

Consultation on the Government's Storm Overflow Discharge Reduction Plan

Yorkshire Water Response

May 2022



Summary

The Government's proposals for investment in storm overflows represent the biggest investment in the water environment since the 1990s. We strongly welcome this ambition, and we are ready to play our part in improving water quality in rivers.

However, given the scale of the proposed investment, and the potential customer impact, we believe that more work needs to be done on the targets to ensure that this investment is affordable and delivers the benefits intended.

In particular, Government needs to resolve the conflict between the progressive, outcomes-based approach of the 25 Year Environment Plan and the Environment Act and the output-based approach that has been taken in the targets in the Storm Overflow Discharge Reduction Plan.

In their current form, the targets risk money being spent on projects which do not address the causes of poor river water quality which divert money away from schemes that could deliver much greater benefits.

The current targets also risk driving high-carbon, traditional engineering solutions at the expense of nature-based solutions which could deliver wider benefits for society, but which take longer to deliver.

With that in mind, there are five key areas where we believe more information is needed, or where the Government's proposals could be strengthened to ensure they deliver the best value to customers and the greatest benefit to the environment. These are:



1. Ensuring that the targets are structured in a way which focus on outcomes rather than outputs and which drive investment where it can have the most benefit to the environment and public health.
2. Setting timescales which support partnerships, catchment scale solutions, and innovation rather than traditional, carbon intensive solutions.
3. Ensuring that the Storm Overflow Discharge Reduction Plan is supported by action from Government and others to enable the multi-agency approach to removing surface water which will be required.
4. Providing greater clarity on the cost and benefit calculations, particularly the impact on customer bills, and recognising the significant regional differences which will impact where the costs are borne by customers.
5. Recognition of the timescales of the current price review process, and providing detailed methodology and guidance for DWMP and PR24 WINEP planning.

Finally, we would also urge the Government to recognise that reducing spills from storm overflows will not be the only environmental obligation on water companies in the next business plan period. Climate change means we also have an urgent need for significant investment in high quality, resilient infrastructure to secure water and wastewater services for the future.

Delivering all these objectives will require massive investment and if this is all to be affordable then some choices and trade-offs will be required. It is therefore vital that all the obligations and objectives are seen in the round together to ensure that there are no conflicting or perverse incentives which result in inefficient or ineffective investment.



Focusing on outcomes, not outputs.

The Government's 25 Year Environment Plan and the Environment Act 2021 both take a progressive, outcomes-based approach to environmental improvement. We strongly support this approach and believe that focusing on the desired environmental outcome is the best way to deliver environmental investment in a way that is sustainable in the long term.

The Environment Act 2021 took a broadly outcomes-based approach to setting new duties around storm overflows (by focusing on reducing the adverse impact of overflows). However, the proposed targets for the Storm Overflow Discharge Reduction Plan are inconsistent; target 1 takes an outcomes-based approach by assessing harm, whilst targets 2 and 3 take a more regressive, outputs-based approach by setting spill limits for both bathing waters and all other storm overflows, regardless of the impact on ecological and public health measures.

Setting an overall spill limit for each storm overflow provides a clear and measurable target which will allow the public to hold water companies to account. This is welcome as citizen regulation has been an important driver in moving storm overflows up the agenda driving the debate. However, there is a risk that, by setting spill limits on top of the requirement to demonstrate no local adverse ecological impact, these targets will drive a significant amount of additional investment in order to hit spill limits, but the investment will deliver little additional benefit to water quality or public health.

This potentially creates additional disruption whilst also pushing up costs to customers and focusing investment away from areas where there could be greater environmental or public health benefit.



For example, storm overflow management practices established through Urban Pollution Management water quality studies¹ are widely used by UK water companies when determining the reductions in storm overflow spills necessary to support river health.

Urban Pollution Management is designed to achieve the desired water quality outcome without being prescriptive over the volume and frequency of storm overflow spills. Its purpose is to determine the investment requirements at storm overflows throughout a river catchment that will result in river reaches achieving Good Ecological Status providing other inputs are appropriately managed.

