JOULE
DUQUESNE KLINE ENERGY AND ENVIRONMENTAL LAW JOURNAL

VOLUME XII **SPRING 2024**

JOULE

DUQUESNE KLINE ENERGY AND ENVIRONMENTAL LAW JOURNAL

Volume 12

Joule

Duquesne Energy and Environmental Law Journal

Volume 12, Spring 2024

Volume 12 of JOULE, Duquesne Kline Law School's Energy & Environmental Law Journal, contains four student-written essays on a variety of environmental subjects. All are current and imperative in their need to be addressed.

In **You Are What You EATS: Opposing Potential New Legislation**, Natalee Codispot, a rising 3L from Thomas R. Kline School of Law at Duquesne University, persuasively explains why the proposed Senate Bill S. 2019 **Ending Agricultural Trade Suppression Act** abbreviated EATS (and its House counterpart, HR 4417) would adversely affect the environment, and thus potentially harm consumers of farm-raised animals and animal produce. The purpose of the aforementioned bills is to pass federal legislation which will expressly preempt more environmentally and consumer protective state legislation, such as California's Proposition 12. Codispot clearly explains how the current federal legislation, especially the statute known as the **Clean Water Act** (CWA), by designating CAFOs (concentrating animal farming operations) as point sources or sources of pollution establishes a clear regulatory framework to which states are invited to add more pollution restrictive and consumer-protective legislation. Codispot's article is a cogent call for a balanced approach to passing federal statutes which call for express preemption of state statutes – the opposite of the CWA preemption framework.

In **Is 'Aina Still Sacred? How Hawaii's Unique Environment Creates Controversies in Property Ownership in the Aftermath of Disaster**, Lachlan Loudon, also a rising 3L at Duquesne Kline, outlines how environmental law can and ought to protect the Hawaiian environment, which Hawaiians deem sacred. Loudon addresses constitutional limits of power, and how the state and federal governments can effectively represent both the wealthy developers interested only in their property rights, and environmentalists promoting indigenous rights.

> As Lahaina recovers from one of the worst wildfires in Hawaii's history, a time of discourse has opened for the future of the islands. New climate threats are arising, and property ownership issues are becoming more complex. Even if these proposed solutions are primarily directed towards Hawaii, they can be lessons for the rest of the planet as climate change, gentrification, and indigenous interests all extend to nations around the globe. 'Aina is still sacred and requires special attention from authority to preserve it in the aftermath of tragic disasters.

A tremendous work on the meaning of the "administrative state" in our democracy is Duquesne Kline student, rising 3L, Rachel Schade's **Case Note: *League of United Latin Am. Citizens v. Regan*.** It cogently explains the process of pesticide permit-registration. Dow Chemicals is the corporation manufacturing and selling Chlorpyrifos, an organophosphate insecticide per its 1966 patent documentation. Chlorpyrifos was first "registered in 1965 for control of foliage and soil-borne insect pests on a variety of food and feed crops," according to a November 18, 2020, EPA Memorandum (available on its website). However, the Duquesne Kline law librarians have been unable to find the original 1965 registration and its documentation, as of the writing of this **Foreword**. Neither have the Region 3 EPA librarians.

While, as Schade reminds us, the Federal Food, Drug, and Cosmetic Act authorizes the EPA to set tolerances for pesticide residue limits, it is impossible to find the original authorization for this pesticide. This makes the current request to the EPA to revise the approved use of Chlorpyrifos, more urgent; if the residue is above the tolerated limit, the food is subject to seizure and triggers necessary enforcement:

> Administrator may establish or leave in effect a tolerance for a pesticide chemical residue in or on a food only if the Administrator determines that the tolerance is safe. The Administrator shall modify or revoke a tolerance if the Administrator determines it is not safe. (21 U.S.C. § 346a(b)(2)(A)(i).)

Tolerances are "safe," when there is a "reasonable certainty" that no harm will result from exposure over time, and one important consideration is the "special risks posed to infants and children." The heart of the note is EPA's refusal to ban chlorpyrifos, an organophosphate insecticide employed for the eradication of various pest species like termites, mosquitoes, and roundworms, and the subsequent case law, such as *League of United Latin Am. Citizens v. Regan*, 996 F.3d 673 (9th Cir. 2021), whose legal issue is judicial review of EPA's refusal to act.

> The Ninth Circuit of Appeals' holding in *League of United Latin Am. Citizens v. Regan* was a proper use of judicial intervention in order to address and correct procedural agency abuse. The EPA's inaction to address the 2007 Petition for thirteen years was beyond egregious, and any judicial intervention was not an overstep over executive decision-making. There is value in an agency's self-governance, especially involving scientific or research-based decisions. However, if agencies prove to be ineffective, the judiciary has every right to intervene without any deference to agency decisions. Until legislative action is taken to force agencies to act on areas of great concern, like human health and safety, it is left to the judiciary to force their hand.

Finally, in **Past, Present, and Future: Hydraulic Fracturing as a Strict Liability Tort in Pennsylvania**, Ryan McCann argues against strict liability for hydraulic fracturing (fracking). He embraces the position that more evidence on the abnormal danger to others fracking poses.

You Are What You EATS: Opposing Potential New Legislation

Natalee Codispot[1]

I. INTRODUCTION

Meat is a substantial part of the American diet.[2] According to the National Agricultural Statistics Service and the United States Department of Agriculture, 32.0 billion pounds of commercial red meat production occurred between January and July 2022.[3] By 2050, chicken and pork are predicted to be mass produced at triple the rate of beef.[4] The inevitable expansion of intensive mass production of farmed animals is made possible by factory farming. Factory farms, known as, concentrated animal farming operations ("CAFOs"), are "a specific type of large-scale industrial agricultural facility that raises animals, usually at high-density, for the consumption of meat, eggs, or milk."[5] In 2019, a study conducted by Sentience Institute estimated that 99% of United States' farmed animals live in factory farms.[6]

---

1. Candidate for J.D., May 2025, Thomas R. Kline School of Law of Duquesne University, B.A in Political Science and Psychology, 2022, Duquesne University. I appreciate the feedback and guidance from Professor April Milburn-Knizner. I'd additionally like to thank my friends and family for their love and support.

2. *Risky Meat*, CENTER FOR SCIENCE IN THE PUBLIC INTEREST, at p. 2 https://www.cspinet.org/eating-healthy/avoiding-foodborne-illness/risky-meat (last visited Sep. 29, 2023)
3. *Livestock Slaughter*, U.S. DEP'T OF AGRICULTURE, at p. 1 (Aug. 25, 2022), https://downloads.usda.library.cornell.edu/usda-esmis/files/rx913p88g/fb495h26w/rj431c909/lstk0822.pdf.
4. *Factory Farming: The Real Climate Change Culprit*, WORLD ANIMAL PROTECTION FARMING BLOG (Aug. 11, 2021), https://www.worldanimalprotection.org.uk/blogs/cop26-factory-farming.
5. Carrie Hribar, *Understanding Concentrated Animal Feeding Operations and Their Impact on Communities*, CENTER FOR DISEASE CONTROL AND PREVENTION, at p. 1 (2010), https://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf.
6. Jacey Reese Anthis, *US Factory Farming Estimates*, SENTIENCE INSTITUTE, (last updated Apr. 11, 2019).

CAFOs were first regulated as a point source under the Federal Water Pollution Control Act ("Clean Water Act").[7] A point source is, "any single identifiable source of pollution from which pollutants are discharged, such as a pipe, ditch, ship or factory smokestack."[8] CAFOs are considered a point source under the Clean Water Act because the wastewater from CAFOs contain a high concentration of nutrients, such as nitrogen and phosphorus, which can impact water bodies and harm aquatic life.[9] Under the Clean Water Act, CAFOs must obtain an Environmental Protection Agency ("EPA") permit under the National Pollutant Discharge Elimination System ("NPDES") to discharge waste in bodies of water.[10]

In addition to federal regulation, states often regulate CAFOs through other state permits, licenses, or authorization programs.[11] However, local regulations may be preempted by state law regarding the regulation of CAFOs.[12] Thus, it often makes

---

7. *Point Source*, NATIONAL OCEAN SERVICE, https://oceanservice.noaa.gov/education/tutorial_pollution/03pointsource.html#:~:text=The%20U.S.%20Environmental%20Protection%20Agency%20(EPA)%20defines%20point%20source%20pollution,common%20types%20of%20point%20sources.
8. *Id.*
9. *State Compendium: Programs and Regulatory Activities Related to Animal Feeding Operations*, ENVIRONMENTAL PROTECTION AGENCY, at p. 3, (May 2002), https://www3.epa.gov/npdes/pubs/region2.pdf.
10. *Id.* at 5.
11. Jennine Kottwiz & Tegan Jarchow, *Concentrated Animal Feeding Operation (CAFO) Regulations*, SUSTAINABLE DEVELOPMENT CODE, https://sustainablecitycode.org/brief/concentrated-animal-feeding-operation-cafo-regulations/#_edn13 (last visited Oct. 23, 2023).
12. *Petition to Adopt a Rebuttable Presumption that Large CAFOs Using Wet Manure Management Systems Actually Discharge Pollutants Under the Clean Water Act*, EARTHJUSTICE, at p. 94, (Oct. 2022), https://earthjustice.org/wp-content/uploads/cafo_presumptionpetition_withexhibits_oct2022.pdf.

it difficult for local efforts to increase CAFO regulation.[13] When enacted, these state authorizations are often more stringent than federal requirements.[14]

California recently demonstrated a stricter regulatory role of CAFOs through an approved proposition enacted under California Health & Safety Code §25990(b)(2) ("Proposition 12").[15] Proposition 12 states that,

> A business owner or operator shall not knowingly engage in the sale of. . . Whole pork meat that the business owner or operator knows or should know is the meat of a covered animal who was confined in a cruel manner, or is the meat of immediate offspring of a covered animal who was confined in a cruel manner.[16]

Proposition 12 was subsequently challenged, reaching the United States Supreme Court in May 2023.[17] In *National Pork Producers Council v. Ross*, the Court dismissed the action against the California legislation and upheld the statute as constitutional.[18]

In response to the Court's ruling, the U.S. Senate introduced the "Ending Agricultural Trade Suppression Act" ("EATS Act") in June 2023.[19] The alleged purpose of this bill is to "[p]revent States and local jurisdictions from interfering with

---

13. *Id.*
14. CAL. HEALTH & SAFETY CODE § 25990(b)(2) (Deering 2008).
15. *Id.*
16. Nat'l Pork Producers Council v. Ross, 143 S. Ct. 1142, 1149 (2023).
17. *Id.* at 1150.
18. Ending Agricultural Trade Suppression Act, S. 2019, 118th Cong. (2023).
19. *Id.*

the production and distribution of agricultural products in interstate commerce, and for other purposes."[20]

According to a legislative analysis conducted at Harvard Law School, over one thousand state laws regulating the agricultural industry, including CAFOs and their environmental impacts, are at risk of being nullified.[21] Specifically, according to an article written by the President of the Humane Society Legislative Fund, the EATS Act targets state laws regulating food safety, environmental protection standards, and agricultural product regulations.[22]

The EATS Act seeks to limit state sovereignty through the federal government's proposed power to cancel state and local laws that attempt to protect its citizens from the disastrous effects of CAFOs.[23] This Article first outlines the current federal and state regulations of CAFOs.[24] Second, this Article will explain the legislative and procedural history of the California legislation, the subsequent U.S. Supreme Court case, and the introduction of the EATS Act in Congress.[25] Specifically, this Article aims to expose the disastrous effects the EATS Act will have, if passed, on states' abilities to regulate agricultural and environmental practices within their own borders. Third, this Article will conclude with how the EATS Act threatens state

---

20. *Id.*
21. *Legislative Analysis of S.2019/H.R. 4417: The "Ending Agricultural Trade Suppression Act,"* BROOKS MCCORMICK JR. ANIMAL LAW & POLICY PROGRAM, at p. 4, (July 26, 2023), https://animal.law.harvard.edu/wp-content/uploads/Harvard-ALPP-EATS-Act-Report.pdf.
22. Natalie Alms, *The EATS Act Explained: The Latest Threat to Farmed Animals*, ANIMAL EQUALITY https://animalequality.org/blog/2023/07/28/eats-act-explained/#:~:text=The%20EATS%20Act%20seeks%20to,for%20sale%20within%20the%20state (last updated Aug. 20, 2023).
23. *Id.*
24. *See infra* Section II.A.
25. *See infra* Section II.B.; *see infra* Section II.C.

CAFO regulations, which poses immense risk to environmental protections, consumer safety, and animal welfare.[26]

II. BACKGROUND

A. *Federal and State Regulation of CAFOs*

1. Federal Regulation

In 1948, the Federal Water Pollution Control Act was the first federal law to attempt to regulate water pollution in the United States.[27] The goal of this Act was to enact "comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries and improving sanitary condition of surface and underground waters."[28] Based on the plain language of the statute, the federal regulations only applied to *interstate waterways*,[29] which are defined as "all surface waters of the state that cross or form a part of the border *between states*."[30] Starting in the 1960s, the United States experienced national outcry regarding the state of American pollution regulation.[31] In response, President Nixon presented to Congress

---

26. *See infra* Section III.
27. *History of the Clean Water Act*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, https://www.epa.gov/laws-regulations/history-clean-water-act (last updated June 22, 2023).
28. *Federal Water Pollution Control Act (Clean Water Act) of 1948*, FEDCENTER, https://www.fedcenter.gov/Bookmarks/index.cfm?id=2431 (last updated July 31, 2017).
29. *Id.*
30. *Interstate Waters Definition*, LAW INSIDER, https://www.lawinsider.com/dictionary/interstate-waters (last visited Feb. 16, 2024).
31. *The Origins of EPA*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, https://www.epa.gov/history/origins-epa (last updated June 5, 2023).

the EPA in 1970 to delegate environmental responsibility and oversight under a singular federal agency.[32]

Two years later, the Clean Water Act emerged from the amendment and expansion of the 1948 Federal Water Pollution Control Act.[33] The Clean Water Act "made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained."[34] To regulate the discharge from point sources, the NPDES "is authorized to state governments by EPA to perform many permitting, administrative, and enforcement aspects of the program."[35]

The EPA defines Animal Feeding Operations ("AFO") as a facility where the following two conditions are met:

(i) animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and
(ii) crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.[36]

For an AFO facility to be required to obtain an NPDES permit to discharge pollutants in waters of the United States, the facility needs to meet the definition of a CAFO.[37] In 2003, the Clean Water Act was amended to require all CAFOs to obtain

---

32. *Summary of the Clean Water Act*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, https://www.epa.gov/laws-regulations/summary-clean-water-act (lasted updated June 22, 2023).
33. *Id.*
34. *Id.*
35. *Program Areas*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, https://www.epa.gov/npdes (last updated October 19, 2023).
36. *Animal Feeding Operations*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, https://www.epa.gov/npdes/animal-feeding-operations-afos (last updated August 15, 2023).
37. *Id.*

an NPDES permit.[38] As a result, the EPA classified CAFOs into three regulatory areas: Large CAFO, Medium CAFO, and Small CAFO.[39] The criteria to determine the CAFO category is dependent on the size threshold of the number of animals.[40] A CAFO will automatically be classified as large if it meets the requisite number of animals in the facility.[41] A medium CAFO falls within the designated size range and either "[h]as a manmade ditch or pipe that carries manure or wastewater to surface water, or where the animals come into contact with surface water that passes through the area where they're confined."[42] Small CAFOs are noted to be designated on a "case-by-case basis."[43] It should be noted that, notwithstanding these definitions, the EPA will designate a facility as a medium-sized CAFO if a facility is found to significantly contribute to pollution.[44]

In *Waterkeeper Alliance, Inc. v. United States EPA,*[45] the Second Circuit Court of Appeals in 2005 agreed with Petitioners that the EPA "exceeded its statutory jurisdiction by requiring all CAFOs to either apply for NPDES permits or otherwise demonstrate that they have no potential to discharge."[46] In 2008, the EPA revised its

38. *Regulatory Definitions of Large CAFOs, Medium CAFOs, and Small CAFOs*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, https://www.epa.gov/sites/default/files/2015-08/documents/sector_table.pdf (last visited Oct. 21, 2023).
39. *Id,*
40. *Id.*
41. *Id.*
42. *Id.*
43. *Id.*
44. *Id.*
45. Waterkeeper All., Inc. v. U.S. Environmental Protection Agency, 399 F.3d 486, 490 (2nd Cir. 2005).
46. *Id.* at 504.

NPDES regulations in response to *Waterkeeper* to only require CAFOs that "discharge or propose to discharge" pollutants to seek a permit.[47]

In a national summary conducted by the EPA in 2022, there were a total of 21,539 CAFOs, while only 6,406 CAFOs have NPDES permits.[48] Accordingly, almost seventy percent of CAFOs do not have NPDES permits and cannot be properly regulated under the Clean Water Act and other federal regulations.[49] In addition, the Fair Agricultural Reporting Method ("FARM") Act now also "exempt[s] [CAFOs] from reporting air emissions from animal waste."[50]

In 2022, over fifty environmental advocacy organizations petitioned the EPA to increase its oversight regulations of large CAFOs to further improve and comply with the purpose of the Clean Water Act.[51]The petition noted that local governments have enforced more stringent CAFO regulations than state governments.[52] However, majority of states implement baseline federal CAFO regulations, along with other state regulations.[53]

---

47. *Revised National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision*, FEDERAL REGISTER (Nov. 20, 2008), https://www.federalregister.gov/documents/2008/11/20/E8-26620/revised-national-pollutant-discharge-elimination-system-permit-regulation-and-effluent-limitations.
48. *NPDES CAFO Permitting Status Report*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (May 16, 2023), https://www.epa.gov/system/files/documents/2023-05/CAFO-Status-Report-2022.pdf.
49. *Id.*
50. *Id.* at 94.
51. *Petition to Adopt a Rebuttable Presumption that Large CAFOs Using Wet Manure Management Systems Actually Discharge Pollutants Under the Clean Water Act*, EARTHJUSTICE, (October 2022), https://earthjustice.org/wp-content/uploads/cafo_presumptionpetition_withexhibits_oct2022.pdf.
52. *Id.* at 94.
53. *See infra* Section II(A)(2).

2. State Implementation of Federal CAFO Regulations

The EPA is authorized to approve states to administer the NPDES CAFO program under 40 CFR § 122.23.[54] Of the forty-four states that are authorized by the EPA to execute the NPDES CAFO program, thirty-two of those states administer the NPDES CAFO program combined with state permits or authorization regimes. [55] The EPA federal regulations require states to collect and report state CAFO information to the EPA.[56] However, there is no standard for collecting or reporting information to the EPA.[57] State-held agencies, theoretically, conduct their own inspections.[58] However, there is a "lack of consistent and complete data at the state level [that] raises serious questions about how comprehensively states are keeping tabs on the CAFOs within their own borders."[59] When a state-held facility is noncompliant and in violation of CAFO regulations, the EPA at the federal level oversees monitoring and initiating enforcement actions.[60] However, federal enforcement actions against state-held CAFOS are seldomly initiated.[60] For example, in 2017, the EPA only conducted 125 inspections out of the 19,961 CAFOs in America.[61] The Natural

---

54. 40 CFR § 122.23.
55. United States Environmental Protection Agency, supra note 9, at p. 5.
56. D. Lee Miller, *CAFOs: What We Don't Know is Hurting Us*, THE NATURAL RESOURCES DEFENSE COUNCIL, at p. 5 (2019), https://www.nrdc.org/sites/default/files/cafos-dont-know-hurting-us-report.pdf.
57. *Id.* at 10.
58. *Id.* at 13.
59. *Petition to Adopt a Rebuttable Presumption that Large CAFOs Using Wet Manure Management Systems Actually Discharge Pollutants Under the Clean Water Act*, EARTHJUSTICE, at p. 90, (October 2022), https://earthjustice.org/wp-content/uploads/cafo_presumptionpetition_withexhibits_oct2022.pdf.
60. D. Lee Miller, *supra* note 56, at p. 10.
61. *Id.*

Resources Defense Council ("NRDC") therefore encourages states to "fill" the federal gap and attempt to regulate local CAFOs within their own state borders.[62]

3. State Regulations

Attempting to "step into the federal gap," regulations of CAFOs vary between the states,[63] as federal law only requires a permit for CAFOs that are "known to discharge waste."[64]According to the Blueprint for Rural Policy, state level policy priorities when considering CAFO regulation include passing legal authorization to expand CAFOs, regulate CAFOs as a pollution industry, and ban inhumane farming practices.[65] Some state programs merely comply with federal regulation requirements, but other states have their own detailed regulations that are "broad in scope with detailed definitions and designation enforcement support."[66]

Due to the lack of federal regulation regarding CAFOs, states have the authority to implement additional regulations on CAFOs.[67] Some states have

---

62. *Petition to Adopt a Rebuttable Presumption that Large CAFOs Using Wet Manure Management Systems Actually Discharge Pollutants Under the Clean Water Act*, EARTHJUSTICE, at p. 90, (October 2022), https://earthjustice.org/wp-content/uploads/cafo_presumptionpetition_withexhibits_oct2022.pdf.
63. *See generally*, *State CAFO Guidelines,* SOCIALLY RESPONSIBLE AGRICULTURE PROJECT, https://sraproject.org/state-cafo-guides/#section1 (outlining the laws regulating CAFOs in every state) (last visited Oct. 23, 2023).
64. *Regulate Concentrated Animal Feeding Operations (CAFOs)*, BLUEPRINT FOR RURAL POLICY, https://rural.stateinnovation.org/rein-in-corporate-monopolies/regulate-concentrated-animal-feeding-operations-cafos/ (last visited Oct. 23, 2023).
65. *CAFO Regulations*, COUNTY HEALTH RANKINGS & ROADMAPS, https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/cafo-regulations#footnote_50 (last updated Aug. 9, 2023).
66. *Id.*
67. *State Compendium: Programs and Regulatory Activities Related to Animal Feeding Operations*, *supra* note 9, at p. 3.

stringent state provisions.[68] For example, seven states require that CAFO facilities submit an odor management plan.[69] Alabama makes a specific provision for nuisance claims relating to CAFO odors.[70] According to the ASPCA, fifteen states have banned forms of "extreme confinement" for farmed animals residing in CAFOs.[71] However, three states (Arkansas, Massachusetts, and New Hampshire) implemented the federal NPDES permit system for CAFOs.[72] Some states very weakly monitor CAFOs.[73] For example, fifteen states did not have any data relating to CAFOs within EPA systems.[74] A potential reason for state regulation and monitoring issues of CAFOs can be attributed to state disagreement about conducting inspections and possibly the EPA's limited scope on concentrating "its efforts on a few known miscreant facilities."[75]

B. *California Legislation Challenged in the Supreme Court*

In 2018, California residents successfully increased regulation and oversight of CAFOs within their state borders. Proposition 12 banned "intensive cage confinement within the state, and . . . out-of-state products that come from animals in intensive

---

68. *Menu of State Laws Regarding Odors Produced by Concentrated Animal Feeding Operations*, CENTER FOR DISEASE CONTROL AND PREVENTION, at p. 2 https://www.cdc.gov/phlp/docs/menu-environmentalodors.pdf (last visited Oct. 23, 2023).
69. *Id.* at 3.
70. *Id.*
71. *State Compendium: Programs and Regulatory Activities Related to Animal Feeding Operations*, *supra* note 9, at p. 5. *See also*, *supra*, Section II.A.1.
72. *The EPA's Failure to Track Factory Farms*, FOOD&WATERWATCH, at p. 1, (August 2013), https://foodandwaterwatch.org/wp-content/uploads/2021/03/EPA-Factory-Farms-IB-Aug-2013_0.pdf.
73. Madhavi Kulkarni, *Out of Sight, But Not Out of Mind: Reevaluating the Role of Federalism in Adequately Regulating Concentrated Animal Feeding Operations*, 44 WM. & MARY ENVTL. L. AND POL'Y REV. 285, 301 (2019).
74. *Id.*
75. Hannah Truxel, *What You Need to Know about California Prop 12 and the Supreme Court Case*, THE HUMANE LEAGUE, https://thehumaneleague.org/article/prop-12-supreme-court (last updated Jul. 31, 2023).

confinement."[77] Proposition 12 specifically defined minimum requirements regarding livestock confinement to provide more physical space for farmed animals in California.[78] The Act also prohibits "the in-state sale of products from caged animals raised out-of-state."[79] Violation of Proposition 12 is considered a crime and a civil violation that can result in at least a $1,000 fine or a prison sentence of up to 180 days.[80]

National Pork Producers Council and the American Farm Bureau Federation filed a claim for declaratory and injunctive relief against Karen Ross, the Secretary of the California Department of Food and Agriculture, alleging that Proposition 12 violated the Dormant Commerce Clause[81] of the Constitution of the United States.[82]

Specifically, Plaintiffs contended that the Commerce Clause was violated as Proposition 12 "imposes substantial burdens on interstate commerce."[83] To support this contention, Plaintiffs further alleged that the requirements of Proposition 12 "interferes with the functioning of a $26 billion a year interstate industry" while increasing operating, training, and veterinary costs.[84] The California Southern District Court considered a law in violation of the Commerce Clause if it "(1) [d]irectly discriminates against interstate commerce or (2) [d]irectly regulates extra-territorial

---

77. *Id.*
78. *Id.*
79. *Id.*
80. *Id.*
81. *ArtI.S8.C3.7.1 Overview of Dormant Commerce Clause*, CONSTITUTIONANNOTATED (The Dormant Commerce Clause prohibits "state laws that unduly restrict interstate commerce even in the absence of congressional legislation.") (last visited Nov 16, 2023).
82. Nat'l Pork Producers Council v. Ross, 456 F.Supp 3d 1201, 1204 (S.D.C. 2020) (ruling in the U.S. District Court Southern District of California that Petitioners failed to state a claim).
83. *Id.*
84. *Id.* at 1205.

conduct."[85] The California Southern District Court in 2020 granted the Defendants' motion to dismiss because the Plaintiffs did not properly prove a substantial burden on interstate commerce.[86]

In 2021, the Ninth Circuit Court of Appeals affirmed the California Southern District Court's ruling, stating that the district court was correct in dismissing the Council's complaint for failing to state a claim that could be remedied.[87] The Ninth Circuit addressed the claims of the Petitioners that Proposition 12 results in an "undue burden on interstate commerce" and "has an impermissible extraterritorial effect."[88] Regarding the alleged undue burden on interstate commerce, the Ninth Circuit explained that Proposition 12 applies to entities within California and other states.[89] However, Proposition 12 "merely impose[s] a higher cost on production, rather than affect interstate commerce."[90] Citing *Association des Eleveurs de Canards et d'Poes du Quebec v. Harris*, the Court emphasized that a statute is not invalid just because it has some impact on commerce.[91]

The Ninth Circuit subsequently disagreed with Petitioners' claim that Proposition 12 "impermissibly regulates extraterritorial conduct outside of California's borders by compelling out-of-state producers to change their operations

85. *Id.* (quoting Association des Eleveurs de Canards et d'Poes du Quebec v. Harris, 729 F.3d 937 (9th Cir. 2013).
86. *Id.* at 1210.
87. Nat'l Pork Producers Council v. Ross, 6 F.4th 1021, 1025 (9th Cir. 2021) (The Ninth Circuit Court of Appeals upheld the ruling from the Southern District Court).
88. *Id.* at 1026-1027.
89. *Id.* at 1029.
90. *Id.*
91. *Id.* (citing Association des Eleveurs de Canards et d'Poes du Quebec, 729 F.3d at 948).

to meet California standards."[92] The Ninth Circuit reasoned that a state law is not unconstitutional if it requires out-of-state producers "to meet burdensome requirements in order to sell their products in the state without violating the dormant Commerce Clause."[93]

In May 2023, the United States Supreme Court affirmed the Ninth Circuit District Court's holding and stated, "[c]ompanies that choose to sell products in various States must normally comply with the laws of those various states."[94] The Court rejected Petitioner's claim that Proposition 12 violates an "almost per se" rule because out-of-state pork producers who want to sell in California will be burdened with "substantial new costs."[95] In *Baldwin v. G.A.F Seeling, Incorporated*, a New York law that prohibited out-of-state dairy producers from selling milk products in New York for less than the minimum price discriminated against out-of-state producers while benefitting New York producers.[96] However, Proposition 12 "applied evenly between out-of-state producers and in-state producers."[97]

Petitioners relied on *Pike v. Bruce Church* and asserted that under Pike's balancing test, a law may be prevented if the law's excessive burdens outweigh a local

---

92. *Id.* at 1029.
93. Nat'l Pork Producers Council v. Ross, 143 S.Ct 1142, 1150 (2023) (The Supreme Court further affirmed the ruling from the Ninth Circuit and the Southern District of California Court).
94. *Id.* at 1154.'
95. *Id.*
96. Kristine A. Tidgren, *California's Proposition 12 Survives Supreme Court Challenge*, IOWA STATE UNIVERSITY CENTER FOR AGRICULTURAL LAW AND TAXATION AG DOCKET BLOG, (May 19, 2023), https://www.calt.iastate.edu/blogpost/californias-proposition-12-survives-supreme-court-challenge#:~:text=Violating%20Proposition%2012%20is%20a,who%20raise%20and%20process%20pigs.
97. Nat'l Pork Producers Council, 143 S.Ct. 1172 (citing Pike v. Bruce Church, 397 U.S. 137, (1970)).

benefit.[98] The Court explained that in *Minnesota v. Clover Leaf Creamery Company*, using *Pike's* balancing test, the law's effects did not indicate an advantage for in-state firms versus a disadvantage for out-of-state firms.[99] The Supreme Court stated that "petitioners' claim falls well outside Pike's heartland."[100] The Court stated that being asked to use *Pike* in this case would be similar to being asked to decide "whether a particular line is longer than a particular rock is heavy."[101]

Thus, the Court affirmed the Ninth Circuit's ruling that the Petitioner failed to state a claim as a matter of law and the case was properly dismissed.[102]

C. *Introduction of the EATS Act*

In 2018, the House of Representatives voted against a Farm Bill amendment.[103] The Amendment contained a provision to "preempt all meaningful state farm animal welfare laws,"[104] nullifying "hundreds of state laws to restrict farm animal confinement. . . [a] wide range of other concerns. . .in such domains as food safety, environmental protection."[105] In 2021, the EATS Act was first introduced after the passage of Proposition 12 and had similar goals and impacts to the King

---

98. *Id.* at 1158.
99. *Id.* at 1159.
100. *Id.* at 1160 (quoting Bendix Autolite Corp. v. Midwesco Enterprises, Inc., 486 U.S. 888, 897 (1998)) (Scalia. J., concurring in judgement.)
101. *Id.* at 1150.
102. Michael Markarian, *The King Amendment is Dead-For Now-With House Failure of Farm Bill*, SAVING EARTH ENCYCLOPEDIA BRITANNICA, https://www.britannica.com/explore/savingearth/the-king-amendment-is-dead-for-now-with-house-failure-of-farm-bill (last visited Oct. 23, 2023).
103. *Id.*
104. Michael Markarian, *supra* note 102.
105. Hannah Truxel, *What is the Ending Agricultural Trade Suppression (EATS) Act? How Does it Harm Animals?*, THE HUMANE LEAGUE, (Jun. 27, 2023), https://thehumaneleague.org/article/eats-act#:~:text=The%202021%20version%20of%20the%20EATS%20Act%20did%20not%20experience,uphold%20Prop%2012%20changed%20everything.

