



## PFAS – Communities Face Many Challenges

### ISSUE:

Massachusetts communities are facing many challenges related to addressing **Per- and Polyfluoroalkyl Substances (PFAS)**, synthetic chemicals widely used in manufacturing, many consumer products, and firefighting foam. When applied or discarded, PFAS has leached from these products into our environment, our drinking water sources, and our wastewater discharges. Communities face significant costs for PFAS remediation.

### BACKGROUND:

Thousands of PFAS compounds are used in commerce. While scientific investigations and health studies are ongoing, studies are suggesting potential links between exposure to certain PFAS in the environment and health effects. The studies have looked at the impact on the development of fetuses and infants, the thyroid, the liver, kidneys, hormone levels and the immune system, as well as if a cancer risk exists for people exposed to levels well above the drinking water standard. While the focus has been primarily on PFAS in drinking water, the issue is impacting municipalities in more ways.

### KEY POINTS:

- ◆ Recent advances in laboratory testing now enable us to test for PFAS compounds at extremely low levels. Water systems that tested negative for PFAS at parts per billion may now test positive at parts per trillion. These tests, however, do not tell us when or how the PFAS entered the water source.
- ◆ The Massachusetts Department of Environmental Protection has set a limit of 20 ng/L (equals 20 ppt) for the sum of six PFAS compounds in drinking water, which are referred to as the PFAS6. 170 Public Water Systems have tested above the Massachusetts standard. EPA is now seeking public comments on a national drinking water rule which would set the limit much lower than Massachusetts at 4 ppt. This is creating uncertainty for water systems which are currently designing or have installed treatment to meet the Massachusetts standard. There are potentially another 149 Public Water Systems that will be impacted if EPA adopts their proposed standard.
- ◆ PFAS can be treated in drinking water, but it is expensive. The MA Clean Water Trust has already issued \$209 million in loans for 24 Public Water System projects to remediate PFAS in drinking water; this is only a fraction of the funding needed.
- ◆ Massachusetts set a groundwater clean up standard, also at a limit of 20 ppt for the sum of six PFAS compounds. The Bureau of Waste-site Cleanup has been challenged with investigating the many sites where this standard has been exceeded to determine if they can find a responsible party for the contamination.
- ◆ PFAS levels in wastewater discharges are now being studied. Because PFAS is so ubiquitous and in so many consumer products, PFAS is being detected in wastewater effluent and biosolids. Biosolids are a product of the wastewater treatment process. During wastewater treatment the liquids are separated from the solids. Those solids are then treated physically and chemically to produce a semisolid, nutrient-rich product known as biosolids. All Massachusetts wastewater facilities produce biosolids that must be responsibly managed and eliminated. This impacts every household in the Commonwealth as septic system pump outs are treated at wastewater facilities.
- ◆ Landfills in New England have very limited capacity and little to no ability to accept additional biosolids. Incinerators in New England are all running at or near capacity, and their infrastructure is aged and in need of repair. Beneficial reuse options have become significantly restricted as Maine and Vermont have passed moratoriums on land application.
- ◆ In CY2022, Massachusetts wastewater facilities produced 156,000 dry tons of biosolids, yet only 27% were disposed of or recycled in Massachusetts. Wastewater facilities face an imminent biosolids management and disposal crisis as PFAS chemicals force land application bans and restrictions and dwindling landfill space reduce disposal capacity.
- ◆ Fire Departments are concerned about the presence of PFAS in firefighters' protective gear. The International Association of Fire Fighters is suing the NFPA that sets national standards for firefighters' protective gear to change their standards and demand that all turnout gear be replaced with PFAS-free alternatives. Some Fire Departments are replacing the outer layer of the gear with newer PFAS-free alternatives.

- ◆ Some communities face mounting concern about the installation and maintenance of artificial turf fields that have been found to contain PFAS.
- ◆ Some municipalities have been asked to sample monitoring wells around landfills to determine the levels of PFAS that may be leaching from solid waste disposal.
- ◆ Municipalities are concerned about potential liability that exists from landfills and fire-fighting activities. Several towns are paying for Point of Entry Treatment systems for private well-owners whose wells have been contaminated due to fire-fighting activity on public property.

**ACTIONS REQUESTED:**

*We respectfully ask the legislature:*

- ◆ The state should conduct its own toxicology studies to better understand the exposure pathways and uptake rates of specific PFAS compounds and embark on consumer education to make people aware of how to reduce their exposure from consumer products and food, in addition to water.
- ◆ Support a ban on PFAS in consumer products to stem the tide of more PFAS being introduced into our environment.
- ◆ Carefully review any legislation to be sure there are no unintended consequences to our municipalities by further regulating wastewater biosolids disposal.
- ◆ Require MassDEP to develop a comprehensive Statewide Master Plan for biosolids management and disposal which includes a comprehensive evaluation of biosolids management alternatives. This should include economic and non-economic considerations for farms and ratepayers in the respective communities. Non-economic factors should include details such as green house gas (GHG) analysis of alternatives, carbon sequestration, truck traffic, long term sustainability, and exposure pathways of any contaminants of concern.