

## Written evidence submitted by Pennon/South West Water

### Pennon Group

Pennon Group is a FTSE100 company and the owners of South West Water and Bournemouth Water. We provide water and wastewater services to a population of c.1.7 million in Cornwall, Devon and parts of Dorset and Somerset, and water-only services to c.0.5 million in parts of Dorset, Hampshire, and Wiltshire.

South West Water sustains 6,000 jobs in the regional economy and, since 1989, has invested more than £7 billion to maintain and improve water and wastewater services. At the time of privatisation our coastal bathing waters were blighted by raw sewage outfalls but years of sustained investment by South West Water has transformed them into some of the best in Europe. Our pioneering Upstream Thinking catchment management scheme was one of the first to demonstrate nature-based improvements to water quality.

We care deeply about the environment and are currently making our largest environmental investment for 15 years, with additional proposals submitted to Defra and our regulators to accelerate and expand investment to support a Green Recovery.

In addition to the written views provided below, our CEO Susan Davy would be delighted to assist the Committee's inquiry further by providing oral evidence.

### Summary of our view

- Our customers and communities are placing increasing importance on river water quality for amenity, in addition to ecology
- We care deeply about the environment and the priorities of our customers and communities - the environment is now our top priority, second only to safe clean drinking water
- Experience has taught us that working in partnership and understanding how most effectively to intervene will be essential if we are to play our part in delivering a step-change in river quality. This requires pilot schemes to prove the case for investment and identify best practice, which we are proposing for the rivers Dart and Tavy
- To gain understanding and trust, there is a need for transparency and information sharing. We have submitted proposals to make significant investment in additional monitoring and are committed to making data publicly available in real-time
- Regulation is developing in the right way, towards an outcomes-based approach that encourages all sectors to play their part – but now needs to reflect natural and social capital base lines that can assist in measuring and targeting further improvements not least through partnership working. Catchment and systems level approaches require multiple sectors and drainage bodies to all play their part.

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

Improving river quality will require long-term investment and for water companies to work in partnership with other organisations. Increased transparency and information sharing will underpin efforts to build trust and understanding. Good quality data will allow informed choices to be made.

Currently, monitoring of continuous treated discharges from Wastewater Treatment Works is well advanced and understood. For storm overflows, South West Water has Event and Duration Monitors (EDM) on over 70% of our storm overflows and Green Recovery proposals to monitor all storm overflows by 2023.

However, data on how often a storm overflow operates is not on its own an effective measure of environmental impact. The new Storm Overflow Assessment Framework (SOAF), is a good step forward to address this. The SOAF process is a trigger to investigate the storm overflows which operate frequently and looks at the root cause, environmental conditions and the economic case to improve – this is shared

with the Environment Agency to create new investment drivers where supported. The economic test is important since it ensures that society will benefit from any investments and associated improvements.

Identifying the sources and impacts of pollution is critical if we are to introduce effective new targets and improve river quality. Source apportionment and environmental monitoring by the Environment Agency are key to understanding the baseline environmental conditions and where action needs to be taken so these activities should be least maintained and preferably expanded.

In terms of technology, whilst storm discharge operations can be measured in terms of duration, it is much more difficult to measure the volume and load – these are vital considerations in determining where improvements in performance will deliver worthwhile environmental benefits, and technology to do this simply and at scale should be explored. This would also assist with the transparency need and making the best societal decisions.

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

For amenity, bacteria would be the key indicator for river quality. Meeting a target on bacteria would require identifying and addressing its source, which our decade-long experience of catchment management tells us would be best met through working in partnership with agriculture, landowners, and environmental charities.

The UK has river water quality standards under the Water Framework Directive. For coastal waters bacteria is the lead indicator of bathing water quality – this is a health rather than an environmental standard. However, in rivers bacteria have no environmental consequence so would only be a potential problem if present at the same time as water users. Rivers are markedly different to coastal waters in that once a storm overflow or catchment input has ceased then the bacteriological water quality at that point will improve very quickly due to the linear flow – so timing of impacts from all sources and timing of use are key considerations. Consequently, it is doubtful that the Bathing Water Directive would be the right tool to address amenity river water quality standards.

How to improve bacteriological river quality is further complicated by the fact there are no regulatory standards and no baseline sampling or source apportionment, unlike for coastal bathing waters. In the event of storms river water use is likely to be low/none, although some water users such as canoeists may seek out the higher-flowing water present after storm events. So, the exact location of river use and the type of use is important in understanding what targets and measures are most appropriate, and indeed if any are needed. We believe the best way to understand what is required to facilitate amenity river use is through trials. However, a cross-sectoral national group should also be established with the regulators to consider how best to identify, set and monitor non-environmental indicators.

