestine-oh.gov/town-history/> (last visited May 1, 2023); Harry Rinker, *W. S. George Pottery*, WORTHPOINT, <https://www.worthpoint.com/dictionary/p/ceramics/na--united-states/wsgeorge-pottery> (last visited May 1, 2023).

45. *Object Record*, MCLEOD CNTY. HIST. SOC'Y & MUSEUM, <https://mcleodhistory.pastperfectonline.com/webobject/721A59F1-BEFB-4C1A-8FD4-248024118536> (last visited May 30, 2023).

46. *Historical National Population Estimates: July 1, 1900 to July 1, 1999*, U.S. CENSUS BUREAU, <https://www2.census.gov/programs-surveys/popest/tables/1900-1980/national/totals/popclockest.txt> (last visited May 30, 2023); *U.S. and World Population Clock*, U.S. CENSUS BUREAU, <https://www.census.gov/popclock/> (last visited May 30, 2023).

47. 1 HOWARD G. BRUNSMAN, U.S. BUREAU OF THE CENSUS, U.S. CENSUS OF POPULATION: 1950, NUMBER OF INHABITANTS 1-58 (1952), <https://www2.census.gov/library/publications/decennial/1950/population-volume-2/21983999v2p1ch2.pdf>; *East Palestine Village, Ohio*, U.S. CENSUS BUREAU, <https://data.census.gov/profile?g=160XX00US3923940> (last visited May 30, 2023).

48. U.S. CENSUS BUREAU, *supra* note 47.

49. 2 HOWARD G. BRUNSMAN, U.S. BUREAU OF THE CENSUS, U.S. CENSUS OF POPULATION: 1950, CHARACTERISTICS OF THE POPULATION, PART 35, OHIO 35-51 (1952), <https://www2.census.gov/library/publications/decennial/1950/population-volume-2/37783896v2p35ch3.pdf>.

Rust Belt communities have also gravitated towards a conservative brand of populism in the wake of deindustrialization.<sup>50</sup> Politicians like former President Donald Trump and Ohio Senator J.D. Vance, who often preach anti-globalization, won handily in rural Ohio counties like Columbiana County.<sup>51</sup> Urban planning scholar and Ohioan Jason Hackworth attributes these conservative successes to a powerful “narrative of loss” that appeals to white residents of deindustrialized areas.<sup>52</sup> This narrative speaks to residents’ “perceived loss of privilege—the notion that one’s individual or group position has been undermined by social change,” such as more supportive social policies and racial justice.<sup>53</sup> Politicians also exploited the stark differences between the rural and urban Rust Belt—the racial divide between the regions’ urban and rural areas is greater than any other area in the country—to bolster support in rural Rust Belt areas.<sup>54</sup> This brand of politics exacerbates the pre-existing disadvantages of Rust Belt residents. Not only has previous disinvestment left residents with inadequate support, but their current political representation means that they are less likely to have social safety nets or strong environmental protections, policies which would help better protect residents.

Because of the vicious, post-industrial feedback loop in which East Palestine and other Rust Belt towns are stuck, their residents are often disproportionately vulnerable and ill-prepared to respond to emergencies.

### *B. Freight Trains and Railside Communities*

The Rust Belt is also the hub of America’s rail infrastructure. The concentrated networks of tracks through northern Midwest and mid-Atlantic states are remnants of a bygone era in which both people and goods were primarily transported by rail.<sup>55</sup> Chicago, Illinois, located in the Rust Belt, is the nation’s largest rail hub,<sup>56</sup> and mid-Atlantic Rust Belt state Pennsylvania

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50. Leonard Baccini & Stephen Weymouth, *Gone for Good: Deindustrialization, White Voter Backlash, and US Presidential Voting*, 115 AM. POL. SCI. REV. 550, 553 (2021).

51. *Ohio President Results 2020*, CNN POLITICS, <https://www.cnn.com/election/2020/results/state/ohio/president> (Nov. 27, 2020, 4:42 PM).

52. HACKWORTH, *supra* note 32, at 23.

53. *Id.*

54. *Id.* at 29.

55. Jason Shvili, *Rust Belt States*, WORLDATLAS (July 7, 2021), <https://www.worldatlas.com/geography/rust-belt-united-states.html>.

56. *Recommendation: Maintain the Region’s Status as North America’s Freight Hub*, CHI. METRO. AGENCY FOR PLAN., <https://www.cmap.illinois.gov/2050/mobility/freight> (last visited May 1, 2023); *Freight Rail Facts & Figures*, ASS’N OF AM. R.R.S., <https://www.aar.org/facts-figures> (Oct. 3, 2023).

hosts more operating railroads than any other U.S. state.<sup>57</sup> The state of Ohio is home to the fourth-most extensive rail network in the country.<sup>58</sup> This fact is even more impressive considering how much smaller Ohio is than other, higher-ranked states such as Illinois and Texas.<sup>59</sup>

In addition to being concentrated in the country's Rust Belt, American rail infrastructure is disproportionately concentrated in rural areas. Of the 140,000 total freight train miles in the country, 104,315 of these—just about three-quarters—run through rural areas.<sup>60</sup> Thus, freight trains disproportionately run through rural Rust Belt communities like East Palestine, the same towns most likely facing disinvestment and the erosion of social safety nets. The sociopolitical context of these towns means that, when rail emergencies like derailments of trains carrying hazardous materials do occur, the surrounding communities are particularly ill-equipped to respond.

To better understand the East Palestine incident, it is also necessary to examine the phenomenon of freight trains carrying hazardous materials. Trains transporting hazardous materials, also known as “hazmat trains,” are common—freight trains move more than two million carloads of hazardous chemicals every year.<sup>61</sup> However, this fact would not be obvious to a layperson, even someone who lived right next to the tracks. Rail operators are not required to report what they are transporting to either the public or authorities at any level of government.<sup>62</sup> Even cargo information provided to the rail crews operating the trains may not be accurate; one inspection of

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57. *Rail Freight & Ports*, PA. DEP'T OF TRANSP., <https://www.penndot.pa.gov/Doing-Business/RailFreightAndPorts/Pages/default.aspx> (last visited May 4, 2023); *Freight Rail in Your State*, ASS'N OF AM. R.R.S., <https://www.aar.org/wp-content/uploads/2023/03/AAR-State-Rankings-2021.pdf> (click on “State Rankings 2021”) (last visited Oct. 11, 2023).

58. ASS'N OF AM. R.R.S., *supra* note 57.

59. *Id.*

60. *Improving Rail in Rural Communities*, U.S. DEP'T OF TRANSP.: FED. R.R. ADMIN., <https://railroads.dot.gov/rural> (June 26, 2023).

61. *Freight Rail & Chemicals: Making Modern Life Possible*, ASS'N OF AM. R.R.S., <https://www.aar.org/wp-content/uploads/2020/07/AAR-Chemicals-Fact-Sheet.pdf> (July 2023) (click on “Download Fact Sheet”).

62. See Branden Stitt, *What Are Trains Hauling Near You? Questions Raised After Hazardous Derailment in Ohio*, KWCH 12 (Feb. 17, 2023, 11:31 PM), <https://www.kwch.com/2023/02/18/what-are-trains-hauling-near-you-questions-raised-after-hazardous-derailment-ohio/> (reporting that “train companies don’t have to report what they’re hauling to state or local authorities”); Ted Daniel & Marina Villeneuve, *“Relying on Luck Rather Than the Law”: Transport of Hazmat by Rail Still Big, Risky Secret in Mass.*, BOSTON 25 NEWS (May 3, 2023, 6:09 AM), <https://www.boston25news.com/news/local/relying-luck-rather-than-law-transport-hazmat-by-rail-still-big-risky-secret-mass/W72W7GRPMNFHZKV77PP6AXCOZ4>.



Minnesotan railroads noted that, over a three-year period, one in five hazardous material train manifests were inaccurate.<sup>63</sup>

Towns like East Palestine that host freight railways also face unique risks because of their status as raiiside communities. I use the term “raiiside communities” as the freight rail equivalent of “fenceline communities,” which are towns that abut stationary polluting facilities such as manufacturing plants and other industrial projects.<sup>64</sup> Fenceline communities face day-to-day nuisances and health threats from nearby facilities, as well as heightened risk in instances of chemical releases or other emergencies due to their proximity to the source.<sup>65</sup> While raiiside communities likely face lower levels of ongoing, baseline nuisances and health effects, they are significantly more vulnerable than fenceline communities in the event of chemical releases. Unlike fenceline communities, which face constant dangers from known threats, raiiside communities do not know where or when an emergency may occur or what substances may be involved. The unpredictable nature of these threats leaves raiiside communities at a major disadvantage in emergency planning and response compared to fenceline communities.<sup>66</sup>

Thus, towns like East Palestine have multiple intersecting vulnerabilities rooted in their history, politics, and locations. These communities are uniquely vulnerable to poor risk communication and inadequate crisis response in the event of transportation-related chemical releases. Because of these disadvantages, clear public risk communication standards are critical to raiiside communities like East Palestine. Strong risk communication policies have the power to mitigate the disadvantages faced by Rust Belt and raiiside communities, empowering them with the information needed to respond to emergencies appropriately and keep themselves safe.

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63. Dan Gunderson, *Mystery Trains: Crews, Communities in the Dark on Chemical Cargo*, MINN. PUB. RADIO (Sept. 23, 2014, 9:00 PM), <https://www.mprnews.org/story/2014/09/23/trains-haul-undocumented-hazardous-chemicals>. These inaccuracies are largely due to computer glitches that allow undocumented train cars to travel for miles before the manifest is corrected, *id.*

64. E.g., Dara O’Rourke & Gregg P. Macey, *Community Environmental Policing: Assessing New Strategies of Public Participation in Environmental Regulation*, 22 J. POL’Y ANALYSIS & MGMT. 383, 392 (2003); Ciprian N. Radavoi, *Fenceline Communities and Environmentally Damaging Projects: An Asymptotically Evolving Right to Veto*, TUL. ENV’T L.J., Winter 2015, at 1, 21; *Frontline and Fenceline Communities*, CLIMATE REALITY PROJ., <https://www.climatealityproject.org/frontline-fenceline-communities> (last visited May 3, 2023) (describing characteristics of fenceline communities).

65. O’Rourke & Macey, *supra* note 64.

66. I do not aim to minimize the risks that fenceline communities are subjected to on a daily basis. The threats to both fenceline communities and raiiside communities are serious, and one is not inherently less significant or urgent than the other. And, of course, fenceline communities and raiiside communities are not mutually exclusive and often overlap; many communities face intersecting threats from both stationary and mobile sources. However, the labels of “fenceline” and “raiiside” refer to threats of inherently different natures with their own unique impacts.

## II. RISK COMMUNICATION REQUIREMENTS

### *A. Federal Emergency Planning and Community Right-to-Know Act*

Perhaps the best-known and most expansive risk communication statute is the Emergency Planning and Community Right-to-Know Act (EPCRA).<sup>67</sup> Congress enacted EPCRA largely in response to the 1984 Bhopal disaster, in which 600,000 people were exposed to poisonous gases released from a pesticide plant in Bhopal, India.<sup>68</sup> Lack of knowledge and preparation among residents, first responders, and medical staff intensified the tragedy.<sup>69</sup> EPCRA requires sweeping disclosure and planning measures intended to help communities plan for and adequately respond to emergencies.<sup>70</sup> The statute establishes and specifies the composition of state emergency planning commissions (SERCs), planning districts, and local committees;<sup>71</sup> mandates that local emergency planning committees (LEPCs) prepare publicly available emergency response plans in line with statutory requirements;<sup>72</sup> and outlines emergency notification requirements.<sup>73</sup> Crucially, EPCRA ensures that emergency information is transmitted to the public.<sup>74</sup> LEPCs are the primary emergency planning entity responsible for risk communication to the public. The law requires that emergency plans formulated by LEPCs include “[p]rocedures providing reliable, effective, and timely notification” to the public that a release has occurred.<sup>75</sup>

While EPCRA is a powerful planning tool that ensures swift communication to affected residents in most emergency circumstances, it fails to help railside communities. Most of the statute’s emergency planning and community right-to-know provisions apply only to releases of substances

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67. 42 U.S.C. §§ 11001-11050.

68. 132 Cong. Rec. 28,418 (Oct. 3, 1986) (statement of Thomas Jorling, Minority Couns., U.S. Senate Comm. on Pub. Works); Alan Taylor, *Bhopal: The World's Worst Industrial Disaster, 30 Years Later*, THE ATLANTIC (Dec. 2, 2014), <https://www.theatlantic.com/photo/2014/12/bhopal-the-worlds-worst-industrial-disaster-30-years-later/100864/>. The effects of the Bhopal disaster were profoundly devastating: the release led to as many as 16,000 deaths and an increased prevalence of physical and mental disabilities in children, Taylor, *supra*.

69. See Sarah Lmdan & Rebecca Bratspies, *Taking a Page from the FDA's Prescription Medicine Information Rules: Reimagining Environmental Information for Climate Change*, 40 U. ARK. LITTLE ROCK L. REV. 573, 589 (2018) (detailing how various risk factors and a lack of communication compounded tragedy in the Bhopal incident).

70. *EPCRA Requirements*, U.S. DEP'T OF HEALTH & HUM. SERVS. (Feb. 25, 2000), <https://www.hhs.gov/about/hhs-manuals/gam-part-30/306000/index.html#30-60-20>.

71. 42 U.S.C. § 11001.

72. *Id.* §§ 11003, 11044(a).

73. *Id.* § 11004.

74. *Id.* § 11003(c)(4).

75. *Id.*

from stationary “facilities,” not mobile “rolling stock.”<sup>76</sup> Only for the purposes of § 11004, the emergency notification section, does the term “facility” include “rolling stock.”<sup>77</sup> Indeed, one of the final sections of EPCRA, § 11047, provides an explicit exemption for transportation: “Except as provided in [§] 11004 of this title, this chapter does not apply to the transportation . . . of any substance or chemical subject to the requirements of this chapter. . . .”<sup>78</sup> In other words, EPCRA’s only effect on rail carriers is its mandate of emergency notifications under § 11004.

For stationary sources, EPCRA outlines a comprehensive emergency notification scheme: both the community emergency coordinator for the affected LEPCs and the relevant SERCs should receive notice “immediately after the release” of a covered substance.<sup>79</sup> EPCRA § 11004 provides a long list of requirements for the content of the notification. These requirements include the chemical names or identities of substances involved, the amount and duration of the release, associated health risks, and proper precautions.<sup>80</sup> EPCRA also provides additional requirements should the release impact source waters of a community water system.<sup>81</sup> Finally, this section mandates written follow-up after the initial notification describing response measures taken, known or anticipated health risks, and medical advice for individuals exposed to the substance.<sup>82</sup>

For mobile sources, though, these notification requirements are significantly reduced. When reporting a release from a mobile source, like a freight train, an owner or operator of a mobile source may achieve full compliance with EPCRA by simply dialing 911.<sup>83</sup> This requirement erases the direct chain of information from the train operator through the LEPC to the community; unlike their obligations with respect to stationary sources, 911 operators are under no mandate to share information about mobile source releases with a community coordinator. Furthermore, the written follow-up required after releases from stationary sources under § 11004(c) does not

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76. *Id.* § 11049(4) (defining “facility” as “all buildings, equipment, structures, and other *stationary items* which are located on a single site or on contiguous or adjacent sites”) (emphasis added).

