House of Commons

Environmental Audit Committee

Water quality in rivers: Government Response to the Committee's Fourth Report of Session 2021–22

First Special Report of Session 2022–23

Ordered by the House of Commons
to be printed 11 May 2022

HC 164
Published on 16 May 2022
by authority of the House of Commons

Environmental Audit Committee

The Environmental Audit Committee is appointed by the House of Commons to consider to what extent the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development; to audit their performance against such targets as may be set for them by Her Majesty's Ministers; and to report thereon to the House.

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First Special Report

The Environmental Audit Committee published its Fourth Report of Session 2021–22, *Water quality in rivers* (HC 74) on 13 January 2022.

The Government response was received on 28 April 2022 and is appended below. The response represents the collective view of the Government, the Environment Agency and National Highways, and also includes the responses of Ofwat and the Sentencing Council to the recommendations addressed to them.

Appendix: Government Response

Introduction

The Government welcomes the Environmental Audit Committee's report titled *Water Quality in Rivers*, published on 13 January 2022. We are grateful to the committee for their conclusions and recommendations, and to those who provided evidence.

Restoring water quality is a priority for the Government. We have already taken significant action in a range of areas including tackling sources of pollution, investing in river restoration and setting out long term plans and targets to drive further improvements. This includes our current consultation on the first suite of targets under the Environment Act 2021, which sets out proposals for several new legally-binding, targets to restore the water environment and improve water quality and availability:

- reducing nitrogen, phosphorus, and sediment pollution from agriculture to the water environment by at least 40% and reducing phosphorus loadings from treated wastewater by 80% by 2037;
- reducing the length of rivers and estuaries polluted by metals from abandoned mines by 50% by 2037;
- reducing public water supply usage in England per person by 20% by 2037.

These targets will act as powerful tools to deliver cleaner water, increase biodiversity and protect the water environment for future generations.

However, as the committee rightly points out, we agree that there is more to do and we intend to set out a comprehensive approach to improving water quality in our update of the 25 Year Environment Plan in January 2023. This will ensure that our approach to water quality is holistic and takes into account significant co-benefits, such as those in relation to biodiversity, and impacts from other policy areas within Defra and across Government. However, we recognise the importance of continuing to act now, while we build the important evidence base and policy content to inform the plan.

We will continue to tackle the pressures on the water environment. We are the first Government to place a duty requiring water companies to secure a progressive reduction in the adverse impacts of discharges from storm overflows, through the landmark Environment Act 2021. We have made clear to water companies that they must improve their environmental performance. Since 2015 the Environment Agency has brought 48

prosecutions against water companies, securing fines of over £137 million. Some of the biggest fines were imposed last year – including a record £90 million fine for Southern Water in July for thousands of illegal discharges – making clear that polluters will be made to pay for damage to the environment. Between 2020 and 2025, water companies will invest £7.1 billion in environmental improvements in England. Of this, £3.1 billion will be invested in storm overflow improvements specifically. Through the next Price Review (PR24), we are using the strategic policy statement to Ofwat, the economic regulator, to make it clear that the environment is a top priority.

Our Storm Overflows Discharge Reduction Plan Consultation will revolutionise how water companies will tackle the number of discharges of untreated sewage, which the Government and the public have made clear are completely unacceptable. Water companies will face strict limits on when they can use storm overflows and must completely eliminate the harm any sewage discharge causes to the environment under our plans. Under the proposed plan:

- By 2035, the environmental impacts of 75% of overflows affecting our most important protected sites will have been eliminated;
- By 2035, there will be 70% fewer discharges into bathing waters;
- By 2040, approximately 160,000 discharges, on average, will have been eliminated; and by 2050, approximately 320,000 discharges, on average, will have been eliminated.

Water companies will be encouraged to accelerate these timelines wherever possible while balancing the impact on consumers. The Government expects costs on water companies to deliver this programme will reduce through innovation, better asset management and maintenance, and identifying more effective local solutions. We will monitor the delivery programme, and the Government will not hesitate to set faster delivery timelines for targets if delivery costs reduce.

The consultation also outlines how water companies are expected to achieve these targets, including mapping their sewer networks, reducing surface water connections and engaging in long-term collaborative planning.

The Government and regulators will take action against those companies who do not meet expectations. Our new monitoring and reporting framework as legislated for in the Environment Act, will significantly improve the enforcement ability of both Ofwat and the Environment Agency.

We are also reducing agricultural pollution with regulation, financial incentives and advice schemes for farmers. We have doubled investment in the successful Catchment Sensitive Farming programme, with its annual budget rising to £15 million by the 2022/23 financial year, which means that 100% of England's farmers will be able to access free, expert one-to-one advice. The new environmental land management schemes will also play a major role in rewarding farmers for actions that improve water quality. The first payments being offered under these schemes, for soil management under the Sustainable Farming Incentive, will help to reduce nutrient and sediment pollution into water courses this year. Funding will also be made available for farmers to improve their slurry infrastructure

from autumn 2022. We have also made extra budget available to the Environment Agency for 50 extra inspectors to be recruited in this financial year to enable at least 4000 farm visits per year and 500 sewerage inspections.

Defra has also recently published guidance on the Farming Rules for Water. This will raise standards of nutrient pollution management by setting clearer expectations for farmers.

Our farming reforms – the most significant changes for the sector in 50 years – will tackle the environmental pressures from agriculture.

We are also investing actively in river restoration. This includes a package of £2.7 billion investment from water companies as part of their green recovery plans to help build back from the pandemic. In addition, our £40 million Green Recovery Challenge Fund will kick start projects, including restoration of peat and tree planting which will improve and protect aquatic habitats. We expect new policies being rolled out, such as Biodiversity Net Gain and our work to unlock green finance flows, will further drive investment into our rivers and water bodies.

In January 2022 we published more information on some of the expected outcomes from the environmental land management schemes. These confirmed that alongside food production we will look to bring up to 60% of England's agricultural soil under sustainable management through our schemes by 2030, create or restore up to 300,000 hectares of habitat and bring over half our Sites of Special Scientific Interest into favourable condition by 2042. Additionally, we expect to restore and maintain up to 200,000 hectares of peatland in England by 2050. These protections for soil and peat and direct river restoration through Local Nature Recovery will benefit riverine habitats and aquatic biodiversity.

Government response to the recommendations

The Government has carefully considered the committee's recommendations and key conclusions in formulating its response below. As the committee recognised in its recommendations, the management of water requires a combined effort from a number of departments and arms-length bodies. This response is a collective response from Government, the Environment Agency, and National Highways. The committee also made a number of recommendations to independent regulator Ofwat and one recommendation directed at the Sentencing Council. We have included these independent bodies' responses to those recommendations as part of this response.

Assessing water quality in rivers in England

1. **Improving the quality of the water in rivers in England should be considered a principal objective through which the Government and public bodies can deliver on the legally binding duty, established in the Environment Act 2021, to halt the decline in domestic species by 2030.** (Paragraph 38)

The Government agrees with this recommendation. We know that our historic target to halt the decline in species by 2030 will not be achieved without action to improve water quality and abundance in water-dependent natural habitats. Rivers, lakes, ponds, wetland, coastal habitats and the sea form natural corridors and stepping stones for wildlife that intersect and connect many landscapes. Improving water quality is also vital for restoring many of our protected sites, which are the jewels in the crown for British nature, and

for improving biodiversity generally. As set out in our consultation on the targets under the Environment Act, we expect several freshwater species to be included in the species abundance indicator which will directly track our progress in halting the decline in species in our environment.

