

## **Detection of Poly- and PerFluoroAlkyl Substances (PFAS) in all types of water**

**The Problem:** The widespread use of PFASs since the 1950's has led to the detection of these substances in a variety of environments including soil, surface and waste water, landfill leachates, wildlife, plants, and even humans. These compounds are persistent and are found at low levels in the environment and in the blood of the general US population. They have been found to cause developmental and other adverse effects in laboratory animals. Due to these concerns, the U.S. EPA has issued health advisory levels in drinking water of 70 ppt for two PFAS compounds out of more than 3000 compounds that have been manufactured. However, it is anticipated that as toxicology studies on these other PFASs are completed, additional health advisories and regulations will be established regarding allowable PFAS concentrations not only in drinking water, but also for non-drinking water. Regulatory pressure is increasing with different states issuing their own health advisories. The California Division of Drinking Water established a notification level of 14 parts per trillion for perfluorooctanoic acid (PFOA) and 13 parts per trillion for perfluorooctanesulfonic acid (PFOS). The New Jersey Department of Environmental Protection has also set similar drinking water standards.

**The Challenge:** This regulatory pressure, combined with increasing reports of PFAS in wells and consumer awareness of hazards of chemical exposure, are driving the need to develop analytical test methods that apply to all types of water – drinking water, ground water (wells), waste water such as landfill leachate, and biosolids, etc. Currently, EPA Method 537 is the only EPA method for the analysis of PFASs, however it is a drinking water method. There is no EPA method applicable to wastewater, biosolids, or soils. Many laboratories tasked with analyzing these compounds in *nondrinking water* environmental samples are analyzing these samples using a modified version of Method 537. There is a substantial need for a standardized and reliable test method.

### **How STRIDE can help:**

We have significant expertise in environmental analysis through a group of very experienced analytical scientists who are well known in the field. STRIDE is continuing to pursue critical method development in support of PFAS analysis.

**Contact us to learn more at [research@stride2future.org](mailto:research@stride2future.org)**