

Written evidence from South West Rivers Association

SWRA is the umbrella of 20 individual river Riparian/Fishing Associations in the South West. Westcountry Rivers Trust and Salmon and Trout Conservation UK are also associate members. It is an established consultee of the Environment Agency and Defra and its Chairman, Roger Furniss, sits on a number of regional and national bodies concerned with environmental matters. In the 1970's/80's he was Environmental Protection Manager for South West Water Authority and in the 1990's a Director of South West Water Services Ltd. He was a Member of the River Basin District Liaison Panel which advised the Environment Agency on the serial Plans to deliver the requirements of the EU Water Framework Directive.

River water quality is a major factor affecting the ability of rivers to support a natural flora and fauna including fish, especially salmonids, which are the prime interest of SWRA members.

This evidence is based on many years' experience of the failure of the current approach to water quality to deliver either Good Ecological Status/Potential as required by WFD or significant improvements in the chemical and biological quality of rivers in the South West. If the Committee wishes detailed examples underpinning the evidence can be provided. Much of this failure is caused by agricultural pollution but sewage, sewerage, and urban/highways drainage are also significant despite the massive increase in investment following privatisation of the water industry.

The evidence which follows is directed at specific questions raised in the Call for Evidence.

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

1.1 Traditional regular spot sampling of discharge quality by chemical analysis, mostly in office hours, ie before loads increase, risks missing non-compliance events at STW's. The same is also true of much of the regime of river water quality monitoring. The approach taken in the EU Water Framework Directive of targeting Good Ecological Status is good as the ecological state and biota of a river, including fish, act as continuous monitors of environmental quality with water quality a major component. Monitoring of ecological state and biota does not have to be restricted to the established agencies – well-trained volunteers, such as those involved in the national Riverfly programme, can contribute in the same way that RSPB and BTO bird surveys are accepted inputs to assessing bird populations and policies for their protection. Such an approach also appeals to young people and increases understanding with the long-term benefit of informing public policy.

2. How could drainage and sewage management plans ... play a role in reduced sewer discharges?

1.1 The increasingly significant issue is discharges of raw sewage from Combined Sewer Overflows (CSO's) into rivers. CSO's, where consented, are designed to operate when rainfall causes sewer flows to increase at a permitted level relative to Dry Weather Flow (eg 3 or 6 x DWF). This is based on the assumption that the receiving river will have risen to provide adequate dilution of the untreated sewage discharge. Increasingly this assumption is false: climate change is causing more short sharp rainfall events which

trigger the CSO's before rivers respond to the rain. Management plans and future investment in sewerage systems which have asset lives measured in decades need to take full account of both dealing with current problems and the worst case scenarios of climate change driven river flows and population increases over the planned asset lives. The same applies to sewage treatment facilities.

- 1.2 One issue not specifically mentioned in the question but relevant to urban drainage is the impact of pollutants from highway drainage. There is evidence from several studies of adverse impacts on rivers of road run-off including chemicals associated with tyres. Many highway improvements include pollution control measures such as run-off retention lagoons but post-construction management tends to be haphazard at best – a concentration on capital works not subsequent management not restricted to this topic.

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

- 3.1 The change to Operator Self-Monitoring (OSM) by dischargers, principally Water and Sewerage Companies (WaSCO's), introduced several years ago and described by ex-MP Martin Salter as 'Marking their own homework' increases the risk of pollution from sewage discharges despite further guidance issued by Government in 2018. Prior to OSM the Environment Agency (EA) had responsibility for such monitoring but a combination of cuts to EA budgets and reduced focus on regulation resulted in the change. Although the EA carries out some audit checking of OSM results further cuts have further reduced this. At the time OSM was introduced SWRA and others suggested that WaSCO's found to be under-achieving agreed monitoring or misreporting should lose the right to self-monitor and pay for the reintroduction of EA monitoring, ie a zero sum change for the EA. This was not done, allowing the possibility of non-compliant discharges to continue unregulated
- 3.2 Although technology can help by enabling more remote monitoring it will not make up for the absence of a culture of transparency and enforcement. An example of this culture of lack of transparency is Southern Water's refusal to make public the performance of its Sewage Treatment Works discharging to the River Test, claiming its right to confidentiality as a private company. After several years dealing with a formal complaint the Information Commissioner ruled that WaSCO's should still be treated as public bodies despite privatisation. Given the poor water quality of rivers and the contribution of sewage discharges to that there needs to be a Zero Tolerance approach to enforcement
- 3.3 Another key issue is the tendency to focus mainly on discharge quality. However the impact of any discharge on river water quality is equally dependent on the flow of the discharge relative to the dilution in the receiving water course. The Royal Commission on Sewage Disposal 1908-1912 introduced the concept of dilution and recommended quality standards for Suspended Solids and Biochemical Oxygen Demand based on a dilution of 8:1. All numerical STW consents are based on modelled discharge and receiving watercourse flows. However climate-change driven river flow changes and growth in population served by STW's can result in unacceptable levels of pollution – 'the solution to pollution is dilution'.

