

Written evidence submitted by Severn Trent Water

Time to act - revitalising rivers, reducing the use of storm overflows and building a green legacy

Introduction

We are grateful for the opportunity to provide evidence to the committee's inquiry into water quality in rivers.

Severn Trent is the water and waste water company serving around eight million people in the Midlands. The rivers in our region are an essential part of our supply system and we are determined to continue to play our full part in improving them for the benefit of current and future generations.

The main points we wish to make in this submission are:

1. Whilst there is more work to do, we should take much encouragement from the very significant progress made with improving rivers in recent years. According to the Environment Agency, rivers in England are now in better condition than at any time since the Industrial Revolution. Record investment by the water sector is arguably the major force behind this regeneration.
2. Any credible action plan for further improvement must start with a diagnosis of why rivers are failing to meet 'Good' status. The Environment Agency's analysis is clear:
 - agricultural pollution accounts for 36 per cent of the reasons for failure,
 - the water sector accounts for 24 per cent (and CSOs specifically around 4 per cent),
 - urban land and transport networks account for 11 per cent.
 - The remaining reasons include a mixture of industrial, mining and quarrying pollution, and local and national government activities. Around 10% are not attributable to a specific sector or are under investigation.
3. Whilst the priority should be to address pollution from agriculture, the focus of this submission is to propose action the water sector could take with the appropriate mandate from government.
4. We make recommendations under six main headings, including designating additional 'bathing rivers' as a catalyst to drive up standards and rolling out sustainable measures to prevent sewers being inundated with rainwater.
5. The time to act is now. The new system of financial support for agriculture provides an opportunity to address the main cause of pollution. And effective regulation, greater

efficiency and lower investment costs has created an opportunity for the water sector to invest more and act as a catalyst for change.

The remainder of this submission covers:

- The current situation and diagnosis of the problem.
- A brief assessment of what the policy goals should be to reduce pollution from agriculture.
- A description of what the water sector has done, and is doing, to address the problem.
- Recommendations of further action.
- Why now is the right time to act and the recommended next steps.

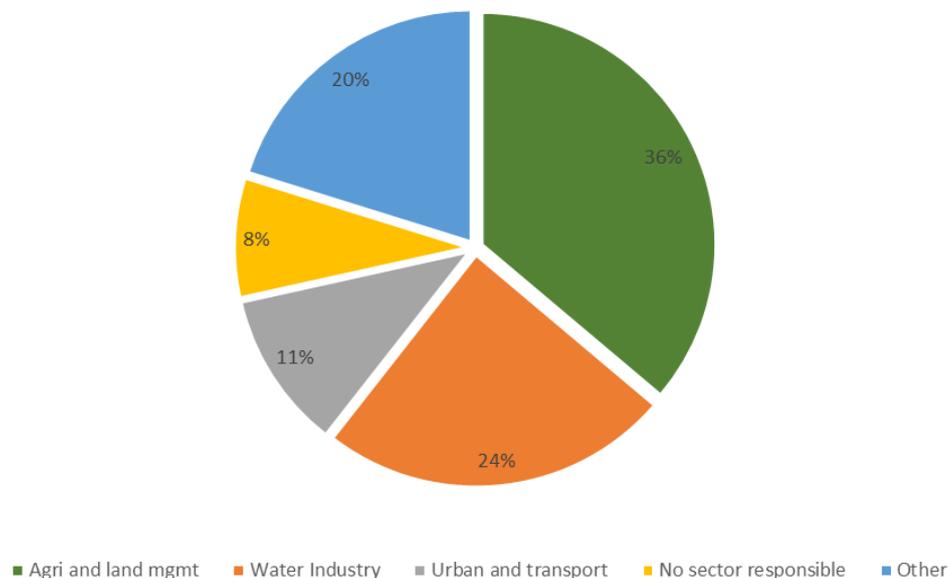
Current situation and diagnosis of the problem

Rivers in England are now in better health than any time since the Industrial Revolution, according to the Environment Agency. Much progress has been made, but there remains much to do. Still only about 14 per cent of rivers in England meet the Water Framework Directive's 'Good' environmental status.

