

Written evidence submission by Ofwat

We welcome the opportunity to provide evidence for the committee's inquiry into water quality in rivers. Only when water and wastewater services are environmentally sustainable will the long-term interests of customers be met. Achieving this is a key aim of Ofwat, as set out in [our strategy](#). In this response: we briefly set out who we are and the role we play in improving environmental outcomes and water quality, before responding to those questions from the call for evidence which are most relevant to us or where we have a particular view.

About us

1. Ofwat is a non-ministerial government department. We regulate the water and wastewater sector in England and Wales. Our work ensures that monopoly water companies deliver high quality, affordable, resilient, and environmentally sustainable services to their customers. Through setting clear and stretching outcomes, we incentivise companies to provide the very best service for customers, protect and enhance the environment and make the investments needed for the future. We have the power to take enforcement action where companies are not delivering on certain obligations. We also use market mechanisms where appropriate to drive better outcomes, such as through the business retail market where we have strong focus on improving water efficiency in the non-household customer base. We also use all of our regulatory tools to align interests and encourage the sector to build strong relationships with their customers and other stakeholders.
2. We work alongside the Environment Agency (EA), the Drinking Water Inspectorate (DWI) and Natural Resources Wales (NRW) to secure the best outcomes for customers and the environment. We take account of government policy, where appropriate, and in line with our functions and duties, we act in accordance with statements of strategic priorities and objectives issued by both the UK and Welsh Government.

Our role in improving environmental outcomes and water quality

3. One of our key roles is to set the price and service packages that water companies must deliver over a five-year period. This includes financial and reputational penalties and incentives to drive performance. Our most recent price review, PR19, allows £50 billion of revenues from customers over the over the 2020–25 period to deliver day-to-day needs, as well as new and improved services, including environmental improvements. We expect each five year package to take the water companies forward towards the longer term goals.
4. PR19 includes £4.8 billion of investment to deliver the work identified as necessary through the National Environment Programme (NEP) for Wales and the Water Industry National Environment Programme (WINEP) for England. These are key programmes

focused on delivering benefits to the natural environment, especially water quality, through investment, asset improvements, investigations, monitoring and catchment interventions. Through the WINEP, the EA sets out the measures that water companies must take to tackle some of the biggest challenges facing the water environment, such as pollution in England's rivers.

5. Through our price review we have set a range of ambitious and challenging environmental performance commitments which companies have to meet and report on, and which carry financial or reputational incentives. For example, companies overall need to reduce pollution incidents by 30%, leakage by 15% and the amount of water customers use by 13%. All companies also have a performance commitment on delivering their WINEP/NEP programme. More than ten companies also have specified bespoke commitments which further benefit river quality, including through river restoration.
6. While we set a five year funding envelope and challenging delivery targets through our price review, which underpin a stable regulatory regime, we also recognise the importance of remaining agile and responsive to external factors so that companies can act in the best interests of their customers. This is why we have opened up a new opportunity for the industry to bring forward investment and take other measures to play a strong role in a green recovery from the Covid-19 pandemic. Alongside government, the EA, DWI, and the Consumer Council for Water, we encouraged companies to [submit green recovery proposals](#) and we invited specific proposals on: accelerating existing environmental priorities within the agreed 2020-25 plans and considering the enhanced use of nature-based solutions to deliver them; bringing forward enhanced investment proposals from 2025 and beyond; and implementing specific new innovative ideas which would benefit future generations. We are pleased with the package of proposals received, totalling nearly £1.3 billion. At the time of writing this submission, we are assessing these proposals for further revenue from customers against a set of criteria (as outlined in the letter to companies) and will publish information on our proposed decisions in due course.
7. Along with the EA and DWI, we have also formed the water Regulators' Alliance for Progressing Infrastructure Development (RAPID). RAPID works with the industry to promote the development of new national water resources infrastructure that will help meet our future water needs while reducing the pressure that abstraction places on the environment. Our collaborative work already means that, subject to regular checks, accelerated planning will begin on four potential supply solutions which will help introduce more water sources in Hampshire and subsequently will reduce abstraction from highly precious local chalk streams.

