

Scottish Parliamentary Briefing by the Marine Conservation Society

Credit: Kate Wilson

Tackling the environmental impacts of Storm Overflows or Combined Sewer Overflows (CSOs) in Scotland

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We call on Scottish Government to reduce the harmful impacts of storm overflow spills by:

- ✔ **Ensuring that all storm overflows are monitored and reported on**, to include frequency, duration, and ecological impact. At present, just 3.4%^{1*} of CSOs in Scotland are monitored and reported.
- ✔ **Setting progressive reduction targets for sewage spills** and ensuring that storm overflows only operate during heavy rainfall. In 2022, sewage polluted Scottish seas for over 113,000 hours, and that's coming from just 3.4% of Scotland's overflows ¹
- ✔ **Tackling Sewage Related Debris (SRD) in the environment** by screening storm overflows, supporting the use of reusable sanitary products, and the phasing out of single-use plastic sanitary products. In 2022, Marine Conservation Society recorded over 35,000 pieces of Sewage Related Debris on Scottish beaches.

Background

Scotland's sewerage system utilises storm overflows, also known as Combined Sewer Overflows (CSOs). CSOs were designed to reduce the chance of sewage backing up into homes during heavy rainfall when the sewerage network reached capacity. These overflows should only be used during unusually heavy rainfall – but in Scotland, the 3.4% of overflows which are monitored and reported spilled over 14,000 times in 2022.¹

When storm overflows spill, it can have devastating effects for humans and wildlife alike. Untreated sewage contains harmful chemicals, bacteria, viruses, micro- and macroplastics. Even more worryingly, sewage contains persistent pollutants which accumulate in the environment. Each spill increases the burden of [forever chemicals](#) in our ocean – a legacy we won't be able to erase.

How does Scotland compare with England and Wales?

In England, "the [UK] government has instructed water companies to install monitors on all storm overflows by the end of this year [2023]"² with 91% currently monitored³. In Wales 96% are monitored⁴. However, in Scotland just 3.4%* of overflows are monitored and reported on¹ with 1000 on the highest priority waters to be installed by 2024⁵.

Data from the Marine Conservation Society's 2022 year-round Beachwatch report further illustrates the scale of the problem in Scotland. Volunteers found and removed 35,055 pieces of Sewage Related Debris (SRD) from the Scottish coastline, averaging 3 items per 100m on those beaches surveyed. However, some regions in the central belt suffer from much higher levels, with SRD reaching 358 items per 100m in Falkirk, 274 items in West Lothian and 88 items in Edinburgh.

Of the 123 monitored and reported CSOs in Scotland, 20 of these are within one kilometre of a marine protected area and 4 within one kilometre of a bathing water¹. Monitored CSOs within one kilometre of a marine protected area** spilled for a total of 20,595 hours, and those within one kilometre of a bathing water catchment spilled for 634 hours.

Our recommendations in detail

Despite Scottish Water publishing its 'Improving Urban Waters Routemap' in December 2021⁵, with an annual update in 2022, outlining actions being taken to reduce pollution from storm overflows, 3% of total CSOs have been identified as high priority discharges for improvement by 2027.

The Marine Conservation Society makes the following recommendations:

Ensuring that all storm overflows are monitored and reported on by 2026: To better understand the scale of the problem and target improvements, all CSOs should be monitored for spill duration and frequency (currently only 3.4%), with real-time reporting and ecological monitoring to assess both acute and long-term impacts. For example, we recommend that further research to understand the impacts of sewer spills should also cover chemicals, especially highly persistent chemicals like PFAS. The Route Map only commits to "Examine the costs and benefits of extending monitor coverage to lower priority locations" by 2024 – however in a YouGov poll commissioned by the Marine Conservation Society, 88% of Scots agreed that all CSOs in Scotland should be monitored***.

Setting progressive reduction targets for sewage spills: In 2022 alone, sewage spilled across Scotland for over 113,000 hours. For the protection of Scotland's beautiful coastline, the Government must take significant action to reduce the frequency, duration and ecological impact of sewage spills. The Scottish public agree: when surveyed in a YouGov poll commissioned by the Marine Conservation Society 80% agreed that all CSOs in Scotland should be improved to ensure that they are only used during heavy rainfall***.

Tackling Sewage Related Debris (SRD) in the environment: Currently, more than 59% of CSOs in Scotland are not screened⁶. Responding to a YouGov poll commissioned by the Marine Conservation Society, 86% of Scots agreed that screens should be installed on all CSOs***. This would help to tackle the average 3 items of SRD recorded on every 100m of beaches surveyed in Scotland in 2022. Further reductions of SRD can be supported by Scottish Government's commitment to banning single use plastic products and improved labelling, combined with efforts to make reusable sanitary products more accessible. Please see our [briefing](#) to Members of the Scottish Parliament (MSPs) regarding Sewage Related Debris for more information.

References:

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

[2] Gov UK - '[Environment Agency Publishes Event Duration Monitoring Data for 2022](#)'

[3] Gov UK – '[Event Duration Monitoring Dataset](#)'

[4] Welsh Water – '[Combined Storm Overflows](#)'

[5] Scottish Water – '[Urban Waters Route Map](#)'

[6] MCS Water Company survey – undertaken 2021

* This figure differs from those previously released by Scottish Water. This is because the Marine Conservation Society have removed Emergency Overflows (EOs) from the calculation. This makes the data comparable with England and Wales, where EOs are not included in calculations.

** ncMPAs, marine SACs and marine bird SPAs

*** YouGov Plc 2023 study; Total sample size was 1,011 Scotland adults. Fieldwork was undertaken between 16th - 20th March 2023. The survey was carried out online. The figures have been weighted and are representative of all Scotland adults (aged 18+)