There are many reasons why 86 per cent of rivers fail to meet good status, including the effects of pollution from agriculture, urban run-off, transport and industry.

The diagram below shows which sectors contribute to the Reasons for Not Achieving Good Status (RNAG).

Reasons for rivers in England not achieving good status



Source: Environment Agency data

In the Severn Trent region, analysis of how the subset of the water industry contributes to the RNAG shows the single biggest reason is sewage treatment works. Storm overflows account for 19 per cent of the water industries' RNAG, or about four per cent of the overall reasons.

Policy goals for agriculture

The data shows that significant action is needed to address the problem of pollution from agriculture if serious progress is to be made on improving the health of rivers. No credible plan can be silent on this issue.

The Environment Agency's reasons for not achieving 'Good' status attributes 70 per cent of the agricultural pollution issues to poor farming practices, specifically nutrient, livestock and soil management.

A detailed action plan for agriculture is outside the scope of this submission, but we would like to see a stronger link between the farm payments schemes and responsible farming practices. Receipt of public money should be wholly conditional upon compliance with good agricultural practice and farming in an environmentally sustainable manner.

There should specifically be a greater focus on:

1. Ensuring compliance with existing standards, especially for land-owners receiving public subsidies.
2. Restoring soil health by rebuilding soil organic matter and increasing soil biology.
3. Promoting low input farming and regenerative farming.

4. Rolling out appropriately designed and placed nature-based 'river protection strips'.
5. Encouraging the placing of livestock fencing (in conjunction with river protection strips) between farmed land and streams and rivers.

The water sector and cleaning up rivers: a lot done, a lot to do

The water sector has done much to improve the health of rivers in recent years. Future improvements should build on these foundations.

At Severn Trent we've already made a material difference to 1,600km of river and are on track to improve a further 2,100km of river by 2025. We are delivering our ambitious commitment in the following ways:

- **Using catchment-based approaches, including working with farmers** to improve the quality of surface water run-off into our region's rivers.
- **Optimising the quality of the waste water we discharge into rivers.** We measure this through sewage treatment works compliance, which is assessed by the Environment Agency,
- **Employing nature-based solutions** to help us improve the quality of our waste water discharge. We are looking at the feasibility of using wetlands, which filter phosphate from treated water and also improve biodiversity, at six of our waste water treatment plants.
- **Preventing pollution incidents** – we've already reduced pollution incidents by one-third since 2011 and, crucially, we've reduced the most serious Category 3 incidents by 70 per cent over the last nine years. Our efforts have been recognised by the Environment Agency awarding us the top Four Star rating.

At Severn Trent we are now seeking to raise our game further as part of the government's challenge to the water sector to support the UK's Green Recovery.

Severn Trent has risen to the challenge. We have accelerated all planned investment for 2020-25 and will submit six additional proposals to the government.

Our flagship proposals are to transform a stretch of the River Avon between Royal Leamington Spa and Stratford-Upon-Avon and a stretch of the River Teme around Ludlow so that they are clean enough to swim in. The idea is to test the concept before rolling it out across other rivers in our region.

Traditionally, river improvements have been piecemeal and cumbersome to deliver given the number of stakeholders and processes involved. Although the Water Industry Environment Programme (WINEP) is delivering improvements, the process is slow and often lags behind public expectations.

We want to test taking responsibility for the overall cleaning up of important stretches of river, addressing elements within our direct control (Combined Sewer Overflows and discharges from sewage treatment works, for example) and elements on which we would need to work with stakeholders (for example, addressing agricultural and industrial pollution).

The illustration below summarises our proposal to clean up rivers.

1. The UK needs to deliver river quality targets

- Recent EA data shows just 14% of English rivers are of good ecological standard.
- The UK is likely to miss its 2027 targets under the water framework directive.
- Hazardous chemicals, pharmaceuticals and antimicrobial resistance, could drive new legislation, as we have already seen in Switzerland.
- To change requires investment and a focus on river outputs, not sector inputs.

