Senator George J. Mitchell Center for Sustainability Solutions **Risk to Resiliency: Taking Action on PFAS in Maine**

Sustainability Problem

- **PFAS (aka Forever Chemicals) is a** family of chemicals produced since the 1940's.
- **Biosolids** were spread on farmland across the nation, but unknowingly, often contained PFAS (per-and polyfluoroalkyl substances).



• Maine is a leader in addressing PFAS contamination, unfortunately leading to negative national attention

The Washington Post 'Forever chemicals' upended Maine farm – and point to larger problem By Keith O'Brien April 11, 2022 at 8:00 a.m. ED

Team and Partners

Team Leaders:

- SocioEconomic: Caroline Noblet
- Wildlife: Dianne Kopec
- Engineering: Onur Apul, Jean MacRae

Graduate Students:

 Molly Shea, Melissa Godin, Sonia Moavenzadeh, and more!

Undergraduate Students:

• Patrick Pennington, Carissa Furtado, and more!



'How might a person in your community be exposed to PFAS?' (n=352)

Key Partners:

- Maine State Agencies: DEP, CDC, IF&W, DACF
- National Science Foundation One Health and the Environment
- Maine Farmland Trust, MOFGA

Solutions for a sustainable Maine

Solutions Approach

Our collaborative research approach is focused on:

- Drinking water and food safety
 - Determining where groundwater is most vulnerable to PFAS contamination by studying fate, persistence and transport
 - Providing predictive models that identify 'hotspots' with vulnerable ecosystems and potential contamination
 - Evaluating willingness to pay for water filters to avoid PFAS exposure through drinking water
 - Determining the perceptions, knowledge and willingness to take action of Maine people regarding the impacts of PFAS on water quality, environmental and agricultural systems

• New priorities - Assisting federal agencies in developing research priorities to understand and reduce risks.

How Our Work Is Making a Difference



Our team is actively working on: Fish and game advisories. Collaborating with state agencies to develop consumption advisories Reducing risk. Developing technologies to reduce leakage of PFAS from landfills; learning about citizen exposure behavior Improving confidence in Maine's Food System. Evaluating how media coverage has reduced consumer confidence – and developing strategies to regain trust

