

Environment, Food & Rural Affairs Select Committee

State of Peatland In England Inquiry

Written evidence submitted by Yorkshire Water Services LTD

October 2019



YorkshireWater

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Executive Summary

Healthy, well managed peatlands have the potential to provide a range of ecosystem services including good quality raw water supplies, flood risk reduction and carbon storage.

Cleaner rivers, with less organic colouring are not only healthier but also more attractive, supporting health, place and underpinning the economic growth of the region

Developing techniques in UK for peatland restoration establishes an exportable skill that creates jobs, supports farming and contributes to reduction of global carbon emissions

Over 40% of Yorkshire Water's raw water derives from upland catchments, dominated by internationally important blanket bog habitat and over the past three decades we have noticed a clear deterioration in the raw water quality in many of our catchments.

This deteriorating water quality means additional treatment is required, which impacts on customers' water bills.

Restoring peatlands is not only cheaper than installing additional treatment, it brings significant biodiversity benefits and ensures that carbon stored in peatland remains locked up, avoiding further climate impacts.

The importance of these habitats means it is vital that the Government publishes the England Peat Strategy as soon as possible.



About Yorkshire Water Services LTD

Yorkshire Water manages the collection, treatment and distribution of water in the region, supplying around 1.24 billion litres of drinking water to over 5 million people every day. We have 2,500 colleagues and rely on a huge network of more than 50 treatment works, 130 reservoirs and 31,000 km of mains to transport water around the whole county using our grid system.

But we're more than just a water company, we're also the 16th largest landowner in the UK with 28,000 hectares of land, 20,000ha of which is catchment land, much of which is peatland. Our catchment management programme includes activities working towards the management of these natural habitats to better protect raw water quality, reduce flood risk and sequester carbon.

For more than 10 years, we have invested in extensive monitoring, research and innovative land maintenance and restoration techniques, both on our land and elsewhere. Through multi-agency partnerships such as Moors for the Future and the Yorkshire Peat Partnership we have delivered a range of industry-leading activities both on Yorkshire Water land and land owned by third parties within our catchments.

In developing this submission, we have worked with our partners and key stakeholders, including National Trust, Moors for the Future, Pennine Prospects and the Yorkshire Peat Partnership, each of whom have made their own submissions to the enquiry



Submission

What is the current state of peatlands in England, and how is it changing?

Over 40% of Yorkshire Water's raw water derives from upland catchments, dominated by internationally important blanket bog habitat. Over the past three decades we have noticed a clear deterioration in the raw water quality in many of our catchments. This decline in raw water quality is a consequence of damage caused by historical pollution; the promotion of unsustainable land management practices by government incentives, and climate change and it shows a declining trend in the health of Yorkshire's peatlands.

Alongside our own data on raw water quality as an indicator of peatland health, we have also supported numerous academic research projects over the past 20 years which have assessed both the current state of peatlands in Yorkshire, and the impact of various management and restoration techniques. Initially, this research was focussed on improving our understanding of the drivers that were causing a deterioration in raw water quality. Key drivers from this early research were identified as climate, acid deposition (and recovery from) land management including artificial drainage (known as grips), burning for heather management on grouse moors and vegetation cover. Subsequently, the research that we have led has sought to explore the relative importance of each of these drivers and how these could be used to predict future changes to water quality. Our research is also contributing to understanding the kind of land management and moorland restoration techniques that are most effective at halting further deterioration and, in the longer term, facilitating restoration of our moorland environments.

Over the last 10 years we have worked with partners including Moors for the Future and the Yorkshire Peat Partnership to carry out innovative moorland restoration work. In that time, we have repaired more than 3250 ha of peatland, primarily in North and West Yorkshire at a cost of more than £32m (£14m funded by Yorkshire Water, £18m brought in from other sources including EU Life Funding).

Although this approach has delivered successes in terms of peatland repair in targeted areas, it may not be sustainable to deliver the landscape scale restoration which will be required to incrementally secure the required improvements, ultimately leading to the restoration of fully functioning blanket bog across these landscapes.



Many of the partners we work with are wholly dependent on project work being secured, with limited stability of funding. This impacts on things like staff retention and loss of experience. We believe that this could be greatly improved by allowing for example water companies to provide core funding to these partners on the basis that this activity is going to take tens of years, well beyond the normal funding cycles for water companies. We are not precious about who takes the lead on channelling such funding, but we would be happy to be leaders in our Region in order to secure stability and long-term sustainability for these key partners.

What is the potential contribution of peatland restoration to the UK's net zero greenhouse gas target, and the consequence of inaction?

As well as impacting raw water quality, the health of peatlands can have a significant impact on climate change. Poorly managed peatland can result in significant additional emissions as stored CO₂ escapes as the peatland is eroded. Around 50,000 tonnes of CO₂e is stored in peatland on Yorkshire Water land, so it is imperative that these potential emissions are kept stored within healthy peatlands.

Well managed peatlands can sequester carbon. However, recent analysis carried out as part of Yorkshire Water's commitment to be Net Zero CO₂ by 2030 suggests that peatlands are likely to play a very limited role in achieving that target, largely due to the slow nature of peatland formation and the current slow rate of restoration due to lack of focussed funding. The main benefit of restoring peatlands is likely to come through avoiding the negative consequences of inaction.

What are the other economic, ecological and cultural benefits of restoring and maintaining peatlands?

