

WRc makes the business case for peatland restoration to improve raw water quality

The Need

A major problem associated with water supply from upland areas is dissolved organic carbon (DOC) which discolours raw water supplies. This can be both difficult and expensive to remove at water treatment works. To combat rising colour trends, Severn Trent Water has been restoring degraded peatland in its Bamford catchment to address the root causes of colour production. As part of the PR19 business planning process, Severn Trent Water wished to evaluate options for continuing this programme of peatland restoration work in AMP7.

The Solution

Working closely with the Moors for the Future Partnership, WRc assessed the options for continued peatland restoration work and applied a six stage model for predicting future recovery trajectories in the Bamford catchment. The ecosystem service benefits for water quality, biodiversity, recreation, greenhouse gas emissions and downstream flood control were quantified and valued using a combination of direct valuation and transfer value techniques. WRc compiled the results into a spreadsheet based tool, which allowed the client to perform a cost-benefit analysis for a range of business plan scenarios.

The Outcome

Severn Trent Water used the tool to develop an AMP7 work programme that will deliver £2.5M of treatment cost savings and an additional £46M of environmental improvements that will benefit local communities and customers. The business plan, with full analysis of risks and opportunities, was submitted to Ofwat in September 2018.

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WRc worked collaboratively with our delivery partners to integrate the latest scientific and economic evidence and produce a compelling business case for continued catchment management interventions in the Upper Derwent moorlands which will benefit our customers and the wider environment.

*Laura Flower,
Severn Trent Water*

For further information contact Andrew Davey

Tel +44 (0)1793 865023
Email andrew.davey@wrcplc.co.uk
Water Research Centre Limited, Frankland Road,
Blagrove, Swindon, Wiltshire SN5 8YF

wrcplc.co.uk | [@WRcplc](https://twitter.com/WRcplc)

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