Written evidence from United Utilities

Executive Summary

1. The Environment Agency's Challenges and Choices consultation explored the complex issues surrounding why environmental improvement has stalled. One of the key points made in United Utilities' response[1] to that consultation is that the current approach to managing the environment is suboptimal with many parties having a remit to manage aspects of the system but with little coordination around management of water and land which are intrinsically linked. This means the pace of change is uneven and agriculture has now overtaken the water industry as the major source of phosphorus in catchments[2].

2. To enable more effective long term strategic thinking we recommend a catchment planning approach is put in place covering the full water cycle. This would enable the effective setting of priorities and spatial environmental plans that could be given the authority to influence the planning system. In addition to this we make the following points in response to the Committee's questions:
    - Setting targets in the Environment Bill around environmental outcomes rather than outputs will maximise the opportunity for innovation and the use of nature based solutions
    - Drainage and Wastewater Management Plans (DWMP) have an important role to play in ensuring the long term resilience of wastewater services and the environment. Their success has a dependency on how well they are linked into the existing regulatory framework and in particular the Water Industry National Environment Programme (WINEP)
    - It is important that the polluter pays principle follows through so that water customers are not expected to pay to resolve all issues particularly if source control offers a more sustainable solution, for example in the case of plastic pollution.

Introduction

United Utilities

3. United Utilities is the UK's largest listed water and wastewater company. Our purpose is to provide water and sewerage services to over three million homes and 200,000 businesses in the North West of England.

Why we are submitting evidence?

4. We recognise that as a water and sewerage undertaker our business is intrinsically linked with the water environment and we want to ensure we play our part in protecting and improving the North West's rivers whilst also keeping customer's bills affordable in the short and long term. In the sections below we set out recommendations and evidence as requested in the terms of the inquiry. Where appropriate further publications have also been referenced.

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[1] https://consult.environment-agency.gov.uk/environment-and-business/challenges-and-choices/consultation/view_respondent?show_all_questions=0&sort=submitted&order=ascending&_q__text=united+utilities+&uuId=2855365

[2] https://prdldnrbm-data-sharing.s3.eu-west-2.amazonaws.com/Challenge+narratives/Phosphorus+Pressure+RBMP+2021.pdf

Evidence

What are the best indicators for river water quality that could be used as targets being developed under the Environment Bill?

5. We recommend that Environment Bill targets focus on environmental outcomes and not outputs for example, water quality standards should be set for rivers and not for individual discharges. This maximises the opportunities for innovative solutions and allows organisations to work in partnership to deliver multiple benefits including natural solutions. We also recommend avoiding measures which have a "one out all out" approach to compliance such as Water Framework Directive classification as it makes it hard to show progress and can create perverse disincentives to progress.

How could drainage and sewage management plans, introduced by the Environment Bill, play a role in reduced sewer discharges?

6. DWMPs enable long term planning for storm overflow discharges across our sewerage systems. In a discussion paper we have recently produced on how the WINEP could deliver greater value we have identified the importance of ensuring there is a coherent link between DWMPs and the WINEP[3]. This will be vital to ensure that any requirements to improve overflows are coherent with longer term requirements to ensure the resilience of services.

How adequate are the monitoring and reporting requirements around water company discharges? How can technology improve and assist with transparency and enforcement?

7. United Utilities currently has overflow spill monitoring in place on 92% of storm sewage overflows, giving detail on the frequency and duration of overflow operation. We recognise that the Storm Overflow Taskforce has set a target for 100% coverage and have submitted a Green Recovery proposal to achieve this. Additionally, we provide real time monitoring overflow operation for many bathing waters along the North West coastline. This data also feeds Surfers Against Sewage's Safer Seas App. Any extension to real time monitoring would require additional investment to deliver the capability and would need planning for.

What is the impact of plastic pollution and other materials on drainage and water quality in rivers and what should be done to mitigate it?

8. Whilst evidence shows a widespread accumulation of plastics in waterbodies, treatment processes have been shown to achieve high removal rates of microplastics from drinking water >99.99% [4] and treated wastewater 99.8% [5]. More action is needed to prevent plastics and other materials from entering the water environment and the sewer network in the first place. A focus on controlling plastic pollution at source would provide a sustainable solution.

How can consumers be persuaded to change their behaviour to minimise pollution?

9. In 2017 we commissioned some research with Keep Britain Tidy to understand more about what drives customer behaviour that can lead to sewer blockages. We found that 30% of respondents

[3] https://www.unitedutilities.com/globalassets/documents/pdf/winep-review-discussion-paper-v1.0.pdf
[4] UKWIR 2019, Sink To River – River To Tap: A Review of Potential Risks from Nanoplastics and Microplastics . (Report Ref. No. 19/EQ/01/18)
[5] Horton, A.A., Cross, R.K., Read, D.S., Jurgens, MD., Ball, H.L., Svendsen, C., Vollertsen, J., Johnson, A.C (2021). Semi-automated analysis of microplastics in complex wastewater samples. Environmental Pollution (268): 115841

admitted to flushing toilet wet wipes, 21% flushed cleaning wet wipes and 23% of women flushed tampons. When customers were asked what might change their behaviour around what they flush, 38% would be influenced by understanding the environmental impact. In order to address this we recommend not only public education but also more visible messaging on packaging and at the point of sale.