For example, the Wyke Beck catchment was investigated in AMP6 and those investigations concluded that the sewer network was not causing failure of water quality standards, however, to reach a spill frequency target of 10 would cost in the region of £50m. Conversely, at Pudsey Beck, in order to meet ecological health targets we will have to deliver greater levels of investment (£64.5m) than what is required to meet 10 spills (£34m).

From a bathing water perspective, the current Environment Agency spill standards for bathing waters (3 spills per bathing season) were set in response to the 1976 Bathing Water Directive.

Yorkshire Water were one of the forerunning companies in adopting the 2006 Revised Bathing Water Directive (implemented in the UK in 2015) and we invested heavily in data and monitoring to look at the marine impacts of our discharges from coastal assets. This data, and our subsequent experience showed that we can achieve 'excellent' bathing water status without hitting this spill target of 3.

¹ <http://www.fwr.org/UPM3/>



For example, the Corner Café storm discharge discharges directly into the bathing water at Scarborough North at very close proximity to the sample location. In 2020 this CSO spilt six times, whilst the annual modelled spill frequency is 9. Despite this, Scarborough North has achieved 'Good' and 'Excellent' classifications since the introduction of the revised Bathing Water Directive.

Conversely, in some bathing waters a single spill can have a significant impact on bathing water quality, and therefore achieving bathing water standards requires investment to go beyond the current Environment Agency spill standards for bathing waters.

Targets based on a specific number of spills are simpler to regulate and communicate to customers, but they will not necessarily lead to the desired results.

Investing in storm overflows to ensure delivery of a spill target on top of a requirement to demonstrate no harm may not lead to improvements to overall bathing water or Water Framework Directive classification due to the impacts of other sources.

If storm overflows can be demonstrated to have no local adverse impact, then investment should be focused on addressing other issues affecting river health in order to enable rivers to meet bathing water standards and Good Ecological Status.

We would welcome the publication of further evidence behind the spill limit targets, particularly the cost calculation and resulting bill impacts related to Target 2 associated with designated bathing waters.

In addition, there is no published evidence as to how the costs to tackle the screening element of Target 3 have been calculated. We would welcome publication of this also.



Incentivising multi-benefit solutions, delivered in partnership

The Government's Strategic Policy Statement for Ofwat identifies a need for water companies and regulators *'to be outcome focused, innovative, integrate actions across the catchment and work in partnership with other organisations'*.

We believe that the sub-targets as they are currently proposed risk driving companies towards carbon intensive, traditional solutions, rather than incentivising catchment scale interventions and green-blue solutions delivered in partnership with others. Such partnerships will likely result in multifaceted and far-reaching benefits across catchments

The targets for delivery are based on individual overflow targets rather than overall improvement. Interventions such as surface water disconnections across catchments will lead to a gradual reduction in total spills rather than a sequential elimination of individual overflows. This approach risks driving companies towards traditional solutions to eliminate individual overflows in order to hit the timescales, rather than seeking a more holistic approach.

We believe that the sub-targets should be reassessed and should be designed to support a progressive reduction in the adverse impact of storm overflows as a measure of performance. This would allow companies to address overflows at a catchment, rather than individual scale.

We strongly agree that the way to drive long-term sustainable and resilient infrastructure is to remove surface water through the use of nature-based solutions wherever possible. Responsibilities for surface water management are fragmented. This, combined with the water companies having no powers



to requisition land means that nature-based solutions can only be achieved through partnership working.

We know from our experience (for example through the Living with Water Partnership in Hull and East Yorkshire) that it can take 10 years plus to develop and implement successful partnerships. The targets for delivery need to consider these timescales, the skills and expertise that will need to be developed, plus the likely additional costs of these solutions if they are to drive the sustainable solutions which we all wish to see delivered.