Amendment.[106] However, the EATS Act of 2021 did not advance in Congress.[107] In June 2023, a month after the Supreme Court's decision in *National Pork Producers Council v. Ross*, the EATS Act was reintroduced to Congress.[108]

As noted in the Harvard Law Legislative Analysis and the Agricultural Marketing Act of 1946, "agricultural products" include "any and all products raised or produced on farms and any processed or manufactured product thereof."[109] Subsection 2(b) of the EATS Act prohibits a state or local government from imposing "a standard or condition on the preharvest production of any agricultural products sold or offered for the sale in interstate commerce."[110] The Act fails to define the scope of "preharvest production."[63111]The EATS Act is not aimed to implement new federal regulations of agricultural products, however, it would "set federal regulations as a new ceiling."[112] Meaning, additional regulations implemented by state and local authorities, relating to pre-harvest production could be in violation of the EATS Act.[113]

---

106. *Id.*
107. Marlena Williams, *What the EATS Act is, and Why it Matters for Animals*, SENTIENT MEDIA, (Jun. 27, 2023), https://sentientmedia.org/eats-act-farm-bill/.
108. *Legislative Analysis of S.2019/H.R. 4417: The "Ending Agricultural Trade Suppression Act"* BROOKS MCCORMICK JR. ANIMAL LAW & POLICY PROGRAM 7 (July 26, 2023), https://animal.law.harvard.edu/wp-content/uploads/Harvard-ALPP-EATS-Act-Report.pdf.
109. S. 2019/H.R. § 4417.
110. *Legislative Analysis of S.2019/H.R. 4417: The "Ending Agricultural Trade Suppression Act"*, *supra* note 109, at p. 20.
111. *Id.* at 23.
112. *Id.*
113. *Id.*

Sponsors of the bill argue that the bill's purpose is to "benefit the economies of farming states, like Iowa, Texas, and Arkansas."[114] As of October 18th, 2023, 181 House of Representatives members oppose the EATS Act.[115] In a letter signed by the Congressional opponents of the EATS Act, they state, "[w]e believe that Congress should not usurp the power of states to regulate food and agricultural products in a manner that is responsive to local contexts."[116] If the EATs Act were to pass in Congress, the impacts of the potential law will impact state rights on regulating and monitoring impacts to the environment, consumer safety, and animal welfare.[117]

III. ANALYSIS: THE EATS ACT THREATENS STATES, THE ENVIRONMENT, CONSUMERS, AND ANIMAL WELFARE

a. *Threatening State Rights*

Over 1,000 state laws and regulations are at risk of being invalidated if the EATS Act were to be passed.[118] According to the Humane Society Legislative Fund, "the broad scope of the legislation places many state laws at risk."[119] In a report by

---

114. Björn Ólafsson, *211 Members of Congress Now Oppose the EATS Act*, SENTIENT MEDIA, (Oct. 15, 2023) https://sentientmedia.org/eats-act-opposition/.
115. *Id.*
116. See infra section III.
117. *Legislative Analysis of S.2019/H.R. 4417: The "Ending Agricultural Trade Suppression Act"* BROOKS MCCORMICK JR. ANIMAL LAW & POLICY PROGRAM (July 26, 2023), https://animal.law.harvard.edu/wp-content/uploads/Harvard-ALPP-EATS-Act-Report.pdf. *See generally,* Appendix at 50.
118. Amanda Donchatz, *Pennsylvania Pork Producer Challenges Controversial Agriculture Legislation in Congress*, QUALITY ASSURANCE & FOOD SAFETY, (Nov. 9, 2023), https://www.qualityassurancemag.com/news/pennsylvania-pork-producer-challenges-controversial-agriculture-legislation-in-congress/.
119. *See, supra* note 20.

Brooks McCormick Jr. Animal Law & Policy Program at Harvard Law School,[120] the EATS Act could nullify thousands of state laws that are aimed to promote and protect public health and safety.[121] The EATS Act raises potential constitutional violations and infringes on state's sovereignty and policing power to enact legislation.[122] The Act specifically violates the Anti-Commandeering Doctrine of the Tenth Amendment.[122]

The Tenth Amendment of the United States Constitution states, "[t]he Powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."[123] While the Anti-Commandeering Doctrine is not directly expressed in the U.S. Constitution, the United States Supreme Court has ruled that the federal government may not order states to enact certain laws or enforce federal laws.[124]

In *New York v. United States*, the Supreme Court weighed in on the constitutionality of the Low-Level Radioactive Waste Policy Amendments Act, which required that each state be reasonable for the disposal of low-level radioactive waste formed within the state.[125] The Court noted that while under the Commerce Clause,

---

120. *Legislative Analysis of S.2019/H.R. 4417: The "Ending Agricultural Trade Suppression Act"*, *supra* note 20, at p. 48.
121. *Id.* at 49.
122. *Id.* at 24. *See, Amdt10.4.2 Anti-Commandeering Doctrine*, CONSTITUTIONANNOTATED, https://constitution.congress.gov/browse/essay/amdt10-4-2/ALDE_00013627/ (last visited Nov. 21, 2023) (the Anti-Commandeering Doctrine holds that "Congress may not commandeer state regulatory processes by ordering states to enact or administer a federal regulatory program.").
123. U.S. Const. amend. X.
124. *New York*, 505 U.S. at 151.
125. *Id.* at 156.

Congress can "regulate publishers engaged in interstate commerce" but is therefore constrained by the Tenth Amendment.[126] The Supreme Court specifically questioned whether the incentive provision of the Low-Level Radioactive Waste Policy Amendments Act stripped away the separation of powers between state and federal law-making authority.[127] Finding the Act's incentive provision unconstitutional, the Supreme Court noted that "Congress may not simply 'commandeer the legislative processes of the States by directly compelling them to enact and enforce a federal regulatory program.'"[128]

The EATS Act would compel states to enact and enforce the regulatory program of "a standard or condition on the preharvest production of any agricultural products sold or offered for sale in interstate commerce."[129] Section 2(C) of the EATS Act specifies that if there are no laws regarding a specific agricultural product, the non-existence of a specific state regulation becomes "the new functional regulatory ceiling for that product nationwide . . . states could not impose any preharvest regulation on agricultural products originating outside their borders that fall within the scope of a federal regulatory void." [130]As suggested by the Harvard analysis, states

---

126. *Id.* at 159.
127. *Id.* at 170 (quoting Hodel v. VA Surface Mining & Reclamation Assn., Inc., 452 U.S. 264, 288, (1981)).
128. Ending Agricultural Trade Suppression Act, S. 2019, 118th Cong. (2023).
129. *Legislative Analysis of S.2019/H.R. 4417: The "Ending Agricultural Trade Suppression Act"* BROOKS MCCORMICK JR. ANIMAL LAW & POLICY PROGRAM 23 (July 26, 2023), https://animal.law.harvard.edu/wp-content/uploads/Harvard-ALPP-EATS-Act-Report.pdf.
130. *Id.* at 24.

would be compelled to adopt a "lowest common denominator regulation" for a preharvest agricultural product.[131]

State laws providing more stringent requirements regarding CAFO regulation are at risk of being invalidated.[132] Specifically, Proposition 12 and the general ban of cruelly-produced farmed animal agricultural products are at risk of being voided.[133] Given the broad scope of the term "preharvest production," the EATS Act could strip away state authority to regulate agricultural products "so long as those conditions relate to preharvest production."[134] If states are stripped of their ability to oversee CAFOs and their production of product, then CAFOs could be subject to solely federal oversight by the EPA.[135]

b. *Threatening the Environment*

i. Water Pollution

As of February 2022, large CAFOs are the biggest contributor to United States water pollution.[136] According to the EPA, CAFOs have polluted around 145,000 miles of waterways and one million acres of lakes, to the point where these water sources

---

131. *The EATS Act: A Dangerous Step Backwards for Farmed Animal Protection*, LEWIS & CLARK LAW SCHOOL, (Oct. 2, 2023), https://law.lclark.edu/live/news/51855-the-eats-act-a-dangerous-step-backwards-for-farmed.
132. *Id.*
133. Hannah Truxel, *What is the Ending Agricultural Trade Suppression (EATS) Act? How Does it Harm Animals?*, THE HUMANE LEAGUE, (Jun. 27, 2023), https://thehumaneleague.org/article/eats-act#:~:text=The%202021%20version%20of%20the%20EATS%20Act%20did%20not%20experience,uphold%20Prop%2012%20changed%20everything.
134. *Id. See supra*, Section II.B.1
135. Gina Goldberg, *Large-scale Factory Farms Have Become the Biggest Source of Water pollution in the U.S.*, PUBLIC INTEREST RESEARCH GROUP (Feb. 28, 2022), https://pirg.org/articles/large-scale-factory-farms-have-become-the-biggest-source-of-water-pollution-in-the-u-s/.
136. *Corporate Agribusiness and the Fouling of America's Waterways*, ENVIRONMENTAMERCIA (Jun. 29, 2016), https://environmentamerica.org/center/resources/corporate-agribusiness-and-the-fouling-of-americas-waterways/.

are no longer viable for wildlife to flourish and for human consumption.[137] Water pollution from CAFOs can often occur from stormwater mixing with manure and flowing into drains that lead to water sources.[138] Farmed animals living in CAFOs are estimated to produce 885 billion pounds of manure each year.[139] ccording to a study conducted by a U.S. Government Accountability Office, a large hog CAFO has the ability to produce amounts of manure that is one and a half times the amount of human waste produced in the city of Philadelphia.[140] Water pollution from CAFOs can often occur from stormwater mixing with manure and flowing into drains that thus lead to water sources.[141]

In 2014, agribusiness facilities in more than thirty states have reported dumping 250,804,935 pounds of toxic pollutants into United States rivers.[142] In August 2023, the EPA denied two petitions asking for the revision of the Clean Water Act to improve the CAFO permit system, apply more pollution-based permits to CAFO facilities, and a general increase in regulation.[143] As a response, the EPA

---

137. *Id.*
138. *Factory Farming: A Recipe for Disaster for Animals & Our Planet,* ASPCA, https://www.aspca.org/protecting-farm-animals/factory-farming-environment (last visited Nov. 16, 2023).
139. *Concentrated Animal Feeding Operations*, U.S. GOVERNMENT ACCOUNTABILITY OFFICE, at p. 19 (Sep. 2008), https://www.gao.gov/assets/gao-08-944.pdf.
140. *Id.* at 9.
141. *Id.* at 19.
142. *EPA Denies Factory Farm Water Pollution,* FOOD&WATERWATCH, (Aug. 2015), https://www.foodandwaterwatch.org/2023/08/15/epa-denies-factory-farm-water-pollution-petition/
143. Kathleen Garvey, *EPA's Disappointing Delay in Addressing Factory Farm Pollution*, ENVIRONMENTAL LAW & POLICY CENTER BLOG, (Aug. 22, 2023), https://elpc.org/blog/epas-disappointing-delay-in-addressing-factory-farm-pollution/.

claimed it will create a "federal advisory subcommittee"[144] and finish it's Effluent Guidelines Program Plan regarding collecting more information about CAFOs.[145]

Due to the EPA lacking sufficient monitoring of point source pollutants in U.S. waterways,[146] some states have enacted stringent laws regarding water pollution from CAFOs to protect the environment and state citizens.[147] States, such as Oklahoma, enacted a law to specifically decrease contamination of surface waters.[148] Missouri specifically notes its "stringent state technical standards related to the handling and land application of animal manure. . ."[149] Missouri additionally included a statutory provision that allows for a public nuisance provision if discharged contaminated water contributes to odor.[150] Georgia strictly requires an additional land application system permit that prohibits the discharge of CAFO waste to surface water.[151] Similarly, Oklahoma has enacted a law to specifically decrease contamination of surface waters through strict regulation of carcass disposal.[152] Courts have recently ruled against state organizations, demanding "more diligent

---

144. *Animal Feeding Operations- Regulations, Guidance, and Studies*, U.S., EPA, https://www.epa.gov/npdes/animal-feeding-operations-regulations-guidance-and-studies (last updated Aug. 15, 2023) (The EPA announced the Effluent Guidelines Program in January 2023 which consists of undertaking a detailed study of CAFOs in order to make a decision to revise the effluent limitation guidelines of CAFOs).
145. *See* infra Section II.A.1.
146. Madhavi Kulkarni, *Out of Sight, But Not Out of Mind: Reevaluating the Role of Federalism in Adequately Regulating Concentrated Animal Feeding Operations*, 44 WM. & MARY ENVTL. L. AND POL'Y REV. 285, 292 (2019) (arguing the failure of state and federal laws regarding CAFO regulation).
147. OKLA. ADMIN. CODE § 35:17-3-11(a).
148. *Concentrated Animal Feeding Operation (CAFO),* MISSOURI DEPARTMENT OF NATURAL RESOURCES, https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/concentrated-animal-feeding-operation-cafo (last visited Nov. 16, 2023).
149. MO. CODE REGS. ANN. TIT. 701, § 059.
150. *State Compendium: Programs and Regulatory Activities Related to Animal Feeding Operations, supra* note 9, at p. 13.
151. *State Compendium: Programs and Regulatory Activities Related to Animal Feeding Operations, supra* note 9, at p. 13.
152. OKLA. ADMIN. CODE § 35:17-4-13.

monitoring of water discharges."[153] Similarly, in 2021, Idaho must now comply with monitoring and reporting discharges into waters.[154]

However, if the EATS Act were to be passed, stringent state regulations attempting to combat water pollution from CAFOs could be nullified.[155] As the Act targets "state-specific regulations on livestock production," state-based laws regarding the prevention of water pollution from CAFOs would be invalidated.[156]

ii. Gas and Emissions

According to Farm Sanctuary, CAFOs account for sixty-six percent of greenhouse gas emissions in the United States.[157] In fact, manure from factory farms can release an estimated four hundred gases into our air.[158] Greenhouse gases, such as methane, have a "high climate-warming impact."[159] These gases are produced from manure from the farmed animals and are released into the atmosphere.[160]

---

153. *EPA Must Force Idaho Factory Farms to Monitor and Report Water Pollution: Ninth Circuit*, FOOD&WATERWATCH, (Sep.16,2021), https://www.foodandwaterwatch.org/2021/09/16/epa-must-force-idaho-factory-farms-to-monitor-and-report-water-pollution-ninth-circuit/. *See Food & Water Watch, Inc., at al v. U.S. EPA*, 20 F.4th 506, 509 (2021).

154. *See generally, Legislative Analysis of S.2019/H.R. 4417: The "Ending Agricultural Trade Suppression Act"* BROOKS MCCORMICK JR. ANIMAL LAW & POLICY PROGRAM (July 26, 2023). https://animal.law.harvard.edu/wp-content/uploads/Harvard-ALPP-EATS-Act-Report.pdf.

155. Kevin Hardy, *Congress takes Aim at State Animal Welfare Laws,* NEW HAMPSHIRE BULLETIN (Oct. 2, 2023), https://newhampshirebulletin.com/2023/10/02/congress-takes-aim-at-state-animal-welfare-laws/.

156. Infographic of Animal Agriculuture & the Environment by the Numbers, in *The Planet in Crisis*, FARM SANCTUARY, https://www.farmsanctuary.org/issue/environment/ (last visited Nov. 16, 2023).

157. *How Factory Farming Creates Air Pollution*, ONE GREEN PLANET, (2021), https://www.onegreenplanet.org/environment/how-factory-farming-creates-air-pollution/.

158. *Animals are Dying-Help Us Catch This Climate Culprit*, WORLD ANIMAL PROTECTION, https://www.worldanimalprotection.us/climate-week-2023#:~:text=Methane%3A%20Methane%20is%20a%20greenhouse,of%20US%20greenhouse%20gas%20emissions (last visited Nov. 16, 2023).

159. Austin Dip, *Why are CAFOs Bad for the Environment?* ACTION FOR THE CLIMATE EMERGENCY (Aug. 6, 2021), https://acespace.org/2021/08/06/why-are-cafos-bad-for-the-environment/

160. *Id.*

Greenhouse gas emissions, like methane and nitrous oxide are reportedly twenty-three to thirty-three times stronger than carbon dioxide.[161] According to the U.S. Energy Information Administration, an increase in greenhouse gases causes an increase in the average surface temperature of the earth over time.[162]

However, the EPA lacks a federal standard to measure CAFO air pollution.[163] Thus, multiple states have enacted their own laws to regulate gas and emissions from CAFOs.[164] For example, Minnesota requires permit applications to include Air Emissions Plans.[165]

In addition to air quality, CAFOs also produce environmental odors.[166] There is currently no federal law or regulation specifically addressing CAFO-related odors.[167] However, nine states have enacted legislation to combat CAFO odor in their communities.[168]

---

161. *Energy and the Environment Explained*, ENERGY INFORMATION ADMINISTRATION, https://www.eia.gov/energyexplained/energy-and-the-environment/greenhouse-gases-and-the-climate.php (last updated Dec. 21, 2022).
162. Madison McVan, *18 Years and Counting: EPA Still Has No Method for Measuring CAFO Air Pollution*, INVESTIGATE MIDWEST (Apr. 20, 2023), https://investigatemidwest.org/2023/04/20/18-years-and-counting-epa-still-has-no-method-for-measuring-cafo-air-pollution/.
163. *Raising a Stink: Air Emissions from Factory Farms*, ENVIRONMENTAL INTEGRITY, https://environmentalintegrity.org/pdf/publications/CAFOAirEmissions_white_paper.pdf at p. 4 (last visited Nov. 16, 2023).
164. *Id.* at 5.
165. *Menu of State Laws Regarding Odors Produced by Concentrated Animal Feeding Operations*, CENTER FOR DISEASE CONTROL AND PREVENTION, https://www.cdc.gov/phlp/docs/menu-environmentalodors.pdf (last visited Oct. 23, 2023).
166. *Id.*
167. *Id.*
168. *Coalition Launches Urging Congress to Oppose the EATS Act*, FARM ACTION FUND, (Aug. 17, 2023), https://farmactionfund.us/2023/08/17/coalition-launches-urging-congress-to-oppose-the-eats-act/#:~:text=If%20passed%2C%20the%20EATS%20Act,to%20maintain%20the%20status%20quo.%E2%80%9D.

The EATS Act would cause the U.S. to be even more susceptible to the impacts of climate change.[169] State laws taking steps to incorporate stringent requirements and regulations tackling air pollution and odor from CAFOs would be nullified.[170] Given that CAFOs would be considered a facility partaking in "preharvest production"[171] of meat products, states would be restricted from legislating.[172] Thus, leaving states subject to a gap in regulation of state produced agricultural products.[173]

c. Threatening Consumer Safety

According to the Centers for Disease Control and Prevention, zoonotic diseases are diseases that spread from animals to humans and make up around sixty percent of "infectious diseases"[174] Farmed animals living in CAFOs can become immunologically suppressed, due to stress in their environments.[175]

Researchers have found that the typical CAFO environment consists of "animal overcrowding, enclosed facilities, illness-inducing grain feed, and unsanitary conditions."[176] Animals are then not able to properly fight off infections. Then, when

---

169. *Legislative Analysis of S.2019/H.R. 4417: The "Ending Agricultural Trade Suppression Act,"* BROOKS MCCORMICK JR. ANIMAL LAW & POLICY PROGRAM, (July 26, 2023) https://animal.law.harvard.edu/wp-content/uploads/Harvard-ALPP-EATS-Act-Report.pdf. *See generally,* Appendix at 50.
170. Ending Agricultural Trade Suppression Act, S. 2019, 118th Cong. (2023).
171. *Legislative Analysis of S.2019/H.R. 4417: The "Ending Agricultural Trade Suppression Act," supra* note 170, at p. 25.
172. *Id. See infra* Section II.C
173. Kelley Lee, *Introduction: The Increasing Threat From Zoonotic Diseases*, COUNCIL ON FOREIGN RELATIONS, (Feb. 13, 2023), https://www.cfr.org/report/global-governance-emerging-zoonotic-diseases#:~:text=An%20estimated%2060%20percent%20of,2.7%20million%20human%20deaths%20worldwide.
174. *Factory Farms are the Perfect Breeding Grounds for Zoonotic Diseases*, SENTIENT MEDIA (Dec. 2, 2020), https://sentientmedia.org/zoonotic-diseases/
175. Omar Khodor, *How Factory Farming Could Cause the Next COVID-19*, THE REGULATORY REVIEW, (Oct. 12, 2022), https://www.theregreview.org/2022/10/12/khodor-how-factory-farming-could-cause-the-next-covid-19/.
176. *Id.*

humans consume animal products containing harmful pathogens and diseases, they may become ill.[177] In fact, the Severe Respiratory Syndrome ("SARS") and Swine Flu ("H1N1") arose due to the overproduction of farmed animals in the United States.[178] For example, pork products have caused around 787,000 cases a year of "food-borne illnesses."[179]

The U.S. Department of Agriculture in October 2023 reported the return of avian flu (bird flu) in the United States.[180] Referring to the amount of antibiotics being injected into animals living in CAFOs, causing an immense risk to human health when consumed[181], National Resources Defense Council attorney Avinash Kar stated that "the American meat industry continues to have a drug problem and the clock is ticking to solve it."[182] According to researchers, there is a significant lack of federal oversight regarding zoonotic diseases spread by animals.[183] Therefore, many states have enacted their own set of laws to prevent bird flu and swine flu, by requiring laws such as "requiring pre-entry veterinary inspection, permits,

---

177. *Food Safety*, WORLD HEALTH ORGANIZATION, (May 19, 2022), https://www.who.int/news-room/fact-sheets/detail/food-safety.
178. Michael Greger, Primary Pandemic Prevention, AM J LIFESTYLE MED. (2021), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8504329/.
179. Crystal Heath, *Opinion: The EATS Act Threatens Animal Welfare and Public Health While Protecting Corporate Profits*, MODERN FARMER, (Sep. 19, 2023), https://modernfarmer.com/2023/09/opinion-the-eats-act/.
180. *Deadly Bird Flu Returns to U.S. Turkey Industry, as Thanksgiving Slaughter Looms for 46M Birds*, FARM SANCTUARY, (Oct. 13, 2023), https://www.farmsanctuary.org/news-stories/bird-flu-us-turkey-industry/#:~:text=Yet%2C%20bird%20flu%20offers%20an,enormous%20size%20of%20commercial%20flocks.
181. Tia Schwab, *Unhealthy Conditions for Farm Animals Are—No Surprise—Bad for Humans, Too*, STONE PIER PRESS, https://stonepierpress.org/goodfoodnews/factory-farms-public-health (last visited Nov 17. 2023).
182. *Id.*
183. *Gaps in the Animal Health Framework*, at p. 119, (THE NATIONAL ACADEMIES PRESS) (2005).

quarantines, and testing regimes for live (preharvest) poultry imported from other states."[184]

Not only do CAFOs pose immense risk to the food humans consume, but also to the water humans drink and the air they breathe.[185] Animal waste from CAFOs contain traces of antibiotic drugs, bacteria, disease, and chemicals.[186] The California State Board reports that "farming communities" can encounter chemicals in their drinking water linked to certain types of cancers.[187] Additionally, CAFO waste contaminating water can cause "blue-baby syndrome," in which the unborn fetus does not receive enough oxygen.[188] In *Board of Water Works Trustees of the City of Des Moines, Iowa v. SAC County Board of Supervisors*[189], Des Moines Water Works filed a lawsuit claiming that the nitrite concentrations from the Raccoon River exceeded the standard for drinking water.[190] Specifically, water was being contaminated through "drainage tiles used to make farmland more productive" that kept "nitrates from entering streams and rivers."[191] The claim was dismissed by the Supreme Court

---

184. *Legislative Analysis of S.2019/H.R. 4417: The "Ending Agricultural Trade Suppression Act"* BROOKS MCCORMICK JR. ANIMAL LAW & POLICY PROGRAM, (July 26, 2023), https://animal.law.harvard.edu/wp-content/uploads/Harvard-ALPP-EATS-Act-Report.pdf . *See generally,* Appendix at 50.
185. Lisa Held, *Congress Could Roll Back Pesticide Protections in the Farm Bill*, CIVIL EATS, (Nov. 7, 2023), https://civileats.com/2023/11/07/congress-may-roll-back-pesticide-protections-farm-bill/.
186. Daniel Ross, *Factory Farms Pollute the Environment and Poison Drinking Water*, TRUTHOUT. (Jan 29. 2019), https://truthout.org/articles/factory-farms-pollute-the-environment-and-poison-drinking-water/.
187. *How Industrial Agriculture Affects Our Water*, FOODPRINT, https://foodprint.org/issues/how-industrial-agriculture-.
188. Carrie Hribar, *supra* note 5, at p. 4.
189. Bd. Of Water Works Trs. of City of Des Moines v. Sac Cnty. Bd. Of Supervisors, 890 N.W.2d 50, 52 (Okla. 2017).
190. *Id.* at 53.
191. MacKenzie Elmer, *Des Moines Water Works Won't Appeal Lawsuit*, DES MOINES REGISTER, https://www.desmoinesregister.com/story/news/2017/04/11/des-moines-water-works-not-appeal-lawsuit/100321222/ (last updated Apr. 11, 2017).

