Cyswllt Amgylchedd Cymru | Wales Environment Link

Tackling Water Company Pollution in Wales

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Introduction

During 2021 a media spotlight was shone on the impact of pollution from sewage across the UK. Apart from rivers that affect shellfish or bathing waters, which are subject to limits on spill frequencies, raw sewage is only permitted to be released to UK rivers in "exceptional" conditions of high rainfall or snowmelt.

Over the last few years, communities have increasingly noticed the poor state of their rivers and have begun to be vocal about their concerns. Environmental NGOs receive feedback from communities about the state of their rivers and have also noted the impacts first-hand as part of their work. More recently, research by Professor Peter Hammond and other citizen scientists have been featured in documentaries such as Panorama and Rivercide. WEL has already laid out its concerns about the impacts of agricultural pollution on rivers in Wales. This briefing focuses on the impact that water company pollution is having on our rivers.

Is pollution from sewage getting worse?

Much of the focus of campaigning in relation to sewage pollution has focused on the apparent discharge of sewage from CSOs during dry periods, when water companies are not permitted to release raw sewage to rivers. There is increasing evidence from citizen science that this is happening and there have been some high-profile cases of illegal discharges by certain water companies, such as Southern Water and (more recently) Severn Trent, which have served to dent public confidence in all water companies.

In Wales, WEL members have seen evidence that CSOs are spilling during periods when they should not. The Climate Change Committee's recent report on storm overflows showed that water company Event and Duration Monitors recorded 105,751 spills in 2020. During scrutiny, water companies admitted that spills are more frequent than

they should be. So why is this? And what are the two Welsh water companies and our regulator, Natural Resources Wales (NRW), doing about it?

How CSOs work

Combined Storm Overflows (CSOs) are installed on systems which receive both sewage and surface water drainage. They are necessary to prevent sewage backing up into people's homes by allowing the sewerage system to spill into our rivers when its capacity is exceeded due to the entry of excess surface water: a form of pressure valve. They require a permit issued by NRW, which stipulates they should only operate in "exceptional" conditions of high rainfall. Raw sewage can also be released from wastewater treatment works during exceptional circumstances. Permitted spills should only contain sewage which has been screened to prevent solid matter being released. However, we know that not all CSOs in Wales are screened, which adds to plastic pollution of rivers.

Releases during periods of high rainfall do not necessarily mean that the environment is damaged as, in most cases, such spills occur under high flow conditions when dilution is high. Wales has high rainfall conditions during the autumn and winter months and this is increasing as heavy rainfall events are becoming more frequent. However, some wastewater treatment plants and CSO's appear to spill regularly, or outside exceptional rainfall events, with over 105,000 spillage events recorded in Wales in 2020. The water quality impact of this is not being properly monitored.

Spills that occur outside permitted periods will tend to cause more damage because low water levels mean that the sewage is not diluted enough to disperse quickly. Water companies have identified blockages due to wet wipes as one cause of dry weather spills, along with other issues, such as equipment failure. However, inadequate investment in increasing the capacity of sewerage systems to accept flows from new developments may also be to blame.

Maintaining and upgrading the large (often Victorian era) sewerage network is both expensive and technically difficult, as well as some solutions being potentially carbon intensive. Solutions to unpermitted discharges need to be found urgently. Further information on CSOs, how they operate, and the frequency of spills at individual sites

is available at: https://www.dwrcymru.com/en/our-services/wastewater/combined-storm-overflows

What are the water companies doing to reduce raw sewage spills?
Water companies have been going through a process of improving monitoring of spills at the majority of their CSOs and treatment plants. They are required to report the frequency and duration of raw sewage spills to the regulator. In Wales this is NRW, and Dwr Cymru also publishes this information online. However, they are not required to report the volume of each spill, or the types of pollutants it contains.

Dwr Cymru Welsh Water (DCWW) is the main body which operates the sewerage system in Wales. Hafren Dyfrydwy operates the sewerage system in the Dee Valley area of Wales. All CSOs are consented by NRW, though getting the right permits in place for all of these across Wales has taken some years. There is currently a presumption of no new CSOs in Wales unless needed as part of a wider water quality improvement scheme.

Water companies have engaged stakeholders over the last few years in the development of Drainage and Wastewater Management Plans. The purpose of these plans is to prevent rainwater getting into the sewerage system and causing the need to release raw sewage from CSOs. Water companies across the UK have also been campaigning to ban commonly flushed single-use plastic items (such as wet wipes) from sale, because campaigns to educate consumers to prevent them from flushing such items have not been successful enough to prevent ongoing damage to the sewerage system. WEL supports this call to ban plastic wet wipes as part of our campaigning for a wider ban on single-use items.