2. The public expects better river quality

- Concern about combined sewer overflows (CSOs)
- MP calls for crackdown on raw sewage discharges in English rivers
- Exclusive: water firms discharged raw sewage into England's rivers 200,000 times in 2019
- Unreported effluent flowed into waterways for more than 1.5m hours, data shows
- Strong and growing support for river swimming
- 64% of customers believe some of our rivers should be bathing water standard
- Interest in river swimming (Line graph showing level of interest from 2015/16 to 2018/19)

4. Our two pilots (c£150m) will reveal the costs and benefits of a full scale roll out

- Installing advanced treatment at 4 WWTW
- CSO improvements at c20 key sites through a combination of keeping rain water in nature, better control and sizing of c5 major pumping stations
- Sewer improvements
- Catchment management to reduce bacterial loading from livestock farming
- Connection to WTW to support peak demand (unlocking c30Ml/d)

Stratford upon Avon – the Old Bathing Place

Ludlow

- Installing advanced treatment at a WWTW
- Catchment management to reduce bacterial loading from livestock farming
- CSO improvements at c5 key overflows

3. Bathing rivers offers transformational change for society, the economy and environment

- The furthest point in the UK is 70 miles from a bathing beach – in the heart of the Midlands
- Positive impact on the local economy, as seen in Munich, where an 8 km stretch of river has been transformed into a bathing site
- An environment that benefits through improved standards and a reduction in sewer overflows

Potential to create around 500 jobs

We are also proposing to invest £85 million nature-based approach to tackling flooding in Nottinghamshire. The focus will be on preventing surface water flooding, which in turn floods our sewers, which then causes CSOs to be used more widely.

In its simplest terms, the idea is to use nature to soak up and slow the flow of water to prevent flooding. Measures are likely to include tree-planting, generating new ‘green spaces’ in urban areas and building ponds to capture rainwater.

Recommendations for further action by the water sector

There will still be much to do even after the benefits of current and proposed investment have been delivered. We propose the following action plan:

Theme one: improve the way in which progress is reported (removing perverse incentives)

- The current system for reporting on progress to the Water Framework Directive’s ‘Good’ status risks perverse incentives. To achieve ‘Good’ status around 60 tests must be passed. Chasing only

this target, it would be rational to invest £1 million to get a relatively healthy river to improve the test results from 55 out of 60 to 60 out of 60 to secure official 'Good' status. However, it is likely to be better for the environment if the £1m was spent on improving another river from, say, 10 out of 60 to 40 out of 60, using the same level of investment to achieve greater overall environmental improvement by addressing easier to fix problems first. The UN uses this method of measuring progress for its development goals.

Theme two: Increase transparency to drive improvement

- Oblige all companies to report publicly and pro-actively on storm overflow performance on an annual basis.
- Oblige all companies to institute appropriate 'real time' reporting on storm overflow performance by 2030.

Theme three: Deal with the problem at source by reduce pressure on the sewer network, which in turn reduces pressure on storm overflows.

- Ensure all new building developments have separated surface and foul water sewers.
 - Withdraw the automatic right to make new surface water connections to the sewer network – instead promote great use of 'Sustainable Urban Drainage Solutions' (SUDS).
 - Require the government to promote retrofitting SUDS in its next strategic guidance to Ofwat.
- Establish a general duty on the Secretary of State to have consideration for river health when developing policy, including policies relating to agricultural subsidies, catchment management and the licensing of chemicals.