of Iowa reasoning that the state's water quality issues and concerns were to be resolved by the state legislature.[192]

Due to the air pollution generated by CAFOs,[193] the EPA estimates that "nearly three-quarters of the country's ammonia pollution comes from livestock facilities."[194] Ammonia, a pollutant, causes "chemical burns" to the "respiratory tract, skin, and eyes, severe cough, and chronic lung disease and at high doses can be toxic."[195] In a statement before the House of Representatives, The director of National Resources and Environment stated, "[the EPA] had received 26 comment letters from state and local emergency response agencies supporting the exemption for ammonia from poultry operations."[196] Federal laws, such as the Clean Air Act (CAA),[197] are designed to "protect public health" against dangerous pollutants.[198] However, the EPA takes little to no enforcement action of CAFOs under the CAA.[199]

These "gaps" of inadequate federal CAFO regulation give states the authority, through the Tenth Amendment,[200] to provide more protective measures than federal regulations by "setting strict standards" on qualities of air, water, and the food

---

192. *See infra* Section II.b(ii).
193. Eleanor Hurst, *Hidden in the Air: Factory Farming and Air Pollution,* NEW ROOTS INSTITUTE, (Feb. 17, 2022), https://ffacoalition.org/articles/hidden-in-the-air-factory-farming-and-air-pollution/.
194. *Id.*
195. *Id.*
196. *Concentrated Animal Feeding Operations*, U.S. GOVERNMENT ACCOUNTABILITY OFFICE, at p.40, (Sep. 2008), https://www.gao.gov/assets/gao-08-944.pdf.
197. 42 U.S.C. §7401 et seq. (1970).
198. *Summary of the Clean Air Act*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, https://www.epa.gov/laws-regulations/summary-clean-air-act (last updated Sep. 6, 2023).
199. J. Nicholas Hoover, *Can't You Smell that Smell? Clean Air Act Fixes for Factory Farm Air Pollution*, SJALP. 2, 12 (explaining the lack of federal regulation of the CAA).
200. *See infra* Section III.(a).

humans consume.[201] For example, in 2021, Texas enacted a law that requires specific testing of milk to protect human consumption from tuberculosis and brucellosis.[202] However, if the EATS Act were passed, any state law regarding water quality, air quality, or food quality concerns stemming from "preharvest production,"[203] such as CAFOs, would be invalidated.[204] Thus, states are left subjected to weak federal regulation of CAFOs.[205]

d. Threatening Animal Welfare

There are no current federal laws that regulate or monitor the conditions of farmed animals residing in CAFOs.[206] The Federal Animal Welfare Act exempts farmed animals, only applying to companion animals.[207] Animals living in CAFOs endure not only extreme confinement but often brutal mutilations, genetic manipulation, and inhumane treatment.[208] Due to the extreme confinement gestation crates cause, pneumonia is common among pigs living in CAFOs.[209] This could also be attributed to 92.6% of pigs living in extreme confinement experiencing stress.[210]

---

201. Sean Hect, *"States' Rights" and Environmental Law: California on the Front Lines*, LEGALPLANET BERKELEY LAW, (Mar. 6, 2017), https://legal-planet.org/2017/03/06/states-rights-and-environmental-law-california-on-the-front-lines/.
202. 25 TEX. ADMIN. CODE § 217.29.
203. *See* Ending Agricultural Trade Suppression Act, S. 2019, 118th Cong. (2023).
204. *See supra* Section III.(a).
205. *See supra* Section II.A.1.
206. *2018-2020: Farmed Animals & the Law*, ANIMAL LEGAL DEFENSE FUND, https://aldf.org/article/student-animal-legal-defense-fund-saldf-program-guides/2018-2020-farmed-animals-the-law/ (last visited Nov. 17, 2023).
207. Transportation, Sale, and Handling of Certain Animals 7 U.S. CODE § 2137 (guidelines for humane standards for dogs and cats).
208. THL, *How Are Factory Farms Cruel to Animals?* THE HUMANE LEAGUE, https://thehumaneleague.org/article/factory-farming-animal-cruelty (last updated Jan. 3, 2023).
209. *Id.*
210. Crystal Heath, *Opinion: The EATS Act Threatens Animal Welfare and Public Health While Protecting Corporate Profits*, MODERN FARMER, (Sep. 19, 2023), https://modernfarmer.com/2023/09/opinion-the-eats-act/.

When asked about the topic of "protecting farmed animals," the U.S. Department of Agriculture stated that "primary authority for regulating CAFOs rests with State and local governments."[211] Several states have adopted laws that ban forms of extreme confinement.[212] Massachusetts, for example, enacted a law in 2021 that specified "space requirements" on battery cages[213] while "phasing in" a ban on gestation crates[214] by 2022.[215] Additionally, Massachusetts's law also banned the intrastate sale of animal products that resided in extreme confinement.[216] However, Massachusetts's "phasing in" of this sales ban has been delayed to 2023 due to the Supreme Court considering the constitutionality of Proposition 12.[217] In a report conducted by Data for Progress, 48% of respondents indicated they would "strongly support" a law like Proposition 12 in their state.[218] However, the EATS Act would invalidate any current or future law a state would pass for the benefit of animal welfare for farmed animals living in CAFOs for "preharvest production."[219]

---

211. Helena Masiello, *CAFO's are a Public Health Crisis: The Creation of COVID-19*, 76 U. MIA. L. REV. 900, 910 (2022) (discussing the disastrous effects CAFOs have on public health).
212. *See supra* Section II.A.1.
213. THL, *Everything You Should Know About Battery Cages*, THE HUMANE LEAGUE, (Dec. 3, 2020), (explaining that a battery cage is the "most common method in the U.S. for confining chickens in order to produce eggs on an industrial scale" and can cause broken bones and psychological effects to chickens) https://thehumaneleague.org/article/battery-cages.
214. THL, *What are Gestation Crates for Pigs and Why are They Bad?* THE HUMANE LEAGUE, (Sep. 15, 2021), (defining gestation crates as a cage that "enclose pigs in a space of about seven feet by two feet- an area barely larger than the pig's body) https://thehumaneleague.org/article/pig-gestation-crates.
215. S.2603 Leg., 192nd Sess (Ma. 2022) at p. 2-5.
216. *Farm Animal Confinement Bans by State*, ASPCA, https://www.aspca.org/improving-laws-animals/public-policy/farm-animal-confinement-bans (last visited Oct. 23, 2023).
217. *Id.*
218. *Data for Progress* https://www.filesforprogress.org/datasets/2022/7/dfp_prop_12_toplines.pdf (last visited Nov. 17, 2023) (showing a poll of citizen's opinions on farmed animal products).
219. Ending Agricultural Trade Suppression Act, S. 2019, 118th Cong. (2023). *See also, supra* Section II.C.

IV. CONCLUSION

If the EATS Act were to pass in Congress, thousands of state laws aiming to protect against the threatening impacts on the environment, consumer safety, and animal welfare resulting from America's CAFOS would be at risk of being invalidated. Given the lack of federal regulation regarding CAFOs and their effects, states have provided more stringent regulations and requirements. The EATS Act will prevent states from enacting laws regulating CAFOs as CAFOs are speculated to be an agricultural practice regarding "pre-harvest" production. This will ultimately limit states' ability to make policies better fit for their constituents and environment. If the EATS Act does not pass, states will be able to continue legislating for the health and safety of their citizens.

Is 'Aina Still Sacred? How Hawaii's Unique Environment Creates Controversies in Property Ownership in the Aftermath of Disaster

Lachlan Loudon[1]

I. INTRODUCTION

In August 2023, wildfires ravaged neighborhoods throughout Maui, Hawaii,[2] resulting in hundreds of individuals dead or missing.[3] The tragic blazes not only left survivors without homes but also put their scorched land on the auction block for prospective, wealthy buyers looking for a beachside plot of land to develop.[4] Due to homeowners being pressured to sell their property at a discounted price, Hawaii's Governor, Josh Green, warned mainland developers against buying the land, and said that the government would intervene, if necessary.[5]

Natural disasters are not new to the lush archipelago, as Hawaii has averaged one federally declared disaster every two years from 1953 to 2003.[6] This trend is only getting worse; now averaging more than two disasters a year.[7] Two

---

[1] Candidate for J.D., May 2025, Thomas R. Kline School of Law of Duquesne University. B.A. in Journalism and Electronic Media, 2022, Waynesburg University.

[2] There are 8 main islands on the Hawaiian archipelago: O'ahu ("The Gathering Place"), Ni'ihau ("The Forbidden Isle"), Kauai ("The Garden Isle"), Moloka'i ("The Enlightening Isle" or "The Friendly Isle"), Maui ("The Valley Isle"), Lanai ("The Pineapple Isle"), Kaho'olawe ("The Target Isle"), and Hawai'i ("The Big Island); *see What are the eight islands of Hawaii?*, AMERICAN MASTERS, https://pbs.org/wnet/americanmasters/what-are-the-eight-islands-of-hawaii/21611/ (last visited Oct. 20, 2023).

[3] Kayla Jimenez, *Despite prohibition, would-be buyers trying to snap up land burned in Maui wildfires*, USA TODAY (Sept. 2, 2023, 9:00 AM), https://www.usatoday.com/story/news/nation/2023/09/02/maui-fire-developers-investigation/70740771007/.

[4] *Id.*

[5] *Id.*

[6] Seth Borenstein et al., *Fires and other disasters are increasing in Hawaii, according to this AP data analysis*, THE HILL (Aug. 17, 2023, 8:48 AM), https://thehill.com/homenews/ap/ap-u-s-news/ap-trouble-in-paradise-ap-data-analysis-shows-fires-other-disasters-are-increasing-in-hawaii/; see also 42 U.S.C. §§ 5121-5207 §401 (stating that the governor of an affected state shall request for a declaration by the President that a major disaster exists for a federal declaration).

[7] *Id.*

years prior to the Maui wildfires, the largest wildfire in the state's history happened on Hawaii's Big Island.[8] This trend is increasing, largely due to drier, drought summers and wet winters, which the latter produces more flammable shrubbery that fuels the impending blazes.[9] Nevertheless, Hawaii remains a popular tourist destination while maintaining a high cost of living for its residents.[10]

Regarding property ownership, Hawaii is unique among U.S. states; as of 2020, federal agencies own 829,830 acres of Hawaii land.[11] In comparison, a state of similar size, New Jersey, only has 171,956 acres of land owned by the federal government.[12] Early into Hawaii's statehood, much of the land was seized through eminent domain, and the federal government sold land to the island's residents to combat the island being bought up by developers and investors.[13] The state government has also taken the interests of native Hawaiians into consideration by providing them with direct benefits for homesteading.[14] As such, this unique

---

[8] "Big Island" is the colloquial term used to refer to the archipelago's largest island, named Hawai'i, not to be confused with the state name, Hawaii; Gabrielle Canon, *'A perfect storm': Hawaii firefighters confront Big Island's largest wildfire in history*, THE GUARDIAN (Aug. 4, 2021, 6:00 AM), https://www.theguardian.com/us-news/2021/aug/04/hawaii-wildfire-big-island-climate-change-drought.

[9] *Id.*

[10] Spencer Kimball, *Hawaii governor warns developers against predatory land buying in devastated Lahaina*, CNBC (Aug. 16, 2023, 3:14 PM), https://www.cnbc.com/2023/08/16/hawaii-governor-warns-developers-against-predatory-land-buying-in-devastated-lahaina.html.

[11] Carol Hardy Vincent et al., CONG. RSCH. SERV., R42346, *Federal Land Ownership: Overview and Data* 7-9 (2020) (There are also approximately 253,000 acres of submerged lands and waters within the Hawaiian Islands National Wildlife Refuge not included in the acreage total), https://apps.dtic.mil/sti/pdfs/AD1169931.pdf.

[12] *Id.*

[13] *Hawaii Housing Authority v. Midkiff*, 467 U.S. 229, 229-30 (1984).

[14] DEPT. OF HAWAIIAN HOME LANDS, *About the Department Of Hawaiian Home Lands*, https://dhhl.hawaii.gov/dhhl. (last visited Oct. 6, 2023).

perspective on property ownership in Hawaii intertwines deeply with the indigenous cultural reverence for the land.

The Hawaiian Islands are considered sacred by the indigenous culture.[15] As articulated by the late Hawaiian activist George Helm:

> [T]here is man and the environment. One does not supersede the other . . . Man in merely the caretaker of the land that maintains his life and nourishes his soul. Therefore, 'aina is sacred. The church of life is not a building; it is the open sky, the surrounding ocean, the beautiful soil.[16]

Certain laws already reflect this: it is illegal to take sand, dead coral, or coral rubble on a flight from Hawaii.[17]

Due to the island's limited land acreage, desirable climate, and high cost of living, land ownership has become a prominent legal issue unique from the other forty-nine states.[18] Natural disasters and climate change catalyze this ongoing controversy.[19] Hawaii is still relatively young in its statehood—not even 65 years old—yet its rich heritage and culture are timeless.[20] Ultimately, it is up to the state and federal governments and the courts to optimally balance the interests of wealthy developers, Hawaiian residents, and the environment to preserve the

---

[15] Phyllis Coochie Cayan, *Basic Protocol at Hawaiian Sacred Places*, UNIVERSITY OF HAWAI'I AT HILO (1999), https://hilo.hawaii.edu/maunakea/culture/protocol-wahi-pana.
[16] *Id.*
[17] Haw. Rev. Stat. Ann., §171-58.5; Haw. Rev. Stat. Ann. §205A-44.
[18] Angela Mae, *How Much You Need to Live Comfortably in Hawaii*, YAHOO FINANCE (June 16, 2023), https://finance.yahoo.com/news/much-live-comfortably-hawaii-120017133.html.
[19] Christopher Flavelle et al., *How Climate Change Turned Lush Hawaii into a Tinderbox*, THE NEW YORK TIMES, https://www.nytimes.com/2023/08/10/climate/hawaii-fires-climate-change.html (last updated Aug. 14, 2023).
[20] The U.S. National Archives and Records Admin., Hawaii Statehood, August 21, 1959, https://www.archives.gov/legislative/features/hawaii (last updated March 10, 2023).

sacred land.[21] In this unique environment, the convergence of environmental pressures and cultural preservation requires vigilant governance.

In Hawaii, natural disasters have fueled a phenomenon called climate gentrification, which poses unique challenges due to the islands' limited residential land and high costs of living, as developers attempt to buy residential property. The state's unique culture and climate make it crucial for the government to prevent climate gentrification, preserving both Hawaii's heritage and its residents' well-being, as past efforts and legal rulings have recognized the importance of preserving the state's rich culture.

This Article outlines what those interests are and how the forces of the law can protect the rights of aggrieved Hawaiians while continuing to honor and protect the environment Hawaiians deem sacred. Constitutional limits of power are discussed, and how the state and federal governments can effectively promote the wellbeing of conflicting interests, within the bounds of the U.S. Constitution and state constitution. Further, this Article addresses the tactics wealthy developers use to buy land from residents and its environmental impact. Lastly, this Article will address possible solutions that can ameliorate these issues, and what the future holds for upcoming generations of Hawaiians who will inherit the islands one day.

[21] *See* Isabella O'Malley, et al., *In Hawaii, concerns over 'climate gentrification' rise after devastating Maui fires*, THE ASSOCIATED PRESS (Aug. 18, 2023, 11:40 A.M.), https://apnews.com/article/maui-hawaii-fire-climate-gentrification-housing-displacement-aa827eabef48d2764aa58d01f7a6969c.

II. BACKGROUND

A. The History of Hawaii

The first settlers of the Hawaiian Islands arrived at around 400 A.D. when Polynesians from the Marquesas Islands traveled over 2,000 miles to Hawaii's Big Island via canoe.[22] The first Hawaiians lived in small chieftain-led communities battling one another for territory.[23] Centuries later, in 1778, the Hawaiian Islands were first discovered by the western world, as British Captain James Cook landed on the island of Kauai.[24] By this time, the indigenous Hawaiians had a highly organized, self-sustaining, survival-oriented society characterized by communal land tenure with a sophisticated language, religion, and culture.[25] King Kamehameha ruled.[26] Between 1791 and 1810, Kamehameha conquered all other rulers and united the communities across the archipelago into one kingdom.[27]

When Cook arrived, the population was around 300,000 people. As more western traders and whalers arrived, disease wiped out the indigenous islanders and the native population decreased to roughly 70,000 people.[28] American influence grew, and was established in the mid-late 1800s when the sugar trade dominated

---

[22] *Hawaii – History and Heritage*, SMITHSONIAN MAGAZINE (Nov. 6, 2007), https://www.smithsonianmag.com/travel/hawaii-history-and-heritage-4164590/.
[23] *Id.*
[24] *Id.*
[25] *Native Hawaiian Traditional and Customary Rights*, LAND USE COMMISSION, https://luc.hawaii.gov/wp-content/uploads/2022/06/3.-NH-Traditional-and-Customary-Practices_Summary_June-2022.pdf (June 2022).
[26] SMITHSONIAN MAGAZINE, *supra* note 22.
[27] *Id.*
[28] *Id.*

the Hawaiian economy.[29] Because of Hawaii's unique climate and soil,[30] sugar cane became one of the most profitable resources between the United States and the Hawaiian Islands.[31] The whaling industry faded by the 1860s, whereas the sugar cane industry flourished, attracting many Japanese workers to cultivate the sugar cane fields.[32] This powerful economic binder increased the United States' influence over time, and by 1898, they were able to overthrow the kingdom and annex the islands by a joint congressional resolution signed by President William McKinley.[33]

Queen Lili'uokalani of Hawaii protested this annexation and wrote to the U.S. House of Representatives articulating her stance.[34] She wrote against the "assertion of ownership" by the United States of one million acres of her property.[35] Lili'uokalani added that this violated due process as it constituted a taking with no just or other compensation.[36] Despite this, the last Hawaiian ruler was deposed, imprisoned, and forced to abdicate.[37]

---

[29] Office of the Historian, *A Guide to the United States' History of Recognition, Diplomatic, and Consular Relations, by Country, since 1776: Hawaii*, FOREIGN SERVICE INSTITUTE, UNITED STATES DEPARTMENT OF STATE, https://history.state.gov/countries/hawaii (last visited Oct. 20, 2023).
[30] Note that there are two distinct typographical representations: "Hawai`i" and "Hawaii." One spelling contains an okina, which is a typographical symbol represented by a reversed apostrophe. The traditional "Hawai`i" spelling represents the concept of the islands prior to statehood, whereas the modern "Hawaii" represents the U.S. State of Hawaii. For consistency purposes, the okina and other Hawaiian typography are generally omitted.
[31] Office of the Historian, *supra* note 29.
[32] *Id.*
[33] *Id.*
[34] The U.S. National Archives and Records Admin., *Letter from Liliuokalani, Queen of Hawaii to U.S. House of Representatives protesting U.S. assertion of ownership of Hawaii*, *Dec. 19, 1898*, https://www.archives.gov/legislative/features/hawaii/queen.html (last updated April 9, 2021).
[35] *Id.*
[36] *Id.*
[37] SMITHSONIAN MAGAZINE, *supra* note 22.

Hawaii eventually earned its statehood in 1959, becoming the 50th U.S. state.[38] To this day, tourism has become one of the most dominant industries on the islands.[39] A total of 9,247,848 visitors arrived on the islands in 2022.[40] Like the sugar cane trade before it, tourism has helped keep Hawaii economically bound to the mainland.[41] Also, just like the sugar cane industry, the tourism industry in Hawaii is fueled by one thing: its unique, paradisial environment.

B. Hawaii's Unique Environment

The Hawaiian Islands form an archipelago made up of 132 islands, atolls, reefs, shallow banks, shoals, and seamounts stretching over 1,500 miles across the North Pacific Ocean.[42] These islands were formed by a volcanic eruption from a hot spot on the Earth's crust.[43] As a result, Hawaii is covered by diverse climates and terrain, with various peaks, valleys, ridges, and broad slopes in addition to the surrounding ocean.[44] Mountains influence the weather by blocking, redirecting, and speeding up air-flow.[45] When warm, moist air rises over the side of the mountain where the wind is coming from, it creates more clouds and rain than over the open

---

[38] The U.S. National Archives and Records Admin., *supra* note 20.
[39] *December 2022 Total Visitor Count 91.5 Percent of the 2019 Level*, STATE OF HAWAII DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM (Jan. 30, 2023), https://dbedt.hawaii.gov/blog/23-03/.
[40] *Id.*
[41] *Id.*
[42] *How did the Hawaiian Islands form?*, NATIONAL OCEAN SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, https://oceanservice.noaa.gov/facts/hawaii.html (last updated Jan. 20, 2023).
[43] *Id.*
[44] *Climate of Hawai`i*, NATIONAL WEATHER SERVICE, https://www.weather.gov/hfo/climate_summary (last visited Dec. 18, 2023).
[45] *Id.*

sea.[46] On the other side of the mountain, where the air descends, it is usually sunny and dry.[47] Mountain-surrounded areas have different wind patterns than places out in the open, and as one ascends up a mountain, it gets colder.[48] Hawaii's mountains, which range from sea level to nearly 14,000 feet, create a range of climates from tropical to sub-Arctic.[49]

Hawaii's climate has two seasons: a winter and a summer.[50] The summers tend to be drier and the winters yield more rainfall, as droughts may occur if there are no winter storms or trade winds.[51] A dry winter, followed by a normally dry summer and another dry winter, can cause serious problems.[52] This dryness could result in wildfires, among other issues.[53] Unlike other U.S. states with dry biomes, like California, Hawaiian ecosystems are not adaptive to wildfire, nor is fire a part of the natural life cycle.[54] Only a few native species can regenerate after a wildfire.[55] Wildfires wreak devastating effects on the small islands, from the destruction of cultural resources, cost in taxpayer money, negative impact on drinking water and human health, increasing soil erosion, impact on near-shore and marine resources, and destruction of native species and native ecosystems.[56] Wildfires are becoming

[46] NATIONAL WEATHER SERVICE, *supra* note 44.
[47] *Id.*
[48] *Id.*
[49] *Id.*
[50] *Id.*
[51] *Id.*
[52] *Id.*
[53] Canon, *supra* note 8.
[54] *Hawaii Statewide Assessment of Forest Conditions and Resource Strategy 2010*, ISSUE 3: WILDFIRE, 101, https://dlnr.hawaii.gov/forestry/files/2013/09/SWARS-Issue-3.pdf (last visited Oct. 20, 2023).
[55] *Id.*
[56] *Id.*

more frequent in Hawaii with the introduction of non-native fire-adapted grass species.[57] Where there was previously little or no wildfire risk in the past, now there is a higher risk with more people living in close proximity to wildland areas, putting residential areas in danger.[58]

Climate change has also impacted land use in upland areas, where rising sea levels cause people to move upland, like in South Kona.[59] There, deforestation practices for cattle grazing above 4000 feet can significantly affect water resources in lowland regions, both in terms of quantity and quality.[60] Fire risk should be taken into account when assessing these upland land use modifications.[61] Of Hawaii's 4.1 million acres of land, 48% is zoned Conservation, 47% Agriculture, and 5% is zoned Urban.[62] Living area is already scarce, but now it is becoming a dangerous risk to health and home.[63] These new dangers have a direct impact on the consecrated land and the cultural customs of the indigenous population.[64]

C. The Indigenous Impact

Under Hawaii state law, the government is obligated to "preserve and protect the exercise of traditional and customary Native Hawaiian rights."[65] Concepts of

[57] ISSUE 3: WILDFIRE at 104, *supra* note 54.
[58] *Id.*
[59] *Id.* at 106.
[60] *Id.*
[61] ISSUE 3: WILDFIRE at 104, *supra* note 54.
[62] *Id.*
[63] *Id.*
[64] LAND USE COMMISSION, *supra* note 25.
[65] *Id.*

Hawaii property law differ from Western property law principles.[66] Western property law has unequivocal property ownership rights, like the right to exclude others, transfer the land, and use and possession of land.[67] Meanwhile, Hawaiian property law safeguards the practice of traditional and customary rights, restricting the owner's right to exclude.[68] Hawaii's land use theory during the British arrival was based on accessibility and mobility.[69] It was an important part of the way of life to have access from one area to another, from shore to shore, between adjacent ahupua'a (land divisions), to the ranging mountains, and to small plots of land cultivated or harvested by native tenants.[70]

Traditional and customary practices hold a strong connection with the land, or 'aina, for indigenous Hawaiians.[71] Their cultural and spiritual identity is rooted in their association with the land, considering it an integral part of their 'ohana (family).[72] As a result, traditional Hawaiian customs place significance on respecting and nurturing the land and its resources.[73] Native practitioners are able to spiritually connect with 'aina and its resources by engaging in traditional and customary activities, like hunting, gathering, and fishing, whether for sustenance, cultural, or religious reasons.[74]

---

[66] *Id.*
[67] *Id.*
[68] *Id.*
[69] *Id.*
[70] *Id.*
[71] *Id.*
[72] *Id.*
[73] *Id.*
[74] *Id.*

Foreign intervention made land use in Hawaii increasingly complicated; thus, in 1839, the Bill of Rights of the Hawaiian Islands was enacted.[75] This guaranteed land would not be taken from the natives.[76] In 1840, the first Constitution of Hawaii was enacted, which made it clear that people had an interest in land greater than that of bounty and produce.[77] Kamehameha III and others came together to divide the land from the then-existing feudal system.[78] This land division was called the Great Mahele, and occurred in 1848, marking one of the most important events in the history of land title in Hawaii.[79] Of the roughly four million acres in Hawaii, the king reserved one million acres for himself and his family, called crown lands.[80] Of the remaining three million acres, around half were designated to the government and the other half was given to chiefs and headmen.[81] To this day, title to all land in Hawaii can be traced back to one of these three land divisions created by the Great Mahele.[82]

---

[75] *LAND IN HAWAI`I: A brief history of the transition from a Feudal System to an Allodial System and Hawaiian words used in real estate in Hawai`i today*, RE3 LLC REAL ESTATE SERVICES (2004), https://files.hawaii.gov/dcca/reb/real_ed/re_ed/ce_prelic/land_in_hawaii.pdf.
[76] *Id.*
[77] *Id.*
[78] *Id.*
[79] *Id.*
[80] *Id.*
[81] *Id.*
[82] *Id.*

III. HISTORY OF PROPERTY ISSUES

A. Climate Gentrification

As defined by Merriam-Webster, gentrification is a process where a residential area experiences an increase of wealthy people "who renovate and rebuild homes and businesses and which often results in an increase in property values and the displacement of earlier, usually poorer residents."[83] This process can also be initiated by wealthy real estate development companies.[84] The U.S. trend toward gentrification initially began in 2000, when the federal government enacted the New Markets Tax Credit, which allocated tens of billions of dollars in government money for urban revitalization projects in lower-income communities.[85] This trend also has contextual racial and socioeconomic issues tied to it, but the principle revolves around buying property at a low cost, and making the overall community more expensive.[86] This ultimately raises the cost of living in these new neighborhoods, and forces people unable to keep up with the rising costs to leave.[87] Despite having a potentially harmful impact on lower-income individuals, gentrification does have many economic benefits for communities and governments on a larger scale.[88]

---

[83] *Gentrification*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/gentrification (last visited Dec. 12, 2023).
[84] *Gentrification*, NATIONAL GEOGRAPHIC, https://education.nationalgeographic.org/resource/gentrification/ (last updated Oct. 30, 2023).
[85] *Id.*
[86] *Id.*
[87] *Id.*
[88] *Id.*

