



Water Industry Operators Association of Australia Submission of Abstract

Platform *or* Poster: **Presentation**

Title of Abstract: **PPCPs and PFAS in Biosolids**

Abstract (200 words):

Pharmaceuticals & Personal Care Products (PPCPs) and Per- and Polyfluoroalkyl Substances (PFAS) are contaminants of interest in both wastewater and biosolids.

With a growing emphasis on the circular economy – reuse and recycling poses challenges when unknown quantities of these compounds are already present within the cycle. Therefore, it is important to investigate what is present and what we are (sometimes unknowingly) adding to the system.

A variety of tests can be done to determine the composition of the wastewater and biosolids in the first instance and of a range of consumer goods and products in the second.

Over the last few years Envirolab has tested hundreds of samples for PFAS and PPCPs in a range of matrices including biosolids, wastewater, clothing, food, cosmetics, packaging, animal tissue and blood.

Of the biosolid samples analysed to date, high concentrations of PFAS and of Galaxolide & Tonalide (both synthetic musks) have been observed in many samples. DEET (Insect repellent), BPA (plastic additive), Triclosan (anti-bacterial), Oxybenzone & Octinoxate (UV filters) were also observed, but at lower concentrations and frequency.

We have also found varying levels of PFAS in a range of everyday item such as lipstick, eyeliner, takeaway food packaging, Waterproof clothing, Animal tissues/fur, Fruit/vegetables and Sanitary products – all contributing to the vicious circle.

This presentation will explore where we have found these compounds and at what concentrations and hopefully lead to a better understanding of what consumers are putting down the drain.

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