



Testimony of Patrick MacRoy, Deputy Director, Defend our Health
In SUPPORT of S.20, “An act relating to restrictions on perfluoroalkyl and polyfluoroalkyl
substances and other chemicals of concern in consumer products”
Before the House Committee on Human Services
April 14, 2021

Good morning members of the Committee on Human Services. My name is Patrick MacRoy. I am the Deputy Director for Defend Our Health, based in Portland, Maine. Defend is a nonprofit public health organization that works to create a world where all people are thriving, with equal access to safe food and drinking water, healthy homes, and products that are toxic-free and climate-friendly. Prior to joining Defend, I worked as an epidemiologist focused on environmental public health issues, first with the Office of Environmental Health Risk Assessment at the State of Rhode Island and later for the City of Chicago. Since joining Defend Our Health, which was formerly known as the Environmental Health Strategy Center four years ago, I have worked on issues related to PFAS contamination in water and soil, as well as the presence of *ortho*-phthalates in food contact materials. I appreciate the invitation this morning to speak to you about S.20, “An act relating to restrictions on perfluoroalkyl and polyfluoroalkyl substances and other chemicals of concern in consumer products.”

Our organization started working on issues related to PFAS in late 2018 when a chance meeting resulted in us being connected with Arundel, Maine dairy farmer, Fred Stone. Fred’s story¹ is a powerful example of the importance of the policy contained in S.20. Upon learning a public water system well located next to his farm tested positive for PFAS, Fred informed state regulators and his milk processor. His cows’ milk was tested for PFAS and found to contain levels in excess of 1400 ng/L (ppt), the then highest levels reported in North America. A state investigation found Fred’s land to be heavily contaminated with PFAS and the source was identified as paper mill and municipal sewage sludge that Fred had applied *nearly 20 years prior* as fertilizer under a state sanctioned program.

Even after investing over a hundred thousand dollars in water treatment systems and clean feed, Fred still hasn’t been able to get the contamination of his cows’ milk down to safe levels and is still unable to sell milk. He has lost his livelihood and been financially ruined from PFAS.

¹ For more detail on Fred’s story, see: Valdmanis, Richard & Joshua Schneyer. “[The curious case of tainted milk from a Maine dairy farm.](#)” *Reuters*. March 19, 2019. & Rizzuto, Pat. “[Forever Chemicals’ Coming to Your Table, if Not Already There.](#)” *Bloomberg Environment*. September 27, 2019.

Then last year, Maine discovered a second dairy farm, located in Fairfield, that was producing milk with up to 32,200 ng/L of PFAS, levels 23 times higher than seen at Fred Stone's.² Even more troubling, as the state has tested the drinking water wells of neighbors, they have found over 60 that are contaminated at a level that exceeds even the outdated federal drinking water advisory, often by orders of magnitude.³

Policies like those in S. 20 are critical to help prevent there from being more cases like that of Fred Stone.

Following Fred's story being told publicly in March 2019, the State of Maine required all sludge and commercial compost destined for use as fertilizer to be tested for PFAS. Well over 90% of both sludge and compost flunked the test, exceeding the state's screening standard.⁴ The PFAS laden sludge and compost was from all parts of Maine – our more rural communities as well as our cities – with no clear connection to industrial sources. In fact, septage, which is almost entirely from residential sources, had some of the highest levels of PFAS.

So where is all this PFAS coming from? The obvious answer is from all of us and the numerous consumer products that contain it. When we wash the clothing treated with PFAS stain treatments, some goes down the drain. When we use floor waxes with PFAS, some ends up in the bucket going down the drain. When we send compostable paper plates treated with PFAS to commercial compost facilities, it's ending up in finished compost. In fact, researchers have shown higher levels of PFAS in compost that includes "compostable food service ware" compared to compost with just yard waste.⁵ When we send non-compostable PFAS containing waste to the landfill, the PFAS will eventually enter the leachate from the landfill.⁶ This leachate is usually sent to local sewage treatment plants, allowing the PFAS to again enter waterways or the sludge. (Stories of PFAS contaminated landfill leachate from New Hampshire being processed in Maine drove headlines and was a source of vexation with our neighbors to the west.⁷)

² Miller, Kevin. "[State investigating 'very startling' levels of PFAS chemicals on central Maine dairy farm.](#)" *Portland Press Herald*. July 24, 2020.