2. **We recommend that the Secretary of State for Environment, Food and Rural Affairs commission, in conjunction with the devolved administrations, a UK-wide survey of emerging pollutants and microplastic pollution of river environments, including an assessment of their potential impact on aquatic ecology.** (Paragraph 42)

The Government is already taking action through research projects as part of the Natural Capital Ecosystem Assessment to confirm suitable monitoring and assessment methodologies for water quality, sediment and ground water samples. We are also currently developing a chemicals strategy which will set out our immediate priorities, alongside any actions we will need to take to achieve safer and more environmentally sustainable management of chemicals for present and future generations. We recognise the important links between this work and restoring water quality.

We have also developed a Prioritisation and Early Warning System (PEWS) for chemicals of emerging concern to ensure consideration of the potential risks of emerging chemicals to surface waters (both freshwater and saline waters), groundwater, soils, biota and sediments. The system allows us to sift and screen any chemical substance nominated using, where available, hazard data and environmental monitoring data to prioritise whether a substance may be a possible chemical of concern in England.

Through the Environment Agency, we are investing in cutting edge analytical techniques and are planning to scan for over 1,500 specific chemicals in the surveillance network across watercourses, and continually review and add to the list of chemicals to look for. To supplement this targeted analysis, we are developing non-target screening in water, biota and sediment allowing the detection of the presence of more than 65,000 different chemicals.

Water quality is a devolved matter and there is existing, strong coordination in this area across the UK administrations, not least because river basin management planning covers cross border river basin districts. At the working level, the UK Technical Advisory Group (UKTAG) comprises experts drawn from UK environment agencies and conservation agencies. The UKTAG develops guidance and makes recommendations to the UK's administrations on technical aspects of implementation of the water quality regulations and river basin management planning. It operates through a series of technical task teams established for specific subjects including chemicals, marine waters, water resources, groundwater and fresh water. Through this work, we have a good picture of the UK's water environment overall.

3. **Protecting rivers where important species such as the North Atlantic salmon are known to be in danger must be a priority for the Environment Agency. Pollution levels in these rivers must be reduced as a matter of urgency.** (Paragraph 43)

The Government agrees with the need for urgency in taking action to protect and recover endangered species.

With regards to threatened salmon populations, we have been working to build the evidence base regarding the complex impacts on this species to ensure policy responses are based on the best science. The evidence from the 25 Year Plan B7 Indicator received by the committee showed that 39 of the 42 salmon rivers in England were 'at risk' or 'probably at risk'. It is incorrect, however, to say that river water quality is singularly the reason for the decline in salmon stocks. These populations are affected by marine pollution, over-fishing and more recently, climate change. Even a small rise in river temperature affects the survival of salmon smolts. To conserve and restore England's salmon populations, Defra has published the England and Wales Salmon Implementation Plan 2019–24 for NASCO (North Atlantic Salmon Conservation Organisation) which sets out the key priorities for action.

Optimising conditions in freshwater to maximise the production of healthy wild salmon smolts and survival of returning adult salmon is centre stage. To achieve this, there are five priorities as set out in the Environment Agency's Salmon 5-Point Approach:

(1) Improve marine survival

(2) Further reduce exploitation by nets and rods

(3) Remove barriers to migration and enhance habitat

(4) Safeguard sufficient flows

(5) Maximise spawning success by improving water quality

The Environment Agency are also actively working with partner organisations to further improve the evidence base relating to migratory salmonid populations within inshore coastal waters.

Rivers fit to swim in

4. **Following the work streams of the Pathogen Surveillance in Agriculture, Food and the Environment programme on antimicrobial resistance, we recommend that the Government bring together farming groups and water companies to decide on a programme of action to reduce opportunities for resistance to develop in the water environment**. (Paragraph 54)

The Government agrees that engaging stakeholders on antimicrobial resistance in the environment will be a valuable step following the Pathogen Surveillance in Agriculture, Food and the Environment programme.

We are already engaging with water companies and UK Water Industry Research on their Chemicals Investigation Programme which includes work to help better understand the possible contribution from water industry assets and releases (both effluent and sludges) to the spread of antimicrobial resistance. Catchment partnerships also create a highly successful mechanism for local stakeholders, including water companies and farming groups, to work together on various water quality issues affecting catchments. We are expanding our evidence base all the time and we will also look to engage directly with farming groups to identify actions and opportunities for reducing resistance in the water environment.

5. **We welcome the Environment Act's inclusion of a requirement on water companies to reduce the impact on public health of sewage discharges. We recommend that this includes consideration of antimicrobial resistance.** (Paragraph 55)

The Government recognises the scale of the threat of antimicrobial resistance (AMR) and the need to take concerted action across sectors to tackle it. In 2019, the Government published a '20-year Vision' on AMR, in which resistance is effectively contained and controlled, and a five-year National Action Plan to tackle AMR within and beyond our own borders, to ensure progress towards the Vision. We agree it is important to reduce the AMR public health impact of sewage discharges and we are expanding our evidence base to inform our understanding and how to measure it. The Government recently established a £19m Pathogen Surveillance in Agriculture, Food and the Environment project which will strengthen our understanding of antimicrobial resistance in the environment, including the relative importance of different sources (including sewage overflows) and transmission routes.

Defra and the Environment Agency are also engaging with the water companies' Chemicals Investigation Programme which has a workstream focussed on assessing the possible contribution from water industry assets and releases (both effluent and sludges) to the spread of antimicrobial resistance. Improving our understanding of the prevalence of antimicrobial resistance in various stages of wastewater treatment will help manage the contribution from sewage overflows.

6. **We recommend that the Government actively encourage the designation of at least one widely used stretch of river for bathing in each water company area by 2025 at the latest. In their Business Plans for Ofwat's Price Review 24, each water and sewerage company should set out how they intend to work with stakeholders to support further applications for the designation of river bathing waters in their area, and to continue the process in subsequent Price Reviews.** (paragraph 69)

Anyone, including water companies, can apply for a new bathing water designation and the Government then considers those applications. We encourage applications for new bathing water designations annually and are actively exploring ways to make the application process more accessible to build on this.

To be eligible for designation, a bathing water must meet the criteria set for designation in the Bathing Water Regulations 2013, primarily that sites must have a large number of bathers and that bathing is promoted through adequate infrastructure and facilities. Local stakeholders are best placed to know which popular bathing areas may be suitable for designation.

In 2021 two water companies, Severn Trent and South West Water, successfully applied to the Green Recovery Fund to undertake improvements across their network in order to create bathing water quality stretches of river in their areas.

To make it easier for water community groups to understand the criteria for bathing water status and ensure only necessary information is requested, this year the Government will revise its existing guidance on how to make an application for a new bathing water designation.

7. **We recommend as a matter of urgency that the Environment Agency work with water companies to ensure that easily accessible information on sewage discharges in waterways in as near to real time as possible is made available to the public, as now required under the Environment Act 2021.** (Paragraph 70)

We agree that the quality and transparency of public data on sewage overflows must be improved. The Government is already working closely with the Environment Agency, the Storm Overflows Taskforce and the water industry on relevant proposals to enable this and ensure accountability. Water companies have committed to bring forward full event duration monitoring by 2023. The Environment Act also introduced a duty for water companies to monitor the water quality up and downstream from their assets and we will be bringing forward more detail on this in due course.

8. **Signage should also be provided at commonly frequented bathing sites downstream from wastewater treatment works with information about how to access the data on recent discharges.** (Paragraph 70)

The Government agrees it is important bathers have access to timely information on water quality. Under the Bathing Water Regulations 2013, designated bathing waters are required to have signage, which is the responsibility of the local authority, and it is mandatory for that signage to display water quality information. In addition, the Environment Agency's Pollution Risk Forecasting service makes daily pollution risk forecasts for a number of bathing waters where water quality may be temporarily reduced due to factors such as heavy rainfall, wind or the tide. This is currently available at over 170 waters.