Because of Hawaii's desirable climate and recent natural disasters, it has experienced its own from of gentrification hundreds of miles away from the mainland.[89] A housing crisis has "priced out" native Hawaiians from their homes, as prices rise with new developments.[90] This is called "climate gentrification," which is a term coined by Jesse Keenan, an associate professor of sustainable real estate and urban planning at Tulane University School of Architecture.[91] This term was created in the aftermath of changes in housing markets following extreme weather events.[92] Potential developers and investors can research who has mortgages and can even execute cold calls and place flyers on cars at grocery stores.[93] Even if people want to sell their homes, this could still raise the cost of living for other residents in the area.[94]

B. Constitutional Authority

1. Federal Constitution

The U.S. Constitution grants Congress with the authority to create legislation pursuant to Article 1, Section 8, Clause 3, often called the Commerce Clause.[95] This provision gives Congress the power to "regulate commerce with foreign nations, among states, and with the Indian tribes."[96] This causes

[89] O'Malley, *supra* note 21.
[90] *Id.*
[91] *Id.*
[92] *Id.*
[93] *Id.*
[94] NATIONAL GEOGRAPHIC, *supra* note 84.
[95] U.S. CONST. art. I, § 8, cl. 3.
[96] *Id.*

controversy among the states, especially regarding the balance of power with the federal government.[97] Congress has used this power to exercise power over the activity of states and citizens and can include broad-reaching subjects like property ownership and environmental law.[98]

What "commerce" means has been broadened by the Supreme Court in *NLRB v. Jones & Laughlin Steel Corp.* in 1937 to include activities that had a substantial economic effect on interstate commerce or if the cumulative effect of one act could have an effect on such commerce.[99] Eventually, the Court limited the reach of the Commerce Clause in *United States v. Lopez* in 1995, stating that Congress could only regulate the channels of commerce, the instrumentalities of commerce, and actions that substantially affect interstate commerce.[100] While the Commerce Clause gave Congress the power to regulate state activity, it also imposes restrictions on state governments and how they implement legislation that discriminates against interstate commerce, called the "Dormant Commerce Clause" by the Court.[101] In *West Lynn Creamery, Inc. v. Healy*, the Court struck down a Massachusetts state tax because it discriminated against non-Massachusetts citizens and businesses.[102]

---

[97] *Commerce Clause*, LEGAL INFORMATION INSTITUTE, https://www.law.cornell.edu/wex/commerce_clause (last visited Nov. 17, 2023).
[98] *Id.*
[99] *Id.* (referencing *N.L.R.B. v. Jones & Laughlin Steel Corp.*, 301 U.S. 1 (1937)).
[100] *Id.* (referencing *United States v. Lopez*, 514 U.S. 549 (1995)).
[101] *Id.* (referencing *West Lynn Creamery, Inc. v. Healy*, 512 U.S. 186 (1994)).
[102] *Id.*

The Fifth Amendment of the U.S. Constitution also provides that if the government takes private property for public use, it must provide "just compensation" to the owner of the property.[103] This is referred to as the Takings Clause and allows the government to exercise the use of eminent domain.[104] The quantification of "just compensation" is determined by an appraisal of the property's fair market value.[105] In *Kelo v. City of New London*, the Court considered the furthering of economic development a "public use" for the benefit of the community.[106] These seizures are justified if rationally related to a conceivable public purpose.[107]

The First Amendment of the U.S. Constitution grants people the right to free speech.[108] This right even includes commercial speech which, although less protected than individual speech, still gives corporate entities the right to promote commerce and make business offers.[109] As long as commercial speech is not misleading or misrepresenting, it is protected under the Constitution.[110]

The First and Fifth Amendments of the U.S. Constitution were originally applicable to the federal government and its powers. However, the Fourteenth Amendment's Due Process clause applies the first ten amendments, that make up

---

[103] U.S. CONST. amend. V.
[104] *Takings*, LEGAL INFORMATION INSTITUTE, https://www.law.cornell.edu/wex/takings, (last visited Nov. 17, 2023).
[105] *Id*. (referencing *Kohl v. U. S.*, 91 U.S. 367, 377 (1875)).
[106] *Id*. (quoting *Kelo v. City of New London*, 545 U.S. 469, 484 (2005).
[107] *Id*. (referencing *Midkiff*, 467 U.S. 229).
[108] U.S. CONST. amend. I.
[109] *Commercial Speech*, LEGAL INFORMATION INSTITUTE, https://www.law.cornell.edu/wex/commercial_speech, (last visited Nov. 17, 2023).
[110] *Id*.

the Bill of Rights, to the states.[111] Most of the rights outlined in the Bill of Rights are incorporated by the states both substantially and procedurally.[112] Specifically the Takings Clause of the Fifth Amendment is partially incorporated in *Chicago, Burlington & Quincy Railroad Co. v. City of Chicago*.[113] The Court held that the states cannot take private property without providing just compensation.[114] The First Amendment has been fully incorporated.[115]

2. State Constitution

While the U.S. Constitution has authority over the states in certain aspects, the Constitution of the State of Hawaii delegates legislative authority within the state. Article I, Section 20 states "private property shall not be taken or damaged for public use without just compensation," essentially reciting the Takings Clause from the federal constitution.[116] Additionally, Article I, Section 2 provides citizens with the freedom to acquire and possess property.[117] Article I, Section 5 also contains a Due Process Clause, which states, "[n]o person shall be deprived of life, liberty or property without due process of law."[118]

---

[111] U.S. CONST. amend. XIV. § 1.
[112] *Incorporation Doctrine*, LEGAL INFORMATION INSTITUTE, https://www.law.cornell.edu/wex/incorporation_doctrine, (last visited Nov. 16, 2023) (referencing *Chicago, B. & Q.R. Co. v. City of Chicago*, 166 U.S. 226 (1897)).
[113] *Id.*
[114] *Chicago, B. & Q.R. Co.* 166 U.S. 226.
[115] LEGAL INFORMATION INSTITUTE, supra note 112.
[116] HAW. CONST. art. I, § 20 (Legislative Reference Bureau through Nov. 1978 amendments).
[117] HAW. CONST. art. I, § 2 (Legislative Reference Bureau through Nov. 1978 amendments).
[118] HAW. CONST. art. I, § 5 (Legislative Reference Bureau through Nov. 1978 amendments).

Article XII, Section 7 of the Hawaii Constitution protects the rights and interests of its indigenous population by expressly stating that "all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian islands prior to 1778, subject to the right of the State to regulate such rights."[119]

*C. **Government Actions***

Effective April 1, 1979, President Jimmy Carter signed Executive Order 12127, which established the Federal Emergency Management Agency ("FEMA").[120] FEMA employs more than 20,000 people nationwide and has 10 regional offices nationwide.[121] This disaster response initiative equips America's most vulnerable regions for disaster response and rehabilitation, while leading communities in climate resilience.[122]

Meanwhile, to protect its own environment, Hawaii enacted the Land Fire Protection Law. This legislative authority mandates the Department of Land and Natural Resources ("DLNR") to "take measures for the prevention, control, and extinguishment of wildland fires within forest reserves, public hunting areas, wildlife and plant sanctuaries, and natural area reserves."[123] This law provides a

---

[119] HAW. CONST. art. XII, § 7 (Legislative Reference Bureau through Nov. 1978 amendments).
[120] *About Us*, FEDERAL EMERGENCY MANAGEMENT AGENCY, https://www.fema.gov/about, (last updated July 7, 2023).
[121] *Id.*
[122] *Id.*
[123] *Land Fire Protection Law*, DEPT. OF LAND AND NATURAL RESOURCES, https://dlnr.hawaii.gov/forestry/fire/land-fire-protection-law/, (last visited Nov. 16, 2023).

statutory requirement to cooperate with recognized county and federal government fire control agencies.[124] This involves creating plans, programs, and mutual aid agreements to provide assistance in preventing, controlling, and extinguishing fires on forest, grass, brush, and watershed lands that fall outside the department's specified fire protection responsibilities.[125]

The Hawaiian Homes Commission Act of 1920 ("The Act") was enacted by the U.S. Congress to provide protection for the life and well-being of native Hawaiians.[126] The act created a commission to administer Hawaiian home lands for homesteads.[127] According to the Act, native Hawaiians are defined as individuals having at least fifty percent Hawaiian blood.[128] The Department of Hawaiian Home Lands ("DHHL") is governed by the act, and is responsible for serving its beneficiaries and managing its extensive land trust, which consists of over 200,000 acres on the islands.[129]

*D. **Challenges to Authority***

Tracing back to the chieftain rule of the Hawaiian Islands, real property has always been a contentious topic. Hawaii's economy revolved around a feudal land tenure system where an island's high chief, called the ali'i nui, controlled the land

[124] *Id.*
[125] DEPT. OF LAND AND NATURAL RESOURCES, *supra* note 123.
[126] DEPT. OF HAWAIIAN HOME LANDS, *supra* note 14.
[127] *Id.*
[128] *Id.*
[129] *Id.*

and assigned it for development to certain subchiefs.[130] Essentially, there was no private ownership of land.[131]

In the mid–1960s, the Hawaii Legislature discovered that the State and Federal Governments owned almost 49% of the State's land, while another 47% was in the hands of only 72 private landowners.[132] To reduce the concentration of land ownership, the Hawaii Legislature enacted the Land Reform Act of 1967, which created a land condemnation scheme where title in real property is taken from lessors and transferred to lessees.[133] Lessees living on single-family residential lots within tracts at least five acres in size would be entitled to ask the Hawaii Housing Authority to condemn the property on which they live so the tenants can purchase a fee simple for that property, given a few other conditions.[134] This act was challenged before the Supreme Court of the United States under the Fifth and Fourteenth Amendments and the Public Use Clause, in *Hawaii Housing Authority v. Midkiff*.[135] The Court ruled that this act was constitutional, as a means to put an end to the everlasting land oligopoly in Hawaii, satisfying "public use" and justifying the exercise of eminent domain power.[136]

Despite this intervention, Hawaiian residents are still dealing with these problems as developers continue to buy off their homes.[137] Hawaii is the most

---

[130] *Midkiff*, 467 U.S. at 232.
[131] *Id.*
[132] *Id*. at 232.
[133] *Id*. at 234.
[134] *Id.*
[135] *Id.* at 242.
[136] *Id.* at 243.
[137] O'Malley, *supra* note 21.

expensive state to reside in by a considerable margin, as the median price of a single-family home in Maui exceeds $1 million.[138] This negatively affects the native Hawaiian population, as there is a great lack of affordable living options on the islands.[139] As the native Hawaiian population has historically, and presently, resisted colonization and gentrification efforts from the Western world, this creates a unique conflict in private property ownership on the islands.[140] In the aftermath of natural disasters, like the Lahaina wildfires in 2023, the already-existing housing crisis was amplified when residents with very high land values had their homes destroyed, where only wealthy developers could afford to fix the land.[141]

IV. PROPOSED RESPONSE TO THE MAUI WILDFIRES

A. Disaster Response

In the aftermath of the Lahaina wildfires, FEMA has played an integral part in providing immediate relief for those most affected.[142] For example, FEMA has modified its "one application per residence" requirement, which allows multiple people under one family roof to apply for FEMA assistance, individually.[143] For the opening of each disaster recovery center, native Hawaiian cultural practitioners

---

[138] *Id.*
[139] *Id.*
[140] Tariro Mzezewa, *Hawaii Is a Paradise, but Whose?*, THE NEW YORK TIMES (Feb. 4, 2020), https://www.nytimes.com/2020/02/04/travel/hawaii-tourism-protests.html (last updated June 11, 2021).
[141] O'Malley, *supra* note 21.
[142] *A Month after the Devastating Wildfires, Maui 'Ohana Are Rebuilding Together*, FEDERAL EMERGENCY MANAGEMENT AGENCY (Sept. 8, 2023), https://www.fema.gov/press-release/20230909/month-after-devastating-wildfires-maui-ohana-are-rebuilding-together#.
[143] *Id.*

conduct blessing ceremonies.[144] FEMA also has funded emergency housing efforts around Maui County, in coordination with the Red Cross.[145] So far, $65 million in federal assistance for Maui survivors has been approved by FEMA and the U.S. Small Business Administration, which includes $21 million in FEMA assistance for individuals and households.[146] Disaster recovery centers have been opened to provide residents with information critical to recovery.[147] Such information could provide Lahaina residents with essential information to protect their property interests, which is a chief concern in the aftermath of the wildfires.

B. Wildfire Prevention

As discussed earlier, wildfires pose a great threat to the well-being of Hawaiians and ignite more controversies in property ownership.[148] Wildfires are not regular to the Hawaiian ecosystems, and thus cause invasive plants and fire-prone grasses to take over the landscape, rather than native trees refilling the area.[149] This is especially detrimental as it can lead to decreased water quality, increased erosion, and damage to coral reefs from sedimentation and nutrient loading.[150] Hawaii is also home to an incredibly unique and beautiful array of plants and animals found nowhere else in the world.[151] Preventing these wildfires is critical to

---

[144] *Id.*
[145] *Id.*
[146] *Id.*
[147] *Id.*
[148] *Fire Management*, DEPT. OF LAND AND NATURAL RESOURCES, DIVISION OF FORESTRY AND WILDLIFE: FORESTRY PROGRAM, https://dlnr.hawaii.gov/forestry/fire/, (last visited Nov. 17, 2023).
[149] *Id.*
[150] *Id.*
[151] *Id.*

the ecosystem, but it is also critical to preserving Hawaiian culture and the livelihood of the islands' residents. Roughly 90% of wildfires in Hawaii are caused by humans, so it is within the control of the state and federal governments to maintain the beautiful landscape.[152]

Hawaii's Department of Land and Natural Resources is responsible for "managing, administering, and exercising control over public lands, water resources, ocean waters, navigable streams, coastal areas (except commercial harbors), minerals, and all interests therein."[153] The department's jurisdiction spans across nearly 1.3 million acres of state lands, beaches, and coastal waters.[154] Within the Division of Forestry and Wildlife is the Forestry Program, which is responsible for managing forest resources and products.[155] Guided by the Forest Action Plan, the program prioritizes wildfires as a focal point for protecting Hawaii's forests.[156]

Since one of the main causes of Hawaiian wildfires is an invasive, flammable grass, a solution would be to try and eliminate the dry vegetation.[157] These grasses, chiefly guinea and fountain grass, grow rapidly when unmanaged and can dry out

---

[152] *Id.*
[153] *About DNLR*, DEPT. OF LAND AND NATURAL RESOURCES, https://dlnr.hawaii.gov/about-dlnr/, (last visited Nov. 16, 2023).
[154] *Id.*
[155] DEPT. OF LAND AND NATURAL RESOURCES, DIVISION OF FORESTRY AND WILDLIFE: FORESTRY PROGRAM, *supra* note 148.
[156] *Id.*
[157] DEPT. OF LAND AND NATURAL RESOURCES, DIVISION OF FORESTRY AND WILDLIFE: FORESTRY PROGRAM, *supra* note 148; Lauren Sommer, *3 strategies Maui can adopt from other states to help prevent dangerous wildfires*, NPR (Aug. 18, 2023, 6:00 AM), https://www.npr.org/2023/08/18/1194505306/3-strategies-maui-can-adopt-from-other-states-to-help-prevent-dangerous-wildfire.

very quickly, posing a major fire hazard.[158] In states like California where wildfires are common, homeowners in high-risk areas are required to clear brush.[159] Inspections are also done by both city and state fire agencies.[160] Given that Hawaii has wildfire prevention action for state lands managed by the DLNR, removing the dangerous grass should be implemented on both state and private lands. In San Diego, for example, if a homeowner does not comply with clearing flammable brush, the municipality will hire a contractor to do the work and put a lien on the property to cover the cost.[161] Areas around the edges of towns in Hawaii, like Lahaina, should also be cleared of the dry vegetation to work as a buffer against fire, for which residents have pleaded for years, to no avail.[162]

Regardless of whether homeowners have yards full of dry grasses, it is mostly the embers of the wildfires that cause homes to ignite, rather than advancing flames.[163] A potential solution for Hawaiians is to enact building codes that require homes to use fire-resistant materials in high-risk areas. California, along with other states, has already implemented similar laws.[164] This then becomes a balancing act where Hawaii residents would be required to follow new laws, which could financially burden homeowners even more in an economy where the cost of living is

---

[158] Elizabeth Pickett & Ilene Grossman, *Western Maui Community Wildfire Protection Plan*, HAWAII WILDFIRE MANAGEMENT ORGANIZATION, 77 (2014), https://static1.squarespace.com/static/5254fbe2e4b04bbc53b57821/t/54ff533ee4b0d8debf83ed8d/1426019167515/Western+Maui+CWPP+Final+with+Appendices.pdf.
[159] Sommer, supra note 157.
[160] *Id.*
[161] *Id.*
[162] *Id.*
[163] *Id.*
[164] *Id.*

already the highest in the nation. Even homebuilding associations have also pushed back against fireproofing requirements in some states.[165] However, fireproofing for new construction is not very expensive, and is feasible as many homes will need to be rebuilt in the aftermath of the Maui wildfires.[166]

1. Wildfire Negligence Cause of Action

In the aftermath of the Lahaina wildfires, negligence lawsuits are starting to commence litigation. It can be difficult to sufficiently prove a wildfire's exact origin, as it is often contingent on the environment. Aggrieved homeowners can find viable causes of action against corporations that neglect prevention measures or fail to mitigate damages. Holding accountable those with the power to lessen the blow of the wildfire damage is possible through these lawsuits.

Currently, the state and a major island landowner, Bishop Estate, are being sued under a basic negligence cause of action.[167] This kind of lawsuit would be a "first-of-its-kind" filed by the father of a woman who died in the Maui wildfires.[168] Plaintiffs argue that the risk of wildfires was well-known to the defendants and that they were preventable.[169] Due to the dry vegetation scattered across the island,

---

[165] *Id.*
[166] Lauren Sommer, *Fireproofing your home isn't very expensive — but few states require it*, NPR (July 28, 2022, 5:07 PM), https://www.npr.org/2022/07/28/1114242871/fireproofing-your-home-isnt-very-expensive-but-few-states-require-it.
[167] Clark Mindock, *Hawaii, Maui sued by victim's family for gross negligence in deadly wildfires*, REUTERS (Sept. 5, 2023, 5:05 PM), https://www.reuters.com/legal/hawaii-maui-sued-gross-negligence-deadly-wildfires-by-victims-family-court-2023-09-05/.
[168] *Id.*
[169] *Id.*

those in possession of large plots of land are being challenged for their failure to clear out the flammable grass.[170]

Hawaiian Electric was also sued under the same negligence theory, as its alleged duty was to de-energize its electrical equipment during hurricane-force winds which allegedly sparked the fires.[171] The electric company is already facing several civil lawsuits and possibly upcoming class actions due to its alleged mismanagement of electrical equipment.[172]

2. Climate Change

According to many environmentalists, climate change is the culprit of any wildfire or other natural disaster. It is important to address climate change concerns, especially because Hawaii is becoming drier, with less and less rainfall each year.[173] As precipitation decreases, tree trunks dry up, and leaves fall, which allows sun rays to reach the soil quicker.[174] This eventually leads to deforestation, which can also occur as a result of agriculture. Because rising sea levels force agriculture to move upland, causing deforestation, the soil is further dried out.[175]

As the federal government works to slow and mitigate climate change around the globe, it is important to adapt to the change of the climate as well. The Hawaiian landscape is covered in dry, flammable grass that ignites easily. As

---

[170] *Id.*
[171] *Id.*
[172] Mindock, *supra* note 167.
[173] Flavelle, *supra* note 19.
[174] *Id.*
[175] ISSUE 3: WILDFIRE at 104, *supra* note 54.

Hawaii's landscape is becoming drier due to climate change, it must adapt to the new risks. Most of the damage to the climate is seemingly irreversible, so continuing to fireproof and protect the delicate property is imperative to prevent future harm.

C. Anti-Predatory Practices

Hawaii Governor Josh Green warned developers against predatory land buying in the aftermath of the Lahaina wildfires and the unfolding of climate gentrification.[176] Hawaii state law protects such practices, as it provides penalties for those who seek to exploit homeowners for economic gain.[177] The State of Hawaii prepared a news release directing homeowners to notify the Department of Commerce and Consumer Affairs' ("DCCA") Office of Consumer Protection and the Regulated Industries Complaints Office ("RICO") should any unsolicited communications take place.[178] The Office of Consumer Protection ("OCP") is "entrusted with protecting the consumer public" and can investigate these matters as home equity theft.[179] The news release also warns homeowners of the misrepresentation of vital information when talking with prospective buyers.[180]

---

[176] Kimball, *supra* note 10.
[177] Josh Green M.D., et al., *RELEASE: MAUI HOMEOWNERS URGED TO EXERCISE CAUTION, REPORT UNSOLICITED OFFERS TO BUY THEIR PROPERTIES*, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS (Aug. 14, 2023), https://cca.hawaii.gov/blog/release-maui-homeowners-urged-to-exercise-caution-report-unsolicited-offers-to-buy-their-properties/.
[178] *Id.*
[179] *Id.*
[180] *Id.*

Governor Josh Green also ordered the attorney general to put lawyers at response centers to provide free legal advice to displaced residents as they receive offers for their devastated land.[181] These solutions are helpful but not complete in addressing the issue. Many homeowners are not only displaced physically, but financially as well. Even before the wildfires, residents struggled with the high cost of living. Because of financial struggles, homeowners may feel they have no other choice than to accept monetary offers for their land, which they can no longer use. More than 1,000 hotel rooms and 435 donated units were available for temporary housing.[182] President Joe Biden declared the wildfire a major disaster and unlocked emergency federal assistance for the island.[183] This includes grants for temporary housing and low-cost loans to cover uninsured property losses.[184] Wildfire victims, upon receiving substantial aid, may have more bargaining power and financial capacity to refuse predatory land offers.

At the same time, the rights of real estate developers are also an important consideration. While the State of Hawaii has warned prospective land buyers who might send offers, their offers are protected under the First Amendment as commercial speech. As the State said in its news release, homeowners who deal with these real estate developers can find a cause of action on the grounds of misrepresentation. Additionally, homeowners are directed to speak with an

[181] Kimball, *supra* note 10.
[182] Kimball, *supra* note 10.
[183] *Id.*
[184] *Id.*

attorney for free legal advice at relief centers which allows them to understand their rights when dealing.

The rights of buyers are conveniently protected from adverse legislation through the U.S. Constitution's Commerce Clause and its Dormant Commerce Clause. This depends on whether any statutes or regulations are "discriminatory" on interstate commerce if they prevent mainland buyers from dealing with Hawaii residents. This is not a balancing test, as the Commerce Clause and Dormant Commerce Clause can make a law intended to protect vulnerable Hawaiian residents unconstitutional. Legislature needs to take this into consideration before implementing new laws. The best course of action for the Hawaii legislature would be to draft legislation that does not expressly disincentivize mainland out-of-state buyers exclusively but includes Hawaii-based buyers as well. That way, there is no discrimination against other states if a law equally applies to Hawaii.

An alternative, non-governmental effort can be exercised by local organizers and leaders in communities like Lahaina and push for preservation efforts in coordination with real estate developers, creating a shared vision for development projects.[185] This is called "equitable development" and is a proposed solution to gentrification in urban areas on the mainland.[186] This process could be equally applied to the climate gentrification occurring in Maui if the aforementioned gubernatorial efforts fail. It could further ensure that residents who wish to sell

[185] NATIONAL GEOGRAPHIC, *supra* note 84.
[186] *Id.*

their land are able to, and those who wish to retain their property will not be indirectly expelled from the resulting higher living costs associated with redevelopment.

D. Exercise Eminent Domain Power

In addition to anti-predatory practices, there is a near fool-proof way to eliminate predatory land offers altogether. The state or federal government can intervene using eminent domain power and buy the land from the homeowners. As seen in *Midkiff*, this has been previously done in Hawaii, though for a different reason.[187] As long as the government provides homeowners with "just compensation," then it can take the scorched property, as the Court in *Midkiff* made it clear that the redistribution of property from private citizens constituted a "public use" for purposes of the Fifth Amendment.[188] If the government does not abuse its ownership of the land and provides reasonable and rational means for the original homeowners to recover their land after restoration has been completed, then this would be a viable solution.

However, the government's "just compensation" might not match other compelling bids, which are often higher. Thus, the government may end up working against the interests of the public by forcing them to take a lesser offer. It may be difficult for the government to confirm that by buying out everyone's property, they are working in the interest of every aggrieved resident.

---

[187] *Midkiff*, 467 U.S. at 229-30.
[188] *Id.*

To effectively ensure that eminent domain is used for the best interest of aggrieved residents, the government must first provide residents with access to counsel, which Hawaii has already done. The state should provide residents with the option for their property to be "bought back" after restoration is finished, which could take years to complete. In *Midkiff*, the Court considered the taking to be for a "public use" because the land was taken from private entities and then redistributed among other private entities.[189] Here, the state can essentially do the same thing. It should keep the village of Lahaina to its residents by use of eminent domain. For residents who do not want to return to Lahaina, their former property should be sold as a residence—to meet the standard for "public use." This constitutional solution could combine the cultural public interests of Hawaii with practical recovery means for aggrieved residents.

E. Protecting Indigenous Hawaiians

To preserve Hawaii's rich culture and history, its indigenous population must be protected in the face of dangers to their land. If the native Hawaiians are neglected, then the United States has failed the sacred islands. Natural disasters displaced many residents, which includes members of Hawaii's indigenous population. This vulnerable group, which has already been decimated by diseases during the settler era, is facing a crisis as real estate agents start sending offers for all they have left.

[189] *See Midkiff*, 467 U.S. at 229-30.

The Department of Hawaiian Homelands, as mentioned earlier, provides indigenous Hawaiians with benefits for homesteading and continuing to live on the land of their ancestors.[190] As far as benefits go, native Hawaiians can receive 99-year homestead leases at $1 per year.[191] These leases can be extended for an aggregate term not to exceed 199 years.[192] They can also receive financial assistance through direct loans, insured loans, or loan guarantees for home purchase, construction, home replacement, or repair.[193] Aside from the homesteading program, DHHL leases trust lands not in homestead use at market value and issues revocable permits, rights-of-entry, and licenses.[194] In addition, for survivors who prefer to receive help from other Native Hawaiians, the Council for Native Hawaiian Advancement opened a disaster relief center at Maui Mall.[195] These benefits and forms of assistance can greatly help the indigenous population preserve Hawaii's rich culture, tradition, customs, and practices, as it allows them to continue to reside on their land and provide for future generations in the aftermath of a natural disaster.

V. CONCLUSION

Despite being hundreds of miles away, in the middle of the ocean, far off the coast of the continental U.S., Hawaii's recent disasters have gained the attention of

---

[190] DEPT. OF HAWAIIAN HOME LANDS, *supra* note 14.
[191] *Id.*
[192] *Id.*
[193] *Id.*
[194] *Id.*
[195] FEDERAL EMERGENCY MANAGEMENT AGENCY, *supra* note 142.

mainland Americans and the federal government. The Lahaina wildfires have wreaked havoc upon Hawaiian residents, some with indigenous Hawaiian ancestry. Homes have been destroyed and oceanside property is scorched to the ground. People have lost their homes in an already scarce housing market. Many are displaced and may be bombarded with offers from real estate developers and wealthy individuals for their valuable but burned land. These aggrieved Hawaiians are often left with no other choice than to accept such offers and forfeit their land.

Ordinarily, the development of urban communities on the mainland may have harmful effects on displaced residents, but the economic effects of gentrification are so great that they usually are encouraged by local governments. However, due to Hawaii's unique culture and climate, this kind of development poses many problems. Residential land is already scarce on the islands, and it is expensive. Native Hawaiians have trouble retaining the land of their ancestors as the cost of living rises. Residents are then forced to pay extremely high rent prices just to live on the island, which is a vacation destination for many. The government has the authority to prevent such climate gentrification from occurring. In the past, it has made efforts to help residents in landowning controversies and the Supreme Court of the United States has ruled in favor of the public interest of preserving Hawaii's rich culture.[196] As nature is a sacred concept to indigenous Hawaiians, the state and federal government should do whatever it can to prevent these natural

[196] *See Midkiff*, 467 U.S. at 229-30.

disasters from tearing apart the islands' heritage while keeping its residents safe from incidental displacement efforts.