8. We also recognise the crucial role that customers play in driving the national need for delivering water on a long-term, sustainable basis – as also set out by the EA’s National Framework for Water Resources. In the context of non-household customers, whose water use accounts for a third of all water delivered to customers in England, we are [working collaboratively with the EA](#) to drive greater water efficiency. We have started to see an improvement with some retailers entering the market with a bigger focus on water efficiency, alongside more business customers actively pursuing a more efficient use of water. Further below in this response, we focus on the importance of customer behaviour change overall, including in the use of the wastewater system as well as the use of water as a precious resource.
9. We also support investment in specialist infrastructure projects outside of the price review. On the Thames Tideway project, we have allowed around £4.6 billion of investment to improve the water quality of the River Thames. This is largest infrastructure project delivered in the water sector since privatisation, and will see the upgrade of London’s sewer system to cope with its growing population. The 25km tunnel will intercept, store and ultimately transfer sewage waste away from the River Thames.
10. We are also a core member of two important, ongoing taskforces: one which focuses on eliminating the harm from storm overflows; and one which focuses on improvements to the WINEP so that it is more outcomes-driven, adopts a more catchment-oriented approach, accommodates more nature-based solutions, and allows those involved to co-design, co-deliver and co-fund the most appropriate and effective solutions. The work of both taskforces will tackle environmental challenges at a national level and help to deliver improvements to water quality in rivers.
11. Water quality issues constitute a complex and multi-faceted problem that requires strong intra-sector and cross-sector collaboration. At Ofwat we are fully committed to playing our part, working in partnership with the EA, government, industry, wider stakeholders and the public to achieve our common aims.

Responses to individual questions from the call for evidence

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

12. Ofwat is very supportive of the use of targets in addressing the major challenges we face, and it is important to get the right targets in place under the Environment Bill.
13. Defra, the EA, NRW and others are best placed to identify the appropriate indicators for river water quality that could be used as targets under the Environment Bill. As we have done to-date, we will continue to engage closely on the development of these targets,

also contributing our incentive-based regulation expertise to this process. We will also consider how our five-yearly price review can act as an important stepping-stone for relevant longer-term targets and outcomes.

14. We consider it fundamental that any long-term targets enable and facilitate a wider range of solutions to address the issues, including the greater adoption of nature-based solutions, more catchment-wide approaches, and behaviour change. Targets should ensure a level playing field that doesn't unduly favour hard engineering solutions at the detriment of approaches that can be more environmentally and socially beneficial overall, for example in terms of carbon or biodiversity. This can be facilitated by focusing on broader outcomes rather than very specific narrow targets, such that companies – also in collaboration with other stakeholders – can innovate and explore the best way to achieve the outcome.

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

15. We welcome drainage and sewerage management plans (DWMPs) being placed on a statutory footing. This is an important step in addressing the harm from storm overflows as DWMPs will require water companies to report every five years against a number of common planning objectives – including storm overflow performance and pollution risk. Through this process and approach, we will have a better understanding of issues and the action companies need to take to address them. We can also ensure that companies are appropriately funded and incentivised to deliver on these plans. DWMPs are part of the step change towards more integrated planning on wastewater, which will mirror the more integrated thinking and planning that is already taking place on the resources side through the water resource management plans (WRMPs).
16. DWMPs will enhance existing programmes, such as the WINEP, and will provide a key opportunity for companies to look beyond the five-year regulatory cycle. When undertaking this long-term planning, our price controls will act as essential stepping-stones and investment phases in companies' long-term planning, with DWMPs providing an important evidence base for investment.

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

17. Monitoring and reporting, alongside providing transparent and accessible information, is key to understanding water company discharges and to inform investment plans. The EA, NRW, companies and others are best placed to identify the optimal monitoring requirements, and the relevant technologies to support this.

18. It is important to note that the EA's requirement for more comprehensive monitoring by companies has significantly increased in recent years. The use of technology, in the form of event duration monitors, will take storm overflows activity monitoring to 90% by 2025. The storm overflows taskforce is looking to accelerate this delivery and achieve full monitoring by 2023. The availability of this data to the public is also important as not all companies currently publish data on their storm overflow discharges. The storm overflows taskforce has also agreed with water companies that they will publish annual monitoring data on their websites about their use of storm overflows so that progress on reducing discharges can be tracked. The EA will compile this data into an annual report that is easily accessible to the public.
19. Monitoring data informs company investment decisions and company business plans, which are submitted to Ofwat as part of the price review. Monitoring data also informs measurement and reporting of company performance against their performance commitments. In July, companies will report on the first year of the PR19 performance commitments through their annual reports. We will use these reports and the associated data, along with other sources of information, to understand the progress companies are making towards achieving their commitments; and also to start informing the outcomes and commitments that may need to be incorporated into the next price review (PR24), subject to [the design of the PR24 framework](#), which we have already started engaging with stakeholders on.

