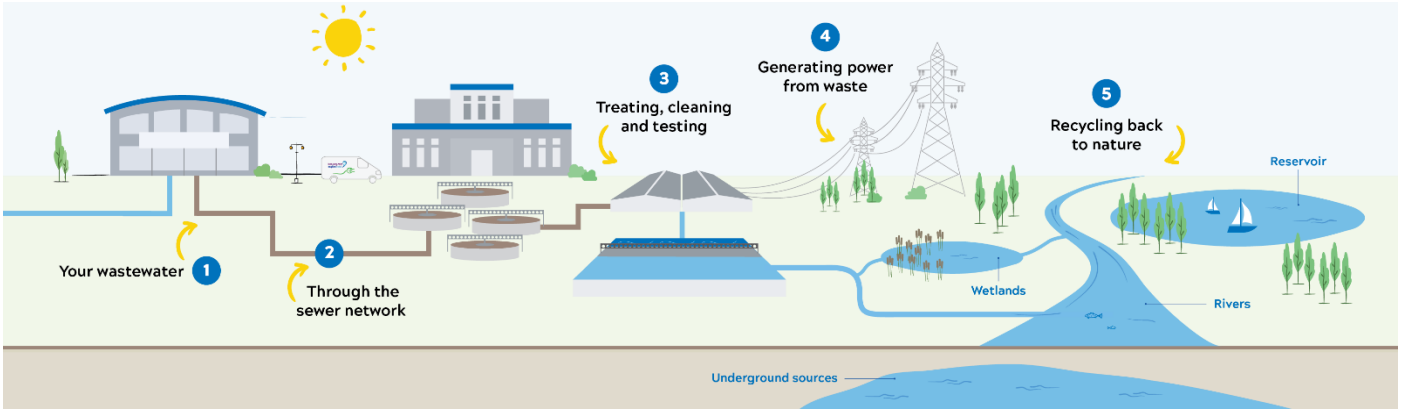
Hazardous pollutants in trade effluent

'Hazardous pollutants' is an umbrella term for those substances that can be detrimental to life in the aquatic environment, display toxic properties and, in some cases, bio-accumulate. Bioaccumulation is the process through which a substance accumulates in the tissues of living organisms over time, because it is absorbed faster than it is broken down or excreted. Industry, along with domestic and diffuse sources, is a key contributor and the discharge of trade effluent to sewer provides a clear pathway from source to watercourse via the sewerage system and water recycling centres (WRC).



Why do we control hazardous pollutants?

When trade effluent enters a WRC, it undergoes several stages of treatment designed to remove pollutants and protect the environment. These processes remove the vast majority of pollutants before treated water is safely returned to the environment. In some cases, very small amounts of certain substances may remain after treatment. Where this happens, strict limits are set by the Environment Agency (EA), and compliance is closely monitored by both the EA and Anglian Water.

Whether there is a permit limit or not, Anglian Water's Trade Effluent Team apply processes to monitor and control hazardous pollutants from trade effluent before they enter the sewerage system. This helps prevent harmful substances from reaching the environment or impacting drinking water supplies.

How do we control hazardous pollutants?

In the UK, the law sets out Environmental Quality Standards (EQS). These are legal concentration limits for a substance in the environment, below which no adverse effects on the environment or human health are expected.

When assessing a consent application that contains hazardous pollutants, we use mass-balance modelling to determine the impact on the Environmental Quality Standard (EQS) relevant to the receiving watercourse.

Essentially, we calculate how much of a substance can safely enter the environment without causing harm.

Hazardous pollutants on your consent

As with any consent condition, if you have a consent limit for a hazardous pollutant on your consent, you must comply with the limit at all times. Not to do so is an offence under section 121 of the Water Industry Act 1991.

If you have an existing trade effluent consent, or are applying for a new consent, you must self-declare any hazardous pollutants in your effluent so that we can assess whether they can be accepted into the sewerage system and treated safely. If it can be accepted, a limit for a hazardous pollutant will be applied to your consent. This protects the receiving WRC and its treatment processes and prevents deterioration in the receiving watercourse.

This is why it is really important to comply with your limits at all times, and we strongly encourage customers to reduce the concentration of hazardous pollutants discharged from their premises, including through effective on-site treatment.

If our assessment determines that a new or changed discharge of a hazardous pollutant cannot be accepted into the receiving WRC, the application would either have to be rejected or a restrictive limit applied. We would discuss this with you and your retailer. Discharging hazardous pollutants without consent or above consented limits may result in enforcement action.

Common hazardous pollutants in trade effluent

Hazardous pollutant		**Common source**
Cadmium	(Cd)	Electroplating and metal finishing. Aerospace industries. HGV and grease-heavy machinery cleaning. Zinc-containing activities (a known contaminant of zinc metal).
Chromium	(Cr)	Electroplating and metal finishing.
Copper	(Cu)	Electroplating and metal finishing. Printed circuit board manufacturing. Plumbing and pipework corrosion.
Lead	(Pb)	Paint stripping. Engineering.
Mercury	(Hg)	Chemical manufacturing. Instrument production. As a contaminant in products such as caustic solutions (e.g. sodium hydroxide), which is often used in effluent treatment.
Nickel	(Ni)	Electroplating and metal finishing. A known contaminant in Ferric chemicals used in effluent treatment.
PFAS	-	Firefighting foam. Chemical manufacturing. Electroplating and metal finishing. Paper products and packaging. Cleaning products.
Zinc	(Zn)	Electroplating and metal finishing. HGV and grease-heavy machinery cleaning.

This list is not exhaustive. Contact us for a full list of the substances we are currently interested in.

What can you do?

There are a number of things you can do both at your business and in your everyday life to help control hazardous pollutants, including but not limited to:

- Check your processes
- Know what is in your trade effluent
- Use safer alternatives where possible
- Don’t pour chemicals down the drain

Remember, if you ever have a spill from your premises, please call us immediately. Keep spill kits and emergency bunds on site to prevent discharge to the sewer or environment, and never flush to dilute.

How to contact us

Talk to our Trade Effluent Team regarding hazardous pollutants in your trade effluent. You can call us on 03457 145 145 (lines open 24/7 for emergencies) and ask to speak to a member of the team.