There are also a number of wider policy changes which could further support a partnership approach. These are set out in a separate paper [here](#).

Supporting action from Government

We welcome the indication of potential supporting legislation and government policy change to enable the delivery of these targets. However, we note that to date Government has yet to make any firm commitment to implementing the changes required and that these measures are not included in the consultation.

Supporting action is vital if the desired improvements are to be achieved and we would urge Government to move as quickly as possible to implement the proposed changes.

There are four key areas in which action is needed from government:

- Support for removing surface water from the sewer network, including implementation of Schedule 3 of the Flood and Water Management Act 2010.



- A ban on plastics in wet wipes and all single-use sanitary items, as well as an end to 'Fine to Flush' labelling and the introduction of mandatory 'Do Not Flush' warnings on single use sanitary items packaging.
- Review of regulatory processes to support action on storm overflows and to allow companies the freedom to innovate and deliver nature based solutions.
- Development of a multi-sector plan to address other impacts on water quality.

Support for removing surface water from the sewer network

We welcome the announcement that government intends to review whether to implement Schedule 3 of the Flood and Water Management Act 2010, which would introduce a SuDs Approval Board and make sustainable drainage mandatory on all new developments.

The Storm Overflow Reduction Plan will hopefully drive investment in retrofit SuDs, as a nature-based solution to remove surface water from the network. We would welcome clarity on the SuDs Approval Board role, if any, on retrofit SuDs in terms of both approval and adoption.

To maximise the benefit from surface water removal and address our customers' needs it would be beneficial for the government to review funding streams for surface water flooding and make it easier for agencies to address both flooding and water quality drivers through single partnerships. We note there is currently a government review of Surface Water Flooding taking place through the National Infrastructure Commission.

Action on wet wipes

The inappropriate disposal of wipes by flushing them down the toilet is creating around 300,000 sewer blockages per year, which costs the UK water



industry around £100m to clear. UK wide, wipes are reported as accounting for 40–60% of sewer blockages.

A study by Water UK in 2017 found that non-flushable wet wipes make up around 93% of the material causing sewer blockages. Blockages can result in internal and external flooding, which impact customers and the environment. By reducing the capacity of the sewers, blockages can cause sewers to back up and flood customer's homes, cause flooding from manholes and result in increased spills from storm overflows.

We urge Government to introduce a ban on plastics in wet wipes and all single-use sanitary items, as well as an end to 'Fine to Flush' labelling and the introduction of mandatory 'Do Not Flush' warnings on single use sanitary items packaging.

More detail on our proposals on wet wipes can be found [here](#).

Review of regulatory processes

We would also welcome action by the government to review the current regulatory processes in order to help speed up action on storm overflows, and to support companies to innovate in their solutions. Regulatory processes should take an adaptive, pragmatic route to achieving the long-term ambition, and must recognise the complexities of working with legacy infrastructure.

This could involve reviewing the traditional 5-year cycle for certain investment types, allowing companies to separate out and take a longer-term approach to some investment. This would allow greater certainty for delivery of nature-based solutions over multiple AMP periods.

Regulatory processes also need to give companies flexibility to trial innovative interventions while working in a permitted environment.



For example, there is a need for regulatory flexibility to enable companies to test nature-based solutions for disinfection at bathing water sites in order to avoid a default to carbon intensive traditional solutions.

Regardless of the solutions used, delivery of the target will result in significant carbon emissions. The Storm Overflow Evidence Project estimated that “achieving a national average of 10 spills per year would emit five times the amount of carbon involved in constructing the Thames Tideway project – a £5bn “super sewer” and largest ever project undertaken by the UK water industry.”

Therefore, it is vital that the industry and partners are able to innovate to and find new ways to deliver the targets, whilst also supporting the transition to net zero.

Development of a multi-sector plan to address other impacts on water quality.

