

Defra draft storm overflow discharge reduction plan

United Utilities Water response

Executive Summary

It is clear that more can and should be done to improve the health of our waterways and coastlines and that United Utilities Water (Uuw) has a significant role to play. We welcome the consultation on the substantial new obligations set out in the draft Storm Overflow Discharge Reduction Plan which seeks to drive improvements to further this objective. We support the plan to drive for incremental improvements to reduce the harm caused by storm overflows and we welcome the Government's commitment to a long term approach to investment to deliver long term resilience and environmental protection. Setting long term targets will give the industry confidence to drive efficient, innovative and partnership solutions. The rainwater management principles set out in the consultation are essential to reducing storm water flows and we eagerly await the legislative changes proposed to bring them into reality.

Our initial analysis suggests that approximately 63% of the total cost associated with the proposals will be borne by just 22% of English water customers living in the north of the country, resulting in a 50-60% rise to the average bill. These northern communities are characterised by higher than average levels of socio-economic deprivation. Whilst research suggests that customers are concerned about the environment, their appetite for bill increases associated with environmental improvement is limited.

We believe that there are wide ranging consequences of proceeding on the basis set out in the consultation. In particular, we have concerns about the extent to which Defra's proposals promote **1) Affordability, 2) Efficiency, 3) Sustainability and 4) Deliverability**. The key aspects of the proposal that are driving these consequences are

- The focus on **outputs rather than outcomes**, which is contrary to the Government's own 25 year environment plan and may not deliver the improvements society wants at an efficient cost.
- The timing and **front end loading of the programme** with around 2/3rds of expenditure required by 2035. This will impact the opportunity to build collaborative, partnership solutions and may result in traditional assets being built, rather than sustainable, nature based and low carbon solutions.

We would wish to highlight the following aspects of our response:

Affordability - The Uuw region is, on average, the most deprived water company region in England. The growing challenges from increases in the cost of living are likely to have further amplified affordability challenges in the region. Over 45% of the most economically deprived neighbourhoods in England are in the North West, including areas such as Blackpool, Burnley and Bury and a recent survey of Uuw customers found that 61% expressed concern about their household finances¹.

The average national bill impact figure quoted in the consultation of £65 per household does not reflect the stark regional differential in costs of implementing the plan which would disproportionately impact customers in the North of England compared with the South and East of the country. Based on preliminary, but objective, analysis we believe that it is likely that, for this policy alone, the bill impact for Uuw customers could be over three times greater than the £65 per annum figure quoted. The data and evidence needs to

¹ Verve April 2022, State of the Nation wave 4 research for United Utilities (survey of 1161 customers)

Response to Storm overflow discharge reduction plan consultation

be transparent for this to be a meaningful consultation and the disproportionate impact of the proposals upon customers and communities in the North needs to be factored into refining these proposals.

UUW and Yorkshire Water serve some of the most income deprived parts of England yet – based on our understanding of the proposal – customers in these two regions will incur approaching two thirds of the cost impact of the storm overflow discharge reduction plan according to the outputs of Defra’s Storm Overflow Evidence Project. This means that 63% of the financial burden of Defra’s proposals would fall across the North West and Yorkshire and will be borne by just 22% of the water customers in England. We believe this shows that a more detailed impact assessment of the proposals is required.

The weighting of investment to the North is driven by the historic legacy that over 50% of sewers in the North of England are combined which means they carry both foul flows and rainwater. In cities like Liverpool this increases to a significant 80% of combined sewers. Combined sewers have historically been constructed to manage the high and varied levels of rainfall in our region.

We will be commissioning a piece of analysis to understand the potential bill impact for water customers in the North West. The output will be available in the coming weeks to inform the debate.

We would also wish to understand more about how Defra has derived the public health and screening costs, as these have not been derived from the independent assessment of potential costs undertaken by Stantec. Based on information available to UUW, we are concerned that the costs may have been significantly underestimated in Defra’s consultation and thus the bill impact in the North will be driven even higher once this is taken into account.