There is an imperative to improve all aspects of river water quality. In our region, agriculture is the source of twice the number of issues preventing waters reaching 'good status' as wastewater.

South West Water's pioneering Upstream Thinking scheme uses multi-benefit nature-based solutions to improve water quality upstream of our abstraction points. Our schemes also restore habitats, reduce carbon emissions and form long-term partnerships with farmers and/or landowners, the Wildlife Trusts, and South West Water, to identify sources of pollution in catchments and prevent them entering watercourses. The solutions reduce a range of contaminants entering watercourses, including; farming-derived nutrients, pesticides, faecal coliforms, sediment, dissolved organic carbon (DOC) and new emerging issues such as veterinary medicines and antibiotics.

Through almost a decade of experience, we have found that a combined approach of restoring habits and working with farmers/landowners can have a sustained positive impact on river water quality. Actions to address sources of agricultural pollution are often relatively small, such as advice from specialists or grants for new concrete yards or barns but need to be taken at multiple points across a catchment.

Our Upstream Thinking approach works where there is a mutual benefit for our customers in that drinking water quality issues can be addressed in the most cost-effective way through catchment interventions. However, Upstream Thinking is not scalable, as a customer-funded vehicle, to catchments where we do not have direct cost-effective benefits for customers to be realised. We have been advocating that the Environmental Land Management system (ELMS) will be key to addressing agriculture-led catchment improvements for wider river water quality, be that for environment or amenity benefits.

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

Whilst water companies are often at the end of complex drainage systems, there are multiple upstream responsibilities that are frequently not being met, including private drainage problems, highways drainage problems and rural run-off and riverine flooding and inundation of our systems. Partnerships are key to resolving these issues and we are developing Drainage and Wastewater Management Plans for our whole region to better enable joined-up solutions. These plans will be successful only if co-deliverers and co-funders from the other responsible drainage authorities step-up and play their part in catchment level solutions to complex and sometimes longstanding problems.

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

The scale of the challenge of improving river quality means that investment and activity must be focused to maximise benefits in the short-term. Pilot schemes will provide vital information to assess what interventions are most effective.

Bathing waters and other environmental designations are not made by water companies. However, the key consideration here should be about the cost benefit of such designations, so the value/costs added to society and the environment. It is important that this cost benefit does not just consider the direct benefits (water quality, tourism etc) but also the solution-side benefits (biodiversity, carbon, flood risk). If all the benefits are monetised then we get a clearer position on the investment decision and improvements are more likely to benefit national carbon and biodiversity targets, rather than detract from them.

The cost of improving coastal bathing waters in the South West has been considerable. At privatisation we inherited a system where wastewater from around 40% of the population discharged into the sea untreated. The South West has a relatively low population, but around a third of England's bathing waters, resulting in disproportionate costs falling on our region's customers. The Government has recognised this historical situation and since 2012 has made an annual contribution to households. Planning for improving inland bathing waters therefore needs care to ensure costs are reasonable and are proportionately shared (generally following the polluter pays principle).

The costs of achieving bathing/amenity river standards, depending on what the standards are, would fall across numerous sectors and are uncertain. We have proposed undertaking two trials to improve inland amenity water use in the South West as part of our Green Recovery proposals. This follows a detailed review of the candidate catchments, the performance of our systems, stakeholder information/use levels of the rivers, and river quality. We are proposing to take a whole-catchment approach, combining increased monitoring and upgrades to storm overflows with transparent sharing of data, increased testing, engagement with farmers to encourage good practice, engagement with river-users, and developing a 'Catchment Champion' concept to incentivise the public to contact us if they spot any pollution incidents.

We believe this partnership, whole-catchment approach is the best route to success. The outcome of the pilots that we and other companies undertake will provide information to our regulators, Defra, and all other interested parties to judge the cost, efficiency, delivery bodies and benefits of amenity water identification and designation.

Trials are vital since, as is the case for coastal bathing waters, not all river waters will be used for amenity, use could be very low or very high, not all locations will be safe, and the ability/costs to improve water quality will be variable given the various activities and sources that affect water quality.

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

Regardless of whether plastics enter the environment as macroplastics from litter or as microplastics in wastewater from cosmetics, clothing or car tyres, for example, the best place to control this is at source where this is possible.

