



February 18, 2025

Chair Brian J. Feldman  
Members of the Senate Education, Energy and the Environment

Re: Earthjustice support for SB 345:  
Pesticides – PFAS Chemicals – Prohibitions

Earthjustice<sup>1</sup> strongly supports the passage of SB 345. This legislation would require the Maryland Department of Agriculture (“MDA”) to identify and gradually phase out the use of pesticides containing per- and polyfluoroalkyl substances (“PFAS”), a class of long-lasting and toxic chemicals, as an active ingredient.

As discussed below, an established and growing body of evidence shows that PFAS contamination is a widespread problem across the country and in Maryland, and this contamination poses serious threats to human health. Once PFAS contamination occurs, it is costly and difficult to remediate, at best. Evidence also shows that some pesticides contain PFAS as active ingredients, which almost certainly contributes to PFAS contamination, given the widespread use of pesticides and the persistence of PFAS in the environment. These findings are particularly troubling when considered alongside studies showing that pesticide exposure especially burdens vulnerable populations, including Maryland communities where many people lack health insurance. PFAS in pesticides only increase these burdens. For all these reasons, we urge the General Assembly to help protect Marylanders from these chemicals by passing SB 345.

Mounting evidence shows that PFAS contamination is a serious problem. Indeed, in a 2022 survey of PFAS contamination in waterways across 34 states, the highest detected level of PFOS—a type of PFAS—was in Piscataway Creek, in Maryland.<sup>2</sup> Exposure to PFAS has been linked to numerous serious health harms. Aptly called “forever chemicals,” PFAS can persist for decades in the human body<sup>3</sup> and environment.<sup>4</sup> Because PFAS are so long-lasting, multiple

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<sup>1</sup> Earthjustice is a non-profit public interest environmental law organization that represents other non-profits free of charge.

<sup>2</sup> Kelly Hunter Foster & Daniel E. Estrin, Waterkeeper Alliance, *Invisible Unbreakable Unnatural: PFAS Contamination of U.S. Surface Waters* 24 (2022), <https://waterkeeper.org/wp-content/uploads/2022/10/Waterkeeper-Alliance-PFAS-Report-FINAL-10.14.22.pdf>.

<sup>3</sup> U.S. Dep’t of Health & Hum. Servs., Agency for Toxic Substances & Disease Registry, *Toxicological Profile for Perfluoroalkyls* 5 tbl. 1.1 (2021), <https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf>.

<sup>4</sup> See Mark L. Brusseau et al., *PFAS Concentrations in Soils: Background Levels Versus Contaminated Sites*, 740 *Sci. Total Env’t* 1, 6 (2020).

exposures can cause PFAS levels to accumulate in bodies over time.<sup>5</sup> Exposure to PFAS has been linked to harms such as testicular and kidney cancer, decreased immune response, pregnancy-induced hypertension and pre-eclampsia, and decreased birth weight.<sup>6</sup> According to the U.S. Environmental Protection Agency (“EPA”), there is no safe level of PFAS for humans.<sup>7</sup>

Once PFAS contamination occurs, it is costly and difficult or impossible to remove. A recent study of methods for removing PFAS from soil explained that “[t]here are currently no proven technologies that can degrade PFAS in soil and sediments in a cost-effective, environmentally-friendly, and energy-efficient manner.”<sup>8</sup> A similar study concluded that existing methods for removing PFAS from soil are “expensive, impractical for *in situ* treatment, [and] use high pressures and temperatures, with most resulting in toxic waste.”<sup>9</sup> Removing PFAS from drinking water is possible but comes with a significant price tag. For example, the city of Anaheim, California expects to spend \$200 million to build a PFAS filtration plant to treat its drinking water.<sup>10</sup> Accordingly, it is crucial that decisionmakers work to prevent PFAS contamination before it happens.

Numerous studies have found that pesticides contain PFAS.<sup>11</sup> In Maryland, about 1,091 of the approximately 14,000 pesticides registered for sale and use—or eight percent of registered pesticides—have as an active ingredient a chemical that falls within the PFAS category, according to the Maryland Pesticide Education Network. Pesticides containing PFAS introduce the chemicals to the areas where they are applied, and they can also lead to PFAS contamination in surrounding areas and waterways. Pesticides sprayed from the air or ground can drift off

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<sup>5</sup> See Juliane B. Brown et al., *Assessing Human Health Risks from Per- and Polyfluoroalkyl Substance (PFAS)-Impacted Vegetable Consumption: A Tiered Modeling Approach*, 54 *Env’t Sci. & Tech.* 15202, 15202 (2020).

<sup>6</sup> U.S. Dep’t of Health & Hum. Servs., *supra* note 3, at 6.

<sup>7</sup> Hiroko Tabuchi, *Something’s Poisoning America’s Land. Farmers Fear ‘Forever’ Chemicals*, N.Y. Times (Aug. 31, 2024), <https://www.nytimes.com/2024/08/31/climate/pfas-fertilizer-sludge-farm.html>.

<sup>8</sup> Jitendra A. Kewalramani et al., *Coupled High and Low-Frequency Ultrasound Remediation of PFAS-Contaminated Soils*, 88 *Ultrasonics Sonochemistry* 1, 1 (2022).