Theme four: Mandate simple improvements to sewage management to better protect rivers

- Reduce the volume of water in the sewerage network to relieve pressure on storm overflows by:
 - Changing building regulations to promote water efficiency.
 - Enforcing restrictions on gardens being turned into impervious 'hard standing' (e.g. to form driveways).
 - Introducing new water efficiency labelling of household appliances (as per Australia).
- Reduce the polluting impact of sewage by:
 - Establishing a review of the use of microplastics and other pollutants – if they are used, the principle should be that the polluter should pay.
 - Mandate producers of sanitary products to remove plastic from their products.
 - Extend the trade effluent regulations to food service establishments to make them dispose of fats and oils responsibly.
 - Put the existing 'Fine to Flush' kite mark on a statutory footing, banning manufactures from claiming their products are flushable if they don't meet this standard.

Theme five: Reduce the impact of existing storm overflows

- Oblige the Environment Agency (EA) to review and enhance its methodology for measuring the environmental harm of storm overflows by the end of 2021
- Oblige companies and the EA to work collaboratively to develop plans to reduce the impact of storm overflows with a view that improvements are delivered by 2030.
- Oblige the EA to assess the impact of storm overflows when reviewing why specific rivers do not meet the standards of the Water Framework Directive.

Theme six: Designate 'bathing rivers' to provide a positive focus for river improvement (including reducing the impact of storm overflows)

- Require government to review specific standards for bathing rivers.
- Require Secretary of State to instruct Water and Sewerage Companies (WaSCs) to develop a plan and timetable for rolling out bathing rivers, with the backing of their customers.

These proposed changes will make a meaningful difference – but they will not work in isolation. The issue of agricultural pollution must also be addressed if we are to see significant improvements to our rivers.

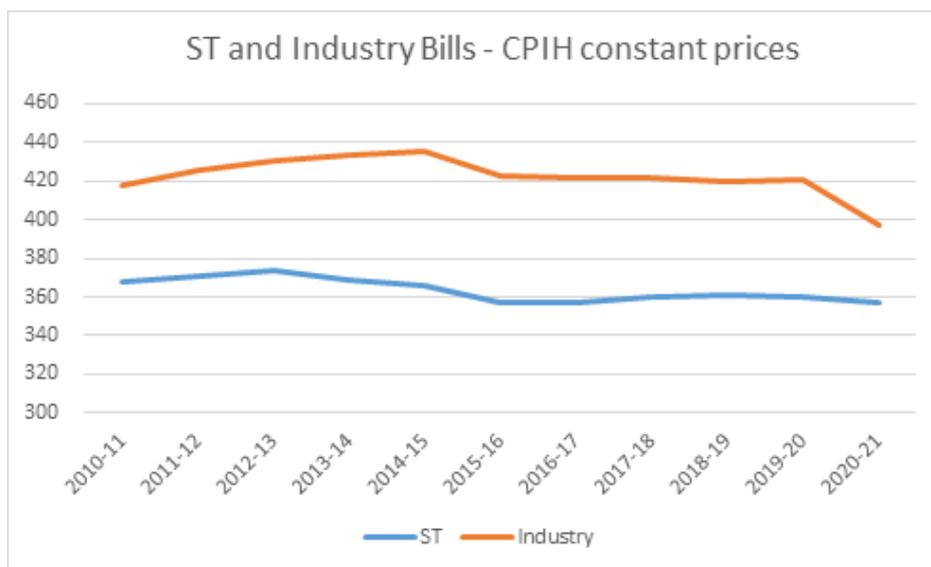
Time to act and recommended next steps

It is hard to imagine a better time than now to act.