As Lahaina recovers from one of the worst wildfires in Hawaii's history, a time of discourse has opened for the future of the islands. New climate threats are arising, and property ownership issues are becoming more complex. Even if these proposed solutions are primarily directed towards Hawaii, they can be lessons for the rest of the planet as climate change, gentrification, and indigenous interests all extend to nations around the globe. ʻAina is still sacred and requires special attention from authority to preserve it in the aftermath of tragic disasters.

Past, Present, and Future: Hydraulic Fracturing as a Strict Liability Tort in Pennsylvania

Ryan McCann[1]

I. INTRODUCTION

All judicial decisions are a difficult balancing act that weigh public and private rights against the interest of justice. The issues presented by hydraulic fracturing embody this conundrum. Courts, when determining issues related to hydraulic fracturing, weigh a business's right to profit against an individual's right to be free from harm. In making this determination, Pennsylvania courts have altered the course of American jurisprudence, specifically concerning strict liability.

A. Breaking Ground - An Introduction to Fracking

Hydraulic fracturing, also known as fracking, is the process of freeing trapped oil and natural gas by pumping large quantities of fluids at high pressure into targeted rock formations.[2] The fluid commonly consists of water, sand, and chemical additives[3] which are then collected, separated, and disposed.[4] Using fracking fluid to expand the extraction of more oil and natural gas differentiates hydraulic fracturing from conventional oil and well drilling.[5] While fracking

---

[1] Candidate for J.D., May 2025, Thomas R. Kline School of Law at Duquesne University. B.A. in Political Science, 2022, Waynesburg University. I would like to acknowledge Professor David Jamison for his experience, insight, and guidance during the development of this article.

[2] *The Process of Unconventional Natural Gas Production*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (Feb. 14, 2023), https://www.epa.gov/uog/process-unconventional-natural-gas-production#:~:text=%22Unconventional%22%20reservoirs%20can%20cost%2D,in%20a%20concentrated%20underground%20location.

[3] *Id.*

[4] *Id.*

[5] *Oilfield Equipment: What's the Difference Between Drilling and Fracking?*, NORTHERN OILFIELD SERVICES (Aug. 7, 2019), https://www.nos-llc.com/oilfield-equipment/oilfield-

utilizes technological advancements and effort to create fissures in shale formations, conventional drilling pulls oil and gas from an already available reservoir.[6]

Although hydraulic fracturing can be traced back to the 1940s, it was not until 2003 that massive scale operations were conducted.[7] A 2004 study from the Environmental Protection Agency ("EPA") found that hydraulic fracturing posed no threat to underground drinking water supplies.[8] As a result, hydraulic fracturing has been on the rise.[9] In fact, since 2016, hydraulic fracturing has become the predominant method for extracting oil and natural gas in the United States.[10] During this time, Pennsylvania's fracked natural gas production has considerably increased. The state is now the nation's second leading natural gas producer.[11]

---

equipment-whats-the-difference-between-drilling-and-fracking/#:~:text=The%20Main%20Differences,-The%20main%20differences&text=Fracking%20uses%20fracking%20fluid%20to,readily%20available%20in%20the%20reservoir.

[6] *Id.*

[7] *A Brief History of Hydraulic Fracturing*, EEC ENVIRONMENTAL (last visited Oct. 5, 2023), https://eecenvironmental.com/a-brief-history-of-hydraulic-fracturing/.

[8] *Id.*

[9] *Hydraulically fractured horizontal wells account for most new oil and natural gas wells*, UNITED STATES ENERGY INFORMATION ADMINISTRATION (Jan. 30, 2018), https://www.eia.gov/todayinenergy/detail.php?id=34732#:~:text=Hydraulically%20fractured%20horizontal%20wells%20became,other%20drilling%20and%20completion%20techniques.

[10] *Id.*

[11] Michael Rubinkam, *Pennsylvania to Partner with Natural Gas Driller on in-depth Study of Air Emissions, Water Quality*, THE INDEPENDENT (Nov. 2, 2023), https://www.independent.co.uk/news/pennsylvania-ap-washington-county-ceo-children-b2440502.html.

However, with this rise in popularity came a rise in criticism and concern over such drilling practices.[12] At the heart of this criticism are complaints regarding fracking's effects on water quality, specifically in drinking water supplies.[13] In addition, studies have concluded that hydraulic fracturing can result in an increased risk of mild, moderate, and severe asthma exacerbations, increased headaches, higher levels of fatigue, cardiovascular risks, and numerous cancers.[14] In Pennsylvania alone, from 2010 to 2017, at least twenty people died due to pollution emitted by hydraulic fracturing.[15] However, courts continue to deny that hydraulic fracturing is abnormally dangerous, thus rejecting strict liability causes of action.[16]

B. What is Strict Liability?

Strict liability is liability that does not depend on proof of negligence or intent to harm but that is instead based on a duty to compensate the harms proximately caused by the activity or behavior subject to the liability rule.[17] Unfortunately, it is not possible to reduce abnormally dangerous activities to any

---

[12] Eric de Place, *Public Opinion is Moving Against Natural Gas and Fracking*, SIGHTLINE INSTITUTE (July 28, 2020), https://www.sightline.org/2020/07/28/public-opinion-is-moving-against-natural-gas-and-fracking/#:~:text=Gallup%20public%20opinion%20polling%20has,points%20in%20opposition%20by%202017.

[13] *Hydraulic Fracturing & Health,* NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES (Nov. 15 2022), https://www.niehs.nih.gov/health/topics/agents/fracking/index.cfm#:~:text=Water%20quality%20is%20a%20primary,and%20disposed%20of%20as%20wastewater.

[14] *Id.*

[15] *Study: Air Pollution from Fracking Linked to Deaths in Pennsylvania*, BINGUNEWS (June 18, 2020), https://www.binghamton.edu/news/story/2496/study-air-pollution-from-fracking-linked-to-deaths-in-pennsylvania.

[16] *See* Murrysville Watch Comm. v. Municipality of Murrysville Zoning Hearing Bd., 272 A.3d 998 (Pa. Commw. Ct. 2022); Frederick v. Allegheny Twp. Zoning Hearing Bd., 196 A.3d 677, 681 (Pa. Commw. Ct. 2018).

[17] Strict Liability, Black's Law Dictionary (11th ed. 2019).

single definition.[18] Courts decide, as a matter of law, whether an activity is "abnormally dangerous" and whether strict liability will be imposed.[19]

The inaugural case that established abnormally dangerous conduct was *Rylands v. Fletcher* in 1868.[20] In this case, Rylands, the landowner, built a reservoir on his property.[21] Prior and unbeknownst to him, Fletcher, a coal miner, was operating coal mines on the neighboring property.[22] After the reservoir was completed, the water traveled horizontally through old mine shafts that were under the reservoir to new shafts that Fletcher was in the process of developing.[23] Eventually, Ryland's reservoir flooded Fletcher's coal mines.[24] The dispositive issue in *Rylands* was whether the landowner could be held liable irrespective of negligence.[25] The trial court found Rylands not liable.[26] On appeal, the first appellate court affirmed the ruling of the trial court. [27] However, during the final appeal, the court reversed and found that Rylands may be liable for damages.[28] Ultimately, the court reasoned that when someone brings something onto his land that may do harm if it escapes, "he does so at his peril."[29]

---

[18] Restatement (Second) of Torts §520 (Am. L. Inst. 1977).
[19] *See* Diffenderfer v. Staner, 722 A.2d 1103, 1107 (Pa. Super. Ct. 1998).
[20] *See* Albig v. Mun. Auth. of Westmoreland Cnty., 502 A.2d 658, 661 (Pa. Super. Ct. 1985).
[21] *See* Rylands v. Fletcher, L.R. 3 H.L. 330 (1868).
[22] *Id.*
[23] *Id.*
[24] *Id.*
[25] *Id.*
[26] *Id.*
[27] Rylands v. Fletcher, L.R. 3 H.L. 330 (1868).
[28] Rylands v. Fletcher, L.R. 3 H.L. 330 (1868).
[29] *Id.*

Since *Rylands,* courts have expanded strict liability principles into other areas of law[30] and further developed the "ultrahazardous" and "abnormally dangerous" language.[31] Additionally and more importantly, strict liability was written into the Restatement (Second) of Torts in 1977.[32] As a result, the Superior Court of Pennsylvania has, on numerous occasions, adopted Sections 519 and 520 of the Restatement to determine whether an activity is abnormally dangerous.[33] Although Sections 519 and 520 have been adopted, Pennsylvania courts have consistently denied the application of strict liability to oil and gas related activities.[34] In general, the characterization of an activity as abnormally dangerous in Pennsylvania is extremely rare.[35] Although Pennsylvania courts have applied and rejected strict liability to other areas of law, the commonwealth's jurisprudence lacks a definitive answer on whether strict liability should apply specifically to fracking.

One federal district court, which has been subject to recent strict liability claims, reasoned that hydraulic fracturing did not meet the factors of Sections 519 and 520.[36] According to that court, (1) there was a lack of evidence as to whether

---

[30] *See* Dyer v. Maine Drilling & Blasting, Inc., 984 A.2d 210, 216 (Ma. 2009) (stating that policy shifts have led almost every other state to adopt the strict liability principle of *Rylands*.)

[31] Joshua Getzler, *Richard Epstein, Strict Liability, and the History of Torts*, 3, J. Tort L., 1, (2010).

[32] *Restatement of the Law (Second) Torts §504 to §587*, AMERICAN LAW INSTITUTE, (1977).

[33] *See* Banks v. Ashland Oil Co., 127 F.Supp.2d 679, 680 (E.D. Pa 2001); *see also infra* n. 63-64.

[34] *See* Smith v. Weaver, 665 A.2d 1215, 1216 (Pa. Super. Ct. 1995) (denying strict liability for a claim against the operation of an underground gasoline storage tank); Meslo v. Sun Pipe Line Co., 576 A.2d 999, 1000 (Pa. Super. Ct. 1990) (stating that the operation of a petroleum pipeline under a housing development was not an abnormally dangerous activity, thus denying strict liability).

[35] Rhoads Indus., Inc. v. Shoreline Found., Inc., 2022 WL 742486, (E.D. Pa. 2022).

[36] *See* Ely v. Cabot Oil & Gas Corp., 38 F.Supp 3d 518, 519 (M.D. Pa 2014).

hydraulic fracturing is abnormally dangerous, (2) there was minimal evidence that the likelihood of harm resulting from hydraulic fracturing will be great, and (3) any "risks may be substantially reduced through exercise of due care in the field."[37] As recent as 2022, courts of this commonwealth have debated, but not officially determined, whether hydraulic fracturing is abnormally dangerous.[38]

However, for plaintiffs seeking this judicial remedy, there is hope. A government funded study from the University of Pittsburgh released new evidence that exhibited the harmful effects of hydraulic fracturing.[39] Although this evidence alone may not be sufficient to make hydraulic fracturing a strict liability tort, it has laid the foundation for another potential change in American jurisprudence. This study, in combination with future research, could persuade courts to find defendants strictly liable.

This Article proceeds in four Parts: First, this article gives a brief overview of the *Ely v. Cabot Oil and Gas Corp.* case.[40] Second, it provides more information regarding the University of Pittsburgh Hydraulic Fracturing Epidemiology Research Studies.[41] Third, it applies the University of Pittsburgh studies to the

[37] *Ely*, 38 F.Supp 3d 518 at 531.
[38] *See* Murrysville Watch Comm. v. Municipality of Murrysville Zoning Hearing Bd., 272 A.3d 998 (Pa. Commw. Ct. 2022) (stating that prior Commonwealth Court decisions have noted, in passing, that "a gas well operator engaged in hydraulic fracturing and drilling operations does not constitute an abnormally dangerous activity.").
[39] Marc Levy, *A Pennsylvania study suggests links between fracking and asthma, lymphoma in children*, ASSOCIATED PRESS (August 16, 2023), https://apnews.com/article/fracking-pennsylvania-health-environment-research-79dd7cfb9b3799e628b0c3667f30dcc4
[40] *See* infra Section II. A.
[41] *See* infra Section II. B.

Restatement (Second) of Torts Sections 519 and 520.[42] Fourth, this article explains what is necessary for hydraulic fracturing to become a strict liability tort.[43]

II. BACKGROUND

A. Ely v. Cabot Oil and Gas Corp. - Procedural History

On November 19, 2009, forty-four plaintiffs collectively filed suit against Cabot Oil and Gas Corp. ("Defendants") for personal injuries and property damages as a result of Defendants' drilling operations in Dimock Township, Susquehanna County, Pennsylvania.[44] However, after five years of pending litigation, most of the plaintiffs settled and only twelve remained during the court's decision.[45] Defendants moved for summary judgment as to Plaintiffs' claims that hydraulic fracturing constitutes an abnormally dangerous activity under state law and should be subject to strict liability.[46]

The case was originally pending before Chief United States Magistrate Judge for the Middle District of Pennsylvania, Martin C. Carlson.[47] Magistrate Judge Carlson recommended that Defendants' Motion for Summary Judgment be granted after finding that hydraulic fracturing does not legally qualify as an ultra-hazardous activity giving rise to strict liability.[48] Plaintiffs objected to the magistrate judge's report and recommendation, and the matter came before United States District Judge John E. Jones.[49] Judge Jones was tasked with reviewing the magistrate judge's decision and ultimately ruling on whether

---

[42] *See* infra Section III. A.
[43] *See* infra Section III. B.
[44] *Ely*, 38 F.Supp 3d 518 at 519.
[45] *Id.*
[46] *Id.* at 520.
[47] *Ely*, 38 F.Supp 3d 518 at 519.
[48] *Id.*
[49] *Id.*

hydraulic fracturing is an abnormally dangerous activity and thus subject to strict liability.[50]

B. Factual Background

The twelve plaintiffs in this case were Nolen Scott Ely, as Executor of the Estate for Kenneth R. Ely, his father; Nolen Scott Ely and Monica Marty-Ely, both individually and as parents of their three minor children ("the Elys"); and Ray and Victoria Hubert, individually and as parents of their two children ("the Huberts").[51] All Plaintiffs entered into gas leases with Defendants from September 2006 to June 2007.[52] Defendants began drilling the Gesford 3 well on Plaintiffs' property in September 2008, however, it was never hydraulically fractured.[53] In October 2008, Defendants drilled a second gas well, called the Gesford 3S and finished drilling two months later.[54] The Gesford 3S well was hydraulically fractured in March of 2009.[55] In August 2009, the Gesford 3 well was re-permitted as the Gesford 9 well.[56] Again, it was never hydraulically fractured and both the Gesford 3S and 9 wells were abandoned in May 2010.[57]

The Elys claimed that their water supply was affected by the Defendants' drilling operations and stated causes of action for personal injuries, future medical monitoring, and property damage.[58] The Huberts, who lived in a trailer on the Ely's property, also alleged that their water supply was affected by the Defendants'

---

[50] *Id.* at 520.
[51] *Id.* at 521.
[52] *Ely*, 38 F.Supp 3d 518 at 520-521.
[53] *Id.* at 522.
[54] *Id.*
[55] *Ely*, 38 F.Supp 3d 518 at 519.
[56] *Id.*
[57] *Id.*
[58] *Id.* at 520.

drilling.[59] However, the Huberts did not state claims for personal injuries or medical monitoring.[60] Specifically, all Plaintiffs alleged that the hazardous chemicals and combustible gasses used by the Defendants were "ultra-hazardous and abnormally dangerous" and that the use of hydraulic fracturing on Plaintiffs' property was an "ultra-hazardous and abnormally dangerous activity."[61]

C. Ely Court's Opinion

The court notes that in Pennsylvania, strict liability causes of action are recognized for abnormally dangerous and ultra-hazardous activities.[62] In doing so, courts should apply the Restatement (Second) of Torts Sections 519,[63] and 520.[64] [65] In this case, however, when applying the Restatement's multifaceted test, the evidence presented did not support the notion that hydraulic fracturing is an abnormally dangerous activity subject to strict liability.[66] Consequently, Defendants' Motion for Summary Judgment on Plaintiffs' strict liability claim was granted.[67]

D. Ely Court's Reasoning - An Application of the Restatement

---

[59] *Id*. at 522.
[60] *Ely*, 38 F.Supp 3d 518. at 522.
[61] *Id.*
[62] *Id*. at 527.
[63] Restatement (Second) of Torts §519 states that "one who carries on an abnormally dangerous activity is subject to liability from harm of another resulting from the activity, although he exercised the utmost care to prevent the harm." Restatement (Second) of Torts §519 (1) (Am. L. Inst.1977).
[64] Restatement (Second) of Torts §520 lists five factors: (a) existence of a high degree of risk of some harm to the person, land or chattels of others; (b) likelihood that the harm that results from it will be great; (c) inability to eliminate the risk by the exercise of reasonable care; (d) extent to which the activity is not a matter of common usage; (e) inappropriateness of the activity to the place where it is carried on; and (f) extent to which its value to the community is outweighed by its dangerous attributes. Restatement (Second) of Torts § 520 (Am. L. Inst.1977).
[65] *Ely*, 38 F.Supp 3d 518 at 528.
[66] *Id*. at 529.
[67] *Id*. at 534.

The court attributed its decision on a failure by Plaintiffs to provide evidence that satisfy the factors stated in the Second Restatement of Torts §520.[68] For the first factor, the existence of a high degree of risk of some harm, Plaintiffs did not carry their burden of proof.[69] Although Plaintiffs provided some persuasive evidence, it was outweighed by Defendants' numerous reports, data analysis, and expert commentary that the risks from hydraulic fracturing are minimal.[70] One of the reports provided by the Pennsylvania General Assembly indicated no significant influences from fracking in over 200 examined water samples.[71] Additionally, instead of arguing that hydraulic fracturing as a whole is abnormally dangerous, Plaintiffs argued that the activities in this specific case were abnormally dangerous.[72] This was a misplaced focus.[73] Plaintiff should have instead argued that properly conducted hydraulic fracturing and other natural gas drilling activities as a whole are subject to strict liability.[74] Essentially, Plaintiffs' invalid application of the law in combination with non-supporting evidence or case law persuaded the court to find that the first factor was not met.[75]

For the second factor, the likelihood that the harm will be great, the court again balanced the evidence of the two parties.[76] For the second time, Plaintiffs failed to meet their burden.[77] Specifically, the court stated, "[n]one of the Plaintiffs' experts offer an opinion that speaks to whether the likelihood from Defendants'

---

[68] *Ely,* 38 F.Supp 3d 518 at 529-535.
[69] *Id.* at 529.
[70] *Id.*
[71] *Id.*
[72] *Ely,* 38 F.Supp 3d at 530.
[73] *Id.*
[74] *Id.*
[75] *Id.*
[76] *Id.*
[77] *Id.*

properly conducted gas drilling operations will be significant."[78] The Plaintiffs only evidence was a 1949 Pennsylvania Supreme Court case about surface blasting, which the State Supreme Court held to be an ultra-hazardous activity.[79] Although Plaintiffs cited case law to support their position, the case law was neither persuasive nor analogous.[80] In fact, the court found that the case law dealt with a "quite different industrial context" and as a result, was insufficient to support the second factor of §520.[81]

Once again, Plaintiffs' lack of evidence proved to be their demise as the third factor, the ability to eliminate the risk through due care, was not met.[82] Plaintiffs offered one main piece of evidence, a report from an engineering expert.[83] The expert report detailed that through Defendants' negligence and faulty construction, fluid migration interfered with Plaintiffs' water supply.[84] The court noted, however, that the expert's focus on negligence undermines the Plaintiffs' assertion that the risks cannot be eliminated by due care.[85] On the other hand, Defendants submitted reports indicating that proper drilling techniques have substantially mitigated risks and that as innovation continues, such risks become less frequent.[86]

Plaintiffs were unable to provide evidence to substantiate their claim to factor four, whether gas drilling operations are common in that area.[87] Instead,

---

[78] *Ely,* 38 F.Supp 3d 518 at 530.
[79] *Id.* at 531.
[80] *Id.*
[81] *Id.*
[82] *Ely,* 38 F.Supp 3d 518 at 532.
[83] *Id.*
[84] *Id.*
[85] *Id.*
[86] *Id.*
[87] *Id.*

Plaintiffs made generic statements that hydraulic fracturing is "novel" in Dimock township.[88] The court refused to credit this argument and noted that Pennsylvania has a longstanding and historic relationship with oil and gas drilling.[89] The court cited numerous figures which evince that hydraulic fracturing was and is extremely common in Pennsylvania.[90] For instance, from 2009 to 2014, Pennsylvania permitted more than 9,800 wells in the commonwealth.[91] Furthermore, there have been over 350,000 wells drilled in this commonwealth and over 1,100 wells in Susquehanna County alone.[92] Consequently, that evidence indicates that hydraulic fracturing is common, thus weighing against Plaintiffs' strict liability claim.[93]

For the fifth factor, the inappropriateness of the activity to the place where it is carried on, Plaintiffs contend that Defendants operated the wells too close to Plaintiffs' water supplies.[94] However, a combination of Plaintiffs voluntarily entered lease agreements with General Assembly reports indicating proper well placement, persuaded the court to side with Defendants.[95] Thus, the evidence indicated that the fifth factor was not met and strict liability would not apply.[96]

Finally, and the most damaging to Plaintiffs' claim, was the factor considering the economic value of gas drilling operations.[97] In its decision, the Middle District cited a Pennsylvania Superior Court case which indicated that this

---

[88] *Ely,* 38 F.Supp 3d 518 at 532.
[89] *Id.*
[90] *Id.*
[91] *Id.*
[92] *Ely,* 38 F.Supp 3d 518 at 532.
[93] *Id.*
[94] *Id.*
[95] *Id.*
[96] *Id.*
[97] *Id.*

factor "is particularly important in an assessment of whether an activity is subject to strict liability."[98] The Restatement explicitly notes that if the activity is central to a community's economic well-being, then the activity's value is imperative.[99] For this factor, the evidence is "decidedly in the Defendants' favor."[100] The court noted that although the societal detriments of fracking and its uncertain economic future can be suggested, the court prioritizes the actual evidentiary record, which in this case weighed heavily in favor of the Defendants.[101]

Ely v. Cabot Oil and Gas Corp. is the paradigm case to explain how courts have historically analyzed strict liability causes of action in oil and gas cases. In deciding this case, the court was asked to take a step which no court had previously taken, by considering whether hydraulic fracturing is a strict liability tort.[102] The court's opinion was primarily based on a lack of supportive evidence submitted by the Plaintiffs.[103] Therefore, new evidence, such as the one recently released by the University of Pittsburgh, provides future plaintiffs with some hope that fracking may still be an abnormally dangerous activity.

E. Pennsylvania Department of Health - Hydraulic Fracturing Epidemiology Research Studies

In November 2019, Pennsylvania Governor Tom Wolf agreed to spend $2.5 million of taxpayer money to fund a study of the potential health effects of the

[98] *Ely*, 38 F.Supp 3d 518 at 532 (citing Albig v. Municipal Authority of Westmoreland County, 502 A.2d 658, 663 (Pa. Super. Ct. 1985)).
[99] *Ely*, 38 F.Supp 3d 518 at 533.
[100] *Id.*
[101] *Ely*, 38 F.Supp 3d 518 at 533.
[102] *Id.* at 519.
[103] *Id.* at 523.

natural gas industry.[104] The study was prompted by an increased diagnosis of Ewing's sarcoma in children and adults in heavily drilled areas of the state.[105] The reports of the study were dissected into three categories; (1) Asthma Outcomes; (2) Childhood Cancer; and (3) Birth Outcomes.[106] The studies, which intended to replicate and enhance similar findings in Eastern Pennsylvania, [107] began in November of 2019 and were expected to last three years[108].

1) Asthma Outcomes

To be included in the Asthma Outcome study, participants needed to have (1) an electronic health record with the University of Pittsburgh Health System between 2011-2020; (2) be aged 5 to 90; (3) have residency within the eight county study area of Allegheny (excluding the city of Pittsburgh), Armstrong, Beaver, Butler, Fayette, Greene, Washington and Westmoreland; (4) have a primary diagnosis of asthma; and (5) have at least one order for medications prescribed for asthma.[109] Participants with specific medical conditions were excluded from the study.[110] After all factors were implemented, the Asthma Outcomes study was conducted on 46,676 patients.[111]

---

[104] *Pennsylvania to Fund Research into Fracking Health Dangers,* ASSOCIATED PRESS (Nov. 22 2019), https://apnews.com/article/e7859cfd44f145f18463568a5891e6b6.
[105] *Id.*
[106] Anya Litvak, *'Is it safe to live here?: Questions loom at presentation of reports on fracking and health in southwestern PA,* PITTSBURGH POST-GAZETTE (Aug. 16, 2023), https://www.post-gazette.com/news/health/2023/08/15/shale-gas-fracking-health-studies/stories/202308150112
[107] University of Pittsburgh School of Public Health, *Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes*, 7, *(2023)*, https://paenv.pitt.edu/assets/Report_Asthma_outcomes_revised_2023_July.pdf.
[108] Pennsylvania to Fund Research into Fracking Health Dangers*, supra note* 105.
[109] Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes*, supra* note 107 at 8.
[110] *Id.*
[111] *Id.* at 15.

In studying the exacerbation of asthma symptoms, patients' exacerbation was defined as either "severe exacerbation," "emergency department severe exacerbation," or "hospital exacerbation."[112] Further, there were four phases of potential exposure: (1) well pad preparation, (2) drilling, (3) hydraulic fracturing, and (4) production.[113] Finally, the study was conducted at distances of one mile, two miles, five miles, and ten miles.[114]

The University of Pittsburgh found that during the production phase of hydraulic fracturing, people with asthma were four to five times more likely to suffer from an asthma attack than those who do not live within close proximity to a fracked well.[115] Specifically, asthma hospitalizations were most prevalent amongst females, severe exacerbations occurred most frequently among 5-13 year olds, and emergency department and hospital exacerbations were most common in 19-45 year olds.[116] Most importantly, this study "provides evidence of associations between unconventional natural gas development ("UNGD") and asthma exacerbations."[117]

2) Childhood Cancer Outcomes

To be included in the childhood cancer study, patients needed (1) to have residency within the same eight county study area; (2) be aged 0-29 during the time of the study; (3) and be diagnosed with either leukemia, lymphoma, CNS

[112] *Id.* at 8-9.
[113] Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107 at 11.
[114] *Id.*
[115] *Id.* at 30-34.
[116] *Id.* at 19.
[117] *Id.* at 33.

tumors, or malignant bone tumors.[118] After all factors were implemented, the childhood cancer study was conducted on 498 childhood cancer patients, all of whom were diagnosed with cancer from 2010 to 2019.[119] Again, there were four phases of potential exposure.[120] However, for this study, the radius was patients living within 5 miles of a hydraulicly fracked well.[121]

The University of Pittsburgh found that children who lived within one mile of a well had "approximately 5 to 7 times the chance of developing lymphoma, a relatively rare type of cancer, compared to children who lived in a place with no wells within 5 miles."[122] Yet, there was no evidence to support an association between hydraulic fracturing and the other three forms of cancer that were examined: leukemia, CNS tumors, and malignant bone tumors.[123]

3) Birth Outcome Study

To be included in the Birth Outcomes Study, patients needed to be (1) born between January 1, 2010, and December 31, 2020; (2) in the eight-county study area; and (3) lack specific birth defects identified at birth.[124] After all factors were implemented, the study was conducted on 185,849 participants.[125]

---

[118] University of Pittsburgh School of Public Health, *Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study*, 16, (2023), https://paenv.pitt.edu/assets/Report_Cancer_outcomes_2023_August.pdf.
[119] Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study*, supra* note 118, at 15.
[120] *Id.* at 25.
[121] *Id.*
[122] *Id.* at 59.
[123] *Id.*
[124] University of Pittsburgh School of Public Health, *Hydraulic Fracturing Epidemiology Research Studies: Birth Outcomes*, 12, (2023), https://paenv.pitt.edu/assets/Report_Birth_outcomes_Revised_2023_July.pdf.
[125] *Id.* at 21.