Efficiency – We agree that water industry investment should be made in a way that secures long term resilience and protects and enhances the environment, whilst delivering value for money for customers, society and the environment over the long term. We are, however, concerned that several aspects of the draft plan do not enable this.

For example, we agree that water companies should base their decisions on robust evidence and explore ways in which they can maximise wider benefits. However the blanket policy of driving a ‘one size fits all’ low spill frequency standard irrespective of impact removes the opportunity to make evidence based decisions on addressing harm which would ensure value for money. This is contrary to the direction set out in the 25 year Environment Plan which focuses on outcomes and in particular enhancing natural capital. The cost effectiveness of the draft proposals would be significantly improved by taking an approach focused on delivering environmental outcomes rather than output spill frequencies. Setting all targets around harm would allow the industry to propose treatment solutions as an alternative to achieving low spill frequencies.

Across England, the Reasons for Not Achieving Good (RNAGs) identify that only around 5% of causes of failure are associated with storm overflows. Whilst we strongly support investment to drive significant improvement in this area, we are concerned that in their current form, the targets risk money being spent on projects which do not address the principal causes of poor river water quality and which divert money away from schemes that could deliver more benefits and greater value for communities.

Additionally, we believe the current plan is unlikely to achieve the overall environmental outcomes society is looking for because it is not underpinned by a catchment systems thinking approach. This risks substantial investment being driven towards direct improvements to storm overflows rather than being prioritised to address the most beneficial interventions across the catchment system. Furthermore, the pace at which the water industry will need to step into very substantial investment leaves limited

Response to Storm overflow discharge reduction plan consultation

opportunities to take adaptive approaches, drive innovation and partnerships - all of which could help to improve the efficiency of the plan. These approaches take time to nurture and develop, whereas the proposed deadlines and targets would have the inevitable consequence that traditional solutions will have to be used instead. That is not to say that some quick wins are not available.

Finally, water companies do not have all the controls to manage storm overflow discharges. For example, there is little control over surface water entering the sewer system and where development occurs. Without other actors holding legislative requirements to address the issue, the plan will either not be fully effective or will cost substantially more than necessary to deliver. We believe this needs further consideration by Defra.

Sustainability – We recognise Defra’s concern that traditional solutions to reduce discharges, such as increasing storage capacity, are carbon intensive. U UW’s options hierarchy, which underpins our Drainage and Wastewater Management Plan, places new assets at the bottom of the hierarchy with opportunities such as upstream management, which could include sustainable drainage system, featuring much higher up the order.

We are concerned that the scale and pace of improvement required will lead to a very significant programme of traditional investment in very large scale asset solutions. Such a large investment programme carries significant risks for sustainability outcomes such as carbon emissions and waste which could be better mitigated given time.

United Utilities DWMP options hierarchy



The embodied carbon impact of the scale of programme U UW will need to deliver will be substantial. The speed with which the industry will need to implement this plan leaves very limited opportunities to integrate storm overflow improvements within wider asset renewals and upgrades. This will likely lead to assets being decommissioned before the end of their lifetime, particularly at wastewater treatment works, leading to higher levels of waste. This is contrary to a fundamental principle of the circular economy to keep assets in use for as long as they are performing.

Response to Storm overflow discharge reduction plan consultation

The *operational carbon impacts* of storing, pumping and treating large volumes of additional storm water is also very significant.

Partnership solutions could provide multiple benefits and, in particular, deliver sustainable drainage into our cities and towns increasing resilience to climate change and liveability - but they take time to deliver and the benefits are less certain. With short timescales and fixed spill frequency requirements, these options are at risk of being pushed out. Given greater time it will be feasible to co-create and fund more sustainable drainage solutions. That is not to say quick wins cannot be pursued and achieved in the meantime.

Innovation could help to drive down the carbon impact of this substantial investment programme but, again, it will be difficult to integrate significant innovation into a programme that has to ramp up its delivery so fast, instead the focus is likely to go to tried and tested solutions which have high confidence for delivery timescales and performance.