- 3.4 A significant issue in rural areas such as the South West is the prevalence of small STW's discharging to small watercourses with little dilution especially in summer. STW's originally designed to serve populations of <250 have so-called Descriptive Consents, ie no numerical standards, but are required to be operated as originally designed and cause no visible pollution in the receiving watercourse. In the absence of little EA inspection of either the works or watercourse many of these are now poorly maintained, loaded beyond their design capacity, and result in visible sewage fungus in the watercourse.

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

- 3.1 Sewerage systems are prone to disruption and blockages by consumers using them to dispose of such items as cotton buds, nappies, and toilet cleaning wipes. Many of these products do not provide any information about their safe disposal – 'out of sight out of mind'. More important is the need to help consumers appreciate their contribution to the problem and the potential impact of poor river quality on their health and quality of life. There was a parallel on sea water quality when Surfers Against Sewage ran a singularly effective campaign on bathing water quality and its link to human health through the EU Bathing Water Directive. However it needs all relevant agencies from Government down to be open about the problem and not hide behind simple platitudes about improving environmental quality.
- 3.2 The other issue is the increasing load of micro-pollutants from sources including cosmetics, medicines and contraceptives some of which are difficult to remove in conventional STW's. As with the products mentioned in 3.1 above there is almost no information readily available to the public to enable them to reduce their use of such matter or dispose of it safely.
- 3.3 Application of the 'Polluter Pays' principle with the manufacturers and retailers of the products exemplified in 3.1 and 3,2 contributing towards the cost of safe disposal and treatment of them in STW's would be a significant positive move.

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

4.1 This is a question it is impossible to answer without detailed knowledge of WaSCO's Asset Management Plans compared without knowing the detail behind the answer to Q1 above. However it is going to be £billions – the sort of infrastructure investment that could help the economic recovery post-COVID and bring benefit to both the natural environment and quality of life for all. Nature-based solutions, eg reed bed treatment of discharges from CSO's and STW final effluent have a role but are unlikely to replace engineered solutions, especially for the CSO's with their intermittent discharges of untreated sewage.

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

5.1 Unfortunately the ongoing drive for more housebuilding is not being matched by a parallel drive for investment in sewerage and STW infrastructure. In the past the predecessors of the EA were consulted on all planning applications and able to

recommend embargos on developments which could overload the sewerage network and STW's. Use of the term 'diffuse pollution' also implies something difficult or impossible to deal with (*vide* agricultural pollution). However most urban pollution ends up in a system with identifiable point sources which is where the problem should be regulated and enforced

7. How effective is Ofwat's remit and regulation of water companies? Does it facilitate sufficient investment to improvements in water quality?

6.1 Ofwat's principal role as economic regulator is to balance the three-way tension between the EA, WaSCO's and customers. It sees its primary role to keep WaSCO customer charges as low as possible while enabling WaSCO's to finance their activities including servicing shareholder and lender debt. Without clear direction from Government and in the face of a weak environmental regulator the environment is always likely to come behind customer bills and drinking water supply in its priorities with the resultant under-investment in environmental water quality

8. Is adequate investment being made to adapting water treatment systems to climate change?

7.1 See 1.1above

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

9.1 Such designations are not a matter for WaSCO's, but for Government. The example of implementation of the EU Bathing Water Directive (BWD) referenced in 3.1 above demonstrates how public opinion can influence public policy. It is perfectly natural for people to have more regard for their personal health than for the environment although the two are inextricably linked. However the key BWD standards affecting health are microbiological and disinfecting STW discharges upstream of designated inland bathing waters would add hugely to STW costs with little environmental benefit. Conversely, unlike the sea there is no general right of access to inland rivers which could limit the number of locations which would qualify for designation. Another key factor is the contribution to microbiological load on rivers is run off from land, both agricultural and urban, which could prevent BWD standards ever being delivered – this is already an issue on marine bathing waters close to river mouths. Excessive derogations if this factor had to be applied it could undermine public confidence.

February 2021