77. *Id.*

78. *Id.* § 11047.

79. *Id.* § 11004(b)(1).

80. *Id.* § 11004(b)(2).

81. *Id.* § 11004(e).

82. *Id.* § 11004(c).

83. *See id.* § 11004(b)(2) (“With respect to transportation of a substance subject to the requirements of this section, or storage incident to such transportation, the notice requirements of this section with respect to a release shall be satisfied by dialing 911 or, in the absence of a 911 emergency telephone number, calling the operator.”).

apply to releases from sources in transit; rather, one initial 911 call satisfies all EPCRA reporting requirements.<sup>84</sup>

To see how significantly this exception impacts communities, contrast the East Palestine derailment with what would happen if vinyl chloride were released from a stationary source. Vinyl chloride is a hazardous chemical.<sup>85</sup> Release of more than one pound of this chemical triggers notice requirements under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), the primary statute governing response to releases of hazardous substances.<sup>86</sup> Therefore, under EPCRA § 11004(a)(3), if the same amount of vinyl chloride (1.1 million pounds<sup>87</sup>) were released from a stationary source, the owner or operator of the facility would be required to notify (1) the area's local emergency coordinator, and (2) the SERC for any areas and states likely to be affected by the release.<sup>88</sup> As previously explained, the information about this release would be disseminated to the public via the local emergency coordinator and the LEPC.<sup>89</sup> Further, the facility's owner or operator would be required to provide a written follow-up emergency notice containing information on response and containment measures, health risks, and medical advice.<sup>90</sup> However, in the case of the East Palestine derailment, the train crew was required only to make one initial 911 call.<sup>91</sup> That call is the extent of the obligations of any person or entity under EPCRA in the case of that derailment.

Because EPCRA largely does not apply to mobile sources, including hazmat trains, and provides very few release disclosure requirements for releases from those sources, railside communities that host freight railways are in a uniquely precarious position.

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84. *Id.*; *Follow-Up Notification Requirements for Release Occurring in Transportation*, U.S. EPA, <https://www.epa.gov/epcra/follow-notification-requirements-release-occurring-transportation> (May 1, 2023).

85. 40 C.F.R. § 302.4 tbl. 302.4 (2022) (listing reportable quantities of hazardous chemicals).

86. *See infra* Section II(B).

87. Benjamin Duer, *Norfolk Southern Released 1.1M Pounds of Vinyl Chloride After Derailment, Lawsuit Alleges*, USA TODAY, <https://www.usatoday.com/story/news/nation/2023/02/16/train-derailment-norfolk-southern-vinyl-chloride-ohio/11274194002/> (Feb. 16, 2023, 4:26 PM).

88. 42 U.S.C. § 11004(b)(1).

89. *Id.* § 11003(c)(4).

90. *Id.* § 11004(c).

91. While § 11004(2) does ostensibly provide requirements for information that must be provided in this call, the regulations clarify that this information is just to be provided “to the extent known” and so long as providing it will not cause a delay in response.

*B. The National Contingency Plan and Comprehensive Environmental Response, Compensation, and Liability Act*

Another provision relevant to releases of hazardous materials is the National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan or NCP), which implements CERCLA.<sup>92</sup> The NCP “provide[s] the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants” as required by CERCLA.<sup>93</sup> These laws and regulations together carefully outline preparation and response procedures for responding to releases of hazardous substances. However, neither the NCP nor CERCLA adequately fill the gaps left by EPCRA.

First, while the NCP contains a section on “public information and community relations,” this section is largely aspirational and has very little in the way of binding requirements.<sup>94</sup> The only community relations requirements are contained in sections on “removal action,”<sup>95</sup> “remedial investigation/feasibility study and selection of remedy,”<sup>96</sup> and “remedial design/remedial action, operation[,] and maintenance.”<sup>97</sup> As the titles of these sections indicate, these regulations prescribe community relations procedures to be taken during the investigation of a chemical release and removal or remedial actions to be taken in response to a chemical release. Additionally, under the NCP, “community relations” refers to the “EPA’s program to inform and encourage public participation in the Superfund process and to respond to community concerns.”<sup>98</sup> In other words, the NCP only regulates communication to the public undertaken in the course of the Superfund process, during the investigation and cleanup of a polluted site. The regulations do not contemplate public communications in the immediate aftermath of a release before a formal investigation begins.

CERCLA is similar to the NCP in its focus. Like its implementing regulations, CERCLA legislates the actual cleanup of hazardous waste sites and hazardous substance releases.<sup>99</sup> Its notification section requires any

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92. 40 C.F.R. §§ 300.1, 300.2 (1994).

93. *Id.*

94. *See id.* § 300.155.

95. *Id.* § 300.415.

96. *Id.* § 300.430.

97. *Id.* § 300.435. Other sections—§ 300.815 (“Administrative record file for a remedial action”), § 300.820 (“Administrative record file for a removal action”), and § 300.425(e) (“Deletion from the NPL”)—describe notice and comment requirements for such actions; however, these sections are not relevant to the issue of proactive risk communications from the government in the immediate aftermath of a release.

98. *Id.* § 300.5.

99. *Summary of the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)*, U.S. EPA, <https://www.epa.gov/laws-regulations/summary-comprehensive-environmental-response-compensation-and-liability-act> (Sept. 12, 2022).

person in charge of a vessel or facility to immediately notify the National Response Center (NRC) of a release of a hazardous substance covered by CERCLA as soon as they have knowledge of such a release.<sup>100</sup> Unlike EPCRA, “facility” as used in CERCLA includes mobile facilities, such as rolling stock,<sup>101</sup> so this section applies to freight rail operators.

As discussed above, any release of more than one pound of vinyl chloride is reportable under CERCLA.<sup>102</sup> The East Palestine derailment released 1.1 million pounds of vinyl chloride.<sup>103</sup> Therefore, in addition to calling 911 to satisfy EPCRA reporting requirements, Norfolk Southern or the train’s crew were required to—and did—immediately call the NRC to satisfy CERCLA requirements.<sup>104</sup>

While notifying the NRC of a release is a critical step in responding to chemical emergencies, it does little to inform the public of risks they may face. Once notified, the NRC’s duty is to notify the area’s designated On-Scene Coordinator (OSC),<sup>105</sup> who plays a central role in coordinating, directing, and reviewing release response efforts.<sup>106</sup> Consistent with CERCLA and the NCP’s focus on responding to and cleaning up chemical releases, regulation of OSCs primarily governs their roles as first responder coordinators. Unlike EPCRA’s community emergency coordinators, OSCs are not liaisons to the community. Only one vague communication requirement applies to OSCs: “OSCs . . . should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response, to the extent practicable. . . .”<sup>107</sup> The regulation continues that OSCs should aim to keep interested parties informed in accordance with § 300.155 of the NCP, the same section of aspirational, non-binding communications recommendations discussed earlier in this section.<sup>108</sup> Thus, while CERCLA does impose further

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100. 42 U.S.C. § 9603(a); see 40 C.F.R. § 302.6 (implementing regulations for the same section).

101. 42 U.S.C. § 9601(9).

102. 40 C.F.R. § 302.4 tbl. 302.4.

103. Duer, *supra* note 87.

104. Investigation of public U.S. Coast Guard records of NRC calls indicates that, as required by CERCLA, the East Palestine derailment was reported soon after it occurred. The NRC log shows the relevant call coming in at 8:55 PM, just one minute after the derailment occurred. U.S. COAST GUARD: NAT’L RESPONSE CTR., <https://nrc.uscg.mil/Default.aspx> (last visited May 4, 2023) (click “2023 Reports” to download call log; open the spreadsheet and click on the “INCIDENT\_COMMONS” sheet; navigate to call number 1359227 in row 2085). However, the caller did not have critical information about the amount and type of hazardous materials released that would have guided the response: the log states, “Because of this incident there is a potential for an unknown hazardous material to release onto the ground. The amount of material that has the potential to release is unknown at this time,” *id.* (capitalization removed).

105. *National Response Center*, U.S. EPA (Oct. 31, 2022), <https://www.epa.gov/emergency-response/national-response-center>.

106. 40 C.F.R. § 300.120(a), (e).

107. *Id.* § 300.135(n).

108. *Id.*; see *id.* § 300.155.

notification requirements on the government, there is no provision within existing law that provides a direct pathway for the public to receive this communication promptly.

### *C. Hazardous Materials Transportation Act*

The United States Department of Transportation (DOT) estimates that about one million shipments of hazardous materials are made by land, water, and air every day.<sup>109</sup> With such a high number of harmful substances moving throughout the country on a daily basis, an entirely different, comprehensive statutory and regulatory scheme governs. When transporting hazardous materials, as opposed to storing them in stationary facilities, the Hazardous Materials Transportation Act (HMTA) governs safety and emergency response.<sup>110</sup> Congress passed this law in 1974 in response to the previous patchwork of state and federal statutes, as well as regulations spread across multiple agencies, that inadequately addressed the risks inherent to transporting hazardous materials.<sup>111</sup> The HMTA's stated purpose is "to protect against the risks to life, property, and the environment that are inherent in the transportation of hazardous material."<sup>112</sup>

The HMTA contains some statutory requirements, though its "bite" is in the regulations promulgated in response to the enactment of the HMTA by the Secretary of Transportation.<sup>113</sup> The HMTA authorizes the Secretary to issue "regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce."<sup>114</sup> Because the statute focuses more on the transportation of goods and less on

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109. U.S. DEP'T OF TRANSP., TRANSPORTATION STATISTICS ANNUAL REPORT 167 (2022), [https://rosap.ntl.bts.gov/view/dot/65841/dot\\_65841\\_DS1.pdf](https://rosap.ntl.bts.gov/view/dot/65841/dot_65841_DS1.pdf) (link downloads PDF).

110. 49 U.S.C. §§ 5101–128. The HMTA was also significantly amended and standardized in 1990. See Hazardous Materials Transportation Uniform Safety Act of 1990, Pub. L. No. 101-615, 104 Stat. 3244.

111. Stuart C. Thompson, *The Hazardous Materials Transportation Act: Chemicals at Uncertain Crossroads*, 15 TRANSP. L.J. 411, 413 (1987); Caroline J. Hogue, *Regulating the Transportation of Hazardous Materials over the Nation's Roadways*, 15 TRANSP. L.J. 149, 151 (1986).

112. 49 U.S.C. § 5101.

113. See John Levin, *The Transportation of Hazardous Materials by Rail: A Recommendation for Reform*, 22 TRANSP. L.J. 41, 44 (1994) ("While HMTA contains a number of specific provisions . . . the emphasis in the Act is on the promulgation of regulations.") (citations omitted).

114. 49 U.S.C. § 5103(b)(1).

communication with the public,<sup>115</sup> providing for emergency communication is arguably outside the HMTA's scope.<sup>116</sup>

The regulations implementing the HMTA do include one requirement for communicating incidents involving hazardous materials in transit.<sup>117</sup> However, this requirement is extremely minimal and limited to one sentence: "When an incident involving hazardous material being transported in commerce occurs, the person transporting the material, immediately on request of appropriate emergency response authorities, shall disclose to the authorities information about the material."<sup>118</sup> In other words, the HMTA does not fill the gap left by EPCRA. A rail carrier could fulfill all federal communication requirements simply by making two calls, one to 911 and one to the NRC, and by providing information to authorities about the materials being transported if asked. None of the laws and regulations discussed, including the HMTA, ensure that information communicated by an owner or operator of a mobile source is passed on to the community.

Finally, the regulations also require that "emergency response information"—including immediate health hazards, precautions to be taken, and response methods for fires and spills—be included on shipping papers or similar documents that are immediately accessible to train crews.<sup>119</sup> However, as discussed previously, shipping papers may not always be accurate for a given train, even one carrying hazardous materials. Therefore, while this regulation could be a strong requirement that increases safety and emergency response capacity, it may be limited in practice.

#### *D. Ohio Emergency Planning Laws*

At first glance, Ohio's emergency planning laws may seem more protective than federal law. The Ohio statute's definition of "facility" mirrors that of EPCRA: for the purpose of notice requirements only, the Ohio statute, like EPCRA, defines "facility" to include rolling stock and other mobile

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115. Others have noted that the HMTA is also lacking in communication requirements for the workers transporting hazardous materials. See, e.g., Alan E. Seneczko, *The Right-to-Know and the Trucking Industry: Regulating Regulations*, 14 TRANSP. L.J. 347, 369–70 (1986) ("Clearly, the DOT has exercised its regulative authority as applied to the *transportation* of hazardous materials and the regulations it has promulgated in this regard have numerous 'communicative' aspects. . . . [However, q]uestions also arise whether [hazmat] drivers themselves are entitled to additional information about the materials they transport.").

116. See *id.* ("[The HMTA's] original intent was not that of hazardous communication to employees, but rather, ensuring the safe passage of hazardous materials through commerce.").

117. 49 U.S.C. § 5110(c).

118. *Id.*

119. 49 C.F.R. § 172.602.



sources.<sup>120</sup> However, the Ohio statute requires owners or operators of facilities from which a release occurs to immediately notify any relevant community emergency coordinator, fire department, and environmental protection officials.<sup>121</sup> This standard appears more protective than EPCRA because it requires immediate notification not only to 911, but also directly to the community emergency coordinator and environmental protection officials.

Upon further investigation, though, the responsibilities of transportation operators are significantly less than they appear. The state regulations require notification only to the Ohio Environmental Protection Agency's (Ohio EPA) emergency response unit and 911.<sup>122</sup> Like the NRC, which receives notification under CERCLA if a reportable hazardous chemical is released, Ohio EPA's emergency response unit will contact its own state-level OSC if an immediate response is necessary.<sup>123</sup> Like federal OSCs, state-level OSCs are "available to help first responders address" events like chemical spills and do not serve a public communications role.<sup>124</sup> While operators "may" immediately notify the relevant community emergency coordinator, they are not in fact required to.<sup>125</sup> Therefore, the same massive gap plagues Ohio risk communication regulations and federal regulations: no requirement exists to ensure that information about an emergency is promptly communicated to the public.

It is also unlikely that this difference in state law is, as a practical matter, any more protective than the federal regulations. Given the interstate nature of freight trains, train crews may not necessarily be familiar with each state's emergency management laws. As Ohio EPA's own manual states, "[t]ransportation accidents (rail, commercial vehicle, barge, etc.) frequently involve operators who may not be familiar with Ohio's spill reporting requirements or may be incapacitated."<sup>126</sup> Because of state-to-state differences in emergency notification laws, having a more protective state law only does so much. Once the federal government raises the bar for risk

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120. Compare OHIO REV. CODE ANN. § 3750.01(D) (including rolling stock under the definition of "facility" only for the purpose of § 3750.06, "Notice of release of hazardous substance"), with 42 U.S.C. § 11049(4) (including rolling stock under the definition of "facility" only for the purpose of § 11004, "Emergency notification").

121. OHIO REV. CODE ANN. § 3750.06(C).

122. OHIO ADMIN. CODE 3750-25-25(A)(1)(c).

123. OHIO ENV'T PROT. AGENCY, EMERGENCY RESPONSE PROGRAM 1 (2019), <https://epa.ohio.gov/static/Portals/33/documents/ERProgram.pdf>.