Government will also consider what further steps we can take in the future to improve the timeliness and usefulness of information that the public are given about water quality in order to make informed choices before they enter the water. We will make use of learning from existing trials such as using sensor technology to indicate water quality, and other apps and websites which give more timely information.

9. **We recommend that DEFRA ensure its Environmental Land Management Scheme supports action by farmers with land adjacent to designated waters to minimise the risk of any faecal contamination from livestock which might pose a risk to bathing water quality.** (Paragraph 71)

We agree that environmental land management schemes should support farmers to take positive action to improve water quality. Many of the actions that environmental land management schemes will incentivise will help reduce all major forms of pollution, including faecal pollution and nutrients. This includes the actions under the Sustainable Farming Incentive that we will incentivise this year, for example, to introduce cover crops to reduce run off and improve crop yields by minimising the wastage of valuable nutrients while improving soil health.

Alongside this, the Government is expanding the Catchment Sensitive Farming (CSF) partnership to ensure farmers in all of England can access free, in person advice on water quality. CSF officers, based locally, will be ideally placed to help farmers understand the water quality priorities of their area, such as bathing waters at risk of agricultural pollution. In areas draining into bathing waters, such advice will help farmers choose the incentive, grant and voluntary based actions that will best achieve bathing water quality standards.

10. **Designation of bathing waters must go hand in hand with further measures to preserve and improve riverine biodiversity.** (Paragraph 72)

The Government agrees that protecting public health through designating bathing waters, in particular rivers, should complement ecological status. We believe that measures to reduce bacterial load in the water to meet bathing water classifications should have a positive impact on ecology (for example reduction in spills from storm overflows and reduction in diffuse agricultural pollution; both of which lead to nutrient loading).

As the committee's report acknowledges, however, these are different targets and public health measures which are important to meet bathing water microbial standards (e.g. UV disinfection of treated waste water), do not necessarily improve the ecological health of rivers. For example, sewage effluent treated with UV disinfection for public health reasons can still contain high levels of phosphorus, which can damage habitats.

Our aim is to restore good ecological status and river bathing designation may offer mutual benefits in achieving this in relevant locations.

Agricultural pollution

11. **Development of catchment sensitive farming will require calculations of the overall nitrogen and phosphorous load for farmland and river catchments. We therefore recommend that DEFRA commission a periodic (five yearly) appraisal of catchment-wide nutrient flows across each of the major river catchments in England. Such appraisals should then be used by local authorities and planning authorities to inform decisions on new housing developments and intensive livestock units, taking into account the cumulative impact of such developments on river catchments.** (Paragraph 107)

We agree that the monitoring of farm pollution and its impact on the water environment is important. The Environment Agency regularly carries out extensive modelling and monitoring of the water environment to detect nutrient flows across catchments, alongside trends in other existing and emerging pollutants. This monitoring and modelling would be used to help measure progress in achieving our proposed legally binding long term environmental target to reduce phosphorus, nitrogen and sediment pollution from agriculture by 40% by 2037. Alongside this, we plan to develop a national inventory showing the inputs used in the modelling to ensure transparency and accountability.

The Government is concerned by the stalling effect of nutrient neutrality on new housebuilding and the planning system. We will focus on reducing pollution at source as a priority, to ensure that sites can be recovered, as well as supporting sustainable development in catchment areas affected. The Government agrees that planners should understand risks to the water environment when considering granting permissions, but care should be taken in balancing the role of different public bodies in managing pollution risks. DLUHC have provided Local Planning Authorities (LPAs) with funding for a catchment officer to help identify nutrient mitigation to allow development to continue, and Natural England are proactively working with LPAs to ensure mitigation is appropriate and sufficient. We must ensure that planning authorities are not required to

consider matters outside of their expertise or expected to become involved in regular farm management activities that could place a heavy additional burden on the planning system. The relevant regulator in this case is the Environment Agency.

12. **We further recommend that planning authorities in England establish a presumption against granting planning permission for new intensive poultry or other intensive livestock units in catchments where the proposed development would exceed the catchment's nutrient budget, unless evidence is presented of robust mitigation plans in place that are demonstrably effective in reducing the accumulation of phosphate and nitrate loads in soils and river sediments within sensitive areas in the catchment.** (Paragraph 108)

The Government does not agree that planning authorities should adopt a broad policy against farming infrastructure. As the NPPF sets out that planning policies and decisions should contribute to and enhance the natural and local environment, preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans.

As outlined above, we are rolling out a package of support to help farmers and land managers manage their nutrients sustainably including through environmental land management schemes, Catchment Sensitive Farming and guidance on regulations. The Government is providing £100,000 to the catchments of habitats sites adversely affected by nutrient pollution, to promote partnership working across stakeholders and begin to identify solutions to the issue of nutrient pollution.

13. **The Farming Rules for Water ought to be amended over time so as to reduce phosphorus surpluses in land and water and thereby improve water quality. This must be done in a way that promotes cooperation from farmers.** (Paragraph 125)

The Government agrees that minimum standards for mitigating water pollution from agriculture should evolve over time to improve water quality by reflecting best farming practice, technological innovation and the needs of consumers.

The Government is already taking action to improve the effectiveness of the regulatory framework. Defra has issued guidance on the Farming Rules for Water to provide clarity on what is expected of farmers to make best use of organic manures to reduce nitrate, phosphorus and sediment pollution. The slurry infrastructure grant scheme, explained in more detail below, is a further key part of this package of measures.

14. **We recommend that the Environment Agency work with DEFRA to intensify its work in the inspection and, where necessary, remediation of large animal slurry stores. Where remediation is required, funding from the Slurry Investment Fund should be made available to support the work.** (Paragraph 127)

The Government is committed, in the Agricultural Transition Plan, to make funding available for farmers to improve their slurry infrastructure (including storage and covers) from autumn 2022. We are currently co-designing the grant offer with farmers, experts, sector representatives, and regulators and will be publishing details of the offer shortly.

The slurry infrastructure grants will be offered under the Farming Investment Fund's Farming Transformation Fund. Through the Farming Equipment and Technology Fund (the small grants scheme of the Farming Investment Fund), we are currently offering funding for separation, scraping and precision-spreading techniques, enabling farmers to start making upgrades and improvements to their slurry systems.

15. **The Government should commission an independent evaluation of the potential risks to human health and the environment of spreading sewage sludge, with all the pollutants it contains, on farmland.** (Paragraph 128)

The chemical complexity of incoming sewage has changed in recent years, and work is already underway to improve our understanding of the emerging risks. The 'UK Water Industry Research Source to Sea' microplastics study has provided valuable insight. The current water industry Chemical Investigations Programme report, due April 2022, will provide additional evidence, and we will be extending sludge investigations into chemicals and microplastics as part of the next round of water industry investment (following the next water industry Price Review).

The Government is working with the Environment Agency on developing policies to ensure safe and sustainable sludge use by farmers and other businesses. This includes publication by the Environment Agency of its strategy for safe and sustainable sludge use. We are considering options for modernising the regulatory framework used to manage the risk of sewage sludge use on agricultural land, such as permitting. We are aware of the need to continue to monitor and address the risks posed by chemicals, microplastics and antimicrobial resistance in treated sludge which is spread to land.

16. **We recommend that the water industry work urgently with the Environment Agency and the farming sector to assess and mitigate the clear risk of microplastic pollution from this practice, and to develop a comprehensive plan for the separation of microplastics from biosolids at wastewater treatment works.** (Paragraph 129)

The Government agrees the risks associated with microplastics need to be assessed and effectively mitigated.