³ Miller, Kevin. "[Federal toxicologist, health advocates push for tougher limits on 'forever chemicals'.](#)" *Portland Press Herald*. April 13, 2021.

⁴ Results detailed and discussed with a link to the source data in my blog post entitled: "[Who Wants Farm-to-Table Forever Chemicals?](#)" from June 28, 2019 available on www.defendourhealth.org

⁵ Lee, Linda & Heather Trim. "[Evaluating Perfluoroalkyl Acids in Composts with Compostable Food Serviceware Products in their Feedstocks.](#)" January 2018 (Revised March 9, 2018). & Youn Jeong Choi, Rooney Kim Lazcano, Peyman Yousefi, Heather Trim, and Linda S. Lee. "[Perfluoroalkyl Acid Characterization in U.S. Municipal Organic Solid Waste Composts.](#)" *Environmental Science & Technology Letters* 2019 6 (6), 372-377 DOI: 10.1021/acs.estlett.9b00280

⁶ Johnsie R. Lang, B. McKay Allred, Jennifer A. Field, James W. Levis, and Morton A. Barlaz. "[National Estimate of Per- and Polyfluoroalkyl Substance \(PFAS\) Release to U.S. Municipal Landfill Leachate.](#)" *Environmental Science & Technology* 2017 51 (4), 2197-2205 DOI: 10.1021/acs.est.6b05005

⁷ Miller, Kevin. "[Treatment plant discharging into Kennebec River processed runoff possibly laced with 'forever chemicals'.](#)" *Portland Press Herald*. November 6, 2019.

Given the near indestructability of PFAS, the only way we are going to keep them out of our environment, out of our drinking water, and out of food is if we turn off the tap: that is, we eliminate use of this class of chemicals from food packaging, consumer products, firefighting foam, and all other uses that are not currently unavoidable.⁸ We cannot simply rely on efforts to perhaps protect ourselves by “shopping our way out of the problem,” that is trying to avoid it by identifying and only purchasing PFAS-free products for our own families. Even if I studiously avoid food packaged in PFAS wrappers, there is no guarantee my milk is contaminated from the sludge that was contaminated by the wrappers of others.

Eliminating non-essential uses of PFAS, including its use in food packaging, carpeting, consumer products, and firefighting foam is completely feasible.

Other states and localities have taken actions similar to what Vermont is considering. Store shelves have not emptied, economies have not collapsed, and the sky has not fallen. In fact, the regulated community is increasingly seeing the writing on the wall and starting to take action nationally.

In 2019, Maine’s legislature passed bipartisan legislation that would prohibit the use of both phthalates and PFAS in food packaging.⁹ Our legislation built on legislation in Washington State, which passed in 2018, to eliminate PFAS from food packaging.¹⁰ More recently, in December of last year, New York State also banned PFAS from food packaging.¹¹ Localities, including San Francisco, have also banned PFAS in compostable food service ware.¹² New Hampshire, California, Colorado, Michigan, New York, and Washington have all taken action to ban PFAS in firefighting foam.¹³

Consumer concern and demand is also driving the market to start changing even in the absence of laws. Following action from Whole Foods and Trader Joes,¹⁴ international grocer Ahold Delhaize, who owns the Hannaford brand of supermarkets familiar to us here in Northern New England, announced in September of 2019 that it would eliminate PFAS, phthalates, and BPA from products and packaging in all of its house brand items.¹⁵ Taco Bell announced in 2020 that

⁸ For more on what could be considered “essential” and non-essential uses of PFAS, and how food packaging uses are all non-essential see: Cousins, et al. “[The concept of essential use for determining when uses of PFASs can be phased out.](#)” *Environ. Sci.: Processes Impacts* (2019)21, 1803-1815.

⁹ [P.L. 2019, Ch. 277.](#)

¹⁰ See State of Washington, Department of Ecology factsheet entitled “Focus on: Alternatives to PFAS in Food Packaging” available at <https://fortress.wa.gov/ecy/publications/documents/1804034.pdf>

¹¹ 2020 [So8817](#), Signed 12/2/2020.

¹² City of San Francisco [Ordinance 201-18.](#)

¹³ See “Adopted Policy” section of: Safer States. “PFAS.” Available at <http://www.saferstates.org/toxic-chemicals/pfas/> (accessed 4-13-2021).

¹⁴ Safer Chemicals, Healthy Families. “[Whole Foods, Trader Joe’s pledge initial action on toxic PFAS.](#)” December 12, 2018.