124. *Emergency Response*, OHIO ENV'T PROT. AGENCY, <https://epa.ohio.gov/divisions-and-offices/emergency-response> (last visited May 4, 2023).

125. *Id.*; cf. 2004 Op. Ohio Att'y Gen. No. 2004-039, at 2-356 (explaining that an owner or operator of a motor vehicle or airplane that has an accident resulting in the release of a hazardous substance "is not required to provide immediate verbal notice directly to the local emergency planning district").

126. Ohio Env't Prot. Agency, *supra* note 123.

communications, however, owners and operators may be more likely to consistently comply.

Still, the slightly higher degree of communication required under Ohio's state regulations is a positive step. Ohio's notice provision requires spills to be reported to Ohio EPA's 24-hour emergency response office,<sup>127</sup> which may increase first responders' efficiency and effectiveness. Furthermore, the Ohio statutes and regulations significantly depart from EPCRA in follow-up requirements. While EPCRA does not require owners or operators of mobile sources to submit written follow-up after releases, Ohio's regulations do. The state regulations require written follow-up to both Ohio EPA and the relevant LEPC district's community emergency coordinator.<sup>128</sup> Providing this report to the community emergency coordinator creates a direct pipeline for information to flow from a mobile source's owner or operator to residents of the affected community. However, the requirement does not address the issue of providing risk communications in the immediate aftermath of a release. Instead, it requires follow-up "[a]s soon as practicable but no later than thirty days after the release."<sup>129</sup> Therefore, there is still a great need for stronger risk communication regulations to better protect railside communities immediately following a release.

Even if every person, corporation, and agency abided fully by every state and federal risk communication protocol, the residents of East Palestine and its surrounding areas would still not have been adequately informed. Major gaps in current risk communication law require a variety of solutions to better protect the public.

### III. PROPOSED SOLUTIONS

This Part discusses three varied solutions that would help remedy this communication gap and increase railside communities' capacity to prepare for and respond to chemical releases. These solutions address a range of issues, including corporate transparency, labor and infrastructure, and testing frameworks, recognizing that there is no one entity that failed East Palestine. A multiplicity of problems compounded to create the disaster; therefore, to

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127. OHIO ADMIN. CODE 3750-25-25(A)(1)(a).

128. OHIO ADMIN. CODE 3750-25-25(A)(2)(a); *see* OHIO REV. CODE ANN. § 3750.06(D); *cf.* 2004 Op. Ohio Att'y Gen. No. 2004-039, at 2-356 (explaining that an owner or operator of a motor vehicle or airplane that has an accident resulting in the release of a hazardous substance is still required to "provide both Ohio EPA and the committee of the local emergency planning district with a written follow-up emergency notice").

129. OHIO ADMIN. CODE 3750-25-25(A)(2)(a); *see* OHIO REV. CODE ANN. § 3750.06(D) (mandating that the owner or operator of a facility or vessel from which a statutory release occurred shall submit follow-up emergency notice of the release within 30 days).

address the communications issues in East Palestine and other railside communities, it is necessary to implement a multiplicity of solutions.

*A. Increasing Corporate Transparency and Accountability*

Governments on all levels should be doing more to provide proactive risk communications to the communities they serve. At the same time, though, governments themselves can suffer from communication gaps with rail companies due to the lack of mandatory reporting requirements. Although stronger public risk communication regulations are needed to serve railside communities, so too are stronger industry regulations needed to ensure transparency and proactive communications from railroad corporations like Norfolk Southern.

While this Article focuses on risk communication and response from public entities, Norfolk Southern played a large role in the bungled immediate response, according to Ohio EPA Director Anne Vogel and Beaver County, Pennsylvania Emergency Management Director Eric Brewer.<sup>130</sup> Even in the face of its own faults, the company has not committed to supporting more stringent railroad safety standards or providing long-term restitution and assistance to residents affected by the derailment.<sup>131</sup> Clearly, public pressure is insufficient to compel railroad companies like Norfolk Southern to take the steps necessary to prevent similar disasters and improve response going forward. Therefore, government intervention is necessary.

One bill has already been introduced in the United States Senate to demand greater communication from railroad companies. The Railway Safety Act of 2023, introduced on March 1, 2023 by a bipartisan alliance of conservative and progressive senators,<sup>132</sup> seeks to “enhance safety requirements for trains transporting hazardous materials.”<sup>133</sup> At the time of

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130. *Committee Hearing*, *supra* note 10 (statements of Anne Vogel, Director, Ohio Env’t Prot. Agency, and Eric Brewer, Director and Chief of Hazardous Materials Response, Beaver County Department of Emergency Services).

131. Stephen Groves & Josh Funk, *Railroad CEO “Sorry,” but Avoids Specifics at Senate Hearing*, ASSOCIATED PRESS (Mar. 9, 2023, 5:32 PM), <https://apnews.com/article/ohio-train-derailment-ceo-norfolk-southern-railroad-e709db3c9945a35c8b92b99e2ba82b2e>; *see Committee Hearing*, *supra* note 10 (statement of Alan Shaw, President and CEO, Norfolk Southern Corporation) (failing to commit to better safety standards or long-term restitution for residents).

132. *S.576 - Railway Safety Act of 2023: Cosponsors*, CONGRESS.GOV, <https://www.congress.gov/bill/118th-congress/senate-bill/576/cosponsors?s=1&r=16> (last visited Sept. 22, 2023) (demonstrating that sponsors and cosponsors include Republicans J.D. Vance of Ohio, Marco Rubio of Florida, and Josh Hawley of Missouri to Democrats Sherrod Brown of Ohio, John Fetterman of Pennsylvania, and Bob Casey of Pennsylvania).

133. *Railway Safety Act of 2023*, S. 576, 118th Cong. (2023). Importantly, the DOT has also taken action in the wake of the derailment. In June 2023, it published a Notice of Proposed Rulemaking proposing to “require all railroads to generate in electronic form, maintain, and provide to first responders,

writing, an amended version of the Railway Safety Act has passed the Senate's Committee on Commerce, Science, and Transportation and is awaiting a Senate floor vote before moving on to the House of Representatives, where a companion bill has been filed.<sup>134</sup> The Senate Bill remains stalled due in no small part to the rail industry's lobbying efforts.<sup>135</sup>

The Railway Safety Act aims to address the exact communications gap experienced in East Palestine. It would require rail carriers to "generate accurate, real-time, and electronic train consist information" and provide "commodity flow reports" for hazardous materials to each state's SERC, reporting, among other facts, a weekly estimate of the number of hazmat trains traveling through each county, the type of hazardous materials transported, and applicable emergency response information.<sup>136</sup> These provisions together could help mitigate the risk created by EPCRA's transportation exemption by requiring communication between hazmat train operators and the emergency officials designated under EPCRA.

Whether the SERC must pass this information to the relevant LEPC or to the public would depend on the exact rules promulgated by the Secretary of Transportation under this Act. Nevertheless, requiring rail carriers to ensure the availability of train consist information and to provide SERCs with advance notice and information about the hazardous materials moving through their states has the power to make a significant difference in the level of emergency preparedness. Specifically, in the event of an emergency, these provisions would significantly improve the effectiveness and safety of local first responders and the broader community.

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emergency response officials, and law enforcement personnel, certain information regarding hazardous materials in rail transportation to enhance emergency response and investigative efforts." Hazardous Materials: FAST Act Requirements for Real-Time Train Consist Information, 88 Fed. Reg. 41541 (June 27, 2023). At the time of this writing, the public comment period has closed, and the DOT has yet to promulgate a final rule.

134. Press Release, U.S. Senate Comm. on Com., Sci., & Transp., Bipartisan Railway Safety Act Heads to Senate Floor (May 10, 2023), <https://www.commerce.senate.gov/2023/5/bipartisan-railway-safety-act-heads-to-senate-floor>; *Railway Safety Act Advances Out of Committee (Second Update)*, TRAINS (May 10, 2023), <https://www.trains.com/trn/news-reviews/news-wire/railway-safety-act-advances-out-of-committee/>; see Railway Safety Act of 2023, H.R. 1674, 118th Cong. (2023). United States representatives from Ohio also introduced a similar bill in the House that largely reproduces the text of the Railway Safety Act, minus several provisions, including the two-person crew requirement, discussed *infra*, Section III.B. See Reducing Accidents in Locomotives (RAIL) Act, H.R. 1633, 118th Cong. (2023).

135. Prem Thakker, *Norfolk Southern Spent \$1.9 Million in Washington as Congress Weakened Rail Safety Bill*, THE INTERCEPT (Aug. 18, 2023), <https://theintercept.com/2023/08/18/norfolk-southern-rail-safety-lobby-congress/>; Abigail Bottar, *Railway Safety Act Is Slowed Not Stalled, Sen. Sherrod Brown Says*, IDEASTREAM PUB. MEDIA (Sept. 20, 2023, 5:05 PM), <https://www.ideastream.org/government-politics/2023-09-20/railway-safety-act-is-slowed-not-stalled-sen-sherrod-brown-says>.

136. S. 576 § 102 (as approved by S. Comm. on Com., Sci., & Transp., May 10, 2023); see William C. Vantuano, *S.576 Out of Committee. What Next?*, RAILWAY AGE (May 10, 2023), <https://www.railwayage.com/regulatory/s-576-out-of-committee-what-next/>.

Still, the Act could create even stronger emergency preparedness if it required additional, proactive notification to the impacted LEPCs. To ensure communities are as well-equipped with information as possible, the Secretary should explicitly require the information to be passed directly to the relevant LEPCs in any rule they put forth. As discussed, EPCRA requires releases from stationary facilities to be immediately reported to all relevant SERCs and LEPCs, and mobile sources should be treated no differently. LEPCs are responsible for communication with the public. Promptly providing information to both SERCs and LEPCs, rather than solely SERCs, will ensure that LEPCs have the information needed to respond promptly and effectively to chemical emergencies and communicate risks to the public.

### *B. Fixing Rail Infrastructure and Labor Issues*

The NTSB has zeroed in on a mechanical issue—an overheated wheel bearing—as the ultimate cause of the train’s derailment.<sup>137</sup> Among trains that derail while moving faster than 25 miles per hour, bearing failures are the second most common cause of derailment.<sup>138</sup> Other infrastructure issues, including broken rails and wheels, rank first and third, respectively.<sup>139</sup> Clearly, rail infrastructure improvements would go a long way to prevent hazmat trains from derailing in the first place. But these mechanical failures are also inextricably tied to the labor issues in the railway industry.

With the introduction of Precision-Scheduled Railroading (PSR) among U.S.-based rail carriers in the late 2010s, railroads are running longer trains with significantly fewer staff.<sup>140</sup> These personnel cuts include a 26.7% reduction in train operating crews and an astonishing 39.8% reduction in equipment maintenance workers across Class I rail carriers, including Norfolk Southern.<sup>141</sup> These cuts have a direct impact on railway safety: decreased numbers of maintenance employees, combined with a PSR-driven “focus on moving trains out of yards as quickly as possible,” have led to deferred maintenance.<sup>142</sup> PSR has also led to rushed train inspections. Clyde

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137. NAT’L TRANSP. SAFETY BD., NORFOLK SOUTHERN RAILWAY TRAIN DERAILMENT WITH SUBSEQUENT HAZARDOUS MATERIAL RELEASE AND FIRES, PRELIMINARY REPORT NO. RRD23MR005 2–3 (Feb. 23, 2023), <https://www.nts.gov/investigations/Documents/RRD23MR005%20East%20Palestine%20OH%20Prelim.pdf> [hereinafter NTSB REPORT].

138. See Xiang Liu et al., *Analysis of Causes of Major Train Derailment and Their Effect on Accident Rates*, 2289 TRANSP. RSCH. REC. 154, 160–61 (2012) (describing the results of a scientific study conducted to determine the likelihood of train derailment and showing the results in a bar graph).

139. *Id.*

140. U.S. GOV’T ACCOUNTABILITY OFF., GAO-23-105420, FREIGHT RAIL: INFORMATION ON PRECISION-SCHEDULED RAILROADING 13, 15 (2022).

141. *Id.* at 15.

142. *Id.* at 23.

Whittaker, Ohio State Legislative Director of the Transportation Division of the union SMART, covering sheet metal, air, rail, and transportation workers, explains, “[Brotherhood of Railway] Carmen were inspecting cars about three minutes per car. That’s always been the industry standard. Now it’s ninety seconds per car.”<sup>143</sup> It is not difficult to imagine how deferred maintenance and shorter inspections can lead to more prevalent mechanical failures similar to the one that derailed the train in East Palestine.

The Railway Safety Act also aims to address these labor and maintenance concerns. The bill mandates that “[n]o railroad may limit the time required for an employee to complete a railcar, locomotive, or brake inspection,”<sup>144</sup> an addition that aims to directly remedy the issue of rushed inspections. Additionally, § 107 of the bill—known as the Safe Freight Act of 2023—would require a minimum crew size of two (one certified conductor and one certified engineer).<sup>145</sup> While the East Palestine train had three crew members,<sup>146</sup> many Class I trains operate with only one crew member.<sup>147</sup> While some studies have noted that there is no evidence indicating that operating trains with two-person crews as opposed to one-person crews inherently increases safety,<sup>148</sup> mandating two-person crews “ensur[es] that sufficient, well-trained railroad staff are available for safe operation and response in the aftermath of any derailment,” bolstering “safety margins and redundancies.”<sup>149</sup>

One other significant issue exacerbated by PSR is increasingly long freight trains. Longer trains can increase stress on car couplings and tracks, aggravating pre-existing deficiencies and potentially leading to

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143. John Russell, *Railroaded. The Norfolk Southern Disaster in East Palestine, Ohio. Part One.*, HOLLER (Feb. 11, 2023), <https://www.theholler.co/p/railroaded-the-norfolk-southern-disaster>.

144. S. 576 § 105(a)(1) (as passed by S. Comm. on Com., Sci., & Transp., May 10, 2023).

145. *Id.* § 107(b). Notably, less than two months after the derailment, Ohio state legislators passed a bill mandating two-person crews, among other measures. Samantha Hendrickson, *Ohio Governor Signs Rail Safety Measures into Law*, ASSOCIATED PRESS (Mar. 31, 2023, 4:16 PM) <https://apnews.com/article/ohio-transportation-budget-rail-safety-derailment-bc3e97140763a5accd8bc40cfa664611>. However, a railroad industry group sued to block the law, which remains in limbo while the case is pending. Julie Carr Smyth, *Railroad Industry Sues to Block Limit on Crew Sizes That Ohio Imposed After E. Palestine Derailment*, ASSOCIATED PRESS (July 6, 2023, 4:50 PM), <https://apnews.com/article/rail-safety-ohio-crew-size-derailment-lawsuit-429df55468cc112d7057d4dd1dcf5322>; Compl., Ass’n of Am. R.Rs. v. Yost, No. 2:23CV02096 (S.D. Ohio, June 29, 2023).

146. Chris Isidore, *Despite Toxic Disaster, Railroads Still Want Single-Person Crews*, CNN, <https://www.cnn.com/2023/03/04/business/east-palestine-derailment-single-person-rr-crew-rule/index.html> (Mar. 4, 2023, 1:53 PM).

