Storm overflows consultation response- GHD (24/05/2023)

Q1: Do you agree with our proposals to set a performance commitment based on average spills, with financial consequences for companies that do not meet their targets?

Pollution and Overflow performance is rightly higher up the agenda and is coming under intense scrutiny from Politicians, Customers, Pressure Groups and the Media. Much of this debate around performance is underpinned by a poor understanding of the historical context and operational necessity for such overflows. There is no magic panacea to resolve the issues with overflows and solutions can be very expensive (e.g. Thames Tideway £4.5billion) overflows will continue to be used for the foreseeable future.

The measure as proposed is oversimplified and is a poor surrogate for performance given the modelling and monitoring tools now available (and have been for the last decade).

Looking at the difference in scale of the number of overflows suggests a one size fits all water companies is not equitable or fair (C.F. DCWW 126 overflows versus Severn Trent 2,466 overflows).

2022 EDM Headlines	Anglian Water (AWS)	Dŵr Cymru Welsh Water (DCWW) (in England)	Northumbrian Water (NW)	Severn Trent Water (SvT)	South West Water (SWW)	Southern Water (SW)	Thames Water (TW)	United Utilities (UU)	Wessex Water (WSX)	Yorkshire Water (YWS)	Water Company Totals / Average
Total no. storm overflows listed in the annual return in 2022	1,552	126	1,564	2,466	1,342	978	777	2,254	1,300	2,221	**14,580**
Total no. storm overflows with EDM commissioned	1,058	126	1,542	2,457	1,333	963	480	2,004	1,182	2,178	**13,323**
% storm overflows listed with EDM commissioned	68.2%	100%	98.6%	99.6%	99.3%	98.5%	61.8%	88.9%	90.9%	98.1%	**91.4%**
Total no. storm overflows with spill data	1,054	120	1,463	2,438	1,323	939	472	1,971	1,182	2,118	**13,080**
Average no. spills per storm overflow with spill data in 2022	15.3	23.3	20.3	18.4	28.5	17.8	17.0	35.1	18.5	25.6	**23.0**
Average duration (hrs) per monitored spill event in 2022	5.6	3.4	3.6	5.6	7.7	8.8	9.3	6.1	5.9	4.3	**5.8**
% storm overflows spilled 10 or less times in 2022	55.7%	45.8%	47.4%	54.2%	48.6%	51.8%	54.2%	39.5%	48.2%	44.3%	**48.4%**

Source : https://environmentagency.blog.gov.uk/2023/03/31/storm-overflow-spill-data-shows-performance-is-totally-unacceptable/

Using a numbers based approach is simplistic and takes little account on the effect of the spill on the environment other than the duration element (which is a poor surrogate metric). Given the abilities of data analysis consideration should be given to adding an element of the receiving water course and weighted to those that potentially could cause more harm to a sensitive ecosystem, SSSI or a bathing (or amenity) site. This could be based on the SOAF assessments that the companies have undertaken.

Those spills that cause more harm should be weighted more heavily than those that are less frequent and discharge to less sensitive sites. This will take more work but will be a more refined measure.

The current approach is easy to implement but will not target those locations where more efforts are required to improve performance (either capital or operational solutions).

Using the spill totals takes no account of the volume discharged which needs to be taken into consideration. e.g. there is a vast difference between a spill of 5 hours that discharges 100m^3 into the River Thames to one that last 5 hours and discharges 3,000m^3 into a small brook at the site of an SSSI. Using the proposed approach, they would both score the same which is wrong.

Q2: Do you agree with our proposed approach to unmonitored storm overflows?

The proposed methodology is a reasonable starting point for the next Amp period.

There will still be a number of unconsented overflows and more effort should be made to identify these and install monitors on them.

Q3: Do you agree with our proposed approach to mid-period changes?

The proposed approach is reasonable and not many new overflows are being planned as most are replacements for existing sites.

Q4: Do you agree with our proposed approach to emergency overflows?

In general, the proposal to treat emergency overflows as separate is sensible and reasonable. However, there will be some emergency overflows where they operate as normal overflows for a variety of reasons – these should be considered as operational overflows rather than emergency and where EDM data shows more than say 20 spills / year.

There are a significant number of emergency overflows and a more detailed review of their performance should be undertaken – first by modelling then by monitoring.

Q5: Do you have any further comments on this performance commitment?

Overflows will continue to attract interest and attention from all stakeholders and more openness and transparency is required. Water companies are responding to this and more data is now available from monitoring. Further thought could be given to differentiate spills from treatment works overflows to those on the network. If an overflow is spilling continuously for more than say 7 days then that should be recorded and investigated separately.