The range and scale of activity required to deliver material reductions in storm overflow discharges will require unprecedented change, investment and re-engineering of wastewater and stormwater flows in the North West of England. We have a responsibility to current and future generations of bill payers to ensure that they benefit from the most cost-effective, low carbon, and nature-based solutions as possible that deliver an optimised approach to environmental improvement. If Defra proceeds on the current basis we will endeavour to deliver to the statutory targets, but we are concerned that we will lose a once in a century opportunity to deliver optimised solutions and create resilient drainage infrastructure fit for a growing population and a changing climate.

Deliverability – Whilst the consultation states that the plan has been designed with deliverability in mind, we do not believe this has been considered adequately for what is an unprecedented programme of improvement in drainage infrastructure.

According to the work done for the Storm Overflow Evidence Project over 2/3rds of the expenditure on improvements is needed by 2035 - so in reality most of the need is not long term in nature. Stantec, which delivered the Storm Overflow Evidence Project for Defra, estimates that the water industry in England will need to increase its expenditure on overflows fivefold in 2025 for a period of 10 years to meet the bathing water target and to deliver 75% of the ecology target before dropping to a more modest but still enhanced rate for a further 15 years. This estimate excludes the bathing water and screening elements of the plan, so in reality the total costs driven by the consultation proposal would likely be even higher.

To deliver this ambitious programme effectively and efficiently, a smoother build-up of sustained levels of expenditure is required to give time for the industry and its wider supply chain time to recruit and train sufficient new resources. This would allow the industry and its supply chain partners to establish substantial and sustainable increases in apprenticeship programmes to develop the home grown resource needed to deliver such an ambitious programme. This will be particularly important for companies like UuW and Yorkshire Water which will need to deliver around 35% and 28% respectively of the investment required by the plan for England.

Further, we strongly support Defra's position that water companies should achieve year on year reductions in the amount of surface water that is connected to their combined sewer network. This is a substantial change from where we are now and will take time to build up the scale of activity needed as any water removed from the system needs alternative routes.

These types of solutions are also likely to lead to more short term disruption to communities and thus they need to be planned and managed sensitively. Some parts of the country such as the North West of

Response to Storm overflow discharge reduction plan consultation

England will need substantially more work than others to reach the targets set out in the plan. This is likely to lead to high levels of disruption (such as streetworks and construction) in major urban conurbations such as Greater Manchester and Liverpool City Region which have high numbers of storm overflows spilling more than 10 times a year.

We believe that the level of disruption may not yet be fully appreciated by Defra, nor the impacts this would have on local communities and commerce in the North West. In order to mitigate these issues in a way that the local population will find acceptable, the timescale should be extended beyond 2035 in conurbations particularly impacted by high concentrations of work in densely populated areas.

Recommendations

We recommend the following steps are considered to mitigate the risks:

- 1) Clear long term targets should be set to enable water companies to work with partners, regulators and the supply chain in order to develop low carbon, nature based, best value solutions within an overarching framework. These may need to vary regionally to account for the regional disparity in the amount of work that is required to meet the targets. The targets should seek to arrive at a much flatter delivery profile over the 25 years than the one currently proposed which is significantly front end loaded into the first 10 years;
- 2) Targets should be set to drive reductions in evidenced harm, rather than harm followed by blanket 'one size fits all' spill frequencies, which do not deliver environmental benefit or wider value;
- 3) The eventual storm overflow policy should be adopted contingent on the enabling legislative reforms being made;
- 4) The significant and disproportionate regional variation in the cost of implementing the plan and mitigating the impact on the customers must be considered in the planning cycles of the WINEP. With the current construct of the proposals, a disproportionate cost burden in England will be borne by the customers in the most economically deprived parts of the country, where the impact of the current cost of living crisis is felt most acutely. Additionally, the intensity of work required in major conurbations in the North needs to be planned and executed so as to reduce what would otherwise be material and unacceptable disruptions to local communities and commerce;
- 5) Drainage legislation should be reformed as soon as possible such that all the key actors in the drainage system are working in tandem to reform the way we drain our towns and cities to drive the long term resilience and environmental performance we are looking for;
- 6) Because these are long term proposals, with potentially unprecedented impacts on wastewater infrastructure and services, there should be a recognition that optimising the deliverability, efficiency, affordability and sustainability of the approach should be subject to scrutiny and review over time. We believe that the proposals should provide for an explicit mechanism whereby the Environment Agency and Ofwat are able to scrutinise and advise on the pace and scale of progress to ensure that the approaches are cost beneficial, drive best value for bill payers and the environment and are within a cost envelope that is affordable to customers, and
- 7) Due to the extent of change required, the need to complete investigations ahead of developing projects and the ongoing uncertainty as companies await the final storm overflow policy and

