MPHA
Maine Public Health Association

**Testimony of Maine Public Health Association in Support of:**
**LD 1503: An Act To Stop Perfluoroalkyl and Polyfluoroalkyl Substances Pollution**

Joint Standing Committee on Environment and Natural Resources
Room 216, Cross State Office Building
Monday, May 3, 2021

Good morning Senator Brenner, Representative Tucker, and distinguished members of the Joint Standing Committee on Environment and Natural Resources. My name is Rebecca Boulos. I am a resident of South Portland, and executive director of Maine Public Health Association. MPHA is supportive of LD 1503: "An Act To Stop Perfluoroalkyl and Polyfluoroalkyl Substances Pollution."

MPHA is the state's oldest, largest, and most diverse association for public health professionals. We represent more than 500 individual members and 30 organizations across the state. The mission of MPHA is to improve and sustain the health and well-being of all people in Maine through health promotion, disease prevention, and the advancement of health equity. As a statewide nonprofit association, we advocate, act, and advise on critical public health challenges, aiming to improve the policies, systems, and environments that underlie health inequities – but which also have potential to improve health outcomes for all people in Maine. We are not tied to a national agenda, which means we are responsive to the needs of Maine's communities and we take that responsibility seriously.

This bill has several provisions focused on reducing the manufacture and sale of products that contain perfluoroalkyl and polyfluoroalkyl substances (PFAS), including requiring manufacturers that add PFAS to products to report them to the Maine Department of Environmental Protection (Maine DEP), and prohibiting the sale of residential carpets, rugs and fabric treatments that contain added PFAS. The bill also directs Maine DEP to create a PFAS source reduction program that provides information, education, and grants to publicly owned treatment works and municipalities to reduce PFAS entering air, water, or land.

We support the intentions of this bill. What is particularly challenging about these chemicals is both their widespread use and the public's unawareness of their additive exposure and accumulation. According to the U.S. Environmental Protection Agency,[1] PFAS are found in air, soil, surface water, and groundwater (including drinking water); food and food packaging; commercial household products; and some living organisms (where PFAS have accumulated over time). PFAS do not break down and can accumulate over time. There is evidence from human and animal studies that PFAS exposure may reduce antibody responses to vaccines[2,3] and infectious disease resistance,[4] alter metabolism[5] and fertility,[6] reduce fetal growth and increase the risk of being overweight or obese.[7] A recent review of the research literature explored the relationship between PFAS exposure and children's health. Six associations with health were identified: early puberty onset, immunity/infection/asthma, thyroid and renal function, cardio-metabolic measures, and neurodevelopmental/attention.[8]

In addition to the concerning health effects, the disposal of PFAS is challenging. Factors specifically challenging for PFAS remediation include: Multiple ionic states; variable isomers; differing alkyl groups; past remediation effects; and common co-contaminants.[9] To date, Maine's agencies have had insufficient resources to address this

problem; thus, we support the provisions in this bill to establish a PFAS source reduction program that could, with sufficient funding, reduce PFAS entering air, water, and land.

Given the human health risks associated with PFAS, prevention of exposure must be a priority. We believe the provisions in this bill are protective of public health and respectfully request you vote LD 1503 "Ought to Pass." Thank you.

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[1]U.S. Environmental Protection Agency. 2018. Basic information on PFAS. https://www.epa.gov/pfas/basic-information-pfas.
[2]Grandjean P, Heilmann C, Weihe P, et al. 2017. Estimated exposures to perfluorinated compounds in infancy predict attenuated vaccine antibody concentrations at age 5-years. *J Immunotoxicol*,14(1):188-195.
[3]Looker C, Luster MI, Calafat AM, et al. 2014. Influenza vaccine response in adults exposed to perfluorooctanoate and perfluorooctanesulfonate. *Toxicol Sci*.,138(1):76-88.
[4]National Toxicology Program. 2016. Monograph on immunotoxicity associated with exposure to perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). Research Triangle Park, NC: National Toxicology Program. https://ntp.niehs.nih.gov/ntp/ohat/pfoa_pfos/pfoa_pfosmonograph_508.pdf.
[5]Liu G, Dhana K, Furtado JD, Rood J, Zong G, Liang L, Qi L, Bray GA, DeJonge L, Coull B, Grandjean P, Sun Q. 2018. Perfluoroalkyl substances and changes in body weight and resting metabolic rate in response to weight-loss diets: A prospective study. *PLoS Med*,15(2):e1002502.
[6]Bach CC, Vested A, Jorgensen K, Bonde JP, Henriksen TB, Toft G. 2016. Perfluoroalkyl and polyfluoroalkyl substances and measures of human fertility: A systematic review. *Crit Rev Toxicol*,46(9):735-55.
[7]Braun J. 2017. Early-life exposure to EDCs: Role in childhood obesity and neurodevelopment. *Nat Rev Endocrinol*,13(3):161–173.
[8]Rappazzo KM, Coffman E & Hines EP. 2017. Exposure to perfluorinated alkyl substances and health outcomes in children: A systematic review of the epidemiologic literature. *International Journal of Environmental Research and Public Health*, *14*(7):691.
[9]Interstate Technology Regulatory Council. March 2018. Remediation technologies and methods for per- and polyfluoroalkyl substances (PFAS).