147. See OLIVER WYMAN, CREW-RELATED SAFETY AND CHARACTERISTIC COMPARISON OF EUROPEAN AND US RAILWAYS 3 (2021), <https://raillaborfacts.org/wp-content/uploads/2022/09/Carriers-Exhibit-11-Report-of-Oliver-Wyman-Comparison-of-European-and-US-Railways.pdf> (discussing American versus European railway crew requirements).

148. *Id.* at 67.

149. SHERROD BROWN ET AL., THE RAILWAY SAFETY ACT OF 2023 1, 2 (2023), [https://www.brown.senate.gov/imo/media/doc/one-pager\\_for\\_railway\\_safety\\_act\\_of\\_2023.pdf](https://www.brown.senate.gov/imo/media/doc/one-pager_for_railway_safety_act_of_2023.pdf).

derailments.<sup>150</sup> Longer trains also take longer to stop because each individual railcar receives braking signals sequentially.<sup>151</sup> Therefore, brake signals take longer to travel from the lead locomotive to the last car, a delay that rail workers say could also lead to derailments.<sup>152</sup>

In East Palestine, there is no official evidence or statement regarding the impact of the train's length—almost two miles<sup>153</sup>—on its derailment; however, some believe that the effects of the derailment could have been mitigated by running a shorter or lighter train.<sup>154</sup> Reports show that crews began decelerating the train as soon as a defect detector known as a “hotbox detector” (also known as a “hot bearing detector” or HBD) transmitted a “critical audible alarm message” due to the overheated bearing on the train.<sup>155</sup> However, by the time the train came to a full stop, it had already partially derailed.<sup>156</sup> The train had been traveling below the maximum allowable speed,<sup>157</sup> indicating that another factor, such as its length or weight, prevented the train from being able to stop before derailing.

Finally, while infrastructure breakdowns such as bearing failures continue to be the leading cause of derailments in freight trains traveling over 25 miles per hour,<sup>158</sup> increasing the frequency of HBDs on tracks and standardizing the temperatures at which action is required may help prevent derailments. HBDs are placed on rail tracks at differing intervals and are designed to measure the temperature of a train's bearings as it passes through, sending alarms to the train crew only if a bearing's temperature reads over a certain pre-designated threshold.<sup>159</sup> Currently, the DOT does not regulate HBDs; instead, each individual railroad company creates its own standards for how often they should be placed and at what temperatures crews must slow or stop the train for inspection.<sup>160</sup> On Norfolk Southern's lines, the

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150. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 140, at 23.

151. U.S. GOV'T ACCOUNTABILITY OFF., GAO-19-443, RAIL SAFETY: FREIGHT TRAINS ARE GETTING LONGER, AND ADDITIONAL INFORMATION IS NEEDED TO ASSESS THEIR IMPACT 7 (2019), <https://www.gao.gov/assets/gao-19-443.pdf>.

152. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 140, at 24–25.

153. Michael Kaplan, *Excess Size Caused Train to Break Down in Days Before It Derailed in Ohio, Employees Say*, CBS NEWS, <https://www.cbsnews.com/news/ohio-train-derailment-east-palestine-norfolk-southern-excess-size/> (Feb. 15, 2023, 7:12 PM).

154. *Id.*

155. See NTSB REPORT, *supra* note 137, at 2–3.

156. *Id.* at 3.

157. *Id.* at 2.

158. Xiang Liu et al., *Analysis of Causes of Major Train Derailment and Their Effect on Accident Rates*, 2289 TRANSP. RSCH. REC. 154, 161 (2012).

159. ASS'N OF AM. R.R.S., FREIGHT RAIL TECHNOLOGY (2023), <https://www.aar.org/wp-content/uploads/2022/06/AAR-Technology-Fact-Sheet.pdf>.

160. Safety Advisory 2023-03; Accident Mitigation and Train Length, 88 Fed. Reg. 13,494, 13,496 (Mar. 3, 2023).

average distance between HBDs is 13.9 miles,<sup>161</sup> and the company requires that crews stop and inspect cars when bearings are between 170°F and 200°F above ambient temperature—temperatures that are designated “non-critical.”<sup>162</sup>

The National Transportation Safety Board (NTSB) notes that the East Palestine train passed three HBDs before derailing. The first recorded the defective bearing at 38°F above ambient.<sup>163</sup> The second, about 10 miles later, recorded the bearing’s temperature at 103°F above ambient.<sup>164</sup> The third, almost 20 miles later, recorded the bearing’s temperature at 253°F above ambient, significantly hotter than the top of the non-critical temperature range and enough to trigger an alarm instructing the crew to stop.<sup>165</sup> In the 20-mile gap between the second and third HBDs, the bearing temperature skyrocketed 150°F from a safe temperature to a “critical” temperature.<sup>166</sup> Had there been more frequent HBDs, the crew could have received warning with enough time to stop the train before the derailment.

This lack of HBDs is yet another issue that the Railway Safety Act aims to address. The Act would require Class I rail carriers to develop and submit wayside defect detector network plans.<sup>167</sup> The original version of the bill would have mandated HBDs every 10 miles,<sup>168</sup> a safety measure that may have prevented the East Palestine derailment. In its current form, the bill would require HBDs at intervals ranging from 10 to 20 miles, depending on the presence of other types of detectors and whether the train is traveling into an urban area.<sup>169</sup> This standard is not as protective as the one originally proposed, and may in practice make little difference given the average distance between HBDs on Norfolk Southern’s tracks, for example. Nevertheless, a willingness to regulate HBDs at all represents a step forward that could help address the root cause of derailments and prevent them from occurring in the first place.

### *C. Implementing Community-Informed Risk Communications*

One final strategy that risk communicators can immediately implement to improve ongoing risk communication in East Palestine is the framework

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161. Press Release, Norfolk Southern, Norfolk Southern Announces Six-Point Safety Plan (Mar. 6, 2023), <https://nscorp.mediaroom.com/2023-03-06-Norfolk-Southern-announces-six-point-safety-plan>.

162. NTSB REPORT, *supra* note 137, at 3. Norfolk Southern also has an established alarm threshold for temperature differences between bearings on the same axle, *id.*

163. *Id.*

164. *Id.*

165. *Id.*

166. *Id.*

167. S. 576 § 106(a) (as passed by S. Comm. on Com., Sci., & Transp., May 10, 2023).

168. *Id.* § 5(b)(1) (as introduced in Senate, Mar. 1, 2023).

169. *Id.* § 106(a) (as passed by S. Comm. on Com., Sci., & Transp., May 10, 2023).



of community-based participatory research (CBPR). CBPR's aim is to incorporate community members in the research process, making them "equal partner[s]" with scientists.<sup>170</sup> The growing interest in CBPR was borne out of a response to traditional, extractive scientific research in which outsider scientists enter a community, collect data without community direction, and use the data solely for their own purposes.<sup>171</sup> The CBPR framework recognizes that community members should be research participants and partners, rather than mere subjects, and that members have a valuable "store of first-hand experience and knowledge that is important, relevant, and can challenge scientific expertise."<sup>172</sup> Community members bring valuable perspectives as the people "whose health, lives, livelihood, and culture are affected" by the consequences of risk communication.<sup>173</sup> It is essential that the residents of East Palestine and surrounding towns are partners in risk assessment and communication.

CBPR has great potential to increase trust between government officials and the public. If community members do not trust the research behind health knowledge, "they question the validity" of that knowledge.<sup>174</sup> By allowing community members to help guide the research process, government officials can "overcome a history of community distrust."<sup>175</sup> Additionally, residents can "gain confidence and a greater sense of legitimacy by seeing their experiences and views embedded in a scientific process in which they participated."<sup>176</sup>

In East Palestine, there is clearly distrust that needs to be mended and trust that needs to be earned. Many residents feel that their legitimate health concerns and observations are being ignored, and that they cannot trust the repeated assertions from all levels of government that the air and water are safe.<sup>177</sup> Simply listening to and respecting the lived experiences of these community members is an essential first step towards effective risk

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170. *Community-Based Participatory Research Program (CBPR)*, NAT'L INST. ON MINORITY HEALTH & HEALTH DISPARITIES, <https://www.nlm.nih.gov/programs/extramural/community-based-participatory.html> (Oct. 2, 2018); see also *What is CBPR?*, DETROIT URB. RSCH. CTR., <https://detroiturc.org/about-cbpr/what-is-cbpr> (last visited May 4, 2023) (describing the model of community-based participatory research programs).

171. Steve Wing et al., *Integrating Epidemiology, Education, and Organizing for Environmental Justice: Community Health Effects of Industrial Hog Operations*, 98 AM. J. PUB. HEALTH 1390, 1396 (2008).

172. Crystal Adams et al., *Disentangling the Exposure Experience: The Roles of Community Context and Report-Back of Environmental Exposure Data*, 52 J. HEALTH & SOC. BEHAV. 180, reprinted at NAT. LIBRARY MED.: PUBMED CENTRAL 1, 4 (2011), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3175404/pdf/nihms316097.pdf>.

173. Joanna Burger, *Trust and Consequences: Role of Community Science, Perceptions, Values, and Environmental Justice in Risk Communication*, 42 RISK ANALYSIS 2362, 2363 (2022).

174. Adams et al., *supra* note 172, at 15.

175. *Id.*

176. Wing et al., *supra* note 171.

177. See, e.g., Jones, *supra* note 18.

communication.<sup>178</sup> Officials should of course produce research that responds to governmental concerns, such as whether levels of individual hazardous chemicals in the atmosphere violate existing environmental regulations. But officials should also conduct research that “respond[s] most directly to the concerns of exposed communities,”<sup>179</sup> such as the symptoms residents have experienced since the derailment and the lingering chemical stench. This kind of fluid risk assessment and communication may take longer than traditional frameworks, but it will ultimately produce better results for and relationships with communities.<sup>180</sup>

#### CONCLUSION

In this Article, I have outlined how Rust Belt, railside communities like East Palestine, Ohio are uniquely vulnerable to crises like the East Palestine train derailment. Due to gaps in risk communication laws and regulations, these communities are also at a greater risk of being under- or uninformed when emergencies occur. We must hold railroad companies accountable by requiring hazardous materials transportation disclosure and instituting regulations that ensure existing communication gaps are filled. Doing so will increase the safety of both hazmat trains and railside communities and prevent similar communication failures in the future. Further, by instituting common-sense labor and infrastructure improvements in the rail industry, particularly through enactment of the Railway Safety Act of 2023, lawmakers and regulators can prevent these kinds of derailments from occurring in the first place. Finally, officials can foster public trust by responding to the concerns and lived experiences of community members like East Palestine residents, thereby making them partners in risk assessment and research. These measures can ensure effective risk communications and mitigate ongoing environmental injustices.

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178. Burger, *supra* note 173, at 2367.

179. Wing et al., *supra* note 171; Burger, *supra* note 178, at 2371 (“Community responses to risk communication directed at only one stressor (e.g., mercury, cesium, or some other chemical) will likely be unsuccessful because the message does not address the community questions or needs.”). In response to the East Palestine derailment, some experts have recommended the use of nontargeted mobile air sampling. See Oladayo Oladeji et al., *Air Pollutant Patterns and Human Health Risk Following the East Palestine, Ohio Train Derailment*, 10 ENV'T SCI. & TECH. LETTERS 680, 684 (2023). While targeted analyses measure only levels of specified stressors, nontargeted analyses allow researchers to identify abnormal concentrations of chemicals beyond the scope of targeted testing. When researchers deployed nontargeted mobile air sampling to East Palestine, for example, they found “numerous other chemicals with increased levels in East Palestine compared to the local rural background,” chemicals which had not been previously identified or sampled by the EPA, *id.*

180. Burger, *supra* note 173, at 2367.

**TOKI’S TALE: A COMPREHENSIVE ANALYSIS OF THE STATUTORY  
HURDLES TO SEASIDE SANCTUARY CREATION IN THE UNITED STATES**

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*Nicholas Govostes<sup>1</sup>*

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## PRECIS

*“[N]o good ever came from putting up walls. What people mistook for safety was in fact captivity. And few things thrived in captivity.”* – Louise Penny<sup>2</sup>

The story at the heart of this note begins in August of 1970 on Whidbey Island, a small island just off the coast of Washington state.<sup>3</sup> More specifically, the story begins inside of Penn Cove, a shielded area of water nestled in the northern half of the island.<sup>4</sup> One day, inside the cove, a group of men rounded up more than 80 orca whales using nets, sticks, and even explosives to separate the young orcas from their mothers.<sup>5</sup> The scene that day was nothing short of a tragedy: “[p]iercing, screaming vocalizations rent the air as the trapped whales thrashed and twisted in fear, confusion, and panic.”<sup>6</sup> Of the young whales captured that day, six were sold to marine parks.<sup>7</sup> Five of those whales failed to survive more than a year in captivity.<sup>8</sup> The sixth whale managed to survive in her captive setting more than 50 years after her initial capture.<sup>9</sup> Her name was Lolita.<sup>10</sup>

Originally known as Tokitae (“Toki”), Lolita lived and performed at the Miami Seaquarium for the past 52 years, all while residing in the smallest orca tank in North America.<sup>11</sup> Thankfully, Lolita was retired from performing for the Seaquarium in 2022—primarily due to mounting societal pressures.<sup>12</sup> Over the last several years, advocates pressed for Lolita’s release from the Seaquarium, pushing for her return back to the coast of Washington in hopes of reuniting her with her family.<sup>13</sup> The battle for Lolita’s freedom even made its way to the courtroom. In 2018, People for the Ethical Treatment of Animals (PETA) sued the Seaquarium to require the

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2. Louise Penny, *A TRICK OF THE LIGHT* 11 (2011).

3. Katharine Gammon, *After Half a Century in Captivity, Tokitae the Performing Orca Could Finally Go Home*, *THE GUARDIAN: THE OBSERVER* (Aug. 13, 2022, 6:00AM EDT), <https://www.theguardian.com/environment/2022/aug/13/toki-the-orca-captivity-miami-seaquarium>.

4. *Whidbey Island, Washington, GO NORTHWEST! A TRAVEL GUIDE* (Nov. 4, 2019), [https://www.gonorthwest.com/Washington/puget/Whidbey/whidbeyisland\\_map.htm](https://www.gonorthwest.com/Washington/puget/Whidbey/whidbeyisland_map.htm).

5. *Id.*

6. SANDRA POLLARD, *PUGET SOUND WHALES FOR SALE: THE FIGHT TO END ORCA HUNTING* 82 (2014).

7. Gammon, *supra* note 3.

8. *Id.*

9. *Id.*

10. *Id.*

11. Brittany Michelson, *Lolita the Orca Close to Going Home!*, *IN DEF. OF ANIMALS* (Mar. 25, 2022), <https://www.idausa.org/campaign/cetacean-advocacy/latest-news/lolita-the-orca-close-to-going-home/>.

12. Gammon, *supra* note 3.

13. *Id.*

Seaquarium's legal forfeiture and release of Lolita.<sup>14</sup> Despite commitments by the Seaquarium to release her, Lolita sadly passed away in August 2023 before she could experience the freedom she once had over five decades ago.<sup>15</sup> Her loss was one felt heavily by the animal rights community and advocates, particularly those who fought for her freedom and welfare for so many years.