The study focused on three primary outcomes: (1) small gestational age (2) preterm birth and (3) term birth weight.[126] The study focused on children born in the 10th percentile for their gestational age, premature births between 22 and 36 weeks, and birth weight in grams for births between 37 and 41 weeks.[127] Once again, the study examined four phases of potential exposure.[128]

The research found "moderate to strong data to suggest an increased risk with the production phase."[129] The study also found "limited data to suggest an increased risk in the drilling phase."[130] Further, there was "strong data to suggest an increase with the production phase, with statistically significant reductions in birthweight with increasing intensity of exposure."[131] Ultimately, hydraulic fracturing had a limited effect on fetal growth, and the chance of being born prematurely was not explicitly associated with hydraulic fracturing.[132] However, air pollution, which occurs during hydraulic fracturing, can be associated with an increased chance of premature birth.[133]

4) General Outcomes

The reports indicated two significant points. First, hydraulic fracturing is prevalent in Pennsylvania.[134] The reports indicate that, as of 2020, there were

[126] Hydraulic Fracturing Epidemiology Research Studies: Birth Outcomes, *supra* note 124, at 12.
[127] *Id.*
[128] *Id.* at 14.
[129] *Id.* at 58.
[130] *Id.*
[131] *Id.*
[132] Hydraulic Fracturing Epidemiology Research Studies: Birth Outcomes, *supra* note 124, at 58.
[133] *Id.* at 61.
[134] Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 16.

almost 5,800 fracked wells in the eight-county specific region of the study.[135] Second, researchers found significant associations between hydraulic fracturing and an increased risk of asthma exacerbations and lymphoma in children.[136]

III. Analysis

A. Applying the University of Pittsburgh Studies to the Restatement

The question now is whether this information is enough to establish hydraulic fracturing as a strict liability tort. As noted above, in *Ely v. Cabot Oil & Gas*, Plaintiffs suffered a defeat due to a lack of evidence in support of their position.[137] However, the evidence provided by the University of Pittsburgh challenges the contention that fracking should not be a strict liability tort. As a result, the information obtained from the study should be applied to the Restatement (Second) of Torts Sections 519 and 520 to determine whether fracking is abnormally dangerous.

It is important to note that when the *Ely* court released its findings, none of the information regarding the dangers of fracking was apparent or submitted into the evidentiary record. Therefore, this analysis does not argue that the *Ely* court was wrong in its decision. In fact, the Middle District Court published the correct decision based on the evidence submitted before the court. Instead, this analysis indicates that, as new evidence emerges, the *Ely* opinion may no longer be the dominant source of authority. Rather, until appellate courts create binding

---

[135] *Id*.
[136] Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 30-31; Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 59.
[137] *Ely*, 38 F. Supp 3d 518 at 521.

authority, courts should conduct their own inquiry into whether fracking is a strict liability tort.

The first factor of Restatement (Second) §520 is the existence of a high degree of risk of some harm to the person, land, or chattels of others.[138] The University of Pittsburgh study indicates that there is an existence of a high degree of harm in two areas, asthma[139] and lymphoma.[140] Specifically, people with asthma were four to five times more likely to suffer from an asthma attack than those who do not live within a close proximity to a hydraulic fracturing well.[141] In addition, those who lived within one mile of a hydraulic fracturing well had five to seven times the chance of developing lymphoma compared to those who had no wells within five miles of their residence.[142] These findings refute the decision of the *Ely* court, which accepted Defendants' position that risks from a properly drilled, cased, and hydraulically fractured well are minimal.[143]

The second factor of Restatement (Second) §520 is whether the likelihood that the harm resulting from it will be great.[144] In *Ely*, the court stated, "[o]n this relevant factor…the evidence does not support the Plaintiffs' position."[145] However, the evidence from the University of Pittsburgh study contradicts this finding. In the asthma study, of the 46,676 participants, roughly 40%, experienced

---

[138] Restatement (Second) of Torts §520 (Am. L. Inst. 1977).
[139] Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 30.
[140] Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Study, *supra* note 118, at 59.
[141] Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, supra note 107, at 30.
[142] Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 59.
[143] *Ely*, 38 F. Supp 3d 518 at 529.
[144] Restatement (Second) of Torts §520 (Am. L. Inst. 1977).
[145] *Ely*, 38 F. Supp 3d 518 at 530.

some type of asthma exacerbation.[146] Of that 40%, 87% of those experiencing exacerbations were documented to have "severe exacerbations."[147] Of the remaining participants who experienced exacerbations, 12% required emergency care or urgent care encounters, while 1% were hospitalized due to their medical condition.[148] Therefore, when considering that over 18,000 people in the span of three years were prescribed increased medication or suffered symptoms requiring medical treatment, the resulting harm from hydraulic fracturing is great.

Furthermore, the risk of developing lymphatic cancer was higher for those living within a closer proximity to a fracking well.[149] Lymphoma is a very uncommon and relatively rare disease.[150] Although lymphoma has about an 80% survival rate, lymphoma patients may be required to endure extensive medical treatment such as chemotherapy or stem cell transplants.[151]

Unrelated to the University of Pittsburgh findings, Cabot Oil and Gas Corporation was criminally indicted in February 2020 for its "long-term indifference to the damage it caused to the environment and citizens of Susquehanna County."[152] Within the grand jury's report, numerous residents,

---

[146] Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 19.
[147] *Id.*
[148] *Id.*
[149] *Id.* at 59.
[150] *What is lymphoma? An expert explains*, THE MAYO CLINIC (last visited October 31, 2023), https://www.mayoclinic.org/diseases-conditions/lymphoma/multimedia/vid-20522470.
[151] *Survival rates for non-Hodgkin and Hodgkin lymphoma*, MEDICAL NEWS TODAY (last visited October 31, 2023), https://www.medicalnewstoday.com/articles/prognosis-for-lymphoma#factors-affecting-outlook.
[152] Comm. of Pennsylvania v. Cabot Oil and Gas Corp., 43rd Statewide Grand Jury Indictment, 17-18, (June 15, 2020).

some of whom were members of the Ely family, were mentioned by name.[153] Residents reported symptoms of bodily blotches, rashes, nausea, vision problems, difficulty breathing, and dizziness.[154] Thus, the combination of the University of Pittsburgh studies, as well as other mounting evidence, indicates that there is a likelihood of harm, and that the harm will be great.

The third factor of §520 is the inability to eliminate the risk by the exercise of reasonable care.[155] In *Ely*, the court notes that although there have been instances where drilling operations have caused harm, such risks may be substantially reduced through the exercise of due care.[156] In reaching this conclusion, the court agreed with Defendants' evidence which indicated that as innovation continues, risks from drilling operations are diminished.[157] Although the University of Pittsburgh studies made no mention of mitigating risks, or statements regarding whether results would have changed through the exercise of due care, the evidence implies a conclusion opposite of the *Ely* court.

For instance, in the Childhood Cancer Study, the number of cancer cases by year appears to be evenly distributed from 2010 to 2019.[158] Furthermore, in the Asthma Outcomes Study, there were more severe exacerbations in 2019 than in 2011, the first year in which data was obtained.[159] Additionally, there were more

---

[153] *Id.* at 10-11.
[154] *Id.* at 13-14.
[155] Restatement (Second) of Torts §520 (Am. L. Inst. 1977).
[156] *Ely*, 38 F. Supp 3d 518 at 531.
[157] *Ely*, 38 F. Supp 3d 518 at 531.
[158] Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 39.
[159] Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 19.

emergency department exacerbations in 2020 than in 2011 and more hospitalizations in 2020 than in 2011.[160]

Logically, if fracking related cancer cases are evenly distributed over ten years, and asthma exacerbations are worse in 2020 than they were ten years prior, innovation is not diminishing the risks resulting from hydraulic fracturing. If anything, the risks from hydraulic fracturing are the same, if not worse, than they were a decade ago. Although not definitively proved, it is conceivable that hydraulic fracturing risks have not been mitigated, and cannot be mitigated, through an exercise of due care.

The fourth factor of §520 is the extent to which the activity is not a matter of common usage.[161] An activity is a matter of common usage if it is customarily carried on by the great mass of mankind or by many people in the community.[162] In *Ely*, Plaintiffs asserted, and the court instantly rejected, the notion that hydraulic fracturing was novel during the time at issue.[163] The University of Pittsburgh studies do not dispute the court's finding on this factor. The studies note, as of December 2020, there were 12,903 unconventional wells active throughout PA and 5,464 in the 8 county region. [164] As a result, the prevalent nature of fracking wells weighs against hydraulic fracturing being a strict liability tort.[165] However, the Restatement notes that although all factors should be

[160] *Id*.
[161] Restatement (Second) of Torts §520 (Am. L. Inst. 1977).
[162] Restatement (Second) of Torts §520 cmt. i. (Am. L. Inst. 1977).
[163] *Ely*, 38 F. Supp 3d 518 at 532.
[164] *Id*.
[165] *Id*.

considered, it is not necessary that each of them be present to find strict liability, especially if others weigh heavily.[166]

The fifth factor of §520 is the inappropriateness of the activity to the place where it is carried on.[167] For this factor, two things will be important in determining whether the drilling is appropriate: the drilling lease and the proximity to water sources.[168] In *Ely*, the court noted that it would not embrace the Plaintiffs' inappropriateness assertion, considering the well was drilled in accordance with a valid and voluntary lease and was permitted by the commonwealth's environmental regulatory body.[169] Here, the University of Pittsburgh study provides no insight into whether drilling within a specific area is "appropriate."

However, the studies indicate that when the proximity to a well increases, the risk of asthma exacerbations and lymphoma increases.[170] Specifically, the Childhood Cancer study found that "the closer the proximity of a residence to an unconventional natural gas development ("UNGD") site, the higher the risk of lymphoma, which further supports a possible link between UNGD activity and risk of childhood lymphoma."[171] Therefore, based on the study's buffer zones, the research infers that no distance within 10 miles of a residence would be appropriate.

---

[166] Restatement (Second) of Torts §520 cmt. f. (Am. L. Inst. 1977).
[167] Restatement (Second) of Torts §520 (Am. L. Inst. 1977).
[168] *Ely*, 38 F.Supp 3d 518 at 532.
[169] *Id*.
[170] Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes, *supra* note 107, at 30-31; Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 59.
[171] Hydraulic Fracturing Epidemiology Research Studies: Childhood Cancer Case-Control Study, *supra* note 118, at 59.

Lastly, courts consider the sixth factor, whether the activity's value to the community outweighs any potential harm.[172] The Restatement explains this factor through an application of the Restatement to various legal settings, including oil and gas. For instance, an oil well may not be considered abnormally dangerous in Texas or Oklahoma because of its economic importance, but the same oil well in Indiana or Kansas might be subject to strict liability.[173] This factor is a "critical consideration" in determining whether a defendant should be held strictly liable.[174]

Consequently, this factor delivers a serious blow to Plaintiffs seeking to file a strict liability cause of action for hydraulic fracturing. Although the evidence above indicates that hydraulic fracturing presents a high degree of harm, the likelihood of harm will be great, and the harm cannot be eliminated through due care, the economic benefits are imperative to this commonwealth. For instance, the natural gas industry in Pennsylvania supports more than 190,000 jobs and contributes over $44 billion to the commonwealth's economy each year.[175]

Further, locally fracked communities experienced significant economic gains.[176] After three years of drilling, fracked communities produced an additional

---

[172] Restatement (Second) of Torts §520 (Am. L. Inst. 1977).
[173] Restatement (Second) of Torts §520 cmt. k. (Am. L. Inst. 1977).
[174] *See* Albig v. Municipal Authority of Westmoreland County, *supra* note 20 (emphasizing that the value of the activity outweighed its harm).
[175] *Balancing Benefits and Concerns: The Natural Gas Industry in Pennsylvania*, PENN WATCH (Jan. 30, 2023), https://pennwatch.org/balancing-benefits-and-concerns-the-natural-gas-industry-in-pennsylvania/#:~:text=The%20natural%20gas%20industry%20has%20created%20tens%20of%20thousands%20of,economic%20activity%20in%20the%20region.
[176] Chris Fleisher, *Weighing the impacts of fracking: How should local communities think about the economic and welfare consequences of natural gas development?*, AMERICAN ECONOMIC ASSOCIATION (Oct. 25, 2019), https://www.aeaweb.org/research/fracking-shale-local-impact-

$400 million of oil and natural gas on average, had an increased total income of 3.3-6.1%, an increased employment of 3.7-5.5%, and a 5.7% increase on housing prices.[177] In 2022, Washington County, one of the counties in the study and the county with the most fracking wells in the region,[178] received $7.6 million in impact fee money, the most of any county government in Pennsylvania.[179] Impact payments are paid to counties and municipalities that have drilling operations in their area with the goal of offsetting the adverse impacts of natural gas development.[180] Although the natural gas industry frequently faces boom and bust periods, the economic impact of drilling operations weighs in favor of defendant gas companies.

Of course, proponents of strict liability will argue that it is still undecided on who actually benefits economically from fracking. However, courts can only rule on the evidentiary record that is established before the court.[181] Therefore, for Plaintiffs to overcome this final hurdle, they will need two things: a stronger evidentiary record and a change in the energy market.

A. Can Fracking Ever Become a Strict Liability Tort?

---

net#:~:text=Fracked%20communities%20had%20significant%20economic,housing%20prices%20(5.7%20percent).

[177] *Id.*

[178] Hydraulic Fracturing Epidemiology Research Studies: Asthma Outcomes Study, *supra* note 107, at 16.

[179] Mike Jones, *Washington County leads state in natural gas drilling impact fee revenue*, OBSERVER REPORTER (June 22, 2022), https://observer-reporter.com/news/localnews/washington-county-leads-state-in-natural-gas-drilling-impact-fee-revenue/article_9e3a957a-f196-11ec-a377-3b7ee4326b9c.html.

[180] Zack Hoopes, *Pa. fracking fees come in at $279 million for 2022, PUC says*, PENN LIVE (June 20, 2023), https://www.pennlive.com/news/2023/06/pa-fracking-fees-come-in-at-279-million-for-2022-puc-says.html.

[181] *Ely*, 38 F. Supp 3d 518 at 533.

As noted above, the *Ely* opinion is the illustrative case for determining whether fracking is a strict liability tort. In its decision, the Middle District Court, applying Pennsylvania law, emphasized that Pennsylvania courts have consistently denied strict liability applications to other factually related oil and gas production activities.[182] The court then made the logical jump in concluding that strict liability would not apply to instances of hydraulic fracturing.[183] In doing so, the court created the first instance of persuasive authority for Pennsylvania courts on a highly litigious issue. Following this opinion, Pennsylvania appellate courts have stated, in dicta, that strict liability does not apply to fracking.[184] However, no federal or Pennsylvania appellate court has decided this issue on the merits. Thus, at this procedural moment, the *Ely* opinion is the only case within the Commonwealth of Pennsylvania where a court has explicitly rejected a hydraulic fracturing strict liability claim.

This provides a small amount of hope for plaintiffs wishing to attach strict liability causes of action to their complaint. Although comprehensive, as a district court opinion, the ruling provides relatively little precedential insight. Procedurally, a single district court decision has little precedential effect and is not binding on other district judges in the same district, or in other federal

[182] *Id.* at 529.
[183] *Id.* at 534.
[184] *See* Murrysville Watch Comm. v. Municipality of Murrysville Zoning Hearing Bd., 272 A.3d 998 (Pa. Commw. Ct. 2022), 283 A.3d 790 (Pa. 2022); Frederick v. Allegheny Twp. Zoning Hearing Bd., 196 A.3d 677, 689 (Pa. Commw. Ct. 2018); United Ref. Co. v. Dep't of Env't Prot., 163 A.3d 1125, 1135 (Pa. Commw. Ct. 2017).

districts.[185] Furthermore, Pennsylvania courts are not bound by federal district court opinions interpreting Pennsylvania law but may use their decisions for guidance.[186] As a singular decision, decided on a motion for summary judgment, the opinion only forbade the Ely's from pursuing strict liability claims, but did not prevent other plaintiffs from doing so.[187] Therefore, plaintiffs can still bring forth these claims with the hope that a separate trial court may rule differently than the *Ely* court. Though, given the thorough analysis and record provided by the *Ely* court, especially the emphasis that other Pennsylvania courts have consistently denied strict liability causes of action, it is hard to believe that such claims would survive. If such claims do survive, however, these trial court opinions could provide other plaintiffs with grounds for asserting their own strict liability causes of action, ultimately creating a domino effect.

If plaintiffs are expected to overcome this persuasive hurdle, developments are necessary in order for courts to disregard the only independently evaluated decision in this jurisdiction.[188] First, as emphasized in *Ely*, a larger and more developed evidentiary record is required on behalf of plaintiffs.[189] The University

---

[185] Threadgill v. Armstrong World Industry., Inc., 928 F.2d 1366, 1371 (3d Cir. 1991) (citing United States v. Article of Drugs Consisting of 203 Paper Bags, 818 F.2d 569, 572 (7th Cir. 1987)).

[186] *See* Duquesne Light Co. v Pennsylvania American Water Co., 850 A.2d 701, 705 (Pa. Super. Ct. 2004); *see also* United Ref. Co. v. Dep't of Env't Prot., 163 A.3d 1125, 1135 (Pa. Commw. Ct. 2017) (stating, "**while not binding on this Court**, the United States District Court for the Middle District of Pennsylvania has held that hydraulic fracturing is not an abnormally dangerous activity under Pennsylvania law. Thus, we reject Petitioner's argument.") (emphasis added).

[187] *Ely,* 38 F. Supp 3d 518 at 534.

[188] *See* Max's Seafood Cafe ex rel. Lou-Ann, Inc. v. Quinteros, 176 F.3d 669, 677 (3d Cir. 1999) (stating that a judgment may be altered or amended if the party seeking reconsideration shows the availability of new evidence that was not available when the court granted the motion for summary judgment.)

[189] *Ely*, 38 F. Supp 3d 518 at 523.

of Pittsburgh study provides novel evidence to dispute whether the factors of Restatement (Second) of Torts §520 should deem hydraulic fracturing as a strict liability tort. However, this information alone is not enough for courts to determine that it is an abnormally dangerous activity. As a matter of law, the court, upon the consideration of all the factors and the weight given to them by the evidence submitted, must determine whether the activity is abnormally dangerous.[190] Currently, this evidence weighs slightly in favor of defendants.

Fortunately for plaintiffs, the Pennsylvania government has shown an interest in conducting extensive investigations into the state's drilling activities.[191] As recent as November 2023, the Pennsylvania Department of Environmental Protection has agreed to work with a major natural gas producer to collect in-depth data on air emissions and water quality at well sites.[192] Also, as noted above, the Pennsylvania Office of Attorney General has taken steps to investigate oil and gas companies for their environmental crimes within the Commonwealth.[193]

However, assuming more evidence is obtained which indicates that hydraulic fracturing poses a danger to others, plaintiffs still face a tough hurdle when attempting to overcome the fourth and sixth factors of the Restatement. The Restatement provides vast commentary on the importance of common usage and its economic value to the community. For instance, the text states, "[t]he usual dangers resulting from an activity that is one of common usage are not regarded

---

[190] Restatement (Second) of Torts §520 cmt. l (Am. L. Inst. 1977).
[191] Audrey Carleton, *Gov. Shapiro's deal with fracking company splits environmentalists*, PENN CAPITAL-STAR (NOV. 20, 2023), https://www.penncapital-star.com/energy-environment/gov-shapiros-deal-with-fracking-company-splits-environmentalists/.
[192] Rubinkam *supra* note 11.
[193] *See* Comm. of Pennsylvania v. Cabot Oil and Gas Corp. *supra* note 153.

as abnormal, even though a serious risk of harm cannot be eliminated by all reasonable care."[194] The importance of the activity's monetary value can be found in Comment k of Restatement (Second) §520 which states:

> Even though the activity involves a serious risk of harm that cannot be eliminated with reasonable care, and it is not a matter of common usage, its value to the community may be such that the danger will not be regarded as an abnormal one. This is true particularly when the community is largely devoted to the dangerous enterprise and its prosperity largely depends upon it.[195]

The Restatement implies, and courts have inferred, that even though all factors are of importance and to be considered, if the activity is common and economically beneficial, factors (d) and (f) can be dispositive.[196] Therefore, because Pennsylvania communities, and the state as a whole, are largely dependent on this historically common activity, it seems virtually impossible for courts to view hydraulic fracturing as a strict liability tort in Pennsylvania. Unless the state finds an alternative energy source to replace the regularity and prosperity of fracking, its consistency and prominence will persuade courts to rule that hydraulic fracturing is too beneficial and common to be a strict liability tort.

The last option for plaintiffs is to appeal to their state legislators. Specifically, constituents could demand that the state legislature pass statutes that make fracking operators subject to strict liability. These laws would be similar to other statutes raised and passed in other parts of the country.[197] Although, constituents would most likely struggle to persuade the legislature that

---

[194] Restatement (Second) of Torts §520 cmt. i. (Am. L. Inst. 1977).

[195] Restatement (Second) of Torts §520 cmt. k. (Am. L. Inst. 1977).

[196] *See* Albig v. Municipal Authority of Westmoreland County, *supra* note 20.

[197] *See* 225 Ill. Comp. Stat. 732/1-85 (2013) (establishing a rebuttable presumption of liability against operators for contaminated waters within a specified distance from the fracked location); N.C. Gen. Stat. §§ 113-421 (2012) (same).

an activity that is so commonplace and profitable in the commonwealth should be an ultra-hazardous activity.

IV. Conclusion

Environmental advocates argue that the negative impact of hydraulic fracturing on the environment is evident and requires immediate change. Proponents of non-renewable energy sources argue that fracking's economic benefits substantially outweigh any negative societal impacts.

Although courts of this Commonwealth have been reluctant to provide a concrete answer on whether hydraulic fracturing is a strict liability tort, this paper confirms that it is not. In Pennsylvania, hydraulic fracturing is too profitable and too common to be considered a strict liability tort under the Restatement. As such, plaintiffs should not be able to recover under this theory of liability. Instead, plaintiffs should continue to assert their claims under traditional and longstanding negligence principles.

Case Note: *League of United Latin Am. Citizens v. Regan*

Rachel Schade[1]

I. INTRODUCTION

Agencies have the power of self-governance under the limited powers statutorily provided by Congress.[2] Agency decisions can be easily overturned by Congressional order, but when should the judiciary get involved?[3] The answer may lie in the Ninth Circuit Court of Appeals case, *League of United Latin Am. Citizens v. Regan*.[4]

The fate of chlorpyrifos pesticide came to a head in the recent 2019 Ninth Circuit of Appeals case, *League of United Latin Am. Citizens v. Regan*.[5] Chlorpyrifos pesticides have been at the center of no fewer than six disputes brought before the United States Court of Appeals for the Ninth Circuit during the twenty-first century.[6] Chlorpyrifos is an organophosphate insecticide employed for the eradication of various pest species like termites, mosquitoes, and roundworms.[7] It was initially registered as a pesticide in 1965 and underwent re-registration by the Environmental Protection Agency ("EPA") in 2006.[8] Since then, the EPA has

---

[1] Candidate for J.D., May 2025, Thomas R. Kline School of Law of Duquesne University. B.S. in Psychology, 2022, Baldwin Wallace University.
[2] Michael Rappaport, *A Stronger Separation of Powers for Administrative Agencies*, The Regulatory Review (Dec. 18, 2019), https://www.theregreview.org/2019/12/18/rappaport-stronger-separation-powers-administrative-agencies/.
[3] 5 U.S.C. § 706
[4] *Id.*; see generally *League of United Latin Am. Citizens v. Regan*, 996 F.3d 673 (9th Cir. 2021).
[5] *League of United Latin Am. Citizens*, 996 F.3d at 677.
[6] *Id.*
[7] Christensen, K.; Harper, B.; Luukinen, B.; Buhl, K.; Stone, D. *Chlorpyrifos General Fact Sheet*. National Pesticide Information Center, Oregon State University Extension Services (2009), http://npic.orst.edu/factsheets/chlorpgen.html, (last visited Sep. 24, 2023).
[8] *Id.*

been repeatedly hailed into court as an increasing number of governmental agencies, states, state officials, and private citizens implore it to prohibit the utilization of chlorpyrifos pesticide because of its possible harmful effect on humans.[9] Within the past decade, the EPA has officially recognized that residues of chlorpyrifos pesticide are likely to cause harm to fetuses when pregnant mothers are exposed.[10] In the face of the acknowledged risks, there is debatable evidence substantiating the safety of chlorpyrifos pesticide, and the EPA has steadfastly refused to ban the usage of chlorpyrifos pesticide or to, at a minimum, reduce the legal tolerance levels.[11]

The commencement of such legal proceedings date back to 2007, when two nonprofit organizations, the Pesticide Action Network North America ("PANNA") and the Natural Resources Defense Council, Inc. ("NRDC"), jointly submitted a "Petition" to the EPA.[12] Their Petition requested a complete ban on all foods containing any trace of chlorpyrifos residue.[13] If enacted, this plea would overturn the then existing EPA policy that permitted varying "tolerance" levels depending on the type of food.[14]

Even with such a petition, the permitted tolerance levels must meet the EPA's mission to "protect human health and the environment."[15] Part of the EPA's

---

[9] *League of United Latin Am. Citizens*, 996 F.3d at 677, 690.
[10] *Id.* at 677.
[11] *Id* at 677-8, 680. The use of chlorpyrifos was banned in California and the European Union in February 2021, prior to the decision in this case. SEE *infra* Section IV Analysis.
[12] *League of United Latin Am. Citizens*, 996 F.3d at 677.
[13] *Id.*
[14] *Id.*
[15] *Our Mission and What We Do*, U.S. Environmental Protection Agency, https://www.epa.gov/aboutepa/our-mission-and-what-we-do, (last visited Sep. 24, 2023).

work is to ensure that "National efforts to reduce environmental risks are based on the best available scientific information . . . [and] Chemicals in the marketplace are reviewed for safety."[16] The EPA was granted authority to regulate the use of pesticide chemicals under the Federal Food, Drug and Cosmetic Act ("FFDCA"). The statute mandates that the EPA ensures, with a "reasonable certainty," that pesticide residue will not cause harm to infants and toddlers due to their special susceptibility to harm, including neurological effects.[17] The EPA is further obligated to issue a "specific determination" addressing these safety concerns.[18] It is the EPA's duty to review and stay current on studies about safety, particularly to children and infants, to ensure compliance with the "reasonable certainty" requirement and publish their specific determinations regarding those findings.[19]

Starting in 2007, two categories of studies began to generate evidence suggesting that chlorpyrifos pesticides pose a risk to children and infants: experimental studies conducted with rats and mice and epidemiological studies tracking human exposure to chlorpyrifos from in-utero onwards.[20] Such studies prompted the two non-profit organizations (PANNA and NRDC) to file a petition for review of the EPA's chlorpyrifos registration determination.[21]

---

[16] *Our Mission and What We Do*, *supra* note 15.
[17] 21 U.S.C. § 346a(b)(2)(C)(i)–(ii).
[18] *Id.* § 346a(b)(2)(C)(i)(II).
[19] *Id.* § 346a(b)(2)(C)(ii).
[20] *League of United Latin Am. Citizens*, 996 F.3d at 677.
[21] *Id.*

In the 2021 case of *League of United Latin Am. Citizens v. Regan*, the court intervened in the EPA's responsibility to assess the chemical chlorpyrifos.[22] Between 2007 and 2016, the EPA published Human Risk Assessments and met with its Scientific Advisory Board ("SAB") multiple times to evaluate chlorpyrifos and its effects.[23] Using the information gathered, the EPA began to acknowledge the heightened proposed risk associated with chlorpyrifos.[24]

Furthermore, in 2015, the EPA issued a Notice of Proposed Rulemaking suggesting the revocation of all chlorpyrifos tolerances.[25] In 2016, it released a Revised Human Health Risk Assessment, asserting that the EPA could not adequately determine if the current tolerances were deemed safe.[26] Nevertheless, the EPA deliberately refrained from ruling on the 2007 Petition until the court was required to impose a deadline in 2017.[27] In its court-imposed ruling, the EPA denied the 2007 petition and subsequently rejected all objections to that decision in 2019.[28]

Upon reviewing the EPA's actions, the Ninth Circuit Court of Appeals determined that the second denial in 2019 was an attempt to postpone a decision on the 2007 petition further until the safety of chlorpyrifos underwent a separate registration re-review under a statute expected to take place around 2022.[29] The court held that such a delay, despite the EPA's awareness that it could not affirm

---

[22] *See generally League of United Latin Am. Citizens*, 996 F.3d 673.
[23] *Id.* at 667.
[24] *Id.*
[25] *Id.*
[26] *League of United Latin Am. Citizens*, 996 F.3d at 667-668.
[27] *Id.* at 678.
[28] *Id.*
[29] *Id.*

the safety of chlorpyrifos, constituted a violation of the EPA's authority under the FFDCA.[30] In light of the EPA's conduct, the court granted the petitions for review and imposed a 60-day order on the EPA to either amend chlorpyrifos tolerances and publish findings affirming the chemical's safety or revoke all chlorpyrifos tolerances.[31] Additionally, the court instructed the EPA to promptly modify or rescind Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") regulations pertaining to food use.[32]

This case has paved the way for increased judicial intervention in the EPA's tolerance review process. It has reaffirmed the EPA's ongoing responsibility to regulate and ensure the safety of current tolerances. The court in its decision highlighted the need for this responsibility particularly when such tolerances are suspected of causing harm to all individuals, especially harm to infants and children.