As noted in response to recommendation 16, alongside other areas of work, the UK water industry funded Chemicals Investigation Programme is improving our understanding of the hazards of microplastics in wastewater. This will include research into the pathways of microplastics through wastewater and methods to improve wastewater management and the use of resulting sludge by-product. Investigations into the risk of microplastics will continue through the next water company investment cycle. To make progress in the short term, the water industry, with support of the Environment Agency, are making changes. For example, six water companies have installed containment measures to prevent the loss of bio-beads from wastewater treatment.

Sewage pollution

17. **We recommend that the Environment Agency either develop the in-house capacity or tender for external assistance necessary for the analysis of the volume of data generated by Event Duration Monitors and for the establishment of techniques to identify discharges which are likely to breach permit conditions.** (Paragraph 169)

As part of the Improving Water Company Performance Taskforce, the Environment Agency is currently developing systems to analyse the data generated by Event Duration Monitors (EDMs) and establishing techniques to identify discharges which are likely to breach permit conditions.

18. **Technology for continuous monitoring of water quality is evolving rapidly. We recommend that the Environment Agency invite manufacturers to submit products for evaluation so that the Agency can rapidly introduce cost-efficient and effective sensors at an increased number of locations.** (Paragraph 170)

The water industry is required, under the Environment Act, to install continuous monitors upstream and downstream of all its sewage discharges. The Environment Agency will supplement this with their ongoing use of continuous water quality monitors to investigate pollution sources from all sectors. The development of cost-efficient and effective sensors is largely a matter for manufacturers. The Environment Agency do not have a role in product evaluation.

19. **We recommend that water companies take immediate steps to install volume monitors at all points where overflows may discharge from their sewerage networks, so as to provide continuous real-time monitoring of the volume of discharges consistent with the provisions of the Environment Act 2021. Drainage and sewerage management plans should include a clear plan for volume monitoring and a clear timetable for its implementation, and water companies should publish regular reports on progress towards full implementation.** (Paragraph 173)

The Government does not accept this recommendation. The Environment Act requires notification of spills occurring within 1 hour of the discharge (141DA) and continuous monitoring of the environment (141DB).

Measurement of volume is limited by technical feasibility and cost, and therefore requires further consideration of how it could be implemented effectively. The provisions of the Environment Act requiring the sewerage undertaker to continuously monitor the quality of water upstream and downstream of an asset (either storm overflows or sewage treatment works) will be consulted on, with the associated detail on precisely what specific indicators should be monitored as part of this continuous monitoring, later in 2022.

The Government has also been clear that we expect water companies to reduce their reliance on sewage overflows as a priority, and so it is important that the appropriate balance is made between investment in transparent monitoring and data sharing with the public, and investment in the infrastructure and other solutions needed to reduce the use of overflows and their harm.

20. **We recommend that Ofwat and the Environment Agency require each water and sewerage company in England to publish on its website, by the end of 2022, details of its discharge permits, its permit compliance, and full granular 15-minute data on spill duration, volume and water quality, to a standard format which facilitates easy capture and analysis by members of the public.** (Paragraph 180)

The Government is currently exploring the best way to make data generated by the Environment Act duties available to the public. The annual summary returns of spills as required from the Environment Act 2021 (141C & 141D) provide the high-level picture

that most stakeholders require. Publishing the volume of discharge and quality of the water receiving discharge, where measured, is also supported and is already a requirement of the Environment Act 2021.

Response provided by Ofwat to the recommendation at paragraph 180

Ofwat agree that reporting needs to be suitably detailed, accessible and transparent to all, and note companies have existing obligations in relation to environmental information under the Environmental Information Regulations 2004, which they expect them to comply with. Ofwat will continue to work with the Environment Agency to make progress on improving reporting by the end of 2022. Water companies should be reporting in a standardised and comprehensive way on the details of their discharge permits, permit compliance and spill data. The Environment Agency, companies and other key stakeholders are best placed to identify the optimal monitoring requirements.

As the Committee sets out, the statutory requirements on monitoring and transparency introduced by the Environment Act 2021 will establish a welcome baseline. This, along with the existing monitoring and reporting requirements and those commitments agreed through the work of the storm overflows taskforce, will help ensure that water and sewerage companies are making their data transparent and accessible to regulators and the public. Important for achieving this will be the acceleration of installing event duration monitors. As more data becomes available, Ofwat will work with the Environment Agency to keep our regulatory approach under review, including assessing whether future regulatory action is required.

Alongside this, Ofwat are making the case for more open data in the water sector. Across the sector Ofwat have seen some good practice, but very few companies have introduced open access to their data sets.

21. **We recommend that Ofwat require water companies, as a condition of their continued licensing, to deliver year-on-year reductions in the number of pollution incidents, with a target of zero serious incidents by 2030.** (Paragraph 189)

Ofwat welcome the committee's recommendation and want to see serious pollution incidents reduced to zero by 2030. Serious pollution incidents are not acceptable, and Ofwat have taken action to incentivise the reduction of such incidents and will continue to do so. The Government's revised Strategic Policy Statement for Ofwat includes an expectation for Ofwat to 'challenge water companies to demonstrate how they will achieve zero serious pollution incidents by 2030' which will provide a clear signal to companies of the importance of achieving zero serious incidents.

All water companies have reduced the number of pollution incidents following directions from the Environment Agency in 2013, and our introduction of outcome-based regulation in 2015. We have seen the number of pollution incidents reduce from the peak in 2012 and all companies delivered reductions in pollution incidents over the 2015–20 period, with a sector average reduction of 36%. In addition, Ofwat expect a further reduction of 30% over the 2020–25 period. In 2020, while some companies exceeded these expectations, South West Water's and Southern Water's performance was extremely poor and these two companies were responsible for over a third of the incidents reported by the sector, which is disproportionate to the size of their operations. For their underperformance

on pollution incidents, South West Water will return £13.8 million to customers while Southern Water will return £7.7 million. If these companies do not improve, the amounts they will have to return to customers will progressively increase year on year.

As companies reduce the number of total pollution incidents, we tend to see the number of serious pollution incidents fall as well. For instance, United Utilities reduced pollution incidents by 55% between 2012 and 2021. Of these, there were five serious pollution incidents in 2012, but United Utilities have seen progressive reductions, reporting zero serious pollution incidents in 2019 and 2020. Ofwat expect all companies to similarly progressively reduce total pollution incidents, reaching zero serious pollution incidents as soon as possible.

Ofwat have also been working closely with stakeholders on reducing pollution incidents through, for instance, the Water Investment Nature Environment Programme (WINEP), drainage and wastewater management plans (DWMPs), and the Storm Overflows Taskforce. Ofwat will need to consider carefully how best to support the proposed outcome in this recommendation. At this point, Ofwat consider that strong financial incentives are likely to be the best means of achieving zero serious pollution incidents rather than amending company licences. Ofwat are working closely with the Environment Agency to ensure that any pollution targets that are included in our price review for the 2025–30 period complement the Environment Agency's existing regulatory framework and are looking at the interactions between our regulation and the legal action that the Environment Agency can take.

22. **We recommend that the Environment Agency reclassify significant sewage spills from storm overflows into watercourses in dry weather as pollution incidents, irrespective of permit compliance.** (Paragraph 191)

The Government agrees with this recommendation. The Environment Agency already records storm overflows operating in dry weather as pollution incidents.

23. **We recommend that the Environment Agency urgently review its practices in auditing the self-monitoring of wastewater treatment works by water companies. The Agency should also review its approach to enforcement and seek to reduce the interval between detection of permit breaches and prosecution.** (Paragraph 205)

The Government agrees with this recommendation. The Environment Agency is currently reviewing its practices in the auditing of self-monitoring of wastewater treatment works by water companies through the Improving Water Company Performance Taskforce. The Taskforce is already delivering with new audit training for officers beginning in early March. The work will continue throughout this year.

The new requirement under the Environment Act to provide real-time monitoring will also provide new intelligence to support the Environment Agency's regulatory work, including investigations into permit breaches.

