

Testimony of Pat Ianni  
***In Support of LD 1503, “An Act to Stop Perfluoroalkyl and Polyfluoroalkyl Substances<sup>1</sup> Pollution”***  
Before the Environment and Natural Resources Committee  
May 3, 2021

I am a resident of Falmouth and in my professional capacity serving as an environmental scientist for the last four decades, I have had an opportunity to study the research about this issue since it first was publicized in January 2016. I am now recently retired and offer this testimony on behalf of myself as a scientist and private citizen. I urge you **to pass** LD 1503, which will accomplish the following:

- (1) **Require notification** by manufacturers of products for sale in the State which contain ***“intentionally added”<sup>2</sup>*** PFAS beginning in **2023**.
- (2) **Prohibit the sale** of **residential carpets or rugs, and fabric treatments** that contain ***“intentionally added”*** PFAS beginning in **2023**.
- (3) **Prohibit the sale** of **additional product categories** that are *subsequently identified by the MEDEP* to contain ***“intentionally added”*** PFAS.
- (4) **Prohibit the sale** of **any products** containing ***“intentionally added”*** PFAS by **2030** - ***unless*** - the use of PFAS in a product is specifically designated as a ***“currently unavoidable use”<sup>3</sup>*** by the department.
- (5) **Assess a Fee** as established by MEDEP in rule which will be payable by a manufacturer upon submission of the required notification.
- (6) **Create & Implement** a **“PFAS source reduction program”** by MEDEP that provides (a) information for industrial and commercial users of PFAS, (b) education of the general public, and, (c) grants to publicly owned treatment works (POTWs) and municipalities. The purpose of this program is to (a) reduce the presence of PFAS in discharges to air, water and land; (b) encourage the replacement of PFAS with safer alternatives (i.e., a phase-out the non-essential use of PFAS in products), and (c) support the proper management of PFAS.
- (7) **Adopt Regulations (Rules)** by MEDEP to implement this law.

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<sup>1</sup> Perfluoroalkyl and polyfluoroalkyl substances, aka PFAS, means substances that include any member of the class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom.

<sup>2</sup> “Intentionally added” PFAS is defined in this bill as: “PFAS added to a product or one of its product components to provide a specific characteristic, appearance or quality or to perform a specific function” including “any degradation by-products of PFAS.”

<sup>3</sup> “Currently unavoidable use” of PFAS in a product is defined in this bill as: “a use of PFAS that the MEDEP has determined ... to be essential for health, safety or the functioning of society and for which alternatives are not reasonable available.”

## Why you should vote to pass LD 1503

As well-documented in the scientific literature, and comprehensively stated by many others who have provided testimony in support of this bill, we know the following:

- PFAS are contained in many consumer products which are in common daily use by all of us; however, the exposures by many of us to these PFAS are often unintentional.
- The risks posed by these chemicals (although only recently discovered by regulators and the public) have been known for years by many of the manufacturers of PFAS and PFAS-containing products.
- The risks are compounded by the persistence of these chemicals in environmental media (soil, surface water, groundwater, and air), our food sources, our drinking water, the wildlife and our bodies – hence, the name “forever chemicals”.
- The risks posed by these chemicals are aggravated by the very challenging and costly means currently available to document their presence and to complete the remediation, mitigation, and elimination because they have become so ubiquitous in various environmental media and consumer products.
- Additional information about these risks is provided in **Attachment A**, shown below.