Response to Storm overflow discharge reduction plan consultation

WINEP driver guidance, we are likely to propose to Ofwat that it should consider how flexibility can be built into the price review process.

Response to Storm overflow discharge reduction plan consultation

Answers to consultation questions

6) Do you agree or disagree with the level of ambition of the ecology target? [strongly agree, agree, neutral, disagree, strongly disagree, don't know/no answer]

We agree that it is appropriate to focus on addressing ecological harm.

The 2035 target captures around 2/3rds of the overall expenditure on inland waters and thus it drives a very front end loaded programme with Stantec's work on the Storm Overflow Evidence Project pointing to the industry needing to increase expenditure over fivefold from 2025 for a 10 year period. This leads to not just issues of customer affordability but also deliverability issues which include

A lack of time to take adaptive approaches which might enable opportunities for sustainable drainage systems or system optimisation

A lack of time to drive innovative solutions that could reduce the cost or carbon impact of implementation

An increase in cost due to the very high demand for engineering resource and a lack of time to grow a sustainable domestic workforce to deliver the programme

This target could be made acceptable by smoothing the delivery profile for those companies like United Utilities Water (UW) with very significant programmes of investment to deliver.

7) Do you agree or disagree with the level of ambition of the public health in designated bathing waters target? [strongly agree, agree, neutral, disagree, strongly disagree, don't know/no answer]

We believe the plan should focus on delivering water quality improvements based on impact across the bathing beach, not based on a standard spill frequency irrespective of impact. The policy as it stands will drive UW to focus its bathing water investment on meeting 2 spills per bathing season at existing excellent bathing waters rather than driving bathing waters at a lower standard to improve. Without an ambition around bathing water improvement for other sectors such as agriculture and urban run-off there may be no tangible improvement in some locations. This offers particularly poor value for customers.

Additionally, as per the ecology target the scale of work required by 2035 will lead to very significant deliverability issues with associated negative consequences for sustainability and cost.

8) Do you agree or disagree with the level of ambition of the rainfall target? [strongly agree, agree, neutral, disagree, strongly disagree, don't know/no answer]

The policy of driving a blanket low spill frequency standard irrespective of impact is further driving this disproportionate impact, particularly in the North West of England where it rains more frequently than in the South East. If derogations were possible, with a robust level of evidence, this would allow companies to optimise the costs and benefits whilst delivering the high-level objectives of eliminating harm. The principle of using derogations for the application of framework policies to local circumstances is well enshrined in environmental legislation (cf. the Water Framework Directive), and allows for the best outcomes to be delivered in the round.

There is a need to revise the approach to permitting wastewater treatment works to allow the most efficient biological processes to be used for normal flows and a wider range of options to treat storm flows (such a peak flow storm treatment with mechanical and chemical process streams). These peak flow

Response to Storm overflow discharge reduction plan consultation

treatment processes are standard practise in some other countries who have put in place solutions to tackle storm overflows (for example in the city of Copenhagen). This will help to ensure that the need to treat very dilute sewage for prolonged periods (driven by the storm overflow plan) avoids stretching the biological treatment beyond range effective ranges. It would support viability of biological phosphorus removal processes thereby avoiding placing further reliance on the use of chemicals to meet the proposed Environment Act long-term target for phosphorus from wastewater discharges. This is important to reduce the carbon impact of this policy and to drive more circularity in the water industry.