Of the many issues in Lolita's case (and cases like hers), there was one that eluded a sufficient solution: if and when Lolita were released, where would she have gone? On the surface, the answer seems simple: bring her home. In reality, however, "bringing her home" is more complex than one would think. Throughout the course of this note, the answer to "where would she have gone?" will be analyzed in several steps. Part I of this note will address the most promising solution and where things currently stand in terms of their development: seaside sanctuaries. Part II will primarily address three major statutes and their relation to seaside sanctuary development: the Endangered Species Act, the Marine Mammal Protection Act, and the Animal Welfare Act. Part II will also examine relevant case law, provide insight into how those cases can provide support for the sanctuary solution, and examine other statutes that are implicated in the sanctuary creation process. Part III will discuss policy arguments and practical considerations at play for seaside sanctuaries. This note will conclude with Part IV, which discusses recommendations and possible solutions for simplifying the sanctuary creation process and how we can help those marine mammals still in captivity avoid the same tragic fate as Lolita.

## I. BACKGROUND

### A. *The Sanctuaries*

Animal sanctuaries have become more popular in recent years as an alternative to zoos and captive settings.<sup>16</sup> Land-based sanctuaries exist for a wide array of animals, including species like big cats, primates, birds, and elephants, just to name a few.<sup>17</sup> The sanctuary setting is likely going to gain more traction and appeal in the coming years, as the opposition to captive

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14. See *People for the Ethical Treatment of Animals, Inc. v. Miami Seaquarium*, 879 F.3d 1142, 1144 (11th Cir. 2018) (affirming a lower court decision holding that the condition of Lolita's tank did not amount to "harm" or "harassment" under the Endangered Species Act).

15. *Lolita, Beloved Killer Whale Who Had Been in Captivity, Has Died*, *Miami Seaquarium Says*, CBS NEWS MIAMI, <https://www.cbsnews.com/miami/news/lolita-beloved-killer-whale-who-had-been-in-captivity-has-died-miami-seaquarium-says/> (Aug. 19, 2023, 4:17PM EDT).

16. Catherine Doyle, *Captive Wildlife Sanctuaries: Definition, Ethical Considerations and Public Perception*, 6 ANIMAL STUD. J. 55, 76 (2017).

17. *Find A Sanctuary*, GLOB. FED'N OF ANIMAL SANCTUARIES, <https://www.sanctuaryfederation.org/find-a-sanctuary/#> (last visited Oct. 22, 2022).

settings for the public display of animals continues to steadily increase. Public attitude about animals in captivity has shifted over time in response to more of the unsavory and unfortunate living conditions coming to light.<sup>18</sup> As interest in viewing animals in captivity decreases, and the desire to see animals in more natural settings increases, sanctuaries are poised to replace the zoo/aquarium infrastructure currently in place.

Many organizations across the globe describe themselves as “sanctuaries,” but not all of them are considered “true sanctuaries.”<sup>19</sup> The Global Federation of Animal Sanctuaries (GFAS) is an organization committed to upholding the highest standards of care in sanctuaries. As part of its goals, the organization provides a verification system for facilities seeking GFAS certification.<sup>20</sup> The verification process is rigorous, but for good reason. For an organization to earn a GFAS certificate, it must be a nonprofit and abide by several conditions, including: no captive breeding, no commercial trade of animals or their parts, no non-guided tours, no removing animals from the sanctuary for exhibition, and no public access to the animals.<sup>21</sup> The organizations must also demonstrate adherence to specific standards of animal care and facility maintenance, high ethical practices, limited research, and possession of a contingency plan.<sup>22</sup> Together, these requirements ensure an organization’s facilities are of the highest quality and that the animals in them are receiving the best care. For the purposes of this note, the term “sanctuary” will refer to a true sanctuary that satisfies the requirements of GFAS.

Establishing a sanctuary is easier said than done, as an astronomical number of issues need addressing before the animals even arrive. Considerations like location, staffing, funding, insurance, permitting, and containment all need to be dealt with early on in the planning process.<sup>23</sup> Furthermore, once all of those issues are addressed, and the sanctuary is approved and created, the problem of continuity remains an ongoing challenge.<sup>24</sup> Once the animals are placed into the sanctuary, the operators and staff must simultaneously ensure that the sanctuary runs efficiently and that

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18. Laure Boissat, *How the Documentary Blackfish Negatively Impacted Marine Park Seaworld*, WORLD ANIMAL PROT.: ANIMALS IN THE WILD BLOG (Jun. 17, 2021), <https://www.worldanimalprotection.org/blogs/how-documentary-blackfish-negatively-impacted-marine-park-seaworld>.

19. *Accreditation*, GLOB. FED’N OF ANIMAL SANCTUARIES, <https://www.sanctuaryfederation.org/accreditation/> (last visited Jan. 11, 2023).

20. *Id.*

21. *Who Can Apply*, GLOB. FED’N OF ANIMAL SANCTUARIES, <https://www.sanctuaryfederation.org/accreditation/definitions/> (last visited Jan. 11, 2023).

22. *Id.*

23. *How to Start an Animal Sanctuary*, BEST FRIENDS ANIMAL SOC’Y, <https://resources.bestfriends.org/article/how-start-animal-sanctuary> (last visited Oct. 22, 2022).

24. *Id.*

the animals are prioritized, and at the same time bring in enough funding to keep the lights on.<sup>25</sup> The funding issue is one that can increase exponentially, depending on the size of the sanctuary and how many animals are being cared for within it—the larger the sanctuary, the more it costs to operate.<sup>26</sup> If that process does not sound daunting enough already, imagine all those considerations, but for an aquatic setting rather than a terrestrial one. Despite the overwhelming number of challenges an aquatic sanctuary poses, an organization known as the Whale Sanctuary Project decided it was up to the task.

Founded in 2016, the Whale Sanctuary Project (WSP) is a nonprofit organization that molded its entire mission around creating a whale retirement sanctuary.<sup>27</sup> They have taken on the challenge to be the “first organization focused solely on creating seaside sanctuaries in North America for whales and dolphins who are being retired from entertainment facilities or have been rescued from the ocean and need rehabilitation or permanent care.”<sup>28</sup> The organization worked tirelessly to find the correct location for a potential whale sanctuary, and in February 2020, it announced Port Hilford Bay, Nova Scotia, as its desired location.<sup>29</sup> The anticipated cost to create the sanctuary is 12 to 15 million dollars and caring for the whales will cost approximately two million dollars annually.<sup>30</sup> Since announcing the site selection, WSP has been conducting environmental assessments of the area and complying with all permits and laws required to begin construction.<sup>31</sup> Dealing with the permitting and legal process has slowed down creation of the sanctuary for the time being, and in the words of the WSP: “The whale sanctuary is a first-of-its-kind project in North America and there is no existing documentation that would outline all the necessary steps.”<sup>32</sup> The anticipated opening of the sanctuary is tentatively scheduled for late 2023, but that may change depending on how quickly the administrative hurdles can be cleared in the coming months.<sup>33</sup>

While the Whale Sanctuary Project is perhaps the most well-known, it is not the only organization working towards creating and utilizing sanctuaries

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25. *Id.*

26. *Id.*

27. *History of The Whale Sanctuary Project*, THE WHALE SANCTUARY PROJECT, <https://whalesanctuaryproject.org/history-whale-sanctuary-project/> (last visited Oct. 24, 2022).

28. *Frequently Asked Questions About the Sanctuary*, THE WHALE SANCTUARY PROJECT, <https://whalesanctuaryproject.org/faq-sanctuary/> (last visited Oct. 24, 2022).

29. *What Makes an Ideal Sanctuary Site?*, THE WHALE SANCTUARY PROJECT, <https://whalesanctuaryproject.org/what-makes-ideal-sanctuary-site/> (last visited Oct. 24, 2022).

30. *Frequently Asked Questions About the Sanctuary*, *supra* note 28.

31. *Update on Environmental Assessments at the Sanctuary Site*, THE WHALE SANCTUARY PROJECT (Sept. 27, 2022), <https://whalesanctuaryproject.org/updates-on-environmental-assessments-at-the-sanctuary-site/>.

32. *Id.*

33. *Id.*

for marine mammals. Baltimore's National Aquarium, for example, is currently in the process of trying to create the first dolphin sanctuary in North America.<sup>34</sup> The sanctuary would exclusively house dolphins and would provide a completely natural outdoor setting for the dolphins to live out the remainder of their days.<sup>35</sup> While encouraging, the National Aquarium's efforts have stalled because of difficulties that climate change poses to their site selection.<sup>36</sup> The goal is for the sanctuary to be located either off the coast of Florida or in the Caribbean, but the unique environmental characteristics of the region are making the creation process exceptionally difficult.<sup>37</sup>

North America is not the only continent with organizations trying their hand at seaside sanctuaries. Located in Iceland, Sea Life Trust (a nonprofit branch of the European organization Merlin Inc.) operates a marine mammal sanctuary specifically for beluga whales.<sup>38</sup> Located in the Vestmannaeyjar islands off the south coast of Iceland, the sanctuary consists of large-netted enclosures inside of a natural sea inlet in Klettsvik Bay, along with a nearby land-based care center and visitor center.<sup>39</sup> The inlet is enclosed with netting that spans from the seafloor to the surface (roughly 30 feet) to protect the whales.<sup>40</sup> The sanctuary is currently home to two beluga whales, Little White and Little Grey, who were transported 6,000 miles via air transport from a water park in Shanghai, China.<sup>41</sup> The sanctuary can hold up to 10 beluga whales, so the managers of the sanctuary are open to receiving more, should the opportunity arise.<sup>42</sup>

### B. The Model

The idea of transporting a roughly 7,000-pound orca whale thousands of miles to another country sounds like a fantasy, but it is far from fiction. The reality is that a similar relocation effort was attempted in the recent past—and done so successfully. In 1979, the orca whale known as Keiko, the actual

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34. *Dolphin Sanctuary*, THE NAT'L AQUARIUM, <https://aqua.org/support/donate/blueprint/dolphin-sanctuary#sanctuary-updates> (last visited Oct. 24, 2022).

35. *Id.*

36. See Dana Cronin, *At Baltimore's National Aquarium, Climate Change Presents Challenges Both Inside and Out*, NPR (May 5, 2019, 7:37 AM EDT), <https://www.npr.org/2019/05/05/720041305/at-the-baltimore-aquarium-climate-change-presents-challenges-both-inside-and-out> (explaining that none of the 50 sites surveyed to this point have been deemed safe from violent storms and algal blooms, both of which will only become worse with rising temperatures).

37. *Id.*

38. *The Sanctuary*, SEA LIFE TR., <https://belugasanctuary.sealifetrust.org/en/about-us/the-sanctuary/> (last visited Oct. 24, 2022).

39. *Id.*

40. *Id.*

41. *Id.*

42. *Id.*



orca seen in the popular movie *Free Willy*, was captured from Klettsvik Bay in Iceland, the same bay currently used for Sea Life Trust's beluga sanctuary.<sup>43</sup> Following the release of *Free Willy* in 1993, Keiko generated a large amount of interest from the public, who were dismayed to learn that Keiko did not share the same pleasant fate that the whale from the movie enjoyed—freedom.<sup>44</sup> Keiko had been confined to a tank in the Reino Aventura theme park in Mexico City for several years, during which time his health had deteriorated and led to him contracting a concerning skin disease.<sup>45</sup> In combination with several organizations and the theme park's cooperation, Keiko was airlifted from Mexico City to the Oregon Coast Aquarium, which created a state-of-the-art facility to house Keiko and serve as a checkpoint for him to regain his strength.<sup>46</sup> After two years at the Oregon Coast Aquarium facility, Keiko was again airlifted and transported to his final destination, Klettsvik Bay.<sup>47</sup> In the summer of 2002, Keiko left the Bay and swam more than a thousand miles towards the coastline of Norway, where he made his home around a nearby fishing village.<sup>48</sup> He went on to thrive for another year in the area as a free whale before he succumbed to a pneumonia-like infection and passed away.<sup>49</sup>

While the idea of living in captivity is unpleasant enough, orcas are especially susceptible to negative impacts from confinement.<sup>50</sup> Orca brains share similar structures with human brains that are linked with complex intelligence.<sup>51</sup> In proportion to their bodies, orca brains are much larger than expected and have more brain tissue available, which serves elaborate cognitive functions such as self-awareness, culture, and language capabilities.<sup>52</sup> Evidence shows orca brains have evolved in a way that matches, or even surpasses, human brain capacity in certain areas.<sup>53</sup> Orca brains contain spindle-shaped cells known as *von Economo neurons*, which are found in parts of the brain that are involved in high-level cognition as

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43. Long Synopsis – The Untold Story, JOSHUA RECORDS, LLC, <https://www.keikotheuntoldstory.com/about/keiko/thestory/> (last visited Oct. 25, 2022).

44. *Id.*

45. *Id.*

46. *Id.*

47. *Id.*

48. *Id.*

49. Michael Mountain, *Keiko the Orca's Legacy*, THE WHALE SANCTUARY PROJECT (Dec. 17, 2020), <https://whalesanctuaryproject.org/keiko-legacy>. Keiko passed at the age of approximately 27, and there is no indication that the illness was not a result of natural causes, *id.*

50. *A Summary of the Effects of Captivity on Orcas*, PETA, <https://www.peta.org/wp-content/uploads/2021/06/SeaWorldCruelty.pdf> (last visited Jan. 12, 2023).

51. Bob Jacobs et al., *Putative Neural Consequences of Captivity for Elephants and Cetaceans*, 33 REVS. NEUROSCIENCES 439, 439–41 (2022).

52. Lori Marino, *A Comparison of Encephalization Between Odontocete Cetaceans and Anthropoid Primates*, 51 BRAIN, BEHAV. & EVOLUTION 230 (1998).

53. PETA, *supra* note 50, at 4.

well as social and emotional cognition.<sup>54</sup> The physical confines of an artificial “tank” or similar structure stymie the opportunity for captive orcas to exercise, escape conflicts, and engage in typical behavior like high-speed swimming or diving, leading to extreme stress and irritation.<sup>55</sup> This stress can show itself in a number of ways, including abnormal behavior, unresponsiveness, self-inflicted physical injury, and excessive aggression, among others.<sup>56</sup> Therefore, the need to find a workable alternative to current living situations for countless orcas worldwide is paramount, particularly given their vulnerability to suffering in captivity.

### C. The Law

The Animal Welfare Act, the Marine Mammal Protection Act, and the Endangered Species Act were all created to serve as protection for animals that we as a society hold tremendous value and admiration for. Each statute serves its respective function in its own ways, but they share a common principle: the protection and preservation of animal life. Over time, however, the statutes have developed in a way that reflects what the American people value and supports the notion that wildlife is more important than ever.

The Animal Welfare Act (AWA) was created in 1966, but Congress has amended the statute several times over the years to make it what it is today.<sup>57</sup> Initially, the 1966 Act was designed to cover only “dogs, cats, and certain other animals,” but the 1970 amendments by Congress changed the language to cover more animals and renamed the statute to its current title.<sup>58</sup> The purpose of the AWA is to allow for regulation and protection of animals that are used for purposes including research, exhibition, testing, and transport, among several others.<sup>59</sup> At the moment, the AWA is the only federal law in the United States that regulates animals in settings like testing facilities, exhibitions/displays, and in transportation.<sup>60</sup> The AWA was amended again in 1976, which altered the language of the statute even further to “increase the protection afforded animals in transit and to assure humane treatment of certain animals, and for other purposes.”<sup>61</sup> The AWA serves as a useful tool for protecting captive animals in the United States, but it is not the only statute in the toolbox.