The Government has been repeatedly clear that any issues of non-compliance need to be urgently addressed and remains in contact with the regulators about any fines, prosecutions or other enforcement action that is deemed necessary.

24. **We further recommend that, in the interests of promoting public confidence in the criminal justice system and reducing the likelihood of reoffending, the Sentencing Council review the sentencing guidelines for water pollution offences. In our view, penalties for such offences should be set at a level that will ensure that the relevant risk assessments are routinely on the agenda of the boards of each water company.** (Paragraph 206)

The independent Sentencing Council will consider the recommendation in due course. Any changes to sentencing guidelines would be subject to public consultation.

25. **We recommend that Ofwat examine the scope of its existing powers in respect of water company remuneration, with a view to limiting the awards of significant annual bonuses to water company senior executives in the event of major or persistent breaches in permit conditions.** (Paragraph 207)

It is important that the regulatory framework incentivises companies to improve environmental performance and penalises companies when they fall short. This should be reflected in the returns to investors and in performance related pay incentives applicable to senior executives.

As part of the 2019 price review, Ofwat set out its expectation that policies for both short and long-term performance related executive pay should demonstrate a substantial link to stretching performance delivery for customers, including environmental performance. Water companies are monopoly providers of an essential public service, so it is vital that customers and other stakeholders are able to understand how companies make decisions on executive pay, and how this is linked to underlying performance.

Ofwat also set out its expectation that companies' remuneration committees should ensure there is ongoing rigorous challenge as to how companies apply their remuneration policies, that targets should remain appropriate and stretching throughout the 2020–25 period, and that only truly stretching performance should be rewarded.

These expectations were reflected in Ofwat's updated board leadership, transparency and governance principles which have applied since 1 April 2019. Companies' licences now require them to ensure that the board's leadership and approach to transparency and governance engenders trust in the company and ensures accountability for its actions.

Against this background, where a company underperforms, including breaching permit conditions, this should be reflected in the awards made. On 18th February 2022, Ofwat wrote to the chairs of company remuneration committees to underscore its expectations against the backdrop of ongoing public concern on environmental issues.

Ofwat will continue to examine this issue and consider whether further steps are required, as we monitor delivery and company decision-making over the Price Review 19 period.

26. **We recommend that Ofwat prioritise the long-term investment in wastewater assets as an essential outcome of its price review process.** (Paragraph 234).

Ofwat continue to prioritise long-term investment by focusing their regulatory approach to support long term customer and environmental outcomes. Alongside investment, it will be important for the water industry to innovate, make use of nature-based solutions, and

work collaboratively. We have signalled the importance of resilient wastewater services and the increased use of nature-based solutions in the recently published Strategic Policy Statement for Ofwat.

Ofwat supports companies investing for the long term and demonstrated such support in PR19, with £7.1 billion already being invested in the environment, including £3.1 billion specifically on storm overflows.

Given the challenges we face, Ofwat is increasing its focus on the long term in PR24. Ofwat's five-year price reviews are staging posts in the overall trajectory toward improved long-term outcomes. With that in mind, Ofwat have proposed that companies will be required to develop long term delivery strategies. Through these plans companies will need to think carefully about how they sequence their activities and investments over the next 25 years and beyond, in line with wider strategic planning frameworks such as Drainage and Wastewater Management Plans. Water companies will need to demonstrate that their investments are explicitly linked to their long-term strategies.

Ofwat is establishing a package of common performance commitments to measure long term outcomes. This will help to increase the confidence of companies that in the future, the regulatory regime will recognise the benefits of long-term investments through our outcome delivery incentives (ODIs) regime, which incentivises companies to meet service levels, and to exceed them where this is expected to deliver greater value.

Ofwat continue to actively engage with the industry and other stakeholders to understand whether there is more that we can do in our cost assessment approach to better take account of the long-term.

27. **We further recommend that Ofwat incentivise the use of nature-based solutions in wastewater management, including ongoing funding for maintenance and operation.** (Paragraph 234)

In the Strategic Policy Statement for Ofwat, the Government has made clear its expectation that Ofwat will support an increase in the use of nature-based solutions where appropriate and act in the interests of the environment and customers.

Ofwat is committed to improving environmental outcomes and agree with the recommendation to incentivise the use of nature-based solutions. The sector faces multiple challenges, and to be able to meet them, will need to deliver sustainable solutions.

In its strategy, Ofwat stated that it will encourage companies to make more use of nature-based solutions, including Sustainable Drainage Systems (SuDS). For the 2020–25 period, we allowed funding for investment in a substantial amount of wastewater assets and nature-based solutions, and Ofwat will continue to support investment where it is needed. For example, the Green Recovery package (totalling an additional £2.8 billion of environmental investment) allowed £100 million of funding for investment in catchment management and nature-based solutions.

In the 2014 price review, Ofwat introduced a total expenditure ('totex') framework. A totex framework allows companies to choose between capital and operating solutions, helping to improve incentives for companies to bring forward nature-based solutions. Nature-based solutions can require ongoing management and operating expenditure,

relative to conventional treatment solutions which tend to be capital expenditure. As part of PR24 Ofwat is actively considering whether we can do more to incentivise nature-based and other operating expenditure-based solutions and encourage a substantial increase in investment in this type of solution. In their engagement with stakeholders on the design of the next price review, Ofwat is explicitly asking for views on how they can further encourage companies to collaborate and work in partnership with others, such as on nature-based solutions, to achieve better outcomes for customers and the environment.

Ofwat is also a driving force, alongside Defra and the Environment Agency, behind the Water Industry National Environment Programme (WINEP) taskforce. An outcome of the taskforce is to ensure that from now on, nature-based solutions are truly on a level playing field with other solutions and that they are considered 'by default'. With Defra, the Environment Agency, the Drinking Water Inspectorate and Natural England, Ofwat has been part of the nature-based solutions regulatory group which was set up to explicitly look at any regulatory barriers that may stand in the way of greater adoption. The work is now being taken forward by the Catchment Based Approach (CaBA) group and Ofwat is working with its members to achieve the step change we need to see with the uptake of nature-based solutions

28. **We intend to invite the regulator to appear before this Committee routinely to discuss Ofwat's progress against the objectives of the new Strategic Policy Statement for the regulator which is shortly to be published by Ministers.** (Paragraph 235)

The Government agrees with this recommendation. Ofwat is legally accountable to Parliament and therefore the Government accepts that the committee can invite the regulator to discuss progress against the Strategic Policy Statement.

29. **We recommend that Ministers publish their assessment of every possible option to reduce system pressures on existing infrastructure, while also examining the case for significant capital works, when preparing the statutory report on elimination of storm overflows due by September 2022.** (Paragraph 237)

The statutory report on the elimination of storm overflows will examine the case for significant capital works and where elimination may be the correct approach, while accepting cost limitations to replicating this approach at every overflow. It will also examine the main options for reducing pressures on existing infrastructure as part of the overall ambition to progressively reduce the harm caused. This will be consulted on in Spring 2022 and will include ambitious targets to reduce storm overflow discharges.

30. **We recommend that Ministers and the Environment Agency should set challenging improvement targets and timetables for this progressive reduction to inform the drainage and sewage management plans to be drawn up by each water company. The first round of these plans should clearly indicate significant ambition, by setting a stretching timetable for progressive reductions in the use of overflows.** (Paragraph 243)

The Government welcomes this recommendation. The Strategic Policy Statement makes clear that the current number of discharges is unacceptable and water companies must significantly reduce the discharge of sewage from storm overflows. The outcomes we expect water companies to meet on storm overflows will be set out in the Storm Overflows Discharge Reduction Plan. The ambitious targets being consulted on will eliminate ecological harm from storm overflow discharges and water companies will be

expected to bring forward plans to achieve these targets as part of their Drainage and Sewerage Management Plans. Water companies should set out how they will improve the performance of their drainage system, including reducing discharges, through drainage and wastewater management plans as required by the Environment Act 2021.