The targets in the Storm Overflow Discharge Reduction Plan will bring about a significant improvement to the water quality of our rivers regarding the impact of storm overflows. However, alone, it won't deliver the outcomes to improve water body status in the UK as storm overflows represent around 7% of the cause of rivers not achieving Good Ecological Status.

Therefore, it is vital that the Storm Overflow Discharge Reduction Plan is accompanied by a comprehensive cross sector plan for achieving Good Ecological Status for rivers and bathing water standards for designated bathing waters. The investment driven by the Storm Overflow Discharge Reduction Plan will remove storm overflows as being a reason for water quality failure, but it will not solve the problem of river water quality. Therefore, it is vital that this investment is supported by action from other sectors.



Costs and impact on customer bills

Whilst we fully support the Government's ambition to reduce the use of storm overflows, and we strongly welcome proposals for significant investment to deliver on that ambition, it is impossible to ignore the current cost-of-living impacts on customers and the overall impact of the proposals on customer bills.

We would welcome visibility of the methodology used by Defra to calculate the bill increases included in the Storm Overflow Discharge Reduction Plan. The cost estimates in the consultation appear to be based on the midpoint cost for using traditional solutions (not the preferred blue-green approach). The projected cost to the industry for this package of measures is £51.5Bn, however, we note that in the Strategic Evidence Project Addendum published in 2022, these costs varied between £36Bn and £77Bn². The equivalent midpoints on blue-green would be £60Bn for traditional solutions plus 10% SuDS uptake or £148Bn for traditional solutions plus 50% SuDS uptake.

It is important that we understand more around the cost assumptions used, and how these have been translated into bill impacts. At the moment it appears that there is a disconnect between the stated ambition to deliver catchment scale, nature-based solutions and the assumed costs, which do not support such an approach.

We would also be keen to see the data and assumptions used to estimate the costs for screening improvements (£2.5Bn) and 1% OPEX impact as no OPEX estimates have been provided in the addendum for the 10 spills + no harm scenario.

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1064767/storm-overflows-evidence-project-march-2022-addendum.pdf



We would also welcome evidence of the costs and benefits of delivering spill reductions or UV treatment on overflows impacting designated bathing waters.

Additionally, it is unclear what evidence has been used to support the statement “the government expects costs to reduce through innovation, better asset management and maintenance, and identifying more effective local solutions”.

Our customer research clearly shows that storm overflows are an issue that is important to customers. We have recently carried out customer research as part of our Drainage and Wastewater Management Plans. Our customers tell us that they are willing to pay an additional a £12-£60 a year for improvements to the wastewater network which is broadly in line with the consultations estimate of customer bill impacts. However, our consultations show that customers consistently cite internal sewer flooding as the priority for this investment, above river water quality investment.

Whilst the estimated average bill impact used in the consultation is in line with the figures customers say they are willing to pay, we believe that there needs to be further consideration of regional differences in the costs of meeting the proposed targets. Our calculations suggest the differences across water companies will be significant dependant on the number of storm overflows per head of population and the volume reductions required across overflows to deliver the targets.

Yorkshire Water has a much greater number of storm overflows per-head of population requiring investment. Indicative calculations suggest that the overall bill impact for Yorkshire customers could be up to £200, significantly higher than the average of £65 quoted in the consultation. Additionally, as the consultation quotes bill impacts over a long-term period from 2025-2089 as an average, this does not take into account the maximum bill impacts in



any given year 5 period and it is anticipated the average impact to 2030 will be much lower than the successive 5-year periods to 2050.

We have seen a clear reduction in customer support for environmental outcomes in recent months due to the cost-of-living crisis. To support our response to this consultation we carried out further customer research around the proposed targets. Overall, customers are broadly supportive of the proposed targets and the majority of customers believe these targets will make a big difference to water quality, both for wildlife and swimmers. However, Target 3 received less support from customers than Targets 1 and 2.

Customers also have mixed views on the cost implications and the proposed timescales. Half (51%) felt that the estimated increase cost was reasonable, while 41% thought it was too high. Half of customers (49%) would be in support of longer timescales to allow costs to be spread and a more sustainable resolution, however many (37%) already think the deadline is 2050 is not ambitious enough.

