

Pollution in Bristol's rivers / streams

Guide to: key types of pollution affecting local watercourses; What you can do to help; Sources of data; and Why it matters

If you've observed something you are unhappy about this is for you

February 2023

Sewage pollution

Milky grey and may smell – soapy, acrid or simply unpleasant. There may be foam and / or solid floating items and wipes, towels, etc - either visible while in the river or later, left stuck in bankside bushes after a spate. There may be an obvious outfall where it's entering the stream / river.



Sewage fungus

Grey, thick, slimy and cottonwool-like . It's a mass of filamentous bacteria (often primarily *Sphaerotilus* species) attached to a culvert, the stream bed, roots or branches. It grows in response to organic nutrients in the water.



Sewage fungus builds up on almost any surface where there is a flow of water and the necessary nutrients (eg faeces). It may be associated with a culvert or outfall where sewage regularly enters the stream / river.

Silt pollution

Appears brown and turbid. It may come from building sites, construction work or via run off from ploughed fields.

Streams usually do carry silt when in flood – but if its entering the stream from an obvious source or its present when the water levels of 'normal' it may be pollution rather than natural.

Silt can disrupt ecosystems and wildlife (eg many invertebrates and some fish need clean gravel to lay their eggs).



Oil pollution

Creates a rainbow sheen on the surface. May have an oily / petro-chemical smell. It may come from an oil spill (eg used engine oil illegally poured down a roadside drain) or simply from leaks from vehicles building up during a long dry period and being washed in during a heavy shower.



Mine water

Abandoned mines are a major pollution threat in Britain as a legacy of mining for coal, metal ores and other minerals dates back to the Bronze Age. Thousands of mines have been abandoned and now discharge water containing heavy metals and other pollutants into our watercourses. Bristol had a major coal mining industry.



A few small streams in Bristol are affected, eg in Eastville Park.

Slurry pollution

Is brown or greeny brown, often with foam and smells strongly, sometimes of ammonia. It comes from farms with cattle - where slurry is spread on fields and runs off into the nearest stream / river or when a lagoon is compromised and it leaks or cascades out. A massive problem in some parts of the country – but not in Bristol as no intensive cattle farms.



Other pollution

Roads – after a dry period then heavy rain initial runoff entering streams /rivers by roadside drains may be black - from tyre dust, brake dust, oil

Invisible pollution

- **Nutrients** – nitrates and phosphates – from agriculture or garden fertilisers, from sewage (treated or untreated). Bristol streams / lakes are affected. In sunny spells high nutrient levels foster algal bloom, harming diversity of aquatic plants and causing low oxygen levels when the algae dies (affecting fish, invertebrates, etc)
- **Micro-plastics** – from plastic litter / rubbish entering watercourses. Also from micro-fibres from washing clothes from domestic “grey water”
- **Drug residues** – medical or other drugs are excreted by humans then enter water courses via sewage. Scientific study is at an early stage, concerns exist of potentially serious but largely unknown consequences

What can I do? Report issues

- Put these numbers in your phone's contacts
- Act immediately
- Take & send pictures
- Give precise location

Suspected **sewage spill / fungus** – Wessex Water *: **0345 600 4600**

Serious **pollution / fish kill** – Environment Agency: **0800 80 70 60**

** If you live elsewhere and Wessex Water doesn't handle your sewage save your water company's phone number in your contacts, not this one*

What can I do? Act now

- **The 3 Ps** – ONLY Poo, Pee or Paper down the toilet. Wet wipes, towels, pads, cotton buds, etc, cause blockages leading to sewage leaks. Picking them out of the water is also really nasty for anyone doing a river clean!
- **Roadside drains** - never put oil, chemicals, etc, down a roadside drain – it will reach the nearest watercourse and cause problems. If you employ a builder tell them not to either. Take it to the tip so it's disposed of properly
- **In the garden** – avoid using any weedkiller, insecticide, chemical fertilizer, etc. Ultimately it will get into the nearest stream and will harm wildlife
- **Water butt** – if we each get one this will cut the volume of water going into the drains reducing frequency of Storm Overflows (its also better for plants and has no carbon footprint)

Data on water quality

- **Sewage**
 - Combined Sewer Outfall (CSO) annual reporting (frequency, duration) down to local level using water company data, collated and published by the Rivers trust: [Combined Sewer Outfalls](#)
 - Enhanced much more timely reporting is coming late 2023/2024
 - Data for swimmers – more timely data is available for some sites already: [Conham Bathing sewage reporting](#)
- **Nutrients** – (Nitrates and Phosphates) waterblitz: [Phosphates and Nitrates](#)
- **Riverfly** – Sampling of invertebrate populations to infer the health of waterbodies: [River flies](#)

So what?

- Less cause to worry they'll fall ill - when we see children or dogs playing in Bristol's streams (or adults wild swimming)
- Fewer nasty smells and sights - when going for a streamside walk
- Way more abundant and diverse wildlife - plenty of aquatic plants, invertebrates (eg mayflies, stoneflies, caddis flies), fish (brown trout, chub, roach, eels, etc), birds (including herons, dippers, kingfishers, grey wagtails) and mammals (including otters, water voles). There are already some of these in some of our urban watercourses (amazing) but there were once vastly more and could be again
- Reduced ecological footprint - downstream (in the sea) Bristol's impact will be cut. Collectively we'll be doing less harm to the oceans

Adopt all the actions and start making a difference right now!!!