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54. Camilla Butti et al., *Total Number and Volume of Von Economo Neurons in the Cerebral Cortex of Cetaceans*, 515 J. COMP. NEUROLOGY 243, 244 (2009).

55. PETA, *supra* note 50.

56. *Id.*

57. *Animal Welfare Act*, NAT'L AGRIC. LIBR., <https://www.nal.usda.gov/animal-health-and-welfare/animal-welfare-act> (last visited Oct. 27, 2022).

58. *Animal Welfare Act of 1966*, 7 U.S.C. § 2131(1) (amended 1970).

59. NAT'L AGRIC. LIBR., *supra* note 57.

60. *Id.*

61. *Animal Welfare Act of 1970*, 7 U.S.C. § 2131 (amended 1976).

Congress enacted the Marine Mammal Protection Act (MMPA) in 1972 to combat the growing fear that human activities were contributing to decreasing populations of marine mammals.<sup>62</sup> Language from the opening section of the statute demonstrates how Congress views marine mammals as having “great international significance [and] esthetic and recreational as well as economic” value and how their protection is paramount to managing the marine ecosystem.<sup>63</sup> The MMPA was a groundbreaking piece of legislation because it mandated an ecosystem-based approach to management of marine resources, as opposed to using a species-based format, the typical approach at the time.<sup>64</sup> In order to prioritize ecosystem health, the statute also did away with the notion of “maximum sustainable yield,” which is a species management program primarily focused on maximizing annual harvest.<sup>65</sup> The MMPA was an ambitious congressional effort to minimize human impacts on marine mammals and demonstrates that our legislators are not afraid to enact laws that prioritize marine mammal conservation in a variety of ways.

A year after the MMPA’s creation, Congress passed the Endangered Species Act (ESA) to “provide for the conservation of endangered and threatened species of fish, wildlife, plants, and for other purposes.”<sup>66</sup> More specifically, the purposes of the ESA are to:

[P]rovide a means whereby the ecosystems upon which endangered species and threatened species may depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in subsection (a) of this section.<sup>67</sup>

The statute is divided into 17 sections that each address a separate issue, which include matters like how to determine when a species is endangered, prohibited acts, exceptions to the statute, and enforcement.<sup>68</sup> Importantly, the final section explicitly references the MMPA.<sup>69</sup> The section explains that

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62. NAT’L OCEANIC & ATMOSPHERIC ASS’N: FISHERIES, *Laws & Policies: Marine Mammal Protection Act*, <https://www.fisheries.noaa.gov/topic/laws-policies/marine-mammal-protection-act> (last visited Oct. 26, 2022).

63. Marine Mammal Protection Act of 1972, 16 U.S.C. §§ 1361(2), 1361(6).

64. Nat’l Oceanic and Atmospheric Admin. Fisheries, *supra* note 62.

65. *Id.* “Maximum sustainable yield” is defined as the maximum amount of a species that can be taken from a given stock annually without hindering the stock’s ability to replenish itself for the subsequent harvest the following year.

66. Endangered Species Act of 1973, 16 U.S.C. § 1531(a)(1).

67. *Id.* § 1531(b).

68. *Id.* §§ 1531–1540.

69. *Id.* § 1543.

nothing in the ESA is to supersede any more restrictive conflicting component of the MMPA, demonstrating a congressional intent to be over-protective, particularly when it comes to marine mammals.<sup>70</sup>

## II. CLEARING THE HURDLES

### A. *Endangered Species Act*

The ESA is one of the most well-known and conservation-focused statutes Congress has ever enacted. The broad provisions of the statute provide avenues for conserving species considered endangered or threatened with extinction, as well as protecting the habitat those species rely on. The statute is subject to continuous controversy because certain protections have been used for other purposes unrelated to listed species.<sup>71</sup> However, the ESA continues to provide a legislative foundation for species protection and habitat conservation across the nation.

The ESA contains numerous provisions, but the most substantive ones are as follows:<sup>72</sup> the process for listing species as threatened or endangered, as well as for de-listing;<sup>73</sup> designation of critical habitat and preventing destruction to it;<sup>74</sup> consultation by federal agencies or nonfederal parties for actions requiring permits, funding, or federal approval about whether the proposed action(s) will harm or threaten a listed species;<sup>75</sup> and citizen suits against any person or entity, including government agencies, for violating a provision or to compel the Secretary of the Interior (“Secretary”) to comply with a nondiscretionary duty under the statute.<sup>76</sup> Considered the “teeth” of the ESA, these provisions are typically the most common provisions invoked during lawsuits or related matters.<sup>77</sup>

The sanctuary creation process can invoke the ESA in a variety of ways.<sup>78</sup> If the sanctuary’s sole purpose is to house an endangered species (such as Southern Resident Killer Whales, like Lolita), either exclusively or among other non-endangered species, the ESA will require compliance.<sup>79</sup> One

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70. *Id.*

71. M. LYNNE CORN & ALEXANDRA M. WYATT, CONG. RSCH. SERV., RL31654, THE ENDANGERED SPECIES ACT: A PRIMER 2 (2016) (“Tensions over the ESA have increased as species have been added to the protected list, and as the greater demands of a growing economy and human population have affected species’ habitats.”).

72.. *Id.* at 7–12.

73. 16 U.S.C. § 1533 (a)(2)(B)(i).

74. *Id.* § 1533(b)(1)(A).

75. *Id.* § 1536(a)(1–4).

76. *Id.* § 1540(g)(1).

77. CORN & WYATT, *supra* note 71, at 1.

78. See 16 U.S.C. § 1538(a)(1)(B–D) (take provision); 16 U.S.C. § 1536(c)(1) (biological assessment provision).

79. 16 U.S.C. § 1538(a)(1)(c).

hurdle the ESA poses is the “take” provision, which makes it unlawful for anyone to:

- (B) [T]ake any such species within the United States or the territorial sea of the United States;
- (C) take any such species upon the high seas;
- (D) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such species taken in violation of subparagraphs (B) and (C).<sup>80</sup>

The term “take” is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”<sup>81</sup> In 1995, the U.S. Supreme Court held that significant habitat modification resulting in harm or death to wildlife could constitute “harm” within the definition of a “take.”<sup>82</sup> Despite the seemingly all-encompassing definition of “take,” the ESA allows the Secretary to permit a take “for scientific purposes or to enhance the propagation or survival of the affected species.”<sup>83</sup> Creating a sanctuary for endangered marine mammals, like Lolita, could be viewed as a scientific purpose; access to the animals in that setting could foster behavioral studies, further medical knowledge, and promote conservation efforts elsewhere. Whether the sanctuary would enhance the survival of the entire species is unclear, but it would at the very least improve the welfare of the relocated individuals.<sup>84</sup> Transportation of any listed species would directly violate Section D of the take provision.<sup>85</sup> To that end, a permit and rigorous scientific review would be necessary to relocate individuals to a sanctuary if they are members of an ESA-listed species.<sup>86</sup>

The biological assessment requirement under the consultation provision is another major hurdle the ESA poses to the sanctuary creation process. Under this provision, all federal agencies must consult with the Secretary to ensure any agency action funded, authorized, or carried out will not “jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species.”<sup>87</sup> After consulting with the Secretary, if the agency learns that a

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80. 16 U.S.C. § 1538(a)(1)(B–D).

81. *Id.* § 1532(19).

82. *See* *Babbitt v. Sweet Home Chapter of Cmty. for a Great Or.*, 515 U.S. 687, 707 (1995) (holding that significant habitat modification resulting in death or injury to wildlife was a reasonable interpretation of the term “harm”).

83. 16 U.S.C. § 1539(a)(1)(A).

84. Lorna C. Scribner, *The Debate on Marine Mammals in Captivity* 8 (Dec. 12, 2012) (B.A. thesis, Coastal Carolina University) (on file with author).

85. 16 U.S.C. § 1538(a)(1)(B–D) (take provision).

86. *Id.* § 1539(a)(1)(A).

87. *Id.* § 1536(a)(2).

listed species is present in the agency's desired area of action, the agency must conduct a biological assessment of how the species will be impacted.<sup>88</sup> If the proposed action does not jeopardize the listed species or negatively impact the critical habitat, the Secretary sets forth terms and conditions for completing the action.<sup>89</sup> However, if the proposed action does jeopardize the species or negatively impact critical habitat, the Secretary must provide a list of reasonable and prudent alternatives that would prevent harm to the species.<sup>90</sup>

Lolita's situation was a prime example of this scenario—relocating an endangered species into an area where other members of the endangered species are present. One of the concerns in the case of Lolita's intended relocation was the potential health risks posed to the wild Southern Resident Killer Whales (SRKW) in the area.<sup>91</sup> During her time at the Seaquarium, Lolita dealt with a variety of infections and health issues stemming from her living conditions and age.<sup>92</sup> Thorough precautions would have been required to ensure that she could not spread potentially harmful bacteria or other infectious material to the wild SRKW—a listed endangered species under the ESA since 2006.<sup>93</sup> Also, her presence may have led to altered behavior in the wild population, leading to changes in movement patterns, acoustic interactions, or other characteristic behaviors.<sup>94</sup> The question remains whether such behavioral changes constitute “harassment” under the “take” provision.<sup>95</sup> This situation provides only one example, but the sanctuary creation process must tackle this issue in any desired placement area that a listed species resides in or relies on.

While there are undoubtedly concerns, a sanctuary could also have big-picture benefits for the species as a whole. For one, visitors to the sanctuary would likely receive some level of educational messaging about SRKW and would learn more about the intricacies of orcas as a species (similar to the Sea Life Trust beluga sanctuary in Iceland).<sup>96</sup> Second, the potential to conduct non-invasive research would allow for further insight into the species and contribute to the current body of scientific knowledge. Finally, having this infrastructure in place and these resources available offers the

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88. *Id.* § 1536(c)(1).

89. *Id.* § 1536(b)(4).

90. CONG. RSCH. SERV., THE ENDANGERED SPECIES ACT: A PRIMER 19 (Sept. 8, 2016).

91. Gammon, *supra* note 3.

92. *Id.*

93. *Id.*; 50 C.F.R. § 226.206(a).

94. Chabeli Herrera, *Lolita May Never Go Free. And That Could Be What's Best for Her, Scientists Say*, MIAMI HERALD (Nov. 20, 2017, 08:04AM), [https://www.oceanconservation.org/pdf/press-kit/2017\\_11\\_20\\_Lolita\\_Never\\_Go\\_Free.pdf](https://www.oceanconservation.org/pdf/press-kit/2017_11_20_Lolita_Never_Go_Free.pdf).

95. 16 U.S.C. § 1538(a)(B–C).

96. *The Sanctuary*, SEA LIFE TR., <https://belugasanctuary.sealifetrust.org/en/about-us/the-sanctuary/> (last visited Oct. 24, 2022).

potential co-benefit of improved responses to emergency health issues for wild animals in critical habitats.

This problem was demonstrated by Scarlet, otherwise known as “J50.”<sup>97</sup> Scarlet was an SRKW born in 2014 off the coast of Washington who developed health issues early in her life and passed away in 2018, several months prior to her turning four.<sup>98</sup> Collaborative efforts from veterinarians and government organizations attempted to diagnose and treat Scarlet from a distance, but they were unable to determine Scarlet’s affliction or, consequently, what caused her death.<sup>99</sup> Had a sanctuary been in place, Scarlet could have received more in-depth care and rehabilitation, which could have possibly extended her life and the population of an already depleted species.

In sum, the ESA is a landmark piece of legislation, but it also contains dated language and policies. The last amendment to the ESA occurred in 2004, which actually weakened the statute by granting the Department of Defense an exemption from critical habitat designations pursuant to the National Defense Authorization Act.<sup>100</sup> The rise in popularity of sanctuaries since then is encouraging, but unaccounted for as far as the ESA is concerned.<sup>101</sup> There is room in the statute for changes that encompass recent support for sanctuaries without compromising the fundamental aspects of the statute. Given the significant challenges the ESA currently poses to sanctuaries, amending the statute to include sanctuary language and incorporate sanctuaries into certain provisions would be a step in the right direction.

### *B. Marine Mammal Protection Act*

Congress enacted the MMPA in response to growing concerns from scientists and the public that certain marine mammal species were facing extinction.<sup>102</sup> The MMPA laid out the national policy that marine mammal populations should not be diminished by human activities because of the

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97. Wanyee Li, ‘Spunky and Tenacious’ Orca Fighting to Keep Up with Her Endangered Family Was an Inspiration to Researchers, *STARMETRO VANCOUVER* (Sept. 14, 2018), <https://www.thestar.com/vancouver/2018/09/14/young-orca-declared-dead-leaving-behind-her-critically-endangered-family.html>.

98. *Id.*

99. *Id.*

100. *History of the Endangered Species Act: Principal Amendments*, U.S. FISH & WILDLIFE SERV. [https://www.fws.gov/page/endangered-species-act-amendments#:~:text=2004%20Amendment,Endangered%20Species%20Act%20\(ESA\)](https://www.fws.gov/page/endangered-species-act-amendments#:~:text=2004%20Amendment,Endangered%20Species%20Act%20(ESA)) (last visited Dec. 7, 2022).

101. *See generally* Endangered Species Act of 1973, (containing no mention of or reference to sanctuaries).

102. *Marine Mammal Protection Act*, MARINE MAMMAL COMM’N (2022), <https://www.mmc.gov/about-the-commission/our-mission/marine-mammal-protection-act/>.

importance of marine mammals to their respective ecosystems.<sup>103</sup> A central goal of the MMPA was to establish a nationwide moratorium on “taking” and importing marine mammals, although both actions are subject to numerous exceptions.<sup>104</sup> Similar to the ESA (enacted the year after the MMPA), the “take” prohibition creates some issues for sanctuary creation. In addition, the MMPA applies to all marine mammals, not just those listed as endangered or threatened under the ESA.<sup>105</sup> The listed exemptions, however, provide the formula for sanctuaries to comply with the MMPA.

The opening section of the MMPA establishes a moratorium on all taking and importation of marine mammals and marine mammal products.<sup>106</sup> What follows, however, is a list of exceptions to that moratorium.<sup>107</sup> The first exception allows the Secretary to issue permits for “taking, and importation for purposes of scientific research, public display, photography for educational or commercial purposes, or enhancing the survival or recovery of a species or stock, or for importation of polar bear parts. . . .”<sup>108</sup> The Secretary is authorized to issue the permits and the recipients must comply with its provisions for each permit issued.<sup>109</sup> The second exception allows for “incidental take” of marine mammals during commercial fishing operations if the Secretary issues a permit.<sup>110</sup> The Secretary can also waive the requirements of the moratorium to allow taking or importation so long as the best scientific evidence is considered and the Marine Mammal Commission is consulted.<sup>111</sup> The remaining exceptions include those for Native Alaskans, good Samaritans, self-defense, and national defense.<sup>112</sup>

Like its ESA counterpart, the MMPA’s take provision poses an issue for sanctuary creation. Because the MMPA precedes the ESA’s enactment, the definition of “take” is not as narrowly tailored as its ESA counterpart. The MMPA defines “take” as “harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.”<sup>113</sup> The statute goes on to also define “harassment,” which entails:

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103. *Id.*

104. *Id.*

105. Marine Mammal Protection Act of 1972, 16 U.S.C. § 1371(a) (1972).

106. *Id.*

107. *Id.*

108. *Id.* § 1371(a)(1).

