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In SUPPORT of HB1275
Protecting New Hampshire Farms and Communities from PFAS Contamination in Sewage Sludge

Before the House Environment and Agriculture Committee
February 9, 2026

To the members of the New Hampshire House of Representative's Environment and Agriculture Committee:

My name is Dr. Rachel Criswell, and I am a family medicine and obstetrics physician and environmental health researcher based in rural Maine. I received my Medical Degree and Master's Degree in Biomedical Research at Columbia University and completed my family medicine residency at the Maine-Dartmouth Family Medicine Residency. I hold faculty positions at Dartmouth University's Geisel School of Medicine, Tufts University School of Medicine, and the MaineHealth Institute for Research. I am one of the Principal Investigators of a recently completed NIEHS-funded project assessing PFAS blood levels in biosolids-affected communities in central Maine, and I currently lead an NIH-funded award through Tufts University exploring the effects PFAS on human milk composition in New Hampshire. Vermont, and Maine. Please accept this testimony in support of HB 1275, which would protect New Hampshire farmers and residents from facing contamination of water, food systems, and communities from PFAS-contaminated biosolids.

My family practice is in rural central Maine, where in the early 2020s a large scale PFAS contamination of private drinking water wells, farmland, and the local food system was discovered and traced back to decades of application of PFAS-contaminated sludge as fertilizer on agricultural lands. My community was devastated, as families learned that they had levels of PFAS in their drinking water thousands of times the recommended "safe" level; small-scale organic farmers realized their produce, meat, milk, and eggs contained dangerously high concentrations of PFAS; and local hunters and anglers were advised not to consume local fish and game due to contamination.[1]

In response to community concerns and in collaboration with local farmers and residents, my colleague Dr. Abby Fleisch and I designed and implemented a time-sensitive NIH-funded research project entitled, *Exposure pathways and mental health impacts of PFAS-contaminated biosolids*, also known as the Maine Biosolids Study. Through local town halls, we enrolled 150 adults from rural Maine who lived on or near biosolids-applied land. Participants answered survey questions about their daily habits and provided blood samples.

We found that our community with historical biosolids application had elevated exposure to PFAS as compared to the rest of the population. Over 58% of participants had well water concentrations above the Maine Interim Drinking Water Standard ($\geq$20 ng/L for the Σ6 legacy PFAS[2]), and 39% had PFAS serum levels considered "high risk" for PFAS-associated diseases ($\geq$20 ng/mL for the Σ7 legacy PFAS[3]). We found that on average, participants had elevated PFAS in their serum as compared to the US population: for example average PFOA were levels in the blood of our participants were 4.3 times the national average, and we found individual levels as high as 868 ng/mL.[4]

This is important because people exposed to high levels of PFAS are at risk for a number of negative health outcomes, including decreased antibody response to vaccines, hyperlipidemia, liver dysfunction, kidney, breast, and testicular cancer, and thyroid dysfunction.[3,5–7] Indeed, I see patients affected by high levels of PFAS in my clinic, and I screen them for these conditions based on the 2022 clinical guidelines published by the National Academies of Science. As a physician who care for pregnant people and infants, I am concerned that research indicates associations between PFAS exposure and pre-eclampsia in pregnancy and low birth weight in infants.[3] Research I have conducted with the New Hampshire Birth Cohort Study has shown the maternal exposure to PFAS can even interfere with lactation, change the nutritional make up of human milk, and transfer from mother to infant through breastfeeding. Moving away from physical health effects, in the Maine Biosolids Study, we found that learning that one's drinking water was contaminated with PFAS was associated with psychosocial distress and anxiety, even independent of previous mental health conditions.[8]

These PFAS exposures and the associated cascade of intergenerational health effects are preventable, and HB 1275 will lay a foundation for protecting the health of New Hampshire residents. Even in areas where biosolids do not contain known high amounts of PFAS, the Environmental Protection Agency's 2025 risk assessment indicated that any detectable amount of PFOA or PFOS in biosolids was associated with human cancer risk.[9] For these reasons, I urge you to vote "ought to pass" on HB 1275, which will provide support to farmers and communities already affected by exposure to contaminated biosolids and protect future New Hampshire residents from exposure to biosolids by temporarily banning the new application of sludge to agricultural land as fertilizer. Thank you for your consideration.

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