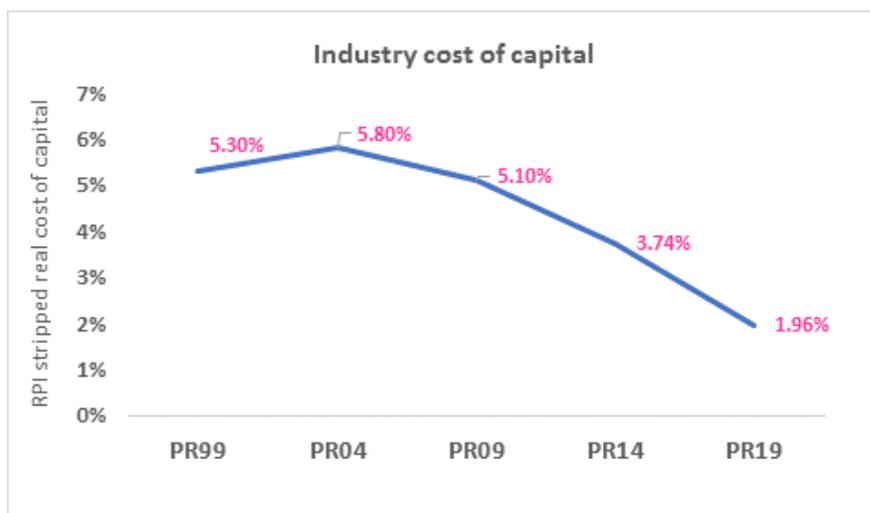
The government is committed to a Green Industrial Revolution to improve the environment and create jobs – and that’s exactly what revitalising our rivers would do. It would also enhance what are important leisure and recreational facilities for inland areas, just as we have done for beaches over the last 30 years.

The necessary investments are also more affordable than ever before.

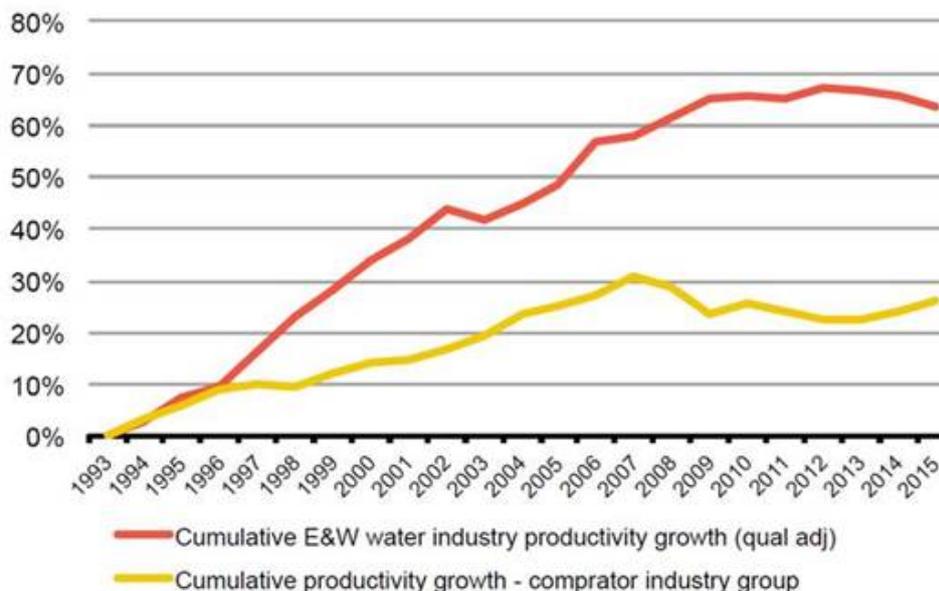
In real terms, water bills are falling:



Interest rates and the cost of investment (specifically, the weighted average cost of capital) is falling which is make investments far more affordable and cost-beneficial:



And the water industry in England - already amongst the most efficient in the world – is becoming even more efficient, meaning it can deliver more for less:



The industry stands ready to deliver whatever is tasked by government or by legislation. We can make suggestions, but it is right that new commitments are set by the democratic process, taking into account all the relevant factors.

Reform of agricultural support is perhaps the greatest priority. For the water sector, legislation will be necessary for some of the suggested improvements. The government’s strategic guidance to our regulators would be sufficient for many of the proposed changes.

The government’s strategic guidance could either specify standards, or, perhaps more flexibly, it could state there should be a presumption in favour of environmental improvements that are supported by customers – the public tends to be ahead of legislation when it comes to improving the environment.

The water sector has proven its ability to deliver efficiently. It has the means to do more for rivers. The current missing ingredient is the mandate to accelerate progress further.

February 2021