

Tackling sewage pollution, from Source to Sea

Parliamentary Briefing

September 2023



Summary

Scottish Water recently published data on just 3.4% of Scotland's monitored sewage overflows¹. In comparison 91%² of Combined Sewer Overflows (CSOs) in England and 96%³ of CSOs in Wales are currently monitored. We're calling for Scottish Government to put a stop to sewage polluting Scotland's rivers, lochs and seas.

Scotland is renowned for its freshwaters. From their source to the sea, they provide a home to iconic species such as the Atlantic Salmon and Freshwater Pearl Mussel, provide drinking water, are used to generate electricity, support game fisheries and are essential for the production of food and drinks, such as whisky. As such they are important for our heritage and promote health and well-being by providing opportunities for many recreational activities and aesthetic enjoyment. Their natural capital means that they have considerable economic value.

Scotland's decision-makers must respond swiftly and robustly to the growing nature and climate emergency. Restoring our freshwater habitats would provide vital nature-based solutions to climate change and provide habitats for many species. It is vital that the Scottish Government tackle sewage pollution with better monitoring, reporting and progressive spill reduction targets. This is also to ensure people have the right to access safely managed drinking water services and to facilities permitting the safe disposal of human waste and maintaining hygienic conditions.

What action is required?

Despite Scottish Water publishing a route map for Urban Waters in 2021, only 3% of CSOs have been identified as high priority discharges for improvement by 2027⁴. To tackle this problem, we believe the following actions are required:

- Implement monitoring of all CSOs and make spillage data available in real time.
- Reduce reliance on CSOs through investments in the Scottish sewerage network. Large and frequently spilling CSOs, and those affecting protected areas, should be prioritised.
- In the interim, the outfalls from CSOs should be fitted with screens to prevent sewage related debris from entering watercourses and coastal waters.

¹ Scottish Water - [Sewer Overflow Spill Data](#)

² UK Government - [Event Duration Monitoring Dataset](#)

³ Welsh Water - [Combined Storm Overflows](#)

⁴ Scottish Water - [Urban Waters Route Map](#)

- Invest in nature-based solutions such as SUDS, rain gardens, and green roofs to reduce reliance on the sewerage network.
- Ban all avoidable single-use plastics in wet wipes and other sanitary items, such as tampons and their applicators, where suitable alternatives exist, and make reusable sanitary products more accessible.
- Apply Extended Producer Responsibility (EPR) to all sanitary products (not just those that contain plastic) to cover clean-up costs.
- Improved labelling and consumer awareness to promote correct disposal. As a minimum this should include requirements from the EU Single Use Plastics Directive (e.g., a requirement for products to display 'Plastic in Product' and 'Do not flush' labels).
- Promote the fitting of filters in washing machines to capture microfibres from clothing.

Background

The sewerage network comprises sewers and pumping stations that convey sewage from domestic houses and industrial premises. Most newly installed sewerage networks have separate sewer systems for foul water (e.g. from toilets, sinks, washing machines and industrial processes) which is transported to a wastewater treatment works, and surface water (e.g. from rainfall on roofs, roads, etc.) which is conveyed to a Sustainable Urban Drainage System (SUDS) or is discharged directly to a watercourse. Scotland was ahead of England and Wales in implementing mandatory use of SUDS for all new developments to collect surface water. However, the majority of networks in Scotland are still combined systems where foul and surface water are conveyed in a single pipe to a wastewater treatment works.

The volume of water in combined sewerage systems is highly dependent on the amount of run-off from rainfall on roofs, roads, and other hard or waterlogged surfaces. In wet weather, the amount of surface water entering the sewers may overload the capacity of the sewer. To prevent damage to the network and untreated water backing up into streets and homes, these combined sewers have overflows built in to relieve pressure on the sewer. CSOs are typically designed to only operate at high flows, with raw diluted sewage being diverted from the sewer into a nearby watercourse.

Monitored Overflows in Scotland spilled over 14,000 times in 2022, discharging in excess of 47 billion litres of untreated sewage into rivers, lochs and coastal waters¹. The total volume of sewage discharged is likely to be much higher as these statistics only relate to the small number of overflows that are currently monitored.

Spills of diluted but untreated sewage increase nutrient, organic matter, microplastic and chemical contaminant concentrations in waterbodies. Sewage can also act as a source of persistent chemicals, which do not break down in the environment. As they continue to accumulate, they will eventually reach a threshold of harm. These inputs disturb natural ecosystem functions and reduce water quality. The breakdown of sewage organic matter will reduce dissolved oxygen levels, and this will severely impact aquatic plant and animal species biodiversity. Sanitary items flushed down toilets also litter riverbanks and beds and end up in coastal waters where they litter beaches. All these impacts affect the

wildlife living in the water and can cause illness in water users such as anglers, kayakers and wild swimmers.

By 2026, Scotland will have new obligations to uphold the human right to a healthy environment following the incorporation of this right into law under the Human Rights (Scotland) Bill. It is vital that people have the right to access safely managed drinking water services – defined as services that are located on premises, available when needed and free from contamination; and adequate sanitation – having access to facilities permitting the safe disposal of human waste and maintaining hygienic conditions. The Scottish Government recognises 'safe and sufficient water' as a substantive feature of the right, and once enshrined in law, public bodies will have additional duties to ensure this is maintained.⁵

Further information on this issue can be found in the Marine Conservation Society briefings on [Storm Overflows](#) and [Sewage Related Debris](#).

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⁵ ERCS and Scottish Environment LINK - [The Substantive Right to a Healthy Environment](#)