9) Do you agree that this package of targets as a whole addresses the key issues associated with Storm Overflows? [strongly agree, agree, neutral, disagree, strongly disagree, don't know/no answer]

10)[if not] Can you explain why you do not agree?

The approach set out in the draft plan would bring a step change in the regulation of storm overflows where the current norm is to regulate the water industry on the flows we retain in the system; in future we will be regulated on what we release from the system. This marks a substantial change but it is too water industry centric and fails to secure controls over the wider drainage system. In order to improve storm overflows to these ambitious targets it is vital that the government follows through on its rainwater management principles by making the following changes to legislation.

- Implementation of Schedule 3 to the Flood and Water Management Act 2010
- Giving water companies the right to repair defective drains on private property
- Giving water companies the right to alter drainage systems on private property to reduce impermeable areas connected to the combined sewer network
- Giving water companies the right to discharge rainwater to water courses
- Giving water companies the right to refuse connection of highway drainage to the combined sewer system and to drive opportunities for more sustainable drainage to be delivered when highways are repaired/renewed
- Giving Highways Authorities an obligation to receive surface water from developments in preference to combined sewers

Customer behaviour and the actions of product manufacturers also have an impact on storm overflow operation. Currently too much material enters the sewer system which is unsuitable such as wet wipes, sanitary products and nappies. Legislative controls are needed on product manufacturers to drive responsible product formulation and disposal behaviours in order to reduce the risk of sewer blockages leading to spills and to reduce the risk of plastics entering water courses when storm overflows do operate.

Additionally, water companies have no controls or influence over the planning system yet this can lead to significant impacts on sewerage systems, with significant increases in impermeable area draining to the sewerage system.

The Environment Act sets an extensive monitoring regime requiring upstream and downstream water quality monitoring for all wastewater treatment works and storm overflows. There are multiple technical issues around how this widespread water quality monitoring is delivered with rivers being dynamic and destructive environments and it will drive substantial cost due to the scale of monitoring required. The

Response to Storm overflow discharge reduction plan consultation

impacts of monitoring should be considered in conjunction with the storm overflow plan in order to drive value for money. A more appropriate and cost effective approach would be to use water quality monitoring in an investigatory way to understand what is needed to remove ecological harm (if occurring) and then be periodically re-done to ensure arrangements remain correct. This would deliver the benefits whilst reducing the challenges around thousands of fixed monitors operating in less than ideal environments to confirm the status quo once improved drainage has been designed and delivered.

11) Would you be willing to pay more in your monthly water bill in order for water companies to tackle sewage discharges as outlined in this consultation? [Yes/No/Don't know/ N/A]

The consultation does not reveal the disproportionate impact of the plan on customers of companies in the North of England who have a significant proportion of combined sewers, higher rainfall and propensity for storms, and therefore more storm overflows. U UW's and Yorkshire Water's customers are very likely to see the highest bill impact but this is not transparent in the consultation, which simply gives an average bill impact of £20 for AMP8 and eventually £65 per household/annum. It is anticipated, based on the Storm Overflow Evidence Project work, that U UW customers would see a bill increase around three times greater than this.

Whilst we can see that the inland waterway costs were derived from the Storm Overflow Evidence Project, there is no such clarity for the public health and screening costs. To make this aspect of the consultation meaningful the basis of these costs needs to be made clear so they can be reviewed and updated if needed. Our understanding of the policy leads us to believe these costs are significantly underestimated.

As a result of the lack of clarity on the regional impact of the policy and the validity of the public health and screening costs, we do not believe the bill impact has been subject to adequate consultation.