However, whilst we believe that these actions will be important in reducing discharge of raw sewage to our rivers, there will also need to be significant investment in maintenance of Wales' Victorian infrastructure, and in designing future waste management systems that remove the need for sewage discharge into our rivers in future.

What is Natural Resources Wales doing to prevent unpermitted sewage spills?
NRW is responsible for enforcing permits relating to CSOs and wastewater treatment works. It is also responsible for water quality monitoring in our rivers and coastal areas. NRW charges for issuing new permits and an annual subsistence charge for monitoring compliance with the conditions set out in a permit. Responses to incidents, such as reports of water pollution from an unidentified source, would not be fully covered by these charges, and has to be met from resources provide by the Welsh Government (grant-in-aid). However, the cost of enforcement action would be recoverable through the courts if the polluter is identified and the case proved.

WEL members are concerned that reported incidents of pollution are regularly not investigated by NRW, and we think this is impacting its ability to act upon unpermitted sewage spills. We would like to better understand why this is the case, and what barriers NRW is facing in terms of better response times for pollution incidents, better general monitoring of water quality and more enforcement action being taken against the worst polluters. In particular, inadequate water quality monitoring is making it difficult to identify which are the worst contributors to water pollution in each catchment, whether this is water companies, agriculture or other sources.

What would we like to see the water companies doing to tackle pollution?

We have already described some of the key things water companies are doing to reduce sewage pollution, and we support these actions, but we also think that water companies should:

1. Further improve the transparency of their data on sewage spills, providing this in real time and making it easy for the public to understand. Currently spill duration is monitored but spill volume or content is not, and this is critical to understanding the severity of the impact of sewage spills.
2. Focus investment on areas that are receiving the worst pollution as a result of sewage spills and clearly explain their prioritisation process in terms that the public can understand.
3. Eliminate all CSO's which are having a known or measured harmful impact on the environment, or those which cannot be monitored.

What would we like to see NRW doing to tackle pollution?

1. More investment needs to go into water quality monitoring and pollution incident response, using a percentage of income from permits to build an experienced team of incident responders.
2. Use a "performance multiplier" to increase the annual subsistence charge for permits which have a poor performance record, so these charges can be used to increase monitoring and compliance of these high-risk sites. A similar mechanism has been in place for other permits in the Environmental Permitting Regime for many years, with the worst sites paying 300% more.
3. NRW should work with the Welsh Government to ensure that permits on CSO's have clear and defined legal wording that allows enforcement.
4. We would like to see NRW report publicly on pollution incidents, specifically identifying those caused by sewage, including the outcome of investigations and prosecutions.

What would we like to see Ofwat doing to tackle pollution?

1. Ofwat should support water companies to invest more in sustainable and resilient sewerage system that is progressing towards a future system that does not need to release raw sewage to our rivers and seas by:
    - Ensure regulators charge permit subsistence fees that are sufficient to pay for this, including an allowance for periodic review of every permit to ensure they are fit for purpose; and
    - Allowing reasonable increases to customer bills for those not on social tariffs, where customer support is demonstrated.
2. For those companies that have shareholders, more pressure should be brought to bear on dividend level for companies that have been shown to be operating illegally, or where they have assets that are causing significant pollution. Executive bonuses should not paid in companies that are underperforming on pollution, as per the recent recommendations by the UK Environmental Audit Committee.
3. Water company performance metrics should include a direct measure for CSO performance.
4. Require water companies to publish their EDM data in real time, rather than just an annual summary of events, as part of its H2open initiative.

What would we like to see Welsh Government doing to tackle pollution?

1. The Climate Change Committee's Report on Storm Overflows makes recommendations that are similar to our own, with the addition of some excellent recommendations to improve scrutiny and reporting on water company pollution. We call on the Minister to accept these recommendations.
2. Many of the above recommendations have been made by the Environmental Audit Committee on river pollution in England. We call on the Welsh Government to formally accept and act on the findings of this report, where relevant in Wales.

Wales Environment Link (WEL) is a network of environmental, countryside and heritage Non-Governmental Organisations in Wales. WEL is a respected intermediary body connecting the government and the environmental NGO sector. Our vision is a thriving Welsh environment for future generations.

This paper represents the consensus view of a group of WEL members working in this specialist area. Members may also produce information individually in order to raise more detailed issues that are important to their particular organisation.

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