II. BACKGROUND: *LEAGUE OF UNITED LATIN AM. CITIZENS v. REGAN*

A. History: The EPA and Pesticide Chlorpyrifos Tolerances

In response to rising public concern over the environment, President Nixon sent Congress a plan to create a federal agency to address environmental responsibilities – which resulted in the formation of the EPA.[33] Congress created

[30] *League of United Latin Am. Citizens*, 996 F.3d at 668.
[31] *Id.*
[32] *League of United Latin Am. Citizens*, 996 F.3d at 678.
[33] *The origins of EPA* | US EPA - U.S. Environmental Protection Agency, https://www.epa.gov/history/origins-epa (last visited Oct 11, 2023).

the EPA with Order 1110.2 on December 4, 1970.[34] The EPA's rules were designed to remain perpetually until amendments were deemed necessary.[35] The EPA's creation included and continues to include notable offices: the Assistant Administrator (For Standards And Enforcement) And General Counsel and Pesticides Office.[36]

The Assistant Administrator (For Standards And Enforcement) acts as a principal advisor to the EPA Administrator and assists with establishing and enforcing environmental standards while acting as the agency's chief legal officer. [37] An additional office, the Office of Standards and Compliance, creates Agency guidelines for enforcing compliance standards and requires continuous performance reviews for each office.[38] The Office of General Counsel assists in the establishment of such standards and changes in legislation.[39]

The Pesticide Office is focused on handling pesticides, including chlorpyrifos, for the entire EPA. It establishes the level of tolerance for pesticide residues on or in food, pesticide registration, pesticide registration review, and research on effects on human health, among other duties.[40] Under applicable statutes, Congress provides the authority to act, the Pesticide Office established chlorpyrifos tolerances and continued to renew its registration until the decision in *League of United Latin Am.*

---

[34] *EPA order 1110.2 -- initial organization of the EPA* (1970), https://www.epa.gov/archive/epa/aboutepa/epa-order-11102-initial-organization-epa.html (last visited Oct 11, 2023).
[35] *Id.*
[36] *Id.*
[37] *Id.*
[38] *Id.*
[39] *EPA order 1110.2, surpa* note 34.
[40] *Id.*

Citizens v. Regan.[41] Congress provided the EPA, particularly the Pesticide Office, the authority to act under the FIFRA and FFDCA.[42]

In *League of United Latin Am. Citizens v. Regan*, the civil suit seeking judicial review, is brought under and focuses on The Federal Food, Drug, and Cosmetic Act ("FFDCA").[43] The FFDCA dates back to the Progressive era when it was signed into law on June 30, 1906, by President Roosevelt.[44] The Act's focus was predominately on food, with a greater concern on chemical additives.[45] The Act was replaced on June 25, 1938, to address the prior act's shortcomings.[46] Particularly, the Act mandated legal food standards and set tolerances for certain poisonous substances, like pesticide chemicals.[47] By the 1960s, the food standards expanded to cover half of the food supply.[48]

---

[41] *EPA order 1110.2*, *supra* note 39.
[42] *Summary of the Federal Food, Drug, and Cosmetic Act | US EPA*, https://www.epa.gov/laws-regulations/summary-federal-food-drug-and-cosmetic-act (last visited Oct 16, 2023); *Summary of the Federal Insecticide, Fungicide, and Rodenticide Act | US EPA*, United States Environmental Protection Agency, https://www.epa.gov/laws-regulations/summary-federal-insecticide-fungicide-and-rodenticide-act (last visited Oct 17, 2023).
[43] *League of United Latin Am. Citizens v. Regan*, 996 F.3d at 678.
[44] Office of the Commissioner, *Part I: The 1906 Food and Drugs Act and its enforcement U.S. Food and Drug Administration* (2019), https://www.fda.gov/about-fda/changes-science-law-and-regulatory-authorities/part-i-1906-food-and-drugs-act-and-its-enforcement#:~:text=Since%201879%2C%20nearly%20100%20bills,pillar%20of%20the%20Progressive%20era. (last visited Oct 15, 2023).
[45] *Id.*
[46] Office of the Commissioner, *Part II: 1938, Food, Drug, Cosmetic Act U.S. Food and Drug Administration* (2018), https://www.fda.gov/about-fda/changes-science-law-and-regulatory-authorities/part-ii-1938-food-drug-cosmetic-act (last visited Oct 15, 2023).
[47] *Id.*
[48] Office of the Commissioner, *Part III: Drugs and foods under the 1938 act and its amendments U.S. Food and Drug Administration* (2018), https://www.fda.gov/about-fda/changes-science-law-and-regulatory-authorities/part-iii-drugs-and-foods-under-1938-act-and-its-amendments (last visited Oct 16, 2023).

Currently, the Federal Food, Drug, and Cosmetic Act[49] authorizes the EPA to set tolerances for pesticide residue limits.[50] If the residue is above the tolerated limit, the food is subject to seizure and triggers enforcement.[51] FFDCA states in relevant part:

> Administrator may establish or leave in effect a tolerance for a pesticide chemical residue in or on a food only if the Administrator determines that the tolerance is safe. The Administrator shall modify or revoke a tolerance if the Administrator determines it is not safe.[52]

Tolerances must be determined as "safe," meaning that there is a "reasonable certainty" that no harm will result from exposure over time, and one important consideration is the "special risks posed to infants and children."[53] If there is no dietary risk under "reasonably foreseeable circumstances," the EPA may grant an exemption to those pesticide residues.[54]

Challenges to current tolerances can be made by any person who files a petition that proposes the "issuance of a regulation establishing, modifying, or revoking a tolerance."[55] The petition must assert a factual basis that establishes "reasonable grounds for the action sought" and show that they have a "substantial interest" in the tolerance or exemption.[56] Upon review of the petition and

---

[49] 21 U.S.C. §301 et seq. (2002).
[50] *Summary of the Federal Food, Drug, and Cosmetic Act | US EPA*, https://www.epa.gov/laws-regulations/summary-federal-food-drug-and-cosmetic-act (last visited Oct 16, 2023).
[51] *Id.*
[52] 21 U.S.C. § 346a(b)(2)(A)(i).
[53] *Summary of the Federal Food, Drug, and Cosmetic Act | US EPA*, https://www.epa.gov/laws-regulations/summary-federal-food-drug-and-cosmetic-act (last visited Oct 16, 2023).
[54] *Id.*
[55] 21 U.S.C. § 346a(d)(1). The EPA can further dictate requirements for what is included in the petition. *Id.* § 346a(d)(2)(B).
[56] "Evidence that a person has registered or has submitted an application for the registration of a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act will be regarded as evidence

determination that it meets the designated threshold, the EPA is subject to a notice requirement that requires publication of the petition within 30 days.[57]

The EPA only has three options once it considers the petition: issue a final regulation that establishes, denies, or revokes residue tolerance or exemption; issue a proposed regulation; or deny the petition.[58] Denial of the petition allows any person to file objections with the administrator.[59] If the case results in an actual controversy regarding the validity of the EPA's action in retaining tolerances or issues over filed objections to the EPA's denial of a properly filed petition, judicial action can be brought within 60 days by individuals adversely affected.[60]

The EPA is generally allowed to enforce pesticide use regulation through the Office of Pesticide Programs under the Federal Insecticide, Fungicide, and Rodenticide Act.[61] The EPA must register pesticides under FIFRA by showing that the use of the pesticide "will not cause unreasonable adverse effects on the environment."[62] "Unreasonable adverse effects on the environment" include human

---

that the person has a substantial interest in a tolerance or exemption from the requirement of a tolerance for a pesticide chemical that consists in whole or in part of the pesticide." 40 C.F.R. § 180.32.

[57] 21 U.S.C. § 346a(d)(3). The published notice must include a description of the analytical methods available and measurement of residue available relating to the petition or include a statement on why the method is unnecessary.

[58] *Id.* § 346a(d)(4)(A).

[59] *Id.* § 346a(g)(2)(A).

[60] *Id.* § 346a(h)(1).

[61] 7 U.S.C. §136 et seq. (1996); *Summary of the Federal Insecticide, Fungicide, and Rodenticide Act | US EPA*, United States Environmental Protection Agency, https://www.epa.gov/laws-regulations/summary-federal-insecticide-fungicide-and-rodenticide-act (last visited Oct 17, 2023).

[62] *Id.*

dietary risks from pesticide residues on foods that are inconsistent with section 408 of the FFDCA.[63]

The Food Quality Protection Act ("FQPA") amended FIFRA.[64] The FQPA focused on setting tolerances that would render a "reasonable certainty of no harm," assess the harms to children and infants, and evaluate aggregate exposure from the pesticide under pesticide risk assessments.[65] One major factor of this law is the Registration Review Requirements for the EPA.[66] Under this program, pesticide registration would be completed every fifteen years to ensure it continues to meet FIFRA standards.[67]

"Registration" of pesticides permits the sale of the pesticides while asserting that such use will not cause harm to the environment or human health.[68] The EPA's registration review process can be easily revisited prior to the fifteen-year deadline if there is an urgent environmental or human health risk that the EPA must

---

[63] *Id.* Section 408 of the FFDCA is the particular section that authorizes the EPA to set tolerances and maximum residue limits for pesticide residues.
[64] Public Law 104-170 (1996); *Summary of the Federal Insecticide, Fungicide, and Rodenticide Act | US EPA*, United States Environmental Protection Agency, https://www.epa.gov/laws-regulations/summary-federal-insecticide-fungicide-and-rodenticide-act (last visited Oct 17, 2023); *Summary of the Food Quality Protection Act | US EPA*, United States Environmental Protection Agency, https://www.epa.gov/laws-regulations/summary-food-quality-protection-act (last visited Oct 18, 2023).
[65] *Summary of the Food Quality Protection Act | US EPA*, United States Environmental Protection Agency, https://www.epa.gov/laws-regulations/summary-food-quality-protection-act (last visited Oct 18, 2023).
[66] *Id.*
[67] *Id.*
[68] To determine that pesticides have a "reasonable certainty of no harm," the EPA considers, through scientific exposure, the toxicity of the pesticide and its break-down products, how much and how often it is applied, how much residue remains in or on foods, and all routes of exposure from the pesticide. Particular pesticides may even qualify for an exemption for a tolerance upon this review. *Setting tolerances for pesticide residues in foods | US EPA*, United States Environmental Protection Agency, https://www.epa.gov/pesticide-tolerances/setting-tolerances-pesticide-residues-foods (last visited Oct 19, 2023).

address.[69] The review process starts with a public docket with a Preliminary Work Plan (PWP) that includes all the information the EPA has on the particular pesticide.[70] Next steps include arranging Focus Meetings for pesticides pending review to address uncertainties affecting the pesticide risk assessments.[71] The EPA gathers information by considering additional data collected since the last registration review, conducts its own studies as necessary, seeks public review on draft assessments,[72] and consults with other Regulatory partners and agencies if needed.[73]

Once the EPA comes to a decision, it must make available a proposed registration review decision available for public commentary for at least 60 days.[74] An Interim Decision can then be issued before a complete registration review explaining any proposed changes and responding to "significant comments."[75] To

[69] *Registration review process | US EPA*, United States Environmental Protection Agency, https://www.epa.gov/pesticide-reevaluation/registration-review-process (last visited Oct 18, 2023).
[70] *Id.* The PWP includes facts about the pesticide and its use, anticipated risks, and what data the EPA still needs, and the EPA must provide an estimated timeline for review. All information is opened for public comment for 60 days once notice is announced in the Federal Register. The EPA must further announce when a pesticide is no longer under registration review.
[71] *Id.* Such steps are used to narrow the EPA's review focus to particulars that raise legitimate public concerns.
[72] The notification for public commentary is similar to that of a PWP. The notice will be announced in the Federal Register and will be open for public comment for 60 days. *Id.*
[73] *Registration review process | US EP; Setting tolerances for pesticide residues in foods | US EPA*, *supra* note 54.
[74] The notification for public commentary is similar to that of a PWP. The bases for the decision must also be posted for public review. Proposed Interim Decisions must include proposed findings regarding the FIFRA standard, modifications to pesticide use if risk is found, proposed label changes, and deadlines for completing required actions. *Registration review process | US EPA. supra* note 55.
[75] The EPA will file notice in the Federal Register. Further, if a registrant address newly identified risks or requirements, the EPA is authorized to take legal action. *Id.*

conclude the registration review process, the EPA must issue a final decision once all assessments and consultations are completed.[76]

The EPA first registered chlorpyrifos in 1965.[77] Originally, chlorpyrifos was used both for agriculture and non-agriculture purposes, including ant and roach baits, termiticides, fire ant mound treatments, and pesticides.[78] Because it was widely utilized throughout the United States, the EPA has reviewed the tolerances and application of chlorpyrifos several times. [79] The passage of the FQPA caused the EPA to review the tolerances of chlorpyrifos to ensure the safety of children.[80] In response, the EPA modified chlorpyrifos utilization to meet a new stringent standard.[81]

The registrant, Corteva, Inc. (formerly Dow Chemical Company),[82] went a step further in 2000 when it entered into another voluntary agreement that either eliminated or phased out all applications of chlorpyrifos that resulted in residential

---

[76] The EPA is currently working to improve the ESA-FIFRA process. The registration process also considers Endocrine Disruptor Screening Program screening required under the FFDCA. Similarly to the interim decision, if the registrant fails to act, the EPA may take legal action. *Id.*

[77] *Chlorpyrifos | US EPA*, United States Environmental Protection Agency, https://www.epa.gov/ingredients-used-pesticide-products/chlorpyrifos (last visited Oct 20, 2023).

[78] *Id.*

[79] *Chlorpyrifos | US EPA; Reregistration Eligibility Decision (RED) for Chlorpyrif*os, U.S. Environmental Protection Agency, Office of Prevention, Pesticides and Toxic Substances, Office of Pesticide Programs, U.S. Government Printing Office: Washington, DC: 2006, p 3.

[80] *Summary of the Food Quality Protection Act | US EPA,* surpa. note 41.

[81] *Chlorpyrifos | US EPA*, surpa. note 70; Registrants voluntarily entered into an agreement with the EPA to eliminate indoor uses in residential settings. Such uses included pet shampoos, paint additives, sprays, and pest dips. *Reregistration Eligibility Decision (RED) for Chlorpyrif*os, p. 3, surpa note 73.

[82] Ashley Dean and Dr. Erin Hodgson, *Corteva™ to End Chlorpyrifos Production: What Does this Mean for Iowa Farmers?* (Feb. 21, 2020), https://crops.extension.iastate.edu/cropnews/2020/02/corteva%E2%84%A2-end-chlorpyrifos-production-what-does-mean-iowa-farmers.

exposure.[83] Particular uses were allowed to remain but required new labels; some of these operations include indoor areas where children will not be exposed (different processing plants, ship holds, railroad boxcars), outdoor areas children will not be exposed (golf course turf, road medians), and other public health uses (fire ant mounds and mosquito control).[84] Due to these changes, the EPA began to express concerns that harm may be caused by mechanisms other than the established AChE (Acetylcholinesterase Inhibitors) inhibition.[85] For example, in 2002, the EPA provided risk mitigation factors for individuals exposed, specifically addressing occupational exposure.[86]

Nonetheless, in 2002, the EPA still found that residue chlorpyrifos food and water consumption exposure was safe, even for children and infants.[87] The EPA determined that dietary risks were "below the level of concern for the entire U.S. population."[88] Further, the EPA determined that drinking water was not a concern

---

[83] *Reregistration Eligibility Decision (RED) for Chlorpyrifo*s at 3-6. The restrictions were separated by food uses and home uses. Chlorpyrifos pesticide uses were eliminated in apples and tomatoes, while other agricultural uses underwent a new classification system. Home and public uses for lawns or outdoor uses, termiticides, crack/crevice, or indoor uses were canceled, especially when exposure to children is high.
[84] *Id.* at 6.
[85] EPA, Office of Pesticide Programs, *Human Health Risk Assessment-Chlorpyrifos 4* (June 8, 2000), https:// archive.epa.gov/scipoly/sap/meetings/web/pdf/hed_ra.pdf, p. 3 ("New data in the literature also gave rise to uncertainties such as…the suggestion that the inhibition of cholinesterase may not be essential for adverse effects on brain development…").
[86] EPA, Office of Prevention, Pesticides, and Toxic Substances, EPA 738-R-01-007, *Interim Reregistration Eligibility Determination for Chlorpyrifos 2*, at 3 (Feb. 2002).
[87] *Id.* at 2.
[88] *Id.*

at that time, even with the new literature and changes.[89] In 2006, the EPA reiterated these findings in the chlorpyrifos registration renewal memo.[90]

The continued affirmation of these concerning standards resulted in two organizations taking advantage of the petition option under the FFDCA: Pesticide Action Network North America ("PANNA") and the Natural Resources Defense Council, Inc. ("NRDC").[91]

PANNA is focused on "tackling" the pesticide use that adversely affects health, especially for children.[92] The organization was built out of the 1982 "Green Revolution" that increased the world's use of pesticides.[93] PANNA began to engage in initiatives in North America in the 1990s in connection to its original mission in the Global South.[94] PANNA is focused on bringing legal action and working on behalf of farmers, their families, rural communities, indigenous people, and children both nationally and internationally.[95]

---

[89] EPA, Office of Prevention, Pesticides, and Toxic Substances, EPA 738-R-01-007, *surpa* note 86 at 2.
[90] EPA, Office of Prevention, Pesticides and Toxic Substances, *Memo to Jim Jones from Debra Edwards, Finalization of Interim Reregistration Eligibility Decisions and Interim Tolerance Reassessment and Risk Management Decisions for the Organophosphate Pesticides, and Completion of the Tolerance Reassessment and Reregistration Eligibility Process for the Organophosphate Pesticides 2*, at 2 (July 31, 2006).
[91] *League of United Latin Am. Citizens*, 996 F.3d at 677.
[92] *Mission, Vision & Values: Pesticide Action Network (PAN)*, Pesticide Action Network North America (2023), https://www.panna.org/about/mission/ (last visited Oct 20, 2023).
[93] *Our Story: Pesticide action network (PAN)*, Pesticide Action Network North America (2023), https://www.panna.org/about/our-story/ (last visited Oct 20, 2023).
[94] *Id.*
[95] *Core constituencies: Pesticide action network (PAN)*, Pesticide Action Network North America (2023), https://www.panna.org/about/our-commitment-to-core-constituencies/ (last visited Oct 20, 2023); *Our work: Pesticide action network (PAN)*, Pesticide Action Network North America (2023), https://www.panna.org/campaign/our-work/ (last visited Oct 20, 2023).

NRDC was started on January 1, 1970, by John H. Adams and became the first national environmental advocacy group.[96] These litigators came together to focus on legal action and to protect the environment and human health.[97] The organization works on behalf of non-profits, communities, and individuals in litigation matters that affect issues of wildlife, environment, clean water, and overall human health in the communities.[98]

Both agencies share the same goal as the EPA maintain human health and safety.[99] Nonetheless, it was the EPA's Pesticide Office's failure to continuously ensure the protection of human health and safety under the current chlorpyrifos tolerances as required by the FFDCA that put these agencies at odds.[100]

B. Factual Background

In July 2006, the EPA renewed and enforced its historical safety findings regarding chlorpyrifos tolerances, stating it met the safety standards of Section 408(b)(2) of the FFDCA.[101] With growing scientific evidence of increased harm to infants and children, this finding prompted PANNA and NRDC to file an administrative petition with the EPA in September 2007.[102] This petition, known as

[96] *About NRDC*, https://www.nrdc.org/about#history (last visited Oct 20, 2023).
[97] *Id.*
[98] *Litigation*, https://www.nrdc.org/about/litigation (last visited Dec 5, 2023).
[99] *About NRDC*, https://www.nrdc.org/about#history (last visited Oct 20, 2023); *Mission, Vision & Values: Pesticide Action Network (PAN)*, Pesticide Action Network North America (2023), https://www.panna.org/about/mission/ (last visited Oct 20, 2023); *Our Mission and What We Do*, U.S. Environmental Protection Agency, https://www.epa.gov/aboutepa/our-mission-and-what-we-do, (last visited Sep. 24, 2023).
[100] *See generally League of United Latin Am. Citizens*, 996 F.3d.
[101] *Id.* at 681.
[102] *Id.* at 682.

the 2007 Petition, requested the EPA to revoke all chlorpyrifos tolerances under the FFDCA and cancel all FIFRA registrations for chlorpyrifos.[103]

In support of their petition, PANNA and NRDC cited experiments on live mice and rats exposed in utero to levels below the current tolerance, which resulted in AChE inhibition.[104] The organizations also referred to an epidemiological study known as the "Columbia study," which tracked pregnant women and their children, collecting data on maternal organophosphate (chlorpyrifos) exposure.[105] Both studies concluded that prenatal chlorpyrifos exposure correlated with declined neurological effects and cognitive impairments in early childhood, particularly in males.[106] These findings were further substantiated by additional studies, including the "Mount Sinai Study" and the "CHAMACOS Study," which collaborated with the Columbia "Human Cohort Study."[107]

In August 2008, the same year as the 2007 Petition was reviewed, the EPA published a Science Issue Paper that reviewed the aforementioned scientific studies.[108] In this paper, the EPA initially concluded that "chlorpyrifos likely played a role" in the observed low birth rates and delays in infant and childhood mental development.[109] However, the EPA later dismissed these findings by suggesting an alternative "mechanism of harm" that did not warrant a comprehensive

---

[103] *League of United Latin Am. Citizens*, 996 F.3d. at 682.
[104] *Id.*
[105] *Id.*
[106] *Id.*
[107] *League of United Latin Am. Citizens*, 996 F.3d at 682.
[108] *See generally* Health Effects Division, Office of Pesticide Programs, EPA, *Science Issue Paper: Chlorpyrifos Hazard and Dose Response Characterization 52* (Aug. 21, 2008).
[109] *Id.* at 40–41 & fig.5.

characterization or risk assessment, preventing them from making updates to the existing chlorpyrifos risk assessment.[110]

The following month, the EPA convened its Scientific Advisory Panel (SAP) to review its findings.[111] SAP concurred that "chlorpyrifos likely played a role" in the neurological defects found in the studies, yet noted that these results could not be solely attributed to chlorpyrifos exposure.[112] While the Columbia Study was acknowledged as having potential utility for revising chlorpyrifos's risk assessment, it was deemed insufficient to deviate from the current regulatory standard.[113]

In 2011, the EPA had not yet decided on the 2007 petition but instead released a Preliminary Human Health Risk Assessment.[114] This assessment reaffirmed the findings of the 2008 study and SAP analysis and viewed the Columbia Study favorably.[115] In this preliminary assessment, the EPA concluded that the "ongoing" analysis of "neurological toxicity" resulting from prenatal and postnatal exposure would continue to shape and alter the current "point of departure," which is currently set at 10% AChE.[116]

In 2012, the EPA had still not responded to the 2007 Petition.[117] In April of that year, the EPA reconvened the Scientific Advisory Panel (SAP), which reported

---

[110] Health Effects Division, Office of Pesticide Programs, EPA, *surpa* note 108 at 6.
[111] *League of United Latin Am. Citizens*, 996 F.3d at 683.
[112] *SAP Minutes No. 2008-04, A Set of Scientific Issues Being Considered by the Environmental Protection Agency Regarding: The Agency's Evaluation of the Toxicity Profile of Chlorpyrifos 13,* at 37, 43-44 (Sept. 16–18, 2008).
[113] *League of United Latin Am. Citizens*, 996 F.3d at 683.
[114] *Id.*
[115] *Memo from Danette Drew et al. to Tom Myers re: Chlorpyrifos: Preliminary Human Health Risk Assessment for Registration Review, EPA* at 27-8 (June 30, 2011).
[116] *Id.* at 42-3.
[117] *League of United Latin Am. Citizens*, 996 F.3d at 684.

an increased certainty that AChE data might not be the most informative for assessing the neurological development risks associated with chlorpyrifos.[118] There was mounting evidence suggesting a correlation at levels lower than the currently tolerated AChE levels.[119]

The 2012 SAP reiterated the conclusions of the EPA's previous research and SAP findings from 2008, stating that "chlorpyrifos likely played a role" in the neurological deficiencies observed in children.[120] Notwithstanding the growing scientific support for the connection between chlorpyrifos and neurological development issues in infants and children, the EPA continued to delay taking final action on the 2007 Petition.[121]

In defiance of the EPA's claim of having a "firm date" to address the 2007 Petition in February 2014, as stated in a mandamus proceeding, the agency still failed to take final action.[122] Instead, in December 2014, the EPA published a Revised Human Health Risk Assessment, which expressed even greater certainty that chlorpyrifos caused neurological defects through a mechanism other than AChE inhibition.[123] In this assessment, the EPA concluded that the harm observed was below the established point of departure related to AChE inhibition and

---

[118] *SAP Minutes No. 2012-04, A Set of Scientific Issues Being Considered by the Environmental Protection Agency Regarding Chlorpyrifos Health Effects,* at 53 (Apr. 10–12, 2012).
[119] *Id.*
[120] *Id.* at 18.
[121] *League of United Latin Am. Citizens*, 996 F.3d at 685.
[122] *Id.*
[123] *Id.*

proposed a new method for determining this point. The EPA still did not act on the 2007 Petition.[124]

In November 2015, the EPA went a step further by publishing a Notice of Proposed Rulemaking in the Federal Register, proposing revoking all tolerances for insecticide chlorpyrifos residues.[125] The EPA explained that it could not currently determine the safety of aggregate exposure to chlorpyrifos residues, especially when combining exposures from food, residential sources, and estimated exposure from drinking water.[126] While the EPA acknowledged uncertainties regarding actual exposure levels experienced by mothers and infants in reported studies, measured exposures were likely low enough that the adverse effects were unlikely to result from AChE inhibition.[127]

In April 2016, the EPA convened another SAP to conduct a peer review of its 2014 Revised Human Health Risk Assessment.[128] The SAP concurred that there was evidence suggesting adverse health outcomes correlated with chlorpyrifos exposure levels below the current AChE inhibition point of departure but found an issue with the EPA's calculation for point of departure calculation.[129] The 2016 SAP recommended that the new measure should be based on the "determination and

---

[124] *League of United Latin Am. Citizens*, 996 F.3d at 685.
[125] *Id.*
[126] *Chlorpyrifos; Tolerance Revocations, 80 Fed. Reg.* at 69,080, 69,081 (Nov. 6, 2015).
[127] *Id.* at 69,093.
[128] *League of United Latin Am. Citizens*, 996 F.3d at 686.
[129] *SAP Minutes No. 2016-01, A Set of Scientific Issues Being Considered by the Environmental Protection Agency Regarding: Chlorpyrifos: Analysis of Biomonitoring Data*, at 25 (Apr. 19–21, 2016).

characterization of time-weighted average blood concentrations for different exposure scenarios."[130]