109. *Id.* § 1374(a).

110. *Id.* § 1371(b).

111. *Id.* § 1371(a)(3).

112. *Id.* § 1371(b–f). For example, the “take” prohibition does not apply to Native Alaskans who perform the “take” for either subsistence purposes or to make authentic native handicrafts or clothing, but both must be done in a non-wasteful manner, *id.* § 1371(b). Similarly, the “good Samaritan” exception allows for take in situations where it is imminently necessary to prevent the injury, additional injury, or death of a marine mammal tangled in fishing gear or debris, *id.* § 1371(d).

113. *Id.* § 1362(13).



[A]ny act of pursuit, torment, or annoyance which: (i) has the *potential* to injure a marine mammal or marine mammal stock *in the wild*; or (ii) has the *potential* to disturb a marine mammal or marine mammal stock *in the wild* by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.<sup>114</sup>

Similar to the problem posed by the ESA, the “take” provision of the MMPA encompasses impacts to the wild population of marine mammals. The MMPA, however, creates additional obstacles to sanctuary creation because the statute encompasses *all* marine mammals, not just endangered ones.<sup>115</sup> In Lolita’s case, for example, the ESA would have concerned itself with the SRKW population (and any other endangered animals impacted) because of the population’s listing as endangered.<sup>116</sup> In contrast, the MMPA would have covered every marine mammal that would have had their behavior impacted by the presence of Lolita and the sanctuary.<sup>117</sup> The MMPA amplified the concerns of Lolita’s relocation by requiring consideration of not only SRKWs, but also the health and welfare of the other marine mammals in the area.<sup>118</sup>

The ESA and MMPA pose similar problems regarding take, and they have similar solutions: permits. Under the MMPA, the Secretary can grant a permit authorizing a take or importation for a variety of purposes, several of which could justify creation of a sanctuary.<sup>119</sup> The most appealing justification would be for enhancing the survival of a species, but public display and scientific research may be equally (or more) viable. Those facilities currently holding public display permits for marine mammals do not need to obtain an additional permit for purposes like purchase, sale, or transfer of the animal.<sup>120</sup> The public display permit holders—typically sea parks and larger aquariums—are the ones that have complete discretion over how to use their permits.<sup>121</sup> As a result, the pressure applied to permit holders to surrender their animals to sanctuaries comes largely from the public and third-party organizations. In extreme examples like Keiko’s, the pressure applied to the park in Mexico by the public and animal protection organizations was so immense due to the success of *Free Willy* that the park

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114. *Id.* § 1362(18)(A) (emphasis added).

115. *Id.*

116. Endangered and Threatened Wildlife and Plants: Endangered Status for Southern Resident Killer Whales, 70 Fed. Reg. 69,903 (Nov. 18, 2005).

117. 16 U.S.C. § 1362(18)(A).

118. *Id.*

119. *Id.* § 1371(1).

120. *Id.* § 1374(c)(2)(B).

121. *Id.* § 1374(c)(2)(B)(i)(ii).

had virtually no choice but to comply and arrange his transfer.<sup>122</sup> Without the level of awareness and passion that a movie like *Free Willy* invokes, exerting enough pressure on public display permit holders to compel them to transfer their marine mammals is an uphill battle. However, the momentum continues to grow as documentaries such as *Blackfish* and *The Cove*, as well as effective animal rights campaigns, are promoted and produced more frequently.<sup>123</sup> This momentum will likely continue to influence legislation all over the world, particularly in the wake of Lolita's passing.

Similar to the ESA, there is no reference to sanctuaries anywhere in the MMPA (as of 2023). Sanctuaries are a relatively new proposition, so to not see any reference to them in either statute is not overly surprising. An amendment to the MMPA that alters the permit types and requirements would be a good start. Specifically, an amendment that replaces "public display" permits with "sanctuary" permits could be effective. Alternatively, the amendment could continue to authorize public display of marine mammals only if the display is for sanctuary purposes. Sea parks and aquariums have expressed a fair amount of resistance to removing public display permits given their financial stake in the animals, so removal or alteration of all public display language would be a difficult proposition. Incorporating sanctuary language into the statute in any capacity would be a positive thing, but for the time being, those that wish to create a sanctuary must comply with the current text, and there is space to do so.

### C. Animal Welfare Act

Enacted in 1966, Congress originally created the Animal Welfare Act (AWA) to regulate the humane treatment and handling of cats, dogs, and other laboratory animals, as well as to prevent theft and sale of pets to laboratories.<sup>124</sup> Since then, the AWA has been amended several times to expand the types of animals and activities covered, strengthen enforcement provisions, and deter cruel practices like animal fighting.<sup>125</sup> The AWA requires specific standards be in place for the humane treatment, handling, care, and transportation of covered animals that licensees and registrants must follow.<sup>126</sup> With respect to marine mammals, the current standards

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122. Long Synopsis – *The Untold Story*, JOSHUA RECORDS, LLC, <https://www.keikotheuntoldstory.com/about/keiko/thestory/> (last visited Sept. 29, 2022).

123. Elizabeth Hightower Allen, *The Outside Story Behind the Documentary 'Blackfish,'* OUTSIDE (Nov. 11, 2021), <https://www.outsideonline.com/culture/books-media/seaworld-blackfish-tilikum-killer-whale/>; *The Cove*, OCEANIC PRES. SOC'Y, <https://www.opsociety.org/our-work/films/the-cove/> (last visited Sept. 29, 2022).

124. ELENI G. BICKELL, CONG. RSCH. SERV., RL47179, THE ANIMAL WELFARE ACT: BACKGROUND AND SELECTED ISSUES 1 (2023).

125. *Id.* at 3.

126. *Id.* at 4.

address matters such as construction, lighting, temperature, and space requirements, among others.<sup>127</sup> Sanctuaries for marine mammals can likely satisfy all the current standards in place, but the question remains whether sanctuaries would even need to be licensed under the statute.<sup>128</sup>

The standards under the AWA are a major aspect of the statute's legal framework, but they are also fairly dated considering they have not received a substantial update since the statute's enactment. In 1979, standards were implemented for the humane handling, care, treatment, and transportation of marine mammals.<sup>129</sup> Section 3.103 of the AWA's implementing regulations explains the requirements for outdoor facilities, which impose duties that address environmental temperatures, shelter provisions, and perimeter fencing.<sup>130</sup> Section 3.104 lays out the general space requirements necessary for each type of marine mammal, which the standards discuss in turn.<sup>131</sup> Section 3.104(b) deals solely with cetaceans, which consist of whale species like orcas, porpoises, and dolphins.<sup>132</sup> The listed standards are designed for pool settings, which is where the bulk of captive cetaceans reside, and lay out four factors for determining space requirements: minimum horizontal dimension (MHD), depth, volume, and surface area.<sup>133</sup> Each factor is determined using mathematical formulas based primarily on the average length of an adult member of the species at issue.<sup>134</sup> While perhaps innovative when they were promulgated, the failure to adjust the standards over time to reflect what we have learned about the social, physical, and cognitive functions of the respective species covered by the statute is disappointing.<sup>135</sup>

The AWA primarily concerns itself with conditions in contained settings like zoos, aquariums, and sea parks—sanctuaries fall under a completely different category. Sanctuaries are built in a natural setting and do not use pools, which negates the need to comply with general spatial requirements under § 3.104.<sup>136</sup> For outdoor facilities, the concern with environmental temperatures under § 3.103(a) would not be an issue because the conditions of the sanctuary replicate what the animal is already biologically accustomed to (although some acclimation measures may be necessary depending on the

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127. 9 C.F.R. §§ 3.100–3.104 (2022).

128. Animal Welfare Act, 7 U.S.C. § 2132(h) (1970).

129. 9 C.F.R. § 3.100 (2022). Although these regulations received minor amendments in 1999 and 2001, their function was not fundamentally altered.

130. *Id.* § 3.103.

131. *Id.* § 3.104.

132. James G. Mead, *Cetacean*, ENCYC. BRITANNICA, <https://www.britannica.com/animal/cetacean> (Oct. 23, 2023).

133. 9 C.F.R. § 3.104(b).

134. *Id.*

135. Jacobs et al., *supra* note 50, at 439–41.

136. 9 C.F.R. § 3.104.

time spent in a captive setting).<sup>137</sup> Section 3.103(b) deals with natural or artificial shelters and their implementation to protect the animals from climatic conditions in the region.<sup>138</sup> One of the most important aspects of a seaside sanctuary is the site location, so those responsible for creating the sanctuary will need to make the most informed and careful decision possible to deal with climate conditions in the area.<sup>139</sup> Finally, § 3.103(c) requires implementation of a perimeter fence to keep out animals and unauthorized persons.<sup>140</sup> The Whale Sanctuary Project provides a prime example of what a perimeter fence and security system would look like for a seaside sanctuary. The WSP's fence and security system uses mesh nets, anchors, and lead and steel lines to maintain the structure and safety of the fence and sanctuary.<sup>141</sup> Sanctuaries can comfortably satisfy the current standards of the AWA.

One of the questions surrounding sanctuaries is whether they need to have a license under the AWA. Sections 2133 and 2144 authorize the Secretary to issue permits to “dealers and exhibitors” that comply with the requirements and standards in the statute.<sup>142</sup> The AWA defines an “exhibitor” as:

[A]ny person (public or private) exhibiting any animals, which were purchased in commerce or the intended distribution of which affects commerce, or will affect commerce, to the public for compensation, as determined by the Secretary, and such term includes carnivals, circuses, and zoos exhibiting such animals whether operated for profit or not. . . .<sup>143</sup>

This definition raises a number of questions. Is the cost of relocation and various expenses for transport sufficient to “affect commerce” within the meaning of the definition?<sup>144</sup> Is the display of the animals to the public via camera or internet stream to encourage donations considered “compensation”?<sup>145</sup> Does the definition's inclusion of “carnivals, circuses, and zoos” create a finite list or a list subject to more examples, such as

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137. *Id.* § 3.103(a).

138. *Id.* § 3.103(b).

139. *Seaside Sanctuaries: A Concept Review*, DOLPHINARIA-FREE EUROPE, <https://awionline.org/sites/default/files/uploads/documents/ML-Rose-Seaside-Sanctuaries-DFE.pdf> (last visited Dec. 7, 2022).

140. 9 C.F.R. § 3.103(c).

141. *Sanctuary Structures – Sample Plans*, THE WHALE SANCTUARY PROJECT, <https://whalesanctuaryproject.org/sanctuary-structures-plans/> (last visited Sept. 23, 2023).

142. Animal Welfare Act, 7 U.S.C. §§ 2133, 2134 (1970).

143. *Id.* § 2132(h).

144. *Id.*

145. *Id.*

sanctuaries?<sup>146</sup> These are all fair questions, each of which warrants an answer.

Based on the definition and what the goal of sanctuaries are, it is unlikely they would be deemed exhibitors under the statute. The statute's primary concern is the operation of captive settings like zoos and sea parks, so the list provided in the "exhibitor" definition could be construed as finite.<sup>147</sup> With respect to commerce, it is true that animal transportation and relocation costs could impact commerce in some way, but doing so would also be a presumably one-time endeavor. The purpose of the sanctuaries is not to generate profit or compensation through displaying animals—it is to provide these animals a forever home and high-quality living conditions for the remainder of their lives.<sup>148</sup> Although likely not required, applying for a permit would show that sanctuaries are willing to participate in the same framework of oversight and regulations as their profit-generating counterparts.

A more recent development in the legislative arena is the proposed Strengthening Welfare in Marine Settings Act of 2022, otherwise known as the SWIMS Act.<sup>149</sup> In July 2022, several representatives proposed the SWIMS Act to amend both the MMPA and AWA to reflect the importance of sanctuaries and to end public display and captive breeding of whales.<sup>150</sup> Specifically, the proposed bill would amend the MMPA to prohibit the taking, import, or export of orcas, beluga whales, pilot whales, and false killer whales except for the purpose of relocation to a sanctuary or release into the wild.<sup>151</sup> The AWA would be amended to prohibit breeding of those same whales, either naturally or artificially, for the purposes of public display.<sup>152</sup> While deliberation is ongoing, the SWIMS Act would be a great step toward government support of sanctuaries and updating two statutes that have lagged behind evolving science to this point.

The AWA is a statute that prioritizes the health and welfare of animals in captivity.<sup>153</sup> Unfortunately, one of its biggest drawbacks is the lack of updates to the standards of care.<sup>154</sup> Some protection for captive animals is

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146. *Id.*

147. BICKELL, *supra* note 124.

148. *The Sanctuary*, THE WHALE SANCTUARY PROJECT, <https://whalesanctuaryproject.org/the-sanctuary/> (last visited Jan. 18, 2023).

149. Strengthening Welfare in Marine Settings Act, H.R. 8514, 117th Cong. (2022).

150. Courtney Fern, *Nhrp Supports New Bill to End the Capture and Breeding of Whales for Public Display*, NONHUMAN RTS. BLOG (July 26, 2022), <https://www.nonhumanrights.org/blog/nhrp-supports-swims-act/>. Representatives Adam Schiff (D-Calif.), Jared Huffman (D-Calif.), and Suzan DelBene (D-Wash.) and Senator Dianne Feinstein (D-Calif.) introduced the bill.

151. *Id.*

152. *Id.*

153. Animal Welfare Act, 7 U.S.C. § 2131 (1970).

154. See 9 C.F.R. §§ 3.100–3.118 (showing that the large majority of the standards regarding marine mammals have not been updated since at least 2001, and some before that).

good, but without the standards changing as we learn more about animals and their needs, the protections the AWA provides can only do so much. Sanctuaries can likely comply with the statute with no real difficulties, although seeking a permit under it would go a long way in showing their willingness to fall under government regulation. Should something like the SWIMS Act pass, outdated statutes and their corresponding regulations, like the MMPA and AWA, would finally get a much-needed facelift.

#### *D. Other Noteworthy Statutes*

While the ESA, MMPA, and AWA are crucial to sanctuary creation with respect to the animals themselves, there are other statutes that address the more logistical issues the sanctuaries must deal with. These statutes include the Clean Water Act (CWA), the Rivers and Harbors Act (RHA), and the Coastal Zone Management Act (CZMA), among others.<sup>155</sup> Enacted in 1948, the Clean Water Act (as it is known today) was created to regulate discharges into the waters of the U.S. and create water quality standards.<sup>156</sup> The CWA makes the discharge of a pollutant from a point source into a navigable water illegal without a permit.<sup>157</sup> The definition for “pollutant” includes biological materials, and “point source” is defined as a “discernible, confined, and discrete conveyance,” which poses the issue of whether sanctuaries would need a permit for the food and waste they generate.<sup>158</sup>

The Rivers and Harbors Act authorizes the U.S. Army Corps of Engineers (USACE) permit program that works to protect navigable waters from construction and development projects.<sup>159</sup> Section 10 of the RHA requires a permit for “any obstruction” in navigable federal waters, including structures such as wharfs, piers, bulkheads, and jetties.<sup>160</sup> The USACE grants permits after the “public interest” review has been satisfied, which assesses a variety of factors, including “fish and wildlife.”<sup>161</sup> Given that a sanctuary could be considered an “obstruction,” any proposed sanctuaries would likely need to satisfy the permit application process of the RHA.