<sup>9</sup> Esmail Shahsavari et al., *Challenges and Current Status of the Biological Treatment of PFAS-Contaminated Soils*, 8 *Frontiers Bioengineering & Biotechnology* 1, 1 (2021).

<sup>10</sup> Pien Huang, *How a California County Got PFAS out of Its Drinking Water*, NPR (Sept. 12, 2024), <https://www.npr.org/sections/shots-health-news/2024/09/12/g-s1-22291/pfas-drinking-water-filter>.

<sup>11</sup> See Nathan Donley, et al., *Forever Pesticides: A Growing Source of PFAS Contamination in the Environment*, 132 *Env’t Health Persps.* 075003-1 (2024); see also Minn. Dep’t of Agric., *PFAS in Pesticides* 1 (2024); <https://www.lrl.mn.gov/docs/2024/mandated/240221.pdf>; Env’t Working Grp., *Maine Data Unveils Troubling Trend: 55 PFAS-Related Chemicals in Over 1,400 Pesticides* (2023), <https://www.ewg.org/news-insights/news-release/2023/06/maine-data-unveils-troubling-trend-55-pfas-related-chemicals>.

target,<sup>12</sup> and after application, pesticides can move offsite due to soil erosion and runoff.<sup>13</sup> One PFAS-containing pesticide is widely used by the Maryland government in its mosquito control program,<sup>14</sup> making it one of the likely sources of Maryland’s PFAS contamination, along with over 1,000 other pesticides containing PFAS that are registered for sale and use in the state.

Vulnerable communities already are disproportionately burdened by pesticide exposure, and PFAS in pesticides exacerbate the harm these communities experience. For example, a review of pesticides and pesticide metabolites in the blood and urine of a nationally representative sample of the population found that non-Hispanic Black and Mexican Americans had higher average concentrations of pesticides and pesticide metabolites than non-Hispanic whites,<sup>15</sup> meaning that they are generally exposed to higher levels of pesticides.<sup>16</sup> In Maryland, MDA’s most recent pesticide use survey, while imperfect, shows that pesticide exposure especially burdens communities where people lack health insurance. Wicomico County had the highest reported pesticide usage,<sup>17</sup> and 6.8 percent of the population in Wicomico County lacks health insurance.<sup>18</sup> Similarly, the second highest total pesticide usage in 2022 was reported for Washington County,<sup>19</sup> where 6.3 percent of the population lacks health insurance.<sup>20</sup> The average level of population lacking insurance across all Maryland counties is 5.2 percent, and in some counties, less than three percent of the population lacks health insurance.<sup>21</sup> MDA’s pesticide use surveys likely reflect a significant undercount of actual pesticide use, so the burdens on people who lack health insurance are likely even greater. And, given the serious health harms associated with exposure to pesticides and PFAS, heavy use of PFAS-containing pesticides in areas where more people lack health insurance—and, thus, may be less likely to seek treatment for exposure—poses a particular threat to Marylanders’ health.

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<sup>12</sup> See Edward J. Kasner et al., *Examining the Role of Wind in Human Illness Due to Pesticide Drift in Washington State, 2000-2015*, 20 *Env’t Health* (2021).

<sup>13</sup> See Meindert C. Commelin et al., *Pesticides are Substantially Transported in Particulate Phase, Driven by Land Use, Rainfall Event and Pesticide Characteristics—A Runoff and Erosion Study in a Small Agricultural Catchment*, 10 *Frontiers in Env’t Sci.* 1 (2022).

<sup>14</sup> See Md. Pesticide Educ. Network, *PFAs Found in Widely Used Insecticide* (Mar. 26, 2021), <https://mdpestnet.org/pfas-found-in-widely-used-insecticide/>.

<sup>15</sup> See Nathan Donley et al., *Pesticides and Environmental Injustice in the USA: Root Causes, Current Regulatory Reinforcement and a Path Forward*, 22 *BMC Pub. Health* 1, 5 (2022).

<sup>16</sup> *Id.* at 6.

<sup>17</sup> MDA, *Maryland Pesticide Survey Statistics 2022 Report* (2023), [https://www.nass.usda.gov/Statistics\\_by\\_State/Maryland/Publications/Pesticide/2022-MD-Pesticide.pdf](https://www.nass.usda.gov/Statistics_by_State/Maryland/Publications/Pesticide/2022-MD-Pesticide.pdf).

<sup>18</sup> See U.S. Census Bureau, American Community Survey, <https://data.census.gov/table> (filter for “Health Insurance” and “All Census Tracts within Maryland”). Data is from 2021.

<sup>19</sup> See MDA, *Maryland Pesticide Survey Statistics 2022 Report*, *supra* note 17.


<sup>20</sup> See U.S. Census Bureau, *supra* note 18.

<sup>21</sup> See *Id.*

For all these reasons, the Committee should act now to protect Marylanders from these harmful chemicals. Earthjustice strongly urges a favorable report for SB 345.

Thank you in advance for your support. Should you have any questions, please contact me at [smiller@earthjustice.org](mailto:smiller@earthjustice.org).

Respectfully submitted,



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