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

20. It is clear that consumer behaviour change has an important role to play as part of the solution. Inappropriate consumer use of the wastewater network- for example through the disposal of non-biodegradable wet wipes or greases, fats and oils - is a significant contributor to the issues. This mirrors the importance of customer behaviour regarding water resources, where water efficiency needs to be key component of the long-term solutions. We believe that it is important to ensure consumers – and the public – see themselves not just as recipients of water and wastewater services, but as having a key role in the water and wastewater cycle.
21. We have been very supportive of water company and sector-wide water efficiency campaigns and initiatives to-date. Although, we are also of the view that these have not yet reached the national-level momentum and focus that is required. We also think that the customer behaviour messages around water and wastewater have not been sufficiently joined up.
22. There is extensive behaviour change expertise and experience that companies and the sector can draw from, including from cross-industry and national campaigns such as on seatbelts, smoking and smart meters. As indicated above, we consider that it is important that all relevant and appropriate solutions to the problem of storm overflows

can be considered, incentivised and deployed. This includes customer behaviour change.

23. Customers' trust in their water company is essential for them to accept advice and respond to calls for behaviour change. This is why we have taken steps focused on ensuring that company board leadership and governance engenders trust- including transparency of dividend and performance-related executive pay policies.

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

24. It is clear that the goal of eliminating harm from storm overflows will only be achieved if it is considered across the whole system. This includes approaches to upstream flood management and housing development drainage, where sustainable drainage solutions (SuDS) can make important contributions. Water company infrastructure clearly has a fundamental role to play, but building greater storage tank capacity, for example, cannot solve these issue alone. Not only would the associated costs likely be economically unacceptable to customers and the public, it will never be enough to address the ever-growing pressures and challenges that impact what enters the water companies' infrastructure. An end-to-end and systems-oriented approach needs to be taken, which also takes into consideration that some solutions – such as nature-based solutions, including SuDS, and customer behaviour change – will also be more beneficial towards wider environmental outcomes such as net zero and biodiversity.
25. As such, we don't see this as an either/or question, but one of developing the optimal set of near, medium and long-term solutions to address the issues. We are very supportive of Defra's storm overflows taskforce taking such an approach, which has already led to an acceleration, in the near-term, of company monitoring activities, alongside the significant investment currently going into infrastructure condition and capacity improvements.

How effective are the planning policy and standards around sustainable drainage systems to reduce urban diffuse pollution in England? And should local authorities and highways agencies be given a duty to prevent pollution to watercourses without prior treatment?

26. Preventing pollution is a multi-faceted issue which can only be addressed by cross-sectoral approach. We strongly support any government efforts towards more integrated planning and a systems-based approach.
27. As an example, in England developers have an automatic right to connect to sewers, which means they are not incentivised to develop sustainable drainage options. Although developers in Wales still have a right to connect to the wastewater network,

developers are required to incorporate SuDS as part of the drainage system, in certain circumstances. We support this type of approach.

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?

28. Ofwat's regulation of the water sector since 1989 has delivered transformative investment in customer service and environmental performance, with over £140 billion of capital expenditure investment alone under strong regulatory oversight. Working in close collaboration with the EA and NRW, Ofwat's regulation has driven significant improvement in environmental outcomes and the environmental footprint of companies in a cost-efficient way.
29. Equally we recognise that significant environmental challenges remain, and that other environmental challenges, such as net zero and biodiversity, have moved to the fore. We also recognise that performance has plateaued, far from the goal, against the outcome of "Good Ecological Status" of rivers – which is contributed to by water companies alongside multiple other actors such as the farming industry. It is the recognition of these issues that underpins the centrality of the environment in [our strategy](#).
30. PR19 pushes the sector to take a sizeable step forward in tackling resilience, climate change and wider threats to our ecosystems through performance mechanisms and investment. As noted above, it includes £4.8 billion of investment for the national environment programmes in England and Wales, which will result in a significant spend on addressing water quality issues. It is important to note that, in exercising our functions, in line with our duties, our challenge to water companies on this environmental programme investment is focused on ensuring efficient spend of customer money. Ofwat does not challenge the scope and focus of the investment, which is agreed on by the environmental regulators and the companies.
31. Our outcomes-based framework encourages innovation and allows companies to identify which solutions best meet the outcomes they need to achieve. This is supported by our total expenditure ('totex') approach, which we put in place so that capital expenditure (capex) solutions are not unduly incentivised or favoured over non-capex solutions. This means our framework inherently supports companies adopting nature-based solutions, such as constructed wetlands. As we concluded in our PR19 price review, water companies will be delivering more green solutions in the next five years, and we were pleased to see catchment management becoming more of a mainstream activity, with 1,200 schemes by 2025. We also noted that this is only scratching the surface of what is possible, and it is therefore encouraging to observe that several companies are already looking to switch solutions to incorporate more nature-based approaches in delivering

their current environmental programmes (which is possible under our outcomes-based framework).