The Coastal Zone Management Act is administered by the National Oceanic and Atmospheric Administration (NOAA) and serves as a tool to

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155. Clean Water Act, 33 U.S.C. § 1251; Rivers and Harbors Act, 33 U.S.C. § 401; Coastal Zone Management Act, 16 U.S.C. § 1451.

156. *Summary of the CWA*, EPA (July 6, 2022), <https://www.epa.gov/laws-regulations/summary-clean-water-act#:~:text=The%20CWA%20made%20it%20unlawful,pipes%20or%20man%2Dmade%20ditches>.

157. *Id.*

158. Federal Water Pollution Control Act, 33 U.S.C. §§ 1362(6), 1362(14) (defining “pollutant” and “point source”).

159. Rivers and Harbors Act, 33 U.S.C. § 401.

160. *Id.* § 403.

161. *Id.*; 33 C.F.R. § 320.4.

encourage states to develop their own coastal management plans (CMPs).<sup>162</sup> The CZMA requires that any federal action that will impact a state's CMP must be consistent with that plan "to the maximum extent possible."<sup>163</sup> Parties seeking a federal permit must ensure compliance with the CMP.<sup>164</sup> If a state objects to the proposal, the permit cannot be granted unless altered or appealed.<sup>165</sup> Sanctuaries will virtually always implicate this statute because of their location relative to the coastlines of states, meaning that creating a sanctuary will require compliance with a given state's CMP.

The animal aspect of sanctuaries is undeniably a large part of the process, but it is not the only part. Considering and complying with other statutes that address issues separate from animal management and care in sanctuaries is an overlooked but critical piece of the sanctuary puzzle. The legal components that require compliance are undoubtedly important, but there are policy considerations that warrant attention as well.

### III. POLICY CONSIDERATIONS

In addition to the legal aspects of creating a sanctuary, there are several policy implications worth considering. First, the *PETA v. Seaquarium* case displays how the law can be followed (specifically the ESA) yet still produce unjust results.<sup>166</sup> Aside from the questionable holding, a major takeaway from *PETA v. Seaquarium* is that the standards and language of the law need to be modified to facilitate sanctuary creation and encompass sanctuaries as a whole.<sup>167</sup> The scientific community has learned so much about a variety of species, including marine mammals, since Congress enacted the first major statutes concerning animal welfare.<sup>168</sup> With that in mind, the reluctance to incorporate what the community has learned into our statutes and update them to reflect current understandings is confusing and concerning.

Another policy consideration is the relationship between the federal government and the American people. Directing federal funds to the sanctuary process would align with the sentiment of the people that no longer

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162. Coastal Zone Management Act of 1972, 16 U.S.C. § 1451(i).

163. *Id.* § 1456(c)(2).

164. *Id.* § 1456(c)(3)(B).

165. *Id.* § 1456(c)(3)(A).

166. *See generally* People for the Ethical Treatment of Animals, Inc. v. Miami Seaquarium, 879 F.3d 1142 (11th Cir. 2018) (affirming grant of summary judgment for Seaquarium but rejecting the lower court's narrow interpretation of "take" under the Endangered Species Act).

167. *See generally id.* (interpreting the interpretation of "harm" under the Endangered Species Act to only apply to "serious harm" and not the type of "harm" that Lolita faced in captivity at Seaquarium).

168. *Celebrating 50 Years of the Marine Mammal Protection Act*, NAT'L OCEANIC & ATMOSPHERIC ADMIN. (July 30, 2022), <https://www.fisheries.noaa.gov/feature-story/celebrating-50-years-marine-mammal-protection-act>.

wish to see large cetaceans in captive settings.<sup>169</sup> Doing so would also echo the motivations of the Congresses that enacted the ESA, MMPA, and AWA.<sup>170</sup> Despite the shortcomings of the statutes today, Congress would give themselves an opportunity to double down on the reasons for passing those laws in the first place. Strengthening the relationship with the public and reaffirming the desires of its predecessors are both compelling reasons for Congress to provide financial aid to the sanctuary process.

A final policy argument finds support from the Indigenous communities that wanted Lolita returned to the waters of Washington state.<sup>171</sup> The Lummi Nation, in particular, considered Lolita and the SRKWs to be their “relatives that live under the waves.”<sup>172</sup> In the Lummi language, killer whales are known as Qwel lhol mechen, or “The People Who Live Under the Sea.”<sup>173</sup> In 2018, Lummi carvers and supporters embarked on a 7,000-mile journey from Washington state to Miami to deliver a hand-crafted totem pole to Lolita.<sup>174</sup> The journey involved stops along the way to raise awareness of Lolita’s situation, including the fact that her rightful place was with her family in the waters off of Washington state.<sup>175</sup> One of the pole’s carvers, Jewell Praying Wolf James, explained that the tribe was “on a journey to free a fellow being,” further demonstrating that the tribe considers orcas members of the tribe’s family.<sup>176</sup>

The Lummi strongly believe that all life is sacred and that by saving Lolita they would not only have rescued her, but also helped “balance a part of the spiritual atmosphere, the songs of creation.”<sup>177</sup> In 2019, members of the Lummi gave Lolita the name “Sk’aliCh’elh-tenaut, which means that she is a member of Sk’aliCh’elh, the resident family of orcas who call the Salish Sea home.”<sup>178</sup> With that in mind, the Lummi and other Indigenous

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169. Karin Brulliard, *Zoos Are Built for People. Animals Need Sanctuaries Instead.*, WASH. POST (July 18, 2016, 9:00 AM), <https://www.washingtonpost.com/news/animalia/wp/2016/07/08/zoos-are-built-for-people-animals-need-sanctuaries-instead/>.

170. *Supra* Section II(A) (explaining that Congress’s intent was to conserve endangered and threatened species from extinction and protect their habitats); *supra* Section II(B) (explaining that Congress was motivated to pass the MMPA because of concerns for marine mammal extinction, and because it recognized that prohibiting the “taking” of marine mammals would help achieve that goal); *supra* Section II(C) (recounting that Congress created the AWA to promote the humane treatment of animals in different settings).

171. Gammon, *supra* note 3.

172. *Id.*

173. Lynda V. Mapes, *Seeking to Free a Puget Sound Orca, Lummi Nation Launches Trek to Miami*, SEATTLE TIMES (May 13, 2019, 9:19 A.M.), <https://www.seattletimes.com/seattle-news/environment/seeking-to-free-a-puget-sound-orca-lummi-nation-launches-trek-to-miami/>.

174. *Id.*

175. *Id.*

176. *Id.*

177. Eilis O’Neill, *This Orca Was Stolen from Puget Sound. The Lummi Nation Want Her Back*, OR. PUB. BROAD. (May 9, 2018, 4:05 PM), <https://www.opb.org/news/article/orca-miami-seaquarium-lolita-tokitae-rescue-totem-pole/>.

178. Gammon, *supra* note 3.



communities should have had a more prominent voice in discussions surrounding Lolita's relocation and should have one in future SRKW relocation efforts. At the very least, there should have been an acknowledgment of society's ethical obligation to return Lolita to her home waters for the sake of reuniting her with her ancestral home and family.

#### IV. SOLUTIONS FOR THE PATH FORWARD

The sanctuary creation process is elaborate, expensive, and time-intensive. The process requires compliance with a variety of statutes and regulations imposed by various government bodies, but without the substantive aid of any of those bodies.<sup>179</sup> To reduce the difficulties in creating the sanctuaries, it makes sense to involve government entities in the process. To that end, there are several potential ways the U.S. government could contribute to the process.

One solution is for Congress to enact a statute that provides direct financial aid towards the cost and production of seaside sanctuaries. Over the last 50 years, Congress has enacted and amended several statutes that address species protection and animal welfare, with particular attention devoted to marine mammals.<sup>180</sup> Marine parks have served their purpose to this point by displaying the fascinating and remarkable qualities of large marine mammals. Over time, however, alternative means of viewing marine mammals and animals of all kinds have emerged that minimize the usefulness of zoos and marine parks.<sup>181</sup> With options like sanctuaries arising to serve as more natural and appealing homes, streamlining the sanctuary process via government aid would coincide with the desires of the public at large. A statute providing a direct line of aid to the creation process would further the goals of the other animal-focused statutes Congress has enacted and further the desires of the American people.

A second and perhaps more amenable solution is amending the criteria of the MMPA's Prescott Grant. The Prescott Grant is a program that awards grants to "eligible stranding network participants for the recovery or treatment of marine mammals, the collection of data from living or dead marine mammals for scientific research regarding marine mammal health,

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179. See *supra* Part II (discussing the ESA, MMPA, AWA, and their requirements that must be followed).

180. See, e.g., Animal Welfare Act, 7 U.S.C. § 2131(1–2) (discussing Congress's intent to address species protection and animal welfare); see also Marine Mammal Protection Act of 1970, 16 U.S.C. § 1361(2) (emphasizing the statute's intent to protect marine mammals from the effects of mankind); Endangered Species Act of 1973, 16 U.S.C. § 1531(b) (stating Congress's intent to conserve species facing extinction and create a conservation program to promote their populations).

181. Robin McKie, *Is It Time to Shut Down the Zoos?*, GUARDIAN (Feb. 2, 2020, 3:30 PM), <https://www.theguardian.com/world/2020/feb/02/zoos-time-shut-down-conservation-education-wild-animals>.

and facility operation costs directly related to those purposes.”<sup>182</sup> Amending the MMPA and the criteria for a Prescott Grant would provide an avenue for federal aid towards seaside sanctuaries without the cumbersome process of enacting a new statute. The amount of any grant awarded cannot exceed \$100,000, so the financial burden of building a sanctuary could be lessened but not completely alleviated.<sup>183</sup> An amended Prescott Grant may not provide the same amount of aid that a new statute would, but building from an existing program and legislation would be faster and likely more appealing to members of Congress.

A potential solution to funding troubles can be found in the ESA as well. A provision of the statute involves land acquisition, which allows the responsible Secretary to use funds from the Land and Water Conservation Fund to “acquire land, waters, or interests therein.”<sup>184</sup> Unfortunately, the fund currently derives the majority of its revenue from oil and gas leasing in the Outer Continental Shelf, but it is authorized to receive up to \$900 million annually.<sup>185</sup> Initially created to fund federal agencies’ outdoor recreational goals, the fund’s purpose expanded in 1998 towards broader goals encompassing natural resource-related projects.<sup>186</sup> The uneven distribution of funds to various agencies and their respective goals makes a sanctuary proposition tricky. The idea of using the fund to establish and support sanctuaries under the umbrella of “natural resource-related projects” is intriguing. However, doing so would require the cooperation and interest from one or more agencies to spend some of their money provided by the fund. If more agencies are involved (and therefore the burden becomes increasingly spread out), agencies may be more willing to allot some of their funds to a sanctuary project. Determining which agencies would be willing to cough up some of their money for a sanctuary is another issue, but the potential to seek them out as a source of funding is there.

One final recommendation is to allow for expedited handling of legal cases that involve captive marine mammals originally captured from the wild, like Lolita was. Expedited handling provisions are found in a variety of fields, but they are usually found in administrative circumstances and those

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182. H.R. 1934, 106th Cong. § 408(a) (1999) (listing the requirements for eligibility for the Marine Mammal Rescue Grant Program).

183. *Id.* § 408(d).

184. Endangered Species Act of 1973, 16 U.S.C. § 1534(b).

185. CAROL HARDY VINCENT, CONG. RSCH. SERV., RL33531, LAND AND WATER CONSERVATION FUND: OVERVIEW, FUNDING HISTORY, AND ISSUES 1 (June 19, 2019), <https://www.everycrsreport.com/reports/RL33531.html#:~:text=grants%2C%20among%20others.-,Introduction,and%20vitality%22%20of%20U.S.%20citizens.>

186. *Id.* at 9.

where a “compelling need” for expediting is shown.<sup>187</sup> This proposal would apply once a sanctuary is actually built and operating. With the sanctuary in place, the captive marine mammals that can survive transport and likely thrive in a natural setting would be granted faster resolution of their legal issues. There are approximately 2,360 cetaceans in captivity worldwide currently (roughly 2,000 dolphins, 227 belugas, and 53 orcas), which is a remarkable number.<sup>188</sup> If able, those animals should be granted the opportunity to return to a more hospitable environment in the time they have left. Had a completed sanctuary existed at the time of Seaquarium’s commitment to release her, Lolita would have been a prime candidate for this type of provision. The accelerated handling provision could be amended into either the ESA, MMPA, AWA, or some other statute that Congress deems appropriate.

These proposed suggestions offer solutions that are productive and, more importantly, realistic options. Each suggestion provides a way for the government to help a cause that so many people have championed for years. The public outcry and pressures placed on marine parks to release their captive animals can only do so much. At some point, there must be action that does not require the public or nonprofits like the Whale Sanctuary Project to bear the full weight of helping animals like Lolita. The actions of Congress demonstrate that they value animals—marine mammals in particular—and that listed species should be protected in a number of ways. Congress’s inaction to this point is concerning but not overly surprising. With resources and options available, our government should act and provide aid to a cause that will benefit marine mammals everywhere.

### CONCLUSION

Lolita was certainly not the first marine mammal to die in captivity, but she should be the last. Her case was a uniquely challenging one, but the silver lining is that it presented an opportunity to pave a path toward a more sanctuary-friendly regulatory framework than what is currently in place. With the tools in place to establish seaside sanctuaries, our government can contribute to the creation process so that organizations are not left to their

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187. *Ensuring Timely Determinations on Requests for Expedited Processing*, U.S. DEP’T OF JUST., <https://www.justice.gov/oip/oip-guidance/oip-guidance-5> (Dec. 6, 2022) (explaining expedited review provision for the Freedom of Information Act); *see generally* 9 C.F.R. §§ 2.5(3)(ii), 2.11(b)(2) (2023) (describing two provisions of the USDA Animal Welfare Regulations that allow requests for expedited hearings upon permit denials); *Availability of Expedited Processing*, REPS. COMM. FOR FREEDOM OF THE PRESS, <https://www.rcfp.org/open-government-sections/5-availability-of-expedited-processing/> (last visited Jan. 20, 2023) (providing the list of states that have expedited processing provisions for records requested from agencies by the press).

188. *CFAF’s Work for Dolphins and Whales in Captivity*, CHANGE FOR ANIMALS FOUND., <https://www.changeforanimals.org/whales-and-dolphins-in-captivity#> (last visited Jan. 19, 2023).

own devices to acquire funding for a noble cause. The public's fleeting interest in seeing large marine mammals in captive settings and its growing desire to see them placed in more natural areas would align with such action by the federal government. Statutes like the ESA, MMPA, and AWA indicate that the government is not afraid to protect wildlife, and marine mammals specifically. The SWIMS Act would be an excellent step forward and would further the sentiments of the American people—the only step left is to ratify it. Amending the Prescott Grant to award funding to marine mammal sanctuaries would be a tremendous use of an existing program to aid the sanctuary process. Should the government decide to get involved, the path towards the removal of all large marine mammals from captive settings in the future would become that much more tangible. The pieces are in front of Congress—it just has to put them together.