Our full customer research report will be available shortly after the deadline for the consultation and we will publish the research alongside our consultation response.

Links to existing processes, including WINEP and Drainage and Wastewater Management Plans

We welcome the approach that the regulatory requirements of the Storm Overflow Discharge Reduction Plan will be delivered through the WINEP.



However, we are still awaiting Environment Agency WINEP Driver Guidance which will set out some of the technical requirements for planning purposes.

This could materially impact costs for PR24 and therefore it is important to recognise that companies are well underway with PR24 planning as this consultation is ongoing.

We also note the consultation states that “Water Companies must clearly set out how they will meet their storm overflow targets in the Drainage and Wastewater Management Plans (DWMPs)”. As part of the DWMP we have developed a 10 spill + “no harm” scenario at a catchment and not the individual overflow level as proposed in the targets in the consultation. This is because the DWMP is a long-term plan to 2050 and an input into PR24 planning, where investment is prioritised against other key factors including customer bills and willingness to pay.

The DWMP also has prioritised catchments through the Risk Based Screening Process and therefore does not include all overflows. Due to the lack of time between this consultation publication (end of March) and the DWMP draft (end June) and lack of clear definitions, we are not able to include the impact of the sub targets associated with priority overflows, designated bathing waters and screening requirements into the draft DWMP. This will likely result in substantial changes between draft DWMP and WINEP / PR submission in terms of the PR24 priority areas.

Further technical clarifications and guidance required

There are a number of further areas where we would welcome clarification and guidance to support our planning:



- The methodology proposed for defining “no adverse local ecological impact” in Target 1. This potentially has a significant impact on the investment required and the timescales, it is therefore vital that this is published as soon as possible.
- There needs to be a clear definition and criteria for assessing priority overflows. For example, proximity to priority locations is identified as a key driver, but impact of proximity may change depending on dilution – a relatively large overflow discharging to a relatively small watercourse could impact much further downstream when compared to a small overflow discharging to a relatively larger watercourse. Additionally, not all priority locations such as SSSI’s may be adversely impacted by water quality dependant on the reason for the SSSI designation – further work is needed to provide this clarity.
- How achievement of the targets will be measured is critical and we would welcome more clarity on the methodology for assessing compliance. We would support an approach which uses an average of several years of data as very wet or dry years could skew the baseline.
- Target 2 covers overflows that are “near designated bathing waters”, but it is not yet clear what the definition of ‘near’ is. Equally we would welcome clarity on “significantly reduce harmful pathogens” means in relation to this target.
- Target 2 includes the option for disinfection for overflows close to designated bathing waters, rather than spill reduction. This may need to be reviewed as the disinfection option may not be realistically available if Target 3 is also to be met as 10 spills annually is widely used as a surrogate for 3 spills in a Bathing Season.
- For Target 2, we recommend a minimum 10-year timescale for any new designations to allow sufficient time to investigate and deliver



improvements, and suggest the 2035 target is for existing designations only.

- More clarity on new screening requirements would also be welcome. Under previous guidance, screening was up to and including the peak 5-year spill flow rate. Therefore, if the overflow isn't predicted to spill in a 5-year return period event, it was assumed that a screen is not required.
- Defra officials have indicated that changes also apply to coastal bathing waters, however the Storm Overflow Evidence Project looked at inland waters only, so we would welcome publication of the evidence that has led to the inclusion of coastal waters in these targets.

Formal Response to Consultation Questions

Do you agree or disagree with the level of ambition of the ecology target?

Agree

Do you agree or disagree with the level of ambition of the public health in designated bathing waters target?

Agree

Do you agree or disagree with the level of ambition of the rainfall target?

Neutral

Do you agree that this package of targets as a whole addresses the key issues associated with Storm Overflows?

Strongly Agree



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