As a result of this recommendation, the EPA made an additional revision to its Human Health Risk Assessment in November 2016, the most recent assessment of chlorpyrifos.[131] This assessment acknowledged that the absence of established mechanisms to explain the neurological defects from chlorpyrifos exposure did not undermine the persistent scientific evidence supporting the relationship.[132] The EPA concluded that to protect against AChE inhibition and negative effects occurring at lower doses, a new approach needed to be established.[133]

Following the 2016 SAP's suggestion, the EPA began using the Physiologically Based Pharmacokinetic (PBPK) model developed by a chlorpyrifos registrant to estimate blood concentrations.[134] Using this measure, the EPA determined that the current chlorpyrifos tolerances were unsafe, even from food alone, and published these findings in a Notice of Data Availability in the Federal Register.[135]

The EPA had planned to proceed with its proposal to revoke all chlorpyrifos tolerances, citing the absence of a currently identified set of "currently registered uses that meet FFDCA safety standards" because the tolerances were limited to

---

[130] *SAP Minutes No. 2016-01*, *surpa* note 129 at 70.
[131] *League of United Latin Am. Citizens*, 996 F.3d at 687.
[132] *Memo from Wade Britton to Dana Friedman re: Chlorpyrifos: Revised Human Health Risk Assessment for Registration Review, EPA*, at 12 (Nov. 3, 2016).
[133] *Id.* at 13.
[134] *Id.* at 14.
[135] *Chlorpyrifos; Tolerance Revocations; Notice of Data Availability and Request for Comment, supra* note 126 at 81,050.

some foods alone. When combined with exposure to drinking water, it did not meet the safety standard.[136]

Upon a court-mandated deadline, the EPA finally issued a ruling on the 2007 Petition in April 2017, which resulted in the denial of the 2007 Petition.[137] The EPA justified this denial by citing the court order and stating that in spite of years of studies, the issue of neurodevelopmental effects from chlorpyriphos exposure remained "unresolved."[138]

The EPA's denial of the 2007 Petition prompted objections from PANNA, NRDC, and others, who also sought relief from the United States Court of Appeals for the Ninth Circuit.[139] The EPA's response to these objections did not occur until fourteen months later when the court heard oral arguments regarding the petition to review the 2017 Order.[140] In July 2019, the EPA denied the objections raised by PANNA, NRDC, and others, finalizing the required administrative denial for the original 2007 Petition in its final order, known as the "2019 Order."[141]

C. Procedural Posture

In April 2012, Petitioners PANNA and NRDC petitioned the United States Court of Appeals for the Ninth Circuit for a writ of mandamus because the EPA had not responded to their 2007 Petition.[142] During the mandamus proceeding, the EPA

---

[136] *Chlorpyrifos; Tolerance Revocations; Notice of Data Availability and Request for Comment, supra* note 135.
[137] *League of United Latin Am. Citizens*, 996 F.3d at 669.
[138] *Id.*
[139] *Id.*
[140] *Id.* at 690.
[141] *Id.*
[142] *Id.* at 684.

claimed to have a set deadline in February 2014 to address the 2007 Petition.[143] This led to the court denying PANNA and NRDC's petition in July 2013.[144] Nonetheless, the EPA still did not address the 2007 Petition as it had represented to the court, resulting in PANNA and NRDC filing another writ of mandamus petition, which the court granted in August 2015.[145] The court found the EPA's lack of a ruling nine years later to be "too little too late" and egregious, ordering the EPA to issue a "full and final response" to the 2007 Petition by October 31, 2015.[146] Regardless of this order, the EPA failed to take any action by the court-set deadline.[147]

In 2014, the EPA published a proposed revocation rule, but it failed to fully address the 2007 petition, which consequently resulted in the court ordering the EPA to take "final action by December 30, 2016" on the proposed revocation rule and 2007 Petition.[148] In June 2016, the EPA informed the court that it could not meet the extended deadline and sought an additional six months in August of that year, which the court denied.[149] Instead, the court granted a "final" three-month extension.[150]

Upon the EPA's denial of the 2007 Petition in 2017 in accordance with the 2016 court order, PANNA, NRDC, and others objected to the EPA's denial and

[143] *League of United Latin Am. Citizens*, 996 F.3d at 685.
[144] *Id.*
[145] *Id.*
[146] *Id.*
[147] *Id.*
[148] *Id.* at 686.
[149] *League of United Latin Am. Citizens*, 996 F.3d at 687.
[150] *Id.*

sought relief again from the United States Court of Appeals for the Ninth Circuit for a writ of mandamus.[151] The court denied the petition for mandamus relief, stating that the EPA had complied with the court order by issuing a decision, and any objections must first be completed through the administrative process.[152] Nevertheless, the EPA failed to rule on the objections until fourteen months later when the court heard oral arguments on the petitioner's petition for review.[153]

A panel of the court found that it had jurisdiction over the EPA's objections despite the EPA's delay tactics.[154] The court also found that, based on the EPA's failure to establish with "reasonable certainty" that chlorpyriphos tolerances are safe, it *must* be revoked.[155] The panel vacated the 2017 Order and remanded the case back to the EPA with a directive to revoke or modify all chlorpyriphos tolerances within 60 days.[156]

A majority of active non-recused judges voted to rehear the case en banc. The court issued a writ of mandamus requiring the EPA to rule on the 2017 objections within a 90-day period, which resulted in the EPA denying the 2017 objections and completing the entire administrative process for the 2007 Petition. Subsequently, the same Petitioners immediately petitioned the court again to review the EPA's 2017 and 2019 Orders, and many states moved to intervene. The court sitting en

[151] *League of United Latin Am. Citizens*, 996 F.3d at 689.
[152] *Id.*
[153] *Id.* at 690.
[154] *Id.*
[155] *Id.*
[156] *Id.* (emphasis added).

banc granted the states' motion, consolidated the cases, and established this case as a "comeback case."[157]

D. Issue/Holding

In this case, the court addressed two central issues. First, whether the EPA had retained its current chlorpyriphos tolerance without determining with "reasonable certainty" that it was safe.[158] Second, whether the EPA's denial of the 2007 Petition was "arbitrary and capricious."[159] These questions were considered under the Administrative Procedure Act (APA).[160] The APA grants the court the authority to "hold unlawful and set aside agency action, findings, and conclusions" if it is shown that such actions are capricious, arbitrary, an abuse of discretion, or unauthorized by law.[161] An action by an agency is considered "arbitrary and capricious" when the agency's explanation or decision contradicts the evidence before it.[162] Furthermore, under the APA, the court can compel the agency to take "unlawfully withheld or unreasonably delayed" action.[163]

This Panel of the Ninth Circuit Court of Appeals vacated the 2017 and 2019 Orders and remanded the case back to the EPA with specific instructions.[164] The court determined that the EPA had maintained chlorpyriphos tolerance without establishing its safety with "reasonable certainty," the EPA's denial of the 2007

[157] *League of United Latin Am. Citizens*, 996 F.3d at 690.
[158] *Id.* at 691.
[159] *Id.* at 695.
[160] *Id.* at 690.
[161] *Id.*
[162] *Id.*
[163] *League of United Latin Am. Citizens*, 996 F.3d at 690.
[164] *Id.* at 703-4.

Petition was deemed "arbitrary and capricious."[165] In particular, the court instructed the EPA to (1) grant the 2007 Petition; (2) either revoke or modify the current chlorpyriphos tolerance, providing specific evidence to support any modification; and (3) modify or cancel FIFRA registrations for food use in a timely manner, in accordance with 21 U.S.C. section 346a(a)(1).[166]

III. Rationale: *LEAGUE OF UNITED LATIN AM. CITIZENS V. REGAN*

Under the FFDCA, the EPA is allowed to maintain current chlorpyriphos or other pesticide tolerances for residues on or in foods only if the Administrator determines that the chemical tolerances are safe with "reasonable certainty," particularly for infants and children.[167] The Administrator must also publish a specific determination regarding the safety of these tolerances.[168] In its analysis of the issues mentioned above, the court interpreted the statute by applying the ordinary public meaning at the time of enactment and using a liberal construction of the FFDCA, focusing on ensuring public health.[169]

The EPA argued that its duty of periodic registration review under FIFRA was distinct from its ongoing duty to ensure safety under the FFDCA, contending that it could leave current tolerances in place when a petition lacked "sufficient evidence" to warrant revoking or modifying the tolerance.[170] The court rejected the EPA's argument for two reasons: (1) there remained a duty for the EPA to ensure

---

[165] *League of United Latin Am. Citizens*, 996 F.3d at 695-6, 699-700.
[166] *Id.* at 703-4.
[167] *Id.* at 691.
[168] *Id.*
[169] *Id.*
[170] *Id.*

safety under FFDCA, especially if there was a notice of risk, and (2) there was adequate evidence, provided by the EPA itself, to establish that the evidence in the 2007 Petition was sufficient to act upon.[171]

A. The EPA's Continuous Duty to Ensure Human Safety

When the EPA denied the 2007 Petition, it did not make a determination regarding the safety of the tolerance levels and even concluded in its research that it could not do so with reasonable certainty.[172] This decision was a departure from Congress's intended focus in the FQPA, which prioritized human health and safety.[173] In its holding, the court emphasized the distinctions between the duties established in the FIFRA and FFDCA; under the FIFRA, the EPA has discretion to cancel the registration of a chemical pesticide for various reasons, but such discretion does not apply under the FFDCA.[174] The EPA's obligations under the FFDCA are mandatory and solely centered on the issue of safety.[175]

The court characterized the reading of the FFDCA requirement that "[t]he Administrator may establish or leave in effect a tolerance for a pesticide chemical residue in or on a food only if the Administrator determines that the tolerance is safe" as straightforward.[176] The court's interpretation of this provision underscored the paramount priority of protecting human safety.[177] Tolerances could and should

[171] *League of United Latin Am. Citizens*, 996 F.3d at 691.
[172] *Id.* at. 692.
[173] *Id.*
[174] *Id.* at. 692-3.
[175] *Id.* at 693.
[176] *Id.* at 693-4.
[177] *League of United Latin Am. Citizens*, 996 F.3d at 694.

only be maintained if the EPA determined them to be safe, especially for infants and children.[178] If not deemed safe, tolerances should be modified or revoked accordingly.[179] The majority found the EPA's interpretation of "only" inconsistent with the overarching goal of safety imposed by the FFDCA.[180]

The court also rejected the EPA's argument that the 2007 Petition failed to meet the necessary requirements by providing "reasonable grounds [or an assertion of fact to justify modification or revocation] for the action sought."[181] While the EPA has the authority to deny frivolous petitions, the court held that the 2007 Petition met the requirements, thus triggering the EPA's duty to ensure with "reasonable certainty" the safety of the current chlorpyriphos tolerance.[182] The EPA's subsequent actions further supported the court's interpretation. The EPA published a notice of filing of the 2007 Petition in accordance with FFDCA requirements and offered no explanation as to why the petition did not meet the necessary "reasonable grounds" for revocation.[183]

While the majority focused on the word "may" from the statutory language of the FFDCA, Judge Bybee's dissent focused on the interpretation of "only" by limiting the EPA to three scenarios to occur under its discretion.[184] Judge Bybee's interpretation would allow the EPA to exercise discretion if it determined the

---

[178] 21 U.S.C. § 346a(b)(2)(C).
[179] *Id.*
[180] *League of United Latin Am. Citizens*, 996 F.3d at 693.
[181] *Id.* at. 694.
[182] *Id.*
[183] *Id.* at 694-5.
[184] *Id.* at. 707 (Bybee, J., dissenting).

tolerance levels as safe and it (1) "may" keep the current tolerances or (2) modify them, but if it could not determine the tolerance as safe, it (3) should modify or revoke the tolerance.[185]

Bybee's dissent focused on placing the burden of persuasion on the claimant who deems the current chemical pesticide tolerances unsafe.[186] Yet, the majority refuted this stance by finding it inconsistent with FQPA's health protection purpose, FFDCA's requirement of "reasonable certainty" that the tolerances were safe, and EPA's regulations that imposed the burden of persuasion on the party contending that the tolerances were safe.[187] Overall, the court held that the EPA's failure to make reasonably certain safety findings for the current chlorpyriphos tolerance was contrary to the FFDCA.[188]

B. The EPA's Denial of the 2007 Petition was Arbitrary, and Capricious as Its Own Research Supported the Facts Alleged in the Petition

The court emphasized that the EPA must provide a rational explanation with a clear connection between its choice and supporting facts when making decisions.[189] Nonetheless, in the denials of both the 2017 and 2019 Orders of the 2007 Petition, the EPA failed to do so.[190] These denials contradicted the EPA's own conclusions in the 2016 Revised Human Health Risk Assessment and studies

[185] *League of United Latin Am. Citizens*, 996 F.3d at. 707 (Bybee, J., dissenting).
[186] *Id.* at 713 (Bybee, J., dissenting).
[187] *Id.* at 695.
[188] *Id.*
[189] *Id.* at 696.
[190] *Id.*

indicating harm to infants and children.[191] The court further rejected the EPA's claim that it had discretionary authority to deny the 2007 Petition based on separate and unrelated FIFRA registration review requirements for additional studies in 2022.[192] The EPA could not consider the widespread usage and significance of chlorpyriphos in its denial, as pointed out by the court.[193] Furthermore, the EPA did not provide statutory support for its 2017 Order denying the petition in question.[194]

In addition, the court found the EPA's denial of the 2019 Order to be "arbitrary and capricious" because the EPA improperly placed the burden of persuasion on the petitioners.[195] For the reasons mentioned earlier, the publication of the petition in the Federal Register before the EPA determined that the burden was met, and scientific support from the Columbia and live rat studies supported the court's conclusion that the denials were "arbitrary and capricious."[196]

The court held that the EPA had limited legal discretion, resulting in either a complete revocation or modification of chlorpyriphos tolerances with reasonably certain supporting evidence.[197] The court's decision to remand the case with specific instructions to adhere to its limited legal discretion was considered reasonable and did not raise due process concerns, as raised by the dissent.[198] Remanding the case

[191] *League of United Latin Am. Citizens*, 996 F.3d at 696.
[192] *Id.* at 696-7.
[193] *Id.* at 696.
[194] *Id.* at 696-7.
[195] *Id.* at 697.
[196] *Id.*
[197] *League of United Latin Am. Citizens*, 996 F.3d at 701.
[198] *Id.* at. 702.

with instructions after the EPA's fourteen-year delay demonstrated the court's tolerance while still requiring the EPA to finally and completely take action.[199]

Contrary to the majority, the dissent argued that the denial was entirely reasonable, given the court's Order and the EPA's inability to find reliable and replicable raw data to support the cited studies.[200] Judge Bybee took the opposite viewpoint, asserting that the EPA could use its discretion to deny the FFDCA petition because the tolerance level at issue would be subject to a "more up-to-date and methodical" FIFRA registration review.[201] According to the dissent, the court's intervention in the current debate was improper, as the majority was "second-guessing" the agency's expertise in interpreting scientific studies.[202] Yet again, the majority held that it is not unilaterally ordering the EPA to revoke existing tolerances, and based on the existing evidence on record, the only reasonable action would be the issuance of a final regulation.[203] In conclusion, the court vacated both the 2017 and 2019 Orders.[204] The court further remanded the case with instructions for the EPA to grant the 2007 Petition, issue a final regulation to modify or cancel chlorpyrifos tolerances, and modify or cancel FIFRA registrations for food usage within sixty days.[205]

---

[199] *League of United Latin Am. Citizens*, 996 F.3d. at 703.
[200] *Id.* at 721-2 (Bybee, J., dissenting).
[201] *Id.* at 723 (Bybee, J., dissenting).
[202] *Id.* at 724 (Bybee, J., dissenting).
[203] *Id.* at 702.
[204] *Id.* at 703-4.
[205] *League of United Latin Am. Citizens*, 996 F.3d. at 703-4.

IV. ANALYSIS

While there is value in Executive Agency autonomy and self-governance, administrative law must allow various actors, such as the courts, to assist in monitoring and preventing agency abuse, as seen in the *League of United Latin Am. Citizen.*[206] In the case of *League of United Latin Am. Citizen,* where the EPA failed to act in addressing the Chlorpyrifos Petition for over twelve years, such deference of duty can reasonably be considered agency abuse. For that reason, in particular, and after multiple opportunities to redress such issues, the Ninth Circuit Court of Appeals properly intervened to force agency action. Such intervention promotes agency accountability, especially for areas concerning health and safety.

While the case was pending in December 2020, the EPA published a Proposed Interim Registration Review Decision and convened another SAP to review the proposal to modify specific chlorpyrifos tolerances.[207] This fact, in turn, resulted in the court's enforcement of a valid response to the 2007 Petition.[208] Furthermore, during the pendency of this case, chlorpyrifos use was banned in both California and the European Union starting in February 2020.[209] Even Corteva, Inc. announced on February 6, 2020, that it planned to stop all chlorpyrifos production

---

[206] Christopher J. Walker, *Constraining bureaucracy beyond judicial review*, 150 Daedalus 158–159 (2021).
[207] EPA, Office of Pesticide Programs, *Chlorpyrifos Proposed Interim Registration Review Decision Case Number 0100* (December 3, 2020).
[208] *League of United Latin Am. Citizens*, 996 F.3d. at 703.
[209] Press Release, Cal. Env't Prot. Agency & Cal. Dep't of Pesticide Regul., *Agreement Reached to End Sale of Chlorpyrifos in California by February 2020* (Oct. 9, 2019), https://calepa.ca.gov/2019/10/09/press-release-agreement-reached-to-end-sale-of-chlorpyrifos-in-ca-by-feb-2020/; Kelly N. Garson, *European Union to Ban Chlorpyrifos after January 31, 2020*, Bergeson & Campbell, P.C (Jan 3, 2020), https://www.lawbc.com/european-union-to-ban-chlorpyrifos-after-january-31-2020/.

by 2021.[210] Additionally, there has been an increase in toxic tort litigation within California state courts.[211] With such initiatives taken by citizens, particular states, countries, and even the registrant itself, it would make any reasonable person ponder why the courts avoided intervention for such a long period of time.

Under the APA, the courts are granted the power to "compel agency actions unlawfully withheld or unreasonably delayed."[212] The courts, however, favor deferring to agency actions, as the agency holds expertise that the court does not possess.[213] Nonetheless, the legal community may be moving away from unfettered deference to agency decisions. Such critics of agency deference discuss even reviving the non-delegation doctrine.[214] The non-delegation doctrine would remove all agency deference as it prohibits Congress from delegating powers to executive controlled administrative agencies.[215] There is increasing concern that administrative

---

[210] Ashley Dean and Dr. Erin Hodgson, *Corteva™ to End Chlorpyrifos Production: What Does this Mean for Iowa Farmers?* (Feb. 21, 2020).

[211] All the notable cases against Corteva, Inc. in California state courts highlighted the increased risk to children and infants. The two most notable cases include *Avila v. Corteva Inc.*, No. 20C-0311 (Cal. Super. Ct., October 27, 2020) and *Calderon de Cerda v. Corteva Inc.*, No. 20C-0250 (Cal. Super. Ct., September 16, 2020). In all of the cases, the plaintiffs alleged negligence, failure to warn, and design defects. The plaintiff further brought suit against the city the reside, the City of Avenal, based on negligence in providing drinking water free of chlorpyrifos residue. Brigit Rollins, *Pesticide Litigation: Chlorpyrifos Under Fire* (Nov. 5, 2020), https://nationalaglawcenter.org/pesticide-litigation-chlorpyrifos-under-fire/.

[212] 5 U.S.C. § 706(1).

[213] Michael Rappaport, *A Stronger Separation of Powers for Administrative Agencies*, The Regulatory Review (Dec. 18, 2019), https://www.theregreview.org/2019/12/18/rappaport-stronger-separation-powers-administrative-agencies/. Justice Bybee emphasized the need for deference to agency decisions based on its expertise. *League of United Latin Am. Citizens*, 996 F.3d. at 724 (Bybee, J., dissenting) ("Deference to an agency's technical expertise and experience is particularly warranted with respect to questions involving ... scientific matters.", citing United States v. Alpine Land & Reservoir Co., 887 F.2d 207, 213 (9th Cir. 1989)).

[214] For a survey of such criticisms, *see* Christopher J. Walker, "Attacking Auer and Chevron Deference: A Literature Review," *Georgetown Journal of Law and Public Policy* 103 (1) (2018).

[215] *Nondelegation doctrine*, Legal Information Institute, https://www.law.cornell.edu/wex/nondelegation_doctrine#:~:text=The%20non%2Ddelegation%20doctrine%20stands,agencies%20or%20to%20private%20organizations. (last visited Nov 6, 2023).

agencies, like the EPA, violate the Separation of Powers doctrine. Still, the benefits of agencies providing specialized expertise and low-cost decision-making that Congress cannot meet in our modern society may make such an adoption unrealistic.[216] Either way, it is doubtful that a blanket exclusion removing any and all delegation, such as the non-delegation doctrine, will be applied at this time.

Recently, the Supreme Court has attempted to limit court intervention in agency decisions by adopting the Major Questions Doctrine. In *Biden v. Nebraska*, the Supreme Court held that agencies are not delegated decision-making power for issues of "economic and political significance."[217] Yet, the actions of the EPA would not meet this less-than-defined doctrine because Congress expressly allows them to approve, set, and remove chemical tolerances through FIFRA and FFDCA. The court must assess when the actions of the EPA align with the requisite criteria, allowing for the provision of judicial review.

The EPA's deferral from acting on the 2007 Petition was so egregious that such agency abuse did not necessarily require courts to consider scientific research and evidence.[218] In cases like this one, deference to agency action should be extremely reduced or eliminated, which the court did here.[219] Although deference based on the safety of chlorpyrifos tolerances would typically be within the agency's

---

[216] Rappaport, *supra* note 211.
[217] *Biden v. Nebraska*, 600 US _, 20 (2023) (citing West Virginia, 597 U. S., at ___ (slip op., at 17) (quoting Brown & Williamson, 529 U. S., at 160).
[218] *League of United Latin Am. Citizens*, 996 F.3d. at 701, 703. The majority held that the actions of the EPA were egregious as all the evidence presented could only reach the reasonable conclusion that the current tolerances of chlorpyrifos are unsafe.
[219] Rappaport, *supra* note 211.

wheelhouse and expertise, the court's independent involvement is necessary to stop such abuses like the thirteen-year deferral period seen here.[220] There may even be a need to create more efficient means of court intervention that balances the independence of administrative agencies while addressing abuses before they reach this level.

Justice Bybee is a proponent of agency deference, as seen in his dissent as he favors EPA fact-finding.[221] Yet, even he could not deny that the EPA dithered too long before addressing the 2007 Petition.[222] Although Justice Bybee reframed the issue as the EPA needed to answer the sufficiency of scientific evidence to modify the current chlorpyrifos tolerances, the overall issue of the "unlawful withholding" of the EPA's action addressing the Petition would still require reasonable court intervention.[223] Failure to address Petitions deemed to pass muster, exemplified when the EPA published the 2007 Petition within the thirty-day required period, does not require deferring to Agency decisions.[224] The lack of agency decision is at issue, thus requiring a de novo-like review of the agency's action based on the factual record provided.

Court intervention in such abuses can become extremely important as an agency's inaction prohibits redress to health-related harms that could have been

[220] Walker, *supra* note 204 at 156.
[221] *League of United Latin Am. Citizens*, 996 F.3d. at 705 (Bybee, J., dissenting).
[222] *Id.* at 704 (Bybee, J., dissenting).
[223] 5 U.S.C. § 706(1); *League of United Latin Am. Citizens*, 996 F.3d. at 705 (Bybee, J., dissenting).
[224] *League of United Latin Am. Citizens*, 996 F.3d at 694-5.

avoided if actions were taken within a reasonable time.[225] The requirement for the EPA to "revoke or modify" all chlorpyrifos tolerances removed the burden on public health and, predominately, the health of farmworkers and their families.[226] The court's ruling opens the door to require the EPA to address additional petitions on other harmful pesticides and prompts them to revisit their current chemical tolerances.[227] The court in *League of United Latin Am. Citizens* established a willingness to intervene if the EPA fails to act with reasonable evidence available. As more tolerances come under review, it is a waiting game on whether the EPA's actions or failure to act will be egregious enough to address.

Furthermore, the court's decision in *League of United Latin Am. Citizens* prompted members of Congress to propose legislation to update and strengthen FIFA by banning more dangerous pesticides.[228] Section 3(b)(3)(B) of the proposed *Protect America's Children from Toxic Pesticides Act of 2023* (PACTPA) states:

> (B) FAILURE TO REVIEW PETITION.—If the Administrator fails make a finding on a petition by the date required under subparagraph (A), the active ingredient or pesticide product that is the subject of the petition shall be deemed to be a dangerous pesticide.[229]

---

[225] *League of United Latin Am. Citizens*, 996 F.3d at 703 ("The EPA has had nearly 14 years to publish a legally sufficient response to the 2007 Petition. During that time, the EPA's egregious delay exposed a generation of American children to unsafe levels of chlorpyrifos.").
[226] Reynard Loki, *Pesticide Linked To Brain Damage In Children May Finally Be Banned*, The Trial Lawyer (2021), https://thetriallawyermagazine.com/2021/07/pesticide-linked-to-brain-damage-in-children-may-finally-be-banned/.
[227] *Id.*
[228] *Booker announces legislation aimed at banning dangerous pesticides from our agriculture system: U.S. senator Cory Booker of New Jersey*, Cory Booker (Nov. 23, 2021), https://www.booker.senate.gov/news/press/booker-announces-legislation-aimed-at-banning-dangerous-pesticides-from-our-agriculture-system.
[229] *Protect America's Children from Toxic Pesticides Act of 2023*, S. ___, 118th Congress, §3(b)(3)(B).

The additional provision would avoid later court intervention based on the EPA's failure to act under concerns of registration under FIFRA. If the EPA fails to address any petition within 90 days under section 3(b)(3)(A), the chemical or pesticide in general will automatically be deemed dangerous and be addressed appropriately.[230] Section 4 of the proposed bill would also require an emergency review of registered pesticides banned in other countries, requiring a review of all pesticides currently banned in the EU and beyond.[231]

The action, like PACTPA, is a step towards improving administrative agency's self-governance. Once the desired level of self-governance is attained, court intervention will be unnecessary, except in cases of egregious offenses, like significant delays. Eventually, agencies will be able to govern effectively enough to no longer require court intervention except to adjust behaviors to improve the agency's actions.[232] Maybe one day, Justice Bybee's conclusion that the Majority's intervention and requirement that the EPA responds to the 2007 Petition and 2019 Order within sixty days were in error and an overstep as more agencies are required to act independently.[233] Judicial intervention is the most suitable check on agency actions in order to avoid any internal abuses if the legislature allows the agency to remain unchecked.

---

[230] *Protect America's Children from Toxic Pesticides Act of 2023*, S. ___, 118th Congress, §3(b)(3)(A).
[231] *Id.* §4.
[232] Walker, *supra* note 204 at 156.
[233] *League of United Latin Am. Citizens*, 996 F.3d. at 727-8 (Bybee, J., dissenting).

V. CONCLUSION

The Ninth Circuit of Appeals' holding in *League of United Latin Am. Citizens v. Regan* was a proper use of judicial intervention in order to address and correct procedural agency abuse. The EPA's inaction to address the 2007 Petition for thirteen years was beyond egregious, and any judicial intervention was not an overstep over executive decision-making. There is value in an agency's self-governance, especially involving scientific or research-based decisions. However, if agencies prove to be ineffective, the judiciary has every right to intervene without any deference to agency decisions. Until legislative action is taken to force agencies to act on areas of great concern, like human health and safety, it is left to the judiciary to force their hand.

Progress, such as the proposed PACTPA legislative, can gain traction based on the actions of the Ninth Circuit Court of Appeals. The passing of such legislation would necessitate a more attentive eye from the EPA and other administrative agencies to ensure compliance with the power it grants. The passage of PACTPA will require the EPA to review chemical registrants with greater scrutiny and within a "reasonable time" to avoid cases as aforementioned. A willingness for both judicial and congressional oversight will pave the way for a brighter future of self-governance from the EPA without jeopardizing citizen health.