Surface drainage and urban pollution

31. **The water and grease management industry must develop standards for the sectors which use FOG routinely to collect and dispose of such responsibly without it entering the drainage network. We further recommend that Ministers work with the water industry to consider whether fats, oils and greases should be classed as a trade effluent and all takeaways and food outlets required to install grease management systems.** (Paragraph 263)

Fats, oils and grease should be recycled, or disposed of, in adherence to guidance from the relevant local authority or waste collection company. As part of reforms to improve recycling consistency and roll out universal separate food waste collections in England, last year, we consulted on proposals, including a proposed list of materials that will be included in the food waste stream. We are currently analysing responses to the consultation and developing final policy positions – the final list of materials that should be collected in the food waste stream will be included in our Government response to the consultation which we intend to publish in early 2022.

32. **The use of plastic in single use sanitary products should be prohibited, with exemptions only provided for medical requirements. We urge the Government to adopt the measures outlined in the Plastics (Wet Wipes) Bill to prohibit the manufacture and sale of single use cleaning and hygiene products containing plastic. The Government should further incentivise the reduction of waste and recoup costs by using new powers in the Environment Act to extend Extended Producer Responsibility schemes to cover single use cleaning and hygiene products that cause blockages.** (Paragraph 265)

We know that wet wipes and other sanitary products can cause huge damage to sewers when incorrectly flushed away. As a result, we launched a call for evidence on problematic plastic items, which included questions exploring options to tackle the issues caused by wet wipes. The call for evidence closed on 12th February and we are currently analysing the responses received to inform our next steps. Further details will be shared in due course.

In the call for evidence, we sought views on a mandatory 'flush-ability' standard; mandatory labelling to indicate how wipes should be disposed of, an extended producer responsibility scheme; and a ban on wet wipes containing plastic with exemptions for medical purposes (as outlined in the Plastics (Wet Wipes) Bill).

While there are currently no plans to ban the sale of disposable nappies, we recognise the issues associated with absorbent hygiene products (AHPs) such as nappies, including the environmental impact of plastics. In line with our Resources and Waste Strategy for England, we are considering the best approach to minimising the environmental impact of a range of products, including AHPs, taking on board the environmental and social impacts of the options available.

There are a number of policy measures available to us, including standards and consumer information, as well as encouraging voluntary action by business. The Environment Act 2021 contains new powers that will enable us, where appropriate and subject to consultation, to introduce eco-design and consumer information requirements including labelling schemes that provide accurate information to consumers and drive the market towards more sustainable products. We believe the right approach for each product requires careful consideration taking account of various factors, for example, waste benefits versus energy usage. Work is nearing completion on an environmental assessment of washable and disposable absorbent hygiene products with the primary focus on nappies. This is looking at carbon and wider environmental impacts of washable and disposable products, disposal to landfill and incineration, and recycling options. There will also be a literature review covering other AHPs. The research will be published in due course, following peer review, and will help inform possible future action on nappies by Government and industry.

33. **We recommend that Ministers examine how the proposed Extended Producer Responsibility scheme for tyre manufacturers could contribute to the swifter implementation of mitigation measures across the road network.** (Paragraph 275)

In line with the Resources and Waste Strategy, the Government is committed to reviewing and consulting on Extended Producer Responsibility schemes for five important waste streams, including tyres, by 2025. The scope of the review on tyres is still to be determined.

The Department for Transport commissioned a two and a half year research project in February 2021 aimed at better understanding the measurement techniques, material properties and control parameters of brake and tyre wear emissions from road vehicles. This project will inform policy and legislation aiming at reducing these emissions on a domestic and international level.

Work is soon to begin within the United Nations Economic Commission for Europe to develop an internationally harmonised method for measuring the abrasion rate of tyres. This could, in future, enable the regulation of tyres to reduce their abrasion rate.

34. **We repeat our call for the Textiles 2030 scheme to incorporate the reduction of microplastic pollution in its targets.** (Paragraph 275)

The Waste and Resources Action Programme (WRAP) co-design the targets with 'Textiles 2030' members. The Microfibre Consortium is a signatory to the initiative and WRAP are working with them on the Textiles 2030 Roadmap to better understand the microfibre issue. While we will encourage Textiles 2030 to consider what the textiles industry can realistically do to reduce microplastic pollution, it is not appropriate to introduce a new target, especially as evidence on the impact, sources, and potential preventive measures are not conclusive.

35. **We recommend that National Highways accelerate its programme of installation of improvements to highways drainage in England, particularly at the 1,326 outfalls and soakaways considered to be high risk, to capture and filter polluting run-off before it enters watercourses and groundwater.** (Paragraph 288)

The Department for Transport and National Highways agree that a level of increased ambition and delivery in this area should be supported and we will examine the feasibility of using existing funds in the current road period (2020–2025) to support this where possible. National Highways is working on an environmental sustainability strategy for the future which will incorporate these issues. The Department for Transport is currently developing the third Road Investment Strategy (2025–2030) which provides an opportunity to set out our performance requirements and the associated funding required. As this is a future planning round in process, it is not possible to make a commitment at this time.

36. **We recommend that National Highways devote a greater proportion of its environmental budget to the mitigation of outfalls and set a target of eliminating pollution from those outfalls most at risk by 2030, in line with the Government's commitments to halt species decline. It should set out, by the end of 2022, a timetable for eliminating the risks from the outfalls and soakaways it manages.** (Paragraph 289)

The Department for Transport and National Highways agree that the mitigation of high risk outfalls will support Government objectives to halt species decline. National Highways take a risk based approach to management of highways outfalls which prioritises resources and action towards higher risk outfalls, although risk can never fully be eliminated. By the end of the 2022/23 financial year, National Highways agrees to set out its plans for how these locations could be mitigated by 2030. As referenced in recommendation 35, the Department for Transport is currently developing the 3rd Road Investment Strategy (2025–2030) which provides an opportunity to set out performance requirements and the associated funding required. As this is a future planning round in process it is not possible to make a commitment at this time.

37. **We are disappointed by the apparent lack of regulatory oversight of the risks of water pollution from road run-off. We therefore recommend that the Environment Agency require discharge permits for all outfalls on roads with annual average daily traffic above 15,000 vehicles, establishing strict conditions for their management, so as to minimise pollution from run-off.** (Paragraph 290)

The Government does not agree that permitting is normally an appropriate risk management response for highway drains. The systems that are put in place to mitigate highway drains are passive treatment systems, with the precise form and the maintenance required determined in relation to risk and in dialogue with the Environment Agency.

Permitting, which is appropriate for active treatment systems would, in this instance, add a regulatory and resource burden which is not justified. We will continue to keep the need for different approaches under review in the light of further evidence or changing context.

38. **We recommend that the review consider the optimum arrangements for maintenance and adoption of sustainable drainage systems, and that it should propose an end to the automatic right to connect to the sewer in new developments as soon as possible and by the end of 2023 at the latest.** (Paragraph 311)

The Government is currently conducting a review which covers these points, to inform a consultation in due course.

39. **We further recommend that the Department for Levelling Up, Housing and Communities update its planning practice guidance on sustainable drainage to ensure that sustainable drainage schemes are considered in all developments, including improvements under permitted development rights, and that it takes steps to address existing loopholes concerning the cost and practicality of such schemes.** (Paragraph 312)

The National Planning Policy Framework (NPPF) already makes clear that major developments should incorporate sustainable drainage systems, unless there is clear evidence that this would be inappropriate. The NPPF further specifies that development should only be allowed in areas at risk of flooding where it can be demonstrated that it incorporates sustainable urban drainage systems (SuDS), unless there is clear evidence that this would be inappropriate.

