

Sources of Water Pollution

Sewage Pollution

Latest figures show that **raw sewage** discharge into rivers and seas accounted for more than 3.6 million hours last year, an increase of 105% on the previous 12 months. Raw sewage contains a plethora of bacteria and toxins from human households. Fecal indicator bacteria like E. Coli and Enterococci are used in water tests to determine how sewage-polluted a lake, river or coastline is. Measuring these bacteria has to be done by sending a water sample to a lab.

Check out Naturalist and Broadcaster, Steve Backshall talking about samples processed by [Bangor Uni wastewater research](#).

Most sewage pollutions in the UK happen when the sewage treatment system becomes overwhelmed with rain water which then triggers storm overflows to simply spill the sewage and rainwater directly into rivers and beaches. All storm overflows (also known as Combined Sewer Overflows - CSOs) in England are now fitted with monitoring devices generating data about the number of spills and the duration of each spill. Data coverage in Wales, Scotland and Northern Ireland is much more patchy. The data is then provided by the water companies to the Environment Agency and published once a year in spring.

There are several web sites which summarise this data in maps and graphs:

- [Top of the Poops](#)
- [The Rivers Trust](#)
- [Greenpeace Unearthed](#)

There is also a free app which sends out real-time alerts whenever sewage pollution impacts bathing sites:

- [Safer Seas and Rivers Service by Surfers Against Sewage](#)

Agricultural Pollution

Fecal bacteria pollution doesn't just originate from human waste, but also originates from animal waste when it leaks into rivers or is washed off farming fields where slurry is used as fertiliser. High intensity poultry factories and other livestock units exacerbate this situation due to the large amount of animal waste they create.

Fertilisers of any kind, either animal waste or commercial fertiliser, are often washed off the fields into nearby rivers, creating a nutrient overload which significantly harms the rivers and connected eco systems. The River Wye for example has now reached a state of emergency. It is being killed by pollution, a cocktail of excessive agricultural nutrients (over 70%), sewage (22-24%), microplastics and superbugs. [Find out more here.](#)

The widespread use of **herbicides and insecticides** as well as **antibiotics** given to animals in farming today creates further unmeasured damage when it runs off into water-based eco systems.

Microplastic Pollution

Fishing nets and lines dumped in water, degraded plastic containers resulting in polluting microplastic beads on coasts and on land.

Chemical Pollution

Toxic chemical waste dumped on land which gets into waterways. Waste from industry and house building. Road run-off from tyres and petro chemicals. Human antibiotics and hormonal contraceptives.

Radioactive Pollution

All nuclear reactors for civilian or military use need water to cool excess heat away from the reactor plant. When smaller radioactive accidents happen it is often water receiving contamination from radioactive material, which then leaks into rivers and seas. But even in day-to-day operations, some radioactive elements cannot be filtered out of water and are legally dumped into water eco-systems.