What is the required investment level needed to minimise storm overflows vs the scope for sustainable drainage and nature-based solutions?

10. The required investment level to minimise storm overflow operation is substantial and will involve significant disruption. To give a scale to this it is worth noting that the core of our sewerage systems are combined pipes carrying both sewage and rain water. For United Utilities combined sewers make up 54% of our sewer network. Significant re-engineering of this part of the network would be needed to drive to very low or zero spills. Sustainable drainage (SuDS) and nature-based solutions offer a more sustainable alternative to traditional methods of reducing sewer discharge however retrofitting these solutions is both expensive and disruptive as it can involve work on individual customers' properties and it requires significant amounts of land. In order to really maximise the potential of SuDS we believe that spatial environmental planning is key so they are embedded in plans and are enforced by the planning system and investment plans for highways authorities. It's only through such a joined up approach that the true benefit of SuDS will be realised as the benefits are borne by multiple parties.

11. Through the development of our first DWMP we will set out our long term plan for improving overflows and adapting to climate change. All sewerage undertakers are due to publish their draft DWMP in June 2022.

12. In the meantime an important step towards improving the position would be to limit the introduction of additional surface water into the combined system by bringing into force Schedule 3 of the Flood and Water Management Act which inserts section 106A into the Water Industry Act 1991.

How effective are the planning policy and standards around sustainable drainage systems to reduce urban diffuse pollution in England?

13. There are currently some weaknesses in the planning system in relation to sustainable drainage which include:
    - Some developments not requiring planning permission and therefore there is no framework to control the approach to surface water management
    - Sustainable drainage being just one of many issues the planning system is seeking to balance so it doesn't always get prioritised
    - Planners generally not being drainage experts
    - Insufficient enforcement resources

14. Ofwat's Code for Adoption Agreements was implemented in 2020 with a requirement to develop Sewerage Sector Guidance. This includes several SuDS components that can be adopted as can be considered to come within the meaning of a sewer. We're finding that Highway Authorities are refusing the adoption of highway drainage features like swales as they are not familiar with their maintenance. In order to reduce the impact of new development on combined sewer systems we advocate that a similar expectation to adopt SuDS that meet the required standards should be applied to all drainage systems

15. The current Non Statutory Technical Standards for Sustainable Drainage Systems (NSTS) are ineffective to reduce urban diffuse pollution as they do not include a standard for quality. It is understood that a Defra project is in progress to update the current NSTS which could help deliver SuDS that provide multiple benefits. If this standard remains 'Non-Statutory' any updates will still have limited impact. We recommend that the NSTS should be applied consistently to planning applications and highway schemes.

Should local authorities and highways agencies be given a duty to prevent pollution to watercourses without prior treatment?

16. Yes, we recommend it is important that there is a duty to prevent pollution from urban runoff for highways agencies. It is only when all parties have expectations placed upon them that partnership schemes can be successfully progressed. It is also important that the polluter pays principle is embedded in the approach taken.

How effective is Ofwat's remit and regulation of water companies? Does it facilitate sufficient investment in improvements to water quality, including sustainable drainage systems and nature-based solutions such as constructed wetlands?

17. Environmental improvement requirements for the industry are set out in the WINEP which Ofwat recognise when making funding allowances for companies. United Utilities has recently written a discussion paper[6] on how the WINEP could be evolved to deliver greater value and there are several aspects of this question which are touched upon in this document. One of the three principles we set out in this paper relates to how the economic regulation framework for the industry could be altered to provide better support for nature based solutions.

Is adequate investment being made in adapting water treatment systems to future climate change?

18. The publication of the first round of DWMPs by water companies will show an assessment of the impact of climate change on system performance as well as identifying the levels of investment that will be needed to adapt to climate change. The process of developing and publishing these plans will enable a much wider discussion with customers and regulators about the right level of investment.

How could the designation of inland bathing waters by water companies affect the costs of achieving the associated water quality standards?

19. We recommend that any new bathing water should to be managed by the local authority or land owner in order to manage the safety of bathers. This means that local authorities are likely to be best placed to identify new bathing waters for designation. We do not believe it would be appropriate for water companies to have responsibility for designating inland bathing waters.

20. If new bathing waters are recommended for designation a monitoring and modelling programme would be needed to identify potential sources of bacterial load which are likely to include agriculture, water industry discharges and urban run-off. The types of interventions that might be required by water companies include the installation of ultra violet disinfection of the discharge of treated effluent from wastewater treatment works. In addition the frequency of

[6] https://www.unitedutilities.com/globalassets/documents/pdf/winep-review-discussion-paper-v1.0.pdf

operation of storm discharges is likely to need to reduce or alternatively it may be possible to treat some storm discharges. It is not possible to estimate costs at this stage as there are significant uncertainties.

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