32. We are also a driving force, alongside Defra and the EA, behind the aforementioned WINEP taskforce; this is looking to ensure that going forward nature-based solutions are on a level playing field with other solutions and that they are considered 'by default'. With Defra, EA, DWI and Natural England, we have also set up a nature-based solutions regulatory group which is explicitly looking at any regulatory barriers that may stand in the way of greater adoption. In our engagement with stakeholders on the design of the next price review, PR24, we are also explicitly asking for views on how we can encourage companies to collaborate and work in partnership with others, such as on nature-based solutions, to better achieve outcomes for customers and the environment. As noted above, our framework inherently can accommodate nature-based solutions, but we want to make sure that we do all we can to facilitate, enable or incentivise their adoption where appropriate.
33. Companies also have performance commitments - relevant to water quality - as part of the service package they need to deliver over the next five years. These can carry financial incentives (both positive and negative). For example, and as noted above in paragraph five, over the 2020 to 2025 period, we set companies an ambitious target to reduce pollution incidents by 30%, as reported to the EA and Natural Resources Wales. Over ten companies also have a range of bespoke performance commitments that will further contribute to improving rivers and that are specified in a variety of ways, such as river restoration and measuring the area of land that is disconnected from draining to the combined sewerage system.
34. As mentioned above, we have supported substantial investment for the largest infrastructure project delivered in the water sector since privatisation, the Thames Tideway Tunnel project. With raw sewage the most significant source of pollution in the River Thames, the Thames Tideway Tunnel will improve river quality by considerably reducing storm overflow discharges in London.

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

35. Our work on climate change adaptation falls within our customer and resilience duties and has been shaped by our strategic policy statements from both UK and Welsh Government. Their strong emphasis on resilience and the sustainable management of natural resources was also reflected in PR19.
36. Between 2020 and 2025, companies will invest around £13 billion for new and improved services and for tackling the challenges facing the environment, including mitigating

and adapting to climate change. We have also allowed £643 million to increase the resilience of water and wastewater infrastructure against potential failures, which includes action on protecting water and wastewater treatment works from extreme flooding.

37. We are also developing the frameworks to improve asset management capability in the sector. This is focusing on ensuring that companies have the tools to address needs including the impact of climate change and that assets are being managed appropriately for the long-term. In particular, that companies have the right processes, teams, technologies and culture to help them to monitor, manage and invest in their assets effectively.
38. At the end of 2021 we will also submit our third climate adaptation report to Defra. This will build on our [second climate change adaptation report](#), published in 2016, which set out that our ability to enable action on climate change in the water sector is based on encouraging companies to build active capacity, enabling adaptive action, and monitoring and evaluation.

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

39. Achieving bathing water quality standards in rivers requires multi-stakeholder co-ordination and collaboration. Water company operations have an impact on water quality, as does – depending on location – runoff or pollution from, for example, agriculture, other industry or urban surface areas. Where water companies are not the only source of pollution, we'd encourage the committee to consider whether it is appropriate for water customers to bear the full cost of addressing the pollution. Further inland bathing water designations provide an avenue for trialling and implementing mechanisms and arrangements which aim to appropriately balance various stakeholder contributions.
40. We consider that there are great opportunities for co-funding arrangements in this context, where a range of private and public funds can be pooled for collaborative work on achieving bathing water quality standards – including, for example, Environment Land Management Schemes (ELMS) funding. We are very supportive of, and focused on, enabling and facilitating these types of pooled funding arrangements. We are encouraged by the growing number of 'co-funding for co-benefits' initiatives more widely, and we are actively looking to make sure that our regulatory framework does not unduly stand in the way of companies participating in these types of arrangements. As noted above, the WINEP reform work under way is also, in part, looking at enabling relevant third parties to co-design, co-deliver and co-fund solutions.

41. It is clear that there is a growing public desire in many places for such designations, and that the number of applications will likely grow significantly following on from the recent approval of the Ikley river Wharfe designation. Ofwat is, in principle, supportive of robust and well-considered designations. These should be based on well-evidenced applications, and put in place where the governance, funding and delivery arrangements allow relevant parties to contribute and collaborate; and we are supportive of water companies playing a co-ordinating role if they are best placed to do so. We also consider that the approach to bathing water designations should be linked into the wider strategy and planning on storm overflows and wastewater infrastructure.

42. It is worth linking this question back to the topic of data, monitoring and reporting, and the topic of targets. Where relevant, environmental outcomes and targets around river water quality should also be considered in terms of how they practically relate to customers and the public. A fully 'binary' bathing quality status may not always be the most desirable outcome, and it may be that this standard achieved for most of the year - alongside very clear public information when this is not the case - is a better outcome all round. Data, monitoring and real-time reporting and communication capabilities are becoming such that more flexible approaches can be considered and adopted where appropriate.

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