¹⁵ Ahold Delhaize USA. “[Ahold Delhaize USA Brands Announce Commitment to Sustainable Chemistry, Transparent Products and Packaging.](#)” September 19, 2019.

they will end the use of PFAS, phthalates, and BPA from all “consumer-facing” packaging,¹⁶ and McDonalds announced earlier this year that they are eliminating all PFAS from packaging, after having eliminated phthalates and BPA/BPS previously.¹⁷ Lowes¹⁸ and Home Depot¹⁹ have already agreed to stop selling carpets and rugs with PFAS, and Staples²⁰ has committed to eliminating PFAS from its office products. Lowe’s has also committed to committed to eliminating aftermarket PFAS fabric treatments.²¹ Since 2020, the Biodegradable Products Institute, a private organization which certifies food service materials as compostable, has required all products to be free of PFAS in order to carry its certification.²²

I have attached to my submitted testimony additional information on the extent of the problem on toxic chemicals in food packaging, the problems with newer PFAS chemicals often referred to as “short-chains,” why we should not rely on Federal action, and additional information about alternatives.

The reality is that alternatives to the use of PFAS, as well as phthalates and BPA, are plentiful and widely available, as demonstrated by these major retailers already taking action to eliminate these toxic chemicals. While we applaud these voluntary actions, ultimately, where you shop should not determine the toxics you are exposed to. If we want to prevent another situation like Fred Stone’s and eliminate PFAS exposure from the environment, we must implement public policy to make these requirements universal. S.20 represents an excellent step forward in this battle and I urge the committee to support it.

Thank you for your time, and I’m happy to take any questions you may have.

¹⁶ Taco Bell. “[Taco Bell® Rings In 2020 With Bold New Commitments.](#)” January 9, 2020.

¹⁷ McDonalds. “[Packaging & Waste.](#)” Accessed 4/13/2021.

¹⁸ Safer Chemicals, Healthy Families. “[Lowe’s bans toxic PFAS chemicals in residential carpets and rugs it sells.](#)” October 30, 2019.

¹⁹ Home Depot. “[Phasing Out Products Containing PFAS.](#)” September 17, 2019.

²⁰ Safer Chemicals, Healthy Families. “[Staples launches new policy to drive toxic chemicals out of office supplies, electronics, textiles, and other products.](#)” October 31, 2019.

²¹ Lowe’s. “[Lowe’s Safer Chemicals Policy.](#)” Accessed 4/13/2021.

²² Biodegradable Products Institute. “Fluorinated Chemicals.” Available at: <https://bpiworld.org/Fluorinated-Chemicals> (accessed 4-13-2021).

Annotated List of Attachments to the Testimony of Patrick MacRoy

1. Policy statement from the American Academy of Pediatrics on “Food Additives and Child Health.” – Recognizes the insufficiency of current USFDA policies for examining chemicals used in food and food packaging, including PFAS, phthalates, and bisphenols, in light of the risks to children’s health.
2. Testimony of Dr. Maricel Maffini in support of Maine’s legislation passed last year to prohibit PFAS and phthalates from food packaging. Dr. Maffini has published extensively on the safety of chemicals in food. Her testimony, in addition to laying out the concerns with these classes of chemicals, notes how critical information on the safety of newer so-called “short-chain” PFAS was withheld from the FDA by industry and the FDA reviews were incomplete.
3. Peer-reviewed article of Cousins, et al., on essential and non-essential uses of PFAS. This article provides an excellent framework, based on international treaties regulating persistent toxics, for considering the essentiality of various PFAS uses.
4. Fact sheet from our organization on exposure routes to PFAS and the importance of dietary exposure – provides links to the scientific support for diet being the primary pathway of PFAS exposure for most individuals.
5. Fact sheet from our organization on alternatives to phthalates in food packaging – provides background on solutions to using phthalates in food packaging that have been implemented by major manufacturers.
6. Fact sheet from our organization on the challenges of so-called “short-chain” PFAS – documents with references how many of the same concerns with older PFAS still apply to the newer versions.
7. Fact sheet from the Green Science Policy Institute on the challenges of so-called “short-chain” PFAS – provides additional background on the problems with short-chains.
8. Procurement guide for PFAS-free compostable food service ware from the Collaborative Network for a Cancer Free Economy – Identifies many specific examples of alternative products without PFAS.