Peatlands have the potential to deliver a wide range of benefits such as arresting the decline of water quality, increased flood protection, economic benefits from tourism and social benefits including recreation opportunities with the associated health and wellbeing benefits. We would also like to draw attention to the submission from our partners at Pennine Prospects LTD, submission states:



Alongside the ecological and environmental benefits of peatlands, the cultural heritage of these landscapes cannot be ignored. Preserved within these regions is some of the highest concentrations of evidence for human occupation within the British Isles since the last glacial period (c.10,000 BCE).

For Yorkshire Water, our clear interest is in the benefits that peatlands can provide to both water quality and flood risk reduction. The water sourced from degraded peatland requires extra treatment to remove dissolved organic matter, picked up in the run-off from eroded soils, a cost which impacts on our customer's bills. In addition, degraded dry peat allows rainfall to quickly flow over the surface leading to elevated flood peak flows in downstream watercourses.

Restoring peatland could reduce the need for further complex, carbon-intensive raw water treatment to be installed in future, reducing the operating and capital costs of treatment, helping to keep customer bills low. The benefits are even greater when the wider benefits are taken into account and quantified through a Six Capitals accounting model, which takes into account the wider social and environmental benefits.

This is equally true looking at flood risk reduction. Building bigger and bigger traditional flood defences in order to mitigate increases in flood risk due to climate change is likely to be unsustainable and unaffordable. Catchment management approaches are more sustainable in the longer term and bring significant wider benefits.

Realising the benefits from restored peatlands requires a range of stakeholders to be brought together to agree an approach to managing peatlands. For too long the various upland stakeholders have focused on their differences, making progress difficult.

Yorkshire Water's approach to upland management recognises the various interests in the land and tries to bring people together. This approach was demonstrated most effectively in our catchment management pilot work on the Keighley Moor reservoir catchment where we sought to balance all interests in the land, whilst using the project as a forum for debate on how the Uplands should be managed.



This work ultimately led to Bogathon, a 3 day multi-stakeholder workshop which visited the Raby Estate in Teesdale; the Yorkshire Water Estate at Keighley Moor, and the National Trust's Estate in the Peak District. The stakeholder group on the visits comprised Yorkshire Water; Moorland Association; Natural England; NFU; Gamekeepers Organisation; Heather Trust and the RSPB.

In order to develop a process that could be replicated elsewhere, we identified the services we were individually most interested in. For Yorkshire Water it was water quality. For Natural England it was biodiversity (healthy blanket bog) and carbon storage & sequestration. For the Moorland Association it was grouse, and for the NFU it was grazing. We called these Outcomes. Initially we identified 3 (water, biodiversity and carbon) plus 2 lesser ones (grouse and sheep). However, it quickly became apparent that if we were to agree on a way forward, it was essential each one of those outcomes had equal weighting.

By challenging current perceptions, and importantly talking to the people who managed each of those sites on the ground, it became apparent that the only habitat which consistently delivered all 5 Outcomes was a healthy active blanket bog with a significant reduction in heather cover and an increase in sphagnum mosses. Through this process we have developed a consensus which all parties have signed up to.

This work helped to develop the Government's Blanket Bog Restoration Strategy and we have taken this collaborative approach and used it to develop our Beyond Nature approach to farming tenancies, which seek to work with our tenants and others to deliver a greater range of outcomes across our landholdings.

What are the costs of peatland restoration, and what wider societal and economic adaptations might it require?

We have been engaged in peatland restoration projects for more than 10 years and to date have invested more than £14m. This investment has attracted funding from other sources of more than £18m. In our business plan submission to Ofwat for 2020 to 2025 we proposed to invest a further £11m in catchment activity to address colour from upland peatland deterioration.



Whilst this cost still represents a good investment for the benefits, meeting this cost is likely to require innovative funding mechanisms as water companies' customers and Government alone are unlikely to be able to pick up the cost.

We also believe it is imperative that the importance of the benefits from peatland restoration are recognised by economic and environmental regulators and that the scale of work in future is both accelerated and fully funded to ensure delivery.

What should be included in the forthcoming England Peatland Strategy?

The benefits of acting now to restore our peatlands are clear, as are the risks of failing to act to arrest the degradation of these habitats. It is therefore vital that the Government acts quickly to publish the England Peatland Strategy and ensures that it is not lost in current political uncertainty.

Previous policy decisions have incentivised land management practices which resulted in the degradation of peatland. It is vital that the England Peatland Strategy gets land management policy right to ensure that in the future we do not find ourselves working to undo the impacts of the policy decisions taken now.

The England Peatland Strategy should also include plans for funding the restoration of peatlands, including a clear explanation of the link between the Peatland Strategy and the new ELM system. Consideration should also be given to how trading systems, such as the IUCN peatland code, could be used to generate funding to support restoration work.

In addition, it is important that consideration is given in the strategy to ensuring that investment in peatland is protected from damage from wildfires. Healthy, wet active blanket bog will inhibit the impact and extent of wild fires in dry, warm seasons, however restoration takes time and dry peat is at risk of significant fire damage.



According to the National Trust, the fire on Marden Moor in April 2019 is estimated to have damaged moorland restoration work valued at around £200,000 and significantly set back the progress made in restoring the habitat. Wildfires on peatland also release large amounts of stored CO₂ into the atmosphere, exacerbating climate change.

Currently, the various Fire & Rescue Services cover the responses to any given fire whilst the more strategic activity is led by Fire Operation Groups that tend to be voluntary. Having so much investment reliant on the goodwill of a voluntary approach is not efficient and consideration should be given to the establishment and funding of more formal structures that build on the excellent work already done and that provide clear responsibilities as to who does what in terms of the strategic and operational management of fire risks and wildfires.