## Summary

Although this bill proposes appropriate prohibitions on only a very limited number of PFAS-containing products, it creates an important starting point to achieve the needed elimination of these chemicals from the market stream in products with safe alternatives. The bill also allows for the future ban of additional products as deemed appropriate by the MEDEP with a priority on those products most likely to contaminate our land and water. While push-back from manufacturers of many of the products that may fall within the prohibition contained in this bill is expected, the only way to rid our environment, our soil, our water, our food, our wildlife, and our bodies of these harmful chemicals, is to place the onus on the product manufacturers to notify us which products contain these chemicals, to develop alternative approaches to manufacturing to achieve some of the same product attributes these PFAS offer, and to educate their customers on the need to forego some of these “conveniences”. In my humble opinion, foregoing the **non-essential** use of PFAS in consumer products is well worth the loss of the so-called benefits these product characteristics provide. Furthermore, it is time that the manufacturers carry the costs for the contamination they have caused in lieu of the consumers (who have paid with their health), and the municipalities, water treatment utilities and taxpayers (who have paid with their wallets). In closing, as a typical unintentional consumer of these products, I strongly urge this committee to **SUPPORT the passage of LD 1503**.

## Attachment A:

### Why these chemicals are problematic

This class of chemicals known as *PFAS* includes (Per- and Poly-fluoroalkyl substances) is a large complex family of more than 9,000 man-made fluorinated organic chemicals produced since the mid-20<sup>th</sup> century. Because these chemicals were largely unregulated (and many still are), much of the industrial waste generated during their production was indiscriminately discharged to public and private lands, resulting in contaminated environmental media (i.e., soil, groundwater and surface water). Additionally, the widespread use of these chemicals, has resulted in the unintended discharge and creation of many contaminated areas around the country including many locations in Maine. Until very recently - (a) there were no regulatory limits on the allowable concentrations in environmental media; (b) there was little known about the human health risks posed from environmental exposure; and (c) there were few investigations to provide data about where these contaminants had spread throughout our environment.

Specifically, the usages have included (a) widespread industrial uses (e.g., fire-fighting foam known as AFFF), and (b) ubiquitous uses in consumer and household goods (e.g., waterproof/stainproof textiles and carpet, non-stick products such as cookware, and food packaging). Additionally, the resulting end-of-life disposal of these products via landfills, and particularly in Maine, the unintended concentration of these chemicals in biosolids from wastewater treatment facilities and the subsequent use of biosolids as fertilizer on farms and fields, has further exacerbated the spread of these chemicals in uncontrolled ways.

Also, because many of these compounds are mobile, persistent, and bioaccumulative, and are not known to degrade in the environment, they have remained in the environmental media (i.e., soil, surface water, and groundwater) many years after the original release.

Consequently, many years after their release to the environment, these compounds have only recently been identified in Maine's soil and drinking water supplies. Potential unintended exposure pathways include - ingestion of contaminated food; the use and handling of commercial products containing these chemicals; and inhalation from long-range air transport of contaminated particulate matter. Additionally, based on the limited information available, fish and fishery products seem to be one of the primary sources of human exposure to PFOS.

Thus, although these chemicals have been produced, used, and released to the environment for many decades, little was known by many scientists until very recently because of their unregulated status, and very few investigations had been conducted to document the widespread distribution of these compounds in our environment.

### **How these chemicals adversely affect human health**

Studies indicate that continued exposure to low levels of PFOA in drinking water may result in adverse health effects. Not only have studies found PFAS in the blood of occupationally-exposed workers in the 1970s, but also in the blood of the general human population and wildlife nationwide indicating that exposure to the chemicals is widespread. As the learning curve for these chemicals continues, evidence demonstrating new health effects is continuing to be discovered and thus, we still don't know what levels of exposure are safe.

As reported in a USEPA Fact Sheet, studies have indicated the following health effects:

- Toxicology studies show that PFOS and PFOA are readily absorbed after oral exposure and accumulate primarily in the serum, kidney and liver.
- Epidemiologic studies have shown an association between PFOS exposure and bladder cancer; however, further research and analysis are needed to understand this association.
- In May 2006, the USEPA Science Advisory Board suggested that PFOA cancer data are consistent with the EPA guidelines for the Carcinogen Risk Assessment descriptor "likely to be carcinogenic to humans."
- Analysis of U.S. National Health and Nutrition Examination Survey representative study samples indicate that higher concentrations of serum PFOA and PFOS are associated with thyroid disease in the U.S. general adult population.