The impact of wet wipes on the drainage and sewage system is considerable, being the leading cause of some 300,000 blockages that occur each year. In our region we tackle a sewer blockage at the rate of one per hour on our network of over 17,000km of sewers, which is the distance from the UK to Australia.

Plastics are a problem on the rise since the Covid-19 pandemic and increased use of wet wipes and unflushable products. Action is needed to:

- Extend the producer responsibility scheme for sanitary products
- Mandate 'Fine to Flush' accreditation for any wet wipe product that is marketed as flushable and for non-flushables to be clearly labeled as such
- Mandate producers of sanitary products to remove plastic from their product formulation and for better labelling to support consumer awareness and action.

Fats, oil and greases (FOG) remain a problem for blockages – South West Water run awareness campaigns such as Think Sink to promote the diversion of FOG from wastewater systems. A review of the requirements and enforcement needed for food service establishments and FOG should be undertaken.

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

We have run community campaigns to educate customers and prevent plastic material being flushed (for example our Love Your Loo campaign for customers to 'only flush the three Ps'). However, this can only have a limited impact and given the growing problem with plastic pollution can no longer be considered sufficient. Wet wipes are now being sold in approved 'flushable' form and the sale of non-flushable wipes should therefore be prevented through legislation. This would be in line with the Government's approach with other similar materials, such as plastic cotton buds.

Additionally, litter is a significant problem for highways, surface water and combined wastewater drainage systems so continued/enhanced action is needed there.

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

We have invested over many years to improve those intermittent storm discharges that the Environment Agency (EA) and water companies identified as having an adverse impact on the environment – the EA have now set out an expansion of this approach through the Storm Overflow Assessment Framework (SOAF) process. We support this approach as environmental and societal costs and benefits can be better understood and investment targeted.

Joined-up catchment solutions should contain the right blend of both nature-based solutions and traditional solutions - with the right solution in the right place being the determining factor. If wider costs and benefits (including biodiversity and carbon) and valued as part of the decision-making process this should favour the nature-based solutions.

The Ofwat regime has been effective in funding cost beneficial enhancements to water company drainage systems and should largely remain able to do so with appropriate funding drivers and customer support. We are, however, increasingly needing to pursue complex, multiple-party catchment solutions. The current regime for water companies could evolve to recognise all benefits that are not directly arising to customers – solutions that deliver natural capital or wider economic/societal benefits but may cost more than traditional solutions. With the current regulatory/policy regimes evolving there are good examples of

incentivised outcomes on catchment work and biodiversity however – there is now a need to take this further and develop natural and social capital baselines that companies can be incentivised to improve.

The current regime can also act unevenly on different sectors ranging from a high degree of regulation to lighter touch and incentive driven/discretionary approaches. This may create a disincentive to partner in more sustainable joint-solutions at catchment levels. Better enforcement of some sector regulation, such as agriculture, is also required and would facilitate more partnership working in wider catchments.

**Is adequate investment being made in adapting water treatment systems to future climate change? How effective are the planning policy and standards around sustainable drainage systems to reduce urban diffuse pollution in England? Should local authorities and highways agencies be given a duty to prevent pollution to watercourses without prior treatment?**

Improving river quality and adapting our drainage and sewer system to climate change cannot realistically be achieved by water companies alone or through ‘traditional’ solutions alone, with ever more storage being built and ‘end of pipe’ investment. These traditional solutions are high-carbon and incompatible with our target to be net-zero by 2030. More nature-based, catchment management and partnership solutions are required for the existing system, but we also need to ensure that new development improves rather than worsens existing problems.

Effective and equitable systems/catchment level solutions require regulatory and policy change:

- The use of Sustainable Drainage Systems (SuDS) for all new developments in England should be mandatory under Schedule 3 of the Flood and Water Management Act (technical standards for SuDS should also be mandatory)
- The automatic right for a new development to discharge surface water into existing public sewers should be removed, in line with the recommendations in the 2008 Pitt Review
- Incentives should be put in place to connect new developments to local, community-based treatment for surface water, rather than connecting to existing regional sewage networks
- All new developments should be required to meet minimum water efficiency threshold
- A register of non-water industry discharges would help ensure all point sources were understood and taken into account for solutions
- A duty to cooperate with Drainage and Wastewater Management Plans would be beneficial as this would help align the delivery of solutions that fall across multiple drainage responsibilities and funding sources.
- The ELMs process should be used to drive environment improvements from better agriculture practices at a landscape scale.

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