As permitted development rights predominantly provide for small scale developments, such as householder extensions, or the change of use of existing buildings it would be inappropriate to mandate SuDS as part of a national grant of planning consent.

Permitted development rights already require that hard surfaces be made of porous materials or lead off to either a porous or permeable surface. A number of permitted development rights are subject to prior approval by the local planning authority in respect of flooding. These prior approvals for flooding also require consultation with the Environment Agency. As set out at paragraph 167 and 168 of the NPPF, relevant prior approval applications in areas at risk of flooding should meet the requirements for site-specific flood risk assessments and, if appropriate, the development should incorporate sustainable drainage systems.

We will ensure that the Planning Practice Guidance reflects the position on the use of porous or permeable surfaces and prior approval requirement in relation to flood risk where relevant.

We are currently reviewing the case for implementing Schedule 3 of the Flood and Water Management Act 2010 and will consider the potential for further sustainable drainage policy depending on the latest evidence and the review's findings.

40. **We further recommend that Non-Statutory SuDS Standards should be improved, taking into account the findings of the DEFRA review, so as to include water quality alongside other wider benefits, and should be made mandatory.** (Paragraph 313)

The Government is currently undertaking a review of whether to implement Schedule 3 of the Flood and Water management Act 2010. This Schedule introduces mandatory standards for the design, construction, maintenance, and operation of new SuDS. The current non-statutory standards will be reviewed and become mandatory if the Schedule is implemented.

41. **We recommend that, in the process of approval of any new development in England, water companies ought to be empowered to require that any Community Infrastructure Levy payable by developers is used to enable separate surface water and foul sewers, in cases where provision has not already been made for such arrangements.** (Paragraph 314)

The Government is currently undertaking a review of whether to implement Schedule 3 of the Flood and Water management Act 2010. This Schedule introduces that all types of construction work with drainage implications must be approved by the approving body before commencing and in line with new mandatory standards. We have scope to address as part of the mandatory standards ways to mandate separate surface water and foul sewers.

Community Infrastructure Levy (CIL) charging authorities are responsible for allocating CIL funding to infrastructure priorities, including to water infrastructure where appropriate. Under the proposed Infrastructure Levy, which would replace the current system of developer contributions, charging authorities would retain this responsibility.

Restoring rivers to good ecological status

42. **The new Office for Environmental Protection, established under the Environment Act 2021, is empowered to make highly significant contributions to the achievement of the Government's environmental objectives in general, and to the improvement of water quality in rivers in particular. We encourage the Office for Environmental Protection to take account of the relevant conclusions and recommendations of this report when planning the Office's work on water quality, and to use the powers granted by Parliament to drive improvement of the regulation and enforcement regimes which govern the state of England's rivers.** (Paragraph 325)

The Office for Environmental Protection (OEP) is an independent statutory environmental body that holds Government and public authorities to account for their implementation of environmental law. Within the framework of the Environment Act 2021, the OEP will make decisions independently from Government about the prioritisation of its resources and the exercise of its functions via its strategy, the first draft of which was published on 25th January 2022. As a result, although Defra anticipates that the OEP will carefully consider the relevant conclusions and recommendations of this committee, this is for the OEP itself to do independently in planning its work and finalising its strategy.

43. **If it is to meet the Environment Act's legally binding target to halt the decline in the abundance of species in England by 2030, the Government must make it clear, in strategic guidance to Ofwat and to National Highways, that from now on natural capital needs to be taken into account in all economic decision making, and priced at a level that preserves and enhances it.** (Paragraph 348)

Government supports the use of natural capital in decision making, as set out in the 25 Year Environment Plan. We accept that Ofwat should take natural capital into account in economic decision making. Natural capital was included in the 2017 Strategic Policy Statement and Ofwat continues to incorporate natural capital into their regulatory framework. A natural capital approach to decision making is already a part of water company planning processes, for example through the national framework for water resources and Water Industry National Environment Programme. Defra along with Ofwat, the Environment Agency and Natural England will continue to work towards this approach.

44. **We recommend that, when it publishes its review methodology in 2022, Ofwat set out how it intends to reflect natural capital fully in its economic regulatory decisions for Price Review 24.** (Paragraph 350).

Ofwat agree that wherever possible a natural capital approach should be used in economic decision making. Ofwat will strive to reflect a natural capital approach in their decision making for the next Price Review (PR24). Water companies will need to provide high quality data to make this approach work.

Most environmental improvements for PR24 will be determined by the Environment Agency as part of the Water Industry National Environment Programme (WINEP). As part of the WINEP taskforce, alongside Defra and the Environment Agency, Ofwat has introduced a natural capital approach to assess the environmental implications of WINEP proposals.

The process of introducing natural capital metrics into decision making needs to be done in an informed, planned and consistent way. In turn, Ofwat need to be confident that the data underlying any metrics is robust enough to support the right outcomes at a price review. In addition to the changes introduced to the WINEP, Ofwat is looking to introduce other ways of measuring and rewarding natural capital improvements in PR24 for example through a biodiversity performance commitment.

Ofwat has agreed to continue working with the Environment Agency and Defra on future improvements to the WINEP, including improvements to ensure that water company decisions become further integrated into natural capital planning.

45. **PR24 must encourage water companies to make a substantial increase in their investment in nature-based solutions, so as to improve the quality of effluent being discharged from sewage treatment plants.** (Paragraph 350)

Response provided at paragraph 26

46. **We recommend that the level of financial support provided to the Environment Agency be reviewed as a matter of urgency in the light of its new statutory responsibilities and the scale of the regulatory task it faces, recognising its continued need for efficiency.** (Paragraph 352)

Through the Comprehensive Spending Review in November 2021 and subsequent budget determination process, Defra has reviewed the Environment Agency's Grant-in-Aid water quality budget. The department has made significant increases to the Environment Agency's budget for inspections and enforcement of the farming sector and water companies, allowing 500 sewerage inspections per year and 4000 farms visits. In addition to increased funding to enable the Environment Agency to modernise and digitise their water quality monitoring system. The Environment Agency also receives charging funds from permits that it can use to increase compliance.

47. **We further recommend that the Environment Agency, the Secretary of State for Environment, Food and Rural Affairs and the Treasury review the relevant provisions of the Agency's environmental permitting charging scheme so as to ensure that charges for discharge permits and related activities properly reflect the cost to the Agency for these activities.** (Paragraph 352)

Defra and HM Treasury are engaging in discussions in 2022 about reviewing the Environment Agency's ability to recover costs through charges for permits and related activities.

48. **The Catchment Based Approach partnerships provide a useful forum for this coordination: we consider that Ministers should examine means to increase the funding and resources available to them so as to achieve more effective coordination of all stakeholders across each river catchment in measures to improve water quality.** (Paragraph 370)

Through the Comprehensive Spending Review in November 2021 and subsequent budget determination process, Defra has reviewed the Environment Agency's Grant-in-Aid water quality budget. Defra has maintained Grant-in-Aid funding for catchment partnerships and will continue to evaluate funding sources to enable coordination of all stakeholders across river catchments.

The main strength of Catchment Based Approach (CaBA) Partnerships is their 'convening power', working through consensus and building social capital to deliver environmental improvements. CaBA funding reaches beyond Government support and this is part of its success. Because of the variety of stakeholders and interests represented, Catchment Partnerships attract a range of funds, multiplying the core monies they receive from Government. For every £1 of Defra investment has received, CaBA catchment partnerships have raised £2.20 from non-Government sources for local place-based implementation.

