

PFAS – the problem we always had

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PFAS (in case you missed it)

Class of synthetic fluorinated surfactants

'Forever chemicals', probable health effects... some are Stockholm POP

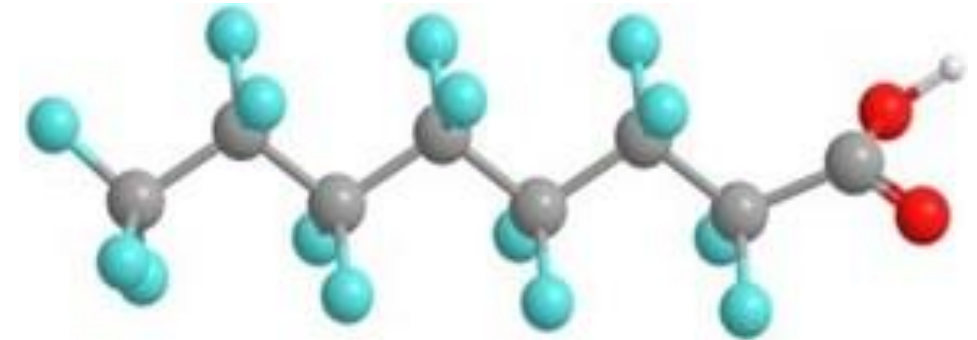
Made by 3M, DuPont, etc 1950s-

Waterproofing textiles, carpets, paper and cardboard, paints

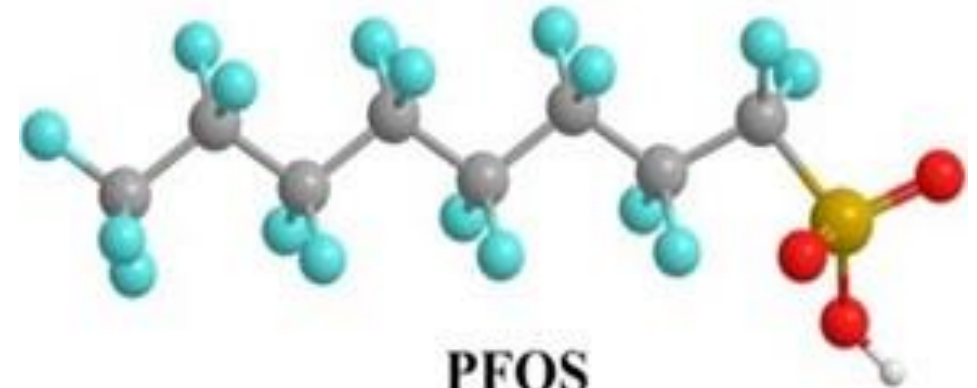
Liquid fuel fire fighting

Electroplating

Cosmetics



PFOA



PFOS

Traces of PFAS are almost everywhere now

Sea spray and rainwater contain PFAS

Blood, breast milk and so on contain trace PFAS

Virtually all topsoils contain trace PFAS

Sewage contains trace PFAS

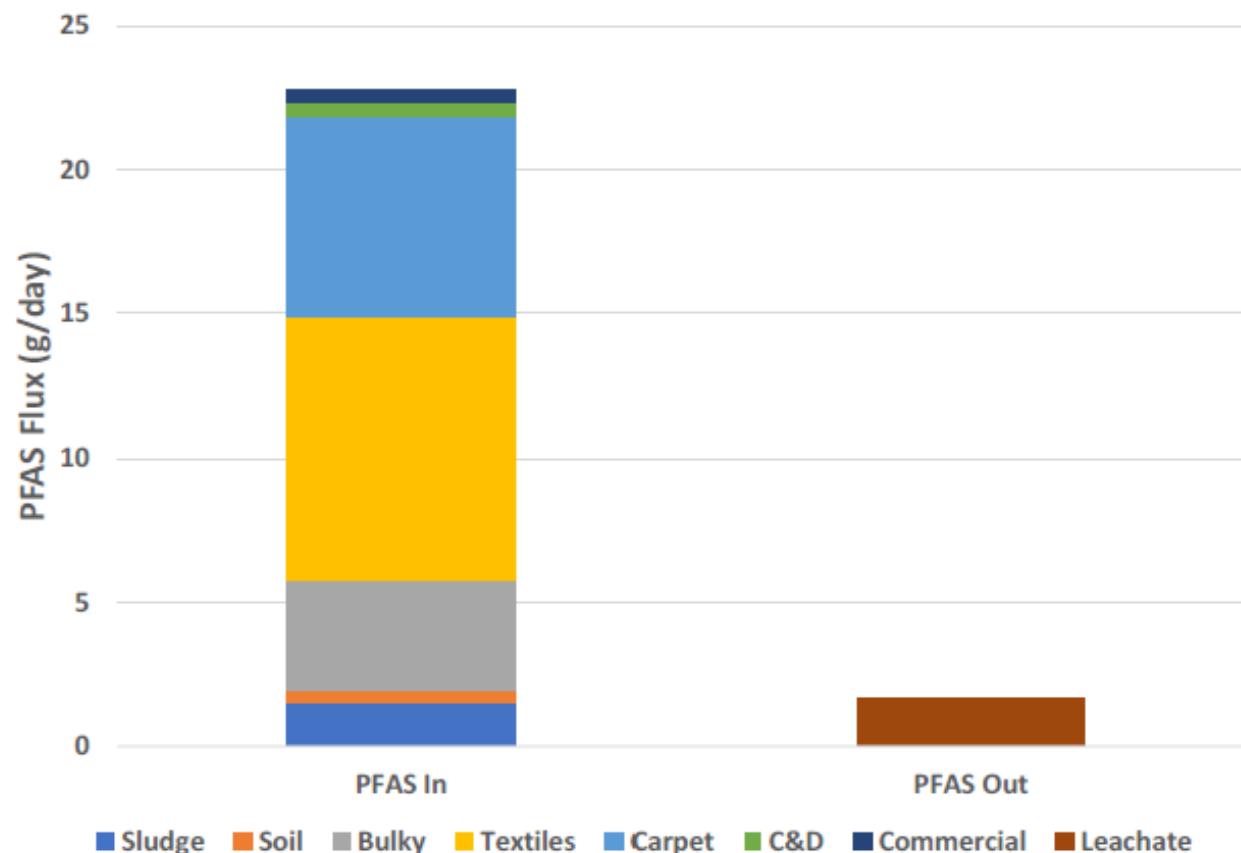
Surface water in urban and industrial catchments contains PFAS

However, NZ groundwater doesn't yet

Including landfills

Operating MSW and C&D landfills have PFAS in leachate up to 10s µg/L

MSW landfill in Vermont found incoming PFAS mostly textiles, carpets



So what?

Class 1 and 2 landfills have been accepting PFAS since their gates opened, whether or not they had resource consent to do so.

This PFAS wasn't in contaminated soils or industrial wastes.

It was and is in consumer goods like clothes, carpets and food packaging.

Even if all PFAS were banned tomorrow, there would still be PFAS in the landfill and those consumer goods would continue to come in for many years.

There is nowhere else for them to go.

Do not tell me that a landfill cannot, did not, does not or will not take PFAS.

More 'so what'

Class 1 and 2 landfills have been discharging PFAS since their gates opened, whether or not they meant to or had consent to.

WWTPs have been discharging trace PFAS since their valves opened, whether or not they meant to or had consent to.

Every site that receives biosolids or food packaging has trace PFAS.

Every use of recycled paper or textiles receives trace PFAS.

We can measure and direct these flows but we can't call them back.

Your take-homes

If you knowingly use any new PFAS, please stop.

If you are from Government, you can and should ban new PFAS,
but you can and must plan for PFAS already in service.

If you are a Council, you can and must and do accept PFAS in the
environment, but try and keep it out of groundwater resources.

If you are a waste operator, you can and should test for PFAS,
accept realistic controls and fight ridiculous ones.

If you are a WasteMINZ member, support revisions to our guidelines.

What are the prospects?

We could trap and destroy PFAS in point source discharges next year, at a cost.

We could destroy PFAS in organic materials next decade, at a huge cost.

It will never be practical to destroy PFAS in large volumes of soil, groundwater, or general waste.