Environment Agency support for CaBA ensures that its Government funding is nationally coordinated and locally implemented through its collaborative, partner led 'Environment Programme'. This delivery mechanism helps to secure external funding through CaBA with support from EA's dedicated national network of catchment coordinators.

49. **We therefore recommend that DEFRA direct the Environment Agency and Natural England to calculate nutrient budgets for each river catchment in England.** (Paragraph 372)

The Government agrees with the intention behind this recommendation and ensuring action is both collective, targeted and proportionate across catchments to address the range of pressures.

Much of the detailed information and tools required are already available. There is information available nationally and at a catchment level as part of the Environment Agency's River Basin Management Planning process; monitoring of protected sites; and other means to gain a sufficient picture of the sources of pollution and the nutrient-carrying capacity of water bodies to inform local action. In addition, we are working with Local Planning Authorities (LPAs) to help them calculate nutrient budgets and identify nutrient mitigation to allow development to continue. Natural England are proactively working with LPAs to ensure mitigation is appropriate and sufficient (see also recommendation

11,above). The Government has already set out that we will continue to focus on reducing pollution at source as a priority, to ensure that sites can be recovered and sustainable development can continue as soon as possible.

Given this, we do not consider that a separate direction to Environment Agency to calculate nutrient budgets is required. However, we will keep the use of specific catchment nutrients budgets under consideration.

50. **Adequate support needs to be made available for farmers to achieve progressive reductions in those nutrient inputs which risk negatively affecting water quality in a catchment, or to mitigate the risk. We recommend that DEFRA examine how the Environmental Land Management scheme can best be used to achieve this outcome.** (Paragraph 373)

The Government agrees with the recommendation that incentivising and providing support for progressive action, such as through existing and future agri-environment schemes, is required to improve the condition of our water bodies.

The Government has already committed to prioritise water quality in the delivery of the new schemes. The Secretary of State set out, in his Written Ministerial Statement in December 2021, that water quality is one of the primary high-level priorities for the new environmental land management schemes. Restoring England's streams and rivers is one of two themes that the Landscape Recovery scheme will focus on during its first round of applications, and, in the first year of the schemes, the Sustainable Farming Incentive will focus on actions to reduce nutrient leaching and protect soils.

As part of the development of the new environmental land management schemes, Defra have been working closely with experts in Natural England and the Environment Agency to ensure that these schemes will support farmers to improve water quality. For example, as outlined in the December 2021 update on the Sustainable Farming Incentive scheme, standards on nutrient management and water body buffer zones, among a range of others, are under consideration.

51. **We recommend that the Environment Agency explore how best to support the contribution of citizen science to environmental regulation and to incorporate citizen science analysis in its work wherever possible and appropriate. The Environment Agency should, for instance, consider how best to provide a publicly-available platform for citizen scientists to enter water quality readings in a way that would allow results to be verified by other users, regulators or companies.** (Paragraph 375)

We agree that citizen science can play an important role, including in assisting the Environment Agency with monitoring, particularly through Catchment Partnerships. Citizen science builds local awareness beyond that of specialist water managers and can drive a move towards the design of new indicators for catchment condition.

This is already happening through the Catchment Monitoring Cooperative which obtained £1.7 million in funding from Ofwat's Breakthrough Water Challenge fund last year to kickstart the scheme in eight catchments.

The Environment Agency is also working with the Association of Rivers Trusts to support their Catchment Systems Thinking Cooperative (CaSTCo) initiative. The CaSTCo project will establish a more focussed and better supported toolkit of methods and approaches that are interoperable and can be shared through common platforms.

Over a three-year period, the CaSTCo project will develop and implement their proposal in eight demonstrator river catchments across the country which we will engage with and support.

52. **We recommend that the Government consider whether a requirement should be placed on water companies to respond to citizen science research undertaken by CaBA partnerships, where that research demonstrates water quality issues in a specific area, with an action plan to address the issues identified.** (Paragraph 376)

The Government welcomes the focus on citizen science and CaBA partnership monitoring. We encourage water companies to engage with CaBA partnerships and in some cases water companies support partnerships through funding. Even where this is not the case, we would expect that Environment Agency's links to both the water industry and to catchment partnerships should ensure that citizen science data is taken into account in determining actions that need to be taken.

53. **Drainage and sewerage management plans to be extended to encompass engagement with local authorities, highways agencies and developers.** (Paragraph 377)

The Guiding Principles for Drainage and Wastewater Management Plans, published in February 2022, require water companies to work collaboratively with other Risk Management Authorities in developing solutions to drainage issues.

54. **We recommend that Ministers review and, where appropriate, revise the criteria for the award of funds intended for flooding prevention and nature recovery so as to ensure that they support projects to retrofit sustainable drainage systems.** (Paragraph 378).

In 2020 the Government reviewed and made changes to partnership funding rules for flood grant in aid, promoting more nature-based solutions and surface water schemes such as sustainable drainage systems. The Government keeps its flood management policy and funding rules under review to reflect the latest risk and deliver appropriate projects. Approximately 34% of the 2,000 flood defence schemes planned for 2021–27 are for surface water management. These represent over £400 million of Government investment and will better protect over 50,000 properties. At least 100 of the planned projects have indicated that sustainable drainage is likely to form part of the solution.

The Government fully supports the use of blue green infrastructure, such as sustainable drainage systems and grey water recycling to manage surface water, across existing and new communities. We have placed a greater emphasis on this in our 25 Year Environment Plan, Flood and Coastal Erosion Policy Statement and updated planning policy.

Over the last 5 years Government has also introduced substantial new funding for nature-based solutions in England, for example schemes for tree planting and peatland restoration. Carefully designed and implemented nature-based solutions can deliver a range of benefits for climate, biodiversity and people, including mitigating surface water flooding and providing sustainable drainage.

Through drainage and wastewater management plans we expect sewerage companies to fully assess wastewater network capacity. They will develop collaborative solutions with local authorities and other bodies who are responsible for parts of the drainage system in order to manage the challenges of a changing climate and extreme weather events. These solutions include retrofitting sustainable drainage systems where appropriate.

Water companies will be investing over £1 billion between 2020–2025, to reduce the impact of flooding on communities across England and Wales. They have also proposed an additional £2.7 billion of environmental investment, through the Government's green economic recovery fund.

55. **Ofwat to allow adequate funding for water companies to identify areas for the retrofit of sustainable drainage systems.** (Paragraph 378).

Ofwat currently consider and will continue to assess and provide funding for company proposals (including the retrofit of sustainable drainage systems (SuDS)) when they are submitted in company business plans. Companies are encouraged to put forward retrofit proposals for SuDS where evidence indicates they are the best solution. As part of the Green Recovery process, Ofwat allowed Severn Trent Water £75.675 million to protect homes from flooding through nature-based solutions. This included its proposal to build an urban catchment-scale flood resilience programme utilising a suite of blue-green interventions. This scheme is a trial of blue-green infrastructure, which will provide learnings across the sector to inform future schemes of a similar nature.

In their development of the next price review, Ofwat is looking at how they can provide incentives for SuDS to encourage the extra benefits that they provide (carbon and biodiversity benefits), alongside working to address regulatory barriers to their implementation and delivery.

Ofwat expect companies to increase their use of nature-based solutions, as these can be effective ways to provide resilient solutions that also increase biodiversity and help to reduce greenhouse gas emissions. Ofwat is considering how nature-based solutions can be promoted and incorporated into their approach to cost assessment at the next price review (PR24). Ofwat are also considering the introduction of new performance commitments to increase biodiversity and help to reduce greenhouse gas emissions. This would be in addition to the incentives provided by existing performance commitments, such as sewer flooding. Where companies receive significant funding for investment in SuDS, Ofwat propose to specify the reduction of surface water in the sewerage system that is to be delivered to hold companies to account to deliver the benefits of the investment.